STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

180-Day Exp. Date: December 27, 2011

October 28, 2011

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

REGARDING:	Conservation District Use Application (CDUA) HA-3598 for the Establishment of the Kalakaua Marine Education Center
APPLICANT:	University of Hawaii-Hilo
LANDOWNER:	State of Hawaii
LOCATION:	Puako Beach Drive, Lalamilo, South Kohala, island of Hawaii
TMK:	(3) 6-6-002:045
AREA:	≈ 5-acres
SUBZONE:	General

BACKGROUND:

The University of Hawaii at Hilo (UHH) received approval from the Board of Land and Natural Resources (Board) for a 65-year direct lease of five acres of land adjacent to the existing Puako Boat Ramp on September 14, 1990 for the purpose of establishing a West Hawaii base for the Kalakaua Marine Education Center (KMEC). An extension request to establish the campus was later approved by the Board on April 8, 2004 provided that certain conditions were met in order to avoid lease termination. This would include subdivision of land (completed under CDUP HA-3532), and compliance with Chapter 343, (completed in 2009).

Another extension request was granted subject to planning and construction deadlines. UHH has completed master planning and preliminary design efforts. That is the subject of this application. The proposed Center will facilitate specialization in marine sciences.

DESCRIPTION OF AREA/CURRENT USE (Exhibit A, B & C)

Puako (*Sugarcane or Kou blossom*) exists on the southwest side of the island of Hawaii, Lalamilo ahupua'a along the coast of the South Kohala District. This early settled (900-1200 A.D) fishing village was known for its petroglyphs, springs, coconuts and invention of the squid lure.

The project is located near the coast and lies within the Urban and Conservation, General subzone State land use districts. The Conservation District is located on the mauka side of the parcel. To the north is Wailea Bay subdivision; to the southwest is the Puako Small Boat Ramp; to the south is Puako Beach Drive and to the west is vacant land. Off-shore, the reef fronting Puako Bay is one of the older and most pristine reefs in the main Hawaiian Island and is a popular study site for many marine researchers.

According to the applicant, the project site sits on a bluff ≈ 200-feet mauka from the shoreline with site elevations ranging from about 20-ft to 61-ft above MSL. Preliminary geo technical assessment of the site indicated that the site is covered by surface sandy silt soil derived from volcanic ash, and underlain by hard pahoehoe lava at relatively shallow depths ranging from about 3-5 feet or less.

The project site does not appear to be previously graded or landscaped, although the presence of firebreaks caused by heavy equipment has been observed. There are no existing structures and there are no utilities on the subject parcel. However services such as water, electrical, sanitation, police and fire protection are already available to serve the area. Access to the site is via Puako Beach Drive.

The majority of the site is covered with non-native vegetation and exposed rock. Vegetation consist primarily of alien species, including kiawe, buffel grass, and fountain grass. Shoreline vegetation located in the vicinity of the project site includes milo and kou. Terrestrial fauna is typical of the habitat and surrounding area that could include dogs, cats, mongoose, rats, mice and pigs.

No federal or State listed threatened, endangered or candidate flora or fauna species have been observed in the area. It is believed that no unique habitat resources important to native or protected flora or fauna are present.

An accepted Archaeological Assessment by the State Historic Preservation Division found no historic properties affected. A cultural impact assessment was conducted. No native Hawaiian cultural practices customarily and traditionally exercised for subsistence, cultural and religious purposes are known to occur on the project site. No historic properties or cultural materials were identified within the project site.

The Ala Kahakai National Historic Trail is located along the shoreline approximately 200-feet makai of the project site. The Trail is a continuous corridor of prehistoric and historic land routes that once connected settlements and cultural sites. In the vicinity of the site, the trail runs makai of the site parallel to the shoreline within an ≈200-ft wide

corridor. At its closest point, the shoreline trail passes to within 60-80-feet from the project site and can be accessed from the nearby boat ramp parking lot.

PROPOSED USE (Exhibit D, E & F)

UH-Hilo is proposing to construct a marine and research education center comprised of several buildings with a total floor area of approximately 52,000-ft² within the Conservation and Urban State land use districts that would include:

- An 14,600-ft² one-story Academic Building with classrooms, laboratories, administrative offices and related educational spaces;
- An 6,600-ft² Marine Support Facilities (boat building) to accommodate small boat repair, maintenance and storage activities, scuba tank filling/storage, and saltwater aquarium tanks;
- A 7,000-ft² Auditorium with a certified kitchen representative of a traditional Hale Halawai, for large group meetings that doubles as a dining hall;
- Housing accommodations consisting of a 19,000-ft², two-story dormitory for up to 50 students (25 two bed units), a 7,600-ft² faculty building for up to 12 faculty;
- A two bedroom caretaker's unit for continuous 24/7 on-site personnel; and
- Parking and circulation and related site and infrastructure improvements (landscaping, pathways, walls, etc.).

The applicant intends to design and construct the new campus to meet Leadership in Energy & Environmental Design (LEED) Silver Certification criteria that implements sustainable design elements including energy efficient buildings and technologies that promote resource conservation. The building and site will be a teaching tool with signage and an education program to teach occupants and visitors about the sustainability strategies that were incorporated into the design and construction of the facilities.

The project would involve cut and fill excavation in preparation for construction and drainage. Due to the collapsing nature of the surface soil, its high compressibility and poor workability, additional site preparation work for the building sites may include complete removal of any remaining surface soil down to the underlying basal. Grading extents shall be contained within the boundaries of the parcel.

Potable water will be generated on-site using a deep well pumping system and a Reverse Osmosis (RO) water treatment system that will consist of a brackish water source well and pump house, two 8,000-gallon steel water storage tanks with a chlorination system and the RO treatment building.

An existing 5/8 domestic water meter will be used as a backup in case the water purification system malfunctions. Fire protection water capacity and flow pressure is available and will be provided by an existing 12-inch water line running along Puako Beach Drive. Non-potable water will be used for landscaping irrigation, boat washing and restroom facility flushing. A rain water catchment system is intended to harvest the limited amount of rainwater to reduce demand on water resources. Storm water runoff

would be directed to on-site detention features as much as possible to reduce non-point source pollution from entering near shore waters.

An on-site wastewater treatment plant will treat effluent to Department of Health standards, as there is no public sewer system in the Puako area. The wastewater treatment plant will include an 8,000-gallon storage tank and a duplex pumping system. The use of potable and non-potable water requires applicable Department of Health and County of Hawaii permits.

