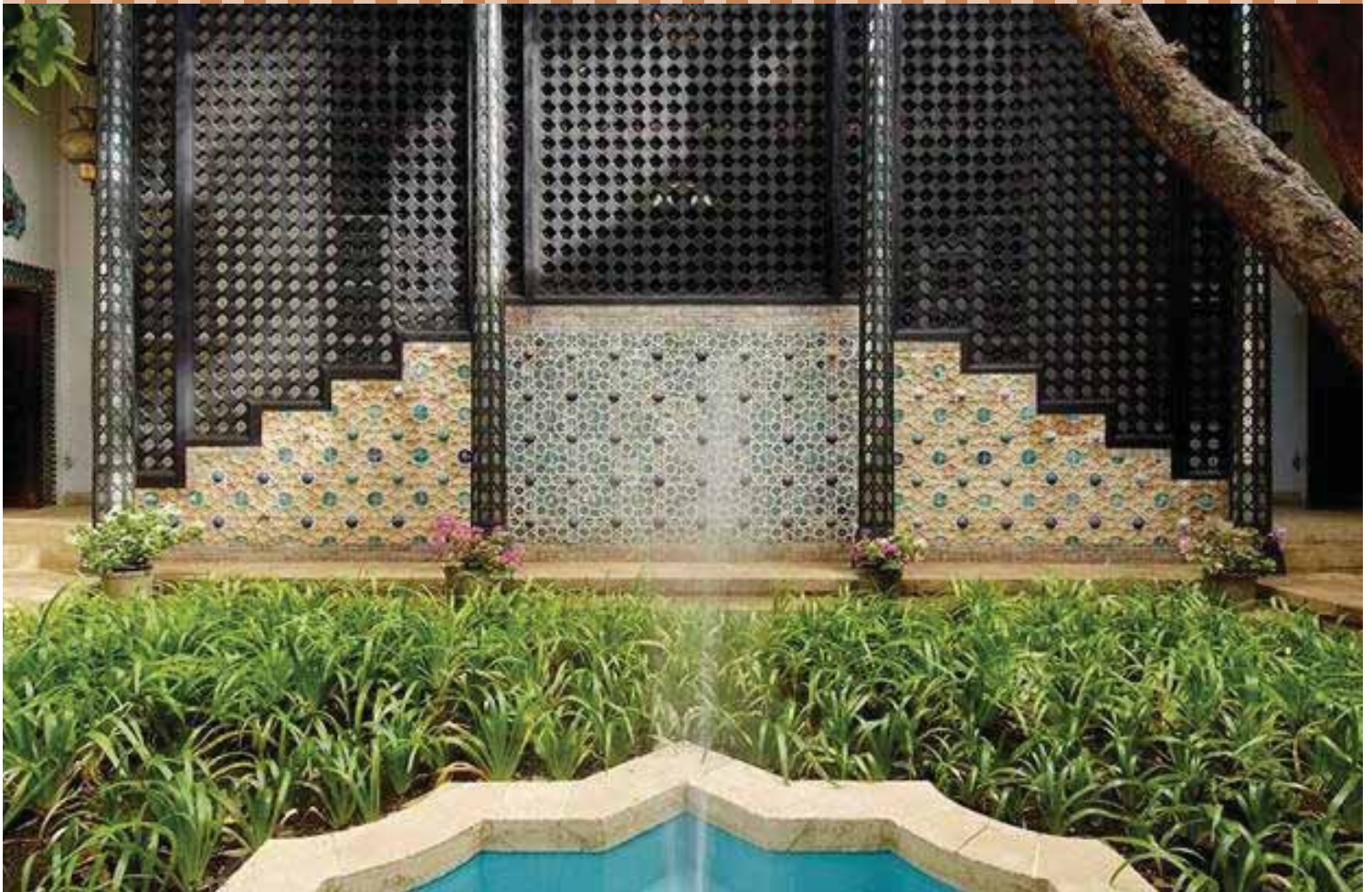


Draft Environmental Assessment

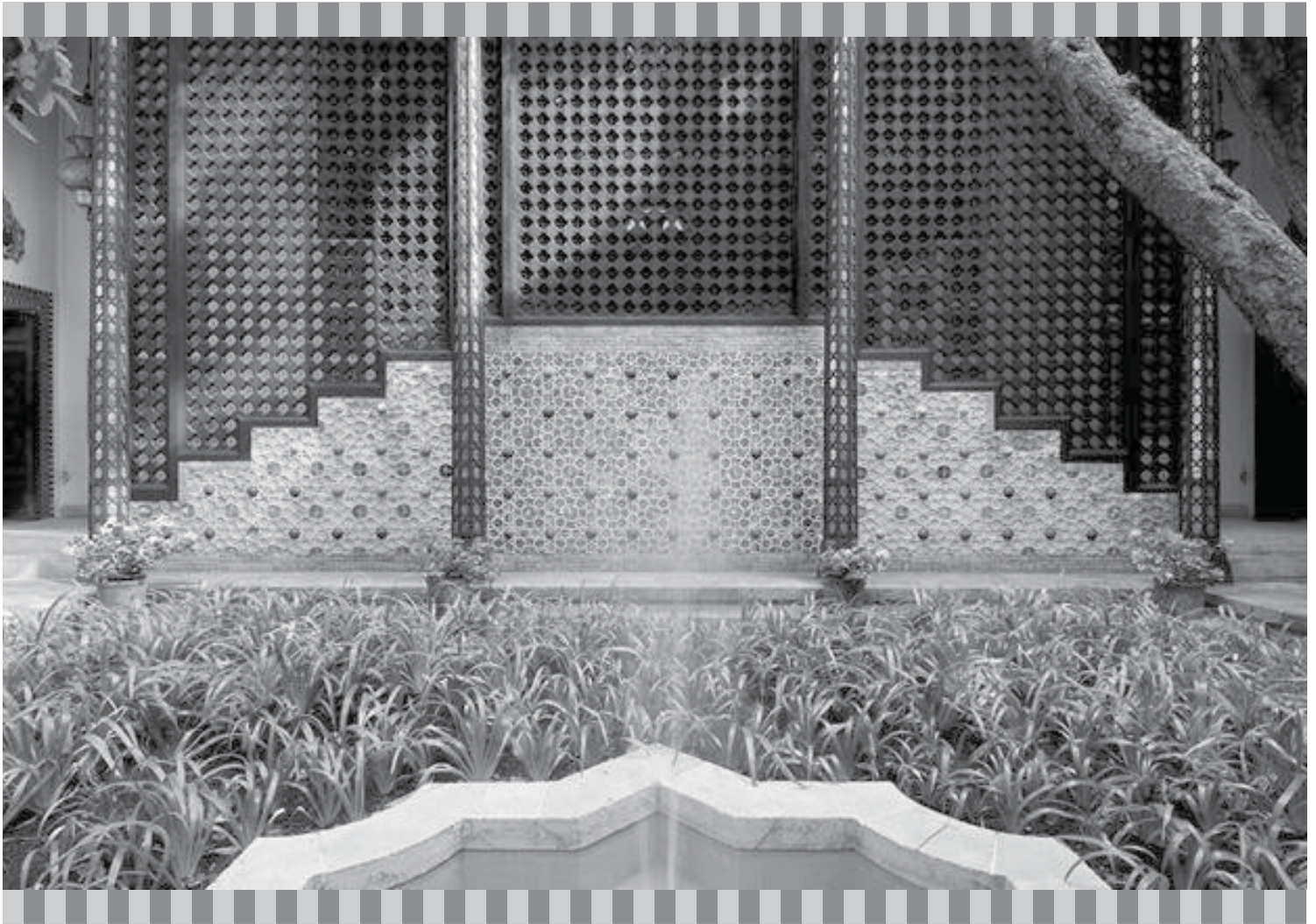
NEW MAINTENANCE BUILDING FOR DORIS DUKE FOUNDATION FOR ISLAMIC ART AT SHANGRI LA



April 2009

Draft Environmental Assessment

NEW MAINTENANCE BUILDING FOR DORIS DUKE FOUNDATION FOR ISLAMIC ART AT SHANGRI LA



Waikiki Ahupua'a, Kona District,
City and County of Honolulu, O'ahu
Prepared in Partial Fulfillment of the
Requirements of Chapter 25-3.3(c)(1),
Revised Ordinances of Hawai'i

Prepared for:
Doris Duke Foundation for Islamic Art
4055 Pāpū Circle
Honolulu, HI 96816

Prepared by:
Helber Hastert & Fee, Planners
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Honolulu, HI 96813

April 2009

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D	Drainage Report (Bills Engineering Inc., 2009)
E	Pre-Assessment Consultation Correspondence

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ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
BMPs	Best Management Practices
CLMP	Cultural Landscape Management Plan
CO	carbon monoxide
CSH	Cultural Surveys Hawai'i Inc.
CUP	Conditional Use Permit
CZM	Coastal Zone Management
DDFIA	Doris Duke Foundation for Islamic Art
DEA	Draft Environmental Assessment
DHSD	Diamond Head Special District
DOH	Department of Health
DP	Development Plan
DPP	Department of Planning and Permitting
EA	Environmental Assessment
EIS	Environmental Impact Statement

FONSI	Finding of No Significant Impact
ft	feet/foot
HAR	Hawai'i Administrative Rules
HRS	Hawai'i Revised Statutes
LUO	Land Use Ordinance
MuB	Molokai silty clay loam, 3 to 7 percent slope
MuD	Molokai silty clay loam, 15 to 25 percent slope
PUC	Primary Urban Center
ROH	Revised Ordinances of Honolulu
SF	square feet/foot
SHPD	State Historic Preservation Division
SMA	Special Management Area
SO ₂	sulfur dioxide
TMK	Tax Map Key
USDA	U.S. Department of Agriculture

PROJECT SUMMARY

Project Name:	New Maintenance Building for Doris Duke Foundation for Islamic Art at Shangri La
Applicant:	Doris Duke Foundation for Islamic Art
Environmental Assessment Preparer:	Helber Hastert & Fee, Planners 733 Bishop Street, Suite 2590 Honolulu, HI 96813 Phone: 808.545.2055 Fax: 808.545.2050 Scott Ezer/Rachael Edinger
Approving Agency:	City and County of Honolulu Department of Planning and Permitting
Proposed Action:	Construction of a two-story, approximately 1,375-square foot structure for maintenance and landscape storage and functions to replace existing inadequate facilities
Project Location:	4055 Pāpū Circle Honolulu, O‘ahu, Hawai‘i
Tax Map Key:	(1) 3-1-041:005
Project Area:	725 square feet of 4.297-acre parcel
Landowner:	Doris Duke Foundation for Islamic Art
Existing Land Uses:	Art and Cultural meeting facility
State Land Use District:	Urban
Existing City and County of Honolulu Zoning:	R-7.5 Residential District
County Special Designations:	Special Management Area: Shoreline Setback, Diamond Head Special District
Land Use Approvals:	Special Management Area Use Permit; modification to existing Conditional Use Permit

The Doris Duke Foundation for Islamic Art (DDFIA) proposes to construct a maintenance building for the Shangri La estate to replace existing inadequate maintenance facilities and consolidate maintenance and landscaping functions. The proposed building is planned as a two-story, concrete and wood structure of approximately 1,375 square feet (SF). The building will be located in the same location as the existing shed currently used for landscaping functions on the central northwest side of the Shangri La property, adjacent to the service driveway and on-site nursery. The new building will provide a centralized buffered location for maintenance and landscaping functions to support the DDFIA’s continued promotion of the study and understanding of Islamic art and culture.

This draft environmental assessment (DEA) was prepared in compliance with Chapter 25-3.3(c)(1), Revised Ordinances of Hawai'i (ROH), which stipulates that projects located within the Special Management Area (SMA) must be subject to an assessment in accordance with the procedural requirements set forth in Chapter 343, Hawai'i Revised Statutes (HRS), as amended, and the environmental impact statement (EIS) regulations promulgated by Chapter 200 of Title 11, State of Hawai'i Department of Health (DOH), Hawai'i Administrative Rules (HAR). The proposed building will require a SMA Use Permit and modification of an existing Conditional Use Permit (CUP) from the City and County of Honolulu. The purposes of this document are to determine whether the Proposed Action may have a significant impact on the environment and whether an EIS is required.

Under the provisions of Chapter 25, ROH, it is anticipated that the direct, indirect, and cumulative effects of the Proposed Action will not have a significant adverse effect on the environment and that a Finding of No Significant Impact (FONSI) will be issued by the approving agency.

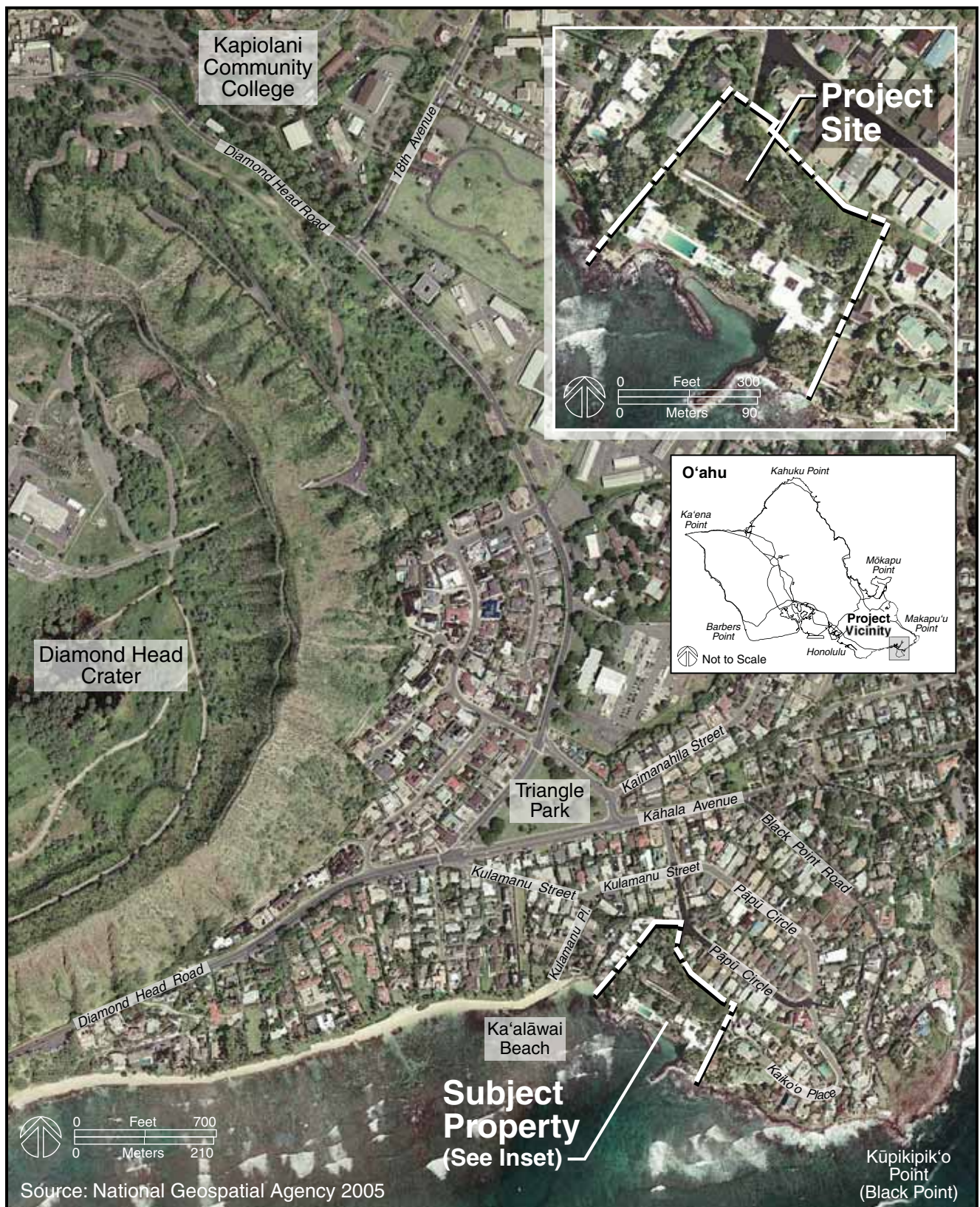
1.0 INTRODUCTION

Doris Duke, the American heiress and philanthropist, built the spectacular estate Shangri La on Black Point, O'ahu between 1936 – 1938 and maintained a seasonal residence there until her death in 1993. Designed by the American architect Marion Sims Wyeth, the estate showcases Duke's important collections of Islamic art and seamlessly blends art and architectural traditions from throughout the Islamic world including Iran, Morocco, Spain, Syria, Central Asia, and India. For 60 years, Duke continued to collect, commission, and make renovations to accommodate her growing collections. During her lifetime, Shangri La was Duke's very private oasis and retreat. However, more than 30 years before her death she had a clear vision that Shangri La should be shared and open to the public as a place for the study and understanding of Islamic art and culture. Throughout her life, Duke was a generous, although often anonymous, philanthropist. In her will she created several charitable foundations to improve the quality of people's lives by supporting the performing arts, wildlife conservation, medical research, and the prevention of child abuse. Her will also created the DDFIA which is charged with owning and managing Shangri La to ensure its preservation as a place for the study and understanding of Islamic art for future generations.

Property Location. The subject property, Shangri La, is located on the south shore of the island of O'ahu, Hawai'i, in the Kapahulu 'Ili, Waikīkī Ahupua'a, Kona District. The property is southeast of Diamond Head crater along the southwest side of the promontory of Black Point and the residential neighborhood of Kāhala. Shangri La is situated off the main thoroughfare of Kāhala Avenue which transverses nearby residential neighborhoods. Pāpū Circle runs slightly uphill and *makai* from Kāhala Avenue (called Diamond Head Road further east) for approximately 0.1 miles before passing the front gate of the property. The property is bounded by residential housing lots on all sides but the south, which fronts the Pacific Ocean. The Project Area, approximately 725 SF of the 4.297-acre Tax Map Key (TMK) parcel (1) 3-1-041:005, is situated on the northern half of the property approximately 350 feet (ft) *mauka* from the southern O'ahu coastline. Figure 1 shows the property's general location; Figure 2 presents the TMK parcel map of the subject property.

Existing Land Use. Situated amidst the quiet Black Point neighborhood, Shangri La is an unassuming cultural gem. The property is currently the site of the Shangri La art and cultural meeting facility. A wrought iron front gate spans the driveway width fronting Pāpū Circle on the north end of the property. Once through the entrance, a vehicle descends the gently winding and sloping 18-ft wide paved driveway lined with a low stone wall. A sharp right off of the main driveway on to the service drive leads to a modest two-story Caretaker's Cottage in this secluded section of the property. The upstairs of the cottage is currently used for office space, conservation work, and storage. The lower floor, a four-car garage, is also used for small tool operation and employee lunch breaks (photo 5 of Figure 3). DDFIA staff and maintenance personnel park their vehicles in the paved area in front of the cottage.

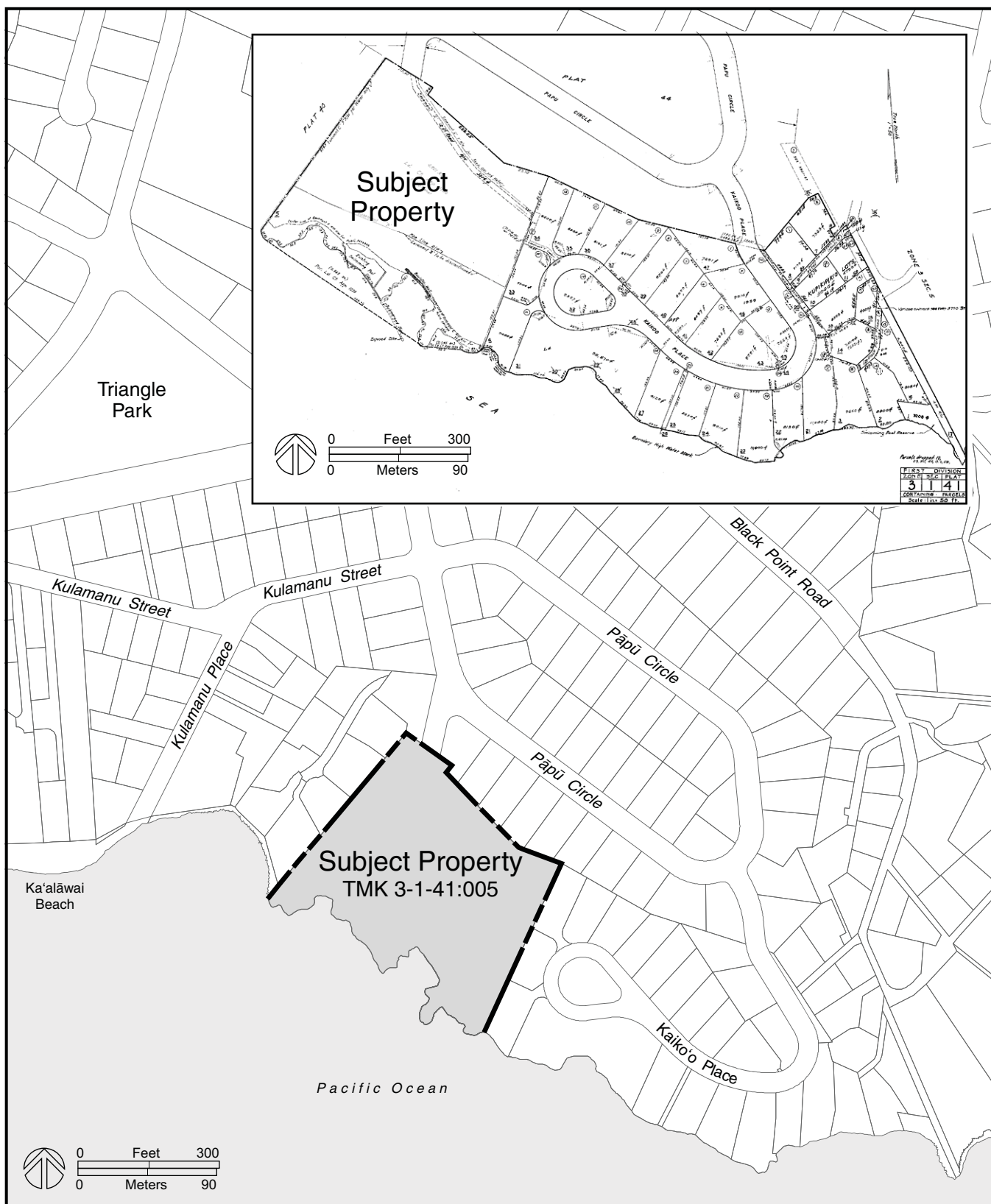
A maintenance shed and the former tennis court area are located below (*makai* of) the Caretaker's Cottage. This shed is primarily used for ground maintenance functions, including tool storage and repair, and storage of fertilizers and cleaning agents (photos 1-4 of Figure 3). The former tennis court area just *ewa* of the maintenance shed has functioned as an informal nursery for on-site landscaping since 1975. The present maintenance shed is located on the site of what originally was constructed as a 140 SF, single-story service shed for storage and isolation pens for Ms. Duke's monkeys before World War II. In 1939, Ms. Duke imported approximately 30 monkeys to Hawai'i. Four cages and the shed were constructed to



LOCATION MAP

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Figure 1



TAX MAP

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Figure 2



Photo 1: Existing Maintenance Shed
Looking north



Photo 2: Back of existing Maintenance
Shed looking east



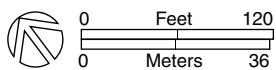
Photo 3: Existing Maintenance Shed
looking south



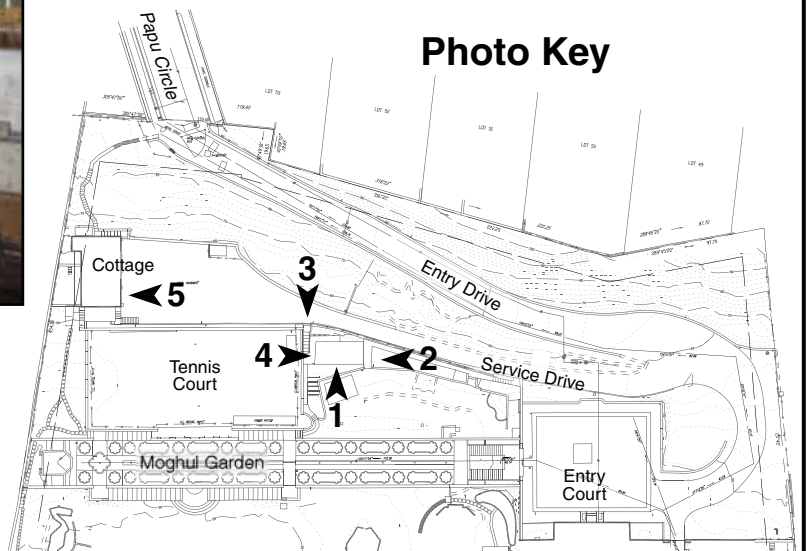
Photo 4: Inside existing Maintenance
Shed



Photo 5: Existing tools and storage in
ground floor of Caretaker's Cottage



Source: Mason Architects, Inc.



SITE PHOTOS

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Figure 3

accommodate the creatures, in an area referred to as the Monkey Garden. The monkeys were removed from the estate in 1942 and after the war the cages were removed. Part of the shed was retained and, in the ensuing years, this structure was enlarged to approximately 400 SF and used as the foundation for an ad hoc structure that housed landscape and maintenance equipment. Salvaged materials from elsewhere on the property, including chain link, scrap metal, horizontal siding, plywood, and corrugated panels, were employed to enlarge the structure. In addition, the historic context and significance of the Monkey Garden was lost after the cages were dismantled in the 1940s. The State Historic Preservation Division (SHPD) has concurred with the applicant's finding that no historic properties will be affected by the Proposed Action due to prior alternation of the land by residential development and urbanization.

Beyond the turnoff to the Caretaker's Cottage, overhanging vegetation creates a lush, green tunnel-like effect over the main entry drive as it continues down to the more intimate entrance of Shangri La. The driveway opens up to the Entry Court and a large Chinese Banyan tree (*Ficus microcarpa*) that was transplanted to its central location in 1937 (photo 1 of Figure 4). The architecture and natural landscape of Shangri La enjoy a symbiotic relationship through the deliberate integration of its structures into the sloping hillside.

The Mughal Garden (photo 2 of Figure 4) extends to the *ewa* property line on the uppermost terrace and is linked by broad marble stairways to the pool terrace and Games Area. The garden is of an Islamic design influenced by the Shalamar Gardens in Lahore, Pakistan. A wall with *chinhānas* (niches for oil lamps) descends from the marble landing at this end of the garden and a series of lotus-shaped fountains sprout up along the length of the water channel.

