

# PERFORMING ARTS FACILITY

University of Hawai'i at Mānoa  
UH Project No. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT  
PUBLIC COMMENT DOCUMENT

JULY 2008



Prepared for:  
Approving Authority,  
University of Hawai'i at Mānoa



Prepared by:



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---

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	PROJECT SUMMARY .....	1
1.2	LOCATION .....	2
1.3	LAND OWNERSHIP .....	2
1.4	IDENTIFICATION OF APPLICANT .....	2
1.5	IDENTIFICATION OF ENVIRONMENTAL CONSULTANT .....	2
1.6	IDENTIFICATION OF APPROVING AGENCY.....	3
1.7	COMPLIANCE WITH STATE OF HAWAI‘I AND COUNTY OF HAWAI‘I ENVIRONMENTAL LAWS .....	3
1.8	IDENTIFICATION OF AGENCIES CONSULTED.....	3
<b>2.0</b>	<b>PROJECT DESCRIPTION .....</b>	<b>5</b>
2.1	LOCATION .....	5
2.2	DESCRIPTION OF THE PERFORMING ARTS FACILITY .....	5
2.3	PROJECT COST AND IMPLEMENTATION TIMEFRAME.....	6
<b>3.0</b>	<b>DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES.....</b>	<b>7</b>
3.1	CLIMATE .....	7
3.2	GEOLOGY AND TOPOGRAPHY .....	7
3.3	SOILS .....	8
3.3.1	Natural Resources Conservation Service (NRCS).....	8
3.3.2	Land Study Bureau Detailed Land Classification .....	9
3.3.3	Agricultural Lands of Importance to the State of Hawai‘i (ALISH).....	9
3.4	NATURAL HAZARDS.....	9
3.5	FLORA & FAUNA.....	11
<b>4.0</b>	<b>DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES.....</b>	<b>13</b>
4.1	ARCHAEOLOGICAL AND CULTURAL RESOURCES .....	13
4.1.1	Archaeological Resources .....	13
4.1.2	Cultural Resources .....	14
4.2	ROADWAYS AND TRAFFIC .....	15
4.3	NOISE .....	28
4.4	AIR QUALITY .....	28
4.5	VISUAL RESOURCES.....	29
4.6	SOCIAL & ECONOMIC CHARACTERISTICS.....	30
4.7	INFRASTRUCTURE AND UTILITIES.....	30
4.7.1	Water System .....	30
4.7.2	Wastewater System .....	32
4.7.3	Drainage System .....	33

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

4.7.4	Electrical and Telecommunications Systems .....	33
4.7.5	Solid Waste.....	35
4.8	PUBLIC SERVICES AND FACILITIES.....	35
<b>5.0</b>	<b>LAND USE CONFORMANCE.....</b>	<b>37</b>
5.1	STATE OF HAWAI‘I.....	37
5.1.1	State Land Use Law, Chapter 205, Hawai‘i Revised Statutes .....	37
5.1.2	Coastal Zone Management Act, Chapter 205A, Hawai‘i Revised Statutes .....	37
5.1.3	Hawai‘i State Planning Act, Chapter 226, Hawai‘i Revised Statutes.....	43
5.2	CITY AND COUNTY OF HONOLULU PLANS .....	43
5.2.1	O‘ahu General Plan .....	43
5.2.2	Primary Urban Center Development Plan.....	44
5.2.3	Land Use Ordinance .....	45
5.3	LIST OF REQUIRED PERMITS AND APPROVALS .....	45
<b>6.0</b>	<b>ALTERNATIVES.....</b>	<b>47</b>
6.1	NO ACTION .....	47
6.2	ALTERNATIVES .....	47
<b>7.0</b>	<b>FINDINGS, SUPPORTING REASONS, AND ANTICIPATED DETERMINATION..</b>	<b>49</b>
7.1	PROBABLE IMPACT, INCLUDING CUMULATIVE IMPACTS .....	49
7.2	SIGNIFICANCE CRITERIA .....	50
7.3	ANTICIPATED DETERMINATION.....	52
<b>8.0</b>	<b>REFERENCES CITED.....</b>	<b>53</b>

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## LIST OF FIGURES

<b>Figure</b>		<b>Follows Page</b>
Figure 1:	Location Map.....	2
Figure 2:	TMK Map.....	2
Figure 3:	Site Photos .....	6
Figure 4:	Site Plan.....	6
Figure 5:	NRCS Soil Survey .....	9
Figure 6:	Detailed Land Classification, University of Hawai‘i .....	9
Figure 7:	Agricultural Lands of Importance to the State of Hawai‘i.....	9
Figure 8:	Flood Insurance Rate Map .....	9
Figure 9:	State Land Use Classification .....	37
Figure 10:	City and County of Honolulu Primary Urban Center Development Plan.....	44
Figure 11:	City and County of Honolulu Zoning.....	45

## LIST OF TABLES

Table 4-1:	Existing Traffic Level of Service (LOS) at Key Intersections .....	20
Table 4-2:	Comparison of Existing and Base Year 2017 LOS at Representative Intersections .....	22
Table 4-3:	Comparison of Existing and Year 2017 LOS (With and Without Mitigation Measures) at Representative Intersections .....	27
Table 5-1:	Required Permits and Approvals .....	45

## APPENDICES

Appendix A Pre-consultation Letters and Responses

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## LIST OF ACRONYMS

The following is a list of terms, abbreviations, and acronyms used in this document.

### A

ADA	Americans with Disability Act
ALISH	Agricultural Lands of Importance to the State of Hawai'i
AM	Morning
ATA	Austin, Tsutsumi & Associates, Inc.

### B

BMPs	Best Management Practices
BOR	Board of Regents, University of Hawai'i at Mānoa
BWS	City and County of Honolulu, Board of Water Supply

### C

CATV	Cable television
CIA	Cultural Impact Assessment
CIP	Capital Improvement Project
CSH	Cultural Surveys Hawai'i, Inc.
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act

### D

DAGS	State of Hawai'i, Department of Accounting and General Services
dba	Doing business as
DLNR	State of Hawai'i, Department of Land and Natural Resources
DOD	State of Hawai'i, Department of Defense
DOH	State of Hawai'i, Department of Health
DP	Development Plan
DPP	City and County of Honolulu, Department of Planning & Permitting
DTS	City and County of Honolulu, Department of Transportation Services

### E

EA	Environmental Assessment
EB	Eastbound
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act

### F

F	Fahrenheit
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

FM	Domestic/fire service (water meter)
FONSI	Finding of No Significant Impact
FPMO	UH Facilities Planning and Management Office
FWCA	Fish and Wildlife Coordination Act
<b>G</b>	
GPD	Gallons per day
GPM	Gallons per minute
<b>H</b>	
H-POWER	Honolulu Program of Waste Energy Recovery
HAR	Hawaii Administrative Rules
HECO	Hawaiian Electric Company
HFD	Honolulu Fire Department
HPD	Honolulu Police Department
HRS	Hawaii Revised Statutes
<b>K</b>	
kVA	Kilovolt Amperes
KW	Kilowatt
<b>L</b>	
LEED	Leadership in Energy and Environmental Design
LEED NC	LEED New Construction
LOS	Level-of-service is a quantitative and qualitative assessment of traffic operations
LRDP	Long Range Development Plan
LSB	Land Study Bureau
LT	Left turn
LUC	State of Hawai'i, Land Use Commission
LUO	Land Use Ordinance
<b>M</b>	
MIA	Makiki Stony Clay Loam soil
MPH	Miles per hour
MSL	Mean sea level
MVA	Megavolt Amperes
<b>N</b>	
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System Permit
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
<b>O</b>	
OCCL	Department of Land and Natural Resources, Office of Conservation and Coastal Lands
OHA	Office of Hawaiian Affairs

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

OSHA	Occupational Safety and Health Administration
OTWC	Oceanic Time Warner Cable
<b>P</b>	
PM	Afternoon
PRU	Plan Review Use approval
PUC	Primary Urban Center
<b>R</b>	
R-5	Residential Zoning District (City and County of Honolulu)
ROH	Revised Ordinances of Honolulu
RT	Right-turn
<b>S</b>	
SF	Square feet
SHPD	State Historic Preservation Division
SIHP	State Inventory of Historic Properties
SMA	Special Management Area
SMP	Special Management Area Use Permit
<b>T</b>	
TH	Through (traffic)
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
<b>U</b>	
UH	University of Hawai'i
UHM	University of Hawai'i at Mānoa
UHSM	University Health Services Mānoa
UIC	Underground Injection Control Line
USC	United States Code
USGS	U.S. Geological Survey
<b>W</b>	
WB	Westbound
WMP	Water Management Plan

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 1.0 INTRODUCTION

This Draft Environmental Assessment (EA) is prepared in accordance with Chapter 343, Hawai'i Revised Statutes (HRS) for the proposed construction of the proposed Performing Arts Facility at the University of Hawai'i at Mānoa.

### 1.1 PROJECT SUMMARY

<b>Project Name:</b>	Performing Arts Facility, University of Hawai'i at Mānoa, UH Project No. 04-085	
<b>Location:</b>	Honolulu, O'ahu	
<b>Tax Map Key (TMK):</b>	(1) 2-8-23-03 (por.)	
<b>Applicant:</b>	University of Hawai'i at Mānoa	
<b>Landowner:</b>	State of Hawai'i - University of Hawai'i System (per Executive Order (EO) 1807 to the Board of Regents (BOR) of the University of Hawai'i)	
<b>Existing use:</b>	Parking lot with 131 spaces	
<b>Proposed Action:</b>	Six-story structure with a basement, including four floors of parking and three floors of classroom, studio and performance space	
<b>Project Area:</b>	Approximately 1.6 acres	
<b>Land Use Designations:</b>	<b>State Land Use:</b>	Urban
	<b>City and County of Honolulu</b>	
	<b>Primary Urban Center</b>	
	<b>Development Plan:</b>	Institutional
	<b>City and County of Honolulu Zoning:</b>	Residential (R-5)
<b>Special Management Area:</b>	The project is not in the Special Management Area	
<b>Permits/Approvals Requested:</b>	Approval of Project Construction Plans Building and Grading Permits	
<b>Approving Agency:</b>	University of Hawai'i at Mānoa	
<b>Anticipated Determination:</b>	Finding of No Significant Impact (FONSI)	

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 1.2 LOCATION

The proposed site for the Performing Arts Facility is located within urban Honolulu on the Island of O'ahu, State of Hawai'i (Figure 1). The proposed Performing Arts Facility is located mauka of Correa Road between the existing Kennedy Theatre, Keller Hall and Physical Science Building on the University of Hawai'i at Mānoa Central Campus.