Primary electrical power will be provided from the existing overhead lines located along Puako Beach Drive and run underground and loop fed to a new UHH-owned pad-mounted transformers located on site. Each building will have a sub-meter to monitor electrical power consumption. Emergency power for the academic building's laboratory spaces and critical equipment-including circulation pumps for the marine tanks is planned via a portable generator. Limited exterior lighting will be concentrated primarily around the building perimeters and the parking lot for safety purposes. Exterior lighting is designed to meet LEED requirements and to comply with Hawaii County regulations.

Landscaping will consist primarily of native Hawaiian dryland forest and mesic forest plantings consisting of drought-resistant species to re-naturalize the site and replace non-native vegetation. Invasive plants will be removed. A 30-ft. landscaped buffer along Puako Beach Drive will be maintained as a low canopy native dryland forest to soften the view of the buildings. Lava rock walls and landscape mounding will decorate both driveway entrances and unpaved areas around the auditorium. Milo, Koai'a, kou, hala, ohia lehua and wiliwili are proposed around parking areas, pathways and buildings.

The purpose of the development is to provide state of the art operational facilities for the University of Hawaii-Hilo Marine Science Program. Existing leased spaces at Hilo Harbor utilized for open-ocean and near shore field training for the Marine Program has been limited due to Homeland Security requirements and SCUBA field training is conducted on the west side where the coral reef environment is of high quality. However laboratory facilities and equipment are maintained at the UH-Hilo campus. The proposed action will consolidate and provide a field station, integrated academic and laboratory facilities in one location to support the Marine Science Program.

The campus is expected to be at full capacity during the summer months when the marine science program is in session. During the academic year, peak use would be on the weekends, with a lower level of use expected during the week. According to the applicant, UHH anticipates that meeting and classroom facilities may be available for community use during off-peak hours for continuing education courses, general community meetings and outreach programs facilitated by the marine science program.

The proposed use would result in a major change in the appearance of the site for motorists driving along Puako Beach Drive, boaters launching and retrieving small boats at the Boat Ramp and several coastal spots along adjacent shoreline areas. The Puako Community Association and the adjacent Wailea Property Owners Association have indicated their support for the establishment of the Marine Center.

Construction cost is projected to be $42 million with an anticipated two-year completion pending funding availability. Proposed funding may be through legislative appropriations, donations, public-private partnerships or other government grant programs. UHH is currently assessing design-build options. The development timetable for constriction is undetermined pending funding availability and permit approvals.

Mitigative Measures

The campus is proposed to be designed and constructed to meet LEED Silver Certification. Sustainable design elements include energy efficient buildings and technologies that promote resource conservation. The design will complement the dry coastal environment with buildings sited to fit into the natural contours of the site. All buildings are planned to be one-story with the exception of the two-story student dormitory building. Earth tone exterior paint colors and roofing materials that harmonize with the surrounding landscape and vegetation such as low-impact beige and sand hues will be utilized.

The new campus is projected to create 2.4 acres of impervious surfaces (including 1.1-acres of paved surfaces) however; the storm water runoff is not expected to increase significantly. Proposed storm drainage facilities (rooftop catchment, bio-retention garden, bio-swales, wastewater treatment plant) and gravel surface treatments around building foundations are intended to direct and retain runoff on-site with no net increase in runoff rates or volumes.

Dust and erosion control measures would be used during construction to minimize storm water runoff and erosion from the site. Construction activities would comply with applicable federal, state and county regulations and standards, and employ best management practices to minimize construction related impacts. Noise and air quality potential impacts will be mitigated through compliance with the Department of Health regulations. Engineered drainage facilities will provide better management of runoff.

In the unlikely event subsurface prehistoric deposits or human burials are inadvertently discovered during construction activities, such activities would be immediately suspended in the vicinity of the discovery and SHPD would be notified.

Alternatives

Action Alternative - an alternative to the proposal would be to downsize and include two elements of the proposed action: the marine support facilities and temporary student and faculty housing units or to use the site as a Field camp. Neither alternative would include the academic center. This would not allow KMEC to provide integrated field, laboratory and educational activities or provide opportunities for academic and community meetings or conferences.

No Action - no development would occur at the project site. UHH would continue to operate the KMEC ocean/in-field method instruction from leased warehouse and wharf space. Accommodations would be informal beach park camping. All laboratory work

and academic support would continue to be conducted at the main Hilo campus. The lease to UHH may be cancelled.

Neither of these alternatives would enhance the Marine Science program, would not provide outreach to the community and would not be compatible with the South Kohala Community Development Plan.

SUMMARY OF COMMENTS

The Office of Conservation and Coastal Lands referred this application to the following agencies for review and comment: the State-Department of Health; the Office of Hawaiian Affairs; the Office of Environmental Quality Control; the Department of Land and Natural Resources Divisions of: Aquatic Resources, Boating & Ocean Recreation, Conservation and Resource Enforcement, Engineering, Forestry & Wildlife, Historic Preservation and the Hawaii District Land Office; the County of Hawaii Departments of Planning; Public Works; Water Supply; and Fire. In addition, the CDUA was also sent to the Puako Community Association and the nearest public libraries: the Kailua-Kona Public Library and the Thelma Parker Public Library to make this information readily available to those who may wish to review it.

Comments were received by the following agencies and summarized by Staff as follows:

THE STATE

DEPARTMENT OF HEALTH

Clean Water Branch

We recommend that you read our standard comments on our website.

We offer these comments on your project:

- Any project and its potential impacts to State waters must meet applicable sections of HAR, §11-54;
- You may be required to obtain a NPDES permit for discharges of wastewater including storm water runoff, hydro-testing water, and construction dewatering effluent;
- All discharges related to the project construction or operation activities must comply with State's Water Quality Standards.

Applicant's response

There are no surface streams or surface water bodies on or adjacent to the site. As noted in the FEA, the applicant will obtain a NPDES Individual permit before any wastewater or storm water is discharged from the project site. The proposed campus will be designed, constructed and operated to comply with applicable water quality requirements.