The understated entry to the Main House is flanked by two smiling stone camel sculptures makai of the Entry Court. The Main House is one of three principal structures occupying the property. The whitewashed Main House features a central patio around which the public rooms of the house are organized. These include the foyer, living room, *mihrāb* room, dining room, and Turkish rooms. Doris Duke's extensive collection of Islamic art is displayed throughout the house including intricate Persian tile panels and ceramics, Moroccan gilt and painted ceilings and doors, two entire painted rooms from 19th century Syria, carved marble *jali* (pierced screens), and niches displaying portable objects such as silk and velvet textiles, glass, ceramics and metalwork. One of the most significant pieces on exhibit is the *mihrāb*, or prayer niche, from the tomb of Imamzada Yahya at Veramin, Iran (dated 1265), dominantly displayed off the living room (photo 4 of Figure 4). Composed of over 60 unique luster-glazed tiles, it stands 13 ft tall and is signed by the master potter, 'Ali ibn Muhammad ibn Abi Tahir. Two L-shaped wings frame the central patio: one leads to Duke's private bedroom, the Mughal suite commissioned in India in 1935. The service wing is located along the east boundary of the Main House and is currently used as offices for security and DDFIA professional staff.

The living room and central patio open onto a grassy lawn and grove of mature coconut palms with views of Diamond Head, the ocean, and Shangri La's second principal structure, the Playhouse. White marble steps and the cascades – a series of five rectangular pools and fountains – descend to the Playhouse. The architecture of the Playhouse was modeled on the Chihul Situn (Forty Columns), the seventeenth-century royal pavilion, in Isfahan, Iran. A 75-ft long water feature serves as a reflecting pool for the Playhouse (photo 3 of Figure 4), mirroring the 14 red columns which span its façade. The Playhouse originally served as Duke's guesthouse and is now used for programs.



Photo 1: Entry Court looking at Banyan Tree and entry to Mughal Garden



Photo 2: Mughal Garden



Photo 3: Cascade Pool, water feature, and Playhouse (photo by Frazen)



Photo 4: *mihrāb* (prayer niche) (photo by Frazen)



Photo 5: Seawall looking *mauka* to Shangri La Main House

Source: Mason Architects, Inc.

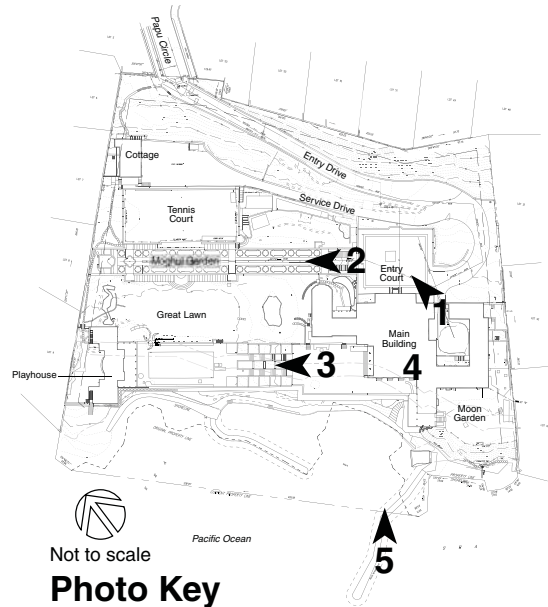


Photo Key

SITE PHOTOS

New Maintenance Facility for Doris Duke Foundation for Islamic Art at Shangri La

Figure 4

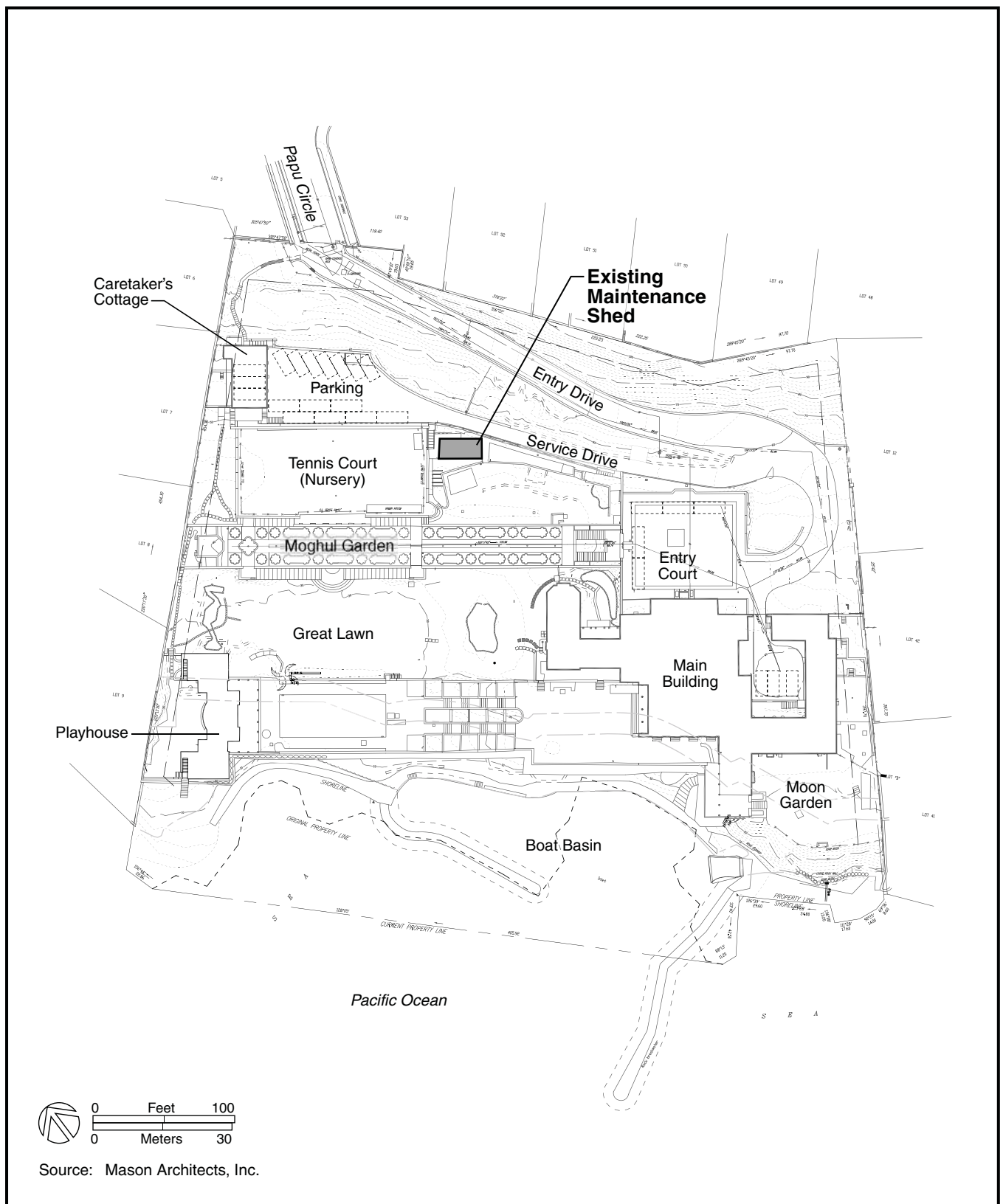
A reinforced concrete, lava rock veneer, seawall defines the property's *makai* boundary. The wall rises increasingly as it nears the Main House and ranges in height from approximately 13 - 40 ft (photo 4 of Figure 4). Beyond the seawall two overlapping lava rock breakwaters jut out into the ocean where they once sheltered Duke's yacht. The former boat basin area is now a popular public swimming area accessed via a public right-of-way parallel to the seawall. It is interesting to note that as a result of a land exchange with the Territory of Hawai'i in the 1930s, the property line for Shangri La extends into the ocean. As a condition of this land exchange, the deed requires the owner to maintain the walkway. See Figure 5 for existing conditions layout of the Shangri La property.

Project Description. Doris Duke owned Shangri La up until the time of her death in 1993. In her will, Ms. Duke provided for the creation of the DDFIA to manage Shangri La, to "promote the study and understanding of Middle Eastern art and culture" and to "make this property available to scholars, students and others interested in the furtherance and preservation of Islamic art and make the premises open to the public." The property is currently owned in fee and operated by the DDFIA.

The DDFIA was established in 1999. As mandated by her will, the DDFIA's educational mission is: (1) promote the study and understanding of Middle Eastern art and culture; and (2) ensure the long term preservation of and public access to Shangri La. Shangri La offers visitors an opportunity to experience the diverse artistic and cultural traditions which make up the Islamic world, collected by an independent woman with an adventurous spirit, a love of other cultures, and the foresight to see that improved understanding of the Islamic world would be a major social issue in the 21st century. Shangri La has been open to the public since 2002, and currently provides opportunities for study tours of Islamic arts and culture, and serves as a venue for meetings, DDFIA functions, and other educational and artistic programs. Conservation of artwork, building preservation, and landscape improvements are ongoing to preserve the material legacy of Shangri La. The DDFIA has executed Duke's will and abided by conditions stipulated in a conceptual plan for a CUP granted by the City and County of Honolulu Department of Planning and Permitting (DPP) in 2000.

In September of 2000, the DPP approved a zoning variance (2000/VAR-33), subject to several conditions, to allow a meeting facility on a lot that lacks the minimum 75-ft street frontage. The street (Pāpū Circle) frontage is only about 48 ft, or 36 percent below the minimum required. Later that year, DPP also approved a minor CUP (2000/CUP-88), to allow the DDFIA to operate a meeting facility on the property in a residential area. Approval of the permit was based on representations and plans that described the use of the facilities on the property, as envisioned by the DDFIA at that time.

However, the DDFIA was in its infancy when DPP approved the conceptual plan for the estate. Some of the improvements needed to retain the historic and artistic integrity of the property could not be anticipated during the initial permitting. DDFIA has recently undergone a lengthy internal master planning process to evaluate the history and conditions of the architecture and landscape; identify treatments needed; and plan future programs that fulfill Doris Duke's will and meet current educational needs. The general aim for the property is to preserve the high artistic and historical value of the property's art, architecture, and gardens for educational purposes. The Master Plan compiled a list of general improvements that are intended to fulfill DDFIA's mission, as well as to update inadequate working conditions and ensure the preservation of the property.



EXISTING SITE PLAN

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

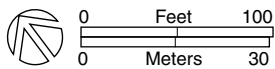
Figure 5

Currently, 13 projects are contemplated for both interior and exterior repairs to the grounds and buildings, primarily cosmetic physical improvements (see Table 1 and Figures 6a and 6b). DPP has reviewed all these projects and has determined all but the maintenance building (Project 12) are considered repair, maintenance, and interior improvement projects and do not require a SMA Use Permit (See Appendix A for Correspondence with DPP). The new maintenance building is considered “development” and will need an SMA Use Permit and a minor modification to the CUP. The Master Plan projects will be phased over the next three to eight years.

Table 1
Master Plan Projects

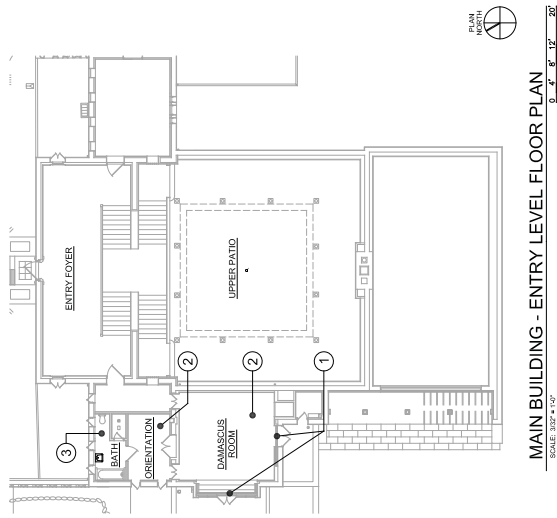
	Project Name	Description
1	Repair Existing Entry Gate and Security System	Entry gate- consolidate cameras, controllable pedestrian gate
2	Repair Existing Concrete Driveway	
3	Repair and Maintain Existing Landscape Screen at Boundary	
4	Repair and Maintain Existing Landscape Features	Follow recommendations in Cultural Landscape Assessment
5	Repair Existing Walkway	
6	Repair Existing Marble Pool Deck	
7	Repair Existing Freshwater Pond Drainage System	Installation of Recirculating Filters
8	Interior Improvements to Playhouse	Acoustical insulation at basement pump room; environmental control in ladies room
9	Interior Improvements to Caretaker’s Cottage	Repair finishes, security, mechanical, and electrical systems
10	Repair and Maintain Accessible Path	Finish ADA compliance changes
11	Reinstall Solar Water Heater System	
12	Replace Existing Maintenance Building	
13	Interior Improvements to Main Building	Repair bronze windows and doors, finishes, security, mechanical, and electrical systems, accessibility modifications, shelving and storage

①

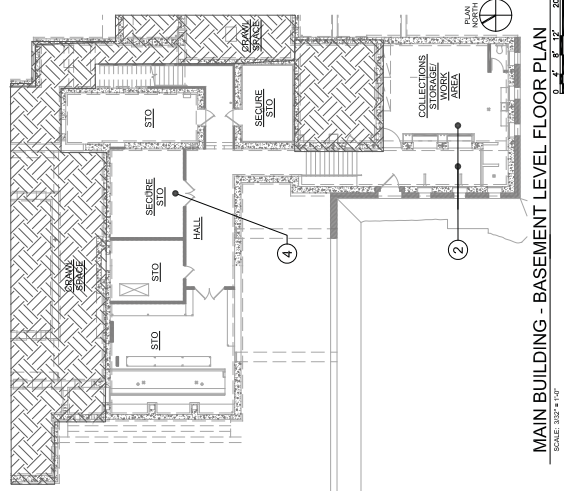


PROPOSED SITE PLAN

Figure 6A



MAIN BUILDING - ENTRY LEVEL FLOOR PLAN



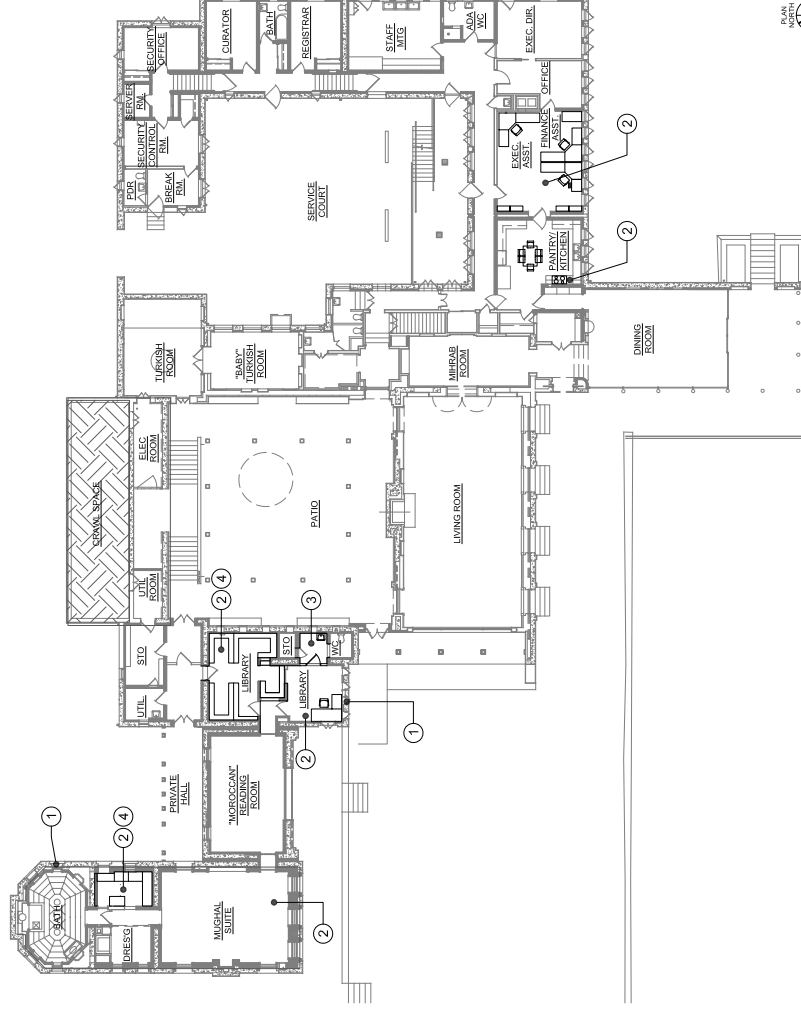
MAIN BUILDING - BASEMENT LEVEL FLOOR PLAN



Source: Mason Architects, Inc.

MAIN BUILDING KEYNOTES:

- ① REPAIR EXISTING BRONZE WINDOWS AND DOORS, TYP.
- ② INTERIOR IMPROVEMENTS: REPAIR FINISHES, SECURITY SYSTEM, MECHANICAL AND ELECTRICAL SYSTEMS
- ③ INTERIOR IMPROVEMENTS: ACCESSIBILITY MODIFICATIONS
- ④ INTERIOR IMPROVEMENTS: SHELVING AND STORAGE



MAIN BUILDING - MAIN LEVEL FLOOR PLAN

MAIN BUILDING - PROPOSED SITE PLAN

New Maintenance Facility for Doris Duke Foundation for Islamic Art at Shangri La

Figure 6B

The maintenance and landscaping personnel for Shangri La have been operating out of a cramped and poorly lit ad hoc structure of salvaged materials, and the garage of the former Caretaker's Cottage. The current shed does not adequately house and support maintenance and grounds work. Structural and siting changes are necessary to improve working conditions as well as to foster good neighbor relations by improving the buffering of activities along the west property boundary

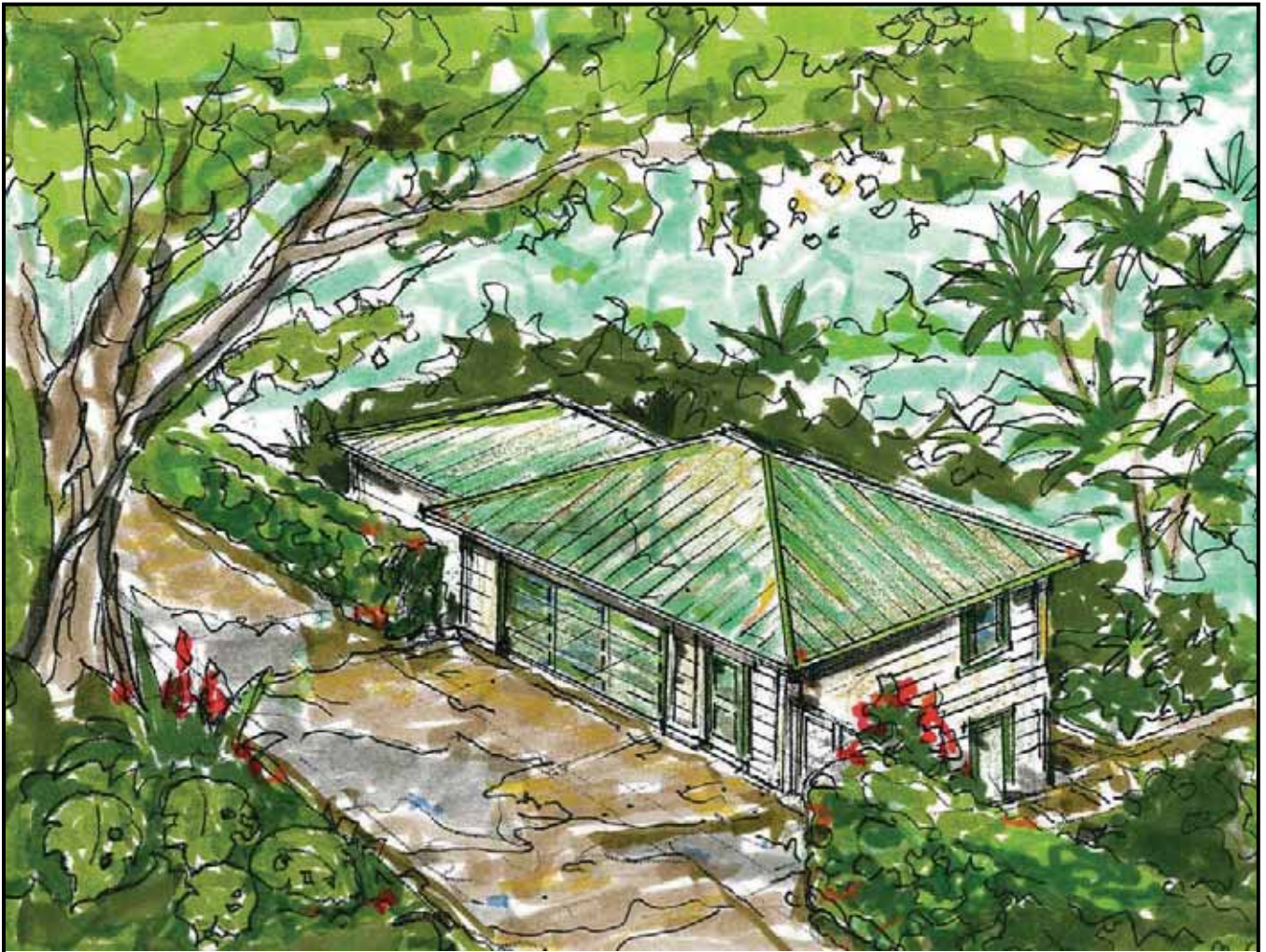
The proposed new maintenance building is intended to be used by landscape and building maintenance staff (approximately eight employees) and will ensure long term care and maintenance of the property. The proposed building will be a two-story, concrete and wood structure of approximately 1,375 SF. The structure will be designed to be visually compatible with the nearby Caretaker's Cottage, with horizontal wood siding and a hipped roof (See Figure 7).

The lower floor, level with the onsite nursery, will house landscape maintenance functions, including tool storage and repair, grounds workshop, and storage of fertilizers and cleaning agents. Additionally, a locker room and showers and staff break area will be provided for maintenance staff. The upper floor of the proposed building will open out onto the service drive, near the Caretaker Cottage. This floor will house building maintenance functions, including carpentry, painting, work with small hand tools, crating and unpacking shipments, and cleaning hardware or other building elements. The second floor will also include a storage area for paints, maintenance products and supplies, and tools. Doors will roll up to open the entire wall to facilitate receipt of deliveries. See Figure 7 for a site plan of the proposed new building.

The Proposed Action will not expand the services or activities on the property and there will be no increase in intensity of use. The development will remain well within the allowance of the underlying land use regulations (see Chapter 4). Construction activities associated with the Proposed Action will be concentrated within the 750-SF project site and will not extend beyond those boundaries.

Table 2 provides a summary of the possible permits and approvals that may be required for the Proposed Action.

Table 2	
Required Permits and Approvals	
<u>Approval Required</u>	<u>Authority</u>
Finding of No Significant Impact	City and County of Honolulu Department of Planning and Permitting
Building Permits	City and County of Honolulu Department of Design and Construction
Grading Permit	City and County of Honolulu Department of Planning and Permitting
SMA Use Permit	Honolulu City Council
Modification to Existing CUP, File No. 2000/CUP-88 (minor)	City and County of Honolulu Department of Planning and Permitting



Proposed Maintenance Building



Lower Floor Plan



Upper Floor Plan

Source: Mason Architects, Inc.

ARTIST RENDERING and MAINTENANCE BUILDING SITE PLAN

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Figure 7

2.0 AFFECTED ENVIRONMENT

This section describes the existing conditions at the project site, including topography and soils, climate and air quality, surface waters, natural hazards, noise, visual resources, flora and fauna, archaeological and historical features, the on-site infrastructure and utilities, and social and economic factors.

2.1 Topography and Soils

Topography. The irregularly-shaped parcel slopes downward from its entry point off Pāpū Circle on the *mauka* side of the property towards the main Entry Court and buildings and ultimately to the ocean. Elevations range from 80 ft above mean sea level (AMSL) near the front gate to 60 ft AMSL along the driveway. The Caretaker's Cottage is situated below the front gate at roughly 55 ft AMSL. The Games Area and Mughal Garden are at approximately 45 ft AMSL and 35 ft AMSL, respectively. The elevation at the terminus of the driveway in the Entry Court is 45 ft AMSL. A series of landscaped terraces ranging between 20-30 ft AMSL divide the property into usable flat areas in the area between the Entry Court and the ocean. The terraces flow gently into one another in some areas and are linked by shallow staircases in others. A 650-ft long seawall rises up approximately 30 ft from near the rocky shoreline.

Soils. According to the U.S. Department of Agriculture (USDA) Soil Conservation Service (now known as the Natural Resources Conservation Service), soils on the property are of the Molokai Series (See Figure 8). The Molokai soil series consists of well-drained soils developed from basic igneous rock and is found on the uplands on the islands of Maui, Lana'i, Moloka'i, and O'ahu.

Molokai silty clay loam (MuB), 3 to 7 percent slope, is found on the upper portion of the property, where erosion hazard is slight to moderate and runoff is slow to medium. Molokai silty clay loam (MuD), 5 to 25 percent slope, is found on the lower portions of the property extending to the shore. In this area, runoff is medium, and the erosion hazard is severe (USDA, 1972). Workability is slightly difficult due to the slope and abundant rock inclusions, which are particularly evident amidst vegetated areas on the *mauka* portion of the property.

2.2 Climate and Air Quality

Climate. Located at the northern edge of the tropics, the Hawaiian Islands enjoy a moderate climate with almost continual trade winds. Generally, the islands' climate has little day-to-day and month-to-month variability. Situated on the southern side of O'ahu, the Kona District is the dry side of the island. The Project Area receives approximately 24 inches of rain annually; by comparison, downtown Honolulu receives approximately 21 inches.

Air Quality. Ambient air quality pertains to the purity of the general outdoor atmosphere, external to buildings, to which the general public has access. The Federal Environmental Protection Agency has established national ambient air quality standards for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide, lead, ozone, and particulate matter (PM₁₀ and PM_{2.5}¹). In addition to these pollutants, the State of Hawai'i has an ambient air standard for hydrogen sulfide. State air quality standards are generally more stringent than national standards.

¹ PM₁₀ are particulates between 2.5 and 10 micrometers in size; PM_{2.5} are smaller than 2.5 micrometers.