## 1.3 LAND OWNERSHIP

The State of Hawai'i - University of Hawai'i System (per EO 1807 to the Board of Regents of the University of Hawai'i) holds title to the land under the location (Figure 2) of the proposed action. Utilizing the Tax Map Key system, the land under the project site is identified as TMK (1) 2-8-23:03 (por.)

Contact: Kathleen Cutshaw  
Vice Chancellor for Finance, Administration and Operations  
University of Hawai'i at Mānoa  
2500 Campus Road, Hawai'i Hall 307D  
Honolulu, Hawai'i 96822  
Phone: (808) 956-9190  
Fax: (808) 956-5136

## 1.4 IDENTIFICATION OF APPLICANT

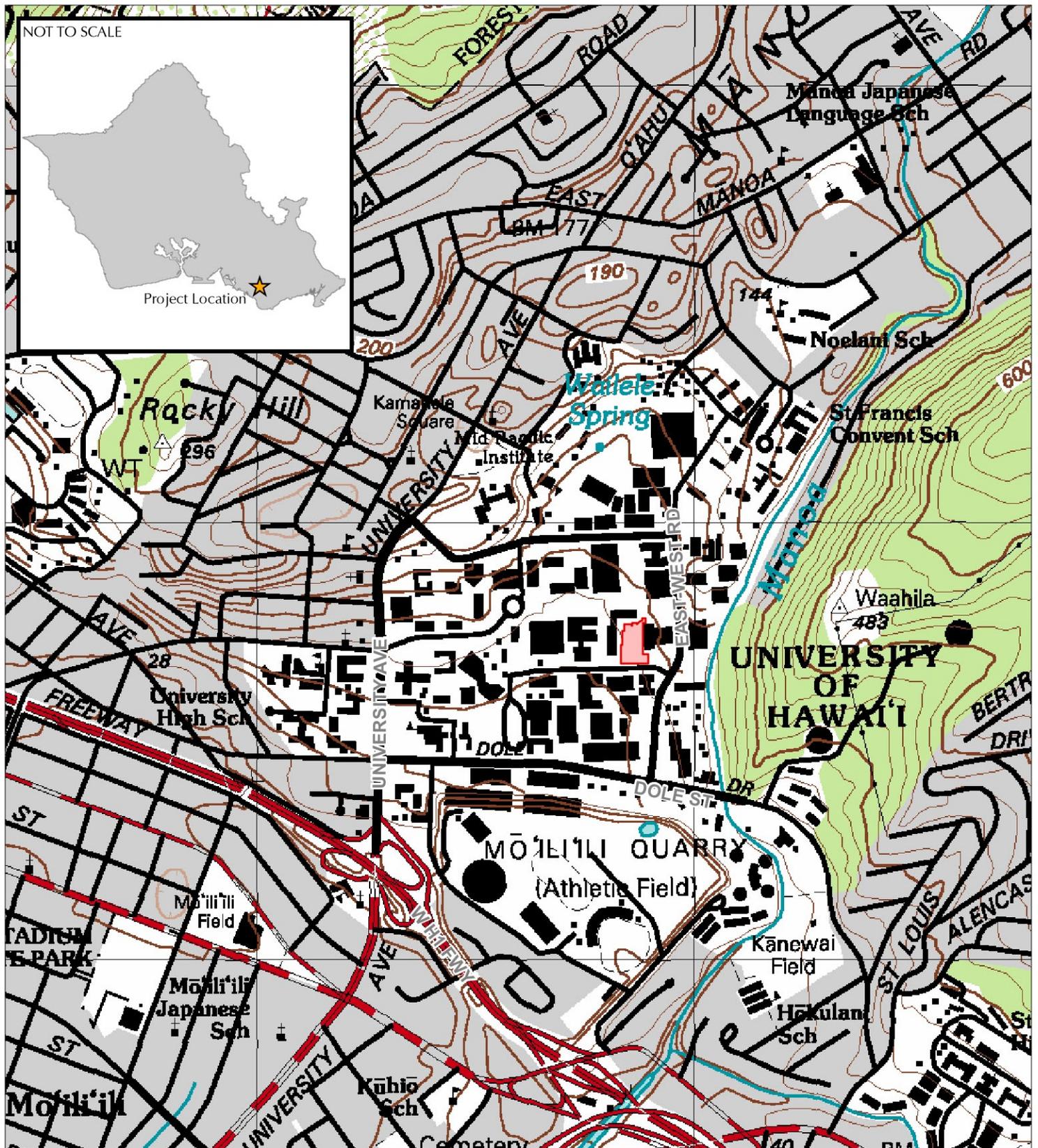
The University of Hawai'i at Mānoa is the project applicant.

Contact: Mr. Bruce Teramoto, Project Manager and Registered Architect  
Office of Capital Improvements  
University of Hawai'i at Mānoa  
1960 East-West Road, Biomedical Services Building, B-102  
Honolulu, Hawai'i 96822  
Phone: (808) 956-4800  
Fax: (808) 956-3175

## 1.5 IDENTIFICATION OF ENVIRONMENTAL CONSULTANT

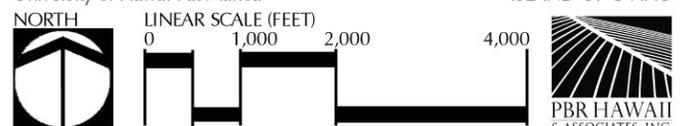
The environmental consultant is PBR HAWAII & Associates, Inc. dba PBR HAWAII.

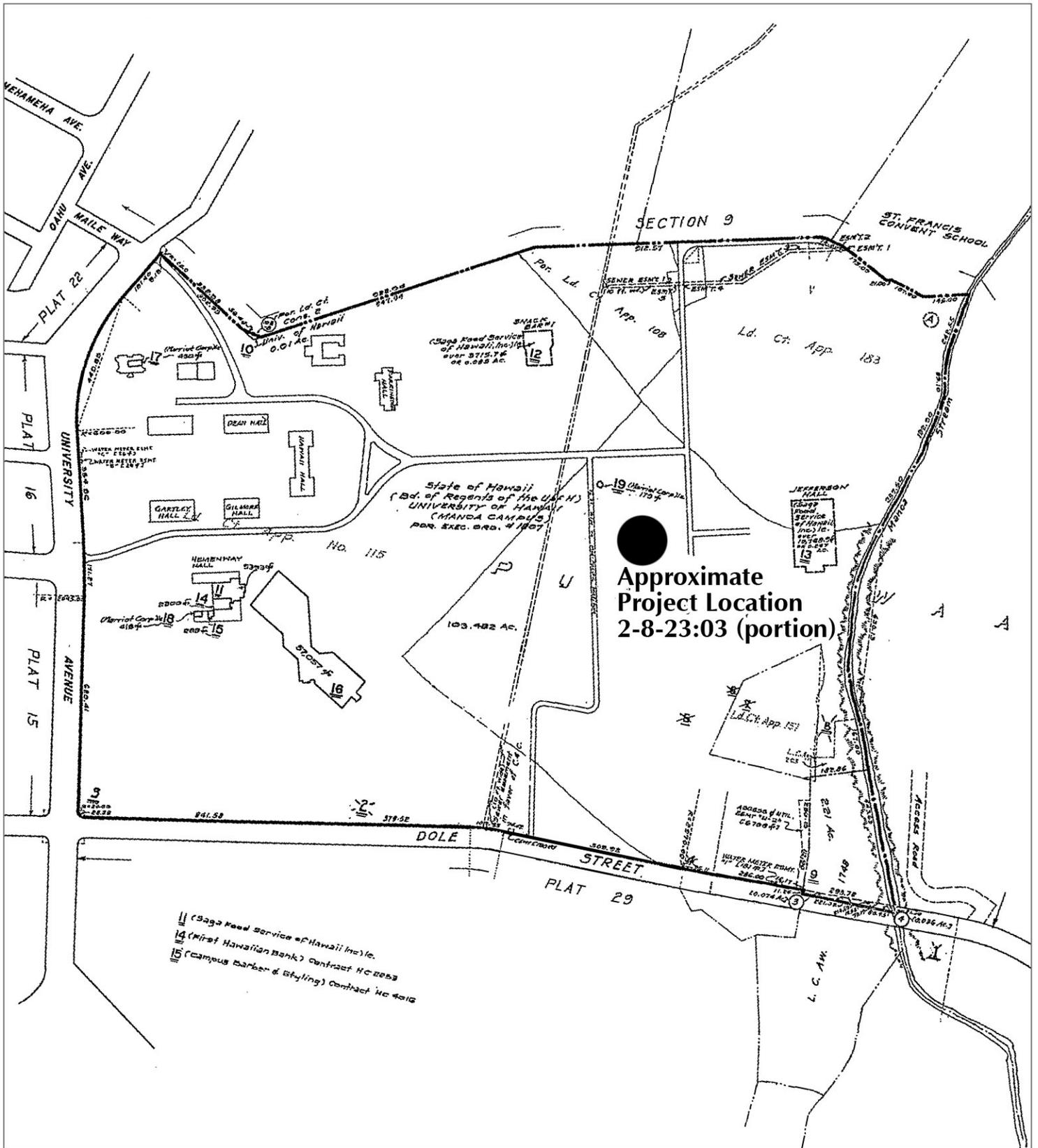
Contact: Vincent Shigekuni, Vice President  
PBR HAWAII  
1001 Bishop Street  
ASB Tower, Suite 650  
Honolulu, Hawai'i 96813  
Phone: (808) 521-5631  
Fax: (808) 523-1402



**Figure 1**  
Regional Location Map  
Performing Arts Facility

University of Hawai'i at Mānoa ISLAND OF O'AHU





**LEGEND**

● Approximate Project Location

**Figure 2**  
 Tax Map Key 2-8-23:03 (portion)  
**Performing Arts Facility**

University of Hawai'i at Mānoa ISLAND OF O'AHU



NOT TO SCALE



Source: City and County of Honolulu Tax Map Key  
 Disclaimer: This graphic has been prepared for general planning purposes only.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 1.6 IDENTIFICATION OF APPROVING AGENCY

The University of Hawai'i at Mānoa is the approving agency.