OFFICE OF HAWAIIAN AFFAIRS

The combination of modern facilities and a prime location indicate the KMEC truly does have the potential to result in the establishment of a world-class marine science program that may contribute to addressing the challenges coral reef ecosystems are facing locally and globally. It is our hope that program participants, will gain an understanding that certain traditional Hawaiian genealogical accounts such as the Kumulipo describe the coral polyp as beginning life and the evolution of all plants, creatures and animals in our world. Coral reef ecosystems support resources which our communities continue to utilized today for subsistence and the perpetuation of traditional cultural practices. We see the potential benefit of the proposal and do not oppose its concept.

We appreciate that the applicant intends to construct the Center to meet the Silver LEED standards.

While we recognize that it is a non-native trees species, we suggest that consideration be afforded to the transplanting of any existing kiawe trees within the project area. Kiawe needs very little irrigation water to survive and provides valuable shade and a greenbelt from wildfires. Should Kiawe be removed, we suggest that community members be provided with the opportunity to harvest the trees for domestic use as dry kiawe is a valuable resource.

It is critical that wastewater from the proposed facility be treated in a manner to ensure it does not adversely impact the resources and environment the program intends to help. According to the FEA, this issue has been analyzed and will be addressed via a closed wastewater system to eliminate potential nutrient enrichment and pollution of near-shore marine waters.

Regarding the Ala Kahakai Trail, OHA concurs with the statement that the project setback from the trail will result in no direct adverse effects to the historic trail. It is essential that the architectural drawing concepts discussed in the application are employed to reduce any visual effects of the project on the Trail and the Puako and Wailea communities.

We support this project and concur with the FONSI and look forward to the issuance of the CDUP and the project completed.

Applicant's response
We appreciate OHA's support for the project and recognition of the design and construction goals to meet the LEED Silver standard.

Regarding transplanting existing Kiawe trees within the project area instead of removing them. Kiawe is a non-native species and it would be inconsistent with the projects landscape restoration objectives to restore the native dry land forest ecosystem. Kiawe typically does not transplant well, and is not usually considered for transplanting due to their low rate of survival. We concur that dry Kiawe is a valuable resource and that any

removed kiawe should be harvested for domestic use to prevent unnecessary disposal in the landfills.

The proposed on-site wastewater system will include the use of Membrane Biological Reactor technology and will meet the requirements of R-1 recycled water. The project area is within a Critical Wastewater Disposal Area and will require a permit from the State Department of Health Wastewater Branch. It is also expected that a certified Operator will be required to oversee operations.

We note your concurrence that there will be no direct adverse effects to the footprint of the Ala Kahakai Trail. The configuration of the 5-acre subdivided parcel was intentionally setback about 80-feet mauka of the trail to provide an ample 200- foot wide coastal trail corridor between the project site and the shoreline. The low-profile buildings, physical siting strategies and the use of earth tone exterior paint colors and roofing materials that harmonize with the surrounding landscape will further minimize visual impacts.

DEPARTMENT OF LAND AND NATURAL RESOURCES

Aquatic Resources (DAR)

No comments

Boating and Ocean Recreation (DOBOR)

No comments

Conservation and Resource Enforcement

No comments

Engineering

We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.

Applicant's response
We acknowledge the confirmation that the project site is located in Zone X according to the Flood Insurance Rate Map and that the National Flood Insurance Program does not have any regulations for developments within Zone X.

Division of Forestry and Wildlife (DOFAW)

Implement seabird friendly lighting measures, including use of full-cutoff shielded lights and turn lights off when not needed;

Reduce feral cats by sealing all garbage bins and prohibit cat feeding on site.

Project is developed around Ala Kahakai Historic Trail. No impacts are expected.

Applicant's response
Exterior lighting is being designed to comply with Hawaii County requirements for maximum lighting intensities. Exterior lighting would consist of downward-shielded light concentrated around buildings and parking areas to minimize light pollution and impacts to migratory birds and sea turtles.

The University agrees that feral animals can be a public hazard and nuisance, and supportive of measures to control feral animal populations. Specific policies and operating procedures that should include animal control policies will be identified at a future date.

The comment that the proposed project is developed around the Ala Kahakai trail is not entirely accurate or clear in its meaning. The trail runs parallel to the shoreline on the makai side of the project site boundaries and is physically separated from the project site by more than 60-feet. Site planning and design of the proposed campus carefully considered the alignment of the trail to ensure that the proposed use would not impact public access or use of the trail.

Hawaii District Land Office (HDLO)

No comments

COUNTY OF HAWAII

PLANNING DEPARTMENT

No comments

FIRE DEPARTMENT

Upon construction of the Kalakaua Marine Education Center, fire apparatus access roads shall be in accordance with the Uniform Fire Code (UFC) Section 10.207 and water supply shall be in accordance with UFC section 10.301(c).

Applicant's response
The facility will be designed to conform to applicable codes, including the Uniform Fire Code (UFC) Section 1-.207 for fire apparatus access roads and UFC section 10.301(c) for water supply.

DEPARTMENT OF PUBLIC WORKS (DPW)

The following comments were made for the Draft Environmental Assessment and are addressed in the Final Environmental Assessment to our satisfaction.

DRAINAGE

1. All development-generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties. A drainage study shall be prepared, and the recommended drainage system shall be constructed meeting with the approval of the DPW.

2. The applicant shall be informed that if they include drywells in the subject development, an Underground Injection Control (UIC) permit may be required from the State Department of Health.

ROADWAYS

1. Puako Beach Road, fronting the subject property is a County road. It has an ≈ 18-20 ft. wide pavement (in fair to good condition), with an inconsistent gravel and asphalt stabilized shoulder all within a 40-ft. right-of way. In the interests of pedestrian and bicyclist safety, the applicant should provide a 5-foot wide paved shoulder along the subject property frontage, meeting with the approval of the DPW. Streetlights, signs and markings shall be installed when required by and meeting with the approval of the DPW, Traffic Division.

2. Access to Puako Beach Road, including the provision of adequate sight distances, shall meet with the approval of the Department of Public Works. All driveway connections shall conform to chapter 22, Streets and Sidewalks, of the Hawaii County Code and County standard details R-37 and R-38. All sight distances shall meet the requirements of the Hawaii Statewide Uniform Design Manual and the AASHTO Standards.

Applicant's response
We note the Engineering Division's indicating:1) The need for on-site retention of development-generated runoff and preparation of a drainage study identifying a recommended drainage system to be approved by DPW; 2) Compliance with the State Department of Health Underground Injection Control Program; 3) Provision of a 5-foot paved shoulder and lighting/signage improvements as approved by DPW along the subject property frontage and 4) compliance with appropriate State and County standards for driveway connections and sight distances.