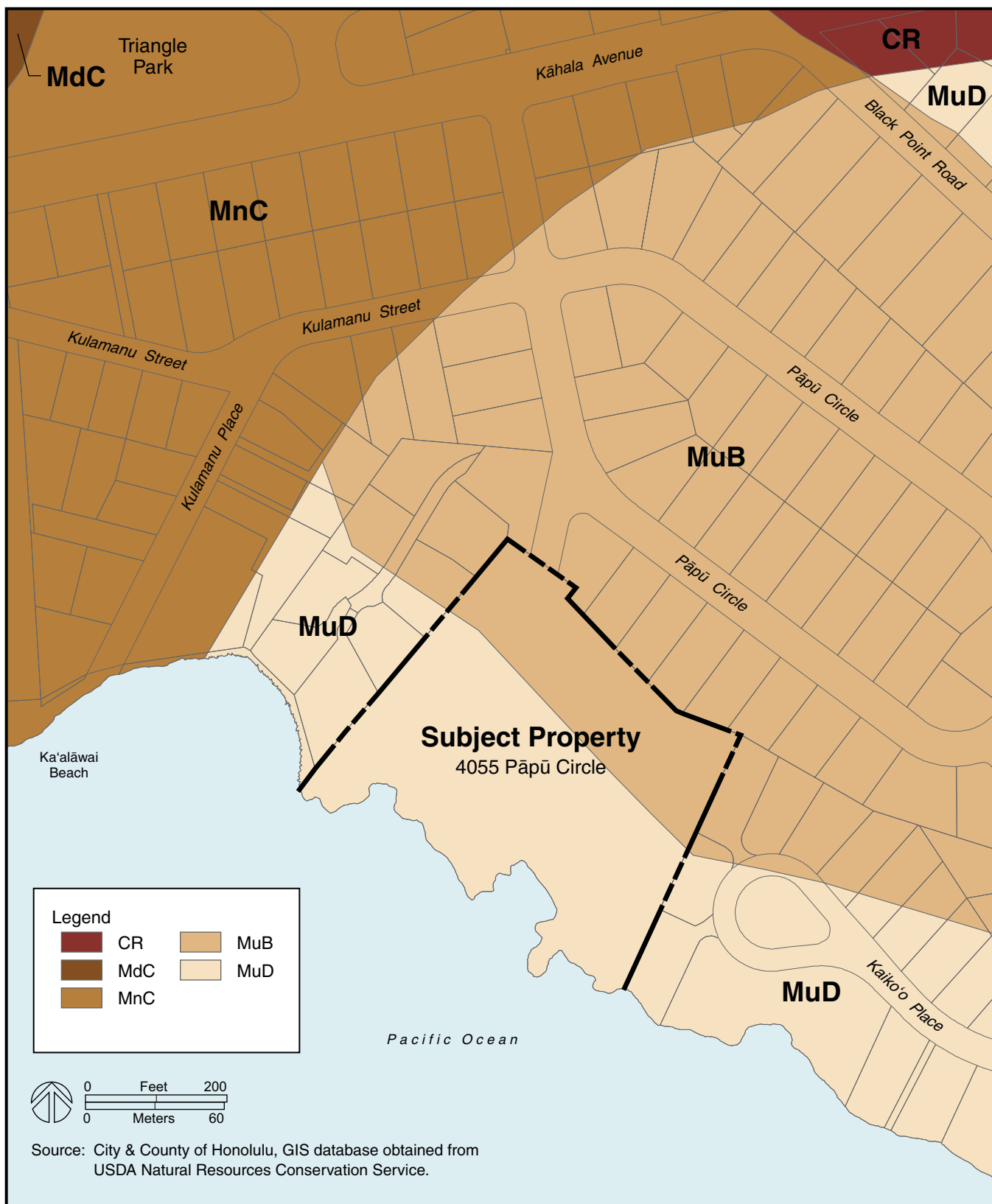


Figure 8

SOILS

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

The State DOH collects data on selected gaseous and particulate air pollutants from a statewide network of monitoring stations. There are six air quality monitoring stations on the Island of O'ahu. The Honolulu monitoring station, located in downtown Honolulu atop the DOH building, is nearest the Project Area, approximately five miles to the west. This station is surrounded by a busy urban area, and collects and monitors PM₁₀, PM_{2.5}, CO, and sulfur dioxide (SO₂). In 2007, the Honolulu station recorded average PM₁₀, PM_{2.5}, CO, and SO₂ levels that were well within the more stringent State standards. In 2007, the State of Hawai'i was in attainment for all federal ambient air quality standards.

2.3 Surface Waters

There are no perennial streams or wetlands on the Project Area or in its immediate vicinity. The closest surface water feature is Kahala Stream, a non-perennial stream that is approximately 1.2 miles east of the Project Area. The Project Area is approximately 350 ft *mauka* from the Pacific Ocean. The ocean waters fronting the Project Area have been designated as a Class 'A' water body by the DOH. Use of Class A waters for recreation and aesthetic enjoyment are to be protected. Discharge of the circulation water from the decorative water feature facing the Playhouse to the Pacific Ocean is authorized by DOH Clean Water Branch (Notice of General Permit Coverage, File No. HI 07LC859, June 26, 2007). Quarterly water quality monitoring occurs as a condition of the permit.

2.4 Drainage

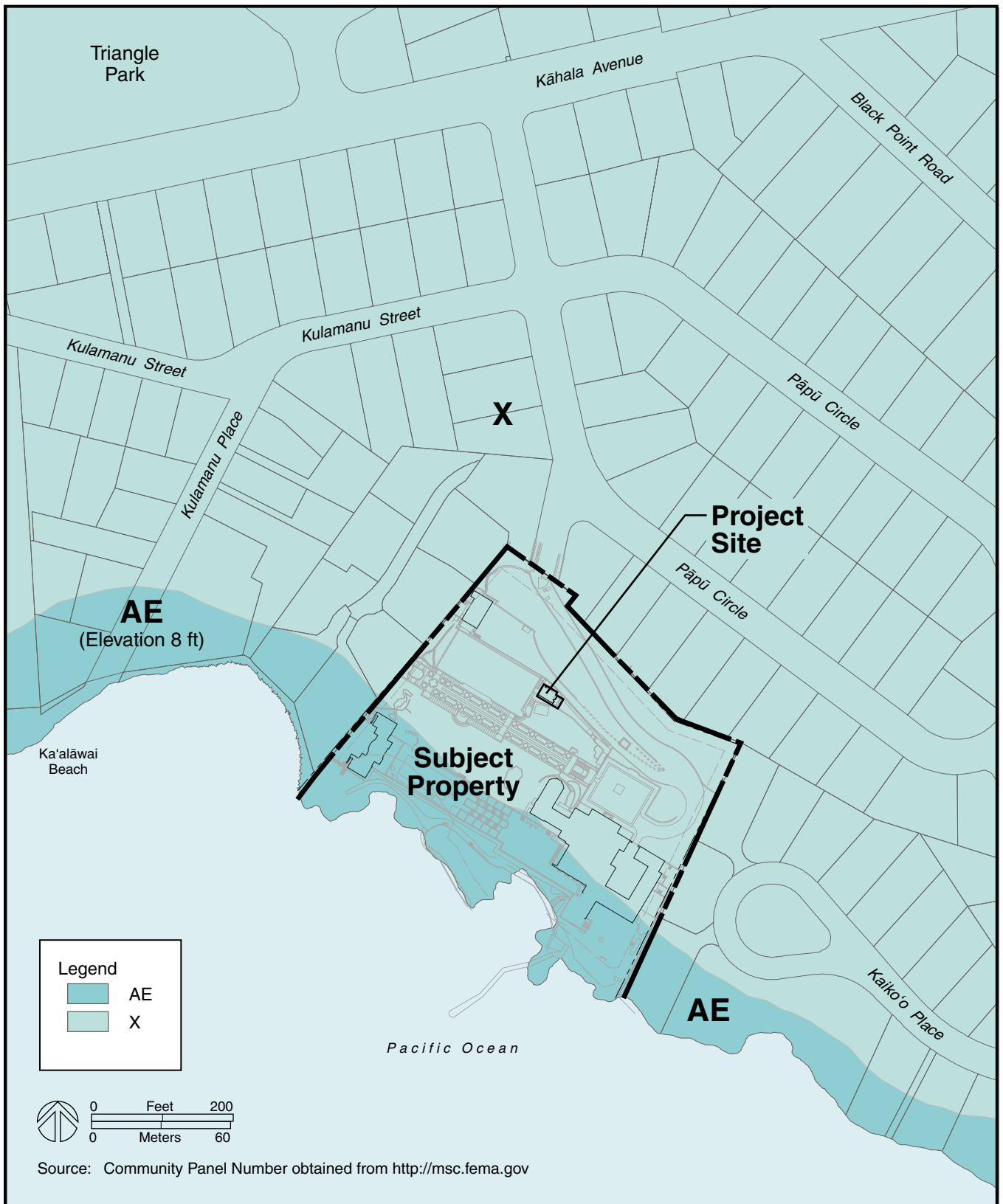
In 2009, Bills Engineering Inc. completed a drainage report for the Project Area to identify and evaluate the existing drainage on the property and how the Proposed Action will impact the drainage system. The full report is contained in Appendix D and summarized below. Currently, surface flow generally sheet flows across the site. There are five onsite drainage systems in place on the property which eventually discharges to the ocean. The drainage systems consist of a series of inlets and 8-inch and 12-inch pipes. The ground cover is mixed with hardscape and softscape allowing some of the runoff to percolate into the ground. In the project site area, runoff flows along the ground and enters a catch basin just before the Moghul Garden. Existing runoff from the project site, represented as the 10-year peak flow, is 9.45 cubic feet per second.

2.5 Natural Hazards

According to the Federal Emergency Management Agency Flood Insurance Rate Maps, (Map No. 15003C0370 F, September 30, 2004), the Project Area is located within Zone X, which denotes areas determined to be outside the 500-year flood plain. Zone X is not an established flood hazard district or area per Section 9.10-10 of the City and County of Honolulu's Land Use Ordinance. Coastal areas of the property are located within Zone AE, which denotes land within the 100-year flood plain with an 8-ft base flood elevation (See Figure 9). Based on maps prepared for the O'ahu Civil Defense Agency, the Project Area is located within the tsunami evacuation zone.

2.6 Noise

Sounds typical of residential neighborhoods are the main source of ambient noise in the vicinity of the Project Area. Otherwise the Project Area is filled with the natural sounds of the Pacific Ocean, the water features on the property, and wind rustling through trees. Existing noise levels are consistent with similar urban environments located in residential neighborhoods.



FLOOD ZONES

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Figure 9

2.7 Visual Resources

Shangri La is a meticulously designed and maintained estate with unique architectural and landscaping elements. The property is set back from the coastal highway, Kāhala Avenue. The estate is not visible from the road at all; views of the property from Pāpū Circle consist of landscaping and the front access gate, lighting, sensors, security cameras, and a call box to control and monitor vehicular access to the property (photo 1 of Figure 10). The entry gate lights are equipped with light shields to minimize light spillage. A metal fence runs from the entry gate towards the east and west property boundaries, and in places is built on top of low rock walls. Visitors who enter the property experience Islamic-style art and architecture set in a tropical landscape and are afforded uninterrupted views of the horizon. Stunning views also include grassy courtyards, various water features, the Main House, Playhouse (all running parallel to the high seawall), and vistas of Diamond Head and the Pacific Ocean.

From the ocean looking back to Shangri La, those who swim, surf, or sail this stretch of coast see a beautiful home on the water situated amidst abundant vegetation and other similar residential sites. Photos 3 and 4 of Figure 10 demonstrate the existing views the public experiences of the Project Area from the public swimming area.

2.8 Flora and Fauna

The grounds at Shangri La create a sense of solitude in the midst of green and tropical beauty. The existing heavy landscaping includes mature trees, shrubs, and groundcover throughout the property. The Persian conception of Paradise as an enclosed garden is conveyed in the shade and privacy offered by the canopy trees and shrubs growing along property boundaries.

Honolulu husband and wife landscape architect team Robert O. Thompson and Catherine Jones Richards Thompson were the original landscape designers for Shangri La. Richard Tongg, another local designer, later installed landscape elements within the Thompson and Thompson composition at Shangri La.

In 2006, Paul Weissich and Associates, Inc. conducted an assessment of the botanical resources of the entire property to develop an inventory of all plant materials on site and to determine which species date from the original landscape plantings of the 1930s. Information from this assessment is summarized below. The full review is contained in Appendix B.

Currently, the landscaped residential parcel is composed almost exclusively of introduced plants dating from the 1930s to present. Ornamental species dominate with an emphasis on trees providing shade and coolness. Six native species are present on the property, including: hāpu'u (*Cibotium chamissoi*) an endemic (native only to the Hawaiian Islands), non-threatened native tree fern; loulou (*Pritchardia* sp. [probably *P. affinis*]) an endemic palm becoming rare in the wild but not endangered; kou (*Cordia subcordata*) an indigenous (native to the Hawaiian Islands and elsewhere) tree; hau (*Hibiscus iliaceus*) an indigenous, sprawling tree; hala (*Pandanus tectorius*) an indigenous tree; and naupaka (*Scaevola taccada*) an indigenous shrub.

In addition to the native species listed above, other commonly found landscaping plants on the property include: Coconut palm (*Cocos nucifera*); Chinese Banyan tree (*Ficus microcarpa*); Common 'Ape (*Xanthosoma robustum*); Fiji Fan Palm (*Pritchardia pacific*); Red Hibiscus (*Hibiscus rosa-sinensis*); Bird of Paradise (*Strelitzia reginae*); Norfolk Pine (*Araucaria*



Photo 1: View of the property from Pāpū Circle at Shangri La front access gate



Photo 2: View down Service Drive to Caretaker's Cottage from Shangri La Entry Drive

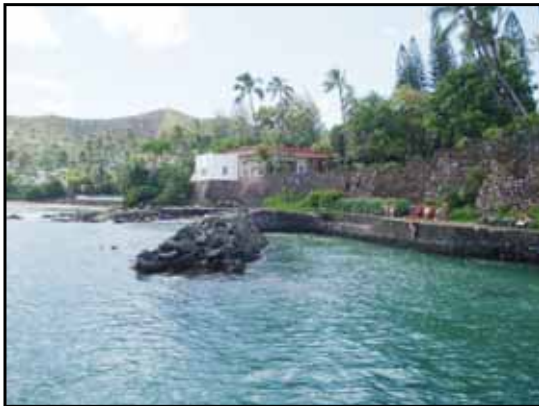
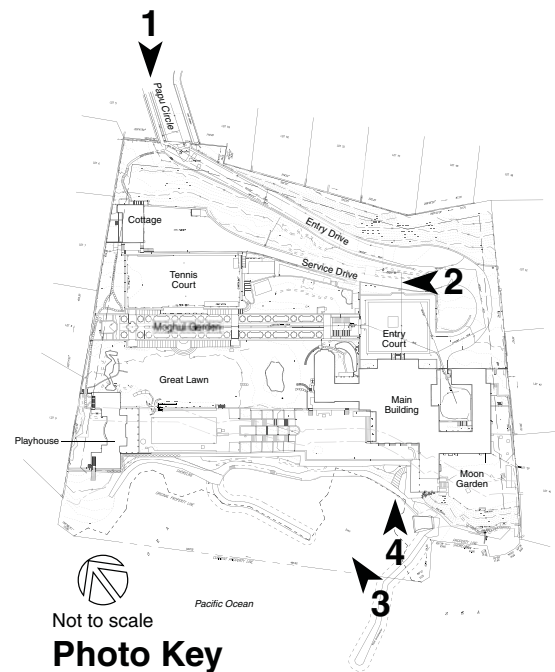


Photo 3: View from jetty *mauka* towards public beach access and Shangri La Playhouse



Photo 4: View from jetty *mauka* to Shangri La Main House



Source: Mason Architects, Inc.

VIEW PLANES

New Maintenance Facility for Doris Duke Foundation for Islamic Art at Shangri La

Figure 10

heterophylla); Allamanda (*Allamanda cathartica*); White Herald's Trumet (*Brugmansia x candida*); and Plumeria (*Plumeria rubra*).

None of the plant species observed on the property is classified by the U.S. Fish and Wildlife Service as an endangered or threatened species, or species of special concern. All are readily found in local nurseries and landscapes.

Red-masked parakeets (*Aratinga erythrogenys*) roost some evenings on the property in the banyan, monkeypod, and several other trees; as does a type of tern (thought to be white (fairy) terns [*Gygis alba*]). Additionally, avian species typically found in urban residential areas of Honolulu are likely to occur on the subject property. They include common mynas (*Acridotheres tristis*), Spotted dove (*Streptopelia chinensis*), Zebra dove (*Geopelia striata*), House finch (*Carpodacus mexicanus*), English sparrow (*Passer domesticus*), Java sparrows (*Padda oryzivora*), and pigeons (*Columba livia*).

2.9 Historic, Archaeological, and Cultural Resources

The original Hawaiian name for Diamond Head was Le'ahi. While there are several interpretations of this name, it is agreed upon that Hawaiians used its great height to guide canoe fleets bound for O'ahu by keeping a wood fire burning on the crest. Located to the southeast of Diamond Head, the Black Point promontory is the southern most point on O'ahu. Black Point was traditionally referred to as Lae o Kūpikipiki'ō, which translates to "rough sea" or "point of raging sea." The promontory is separated into two halves (Waikīkī and Wai'alae) by a small cove that was called Ke'ahamoe, which was often frequented by fisherman as well as gatherers of *limu* (seaweed) and shellfish. The western most portion of Black Point, where the subject property is located, is Ka'alāwai. A fishing tale tells of how 'Aina'ai, son of Ku'ula, is believed to have stopped at Ka'alāwai after his fishing expedition along the shores of southern O'ahu.

Also associated with the Diamond Head area were six *heiau* located within and along the base of the crater. All are believed to have been destroyed. The Hawaiian historian Samuel M. Kamakau recorded that when the Maui chief Kahekili invaded O'ahu in 1783, his fleet of war canoes stretched from Ka'alāwai to Kawehewehe (in Waikīkī). Kamehameha the Great's invading fleet used a similar approach in 1795.

In the mid-1800s, as part of the division of Hawaiian lands between the king and his high chiefs, the Kāhala side of Black Point was awarded to Kalaiheana from Kamehameha as *panala'au* (conquered lands). The Le'ahi (Diamond Head) area was awarded to William C. Lunalilo (future King of Hawai'i). In 1884, the Kapahulu portion was subdivided by the Lunalilo Estate, and later the federal government bought 729 acres of Diamond Head from the Lunalilo Estate. A list of Kapahulu lands indicate that the areas to the north and east of Diamond Head crater were used for pasture.

By the early 1900s, the Diamond Head area was an important military fort for the U.S. military. Additionally, during the early 1900s, the hilltop and ocean front sections in Black Point developed into a substantial residential area. Pāpū Circle was developed by the 1920s to facilitate access to and from neighborhoods on the Black Point promontory.

In 1935, tobacco and energy heiress Doris Duke and her husband James H.R. Cromwell arrived in Hawai'i on the final leg of their around the world honeymoon. Moved by the beauty, serenity,

and privacy they enjoyed on O‘ahu, the Cromwells decided to build a seasonal home in Hawai‘i. They purchased the oceanfront property of attorney Ernest H. Wodehouse at Ka‘alāwai in 1936. As indicated by historic photographs, the old Wodehouse property had already undergone extensive modifications with residential construction and landscaping prior to the Cromwell purchase and subsequent construction of Shangri La.

An Exchange Deed dated December 8, 1938 between the Territorial Land Board of Hawai‘i and Ms. Duke agreed to add two underwater parcels (totaling approximately 0.6 acres) to the Cromwells’ property. The two parcels were registered in Land Court on July 28, 1939. The transfer gave the Territory a perpetual easement of a four-foot right-of-way for a pedestrian causeway along the Cromwell’s coastline. This additional 0.6-acre area was used to create a jetty and modest boat harbor for Doris Duke’s yacht, *Kailani Lahilahi*.

A Cultural Landscape Management Plan (CLMP) of the property was prepared by Cheryl Barton in 2005 to interpret the extraordinary cultural resources offered by the property, as well as to address the adaptive reuse of the site for public education. The CLMP inventoried and assessed the character-defining features of the property with a focus on the designed landscape to develop maintenance strategies for the future caretaking of the grounds. The report chronicles distinct development periods for the property and interprets their significance to facilitate restoring the landscape while allowing for compatible new uses.

As an early 20th century estate, Shangri La is unique in many ways. The architecture is essentially spare and modernist in its simplicity but is transformed by the extensive applied ornaments such as columns, capitals, roof details and doors inspired by Duke’s travels through the Middle East and North Africa. Duke herself recognized the eclecticism of the house and the diversity of the Islamic world when she variously called her home “Near Eastern,” “Hispano-Moresque,” and even a “Spanish-Moorish-Persian-Indian complex.” The design and décor of Shangri La incorporate all of those traditions and influences. Architect Marion Sims Wyeth, based in Palm Beach, Florida and New York, drew upon his familiarity with Mediterranean architectural traditions with his incorporation of patios, courtyards, single stacked rooms, galleries, and a lanai at Shangri La, all aimed at “bringing the outside in.” Henry Drewry Baker, Supervising Architect, also significantly contributed to the appearance of the estate as the on-site architect throughout the design and construction. Designer Rene Martin of Rabat, Morocco also contributed significantly to the interior design of the house by completing large commissions for carved and painted ceilings, doors, wood grills, and furniture.

No formal archaeological inventory survey has been conducted on the property. Most past archaeological research in the vicinity has focused on historic military structures associated with Diamond Head. Hawaiian cultural deposits have been documented east of the property, in Kāhala. Additionally, burials recovered in Jaucus Sand or Beach Sand have also been documented in the Kāhala area. The most comprehensive archaeological investigation carried out in the Black Point area was a historical research and archaeological reconnaissance survey of the Diamond Head State Monument in 1998. No subsurface testing was carried out and the report noted that the possibility for buried cultural deposits was very slight. The report mostly comprised results of a thorough literature overview of the traditional land use of Diamond Head and its subsequent military use.

In 2005, Cultural Surveys Hawai‘i (CSH), Inc. conducted an archaeological inspection of the unmodified portions of the property to assess the possible presence of archaeological

resources. The findings of their report are summarized here and the full report is included as Appendix C.

Field work was performed by CSH on three areas of the property that were identified as surfaces not substantially modified by landscaping and residential construction activities. The field inspection revealed a series of traditional Hawaiian petroglyphs in an area of unmodified slope between the entrance drive, the service driveway, and the garage court. A series of vertical bedrock faces is located on a cliff in the northern portion of the property, on the southeast side of a walkway that descends from the entrance gate area. The bedrock faces border a landscaped soil terrace, and extends approximately 23 ft along the cliff. The faces range from approximately 16 to 22 ft high. Five separate faces contain Hawaiian petroglyphs that range from 4 to 10 inches in height. They are lightly pecked and inscribed in the solid rock faces. Some figures are formed by minimally discernible lines that fuse into natural imperfections in the rock, making definition of the maker's intended subject difficult. Others are well-defined and easily discernible. They have distinct outlines and are isolated from natural imperfections in the rock. They portray human and animal figures; all are pre-historic or immediately post-contact in age, based on the style and subject matter. No obvious modern modifications or additions are apparent.

Cultural resources and practices are not expected to be present or occur on the property since it has been previously disturbed and occupied. The site is not known for traditional cultural practices for modern-day subsistence, cultural, or religious purposes. The subject property is private property that has been developed for over 80 years, and does not provide access to other areas in order to exercise traditional cultural practices (i.e. gathering, burials).

2.10 Transportation Systems

The subject property is situated off the arterial road Kāhala Avenue (called Diamond Head Road further east) that transverses the residential neighborhoods in the area. Pāpū Circle branches off from Kāhala Avenue, runs towards the ocean and passes the front gate of Shangri La. Pāpū Circle is a two-lane asphalt road owned by the City and County of Honolulu. It serves a small residential community connecting to Kāhala Avenue, a distance of about 0.13 miles.

Visiting groups as well as DDFIA-function attendees arrive at the property in vans contracted by the Honolulu Academy of Arts which manages the tour program under a written Program Agreement with DDFIA. The vans park on site in the Entry Court. DDFIA employees and maintenance vehicles park in the area in front of the Caretaker's Cottage, and within a courtyard *ewa* of the service wing.

According to a Traffic Impact Analysis Report prepared by Julian Ng in August 2000, traffic to and from the property was projected to have a minimal effect on traffic conditions in the area, even during peak hours. No recommendations for mitigation measures were noted in the report and no known complaints have been received relative to traffic volume in the neighborhood.

The Project Area is served nearby by TheBus route 14, St. Louis Heights/Maunalani Heights, which traverses Kāhala Avenue. There is a bus stop for both directions approximately 800 ft from the property entrance, at Triangle Park. Once on the property, stairs, broad paths, stepping stones, and informal pathways create a secondary circulation system for pedestrians.



Educational tour van parked at Entry Court



Parking in front of the Caretaker's Cottage for employees and maintenance vehicles

The majority of DDFIA employees work between the hours of 7am and 5pm during the week, with security personnel on-site 24-hours daily, 7 days per week. Most deliveries to the property are to a drop box at the security entrance gate at Pāpū Circle or to an offsite mail delivery site; limited deliveries enter the property as needed. Participants in public programs are limited to the hours and frequency as laid out in the CUP (summarized in Table 3).

Table 3
DDFIA Operating Schedule

Program	Hours of Operation	Frequency	Maximum Number of Participants
Art/Architecture Study Groups	9 a.m. – 5 p.m.	1 van (24 people) four times a day, up to 4 days a week	96 per day 384 per week
Meeting Groups	9 a.m. – 5 p.m.	1 van (24 people) once a day, up to 3 days a week	24 per day 72 per week
Foundation Functions	Ending at 10:30 p.m.	Six times a year	96 per event

2.11 Utilities

The Project Area is served by existing water, electrical, and telephone service connections due to the existing use of the property. Landscape irrigation is partially supplied by under ground irrigation with automatic timers (40%); manually operated under ground irrigation (40%); and manual water hoses (10%). The property is serviced by a six-inch lateral line running from the Honolulu Board of Water Supply's system 12-inch mainline below Pāpū Circle. The property is not serviced by the City and County of Honolulu's wastewater facilities, as coverage by the municipal sewage systems does not extend to Shangri La or the surrounding neighborhood parcels. Wastewater is serviced by an on-site septic system which recently replaced cesspools in order to comply with State and Federal requirements. Two septic tanks have recently been installed to serve the property. Solid waste is removed by municipal services and delivered to Honolulu Program of Waste Energy Recovery (H-POWER). Ten percent of the property's green waste is composted on-site; the remaining amount is removed to Hawaiian Earth Products for recycling.

2.12 Fire and Police Protection

The Project Area is located within the jurisdiction of the Honolulu Police Department's District 7 (East Honolulu) command. District 7 covers the area from Punahou Street to Makapu'u Point on the southeast side of O'ahu.

The City and County of Honolulu Fire Department Battalion 2 provides fire protection services for southeast O'ahu from Makapu'u Point to the Ala Wai Canal. The Kaimuki Fire Station (Station 5) is located on Koko Head Avenue approximately 1.5 miles northwest of the Project Area, and is equipped with an engine and a ladder. The next nearest fire station is the Waikiki Fire Station (Station 7), located approximately 1.75 miles west of the Project Area. This is also the Battalion 2 Headquarters.