Contact: Kathleen Cutshaw  
Vice Chancellor for Finance, Administration and Operations  
University of Hawai'i at Mānoa  
2500 Campus Road, Hawai'i Hall 307D  
Honolulu, Hawai'i 96822  
Phone: (808) 956-9190  
Fax: (808) 956-5136

## 1.7 COMPLIANCE WITH STATE OF HAWAI'I AND COUNTY OF HAWAI'I ENVIRONMENTAL LAWS

Preparation of this document falls in accordance with the provisions of Chapter 343, HRS (2007) and Title 11, Chapter 200, Hawai'i Administrative Rules (HAR) pertaining to Environmental Impact Statements. Section 343-5, HRS established nine "triggers" that require either an EA or an Environmental Impact Statement (EIS). The use of State or County lands or funds requires the preparation of an Environmental Assessment.

## 1.8 IDENTIFICATION OF AGENCIES CONSULTED

Various agencies (or agency documents) were consulted in preparation of this DEA. Responses to the pre-consultation are attached in Appendix A.

### Federal

Army Corps of Engineers  
Department of the Interior-Fish and Wildlife Service

### State of Hawai'i

Office of Senator Brian Taniguchi  
Office of Representative Kirk Caldwell  
Chairperson, Department of Land and Natural Resources  
Department of Land and Natural Resources-State Historic Preservation Division  
Office of Environmental Quality Control  
Office of Hawaiian Affairs  
University of Hawai'i at Mānoa

### City and County of Honolulu

Councilmember Ann Kobayashi, Honolulu County Council  
Department of Community Services  
Department of Environmental Services  
Department of Design and Construction  
Department of Transportation Services

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Department of Facility Maintenance

Department of Water Supply

Police Department

Fire Department

**Private**

Hawaiian Electric Company

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 2.0 PROJECT DESCRIPTION

This section provides background information and a general description of the Performing Arts Facility project site.

### 2.1 LOCATION

The proposed site for the Performing Arts Facility is located within urban Honolulu on the Island of O‘ahu, State of Hawai‘i (Figure 1). The Performing Arts Facility is located mauka of Correa Road between the existing Kennedy Theatre, Keller Hall and Physical Science Building on the University of Hawai‘i at Mānoa Upper Campus. Photographs of the site are included as Figure 3.

### 2.2 DESCRIPTION OF THE PERFORMING ARTS FACILITY

Since as far back as 1987, the University has contemplated a parking structure behind Kennedy Theatre and an “addition” to the Kennedy Theatre (University of Hawai‘i Mānoa Long Range Development Plan (December 1987). In 2007, The University of Hawai‘i Mānoa Long Range Development Plan (LRDP) was updated to reflect current and upcoming educational priorities. Future buildings and projects are projected into the plan as well as several new “major themes” through a process of consultation with campus administration, students, faculty, and community members. The LRDP utilizes the University’s Capitol Improvement Program to project upcoming development projects. Listed first among them is the “Kennedy Theatre Expansion” (Performing Arts Facility).

The project site is approximately 1.6-acres immediately behind the existing Kennedy Theatre and currently used as a visitor parking area. The proposed expansion includes additional studio, rehearsal, classroom, shops, performance and theatre spaces. The addition will also partially wrap around the existing theatre. Preliminary plans call for a structure that is six stories with a basement, including approximately 57,570 square feet of net program area for the performing arts facility, and approximately 480 parking stalls or approximately 168,300 square feet of net program area for parking, including drive aisles and other miscellaneous floor area (Figure 4). As envisioned in the University’s Long Range Development Plan, the new parking structure will be integrated with the expanded theatre facilities. The result will be a larger performing arts center and nearly four-times the current on-site parking capacity.

One of the four major themes in the University’s LRDP is “UHM – Leader in Environmental Sustainability.” To that end, the University proposes that the Performing Arts Facility be LEED New Construction (NC) certified to the Silver level. LEED or Leadership in Energy and Environmental Design is a nationally-recognized program for certifying the design, construction and operation of high performance green buildings.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 2.3 PROJECT COST AND IMPLEMENTATION TIMEFRAME

The University hopes to commence construction in the year 2010. Construction should run a duration of sixteen to twenty-four months. The University estimates construction to cost approximately \$68 to 77 million, depending if built in one or two phases.

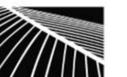


1. View from McCarthy Mall near East-West Road looking southwest towards the Performing Arts Facility site.
2. View from Jefferson Hall looking across toward East-West Road and towards Kennedy Theatre.
3. View from East-West Road looking northwest towards Kennedy Theatre.
4. View from University Health Services/Correa Road looking northwest towards the Performing Arts Facility site.
5. View from Correa Road looking northeast towards the Performing Arts Facility site.
6. View from Bilger Hall looking east towards the Performing Arts Facility site.
7. View from McCarthy Mall looking southeast towards Keller Hall and the Performing Arts Facility site.

**Figure 3**  
Site Photos  
**Performing Arts Facility**

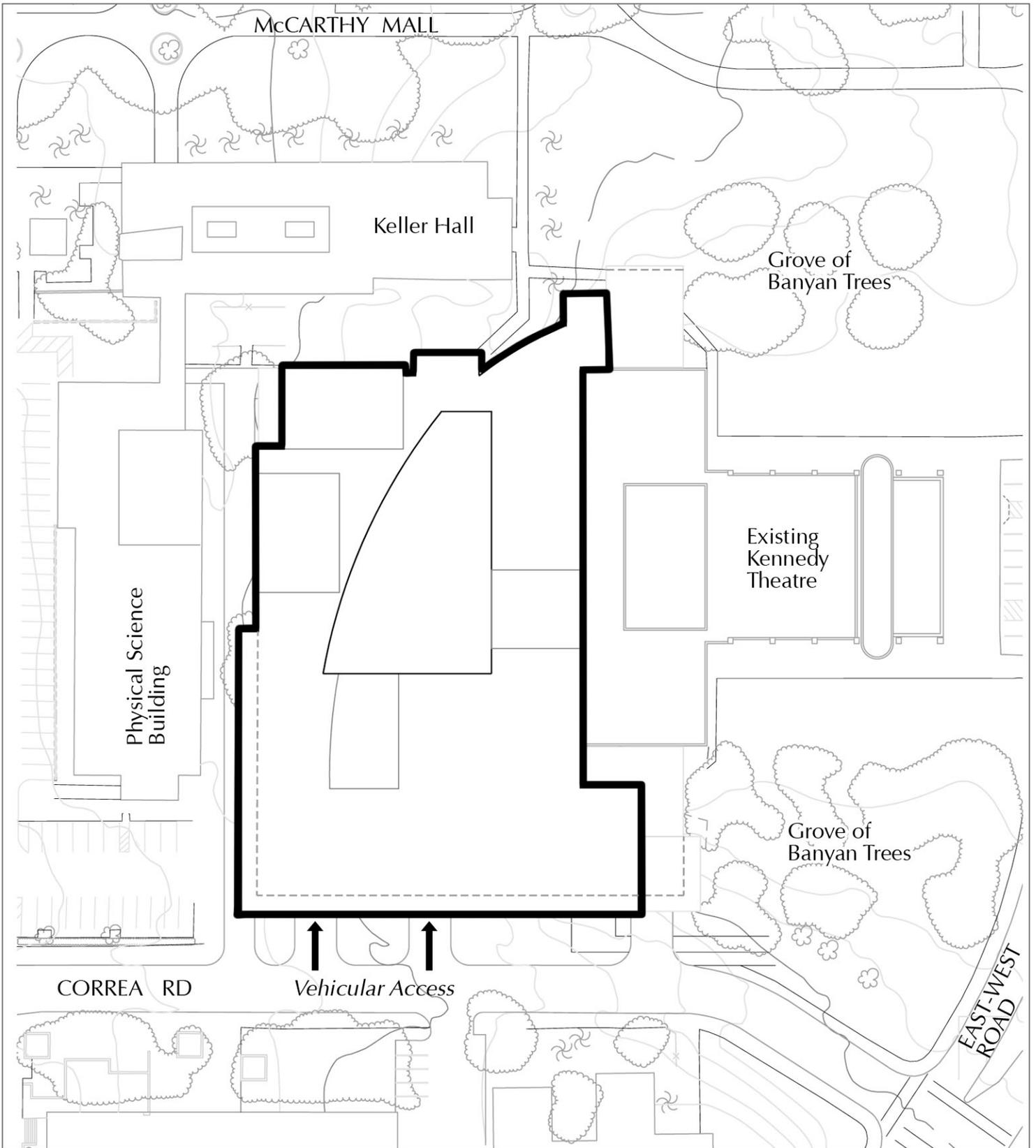
University of Hawai'i at Mānoa

ISLAND OF O'AHU



PBR HAWAII  
& ASSOCIATES, INC.

Disclaimer: This graphic has been prepared for general planning purposes only.

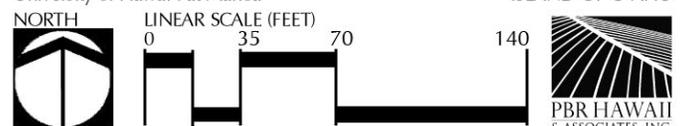


**LEGEND**

 Project Boundary

**Figure 4**  
 Site Plan  
**Performing Arts Facility**

University of Hawai'i at Mānoa ISLAND OF O'AHU



Source: Kober Hansen Mitchell Architects, Inc.  
 Disclaimer: This graphic has been prepared for general planning purposes only.

### **3.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES**

This section describes the existing conditions of the physical or natural environment, potential impacts of the Performing Arts Facility to the environment, and mitigation measures to minimize impacts.

#### **3.1 CLIMATE**

O‘ahu’s geological features heavily influence its climate. The Ko‘olau Mountain Range dominates ground-based atmospheric influences within Mānoa Valley. Trade winds are typical of the Hawaiian Islands, blowing predominantly from a northeast direction, and averaging approximately 7 miles per hour (mph) (NOAA, no date). These trade winds typically bunch moisture collected over the ocean along the mountain range creating optimal conditions for precipitation. National Weather Service rain gauges sited at Lyon Arboretum in the back of the valley have recorded an average annual rainfall of approximately 160 inches per year. Gauges at the Kapi‘olani Community College record rainfall of approximately 25 inches per year (NWS Website). Rainfall at the project site lies between these two extremes.

Regional temperatures within the city of Honolulu range from 62 degrees Fahrenheit at an extreme low, to 89 degrees Fahrenheit at an extreme high.

#### ***Potential Impacts and Mitigation Measures***

Construction of the Performing Arts Facility is not anticipated to have any impact on climatic conditions and no mitigative measures are planned.