DEPARTMENT OF WATER SUPPLY

Our comments from past SMA and CDUA applications still stand:

Water can be made available from an existing 12-inch waterline within Puako Beach Road fronting the subject parcel. Water service will be subject to the following conditions:

- Remittance of service charges; and
- Installation of a backflow prevention assembly (reduced pressure type) by a licensed contractor on the private property within 5-feet of the meter. The installation of the backflow prevention assembly must be inspected and approved by DWS before water service can be activated.

Applicant's response
The applicant is aware of and will comply with the County's requirements and service changes for water service, including only one 5/8-inch meter with 600 gallons maximum daily usage, backflow prevention assembly installed and approved according to County standards and separate plumbing systems for the proposed desalination system and the County's potable water system.

ANALYSIS

After reviewing the application, by correspondence dated July 5, 2011, the Department has found that:

1. The proposed use is an identified land use in the General subzone of the Conservation District, pursuant to §13-5-22, Hawaii Administrative Rules (HAR), P-6 PUBLIC PURPOSE USES Land uses undertaken by the State of Hawaii to fulfill a mandated governmental function, activity, or service for public benefit and in accordance with public policy and the purpose of the conservation district. Please be advised, however, that this finding does not constitute approval of the proposal;

2. Pursuant to §13-5-40 of the HAR, a Public Hearing is required;

3. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, the Final Environmental Assessment has been reviewed and accepted by the University of Hawaii at Hilo. Notice was published in the March 23, 2009 issue of the Environmental Notice; and

4. Pertaining to the Special Management Area (SMA) requirements, the Leeward Planning Commission of the County of Hawaii approved SMA 11-000046 for the development of the Kalakaua Marine Education Center on May 19, 2011.

Notice of CDUA HA-3598 was published in the July 23, 2011 issue of the Environmental Notice.

A public hearing was held at 6 pm on August 31, 2011 at the Hokuloa Church located near the project site on Puako Beach Road. Approximately 20 individuals were in attendance. No one spoke in opposition to the project.

CONSERVATION CRITERIA

The following discussion evaluates the merits of the proposed land use by applying the criteria established in §13-5-30, HAR:

1) *The proposed use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.

The proposed use is to develop State land for a public research and education center in support of the University of Hawaii-Hilo's Marine Science programs that would include supporting research and educational activities in marine science; strengthening scientific awareness of coastal processes in West Hawaii; and prompting protection of marine and coastal resources.

2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.*

The objective of the General Subzone is to designate open space where specific conservation uses may not be defined, but where urban uses would be premature.

The proposed land use is an identified land use that lies not only within the Conservation District but within the Urban State land use district also. Mitigative actions to maintain open space include siting buildings into the lay of the land, keeping low building profiles, landscaping and native plant restoration. The project will incorporate LEED Silver Certification criteria that implements sustainable design elements including energy efficient buildings and technologies that promote resource conservation.

3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.*

Staff believes the proposed use is consistent with the objectives and policies of Chapter 205A, HRS. The facilities would not impact public **coastal recreational opportunities** or involve development along the shoreline. KMEC is setback 80-ft from the Ala Kahakai National Trail. Expected use of the existing boat ramp would be approximately 2 trips per day.

An archaeological assessment did not identify any **significant or cultural resources**. Views of building rooftops and facades may be seen from the bay, Wailea, Queen Kaahumanu Hwy., and Puako Drive. **Scenic resources** will be mitigated with landscaping, a low building profile, and use of subtle color tones.

No adverse impacts to **coastal ecosystems and surface water quality** are anticipated. Best Management practices shall be followed, the development would follow the existing drainage patterns and storm water runoff will be directed to on-site detention features as much as possible to reduce non point

source pollution that enters near shore waters. By providing training for careers and improving post-secondary education opportunities, the project contributes to the State's **economy** and contributes to a better understanding of **beach and marine resource protection**. As the Center is over 200-feet from the shoreline with site elevations 20-60 feet above sea level, the proposed action would not expose lives and property to **coastal hazards**.

Public participation has taken place during the Chapter 343, HRS process and the agency consultation. Four meetings (July 2008, January 2009, August 2009 & December 2010) with the Puako Community Association and a public hearing was held.

4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

The project site is vacant and undeveloped. It has been previously disturbed and is characterized by non-native vegetation and partially exposed rock. There are no known rare, threatened or endangered species or sensitive natural habitats within the project site. There are no surface streams or surface water bodies on or adjacent to the project site.

Construction shall implement best management practices and comply with applicable federal, state and county laws to protect the existing resources and surrounding community.

5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The site is adjacent to an existing urban area and surrounded by a mix of recreational and residential uses. There are existing services to the site. The location offers convenient access to the reefs and marine ecosystem.

6) *The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

The proposed structures would not adversely affect important view planes as appropriate siting and building design would maintain the overall visual quality of existing view planes.

The non-native savannah grasses and scrub vegetation would be replaced with appropriate native plants and landscapes.

7) *Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

No subdivision of land is proposed.

8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

Staff is of the opinion that the proposed use will not be materially detrimental to the public health, safety and welfare.

DISCUSSION

The University of Hawaii at Hilo received approval from the Board of Land and Natural Resources (Board) for a 65-year direct lease of five acres of land adjacent to the existing Puako Boat Ramp on September 14, 1990 for the purpose of establishing a West Hawaii base for the Kalakaua Marine Education Center (KMEC). The proposed Center will facilitate specialization in marine sciences.

With the proposed use, a modern campus setting would replace a vacant undeveloped landscape. The proposed structures are to be compatible with the low profile residential character of Puako consisting of one-two story structures sited within the topography of the site. Appropriate siting should maintain the overall visual quality of existing view planes and minimize visibility from Puako Beach Drive and adjacent public areas.

Approval would support marine education and research activities that would increase technical understanding of the marine and coastal ecosystems and promote conservation, stewardship and protection of marine and coastal resources within West Hawaii. Greater awareness and knowledge about the resources would most likely improve the quality of the marine communities and result in beneficial effects for those who use the resources for subsistence fishing and gathering.

Design strategies including a 30-ft landscape buffer along Puako Beach Drive, and the use of drought-resistant, native landscaping materials and color schemes and roofing materials that complement the physical qualities of the coastal setting are proposed to further minimize visual impacts.