The nearest fire hydrant is located midway down the Entry Drive to Shangri La. The main house is equipped with a preaction fire protection system that connects smoke and heat sensors to a two-stage dry pipe sprinkler and alarm system. The exterior decorative façade and interior of the Playhouse are connected to a separate preaction control panel located in the Playhouse basement. Fire extinguishers are available throughout the property.

2.13 Social and Economic Factors

Shangri La is the product of Doris Duke's creativity, her sustained interest in Islamic cultures, and her collaborations with professional artists, architects, and designers from the U.S. and Muslim countries. Shangri La has unique social value as significant architecture and landscape of high artistic value and one of the largest collections of Islamic art in the U.S. In addition, Shangri La has become the centerpiece of a foundation dedicated to improving public understanding of the Islamic world through the study and promotion of arts and cultures. It is secondarily valuable socially as a remnant of American upper-class culture in Hawai'i in the 20th century. The property serves as a venue for hosting meetings, gatherings, and DDFIA functions for a diverse range of people.

Doris Duke's estate has become an integral element of the cultural fabric of Honolulu since opening to the public in November of 2002. Shangri La is one of Honolulu's most unique and exclusive destinations for visitors also. It attracts positive media attention and visitors to O'ahu, and is an asset to the State's tourism industry. Approximately 13,000 visitors per year participate in various tours and classes, scholarly symposiums, lectures, concerts, meetings, and receptions hosted at the estate. Since opening in 2002, visitation has consistently been held under the capacity allowed by the CUP. Out-of-state visitors currently make up approximately 60% of educational tour participants; 40% are local residents. It is likely that the rate of annual visitors to Shangri La will increase up to the amount allowed by the CUP as the DDFIA continues to develop its educational programs on Islamic art and culture.

The operations at Shangri La currently provide 23 full and five part-time employees including DDFIA professional staff, security, operations staff, grounds staff, and maintenance personnel. On most days (Monday – Saturday), there are approximately 14 staff members on-site.

It is not possible for DDFIA to fulfill its educational mission without restoring and providing public access to the most artistically significant areas of the property which have not yet opened to the public. These include the Mughal bedroom suite commissioned in India in 1935, the Damascus Room from 19th century Syria, and the gardens and water features which evoke many places in the Islamic world. Renovations are also needed for collections storage, a small library, offices,

and work areas for visiting scholars, conservators, and artists. With these improvements in place, Shangri La can offer the public access to its most important resources and also provide educational programs, meetings, special events, university classes, and art and architecture study tours which significantly improve public understanding of the Islamic world.

Shangri La's budget, including staff, historic preservation, conservation of artwork, operations, and maintenance are supported by the Doris Duke Foundation of Islamic Art, through annual grants from the Doris Duke Charitable Foundation. Revenues from the current art and architecture tours cover only the costs of tours including guides, vans, and program staff based at the Honolulu Academy of Arts, and do not cover expenses related to the preservation or operations of Shangri La.

3.0 ENVIRONMENTAL CONSEQUENCES

This section describes the anticipated impacts of the Proposed Action and, when appropriate, the proposed mitigating measures.

3.1 Topography and Soils

The Proposed Action is not expected to significantly alter the existing topography or soils found within the property. Because of the Project Area's relatively level topography, extensive earth-moving activities for grading and foundation work are not anticipated. Grading is only expected to occur on a localized and minimal scale. Erosion will be controlled by following an erosion control plan and Best Management Practices (BMPs) will be employed to prevent soil loss and sediment discharge from the work site. If any releases of hazardous substances, pollutants, or contaminants are found to have occurred on the site, they will be abated according to applicable Federal and State requirements.

3.2 Climate and Air Quality

The Proposed Action will not significantly impact climate or air quality. Air quality data from the monitoring station nearest the Project Area and overall ambient air quality data for the State of Hawai'i indicate that the Project Area is currently well within Federal and State standards. The Proposed Action will not include any ongoing air polluting activities (i.e., industrial uses) or introduce any new major air pollution sources. The Proposed Action will not involve demolition or renovation activities that could involve the release of asbestos. The principal source of short-term air quality impacts will be construction activity, including construction vehicle emissions and particulate emissions associated with earth moving operations. These impacts will be minor and of short duration. All construction activities will comply with the provisions of HAR, §11-60.1-33 (Fugitive Dust).

3.3 Surface Water

The Proposed Action is not expected to significantly impact surface water resources.

3.4 Drainage

Runoff from the site is not expected to change as the amount of permeable surfaces as well as the drainage patterns of the site will remain the same as existing conditions. Assuming the existing drainage system is sufficient to handle the existing runoff, the existing drainage system downstream of the proposed project will not need to be upgraded. During construction of the proposed project, all affected inlets will be provided with inlet protection to prevent runoff from entering into the drainage system.

Project activities will comply with State of Hawai'i DOH regulations determined in HAR, Title 11 Chapter 54-Water Quality Standards and Chapter 55-Water Pollution Controls. Best Management Practices will be followed, including placement of sediment barriers to minimize the degradation of offshore marine habitat. If construction dewatering is necessary, a National Pollutant Discharge Elimination System permit will be obtained.

3.5 Natural Hazards

The Proposed Action is not expected to significantly increase the risk of human health or property due to exposure to natural hazards.

3.6 Noise

The Proposed Action is not expected to significantly affect ambient noise levels. Short-term, temporary noise impacts will be generated during project construction by equipment and vehicles. Project construction activities will comply with HAR, Chapter 11-46 "Community Noise Control" as administered by the State DOH. Relocating the maintenance shed activities further away from the *ewa* property boundary will decrease noises audible from adjacent properties and thus serve to foster good neighbor relations.

3.7 Visual Resources

The property is well set-back from Kāhala Avenue, the main arterial road in the neighborhood. Shangri La is not visible from Kāhala Avenue and views from Pāpū Circle of the property are limited to the entry gate. The Proposed Action includes construction of a 21-ft tall building, 4 ft less than the 25-ft limit set by the Diamond Head Special District. The new structure will be almost completely obscured by topographic difference and onsite vegetation. The on-site mature trees will maintain the existing visual-landscape character of the immediate neighborhood. The Proposed Action will not interfere with or detract from any coastal views. Views to Diamond Head and towards the ocean will remain unchanged. Visitors to the property may see the upper corner of the building down the service drive as the vans make the turn to the Entry Court, but this will be a nominal change in that view; overall the Proposed Action will have a minimal visual impact.

3.8 Flora and Fauna

The Project Area is already cleared where the existing maintenance shed sits, and the on-site landscaping will not be changed significantly. Siting and design of the proposed building will be sensitive to the existing environment and minimal alteration to the existing land form is required. The on-site landscaping will be maintained, and any trees that will be disturbed by the construction will be relocated or replaced within the Project Area. Some of the shrubbery (approximately 20 ft) that lines the service drive as a hedge may be lost but the Proposed Action will not significantly impact biological resources.

There are no known rare, threatened, or endangered species or significant habitats that exist on the project site. The Proposed Action will not displace any mature trees or native vegetation existing on the property.

3.9 Historic, Archaeological, and Cultural Resources

The Proposed Action will aid in implementing necessary improvements and continued maintenance of the property to retain the historic integrity for generations to come. The archaeological field inspection recommended that the petroglyphs be preserved in place and that the surrounding area not be modified in any way that would be detrimental to their preservation. It was further recommended that maintenance staff be informed of the significance of the petroglyphs and of the necessity for their protection and upkeep. DDFIA is following these recommendations. The Proposed Action is not expected to have an impact on the petroglyphs as they are separated from where the proposed development will occur by the Service Drive. Additionally, the SHPD has determined that no historic properties will be affected by the Proposed Action due to prior alternation of the land by residential development and urbanization.

In the event that any additional archaeological resources or deposits are encountered during development of the project, construction will be halted and immediate consultation with the SHPD will be sought in accordance with applicable regulations.

3.10 Transportation Systems

The Proposed Action will not significantly increase the total volume of traffic on Pāpū Circle or Kāhala Avenue as the personnel at the site is not expected to change. Access to the Project Area will continue to be from the driveway off Pāpū Circle. As a condition of approval of the 2000/CUP-88, all program and special event participants are transported to and from the site in vans owned or contracted by the DDFIA, and this will continue. Construction traffic will be minimal, as carpooling by construction workers will be mandatory and an average of six additional workers is expected to be onsite during construction.

3.11 Utilities

The Proposed Action will not significantly increase local demands on existing public utility systems. Electricity and telephone service connections installed for the existing Shangri La will serve the construction related to the Proposed Action, with resulting demand expected to be similar to current conditions. The respective utility providers will be consulted to complete the service connections. The projected average daily water demand is not expected to change from existing conditions, and the existing domestic water system will be sufficient to serve the proposed development. The new building will connect to the existing wastewater system on the property and no significant increases are expected.

Solid waste will continue to be removed from the Project Area by municipal services and taken to a City-operated disposal site. During construction, 5,500 lbs of solid waste is estimated to be generated. During operations, the new building is not expected to generate any additional waste from existing conditions.

3.12 Fire and Police Protection

The Proposed Action is not expected to adversely impact the services, facilities, or operations provided by the City and County of Honolulu for fire and police protection. Construction of the proposed new building will include necessary fire protection systems in accordance with City and County of Honolulu and national building code requirements.

3.13 Social and Economic

Total construction cost for the Proposed Action is estimated at approximately \$1 million. The project will be privately funded by the DDFIA. Construction is expected to take six months and is projected to occur in the next three to five years. The project will result in a short-term increase in 25-30 construction-related jobs.

3.14 Cumulative Impacts

Cumulative impacts on environmental resources result from the incremental effects of development and other actions when evaluated in conjunction with government, private, past, present, and reasonable foreseeable future actions. No adverse cumulative impacts are expected to occur in association with the Proposed Action.

4.0 CONFORMITY OF PROPOSED ACTION WITH EXISTING STATE AND COUNTY PLANS, POLICIES AND CONTROLS

4.1 State of Hawai'i

4.1.1 Hawai'i State Plan

The Hawai'i State Plan, established through the State's legislative process, represents public consensus regarding expectations for Hawaii's future. Chapter 226, HRS, as amended, describes the purpose of the State Plan. In short, the State Plan is to:

- serve as a guide for the future long-range development of the State;
- identify the goals, objectives, policies, and priorities for the State of Hawai'i;
- provide the basis for determining priorities and allocating limited resources;
- improve coordination of state and county plans, policies, programs, projects, and regulatory activities;
- establish a system for plan formulation and program coordination to provide for an integration of all major state and county activities.

The goals, objectives, policies and guidelines of the Hawai'i State Plan are, on occasion, in competition with one another. The following section analyzes project impacts with respect to relevant State Plan goals, objectives, policies, and priority guidelines.

Section 226-11 Objectives and policies for the physical environment – land based, shoreline, and marine resources.

Section 226-11(b)(3) Take into account the physical attributes of areas when planning and designing activities and facilities.

Discussion: The proposed structure will be designed and sited in a manner which will respect the natural topography and physical attributes of the site. It will be constructed on leveled areas of the property that were previously graded and occupied by the existing maintenance shed. Siting of the proposed structure will be such that grading is only needed on a localized and minimal scale.

Section 226-12 Objectives and policies for the physical environment - scenic, natural beauty, and historic resources.

Section 226-12(b)(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.

Section 226-12(b)(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.

Section 226-12(b)(5) Encourage the design of developments and activities that complement the natural beauty of the islands.

Discussion: Development of the Proposed Action will not impact important views and vistas, nor adversely impact the public's visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features. The new structure will be almost completely obscured by topographic difference and onsite vegetation. To those who visit the property, the proposed

structure will be partially obscured by the trees and extensive landscaping surrounding the project site, with the use of appropriate color schemes and building materials further concealing its appearance. The Proposed Action will not impact cultural resources in the vicinity of the subject property. The Proposed Action will ensure long-term maintenance of Shangri La's scenic, historical, and artistic resources, and it will continue to serve as a valued centerpiece of Honolulu cultural life.

Section 226-13 Objectives and policies for the physical environment – land, air, and water quality.

Section 226-13(b)(6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.

Section 226-13(b)(7) Encourage urban developments in close proximity to existing services and facilities.

Discussion: The Proposed Action will help Shangri La better fulfill their mission to preserve important historical and artistic resources and provide educational programs on Islamic arts and cultures. The proposed structure will use sustainable building principles to maximize beneficial relationships with the environment. The development is in an existing residential urbanized area with access to existing services and facilities.

4.1.2 Chapter 205, Hawaii Revised Statutes (State Land Use Law)

The State Land Use Commission, under the authority of Chapter 205, HRS, classifies all land into four major land use districts: Urban, Rural, Agricultural, and Conservation. The Project Area is classified as part of the Urban district (Figure 11). There are relatively few development restrictions on Urban land.

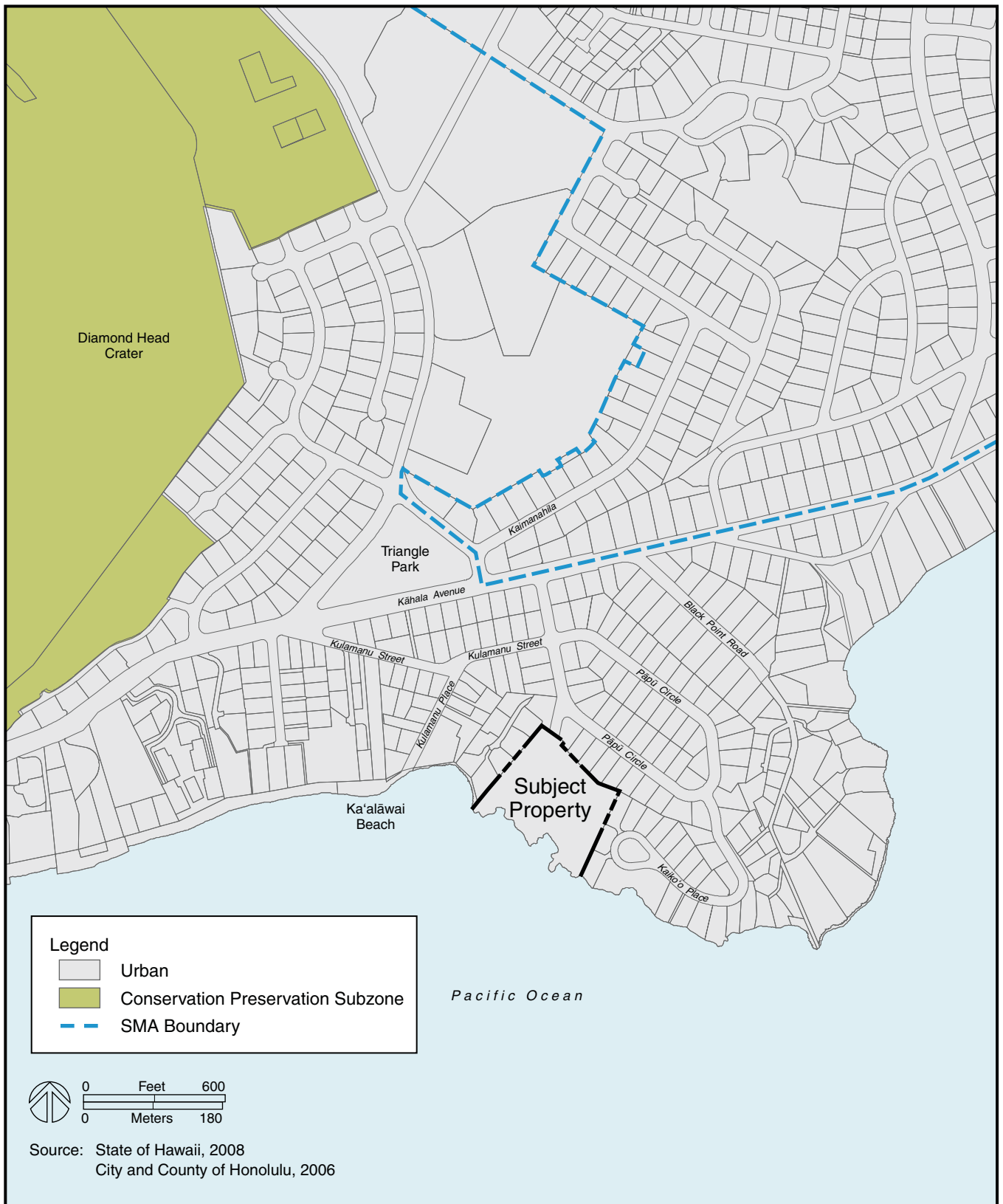
4.1.3 State of Hawai'i Coastal Zone Management Program

The objectives of the Hawai'i Coastal Zone Management (CZM) program are set forth in Chapter 205A, HRS. The objectives of the program are intended to promote the protection and maintenance of valuable coastal resources. All lands in Hawai'i are classified as valuable coastal resources. In addition, Chapter 205A contains the general objectives and policies upon which all counties within the State of Hawai'i, including the City and County of Honolulu, have structured more specific legislation which has created SMAs for each county (the specific provisions of the county Special Management Area are discussed in Section 4.2.4). The following discussion assesses the conformity of the Proposed Action to the objectives and policies of the State's CZM program.

Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Discussion: The property is located approximately 30 ft above the shoreline of the Black Point promontory. The Proposed Action will not affect coastal recreation areas, current use of shoreline fronting the property, surfing sites, fishponds, or beaches, nor will it interfere with access to, or the enjoyment of, such areas.



STATE LAND USE DISTRICT AND COUNTY SPECIAL MANAGEMENT AREA

Figure 11

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Historic Resources

Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Discussion: The Proposed Action will not impact significant historic or prehistoric resources. The proposed building will be constructed in an area that has been previously cleared and graded. The Proposed Action is located on private property, and there are no known cultural resources or practices that will be affected by the Proposed Action. The Proposed Action will help DDFIA better fulfill its mission to preserve the important historical and artistic resources it holds in trust and provide educational programs on Islamic arts and cultures.

The archaeological resources (Hawaiian petroglyphs) that exist on site will not be affected by the Proposed Action, and will be preserved in place with the area not to be modified in any way that would be detrimental to their preservation.

Scenic and Open Space Resources

Objective: Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.

Discussion: The Proposed Action will not impact the quality of scenic and open space resources in the neighborhood. The landscape character of the project site and existing mature trees will be maintained. The proposed development will minimize disruption of the area's scenic quality, and will be compatible with the surrounding area in building orientation, architectural design, and landscaping. Existing public views towards the shoreline, as well as significant views of Diamond Head from prominent public vantage points will not be negatively impacted by the Proposed Action. For those visiting the property, the proposed structure will be mostly concealed by existing tree growth, planned landscaping, and topography.

Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Discussion: The Proposed Action will not impact valuable coastal ecosystems. The proposed project will not involve alteration to stream channels or other water bodies or water sources. No major earth-movement will be required, and grading is only expected to occur on a localized and minor scale. Storm water runoff will sheet flow across the site and discharge in the Pacific Ocean. BMPs will be employed during construction to minimize storm water runoff discharged from the site.

Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Discussion: Shangri La is one of Honolulu's most unique and exclusive destinations for visitors. It attracts positive media attention and visitors to O'ahu, and is an asset to the State's tourism, culture, and arts industries. The Proposed Action will help DDFIA better fulfill its

mission to preserve the important historical and artistic resources it holds in trust and provide educational programs on Islamic arts and cultures. The project will be paid for by the applicant. No additional public improvements will be necessary.

Coastal Hazards

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

Discussion: The subject property is in Flood Zones X and AE. The upper portions of the property in Zone X are outside the area affected by the 500-year flood. The coastal areas of the property, located within Zone AE, are in areas within the 100-year flood plain with an eight ft base flood elevation. The Proposed Action will not be affected by any flood hazards. There is no known erosion or subsidence problems in the area that will be significantly impacted by the Proposed Action.

Managing Development

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Discussion: A Pre-Assessment letter was sent to 71 parties on March 11, 2009 (See Section 7.1 for a list of consulted parties). The DEA will be distributed to interested parties as well. The project was discussed at a meeting with adjacent property owners on February 14, 2009, and the Waialae-Kahala Neighborhood Board on February 19, 2009.

Public Participation

Objective: Stimulate public awareness, education, and participation in coastal management.

Discussion: In addition to public presentations (see above), the Environmental Assessment (EA) review includes a 30-day public comment period during which the public has the opportunity to provide their input on the project. Copies of the DEA will be distributed to various agencies and organizations, and notice of the DEA's availability will be published in the Office of Environmental Quality Control Environmental Notice. In addition, the SMA permitting process provides opportunity for public input at various stages, including a presentation to the Neighborhood Board, and public hearings held by the Honolulu City Council.

Beach Protection

Objective: Protect beaches for public use and recreation.

Discussion: The subject property is located on existing, modified shorefront property. No shoreline processes will be affected by the proposed development, and no beach erosion will occur. The existing public access route fronting the seawall will be maintained.

Marine Resources

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Discussion: The Proposed Action is not expected to have any adverse impacts on marine resources or interfere with public recreational and waterline activities.

4.2 City and County of Honolulu

4.2.1 City and County of Honolulu General Plan

The General Plan for the City and County of Honolulu was originally adopted in 1977, and has been subsequently amended (most recently in 2003). The Plan is a comprehensive statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of O‘ahu. Included in the General Plan are broad policy statements that facilitate the attainment of the Plan’s objectives. The growth policy presented in the Plan calls for full development of the Primary Urban Center (including lands between Kāhala and Pearl City), development of the secondary urban center at Kapolei and the ‘Ewa and Central O‘ahu fringe areas, and management of the physical growth and development in the remaining urban-fringe and rural areas to sustain their low densities. The Proposed Action is consistent with the following General Plan objectives and policies:

Natural Environment

Objective A: To protect and preserve the natural environment.

Physical Development and Urban Design

Objective A: To coordinate changes in the physical environment of O‘ahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.

Objective E: To create and maintain attractive, meaningful, and stimulating environments throughout Oahu.

Culture and Recreation

Objective A: To foster the multiethnic culture of Hawai‘i.

Objective B: To protect Oahu’s cultural, historic, architectural, and archaeological resources.

Discussion: The Proposed Action will construct a two-level building where an existing maintenance shed exists to meet DDFIA’s landscaping and maintenance requirements for the Shangri La estate. The subject property is bordered by residential urban space, and the Proposed Action will not infringe upon surrounding uses. The property has been in residential use for over 70 years and has access to water, electrical, telephone service, and public safety facilities. The Proposed Action will not add any employees to the property, nor substantially affect the region’s overall density. Design and construction of the Proposed Action will be conducted in a manner to protect and preserve the natural features of the subject property. The Proposed Action will not alter the existing topography or drainage pattern, or result in the removal of mature trees or native vegetation within the property. Public views of the property will not be obstructed by the proposed structure. The Proposed Action will ensure the preservation and maintenance of Shangri La’s important artistic and cultural resources for the benefit of the larger community.

4.2.2 Primary Urban Center Development Plan

The City and County of Honolulu's Development Plan (DP) program implements the objectives and policies of the General Plan on an area-wide basis. The DP program provides six sustainable communities plans and two development plans to be used as guides for shaping the future of O'ahu.

The property is within the City and County's Primary Urban Center (PUC) as defined by its geographical boundaries of Pearl City to the west, Waialae-Kāhala to the east, the Ko'olau Mountain Range to the north, and the shorelines of East Mamala Bay and Pearl Harbor to the south. The PUC is divided into three sections: PUC-West, PUC-Central, and PUC-East, to establish a general framework intended to support more detailed planning vision at the regional level. The subject property is located within the PUC-East section of the DP area. Development within the PUC boundaries is guided by the PUC DP. The Proposed Action is consistent with the following key elements of the vision for the PUC's future:

*Honolulu's natural, cultural and scenic resources are protected and enhanced.
Honolulu is the Pacific's leading city and travel destination.*

To achieve the vision for the PUC, the Honolulu Department of Planning and Permitting established policies and guidelines to facilitate the adoption of the above mentioned key elements. The Proposed Action is in compliance with the following policies and guidelines:

- *Preserve historic and cultural sites.*
- *Preserve panoramic views of natural landmarks and the urban skyline.*
- *Preserve the architectural character, landscape setting and visual context of historic landmarks through appropriate zoning standards and development controls, as necessary, and public outreach programs such as design guidelines for the maintenance, renovation or expansion of older dwellings.*

Discussion: Lands within the PUC most appropriate for urban development are identified by PUC DP Land Use Maps as those falling into the Urban Community Boundary. The PUC Urban Community Boundary extends the length of the southern shorelines mauka to the foot of the Ko'olau Range. The Urban Community Boundary contains "built-up" areas and intends to limit sprawling urban developments into adjacent land. This measure protects land outside of the boundary for continued use as agricultural or open space. The Project Area falls within the Urban Community Boundary.

The subject parcel is consistent with the key elements in the PUC DP vision to protect and enhance the cultural and scenic resource that Shangri La provides to the community. The Proposed Action will ensure DDFIA can continue to preserve Shangri La's historical and cultural resources and contribute to the cultural fabric of Honolulu. The subject parcel supports the land use policies and guidelines pertaining to the preservation of historic sites and views of Diamond Head.

4.2.3 City and County of Honolulu Land Use Ordinance

The City and County of Honolulu Land Use Ordinance (LUO) and accompanying maps define the allowable uses of land within the City and County of Honolulu. The LUO describes the various zoning districts, the uses allowed within each zoning district, and the applicable development standards for each district.

Discussion. LUO Zoning Maps adopted for the property indicate that the parcel is zoned R-7.5 Residential District (Figure 12). The parcels bordering the Project Area are also zoned R-7.5 Residential. The R-7.5 designation is an appropriate zoning district for the property in view of the surrounding zoning and land uses.

When the property was transformed from Doris Duke's private residence to a public facility for the study and understanding of Islamic art and culture, the use changed to that of a "meeting facility" as defined by the LUO. Meeting facilities are a permitted use in the R-7.5 Residential District with an approved CUP-Minor. A CUP (2000/CUP-88) previously approved allows for the use of a meeting facility on the property.