#### **3.2 GEOLOGY AND TOPOGRAPHY**

##### ***Geology***

The project site sits at the foot of the Ko‘olau Mountain Range – the eroded remnant of the Ko‘olau Shield Volcano. The geology under the University of Hawai‘i at Mānoa is highly influenced by three post-erosional volcanic vents associated with the larger Honolulu Volcanic Series: Pu‘u ‘Ualaka‘a (Round Top), Pu‘u Kākea (Sugarloaf), and Pu‘u ‘Ōhi‘a (Tantalus). Honolulu Series eruptions did not occur rapidly and at one instance. Rather, they were scattered over a period of hundreds of thousands of years. All three vents are cinder cones derived from Strombolian-type eruptions. The approximately 67,000 year old flow from Pu‘u Kākea spread out along Mānoa’s valley floor creating a broad and nearly flat surface upon which the University of Hawai‘i was constructed (Macdonald, 1983).

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

The Honolulu plain is underlain by a broad elevated coral reef partially covered by alluvium, evidence of higher sea level (approximately 7.5 meters) during an earlier interglacial stage.

## ***Topography***

The regional topography of the University of Hawai'i at Mānoa campus gently slopes at less than 5 degrees in a southwesterly direction toward the ocean. The immediate site is partially influenced by its location at the foot of Mānoa Valley's eastern wall, creating the slight slope toward the west at the project site.

Also, because of the large amount of human development on the University campus, the areas around the existing theatre have experienced profuse grading activity, as evidenced by the virtually flat nature of the parking lot where the proposed expansion will occur.

## ***Potential Impacts and Mitigation Measures***

Due to the level conditions of the property, relatively minimal grading of the site will occur prior to excavation for the parking structure. The grading will not change the topographic nature of the parcel relative to the surrounding lands.

### **3.3 SOILS**

Three soil suitability studies prepared for lands in Hawai'i principally focus on the relative agricultural productivity of different land types. These studies are: 1) the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) Soil Survey; 2) the University of Hawai'i Land Study Bureau Detailed Land Classification (Figure 6); and 3) the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH).

#### **3.3.1 Natural Resources Conservation Service (NRCS)**

The ***Natural Resource Conservation Service, Soil Survey for the Island of O'ahu***, classifies the soil of the Performing Arts Facility project site as: Makiki Stony Clay Loam, 0-3% Slope. The Makiki series of soils are generally described as consisting of well-drained soils on alluvial fans and terraces. These soils formed in alluvium mixed with volcanic ash and cinders. They are nearly level. Makiki Stony Clay Loam is a neutral to slightly acid soil described as being similar to Makiki Clay Loam, except containing enough stones to hinder cultivation. Makiki Clay Loam is described as having a surface layer is dark brown clay loam about 20 inches thick. The subsoil, about 10 inches thick, is dark-brown clay loam that has subangular blocky structure. It contains cinders and rock fragments. The subsoil is underlain by similar material, about 24 inches thick, that is massive. Below this are volcanic cinders. Makiki Stony Clay Loam is almost entirely in urban use.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 3.3.2 Land Study Bureau Detailed Land Classification

The University of Hawai'i Land Study Bureau document, *Detailed Land Classification, Island of O'ahu*, classifies soils based on a productivity rating. Letters indicate class of productivity with A representing the highest class and E the lowest. The soils of the Performing Arts Facility project site are classified as Urban (Figure 5).

## 3.3.3 Agricultural Lands of Importance to the State of Hawai'i (ALISH)

The Agricultural Lands of Importance to the State of Hawai'i (ALISH) system classify important agricultural lands as Prime, Unique, or Other Agricultural Land. The Performing Arts Facility project site lands are not classified (Figure 7).

### ***Potential Impacts and Mitigation Measures***

Construction of the Performing Arts Facility will not have a deleterious effect on the soil in the project site. Because soils at the project site are not well suited for crop cultivation, and the site's development history, the proposed development should not impact the availability of agricultural land for cultivation.

## 3.4 NATURAL HAZARDS

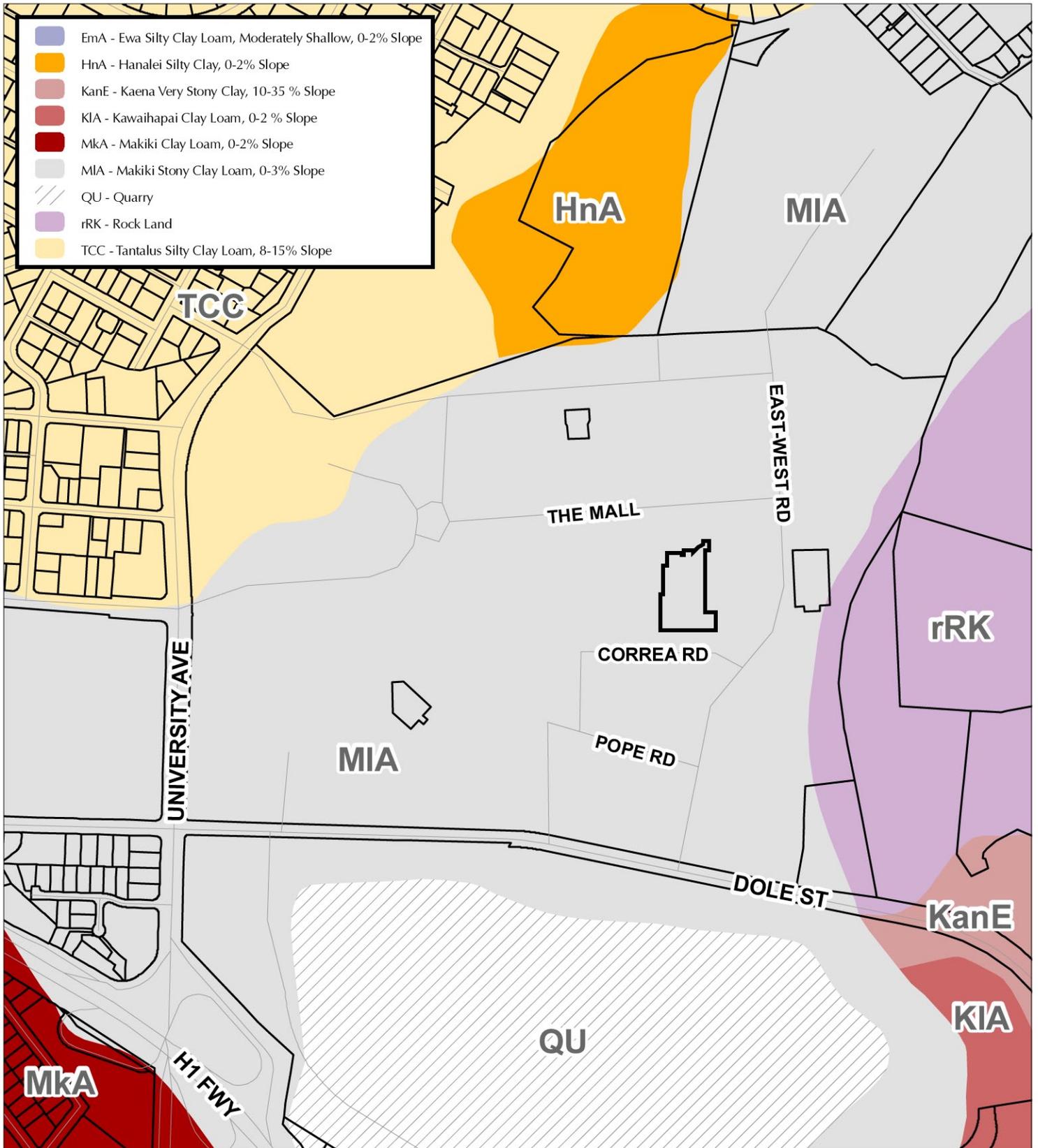
Natural hazards like flooding, tsunami inundation, hurricanes, earthquakes, and volcanic eruptions have historically impacted Hawai'i Island.

### ***Flooding***

According to the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA), National Flood Insurance Program, the project site is located in "Zone X", out of the 500-year flood plain (Figure 8). This was confirmed during the pre-consultation process, as the State Department of Land and Natural Resources, Engineering Division commented that the National Flood Insurance Program does not have any regulations for development within Zone X.

The site sits in a dry and arid environment where the risks of flooding are low due to a combination of factors, including low rainfall, thin soil layer, slope, and the porosity of the bedrock. During periods of heavy rainfall, localized ponding and some scouring by flowing surface water may occur. However, those conditions typically dissipate as the water rapidly percolates through the substrate.

Although the proposed expansion site lies outside the denoted flood zone, the Mānoa campus experienced a catastrophic flood event on October 30, 2004 that caused an estimated \$80 million in damage to the University of Hawai'i, as well \$5 million worth of damage to residences upstream of the campus. The U.S. Army Corps of Engineers (Corps) conducted a post-flood, rainfall-runoff and stream hydraulic computer modeling of Mānoa Stream. The model results indicated that Mānoa Stream between Woodlawn and Kahaloa Drives had insufficient channel capacity to contain the flood waters caused by



- EmA - Ewa Silty Clay Loam, Moderately Shallow, 0-2% Slope
- HnA - Hanalei Silty Clay, 0-2% Slope
- KanE - Kaena Very Stony Clay, 10-35 % Slope
- KIA - Kawaihapai Clay Loam, 0-2 % Slope
- MkA - Makiki Clay Loam, 0-2% Slope
- MIA - Makiki Stony Clay Loam, 0-3% Slope
- QU - Quarry
- rRK - Rock Land
- TCC - Tantalus Silty Clay Loam, 8-15% Slope