Staff believes that the University of Hawaii Hilo shall be implementing a number of strategies, required mitigative actions and best management practices to reduce potential impacts and protect the resources of the area. Construction activities would comply with applicable federal, State and County regulations and standards, and employ best management practices to minimize construction related impacts. Noise and air quality potential impacts will be mitigated through compliance with the Department of Health regulations. Engineered drainage facilities will provide better management of runoff.

In the unlikely event subsurface prehistoric deposits or human burials are inadvertently discovered during construction, activities, such activities would be immediately suspended in the vicinity of the discovery and SHPD would be notified.

Construction cost is projected to be $42 million with an anticipated two-three year completion pending funding availability. Proposed funding may be through legislative appropriations, donations, public-private partnerships or other government grant programs. UHH is currently assessing design-build options. The development timetable for construction is undetermined pending funding availability and permit approvals. As such staff is recommending a 5-year project construction initiation and 10-year project completion.

RECOMMENDATION

Based on the preceding analysis, Staff recommends that the Board of Land and Natural Resources APPROVE CDUA HA-3598 for the establishment of the Kalakaua Marine Education Center located at Puako, Lalamilo, South Kohala, island of Hawaii, (3) 6-6-002:045 subject to the following conditions:

1. The applicant shall comply with all applicable statutes, ordinances, rules, regulations, and conditions of the Federal, State, and County governments, and applicable parts of the Hawaii Administrative Rules, Chapter 13-5;

2. All representations relative to mitigation set forth in the application materials and in the accepted environmental assessment for this project are hereby incorporated as conditions of the permit;

3. Before proceeding with any work authorized by the Board, the applicant shall submit four (4) copies of the construction, grading and landscaping plans and specifications to the Chairperson or his authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three (3) of the copies will be returned to the applicant. Plan approval by the Chairperson does not constitute approval required from other agencies;

4. Any work done or construction to be done on the land shall be initiated within 5 years of the approval of such use, in accordance with construction plans that have been signed by the Chairperson, and, unless otherwise authorized, shall be completed within 10 years of the approval. The applicant shall notify the Department in writing when construction activity is initiated and when it is completed;

5. The applicant shall comply with all applicable Department of Health Administrative rules. Particular attention should be paid to Hawaii Administrative Rules (HAR) Section 11-60.1-33, "Fugitive Dust" and to Chapter 11-46, "Community Noise Control;"

6. The applicant shall plan to minimize the amount of dust generating materials and activities. Material transfer points and on-site vehicular traffic routes shall be centralized. Dusty equipment shall be located in areas of least impact. Dust control measures shall be provided during weekends, after hours and prior to daily

start-up of project activities. Dust from debris being hauled away from the project site shall be controlled. Landscaping and dust control of cleared areas will be initiated promptly;

7. Obstruction of public roads, trails, and pathways shall be minimized. If obstruction is unavoidable, the applicant shall provide alternative roads, trails, or pathways acceptable to the department;

8. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;

9. Cleared areas shall be revegetated within thirty (30) days of construction completion in compliance with an approved landscaping plan on file with the department;

10. Artificial light from exterior lighting fixtures, including but not limited to floodlights, up lights, or spotlights used for decorative or aesthetic purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;

11. The applicant will minimize visual impacts using appropriate lighting, color and landscaping.

12. Provisions for access, parking, drainage, fire protection, safety, signs, lighting, and changes on the landscape shall be provided;

13. The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;

14. In issuing this permit, the Department has relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;

15. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact SHPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;

16. The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;

17. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take the measures to minimize or eliminate the interference, nuisance, harm, or hazard;

18. The applicant acknowledges that the approved work shall not hamper, impede or otherwise limit the exercise of traditional, customary or religious practices in the immediate area, to the extent such practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;

19. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact HPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;

20. Other terms and conditions as may be prescribed by the Chairperson; and

21. Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

Respectfully submitted,

K. Tiger Mills, Staff Planner
Office of Conservation and Coastal Lands

Approved for submittal:

For WILLIAM J. AILA JR, Chairperson
Board of Land and Natural Resources

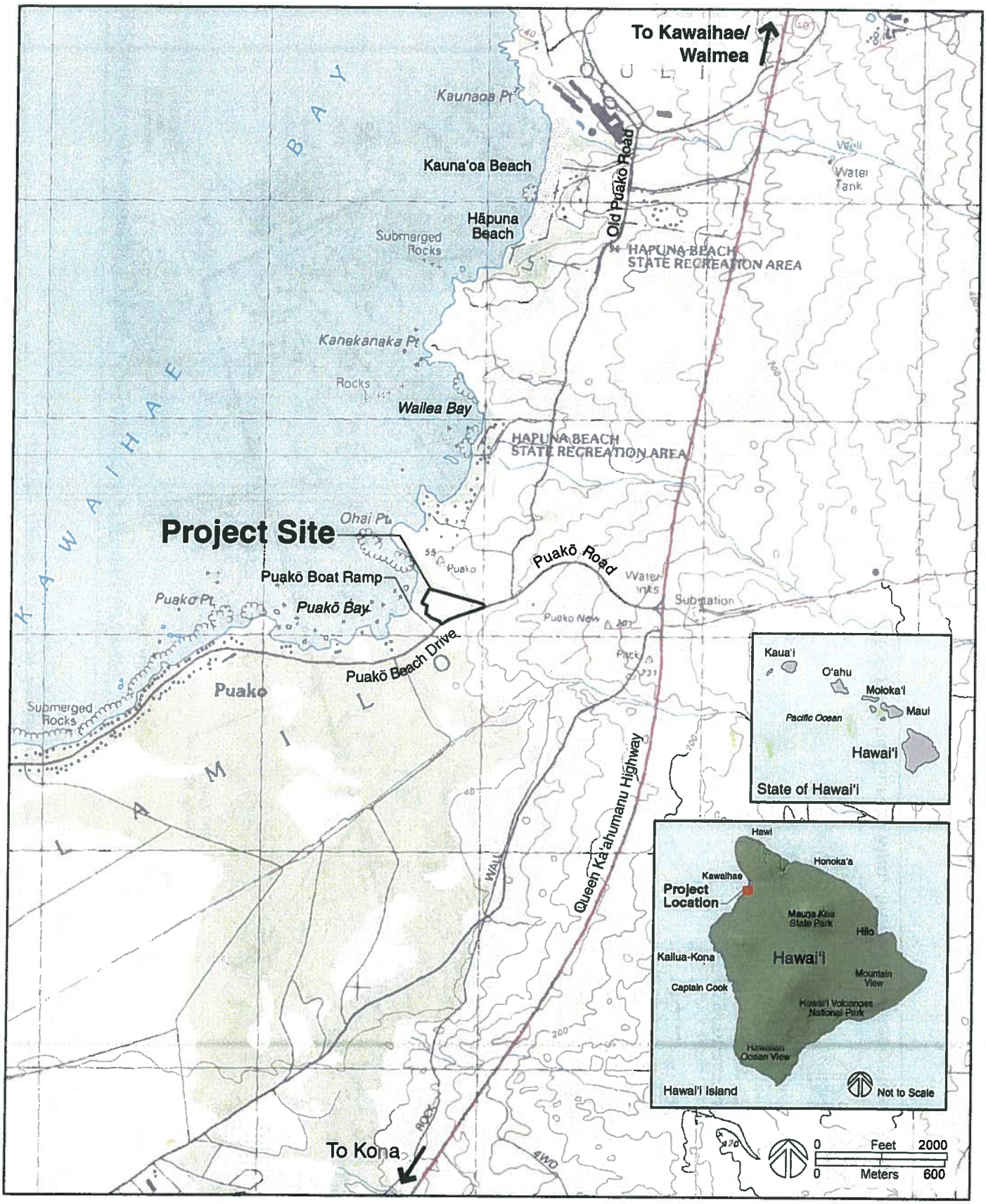


Figure 1: Location Map

EXHIBIT A

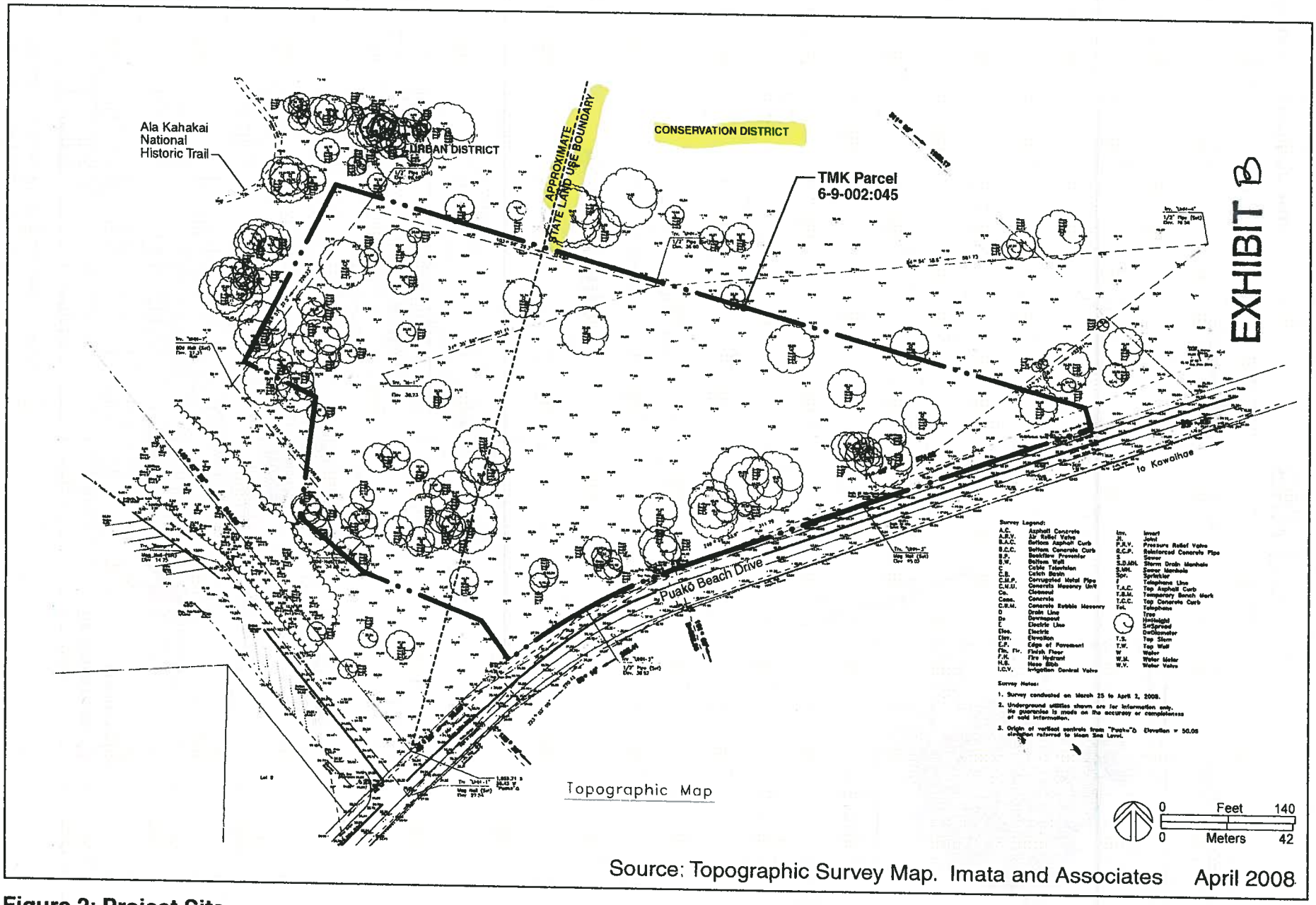


Figure 2: Project Site

SITE FEATURES
PUAKO MARINE EDUCATION CENTER
JANUARY 23 2008
SITE SCREENING HILLOCKS
POSSIBLE ENTRY POINTS
CLIFF
CLIFF
CLIFF