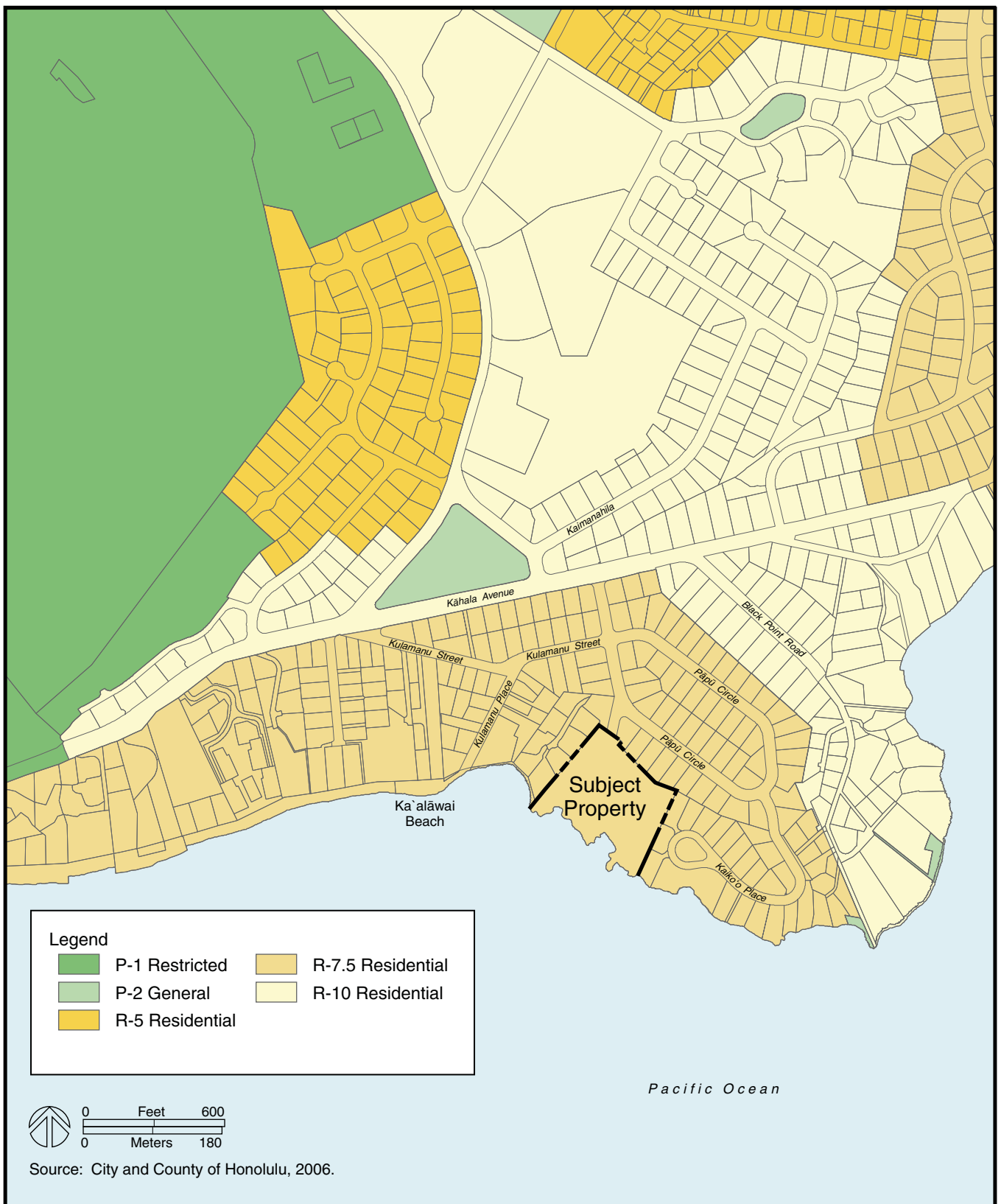
Variance. In September of 2000, the DPP approved a zoning variance, subject to several conditions, to allow a meeting facility on a lot that lacks the minimum 75-ft street frontage. The street (Pāpū Circle) frontage is only about 48 ft, or 36% below the minimum required.

Conditional Use Permit. In December of 2000, the DPP approved a minor CUP (2000/CUP-88), to allow the DDFIA to operate a meeting facility in a residential area. Approval of the CUP subject to conditions was based on representations and plans that described the use of the facilities on the property, as envisioned by the DDFIA at that time.

However, the DDFIA was in its infancy when DPP approved the conceptual plan for the estate. Some of the improvements needed to retain the historic and artistic integrity of the property could not be anticipated during the initial permitting. DDFIA has recently undergone a lengthy internal master planning process to evaluate the history and conditions of the architecture and landscape; identify treatments needed; and plan future programs that fulfill Doris Duke's will and meet current educational needs. The general aim for the property is to preserve the high artistic and historical value of the art, architecture, and gardens for educational purposes. The Master Plan compiled a list of general improvements that are intended to fulfill DDFIA's mission, as well as to update inadequate working conditions and ensure the preservation of the property.

Of the 13 projects currently contemplated for both interior and exterior repairs to the grounds and buildings, all but the Proposed Action are repairs and maintenance (see Table 1 and Figures 6a and 6b) and do not require a SMA Use Permit (See Appendix A for Correspondence with DPP). The new maintenance building (Proposed Action) is considered "development" and will need a minor modification to the CUP.

Diamond Head Special District. The intent of the Diamond Head Special District (DHSD) is to preserve existing prominent public views to and the natural appearance of Diamond Head, and to preserve and enhance the park-like character of the immediate slopes of the monument. The "core area" of the DHSD includes the entire crater and residential neighborhoods bound by



CITY AND COUNTY OF HONOLULU ZONING

Figure 12

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Diamond Head Road, Monsarrat Avenue, and Kalakaua Avenue. Development within the core area is subject to increased design controls including landscaping, fencing, and height regulations. The DHSD imposes a 25-ft height limit on the property.

Discussion: While the property is located within the DHSD, it is not located within the “core area.” The architectural appearance, character, and landscaping of the Proposed Action will be consistent with the design controls of the DHSD. The Project Area is generally obscured by trees and topography, and is not visible from Pāpū Circle; the project will not impact views from Pāpū Circle towards Diamond Head. From the ocean, a prominent view of Diamond Head is offered to those who surf, sail, or swim along the coastline that Shangri La overlooks. Building permit and plans will be reviewed during the DHSD Permit review following issuance of the SMA Permit.

4.2.4 Special Management Area

The City and County of Honolulu has adopted: (1) boundaries which identify the SMA; and (2) rules and regulations which are consistent with Chapter 205A, HRS, which control development within the SMA. Proposed development within the SMA is subject to review in order to ensure adequate access to recreation areas and minimal adverse impacts to water resources, and scenic and recreational amenities.

The project is required to obtain an SMA Permit because the property is located within the SMA (see Figure 11). An SMA use permit application has been submitted to the City and County of Honolulu with this DEA. DPP can accept the SMA Permit application once the EA has been finalized and accepted.

The SMA rules and regulations are contained in Chapter 25, ROH. Section 25-3.2, ROH, includes guidelines used by the City Council of the City and County of Honolulu for the review of developments proposed within the SMA. The relationship between the Proposed Action and the SMA review guidelines (in italics), are discussed below.

The project is subject to the provisions of the ROH 1990, as amended, governing development in the SMA. Section 25-3.3(c)(1) of the ROH stipulates that:

Any proposed development within the special management area requiring a special management area use permit shall be subject to an assessment by the agency in accordance with the procedural steps set forth in HRS Chapter 343.

These procedures govern the preparation and processing of EAs as required by the State of Hawai'i EIS Law (Chapter 343, HRS) and appropriate rules and regulations. The City and County of Honolulu has adopted these procedures for EAs required by the ROH.

Discussion: This EA was prepared in compliance with the steps set forth in HRS Chapter 343.

No development shall be approved unless the City Council has first found that:

The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual

developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;

The development is consistent with the objectives and policies contained in HRS Section 205A-26; and

The development is consistent with the county General Plan, the development plans and zoning.

Discussion: Previous analysis (Sections 4.1.3, 4.2.1, 4.2.2, and 4.2.3) has demonstrated that the Proposed Action is consistent with the objectives and policies of Chapter 205A-26, HRS, as well as the objectives and policies of the City and County of Honolulu General Plan, the *PUC DP*, and City and County of Honolulu LUO. In addition, as discussed in Chapter 3, the development will not have any substantial, adverse environmental or ecological or cumulative impacts.

The City Council shall seek to minimize, where reasonable:

- *Any development which would reduce the size of any beach or other area usable for public recreation;*
- *Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;*
- *Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and*
- *Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.*

Discussion: The Proposed Action will not alter or affect access to any water bodies, nor will it reduce the size of any beach or area usable for public recreation. It does not interfere with the line of sight from a major highway to the sea, and it does not affect water quality, fishing areas, wildlife habitats, or agricultural uses of land. The project enhances and ensures continued public use of an existing cultural, art, and educational meeting facility.

5.0 ALTERNATIVES

In addition to the Proposed Action, two alternatives were considered: (1) Construction of a new maintenance building on an alternate site; and (2) the No Action Alternative.

The alternative to construct a new maintenance building elsewhere on the property would achieve safe and appropriate facilities for maintenance and landscaping operations and would consolidate these uses. Almost all of the areas on the property currently have uses assigned to them (buildings and gardens), resulting in little undeveloped or un-used land that is relatively flat. One optional alternate location could be the flat area of the former tennis court, an area immediately to the west of the existing maintenance shed. Development of this area for the Proposed Action would remove it from its current use as the on-site nursery, resulting in the loss of self sufficiency and an important on-site landscaping function. This alternative is unlikely to be implemented because of risk of operational deficiencies for the established uses on the property.

Under the No Action alternative, the existing conditions on the subject property would continue. Maintenance and landscaping operations would continue in ill-fitted inadequate facilities without safe and secure storage of tools and landscaping materials. Small tool operation and maintenance staff lunch breaks would continue in the Caretaker's Cottage ground floor parking area, an inappropriate locale and a noise nuisance to neighboring properties. It is unreasonable to expect DDFIA to operate under these circumstances, and therefore, this alternative was determined not to be acceptable.

6.0 ANTICIPATED DETERMINATION AND SUPPORTING RATIONALE

Based on information and analysis presented in this document, the Proposed Action is not expected to result in a significant impact on the environment. In accordance with Chapter 343, HRS and Section 11-200, HAR, it is anticipated that the Proposed Action will have no significant adverse impact to water quality, air quality, existing utilities, noise levels, social welfare, archaeological sites, or wildlife habitat. All anticipated impacts will be temporary and will not adversely impact the environmental quality of the area. It is expected that an EIS will not be required, and that a FONSI will be issued for this project.

In determining whether an action may have a significant impact on the environment, the applicant or agency must consider all phases of the project, its expected primary and secondary consequences, its cumulative impact with other projects, and its short and long-term effects. The anticipated negative determination was based on review and analysis of the significance criteria specified in Chapter 25, ROH, which stipulates following HRS Chapter 343 procedural steps for environmental documentation. An action shall be determined to have a significant effect on the environment if it meets any of the following criteria:

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

The Proposed Action will not result in a loss of natural or cultural resources. The property has been previously disturbed by urban development. Future plans for the site involve minimum disturbance to the major vegetative features of the property. There is no known presence of Federal or State-protected endangered, threatened, or candidate species that could be jeopardized by the Proposed Action.

Petroglyphs identified by a field inspection of the property will be preserved in place and the surrounding area will not be modified in any way that will be detrimental to their preservation. Construction of the Proposed Action will not adversely impact important scenic views identified in State or County public planning documents.

2. Curtails the range of beneficial uses of the environment

The property has been in private ownership since 1885 and the site of Doris Duke's Shangri La estate for nearly 70 years. Current uses on the property are compatible with other uses in the immediate neighborhood. Shangri La will remain a public meeting facility and retain major vegetation under the Proposed Action. Construction and operation of the new maintenance building will be performed in accordance with Federal, State, and County regulations, thereby minimizing potential impacts to the air and water quality and ambient noise levels. This will result in the positive long-term public benefits associated with preserving a unique cultural resource and environmental setting in Honolulu. Therefore, the proposed project does not curtail beneficial uses of the environment.

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

The Proposed Action has been planned and designed in conformance with the State's long-term environmental policies, and the policies and guidelines specified in Chapter 343, HRS. The property is not affected by any court decisions or executive orders.

4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State

The Proposed Action will not adversely affect the social welfare or cultural practices of the community or State, or create environmental health and safety risks. On the contrary, it will add 25-30 full-time short-term positions to the local economy as construction jobs within the next three to five years. In this regard, the proposed project will have a positive impact on the economic and social welfare of the community. The Proposed Action will not impact cultural resources or practices, and will allow the DDFIA improved efficiency of operations, thereby contributing to the long-term viability of Shangri La.

5. Substantially affects public health

The Proposed Action will not detrimentally affect public health. There will be some typical short-term construction-related impacts (air quality, traffic, and noise) in the area, but these will be temporary. Standard construction BMPs will be used to minimize the temporary impacts. Though none are known, if Project Area soils are found to contain hazardous or regulated materials, the necessary abatement will be conducted prior to construction in accordance with applicable Federal and State regulations to minimize potential impacts to human health and the environment. Activities associated with the Proposed Action will complement the existing use of the property as a meeting facility. No industrial activities will take place on the property.

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

The Proposed Action will not result in island-wide population growth. No significant impacts to public facilities are expected as the Project Area is the location of an existing building and is adjacent to buildings served by existing public utilities and infrastructure. Anticipated demands on existing utility systems are expected to be similar to existing uses.

7. Involves a substantial degradation of environmental quality

The Proposed Action will not substantially degrade environmental quality. The Proposed Action is within the State Urban District. Long-term impacts to air and water quality, noise levels, and natural resources will be minimal. The use of standard construction and erosion control BMPs will minimize the anticipated construction-related short-term impacts (i.e., noise, air quality, water quality, and traffic).

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

The Proposed Action will not have a significant cumulative impact on the environment and does not involve a commitment for larger actions. The Proposed Action will be limited to the proposed development on lands formerly developed and currently in urban use, and does not require any supplemental future development.

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

No threatened, endangered, or candidate listed bird, mammal, or plant species protected by Federal and State regulations will be impacted by the Proposed Action.

10. Detrimentially affects air or water quality or ambient noise levels

The Proposed Action will not substantially affect air or water quality or ambient noise levels. Construction activities, which are limited in scope, will have a short-term impact on air quality and ambient noise levels, but these impacts can be mitigated by adherence to State regulations and BMPs during the construction period. Once construction is completed, air and water quality conditions will return to their present levels; noise levels will be lowered.

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

The Proposed Action is not located within an environmentally sensitive area. The subject property is predominantly located within Zone X, which denotes areas determined to be outside the 500-year flood plain. Coastal areas of the property are located within Zone AE, which denotes land within the 100-year flood plain with an 8-ft base flood elevation. There are no surface waters on or near the subject property. The proposed building, located on a level area of the property, will be sited to fit the property's existing topography. Extensive grading and ground preparation is not expected.

12. Substantially affects scenic vistas and viewplanes identified in county or state plans or studies

The Proposed Action will not obstruct or affect scenic vistas and viewplanes identified in County or State plans or studies. The property does not impact views from Pāpū Circle towards Diamond Head due to its location down slope of the entry gate and out of sight from on-land public areas. From the ocean, a prominent view of Diamond Head is offered to those who surf, sail, or swim along the coastline. The new structure will be almost completely obscured by topographic difference and onsite vegetation.

13. Requires substantial energy consumption

Construction and daily activities associated with the Proposed Action are small-scale and will not require substantial amounts of energy.

7.0 CONSULTED AGENCIES AND ORGANIZATIONS

7.1 Pre-Assessment Consultation

An informational letter was sent on March 9, 2009 to the below listed agencies, organizations, and individuals to solicit comments on the Proposed Action. Substantive comments received were addressed in the DEA. A total of five agencies, organizations, and individuals provided written comments. The parties who responded in writing are identified by an asterisk (*) and their letters and the corresponding responses are included in Appendix E. Agencies, organizations, and individuals from whom comments were solicited during the preparation of the DEA include:

Federal Agencies
U.S. Army Corps of Engineers
State Agencies
Department of Land and Natural Resources *
Department of Land and Natural Resources SHPD
Office of Planning
Department of Health Environmental Planning Office
Office of Hawaiian Affairs
City and County Agencies
Department of Planning and Permitting
Department of Environmental Services
Board of Water Supply *
Honolulu Police Department *
Honolulu Fire Department *
Citizens / Organizations
Senator Sam Slom
Representative Barbara Marumoto
Representative Lyla Berg
Councilman Charles Djou
Scotty Anderson, Waialae-Kahala Neighborhood Board #3
Barbara R. Arsenault
Dr. John F. and Debra K. M. H. Balfour
Lani O. Blissard Trust
Rex Brandt
Susan Brandt
William F. Brandt
Gregory H. M. and Cynthia Y. T. J. Chang Trust
Alfred and Edith T. Ching Trust
Christopher Y. H. Ching
Frederick K. F. Ching
Frederick S. H. and Sharon Y. O. Ching
Herbert C. H. and Lillie T. Chun Trust
Hu Yun Lee and Kwai Dick Yee Hop Chun
Sean K and Trini K Clark

Coconuts Co. LTD
Gerri Digmon, Waialae-Kahala Neighborhood Board #3
Allen and Christina Doane *
Stan Fichtman, Waialae-Kahala Neighborhood Board #3
Frederick Fong
Lester Fukuda, Waialae-Kahala Neighborhood Board #3
Susan D. and William M Fuller
Alexander and Joananna R Gatanis
Laura L. Guerrero
Sylvia Himeda, Waialae-Kahala Neighborhood Board #3
Carl O. M. and Joselyn Ho
Mun Yee and Po Yee Brenda Hui
Gary K. Johnson
Lesley K. and Wendy Johnson
Susan F K Y Jong
Julia Kane, Waialae-Kahala Neighborhood Board #3
Logan T. and Megan K. Kelly
Gladys K. Lee
Pi-ju C. Liu and Wei-Chang W. Liauh
Gary H. M. Loo
MAK Building LLC
Milton S. K. Mau
Kay Norrington
Kenshin Oshima
Jennifer H and Minh T. Pham
Lucinda Pyles, Waialae-Kahala Neighborhood Board #3
Linda A. Reeves
Arthur B. and June S. Reinwald
Florence C. Richardson
Kelley Roberson, Waialae-Kahala Neighborhood Board #3
Lawrence J. Stupski
Tam Trust
Gordon K. Tenn
Richard Turbin, Waialae-Kahala Neighborhood Board #3
Sheila H. Watumull Trust
Tanya and Vikram Watumull
Arnold K. N., Ellen F. T., Lester B.K., Lorrin K.C., Michael K.H., and Winifred W. Yee

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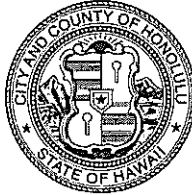
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A. DPP Correspondence

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
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MUFI HANNEMANN
MAYOR



HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUÉ
DEPUTY DIRECTOR

2008/ELOG-2484(pd)

October 17, 2008

Ms. Deborah Pope
Shangri-La
4055 Papu Circle
Honolulu, Hawaii 96816

Dear Ms. Pope:

Subject: Conditional Use Permit (CUP) No. 2000/CUP-88
Doris Duke Foundation for Islamic Art
4055 Papu Circle – Kaala Wai (Black Point)
Tax Map Key 3-1-41: 5

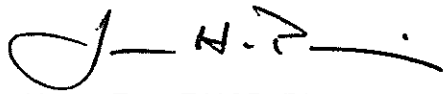
This is in response to your October 8, 2008 letter, regarding master plan improvements for the above site.

You identify 16 future projects, including a new maintenance building (estimated cost about \$1 million). The building will replace an existing maintenance building, which you indicate is in substandard condition. We confirm that a Special Management Area (SMA) major permit is required for this work, and the new building will also require a minor modification of CUP No. 2000/CUP-88.

As discussed in your August 29, 2008 meeting with DPP staff, the other 15 listed projects involve repair, maintenance and interior improvements, and thus do not meet the definition of "development" under the provisions of Chapter 25, Revised Ordinances of Honolulu (ROH). However, you indicate that you will "include the entire property" in the Environmental Assessment for the SMA major permit for the new maintenance building.

Should you have any questions, please contact Pamela Davis of our staff at 768-8017.

Very truly yours,


Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:cs

Doc653956



B. Botanical Resources Review
Paul Weissich and Associates, Inc.

PAUL WEISSICH AND ASSOCIATES, INC.
LANDSCAPE ARCHITECTURE
CONSULTANTS: XERISCAPING, TROPICAL PLANT MATERIALS
P.O. Box 4758
KANEHOE, HAWAII 96744
TELEPHONE (808) 235-3377

June 21, 2006

Helber Hastert and Fee, Planners Inc.
Pacific Guardian Center
733 Bishop St., Suite 2590
Honolulu, Hawaii 96813

Attention: Scott Ezer

SUBJECT: Shangri La Improvements
Development TMK: (1) 3-1-041:005

Dear Mr. Ezer:

Field studies and research to assess the botanical resources on the property located at 4055 Papu Circle, Honolulu, Hawaii were made during the summer of 2003 and completed in November of that year. The primary objectives of the field studies were to:

1. develop an inventory of all plant materials on site;
2. determine which species date from the original landscape plantings designed by Thompson and Thompson, Landscape Architects in the 1930's.

The information from the botanical resources assessment study will be used to obtain a Special Management Area Use Permit for the proposed project.

The landscape is completely man-made containing plantings dating from the 1930's to the present. Ornamental species dominate with emphasis on trees providing shade and coolness.

Only six native species are present in the landscape: two endemics * and four indigenous ** species. These are as follows:

Cibotium chamissoi (hapuu) an endemic, non-threatened native tree fern commonly available in nurseries and garden shops;

Pritchardia sp. (probably P. affinis: loulou) an endemic palm becoming rare in the wild but not endangered; frequently used in landscaping and readily available from nurseries on the Big Island; grown from seed of cultivated specimens;

Cordia subcordata (kou) an indigenous tree commonly used in landscaping;

Hibiscus tiliaceus (hau) an indigenous, sprawling tree found in the wild in large groves in moist areas and commonly used in landscaping;

Pandanus tectorius (hala) an indigenous tree commonly seen in moist windward areas and commonly used in landscaping;

Scaevola taccada (naupaka) an indigenous shrub widely used in landscaping and found in the wild in both windward and leeward situations close to the shore.

The project site is a landscaped residential parcel containing existing structures. The vegetation is composed almost exclusively of introduced species. The presence of native species is discussed above. None is threatened or endangered or of special concern. All are readily found in local nurseries and landscapes.

Given these findings the proposed use of the site for museum purposes should not have a significant negative impact on botanical resources.

Sincerely,



Paul R. Weissich

- * endemic indicates a species found naturally in a location, in this instance, Hawaii, and nowhere else in the world
- ** indigenous indicates a species found naturally in a location but also native to another area.

C. Draft Archaeological Field Inspection and Literature Review
Report for the Shangri La property on Black Point, Kapahulu 'Ili,
Waikīkī Ahupua'a, Kona District, Island of O'ahu

Cultural Surveys Hawai'i, Inc.

Archaeological Field Inspection and Literature Review

Report for the Shangri La Property on Black Point,

Kapahulu 'Ili, Waikiki Ahupua'a,

Kona District, Island of O'ahu

TMK (1)-3-1-041:005

DRAFT

by

Hallett H. Hammatt, Ph.D.

and

Rodney Chiojioji, B.A.

Prepared for

Doris Duke Foundation for Islamic Art

Cultural Survey Hawai'i, Inc.

(Job Code: KAHA 8)

June 2005

MANAGEMENT SUMMARY

Title	Archaeological Inspection and Literature Review Report for the Shangri La Property at Black Point, Kapahulu 'Ili, Waikiki Ahupua'a, Kona District, Island of O'ahu (TMK (1)-3-1-041:005)
Date	June 2005
Project Number	Cultural Surveys Hawai'i Inc. (CSH) Job Code: KAHA 8
Agencies	Not subject to agency review
Investigation Permit Number	Field work was performed under CSH's annual archaeological research permit, No.0508, issued by Department of Land and Natural Resources / State Historic Preservation Department (DLNR/SHPD)
Location	Black Point, Kapahulu 'Ili, Waikiki Ahupua'a, Kona District, Island of O'ahu (TMK (1)-3-1-041:005)
Land Jurisdiction	Doris Duke Foundation for Islamic Art
Project Description	There is no proposed project for development associated with this investigation.
Property Acreage	4.9 acres
Document Purpose	At the request of the Doris Duke Foundation for Islamic Art, CSH completed this archaeological inspection and literature review document to assess the possible presence of archaeological resources on the Shangri La property. This report does not meet the requirements of an inventory-level survey per the rules and regulations of the DLNR/SHPD. The report is limited to the inspection of unmodified portions of the Shangri La property for archaeological features and does not include the evaluation and documentation of historic buildings and structures on the property.

Management Summary	
Fieldwork Effort	Field work was accomplished on May 24, 2005 by Hallett H. Hammatt, Ph.D., principal investigator, and Rodney Chiojioji.
Summary of Findings	<p>Historic documentation indicates that the Black Point area was already developed as a residential area by the time Doris Duke purchased the 4.9-acre, future Shangri La property in 1936. The property had already undergone major modification for landscaping and residential construction.</p> <p>Three areas of the property that were not significantly modified up to the present were subjected to field inspection on May 24, 2005. The only archaeological finding of the field inspection was a series of petroglyphs observed in the northern portion of the property. These are traditional Hawaiian petroglyphs based on the style and motif.</p>
Recommendations	<p>It is recommended that the petroglyphs be preserved in place and that the surrounding area not be modified in any way that would be detrimental to their preservation. It is further recommended that maintenance staff be informed of the significance of the petroglyphs and of the necessity for their protection and upkeep.</p> <p>A young banyan tree that is intruding into a cliff face containing petroglyphs should be removed and the hau growth that surrounds the faces containing petroglyphs should be periodically trimmed.</p> <p>It is recommended that the petroglyphs should be assigned a State Inventory of Historic Properties (SIHP) site number.</p> <p>Finally, it is beyond the scope of this document to make State of Hawaii Register of Historic Places and National Register of Historic Places eligibility recommendations. However, it is likely that these petroglyphs would be eligible for inclusion on both registers. As an additional proactive preservation measure, the Doris Duke Foundation should consider having a National Register evaluation form completed and submitted for consideration by the State Historic Preservation Division.</p>

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I. INTRODUCTION

A. Project Background

At the request of the Doris Duke Foundation for Islamic Art, Cultural Surveys Hawaii, Inc. (CSH) prepared this archaeological inspection and literature review report for the Shangri La property at Black Point, Kapahulu 'Ili, Waikiki Ahupua'a, Kona District, Island of O'ahu (TMK (1)-3-1-041:005) (Figures 1 & 2).

The scope of work includes:

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

It should be noted that this field inspection and literature review report will not meet the requirements of an inventory-level survey per the rules and regulations of the Department of Land and Natural Resources/State Historic Preservation Division. The report is limited to the inspection of unmodified portions of the Shangri La property for archaeological features and does not include the evaluation and documentation of historic buildings and structures on the property.

B. Project Area Description

The project area lies southeast of Diamond Head crater, along the southwest side of the promontory of Black Point.