**LEGEND**

- Project Boundary
- Street

**Figure 5**  
 NRCS Soil Survey  
 Performing Arts Facility

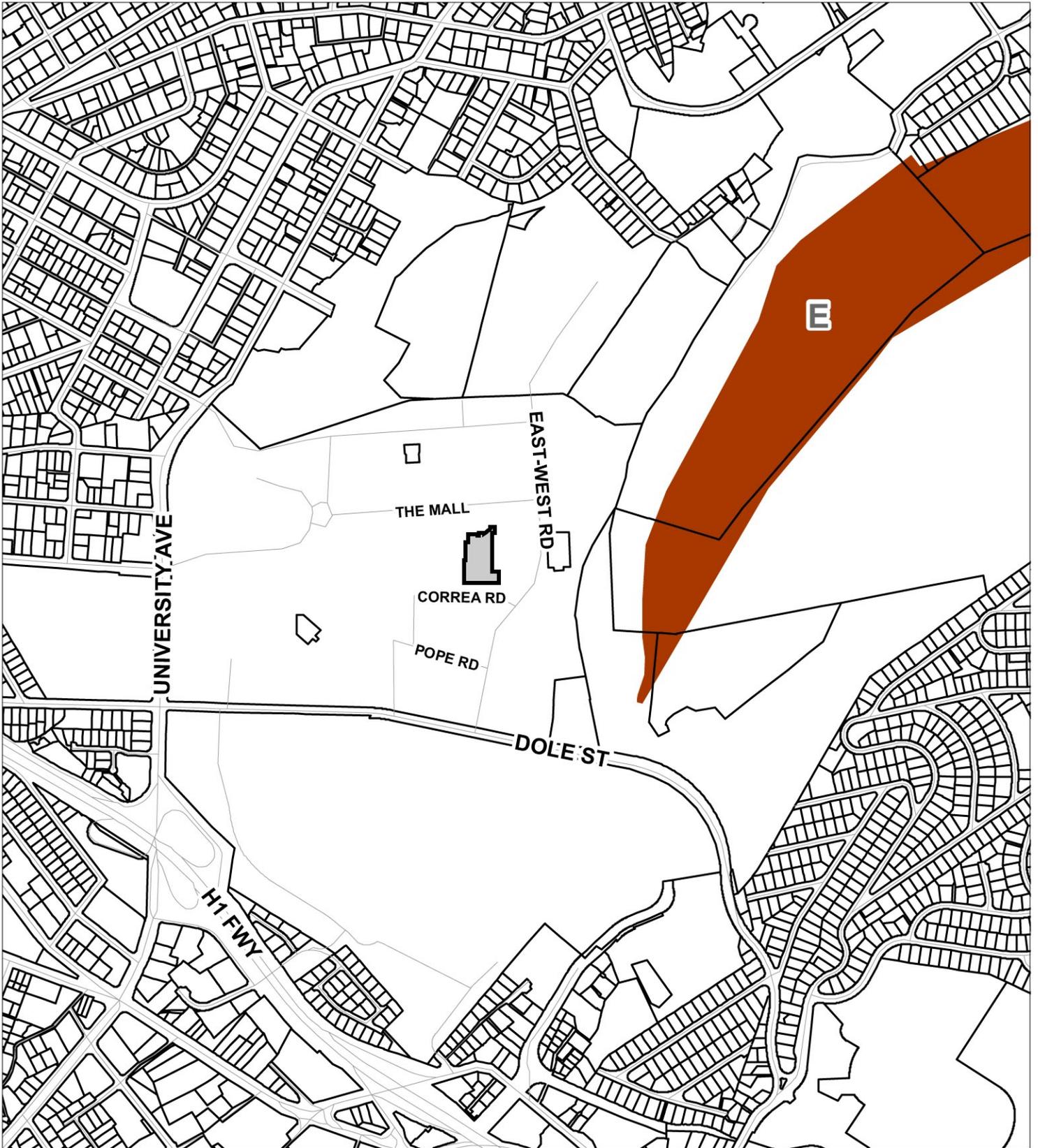
University of Hawai'i at Mānoa ISLAND OF O'AHU

NORTH LINEAR SCALE (FEET)

0 250 500 1,000

PBR HAWAII  
 & ASSOCIATES, INC.

Source: Natural Resource Conservation Service (2007)  
 Disclaimer: This graphic has been prepared for general planning purposes only.

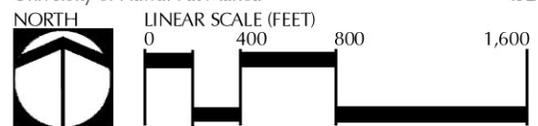


**LEGEND**

-  Project Area
-  A - Excellent
-  B - Good
-  C - Fair
-  D - Poor
-  E - Very Poor
-  Not Classified
-  Street

**Figure 6**  
 Detailed Land Classification, University of Hawai'i  
 Performing Arts Facility

University of Hawai'i at Mānoa ISLAND OF O'AHU



Source: Land Study Bureau (1972)  
 Disclaimer: This graphic has been prepared for general planning purposes only.

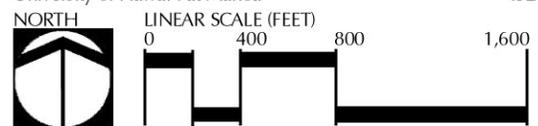


**LEGEND**

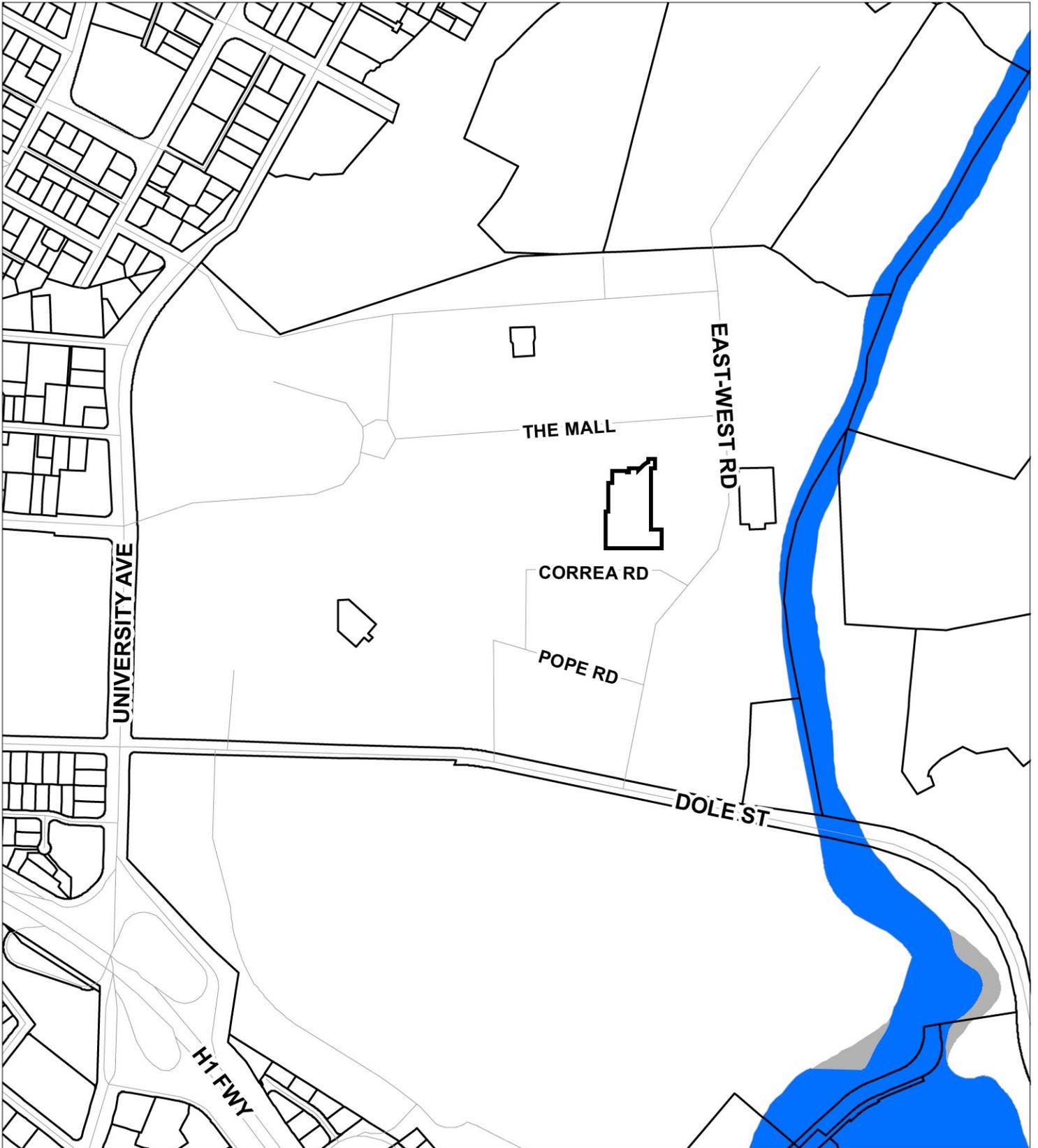
-  Project Area
-  Prime ALISH Lands
-  Unique ALISH Lands
-  Other ALISH Lands
-  Street

**Figure 7**  
 Agricultural Lands of Importance to the State of Hawai'i  
**Performing Arts Facility**

University of Hawai'i at Mānoa ISLAND OF O'AHU



Source: State Department of Agriculture (1977)  
 Disclaimer: This graphic has been prepared for general planning purposes only.

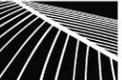


**LEGEND**

- |   |  |
|---|--|
|  Project Boundary | <b>ZONE</b>  |
|  Street           |  AE   |
|   |  X    |
|   |  X500 |

**Figure 8**  
 Flood Insurance Rate Map  
 Performing Arts Facility

University of Hawai'i at Mānoa ISLAND OF O'AHU

 NORTH	LINEAR SCALE (FEET) 0      250      500      1,000	 PBR HAWAII & ASSOCIATES, INC.
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Source: Federal Emergency Management Agency  
 Disclaimer: This graphic has been prepared for general planning purposes only.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

the October 30, 2004 storm event. Flood damage was further aggravated by debris clogged at the East Mānoa Road and Woodlawn Drive bridges over Mānoa Stream. Alternatives evaluated by the Corps included floodwalls or levees along selected portions of Mānoa Stream channel between the East Mānoa Road and Woodlawn Drive bridges, and creating an artificial channel between East Mānoa Road and Woodlawn Drive.

In October 2007, Austin Tsutsumi & Associates, Inc. (ATA) prepared a report entitled: *Utility Systems Report, University of Hawaii at Manoa, Long Range Development Plan 2007 Update, (Category I), Manoa, Honolulu, Hawaii*. ATA reported that: "The U.S. Department of Agriculture Natural Resources Conservation Services is currently investigating the flood mitigation and restoration of Mānoa Stream in the Mānoa Watershed Project. The project is a partnership between city, state and federal agencies as well as a consultant team led by Oceanit, Inc. They expect to have a final Environmental Impact Statement and implementation plan by the end of 2008 with design and implementation to follow thereafter. Through this project, the flood mitigation measures such as the measures suggested in the U.S. Army Corps' report (e.g., adding a flood wall or levee at the Woodlawn Drive Bridge) will be implemented. It is recommended that the University be represented at the Mānoa Watershed Project meetings to review their recommendations and monitor the Project's implementation of the recommendations in order to coordinate improvements affecting the University's property."