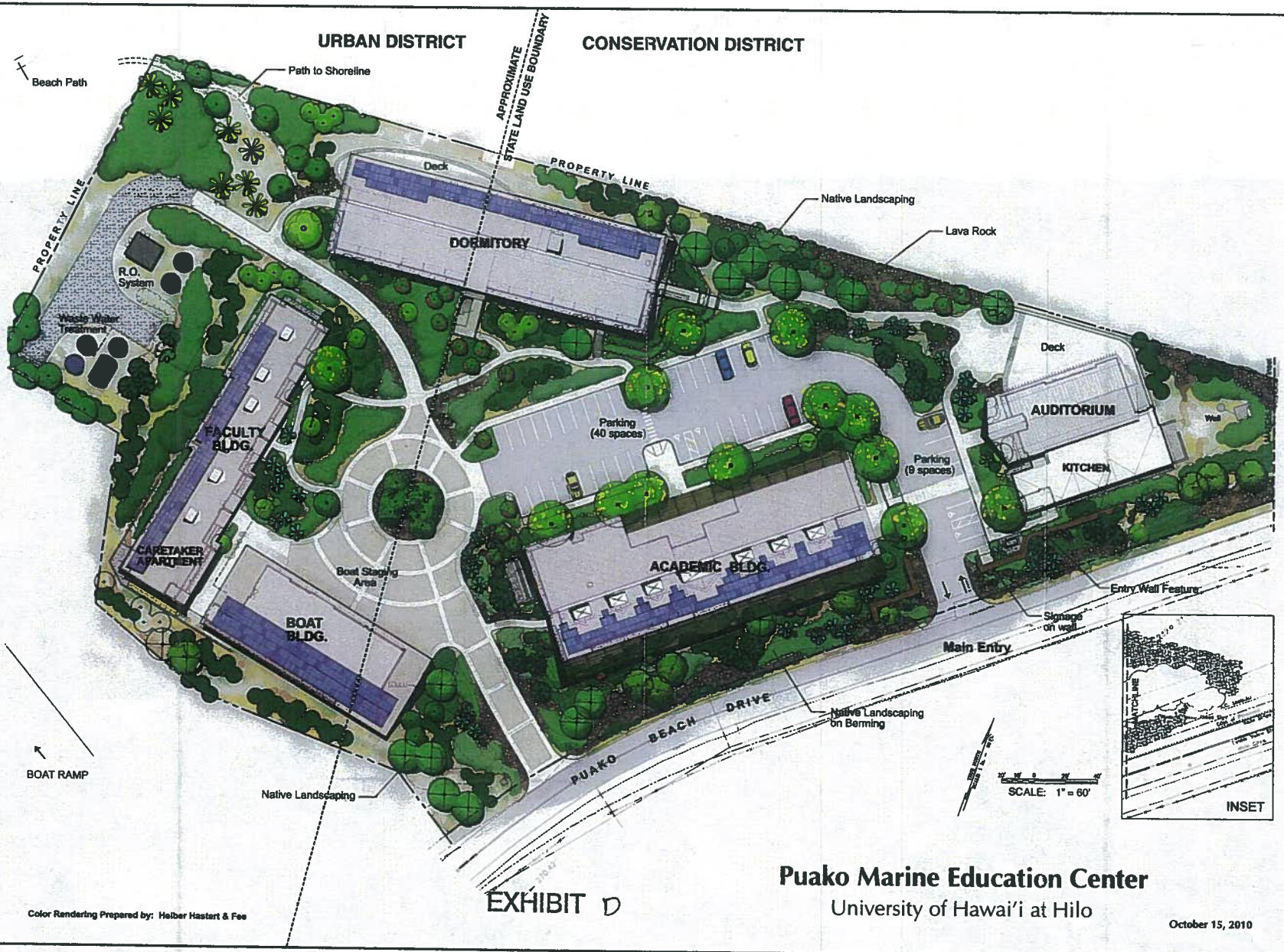


EXHIBIT D

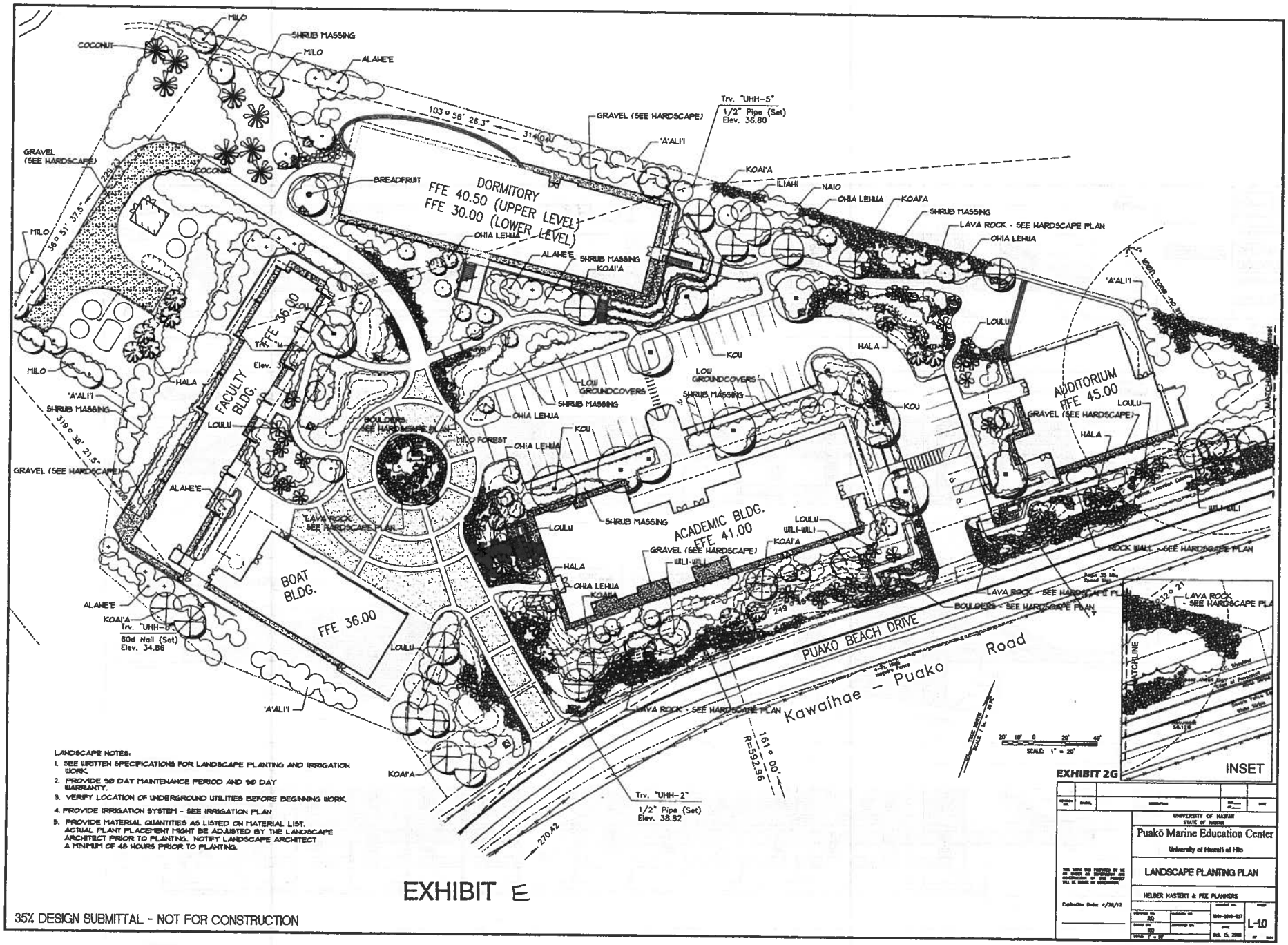
Puako Marine Education Center

University of Hawai'i at Hilo

Color Rendering Prepared by: Helber Hastert & Fee

October 15, 2010

Figure 4: Schematic Site Plan



LANDSCAPE NOTES:

1. SEE WRITTEN SPECIFICATIONS FOR LANDSCAPE PLANTING AND IRRIGATION WORK.
2. PROVIDE 90 DAY MAINTENANCE PERIOD AND 90 DAY WARRANTY.
3. VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE BEGINNING WORK.
4. PROVIDE IRRIGATION SYSTEM - SEE IRRIGATION PLAN