Black Point consists of a lava flow of alkalic olivine basalt (basanitoid) that rests on Diamond Head tuff, and is therefore younger than Diamond Head. Thirty meters west of Black Point stands a basaltic dike that cuts limestone and appears to be the same as that which elsewhere underlies the Diamond Head tuff. Another segment of the dike is exposed 200 meters farther northwest, which may be the filled feeding fissure of the Black Point eruption. The surface of the Black Point lava flow slopes landward; therefore, the vent from which it was erupted must have been seaward of the present shoreline, and whatever cone may have been built at the vent has been completely removed by erosion (Macdonald 1983: 444).

The soil types on Black Point consist primarily of silty clay loam, with the exception of a small area of Jaucus sand. Molokai silty clay loam, 3 to 7 percent slope (MuB) can be observed along Black Point Road, Pāpū Circle, Pu'u 'Ele'ele Place, and 'Ākūikūli Terrace. Molokai silty clay loam, 15 to 25 percent slope (MuD) is observable only along Black Point Place. Runoff in Molokai silty clay loam sediment is slow to medium, and the erosion hazard is moderate to severe. Workability is slight due to the slope and abundant rock inclusions (Foote *et al.* 1972).

II. DIAMOND HEAD AND BLACK POINT: CULTURAL AND HISTORICAL DOCUMENTATION

Black point is located in the *āhupuaʻa* of Waikīkī, in the *ʻili* of Kapahulu, and is further located immediately southeast of Diamond Head. This section presents a review of the available documentary evidence for the general character of the Diamond Head area, as well as germane information about the Black Point area, as it had evolved in the years before western contact in the later 1700s. The United States military presence in the later 1800s and early 1900s had a profound impact on the area and is further described below. By the mid 1900s, Black Point evolved into a residential area.

A. Diamond Head in Pre-Contact Oʻahu

The original Hawaiian name for Diamond Head was "Laeʻahi," which was given by Pele's younger sister, Hiʻiaka as she compared the tuff cone to the brow (*lae*) of the *ʻahi* fish (Pukui *et al.* 1974: 126). According to legendary accounts, it seems that Pele and Hiʻiaka were driven away from home by their oldest sister Nāmakaohāʻi. The two goddesses, Pele and Hiʻiaka, were subsequently spotted at Kauaʻi and then on Oʻahu, where they first appeared at Salt Lake and then at Diamond Head. However, when the sea put out the fire that Pele and Hiʻiaka created, they were believed to have moved on to the southeastern islands of Molokaʻi, Maui, and finally to Kilauea and Mauna Loa Volcanoes on Hawaiʻi.

Clark (1977) suggests alternate translations for the name Laeʻahi and summarizes the etymology:

...to the old Hawaiians the mountain was either Lēʻahi or Laeʻahi. Because the original meaning of the name is obscure, the correct spelling and translation have never been agreed upon by students of Hawaiian. One interpretation was that Lēʻahi is a contraction of the two words *lei* (a wreath) and *ʻahi* (fire), the two words combine to mean "wreath of fire"...The other popular interpretation is that Lēʻahi is a contraction of *lae* (a cape or promontory) and *ʻahi* (the yellow-fin tuna), the combination meaning "point of the *ʻahi* fish" (Clark 1977: 41).

Clark's interpretation of Lēʻahi in pre-contact Hawaiʻi reflects the fact that ancient Hawaiians were said to have kept a wood fire burning on the crest of Diamond Head to guide canoe fleets bound for Oʻahu (Clark 1977:41).

To the southeast of Diamond Head is Black Point, a promontory that is the southern most point of Oʻahu. Traditionally, Black Point was referred to as Lae o Kūpikipikiʻō, which is translated as "rough sea" (Pukui *et al.* 1974: 125) or "point of raging sea" (Clark 1977:39). The promontory is separated into two halves (Waikīkī and Waiʻalae) by a small cove that was called Keʻāhānoe, which was often frequented by fishermen as well as by gatherers of *limu* and shellfish (Clark 1977: 39).

Thrum (1907) mentions a fishing tale of Kaʻālāwai, located along the western most portion of Black Point. "Āinaʻai, son of Kuʻula, is believed to have stopped at Kaʻālāwai, after his fishing expedition along the shores of southern Oʻahu:

...There were also several gathering-places for fish established outside of Kawaihōa. Aiaia next moved to Maunālua, then to Waiālae and Kāhalaia. At Kāhalaia he placed a white and brown rock. There in that place is a hole filled with aholehole, therefore the name of the land is Kaluahole. (Thrum 1907: 241-242)

Also associated with Diamond Head were six *heiau* located within and along the base of the crater. Papaʻenaʻena Heiau, a *heiau luakini*, located near the present Hawaii School for Girls, on the western flank of Diamond Head, is perhaps the most acclaimed *heiau* on Oʻahu. Notable kings including famous Maui king Kauiakama, and Oʻahu chief Kahahana, were both executed at Papaʻenaʻena (McAllister 1933: 72). Kapua Heiau (*heiau luakini*), located near Kapiʻolani Park; Kūpalaha Heiau (*heiau pōʻokanaka*) in Kapiʻolani Park; Makahuna Heiau (enclosure dedicated to Kane and Kanaloa) west of Diamond Head; and Ahi Heiau on the peak of Diamond Head are all believed to have been completely destroyed (Allen and Shideler 1996: 15).

B. Early Contact into the 1800s

Samuel Kamakau (*Ka Nūpepa Kuokoa* March 30, 1867) relates that, circa 1783, when the Maui chief Kahekili invaded Oʻahu, his war fleet's landing site stretched from Kaʻālāwai (on the west side of Black Point) to Kawehewehe (in Waikīkī). Kamehameha the Great used a similar approach circa 1795 when his invading fleet covering the beaches from Waiʻalae to Waikīkī, (*Ka Nūpepa Kuokoa* June 8, 1867). Whether there was any fighting and mortality in the Black Point area during these invasions is uncertain.

During the period of early European contact, several British sailing expeditions reported on the glimmering stones abutting the slopes of the extinct volcano at Waikīkī. English sailors found crystalline rocks near the volcano's base, which were mistaken for diamonds, hence the name variations, "Diamond Head," "Diamond Hill" and "Cape Diamond." Kamehameha I, who had heard rumors about the diamond discoveries, was said to have placed a *kapu* on the volcano, so that the source of wealth would be preserved for the *aliʻi*. The *kapu* was later lifted once it was discovered that the rocks were in fact not diamonds.

In 1865, Dr. Willis Baxley visited Hawaiʻi as a special commissioner of the United States. During his tour of the Diamond Head area, which began on Waikīkī Beach and continued on to Waiʻalae, Baxley noted burials along the "eastern face of the headland" (Baxley 1865: 522):

...in the sands of the sea-shore, beyond the reach of ordinary high water, an immense trench is found, in which lie innumerable human bones piled in indiscriminate confusion, and in every degree of disorganization; some few of them being perfect in structure, and bleached by the sun, where disinterred by the northeast wind, forming interesting ethnological specimens.

Thrum's (1906:59) account of "Tales from the Temples" relates:

"Outside of Kapua, to the east, is pointed out as the place where bodies from the Waikiki-kai heiaus were brought for burial." The exact location of the "eastern face of the headland" where Baxley documents the burial discovery can only be speculated. Although it seems unlikely the Waikiki-kai *heiau* dead would have been transported as far as Black Point, it has been suggested that the burials noted by Baxley were somewhere near the Black Point peninsula. (Tomonari-Tuggle and Blankfein 1998: 18)

1. Māhele and Land Commission Awards

The mid 1800s marked a division of Hawaiian lands between the king and his high chiefs. Diamond Head, which lies within the *ʻili* of Kapahulu, was awarded to William C. Lunailio, the future King of Hawaiʻi (1873-1874) (Tomonari-Tuggle and Blankfein 1998: 19). It was designated *ʻĀpana* 32 of Land Commission Award (LCA) 8559-B. In 1884, the Kapahulu portion of Lunailio's

Māhele award, LCA 8559-B was subdivided by the Lunalilo Estate. The federal government later bought 729-acres of Diamond Head from the Lunalilo Estate for \$3,310. At the same time, the land on which Fort Ruger now stands was also purchased for \$32,000 (Pacific Planners Corporation n.d.). A list of Kapahulu lands indicate that the areas to the north and east of the crater were used for pasture (Dole Collection 1884, cited in Tomonari-Tuggle and Blankfein 1998: 19).

On the eastern (or Kāhala) side of Black Point, Kanevāi Kāhala was claimed and awarded to Kalaiheana as LCA 228:2. This area includes the present Royal Place and Royal Circle. Kalaiheana received the land from Kamehameha as *panalā'au*, or conquered lands (Eikelens and Tomonari-Tuggle 1997: 5). *Panalā'au* lands were distributed to valued chiefs of Kamehameha after his conquest of O'ahu.

C. Diamond Head and Black Point During the 1900s to Present

By the early 1900s, the United States military held the Diamond Head area as an important military fort. As the site of Fort Ruger, Diamond Head became a vital part of the installation for the defense of Hawai'i and the mainland in the first half of the 20th century. From 1904 to 1950, Diamond Head was closed to the public at large. During this forty-six year period, construction projects were completed within and around the crater. Bunkers, gun mounts, battery and storage tunnels, communication rooms, and observation posts were all built prior to World War II. In the early 1950s, Fort Ruger (which originally included the Black Point area) and Diamond Head were both turned over to the Hawai'i National Guard.

During the early 1900s, Black Point developed into a substantial residential area. The hilltops of Black Point and the ocean front properties were steadily becoming the optimal place for residential development. Roads were being constructed in the area, making the entire point accessible. By the 1920s Papu Circle was developed.

Tobacco heiress Doris Duke Cromwell was one of several wealthy individuals who developed their estates in the Black Point neighborhood. In 1936 Doris Duke and her husband James H.R. Cromwell purchased the 4.9-acre property of attorney Ernest H. Wodehouse. Historic photographs indicate that the Wodehouse property had already been extensively modified with residential construction and landscaping prior to the Cromwell purchase and subsequent construction of the Shangri La estate (Figures 3 & 4). The initial construction of Shangri La was completed in 1939, though renovations continued throughout Doris Duke's lifetime. Following her death in 1993, Shangri La has been opened to the public. It is owned and operated by the Doris Duke Foundation for Islamic Art.

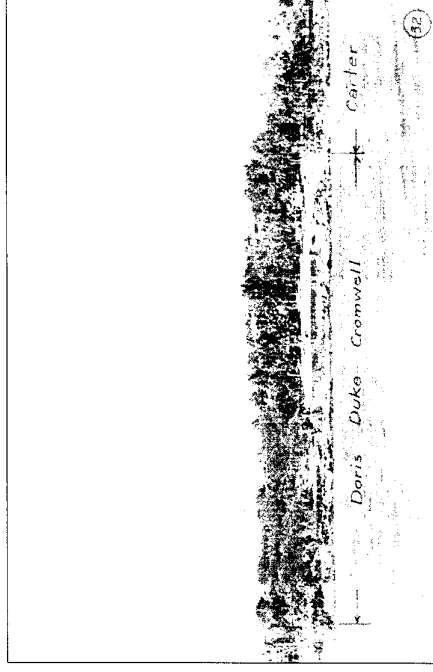


Figure 3. Former Wodehouse property purchased by Doris Duke Cromwell shown before construction of Shangri La (photo courtesy of Doris Duke Foundation)

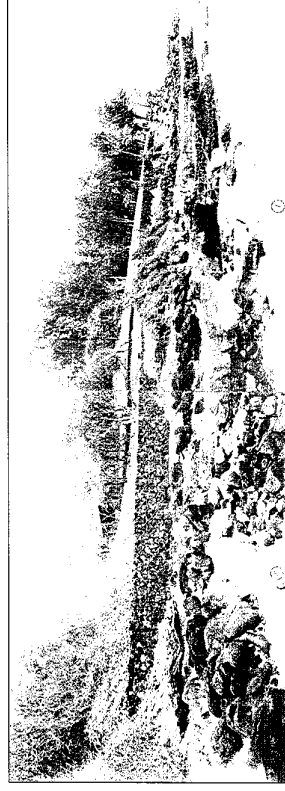


Figure 4. Walls, lawn area and residence on Wodehouse property before construction of Shangri La (photo courtesy of Doris Duke Foundation)

III. ARCHAEOLOGICAL RESEARCH

No formal archaeological inventory survey has been conducted of the Shangri La property.

The majority of the archaeological investigations in the vicinity of the Black Point area have focused on Diamond Head and associated military structures of Fort Ruger. Additionally, there have been several documented inadvertent burial discoveries east of the Black Point project area along Kāhala Avenue. Summarized below are those archaeological investigations most relevant to the Black Point area. Additional archaeological studies are listed in Table 1 and plotted on Figure 5

Clark (1977:39) relates that:

In 1906 George Carter and James Wilder made an amateur archaeological survey along the beach at Ka'alawai. They discovered some foundation stones of what they determined to be a *heiau*. In the same area, they also found several freshwater springs bubbling up in the sea near the water's edge..."

Whatever George Carter and James Wilder found would appear to be in the Ka'alawai area to the west of the Shangri La parcel on Black Point.

The first study that documented archaeological sites on O'ahu was carried out by Gilbert McAllister (1933) of the Bishop Museum, as part of an island-wide survey of archaeological and cultural sites. McAllister (1933: 71) documented Site 58 as Papa'ena'ena Heiau, located on the western slope of Diamond Head at the present Hawaii School for Girls. Testing of the area posited to be the location of Papa'ena'ena Heiau was later carried out in 1968 by Kenneth Emory (1968) of the Bishop Museum. Two test pits were excavated, but no evidence of the *heiau* was found.

Two archaeological monitoring reports were completed on Diamond Head Road and at the Diamond Head Lighthouse. The reports indicate no significant archaeological deposits or burials (Bordner 1990 and Mullins *et al.* 1992).

Since 1987, several burial sites have been identified in the Kāhala area, most of which have been inadvertent discoveries during construction activities in sand deposits. An archaeological investigation on Kāhala Avenue, located less than 100 meters east of the intersection of Royal Place and Kāhala Avenue documented three burials (assigned State Site 50-80-14-5320) recovered in sand sediment during construction activities (Erkelens and Tomonari-Tuggle 1997). All three burials are believed to be post-contact and of possible East-Asian or mixed Hawaiian-East Asian ancestry (Erkelens and Tomonari-Tuggle 1997). Additionally, two charcoal-stained cultural deposits were identified, underlying and cut through by the historic burials. The cultural layer was interpreted to be of prehistoric origin, perhaps relating to coastal fishing camps (Erkelens and Tomonari-Tuggle 1997: 1).

The most comprehensive archaeological investigation carried out in the vicinity of the Black Point area was a historical research and archaeological reconnaissance survey of the Diamond Head State Monument (Tomonari-Tuggle and Blankfein 1998). The report included a thorough literature overview of the traditional land use of Diamond Head and its subsequent military use by the United States in the 20th century. No subsurface testing was carried out, although it was noted that the possibility for buried cultural deposits was very slight. Recommendations included an additional

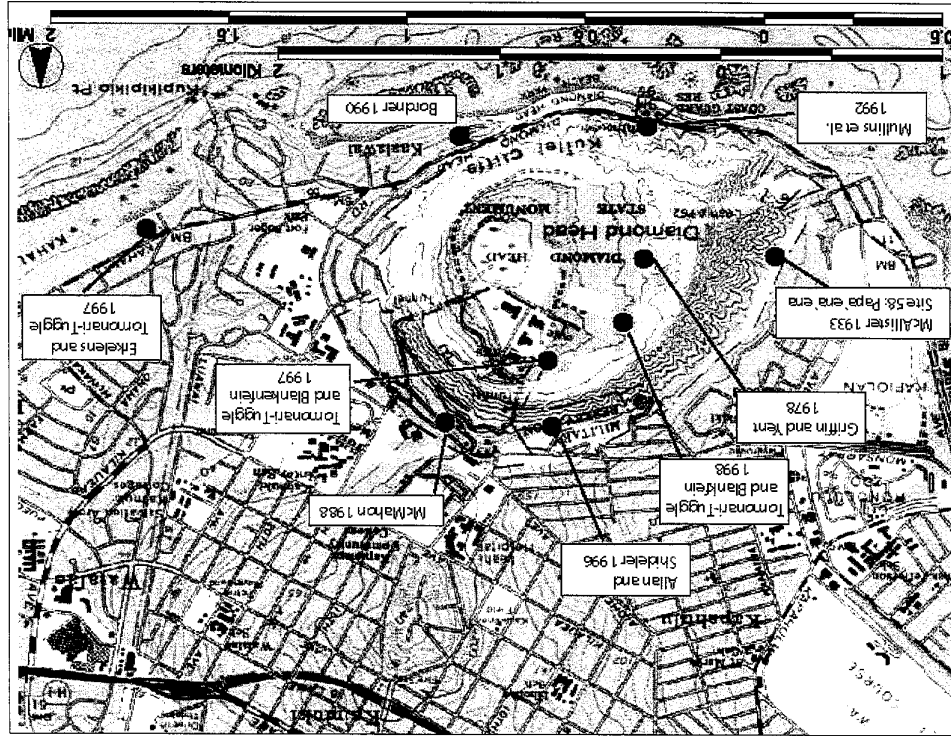


Figure 5: Portion of USGS 7.5 Minute Series Topographic Map (1983), showing previous archaeological studies near the project area

Table 1 Previous Archaeological Investigations

Source	Type of Investigation	General Location	Findings
McAllister (1933)	Island Survey	O'ahu Island	Identifies Site 58: Papa'ena'ena Heiau
Griffin and Yent (1978)	Archaeological Reconnaissance Survey	Diamond Head (comfort station and trail)	No traditional Hawaiian sites were located; two concrete foundations of probable World War II origin were found downslope of the trail.
McMahon (1988)	Archaeological Reconnaissance Survey	Diamond Head (northeastern) base	Only the remains of military activity related to Fort Ruger Military Reservation were documented.
Bath, 1989	SHPD Burial report	4745 'Aukai Ave	Human remains
Bordner (1990)	Archaeological Monitoring Report	Diamond Head Road	No archaeological deposits documented.
Mullins <i>et al.</i> (1992)	Archaeological Monitoring Report	Diamond Head Lighthouse	No evidence of pre-contact occupation on the parcel. Sparse artifacts dating from the late 1800s and early 1900s was documented.
Allen and Shideler (1996)	Literature Research	Battery Harlow	Report summarizes environmental data, discusses pre- and post-contact land uses in the Diamond head area, and outlines construction history of Fort Ruger, with limited field inspection.
Erkelens and Tomonari-Tuggle (1997)	Archaeological Investigation	Kāhala (433 Kāhala Avenue)	Three historic burials were recovered during construction activities. The burials were assigned State Site 50-80-14-5320. In addition, two charcoal-stained cultural deposits were identified and believed to be prehistoric in origin.
Tomonari-Tuggle and Blankfein (1997)	Archaeological and Historical Assessment	Diamond Head	Report indicated that there is little likelihood of any cultural remains on the parcel.

Source	Type of Investigation	General Location	Findings
Tomonari-Tuggle and Blankfein (1998)	Historical Research and Archaeological Assessment	Diamond Head State Monument	Report documents a thorough literature review of Diamond Head, as well as a reconnaissance survey of the area. Recommendations included an additional inventory survey and archaeological monitoring during any future subsurface excavations in sensitive areas.
Jones and Hammatt 2003	Archaeological Monitoring Program	Black Point	Archaeological monitoring of the Black Point Water System Improvements Project yielded no significant findings

inventory survey and archaeological monitoring during future subsurface excavations in sensitive areas.

More recently, archaeological monitoring of the Black Point Water System Improvements Project yielded no significant findings (Jones and Hammatt 2003).

In summary, most past archaeological research in the area has focused on the documentation and preservation of historic military structures associated with Diamond Head. Traditional Hawaiian cultural deposits have been documented east of the Shangri La parcel in Kāhala. Additionally, burials recovered in Jaucus Sand or Beach Sand have also been documented in the Kāhala area.

IV. FIELD INSPECTION RESULTS

Field work was performed under CSH's annual archaeological research permit, No.0508, issued by Department of Land and Natural Resources / State Historic Preservation Department (DLNR/SHPD).

Field inspection of the Shangri La parcel was conducted May 24, 2005 by Hallett H. Hammatt Ph.D., principal investigator, and Rodney Chiogioji. Based on in-field observation and background information provided by Shangri La personnel, three areas of the parcel were identified as having ground surfaces not substantially modified by landscaping and residential construction activities (Figure 6).

Area 1

The only unmodified area of the shoreline portion of the property is in the southern corner and forms the seaward slope beyond the Moon Garden (Figure 7). The slope appears to be minimally modified and comprises a mixture of beach rock and basalt boulders. The entire slope is visible from the shoreline and no archaeological remains were observed.

Area 2

Area 2 is located between the entrance driveway and the northeast boundary of the parcel (Figure 8). It consists of a basalt boulder cliff heavily vegetated with exotic growth including bougainvillea, banyan, rubber trees, and koa haole. The basalt boulders comprising the cliff appear to be from the original topography, pre-dating the development of the present house and entryway. The boulders ranged in size from one meter to four meters. Each of the prominent boulder faces was inspected for signs of pecking or carving and no modification was observed. There was no evidence of archaeological features in the area.

Area 3

Area 3 comprises the relatively unmodified slope between the entrance driveway, the service driveway, and the garage court (Figure 9). The area has been terraced for landscaping and installation of irrigation pipes. Both PVC and older galvanized pipes are visible on the ground surface.

A series of vertical bedrock faces is located on a cliff in the northern portion of Area 3, on the southeast side of a walkway that descends from the entrance gate area. The bedrock faces are aligned along a landscaped soil terrace, and extend approximately seven meters along the cliff. The faces range from approximately 1.5 to 2.0 meters high. There are five separate faces containing petroglyphs.

(Also located on the cliff, just southeast of the petroglyphs, is a small natural rock overhang that has been partially enclosed by mortared concrete blocks [Figure 10]. This overhang is partially obscured by the trunk of a banyan tree. The interior was inspected for signs of previous use. None were observed.)

The petroglyphs are lightly pecked and inscribed in the solid rock faces. Some petroglyph figures are formed by minimally discernible lines that fuse into natural imperfections in the rock, making definition of the maker's intended subject difficult. Others are well-defined and easily discernible. They have distinct outlines and are isolated from natural imperfections in the rock.

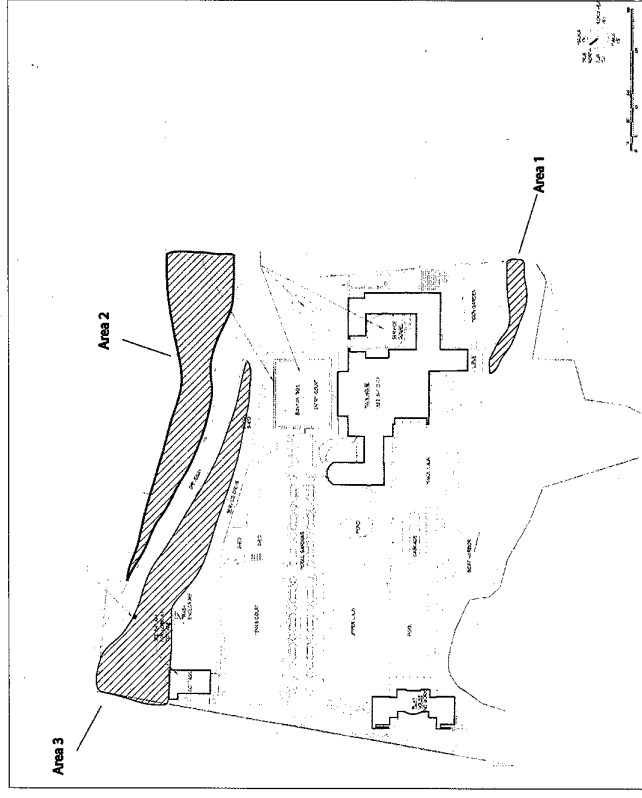


Figure 6. Shangri La property showing the three areas subjected to field inspection



Figure 7. Unmodified cliff at shoreline (Area 1)



Figure 8. Heavily-vegetated basalt boulder cliff below northeast boundary of property (Area 2)



Figure 9. Terraced portion of slope below entrance driveway (Area 3)



Figure 10. Rock overhang partially enclosed by mortared concrete blocks in Area 3

The petroglyphs range from 10 to 25 centimeters in height. The petroglyphs portray human and animal figures. All are pre-historic or immediately post-contact in age, based on the style and subject matter. There were no obvious modern modifications or additions observed.

The basalt faces have been numbered one to five (Figure 11) and are described below:

Face 1 includes a single petroglyph comprising a four-legged animal with what appear to be horns (Figure 12). The exact outline of the figure is indistinct.

Face 2 comprises at least four human figures ranging in size from approximately twelve to twenty centimeters in height (Figures 13 - 15). These are fairly distinct and arranged in two pairs. The trunk of a young banyan tree is growing up against Face 2 (Figure 16).

Face 3 comprises at least four human figures ranging in size from approximately twelve to twenty centimeters in height (Figure 17). The two lower figures appear to be paired. The remaining two are single figures positioned higher up on the face.

Face 4 consists of two human figures, one positioned above the other (Figure 18). The upper one is faintly drawn. The lower one is smaller but more clearly defined.