After the flood event, the debris at Woodlawn Drive (including cars) was removed. Mālama O Mānoa has "adopted" the reach of Mānoa Stream between East Mānoa Road and Woodlawn Drive and conduct stream clean-ups quarterly.

## **Tsunami**

Since the early 1800s, approximately 50 tsunamis have inundated Hawai'i's shores. Seven historical events have caused major damage. Two tsunami were generated locally. The proposed Performing Arts Facility is located well outside the defined tsunami inundation area.

## **Hurricanes**

Since 1980, two hurricanes have had a devastating effect on Hawai'i: Hurricane 'Iwa in 1982 and Hurricane 'Iniki in 1992. Long-term prediction of future hurricanes is virtually impossible. However, one should reasonably anticipate the prospect of another hurricane impacting the islands.

## **Earthquake & Volcanic Hazards**

In Hawai'i, volcanic activity produces most earthquakes in contrast to other areas sitting on tectonic plate margins. Thousands of earthquakes occur in Hawai'i each year. However, the vast majority of them are undetectable through normal human senses. A few historical earthquakes have reached moderate and even disastrous magnitudes.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

The last earthquakes felt statewide were magnitudes of 6.7 and 6.0. These earthquakes occurred at Kīholo Bay along Hawai'i Island's Kona Coast on October 15, 2006. These earthquakes resulted in more than \$100 million in damages to the northwest area of Hawai'i Island and minimal damage on O'ahu. From that same event, O'ahu was also subject to an earthquake induced electrical blackout that paralyzed the City of Honolulu and shut down the Honolulu International Airport for nearly a day.

## ***Potential Impacts and Mitigation Measures***

The Performing Arts Facility should not have any impact or any deleterious effects on natural hazard conditions and no unique mitigative measures are planned, other than observing the International Building Code in the design of the facility (to address the potential impacts from hurricanes and earthquakes). While flooding of a portion of the site from Mānoa Stream is of possible concern (if similar conditions to October 30, 2004 storm event occurs), the proposed building will consist of parking on the lower floors, with the expansion of the Theatre occurring on the upper floors. Thus, loss to property during an event similar to what occurred on October 30, 2004 would likely be limited to damage to parked cars (instead of classrooms, etc.).

## **3.5 FLORA & FAUNA**

The University of Hawai'i at Mānoa has been subject to intense human utilization over the past century. Within the immediate proximity of the project site, there are no known habitats for rare, threatened, or endangered flora or faunal species. The main landscaping features of the site include the sloped embankment between the rear of the theatre True Kou and Naio and the parking lot, a landscaped median in the parking lot, with only one mature tree (Pride of India), and a grassed area between the parking lot and the Physical Science Building which include only two mature trees (Sea Grape and 'Opiuma) and a few smaller specimens of California Pepper.

## ***Potential Impacts and Mitigation Measures***

The proposed project will involve the removal of the landscaped sloped embankment, the parking lot (and landscaped median), as well as a portion of the grassed area between the parking lot and Physical Science Building. However, the proposed project will not have any impact on endangered flora or faunal species. No mitigation measures are planned.

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI'I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

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## **4.0 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES**

This section describes the existing conditions of the human environment, potential impacts of the Performing Arts Facility, and mitigation measures to minimize any impacts.

### **4.1 ARCHAEOLOGICAL AND CULTURAL RESOURCES**

#### **4.1.1 Archaeological Resources**

The project site consists of a paved parking lot, and has been heavily modified. The existing Kennedy Theatre is part of the East-West Center complex listed on the Hawai'i Register of Historic Properties (Site No. 80-14-9824). In May 2008, Cultural Surveys Hawai'i, Inc. (CSH) completed *Archaeological Literature Review and Field Inspection Report for the University of Hawai'i at Mānoa Long Range Development Plan Project Mānoa [Waikīkī] Ahupua'a, Kona District, O'ahu Island*. The closest historic property documented near the project site is identified as State Inventory of Historic Place (SIHP) No. 50-80-14-4191. According to CSH, this site is a traditional-style, presumably pre-Contact-era burial discovered during construction activities near Keller Hall. According to Figure 43 of the CSH report, SIHP No. 50-80-14-4191 is located mauka of Keller Hall on the McCarthy Mall-side of the building.

#### ***Potential Impacts and Mitigation Measures***

Hawai'i Revised Statutes Section 6E-8 mandates the review of proposed state projects on historic sites by the State Historic Preservation Division (SHPD). During the pre-consultation process, the SHPD wrote that its Chapter 6E-8 HRS determination is pending ongoing design development. The University of Hawai'i will continue to coordinate with SHPD in the proposed project.

According to CSH, "Given the Keller Hall burial discovery (SIHP No. 50-80-14-4191), in particular, it is possible that as yet undiscovered burials may still be present at some locations on the UHM campus; however, it is fairly difficult to predict with any specific certainty where burials might occur. Recent work in the "Old Quadrangle" portion of campus (McIntosh and Cleghorn 2007), and earlier work near the School of Architecture Building (Jones et al. 1994) did not find burials or any other historic resources; thus, CSH recommends consultation with the SHPD on future excavation projects on the UHM campus."

The University does not anticipate any adverse impact to archeological resources as a result of construction. The succession of construction projects and grading activities has extensively disturbed the project area, making the possibility of encountering any remaining surface, or sub-surface features unlikely. Based on prior grubbing and grading

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

activities, and paving of the existing parking lot, it is unlikely that the proposed project would not have an adverse impact on any significant historic properties. However, should the inadvertent discovery of significant cultural materials and/or burials occur during construction, all work in the immediate area of the find must cease and the SHPD be notified.

## 4.1.2 Cultural Resources

The project site consists mostly of an existing paved parking lot, and does not appear to provide any resources of use or interest to native Hawaiian cultural practitioners, such as food gathering, shelter, tool or weapon making, kapa-making, traditional medicines, lei making, etc. The Office of Hawaiian Affairs (OHA) was contacted during the pre-consultation process for this Environmental Assessment, but no response was received. The closest site on University lands where native Hawaiian culture is being practiced is at Kānewai Lo'i. According to the website UH Today:

*The University of Hawai'i at Mānoa is the center of Hawaiian studies in the nation, and with this in mind the first school was added to the UH system in 20 years is Ka Papa Lo'i O Kānewai.*

*Ka Papa Lo'i O Kānewai is an interactive class on lo'i cultivation, the fields of taro. The Director of the Lo'i Studies, Makahiapo Cashman, said that he is excited that the school has its own entity and opportunity to focus completely on the Hawaiian culture.*

*"It's really nice, you know. It gives us a voice, it gives the lo'i a voice, it gives hāloa a voice and our students a voice too, so it's really nice to be recognized," said Cashman.*

*The Lo'i is located below the Mānoa river, right next to the Hawaiian Studies building. The Lo'i has 40 varieties of taro, making it the only school in the world that offers students a "hands on" experience. The public is also allowed to visit the Lo'i and learn about it. "In order to do lo'i, you need thousands of people, you know. And that's what this place does, it brings a lot of people together, and we get a chance to share our culture with other people too," he said.*

*Students learning taro cultivation seemed to enjoy the outdoor atmosphere. One of Cashman's students, Jaime Nioi Tabag, a UH Manoa senior, said, "I've learned more and I've also learned how to pull them out, where to cut it, what each part represents, the name for each part and basically this ground, why this ground exists today, the history."*

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## *Potential Impacts and Mitigation Measures*

The proposed Performing Arts Facility is located away from the Kānewai Lo'i and should not have an adverse impact on the native Hawaiian cultural practices occurring there. Should iwi kupuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance or excavation, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Based on historical research and the lack of responses received from the Office of Hawaiian Affairs, it is reasonable to conclude that, pursuant to Act 50, the exercise of Hawaiian rights, or any ethnic group, related to gathering, access or other customary activities within the project parcels will not be affected and there will be no direct adverse effect upon cultural practices or beliefs.

## **4.2 ROADWAYS AND TRAFFIC**

As part of the University of Hawai'i at Mānoa Long Range Development Plan 2007 Update (LRDP Update) process, Austin, Tsutsumi & Associates, Inc. (ATA) completed a Traffic Impact Analysis report (TIAR) in October 2007. Also in conjunction with the LRDP update, a consultant, Parking Planners, conducted a Parking Supply/Demand Study and Site Alternatives Evaluation. As part of the overall LRDP Update document, both reports were accepted by the University of Hawai'i Board of Regents in November 2007. The TIAR included an assessment of traffic from the proposed parking structure at Kennedy Theater. Relative to the TIAR, the proposed parking structures (another proposed is referred to as "Parking Structure IIB/Bookstore [900 parking stalls]) were deemed the only part of the LRDP that will significantly alter traffic operations along the roadways within the area. This was attributed to the fact that traffic projections for universities are generally based upon student enrollment, which is not projected to increase.

### **Streets Surrounding the Mānoa Campus**

The roadway network in the vicinity of the campus includes:

**University Avenue** is a six-lane, north-south major collector roadway in the vicinity of UHM. North of Maile Way, the roadway narrows to two lanes. South of the H-1 Freeway, the roadway narrows to four lanes with channelization. In addition to UHM, this roadway serves as one of two primary access roads into Mānoa Valley, which is comprised primarily of residential land uses. South of UHM, on-ramps and off-ramps to the eastbound/westbound H-1 Freeway are provided. University Avenue ultimately terminates at Ala Wai School.

**East-West Road** is a two-lane UHM campus road that provides access from Dole Street into the UHM's Central Campus.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

**Lower Campus Road** is a three-lane UHM campus road that provides access from Dole Street into UHM’s Lower Campus (and athletic complex) and connects Lower Campus Road, the H-1 Freeway off-ramp, Varsity Place and Old Wai‘alae Road.

**Dole Street** is a four-lane, two-way east-west collector road between University Avenue and East-West Road, where it is otherwise a two-lane collector road.

**Metcalf Street** is a two-lane, two-way east-west collector road that begins at its intersection with Alexander Street (near H-1 Freeway westbound on-ramp) to the west and terminates at University Avenue, where it continues eastward as Campus Road, which is (blocked off with bollards) inaccessible to vehicles from University Avenue.