5. PROVIDE MATERIAL QUANTITIES AS LISTED ON MATERIAL LIST. ACTUAL PLANT PLACEMENT MIGHT BE ADJUSTED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO PLANTING.

EXHIBIT E

35% DESIGN SUBMITTAL - NOT FOR CONSTRUCTION

UNIVERSITY OF HAWAII
STATE OF HAWAII

Puakō Marine Education Center

University of Hawai'i at Hilo

LANDSCAPE PLANTING PLAN

HELBER HASTERT & FEE PLANNERS

Expiration Date: 4/30/12

Oct. 15, 2008

L-1.0

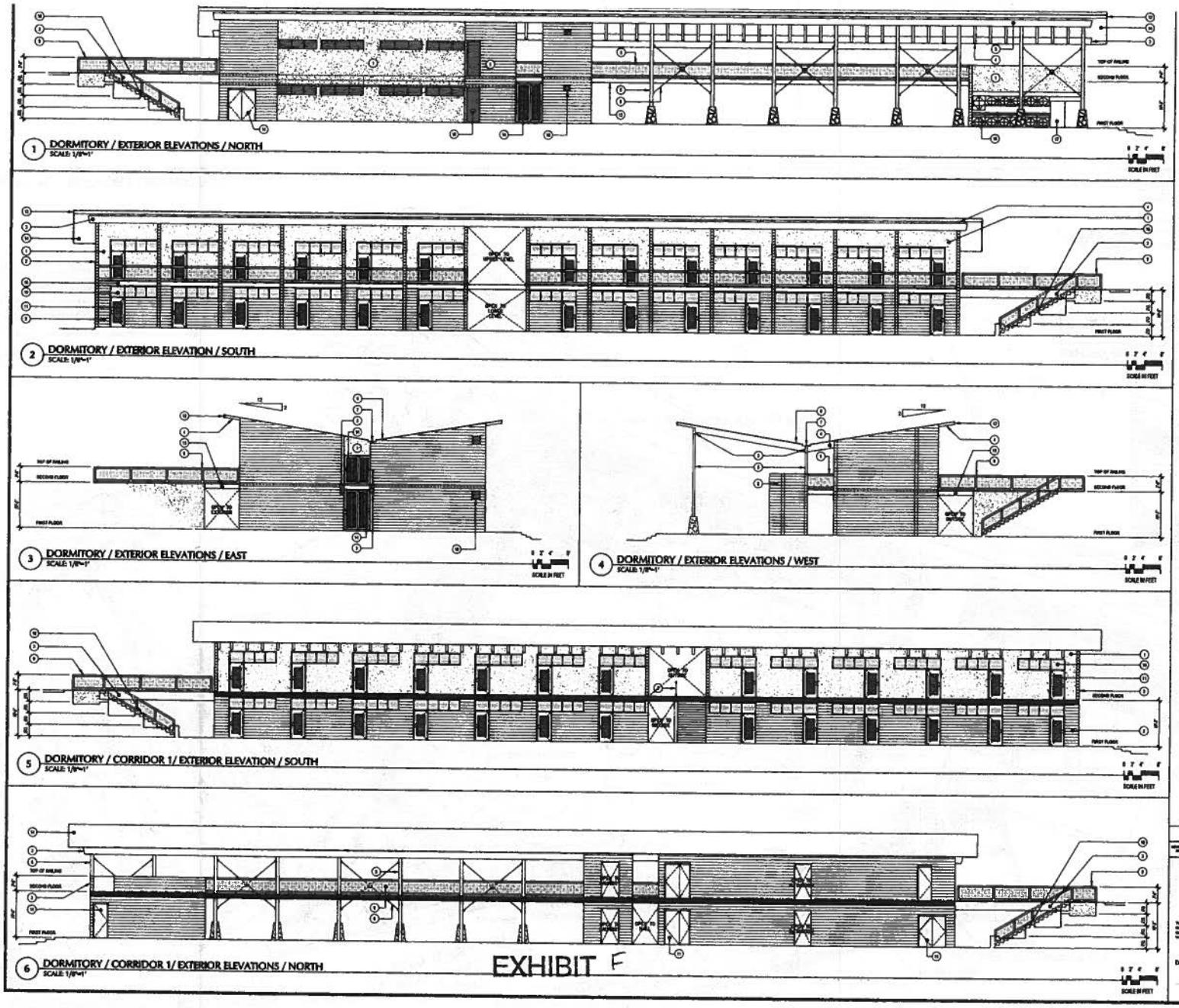


EXHIBIT F

EXHIBIT 2M

UNIVERSITY OF HAWAII
STATE OF HAWAII

Puakō Marine Education Center

University of Hawai'i at Hilo

DORMITORY EXTERIOR ELEVATIONS

SSFM INTERNATIONAL, INC.

A2.3