Face 5 comprises five human figures (Figures 19). The upper three are in a horizontal line. Two smaller figures are below. On the left side is a faint portrayal that appears to be an upside down animal, possibly a goat. The figures range from approximately eight to twenty-five centimeters in height

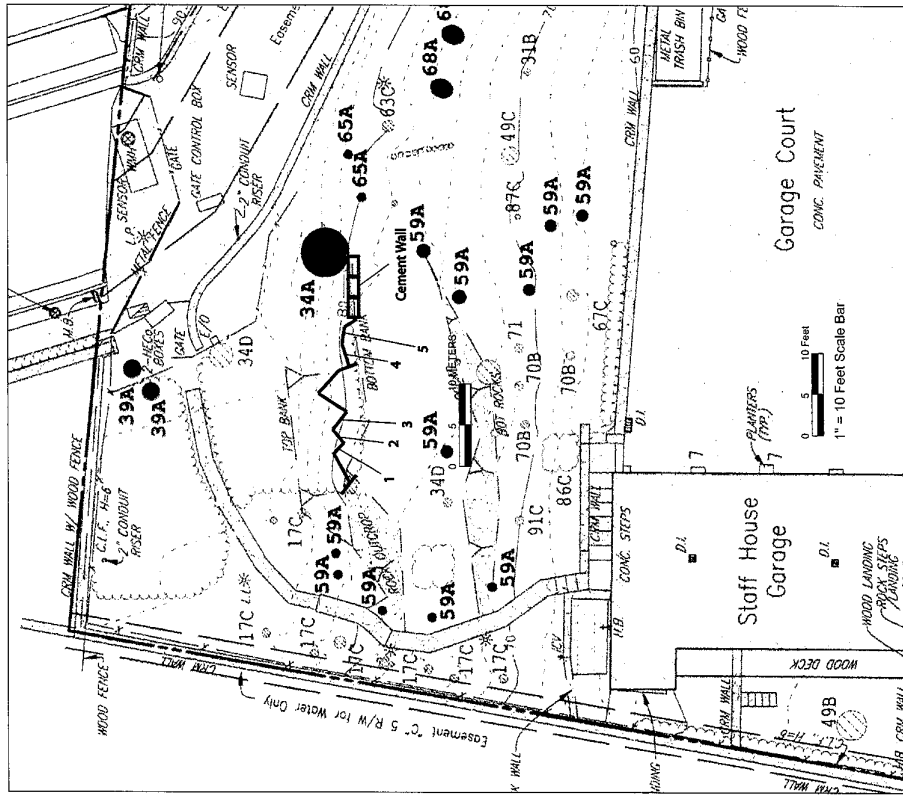


Figure 11. Portion of Shangri La ground map showing location of five basalt faces in Area 2



Figure 12. Indistinct four-legged animal on Face 1



Figure 14. Human figure in center of Face 2

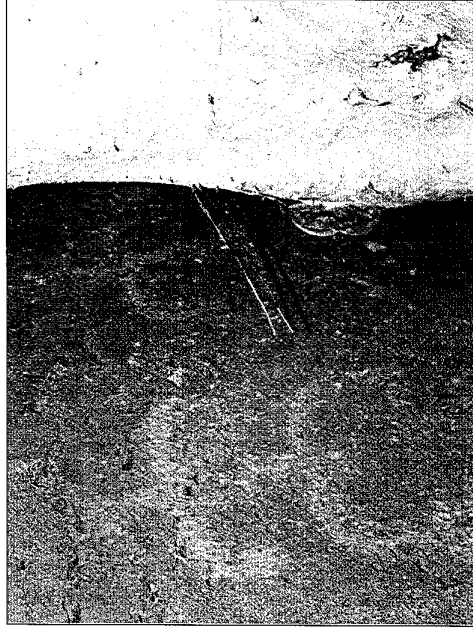


Figure 13. Two human figures at base of Face 2



Figure 15. Human figure at top of Face 2



Figure 16. Young banyan tree growing in front of Face 2



Figure 17. At least four human figures on Face 3



Figure 18. Two indistinct human figures on Face 4



Figure 19. Human figures and upside down animal figure (in lower left corner) on Face 5

V. SUMMARY AND RECOMMENDATIONS

It should be noted that this field inspection and literature review report will not meet the requirements of an inventory-level survey per the rules and regulations of the Department of Land and Natural Resources/State Historic Preservation Division. The report is limited to the inspection of unmodified portions of the Shangri La property for archaeological features and does not include the evaluation and documentation of historic buildings and structures on the property.

Historic documentation indicates that the Shangri La property had already been modified for landscaping and residential construction prior to the parcel's purchase by Doris Duke in 1936.

No formal archaeological investigation has been conducted within the property prior to the present field inspection.

The three portions of the property that were unmodified in modern times were inspected. The only archaeological finding of the field inspection was a series of petroglyphs observed in the northern portion of the property. We believe that these are traditional Hawaiian petroglyphs based on the style and motif.

It is recommended that these petroglyphs be preserved in place and that the surrounding area not be modified in any way that would be detrimental to the preservation of the petroglyphs. It is further recommended that maintenance staff be informed of the significance of the petroglyphs and of the necessity for their protection and upkeep.

Of immediate concern in the maintenance of the petroglyphs is the young banyan tree which is intruding into a face containing petroglyphs. If allowed to remain it will eventually eradicate the figures. This tree should be removed carefully by cutting at the base so as not to damage the rock face during the removal.

In addition, the hau growth that surrounds the upper portion of the cliff face should be periodically trimmed to prevent the branches from rubbing against the petroglyph surfaces.

It is recommended that the petroglyphs should be assigned a State Inventory of Historic Properties (SIHP) site number.

Finally, it is beyond the scope of this document to make State of Hawaii Register of Historic Places and National Register of Historic Places eligibility recommendations. However, it is likely that these petroglyphs would be eligible for inclusion on both registers. As an additional proactive preservation measure, the Doris Duke Foundation should consider having a National Register evaluation form completed and submitted for consideration by the State Historic Preservation Division.

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D. Drainage Report
Bills Engineering, Inc.

DRAINAGE REPORT

For

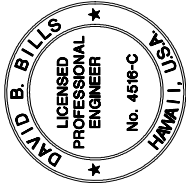
New Maintenance Building for

Doris Duke Foundation for Islamic

Honolulu, O'ahu, Hawai'i

TMK: (1)3-1-041: 005

April 17, 2009



THIS WORK WAS PREPARED
BY ME OR UNDER MY SUPERVISION.

David B. Bills

SIGNATURE
Expiration Date: 4-30-10

PREPARED BY

BILLS ENGINEERING INC.
Civil/Environmental Engineering
1124 Fort Street Mall - Suite 200
Honolulu, Hawai'i 96813-2715

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LIST OF FIGURES

- Figure 1 - Location Map
- Figure 2 - Existing Conditions Map
- Figure 3 - Utility Map
- Figure 4 - FIRM

APPENDIX

- A. City and County Design Plates for Rational Calculations

SECTION 1. INTRODUCTION

1.1 Project Description

The Doris Duke Foundation for Islamic Art (DDFIA) proposes to construct a maintenance building for the Shangri La estate to replace existing substandard maintenance facilities and consolidate maintenance and landscaping functions. The proposed building is planned as a two-story, concrete and wood structure of approximately 1,375 square feet (SF). The building will be located in the same location as the existing shed currently used for landscaping functions on the central northwest side of the Shangri La property, adjacent to the service driveway and on-site nursery. The new building will provide a centralized buffered location for maintenance and landscaping functions to support the DDFIA's continued promotion of the study and understanding of Islamic art and culture. The proposed new maintenance building is intended to be used by landscape and building maintenance staff, approximately eight employees, and will ensure long term care and maintenance of the property.

Throughout the construction of this building, there is several other separate projects schedule on site. These projects include:

- Maintain/improve landscape features, including boundaries
- Repair existing walkway (at shoreline)
- Repair and maintain accessible path
- Repair/improve pond drainage
- Repair of the entry gate/security system/driveway
- Repair existing marble at pool deck

1.2 Purpose

The purpose of this report is to evaluate the impact that the proposed improvements will have on the drainage system.

1.3 Property Location

The subject property, Shangri La, is located on the south shore of the island of O'ahu, Hawai'i, in the Kapaehulu 'ili, Waikiki Ahupua'a, Kona District. The property is southeast of Diamond Head crater along the southwest side of the promontory of Black Point and the residential neighborhood of Kāhala. Shangri La is situated off the main thoroughfare of Kāhala Avenue which transverses nearby residential neighborhoods. Pāpū Circle runs slightly uphill and *makai* from Kāhala Avenue (called Diamond Head Road further east) for approximately 0.1 miles before terminating at the front gate of the property. The property is bounded by residential housing lots on all sides but the south, which fronts the Pacific Ocean. The Project Area, approximately 725 SF of the 4.297-acre parcel (TMK: (1)3-1-041: 005), is situated on the northern half of the property approximately 350 feet *mauka* from the southern O'ahu coastline.

SECTION 2. EXISTING CONDITIONS

2.1 Existing Drainage System and Structures, Uses and Easements

Runoff generally sheet flows across the site. There are five onsite drainage systems in place which discharge to the ocean. The drainage systems consist of a series of inlets and 8-inch and 12-inch pipes. These are shown on Figure 3 - Site Utility Plan.

The ground cover is mixed with hardscape and softscape allowing some of the runoff to percolate into the ground.

In the area of the maintenance building, runoff flows along the ground and enters a catch basin just before the Moghul Garden.

2.2 Flood Insurance Rate Map

The project site is located in an area designated as Zone X and Zone AE on the Flood Insurance Rate Map (Map No. 15003C0370F, effective September 30, 2004), where flood hazards are determined to be outside the 0.2% annual chance floodplain and base flood elevations are determined, respectively. (See Figure 4 - FIRM.)

The proposed Maintenance Building will be constructed in the area designated as Zone X.

SECTION 3. DESIGN ANALYSIS

3.1 Rational Method

The Rational Method was used to compute runoff for existing conditions (Reference Department of Planning & Permitting, City & County of Honolulu Rules Relating to Storm Drainage Standards dated January 2000). The development of the rational method calculations is shown below:

Q = CIA where,

Q = cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = acres (4.297 acres)

3.1.1 Runoff Coefficient

Existing and Proposed Conditions (Table 1), page 22 (See Appendix A)
Residential Areas C = 0.55 to 0.70
Use C = 0.55

3.1.2 Time of Concentration:

Existing and Proposed Conditions (Plate 3), page 25 (See Appendix A)
240 feet @ 8% (Average grass surface) Tc = 14.0 min.

3.1.3 Rainfall Intensity

1-Hour Rainfall Intensity, I (Plates 1 & 2), pp. 23 & 24 (See Appendix A)
I₁₀ = 2.0 inches/hour for Tm₁₀

3.1.4 Correction Factor

Existing Conditions & Proposed (Plate 4), p. 25 (See Appendix A)
Using Tc = 14.0 min., CF = 2.0

Q = CIA

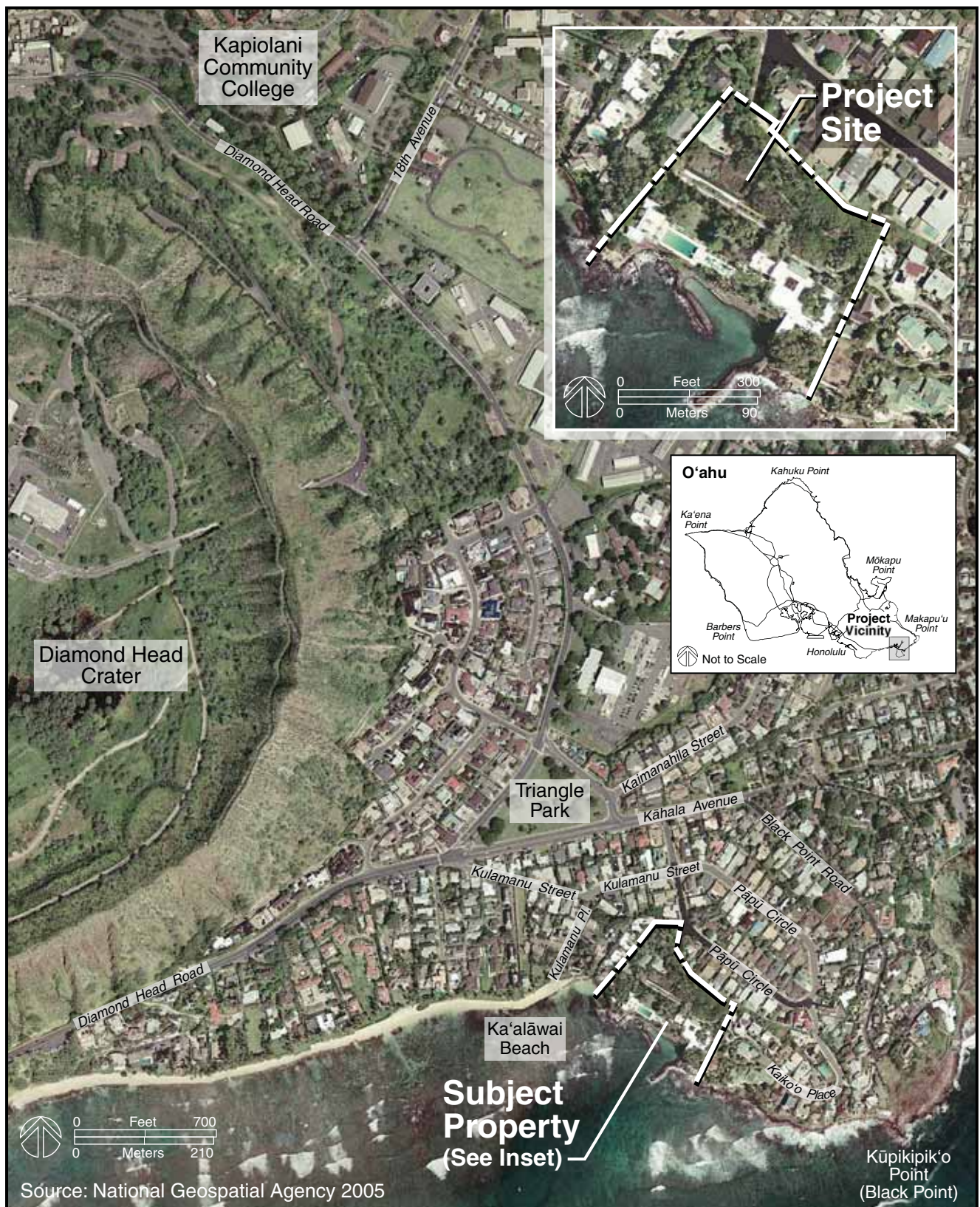
Existing & Proposed Conditions:

$$Q_{10}/A = 0.55 \times 2.0 \times 2 \times 4.297 = 9.45 \text{ cfs}$$

*For drainage areas of 100 acres or less, Tm (recurrence interval = 10 years, unless otherwise specified.

SECTION 4. SUMMARY & CONCLUSIONS

1. Since the proposed Maintenance Building will result in the same impervious surface and will not result in grade changes that alter the drainage pattern, the runoff for the existing and proposed conditions will be the same.
2. Assuming the existing drainage system is sufficient to handle the existing runoff, the existing drainage system downstream of the proposed Maintenance Building will not need to be upgraded.
3. During construction of the proposed Maintenance Building, all affected inlets will be provided with inlet protection to prevent runoff from entering into the drainage system.



LOCATION MAP

New Maintenance Facility for Doris Duke Foundation for Islamic Art
at Shangri La

Figure 1

SITE KEYNOTES:

- ① REPAIR EXISTING ENTRY GATE AND SECURITY SYSTEM
- ② REPAIR EXISTING CONCRETE DRIVEWAY
- ③ REPAIR AND MAINTAIN EXISTING LANDSCAPE SCREEN AT BOUNDARY
- ④ REPAIR AND MAINTAIN EXISTING LANDSCAPE FEATURES PER CULTURAL LANDSCAPE PLAN
- ⑤ REPAIR EXISTING SHORELINE
- ⑥ REPAIR EXISTING MARBLE POOL DECK
- ⑦ REPAIR EXISTING FRESHWATER POND DRAINAGE SYSTEM; INSTALL RECIRCULATING FILTERS
- ⑧ INTERIOR IMPROVEMENTS: ACOUSTICAL INSULATION AT BASEMENT PUMP ROOM; ENVIRONMENTAL CONTROL IN LADIES ROOM
- ⑨ INTERIOR IMPROVEMENTS: REPAIR FINISHES; SECURITY SYSTEM; MECHANICAL AND ELECTRICAL SYSTEMS
- ⑩ REPAIR AND MAINTAIN ACCESSIBLE PATH
- ⑪ REPAIR AND MAINTAIN SOLAR WATER HEATER SYSTEM
- ⑫ REPLACE EXISTING MAINTENANCE FACILITY

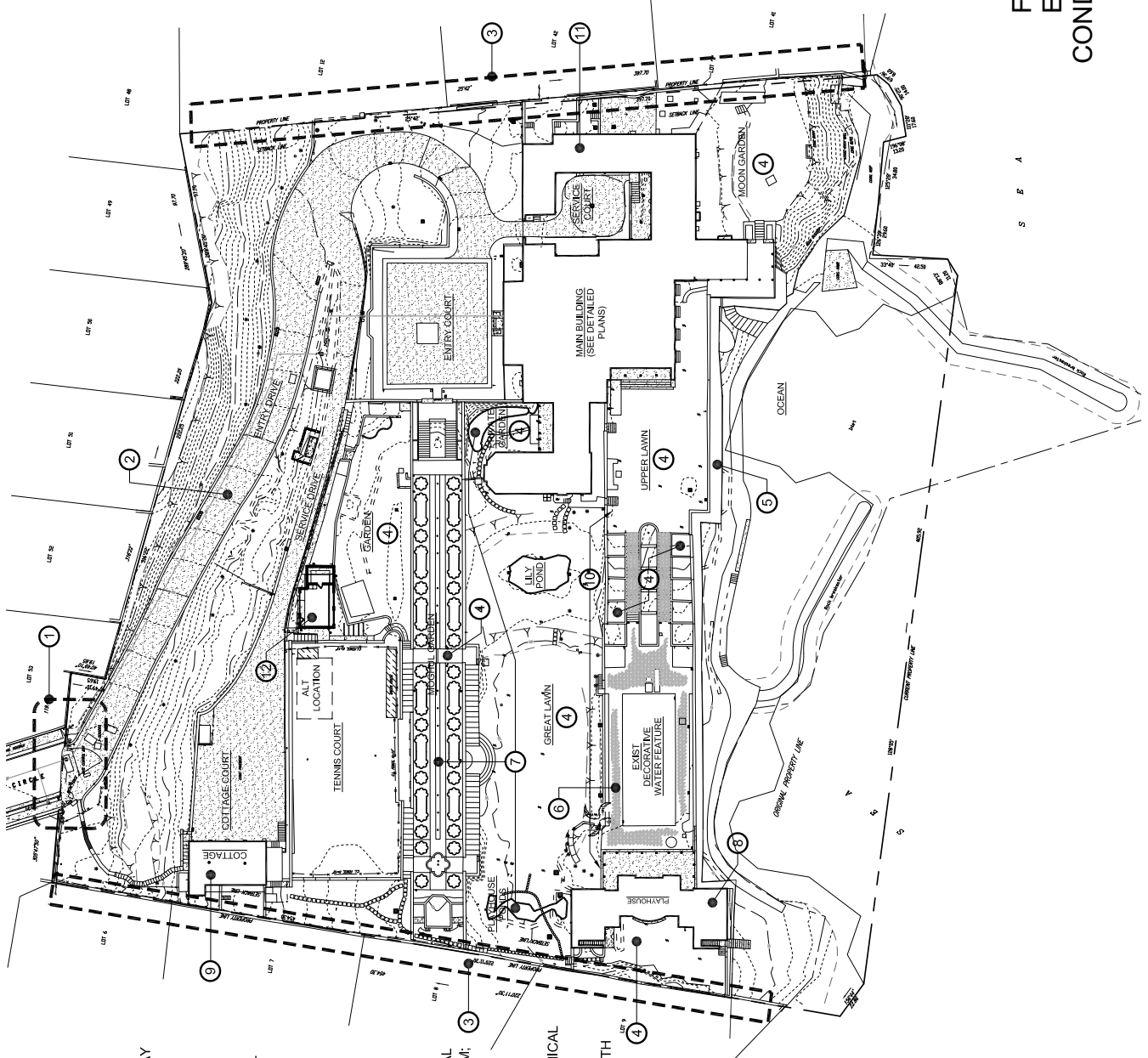


FIGURE 2
EXISTING
CONDITONS MAP



Mason Architects
119 Merchant Street, Suite 501
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Voice: 808.538-0556
Fax: 808.526-0577
www.masonarch.com

ARCHITECTURE
RESTORATION
RENOVATION
RESEARCH

- AS WATERLINE
- WATER SUPPLY
- IRRIGATION SUPPLY
- ELEC CONDUIT
- OPEN JT CONC RIP
- STORM WATER DRAINS
- SALT WATER SUPPLY
- CABLE TRAY

PROGRESS SET

Not for Construction

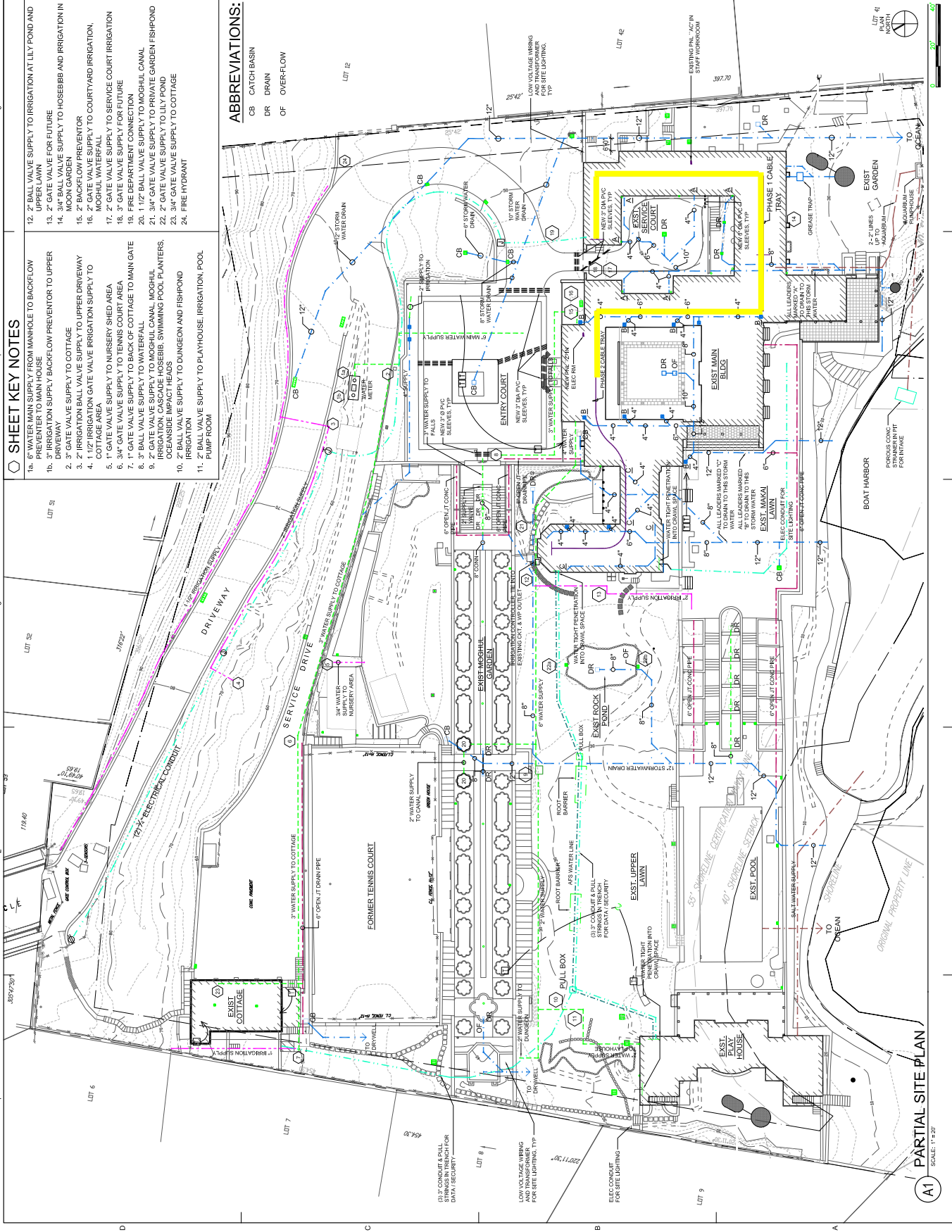
PROJECT

Renovations to:
Shangri La Phase 5

4055 Papu Circle
Honolulu, Hawaii 96816
(1) 3-1-041:005

MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	0442	
CAD DWG FILE:	C-Shipplan.dwg	
PLOTTED:	Feb 15, 2006 - 4:41PM	
DRAWN BY:	BS	
CHECKED BY:	BS, EC	
	CHECKED BY?	