**Maile Way** is a two-lane, two-way east-west minor collector road that begins at its intersection with O‘ahu Avenue and provides vehicular access along the mauka side of the campus from University Avenue through UHM’s Central Campus and terminates at its intersection with East-West Road.

## TheBus

TheBus, which is the public transportation service provided by the City and County of Honolulu, provides various bus routes to and from the Mānoa Campus. These routes include:

**Route A** – Express bus service connecting the campus with Waipahu, and several points in-between, including Pearl City, Aloha Stadium, Kalihi Transit Center, Liliha, Downtown, and Ala Moana Shopping Center.

**Route F2** – Express bus service connecting the campus with Aloha Tower, allowing riders to utilize TheBoat, a ferry service connecting Aloha Tower with Kapolei (Kalaehoa Barbers Point Harbor).

**Route 4** – A bus service that connects Nu‘uanu Valley, Downtown, Punchbowl, Makiki, the Mānoa Campus, Kapahulu, Waikīkī and the Honolulu Zoo.

**Route 6** – A bus service that connects Nu‘uanu Valley, Downtown, Ward Center, Ala Moana Shopping Center, Mō‘ili‘ili, the Mānoa Campus, and Mānoa.

**Route 18** - A bus service that connects the Ala Moana, Makiki, the Mānoa Campus, and Kaimukī.

**Route 85A** – Express bus service connecting the campus with Kāne‘ohe, and several points in-between, including Makiki, Downtown, and Kamehameha Shopping Center.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

While a one-way fare is \$2.00, monthly adult passes offering unlimited rides are available for \$40 a month. TheBus offers a reduced fare called the U-Pass for \$100 per semester.

Effective July 1, 2007, as the result of legislative action, the University has implemented a Pre-Tax Bus Pass option for University employees. This program is authorized under Section 132(f) of the Internal Revenue Code, known as the Transportation Equity Act for the 21<sup>st</sup> Century. Eligible University employees living and working on the island of O'ahu will be given the opportunity to purchase monthly bus passes through payroll deduction, on a pre-tax basis, thereby saving on FICA, Federal and State income taxes.

## **On-Campus Shuttle**

UHM Parking Operations provides a free on-campus shuttle bus service for faculty, staff, students and visitors. The Rainbow shuttle bus system consists of various shuttle routes which provide a mode of transportation throughout the campus during the fall and spring semesters, with various routes offered during the day and evening hours. The daylight hour routes are extensive and some routes extend into Mānoa Valley, providing service to the faculty housing in the Valley and Upper Campus, Wa'ahila Faculty Housing and into Mō'ili'ili. The route that includes Mō'ili'ili serves to supplement TheBus routes that do not reach the Mānoa Campus.

The evening hour service serves the student housing overlooking the Makai Campus and is especially important for the security of female students, faculty and staff. Modified routes and schedules operate during semester breaks.

## **Carpooling**

While carpooling has long been an option for commuters, regardless of the destination, the State also offers an organized carpooling program, call Vanpool Hawaii for \$55 a month. A vanpool is a group of 7 to 15 people who share the commute to and from work in a Vanpool Hawaii van. The most successful vanpool programs are ones that have commuters who live and work (or study) in the same geographical area and, of course, have similar work/school schedules. Vanpool riders also have the additional benefit of using HOV and Zipper Lanes (rules recently revised to require three or more passengers per vehicle to utilize Zipper Lanes).

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## Existing Traffic

The hourly turning movement data utilized in TIAR was collected by ATA between Tuesday, April 20 and Thursday, April 22, 2004. Traffic counts were redone at the University Avenue/Dole Street intersection on September 13, 2007. The counts showed a slight decrease in volume during the PM peak hour of traffic, and a negligible increase during the AM peak hour of traffic. Based on traffic count data, ATA determined that the peak hours of traffic were from 6:45 AM to 7:45 AM and 4:30 PM to 5:30 PM on weekdays.

Level of Service (LOS) is a qualitative measure used to describe the conditions of traffic flow at intersections, with values ranging from free-flow conditions at LOS A to congested conditions at LOS F. The Highway Capacity Manual – Special Report 209 (HCM), dated 2000, methods for calculating volume to capacity ratios, delays and corresponding Levels of Service were utilized in the TIAR.

According to the TIAR, the Manual on Uniform Traffic Control Devices, 2003 edition (MUTCD) recommends that successive intersections along a major arterial and within proximity of less than a half of a mile of each have their timing optimized and coordinated in order to facilitate optimal vehicular flow along the arterial. Currently, most of the signalized intersections along the following arterials meet this criterion:

- South King Street;
- Beretania Street; and
- University Avenue (only between Varsity Place and King Street).

The University Avenue/Dole Street and Dole Street/Lower Campus Road intersections are not currently coordinated. Coordination is accomplished by ensuring that each intersection within the coordinated region is bound by the same cycle length (or multiples thereof), and that the through traffic on the major arterial in the peak direction is allowed to flow at carefully planned offsets through consecutive intersections. This reduces the “stop and go” effect that drivers experience on uncoordinated systems, where red lights sometimes appear at each successive intersection, thus increasing motorist frustration and delay.

As a consequence of coordination and fixed-cycle lengths in general, vehicles traversing the minor approaches and those making the left-turn movement off of the main road often must wait at the intersection, despite the absence of vehicles traversing the main road.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## Analysis of Intersections

ATA analyzed several intersections, including, but not limited to the following:

**University Avenue/Dole Street** - Due to the fact that this intersection serves as a junction point between Mānoa Valley residents accessing the H-1 Freeway and cars accessing the Quarry Parking Lot and Central Campus, congestion occurs at this intersection. One problem observed during the AM peak hour of traffic is that vehicles traveling in the northbound direction queue back beyond the H-1 Freeway off-ramps (approximately 1,000 feet) due to:

- Prohibition of right-turn-on-red in the northbound direction, although an extraordinarily high number of right turns occur (648) during the AM peak hour of traffic;
- Weaving pattern – vehicles exiting the H-1 Freeway off-ramps in the northbound direction along University Avenue do not always make the right-turn. In fact, their destinations may include Saint Francis School, the Mid-Pacific Institute, the University Laboratory School, Mānoa Valley, Maile Way, Mō'ili'ili, and u-turns towards the south. As these vehicles exit the H-1 Freeway off-ramp, they attempt to move towards the center and left lanes while the prevailing queue hinders this movement. Furthermore, especially during the AM peak hour of traffic, after exiting the H-1 Freeway eastbound and westbound off-ramps, vehicles immediately move towards the left lane in order to make u-turns; and
- Current information indicates that the University Avenue/Dole Street and the Dole Street/Lower Campus Road intersections are not coordinated. This could be a contributing factor to problems at these intersections. The result of this is a vehicular queue that causes queues to extend through the H-1 Freeway off-ramps and onto the Freeway. During the PM peak hour, congestion in the westbound direction queues back beyond the Dole Street/Lower Campus Road intersection and near the Law School Library. This often reduces the ability of vehicles to make the northbound left-turn out of Lower Campus Road onto Dole Street.

**University Avenue/Metcalf Street** - Vehicles generally flow smoothly through this intersection.

**University Avenue/Maile Way** - Although analysis indicates that this intersection operates at LOS B\_during the AM and PM peak hours of traffic, vehicular flow in the northbound is often impeded by:

- Narrowing of University Avenue to two (2) lanes immediately north of the University Avenue/Maile Way intersection;

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

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- Occasional school bus stoppages (near the Mid-Pacific Institute) during the AM peak hour of traffic; and
  - Operations at signalized intersection of University Avenue and Ka‘ala Street, which incidentally provides access to the Mid-Pacific Institute. No channellized lanes are currently provided at this intersection.

**Dole Street/Lower Campus Road** - This intersection serves as the highest volume access road into the Makai Campus. Currently, 3,509 parking stalls exist within the Makai Campus. These stalls, in combination with drop-off/pick-up turn around's at the Music Building and Law School Parking Lot, contribute to the high turning movement volume into and out of this intersection.

During the AM peak hour of traffic, 490 vehicles make the eastbound right-turn into Lower Campus Road. Some of the congestion along University Avenue can be attributed to this.

During the PM peak hour of traffic, approximately 271 vehicles make the northbound left-turn out of Lower Campus Road and westbound onto Dole Street, whereupon they immediately meet the westbound queue generated by the University Avenue/Dole Street intersection.

**Dole Street/East-West Road** – This intersection operates relatively smoothly during both the AM and PM peak hours of traffic.

## Existing Level of Service (LOS) at Representative Intersections

Table 4-1 provides a summary of the existing level of service of the above intersections as observed in the TIAR.

**Table 4-1  
Existing Traffic Level of Service (LOS) at Representative Intersections**

INTERSECTION	LOS – AM	LOS - PM
University Avenue/Dole Street	E	F
University Avenue/Maile Way	B	B
University Avenue/Metcalf Street	A	A
Dole Street/Lower Campus Road	A	F
Dole Street/East-West Road	B	B

The TIAR also notes that currently observed heavy regional traffic at the intersections of South King Street/Beretania Street and University Avenue, Wilder Avenue and Dole Street, Wai‘alae Avenue and St. Louis Heights Drive, and University Avenue and Varsity Place. At the intersection of Dole Street and Lower Campus Road, heavy traffic occurs

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

during the PM Peak hour, with lighter traffic during the AM Peak Hour. Also, the TIAR found the intersections of University Avenue and Maile Way, and Dole Street and East-West Road to operate at acceptable levels.

The Parking Supply/Demand Analysis prepared in conjunction with the Traffic Impact Analysis for the LRDP concluded that visitor parking lots are at maximum capacity and that faculty and student parking lots are exceeding capacity. The analysis goes on to evaluate alternatives to addressing the parking demand using a ranking system to evaluate parking options. Options considered included parking facilities at the College of Education; adjacent to Sinclair Library; adjacent to Spalding Hall; adjacent to Agriculture Science; Kennedy Theatre; adjacent to Pacific Ocean Science; and a Lower Campus Structure. The ranking system evaluated the various parking options' proximity to demand; cost per parking space; capacity; traffic issues; and, consistency with LRDP objectives. The highest ranked option in this evaluation was the parking structure associated with the proposed Performing Arts Facility.