FIGURE 3
UTILITY MAP



SHEET KEY NOTES

1. 6" WATER MAIN SUPPLY FROM MAINHOLE TO BACKFLOW PREVENTOR TO MAIN HOUSE
2. 3" GATE VALVE SUPPLY TO COTTAGE
3. 2" IRRIGATION GATE VALVE SUPPLY TO UPPER DRIVEWAY
4. 1 1/2" IRRIGATION GATE VALVE SUPPLY TO UPPER DRIVEWAY
5. 1 1/2" IRRIGATION GATE VALVE SUPPLY TO UPPER DRIVEWAY
6. 3/4" GATE VALVE SUPPLY TO TENNIS COURT AREA
7. 1" GATE VALVE SUPPLY TO BACK OF COTTAGE TO MAIN GATE
8. 3" BALL VALVE SUPPLY TO WATERFALL
9. 2" GATE VALVE SUPPLY TO MOGHUL CANAL, MOGHUL IRRIGATION, CASCADE HOSEBIB, SWIMMING POOL PLANTERS, OCEANSIDE IMPACT HEADS
10. 2" BALL VALVE SUPPLY TO DUNGEON AND FISHPOND IRRIGATION
11. 2" BALL VALVE SUPPLY TO PLAYHOUSE, IRRIGATION, POOL PUMP ROOM
12. 2" BALL VALVE SUPPLY TO IRRIGATION AT LILY POND AND UPPER LAWN
13. 2" GATE VALVE FOR FUTURE
14. 3/4" BALL VALVE SUPPLY TO HOSEBIBS AND IRRIGATION IN MOON GARDEN
15. 2" BACKFLOW PREVENTOR
16. 2" GATE VALVE SUPPLY TO COURTYARD IRRIGATION, MOGHUL WATERFALL
17. 2" GATE VALVE SUPPLY TO SERVICE COURT IRRIGATION
18. 2" GATE VALVE SUPPLY TO SERVICE COURT IRRIGATION
19. 2" GATE VALVE SUPPLY FOR FUTURE
20. 1 1/2" BALL VALVE SUPPLY TO MOGHUL CANAL
21. 3/4" GATE VALVE SUPPLY TO PRIVATE GARDEN FISHPOND
22. 2" GATE VALVE SUPPLY TO LILY POND
23. 3/4" GATE VALVE SUPPLY TO COTTAGE
24. FIRE HYDRANT

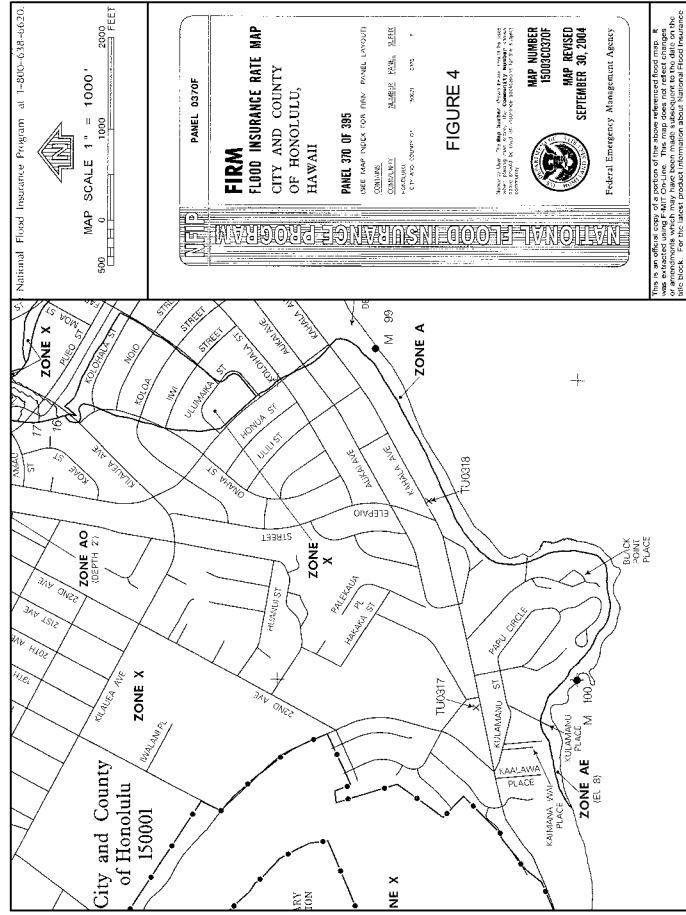
ABBREVIATIONS:

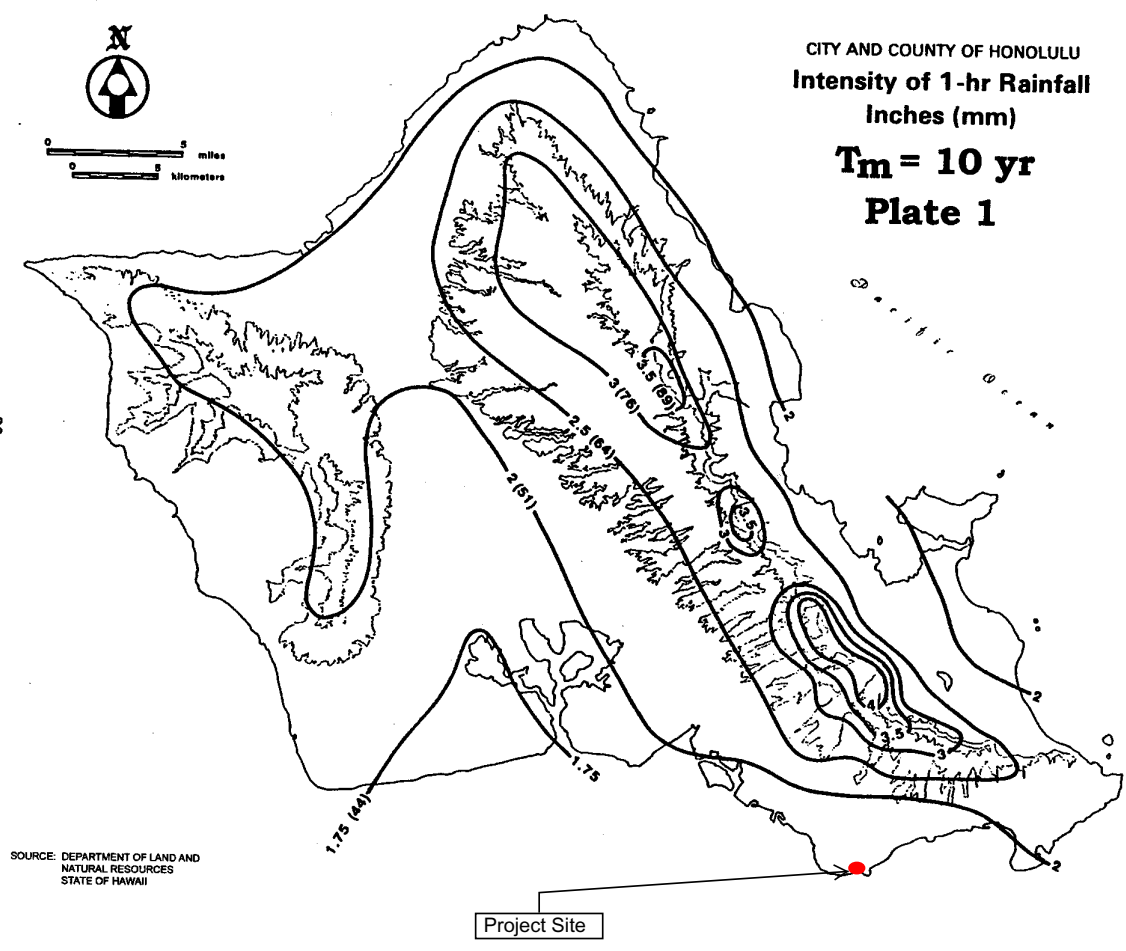
- CB CATCH BASIN
- DR DRAIN
- OF OVER-FLOW

A1 PARTIAL SITE PLAN
SCALE: 1" = 20'

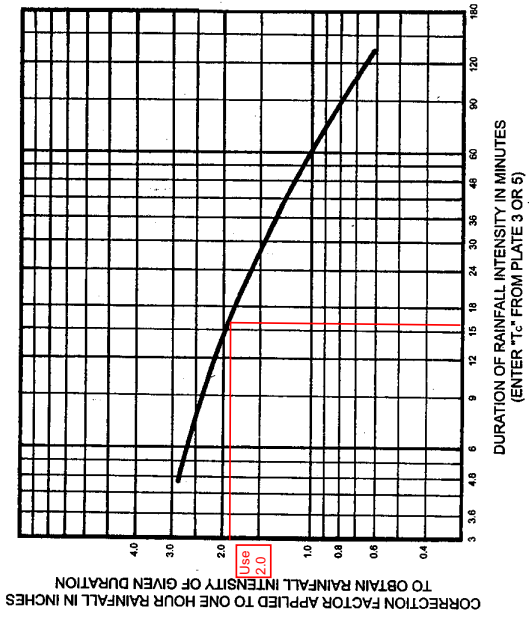
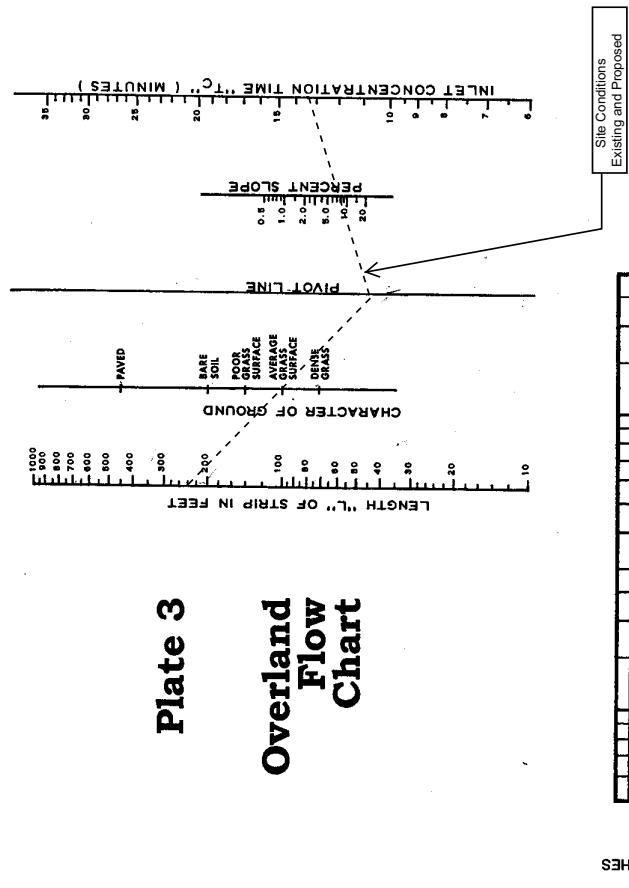
APPENDIX A

City and County Design Plates For Rational Calculations





23



25

E. Pre-Assessment Consultation Correspondence

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET - HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 • INTERNET: www.honolulu.gov



MUJI HARVEY
MAYOR

OUR REFERENCE: BS-DK

March 10, 2009

Ms. Rachael Edinger, LEED AP, Planner
Helber Hastert & Fee Planners, Inc.
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Edinger:


This is in response to your letter of March 9, 2009, requesting comments on a Pre-Consultation, Draft Environmental Assessment, for the New Maintenance Building for the Doris Duke Foundation for Islamic Art at Shangri La.

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

If there are any questions, please call Major Robert Green of District 7 at 529-3362 or Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

BOISSE P. CORREA
Chief of Police

By 
DEBORA A. TANDALL
Assistant Chief of Police
Support Services Bureau

Serving and Protecting With Aloha

Helber Hastert & Fee
Planners, Inc.

April 22, 2009

Boisse P. Correa
Chief of Police
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, HI 96813

Dear Chief Correa:

**New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, O'ahu, Hawaii
TMK (1) 3-1-041:005**

Thank you for your letter dated March 10, 2009 on the Draft Environmental Assessment (EA) Pre-Assessment Consultation for the above-referenced project. We note your response that this project should have no significant impact on the facilities or operations of the Honolulu Police Department.

We appreciate your participation in this review process. Your letter and this response will be appended to the Draft EA.

Sincerely,

HELBERT HASTERT & FEE, Planners



Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction

Pacific Guardian Center • 733 Bishop Street, Suite 2590 • Honolulu, Hawaii 96813
Tel. 808.545.2055 • Fax 808.545.2050 • www.hhf.com • e-mail: info@hhf.com

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843



March 16, 2009

Ms. Rachael Edinger, LEED AP
Planner
Helber Hastert & Fee Planners, Inc.
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Edinger:

Subject: Your Letter Dated March 9, 2009 on the Draft Environmental Assessment
Pre-Assessment Consultation for the Proposed Maintenance Building,
TMK: 3-1-041:005

Thank you for your letter on the proposed maintenance building for the Doris Duke
Foundation for Islamic Art at Shangri La.

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

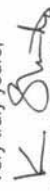
When water is made available, the applicant will be required to pay our Water System
Facilities Charges for resource development, transmission and daily storage.

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

The proposed development is subject to Board of Water Supply cross-connection control
and backflow prevention requirements prior to issuance of the Building Permit.

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,



KEITH S. SHIDA
Program Administrator
Customer Care Division

Helber Hastert & Fee
Planners, Inc.

April 22, 2009

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

Dear Mr. Shida:

**New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La**
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, O'ahu, Hawaii
TMK (1) 3-1-041:005

Thank you for your letter dated March 16, 2009 providing comments on the Draft
Environmental Assessment (EA) Pre-Assessment Consultation for the above-
referenced project. For your ease of reference, we have included your
comments in the order they appear in your letter, followed by our response:

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

Response: We note that the existing water system is presently adequate
to accommodate the proposed development, that this information is based
on current data, and that the final decision on the availability of water will
be confirmed when the building permit application is submitted for
approval.

2. When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.
Response: We note that the applicant will be required to pay the Board of Water Supply (BWS) Water System Facilities Charge for resource development, transmission, and daily storage.
3. The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.
Response: The on-site fire protection requirements will be coordinated with the Honolulu Fire Department.
4. The proposed development is subject to Board of Water Supply cross-connection control and backflow prevention requirements prior to issuance of the Building Permit.
Response: We note that the project is subject to BWS cross-connection control and backflow prevention requirements prior to issuance of a building permit.

We appreciate your participation in this review process. Your letter and this response will be appended to the Draft EA.

Sincerely,

HELBERT HASTERT & FEE, Planners



Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction

March 17, 2009

Ms. Deborah Pope
Executive Director
Doris Duke Foundation for Islamic Art
4055 Papa Circle
Honolulu, HI 96816

Dear Ms. Pope:

Thank you for the open house in February and the letter you sent us last week. Although I am providing you a few comments, they are not that pertinent to the EA element of the SMA. They are more relevant to Shangri-La as our neighbor. You can provide a copy of this letter to your consultant, but my comments apply more broadly to the larger scope of work being undertaken over a five to seven year period.

Because of the adjacency of our home to your entry gate, we have a set of considerations that few, if any, of our neighbors would have. It should be noted that you have worked to be a good neighbor. Among other things, you have periodically trimmed your trees to permit us to maintain our view to the ocean, a very important thing to us. From my observations, you have been scrupulous in ensuring that four visitors arrive in a van as outlined in the CUP. Your employees are considerate and do a good job of minimizing noise impacts as they enter and leave Shangri-La. Compliance with the on-site parking requirement of the CUP for employees/service providers is not as scrupulous. Overall, in our nearly five years of residency, the relationship with you has been a good one.

As you proceed with the work ahead, I hope you give favorable consideration to these matters:

- 1) On site parking for contractors/service providers
- 2) Entry gate noise and light abatement best practices
- 3) Dust and noise abatement best practices for all on-site work

My guess is you are already planning to undertake the extensive repair and renovation work in the most sensitive manner possible.

There should be a new resident at Papu Circle within the month. Be on the lookout for a big balloon tied to our gate with the words "It's A Girl!" In the meantime, thank you for your consideration in reviewing this letter.

Sincerely,

Allen Doane

Allen Doane

AB

W. ALLEN DOANE

Deborah:

One minor request. Could you have a shield placed on the side of the entry flood light which faces our property? I understand the need for a flood light but it now shines directly into our home, unshielded. Thanks,

Allen

April 22, 2009

W. Allen Doane
822 Bishop Street
Honolulu, HI 96813-3924



Dear Mr. Doane:

**New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, O'ahu, Hawaii
TMK (1) 3-1-041:005**

Thank you for your letter dated March 17, 2009 providing comments on the Draft Environmental Assessment (EA) Pre-Assessment Consultation for the above-referenced project. For your ease of reference, we have included your comments in the order they appear in your letter, followed by our response:

1. Because of the adjacency of our home to your entry gate, we have a set of considerations that few, if any, of our neighbors would have. It should be noted that you have worked to be a good neighbor. Among other things, you have periodically trimmed your trees to permit us to maintain our view to the ocean, a very important thing to us. From my observations, you have been scrupulous in ensuring that four visitors arrive in a van as outlined in the CUP. Your employees are considerate and do a good job of minimizing noise impacts as they enter and leave Shangri-La. Compliance with the on-site parking requirement of the CUP for employees/service providers is not as scrupulous. Overall, in our nearly five years of residency, the relationship with you has been a good one.

Response: We note that you have observed several ways in which Shangri-La has worked to be a good neighbor, and that compliance with the requirements of the on-site parking per the Conditional Use Permit (CUP) is less favorable. Regarding your comment that compliance with the on-site parking requirement of the Conditional Use Permit, we would like you to know that on November 30, 2008, the Department of Planning and Permitting made a modification to Condition 3 of the original CUP to allow limited street parking by security as follows: "Except for staff and other groups or individuals servicing the property, visitors shall arrive by 25-passenger vans that will park on-site in conformance with the approved

Mr. W. Allen Doane
New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
April 22, 2009
Page 2

parking-site plan. Limited on-street parking for security personnel is permitted. Any change in this practice will require the prior review and written approval of the DPP." Additionally, during construction, contractors will be required to carpool and their contract will clearly state that there is no parking in the neighborhood.

2. As you proceed with the work ahead, I hope you give favorable consideration to these matters:

- a. On site parking for contractors/service providers

Response: Construction traffic will be minimal as carpooling by construction workers will be mandatory. It is anticipated that an average of six additional workers is expected to be onsite during construction.

- b. Entry gate noise and light abatement best practices

Response: For the future Repair and Maintenance projects to the entry gate, project construction activities will comply with Hawai'i Administrative Rules (HAR), Chapter 11-46 "Community Noise Control" as administered by the State Department of Health (DOH). Best Practices for light abatement will also be followed.

- c. Dust and noise abatement best practices for all on-site work

Response: Best practices for both dust and noise abatement will be followed for the project. The Proposed Action is not expected to significantly impact air quality. The Proposed Action will not include any ongoing air polluting activities (i.e., industrial uses) or introduce any new major air pollution sources. The Proposed Action will not involve demolition or renovation activities that could involve the release of asbestos. The short-term air quality impacts will be minor and of short duration. All construction activities will comply with the provisions of HAR, §11-60.1-33 (Fugitive Dust). Additionally, project construction activities will comply with HAR, Chapter 11-46 "Community Noise Control" as administered by the State DOH.

Mr. W. Allen Doane
New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
April 22, 2009
Page 3

3. Could you have a shield placed on the side of the entry floodlight which faces our property? I understand the need for a flood light but it now shines directly into our home, unshielded.

Response: A floodlight light shield has been installed as of March 30, 2009, and acknowledged per your Thank You note dated April 3, 2009.

We appreciate your participation in this review process. Your letter and this response will be appended to the Draft EA.

Sincerely,

HELBERT HASTERT & FEE, Planners



Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809



April 2, 2009

Helbert, Hastert & Fee Planners
733 Bishop Street Suite 2590
Honolulu, Hawaii 96813

Attention: Ms. Rachael Edinger

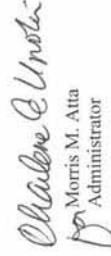
Ladies and Gentlemen:

Subject: Pre-Assessment Consultation on Environmental Assessment for New
Maintenance Building for Doris Duke Foundation

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

Other than the comments from Division of Aquatic Resources, Engineering Division, Land Division-Oahu District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,



Morris M. Atta
Administrator



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 12, 2009

MEMORANDUM

TO: DLNR Agencies:
x Div. of Aquatic Resources
x Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
x Div. of State Parks
x Commission on Water Resource Management
x Office of Conservation & Coastal Lands
x Land Division - Oahu District

FROM: Morris M. Atta
SUBJECT: Pre-assessment consultation on environmental assessment for new maintenance building for Doris Duke Foundation
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-41:5
APPLICANT: Helber Hastert & Fee Planners, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 1, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- () We have no objections.
() We have no comments.
(X) Comments are attached.

Signed: *Capitola*
Date: *3/26/09*

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/MorrisM. Atta
Ref.: PreAssessConsultationEADorisDukeFoundation
Oahu.671

COMMENTS

- () We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X.
- (X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X.
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is X.
- () Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.
- Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:
- () Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
- () Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emiler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
- () Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
- () Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

- () The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.
- () The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
- ()

() Other:

Should you have any questions, please call Ms. Suzie S. Agraam of the Planning Branch at 587-0258.

Signed: *Capitola*
ERIC T. HIRANO, CHIEF ENGINEER

Date: *3/26/09*

Helber Hastert & Fee
Planners, Inc.

April 22, 2009

Eric T. Hirano
Chief Engineer
DLNR, Engineering Division
PO Box 621
Honolulu, HI 96809

Dear Mr. Hirano:

**New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, O'ahu, Hawai'i
TMK (1) 3-1-041:005**

Thank you for your letter dated March 26, 2009
(PreAssessConsultation) Doris Duke Foundation O'ahu (671) providing
comments on the Draft Environmental Assessment (EA) Pre-Assessment
Consultation for the above-referenced project. We note you confirm the project
site is located in the Flood Insurance Rate Map Zone X, and the Flood Insurance
Program does not have any regulations for developments within Zone X.

We appreciate your participation in this review process. Your letter and this
response will be appended to the Draft EA.

Sincerely,

HELBERT HASTERT & FEE, Planners

Scott Ezer

Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction



LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 12, 2009

MEMORANDUM

TO:

- DLNR Agencies:**
☒ Div. of Aquatic Resources
☒ Div. of Boating & Ocean Recreation
☒ Engineering Division
☐ Div. of Forestry & Wildlife
☐ Div. of State Parks
☐ Commission on Water Resource Management
☒ Office of Conservation & Coastal Lands
☒ Land Division—Oahu District

FROM: Morris M. Atta

SUBJECT: Pre-assessment consultation on environmental assessment for new maintenance
building for Doris Duke Foundation
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-41:5
APPLICANT: Helber Hastert & Fee Planners, Inc.

Transmitted for your review and comment on the above referenced document. We would
appreciate your comments on this document. Please submit any comments by April 1, 2009.

If no response is received by this date, we will assume your agency has no comments. If
you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- () We have no objections.
() We have no comments.
() Comments are attached.

Signed: *Adrian O'Neil*
Date: 3-20-09

RECEIVED
LAND DIVISION
MAR 23 P 3 06
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

AQUATIC RESOURCES: 2153

DIRECTOR	<input checked="" type="checkbox"/>
COM. FISH	<input checked="" type="checkbox"/>
AO RESERV	<input checked="" type="checkbox"/>
AO REC	<input checked="" type="checkbox"/>
PLANNER	<input checked="" type="checkbox"/>
STAFF SVCS	<input checked="" type="checkbox"/>
RECORDS	<input checked="" type="checkbox"/>
STATISTICS	<input checked="" type="checkbox"/>
APPROVED AID	<input checked="" type="checkbox"/>
EDUCATION	<input checked="" type="checkbox"/>
SECRETARY	<input checked="" type="checkbox"/>
OFFICE SVCS	<input checked="" type="checkbox"/>
TECH ASST	<input checked="" type="checkbox"/>
Reviews for	<input checked="" type="checkbox"/>
No. Copies	<input checked="" type="checkbox"/>
Copies for	<input checked="" type="checkbox"/>
Date Due	<input checked="" type="checkbox"/>

PM

LINDA JINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 130
HONOLULU, HAWAII 96813

LAURA H. THIELIN
CHAIRPERSON
HAWAIIAN LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT
RUSSELL Y. TSUBOI
FIRST DEPUTY
KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER
AQUATIC RESOURCES
MANAGEMENT
HAWAIIAN LAND AND NATURAL RESOURCES
COMMISSION
CONSERVATION AND RECREATION
PRIORITY AND WILDLIFE
HAWAIIAN LAND AND NATURAL RESOURCES
COMMISSION
KAWAIIAN LAND AND NATURAL RESOURCES
COMMISSION
STATE PARKS

March 19, 2009

MEMORANDUM

TO: Morris M. Atta, Administrator
Land Division

FROM: Dan Polhemus, Administrator
Division of Aquatic Resources

SUBJECT: Pre-assessment Consultation on Environmental Assessment for New
Maintenance Building for Doris Duke Foundation

LOCATION: Honolulu, Oahu, TMK: (1) 3-1-41:5

APPLICANT: Helber Hastert & Fee Planners, Inc.

General Comment:

The Division of Aquatic Resources (DAR) does not have objections to the proposed construction. DAR requests that sediment/siltation barriers be put in place to minimize the degradation of the marine habitat offshore of the proposed construction area.

Thank you for the opportunity to comment on this document.

Helber Hastert & Fee
Planners, Inc.

April 22, 2009

Dan Polhemus
Administrator
DLNR, Division of Aquatic Resources
PO Box 621
Honolulu, HI 96809

Dear Mr. Polhemus:

New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, O'ahu, Hawai'i
TMK (1) 3-1-041:005

Thank you for your letter dated March 19, 2009 providing comments on the Draft Environmental Assessment (EA) Pre-Assessment Consultation for the above-referenced project. We note you do not have any objections to the proposed construction, and that you request that sediment/siltation barriers be used to minimize offshore marine habitat degradation. The project will follow Best Management Practices, including placement of sediment barriers to minimize the destruction of offshore marine habitat. This will also be noted in the EA in Section 3.3, Surface Waters.

We appreciate your participation in this review process. Your letter and this response will be appended to the Draft EA.

Sincerely,

HELBER HASTERT & FEE, Planners

Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction

Pacific Guardian Center • 733 Bishop Street, Suite 2590 • Honolulu, Hawaii 96813
Tel. 808.545.2055 • Fax 808.545.2050 • www.hhf.com • e-mail: info@hhf.com



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 12, 2009

MEMORANDUM

DLNR Agencies:
☒ Div. of Aquatic Resources
☐ Div. of Boating & Ocean Recreation
☒ Engineering Division
☐ Div. of Forestry & Wildlife
☐ Div. of State Parks
☐ Commission on Water Resource Management
☒ Office of Conservation & Coastal Lands
☒ Land Division - Oahu District

From: *[Signature]*
To: *[Signature]*

SUBJECT: Pre-assessment consultation on environmental assessment for new maintenance building for Doris Duke Foundation
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-41:5
APPLICANT: Helber Hastert & Fee Planners, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 1, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

(X) We have no objections.
() We have no comments.
() Comments are attached.

Signed: *[Signature]*
Date: 3/13/09

Helber Hastert & Fee
Planners, Inc.

April 22, 2009

Morris Atta
Administrator
DLNR, Land Division
PO Box 621
Honolulu, HI 96809

Dear Mr. Atta:

New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, Oahu, Hawaii
TMK (1) 3-1-041:005

Thank you for your letter dated March 13, 2009 providing comments on the Draft Environmental Assessment (EA) Pre-Assessment Consultation for the above-referenced project. We note you do not have any objections to the proposed construction.

We appreciate your participation in this review process. Your letter and this response will be appended to the Draft EA.

Sincerely,

HELBERT HASTERT & FEE, Planners

[Signature]

Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction

HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

639 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd



MUFI HANNEWMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF
ALVIN K. TOMITA
DEPUTY FIRE CHIEF

April 8, 2009

Ms. Rachael Edinger, LEED AP
Planner
Helber Hastert & Fee Planners, Inc.
Pacific Guardian Center
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Edinger:

Subject: Draft Environmental Assessment Preassessment Consultation
New Maintenance Building for the Doris Duke Foundation for
Islamic Art at Shangri La
Honolulu, Oahu, Hawaii
Tax Map Key: 3-1-041: 005

In response to your letter dated March 9, 2009, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and has no objections to the project. The proposed project will not adversely impact the services provided by the HFD.

Should you have any questions, please contact Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151 or via e-mail at sbratakos@honolulu.gov.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/KT:bh

cc: Fray Heath, Heath Construction
Deborah Pope, Doris Duke Foundation for Islamic Art

Helber Hastert & Fee
Planners, Inc.

April 22, 2009

Kenneth G. Silva
Fire Chief
Honolulu Fire Department
City and County of Honolulu
636 South Street
Honolulu, HI 96813-5007

Dear Chief Silva:

New Maintenance Building for Doris Duke Foundation for
Islamic Art at Shangri La
Draft Environmental Assessment Pre-Assessment Consultation
Honolulu, O'ahu, Hawaii
TMK (1) 3-1-041:005

Thank you for your letter dated April 8, 2009 on the Draft Environmental Assessment (EA) Pre-Assessment Consultation for the above-referenced project. We note that you have no objections to the project and that the project will not adversely impact the services provided by the Honolulu Fire Department.

We appreciate your participation in this review process. Your letter and this response will be appended to the Draft EA.

Sincerely,

HELBER HASTERT & FEE, Planners

Scott Ezer
Principal

cc: Deborah Pope, Doris Duke Foundation for Islamic Art
Fray Heath, Heath Construction