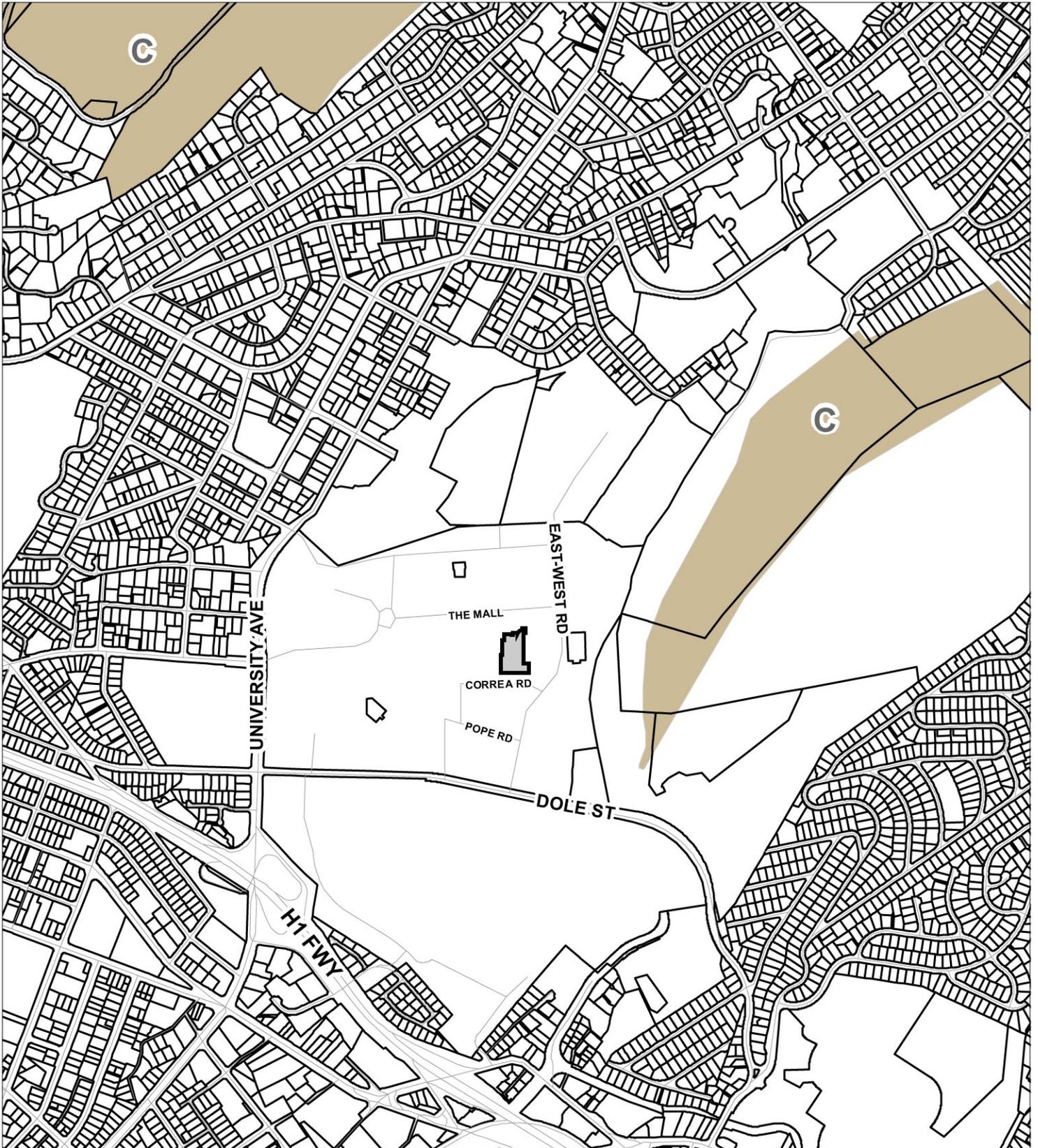
Vehicular access to the existing Theatre is available from East-West Road; however, access to the project site, behind (and ewa) of the Theatre is via Correa Road. Presently, the project site provides parking for 131 automobiles.

## ***Potential Impacts and Mitigation Measures***

The analysis of traffic impacts must take into account the underlying traffic that would occur in the projected year, without the proposed project. The Year 2017 was selected as the Base Year to reflect the time table for Category 1 of the LRDP (5-10 Years). Base Year 2017 projections were formulated by applying a defacto growth rate to existing hourly vehicular traffic volumes.

## **Traffic Projections without the Proposed Project**

The State Department of Transportation (SDOT) performs 24-hour traffic counts annually at various locations on O'ahu. Based on this data, it was possible to estimate the prevailing regional growth along King Street and Wai'alae Avenue, which is predicted to be approximately 1 percent, annually. By the year 2017, this equates to a 10.5 percent increase over existing conditions. No growth was projected near the University, since the LRDP projects that UHM's student enrollment will remain stable, and that not much more residential or commercial development will occur within the area. Not factored into the projections were the possible impacts that rising fuel prices and the implementation of the Honolulu High-Capacity Transit Corridor (HHCTC) (rail transit) may have on reducing vehicle trips.



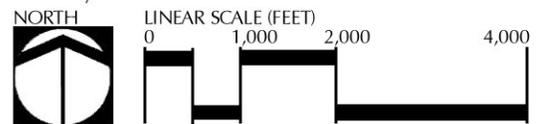
**LEGEND**

-  Project Area
-  A - Agricultural
-  C - Conservation
-  R - Rural
-  U - Urban
-  Street

**Figure 9**  
 State Land Use Classification  
**Performing Arts Facility**

University of Hawai'i at Mānoa

ISLAND OF O'AHU



Source: State Land Use Commission  
 Disclaimer: This graphic has been prepared for general planning purposes only.

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI‘I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

**Projected LOS Without the Proposed Project**

Table 4-2 provides a summary of the projected traffic level of service in the Year 2017 at representative intersections.

**Table 4-2**  
**Comparison of Existing and Base Year 2017 LOS at Representative Intersections**

<b>INTERSECTION</b>	<b>EXISTING LOS – AM</b>	<b>EXISTING LOS - PM</b>	<b>YEAR 2017 LOS – AM</b>	<b>YEAR 2017 LOS - PM</b>
University Avenue/Dole Street	E	F	E	F
University Avenue/Maile Way	B	B	B	B
University Avenue/Metcalf Street	A	A	A	A
Dole Street/Lower Campus Road	A	F	A	F
Dole Street/East-West Road	B	B	B	B

**Regional Future Traffic and Intersections Requiring Mitigation Measures.**

Based on the defacto growth rate, regional traffic will increase along King Street, Wai‘alae Avenue, and Beretania Street. However, most of the study intersections will experience a relatively stable demand, due to the fact that development and student base within the area is projected to remain constant for all intents and purposes. LOS F conditions will continue to occur at the following intersections:

- South King Street/Beretania Street/University Avenue\*
- University Avenue/Varsity Place\*
- University Avenue/Dole Street\*
- University Avenue/Sinclair Parking Lot\*
- Dole Street/Wilder Avenue - (Mitigation would result in the reduction of traffic flowing from the H-1 Freeway on-ramp, which is not recommended. Furthermore, the Dole Street traffic that experiences LOS F exhibits a relatively low demand due to further downstream obstructions and better alternative routes. Therefore, mitigation is not recommended.)
- Dole Street/Lower Campus Road\*
- Dole Street/Saint Louis Heights Drive – (While the southeast-bound left-turn currently experiences and will continue to experience LOS F during the AM and PM peak hours of traffic, the demand for this movement is relatively low, and would not warrant a Traffic Signal. Mitigation is not recommended.)
- Wai‘alae Avenue/Saint Louis Heights Drive - Due to limited right-of-way, no geometric improvements can be made at this intersection.

\* Indicates that mitigation is proposed.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

While mitigation is proposed to address the above intersections with asterisks after them, the remaining intersections will be discussed below.

**Dole Street/Wilder Avenue** - The northbound approach to this intersection is a busy freeway off-ramp, whose vehicular flow should not be impeded to accommodate minor street traffic.

**Wilder Avenue**, in general, is congested downstream in the westbound direction during the AM and PM peak hours of traffic due heavy school traffic caused by Punahou and Maryknoll schools. Therefore, no mitigation is recommended for this intersection.

**Dole Street/Saint Louis Heights Drive** - While turning movement analysis indicates that the eastbound left-turn movement at this intersection will continue to operate at LOS F during the PM peak hour of traffic, this intersection was not observed to be problematic during the AM or PM peak hours of traffic. Furthermore, with only 25(45) vehicles making this turn during the AM(PM) peak hours of traffic, a traffic signal will not be warranted. No mitigation is recommended for this intersection.

**Wai'alaie Avenue/Saint Louis Heights Drive** - This intersection currently operates at an observed LOS F during the AM and PM peak hours of traffic. However, due to limited right-of-way, no geometric improvements can be made at this intersection.

## Specific Mitigation Measures for Future Traffic

As shown in Table 4-2, there is very little difference between existing LOS and the projected LOS. However, ATA recommends a number of mitigation measures (in two phases), as described below.

**Phase I** - Reconfigure the westbound approach to the University Avenue/Dole Street intersection to incorporate an exclusive left-turn lane, a shared left-turn/through lane, and an exclusive right-turn lane, with lane storage extending approximately 100 feet east of the University Avenue/Lower Campus Road intersection. This mitigation measure may necessitate the relocation of the historic Gateway structures located along University Avenue. The effect of Phase I would be to eliminate over-capacity conditions. However, the southbound left-turn movement would still experience LOS F during the PM peak hour of traffic.

**Phase II** - Reconfigure the northbound approach to the University Avenue/Dole Street intersection to incorporate three (3) exclusive through lanes and two exclusive right-turn lanes, the rightmost of which would directly connect with the H-1 Freeway westbound off-ramp. In conjunction with this, modify the Dole Street/Lower Campus Road intersection to incorporate one (1) eastbound through lane, an eastbound shared

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

through/right-turn lane, and an exclusive right-turn lane. Note that these modifications could potentially necessitate the relocation of the existing monkeypod trees along University Avenue, and reduce the available parking within the Music Building Complex. Phase II, when implemented without Phase I, would produce a similar result as Phase I, in that over-capacity conditions would be eliminated, and that the southbound left-turn movement would continue to experience LOS F, while the eastbound and westbound approaches would experience LOS E during the PM peak hour of traffic.

**Phases I & II** - Analysis indicates that the effect of implementing Phases I and II in combination would improve the overall delay of the intersection from 73.1 (56.6) seconds during the AM (PM) peak hours of traffic to 38.8 (39.9) seconds, with all movements at the intersection operating at LOS E or better during both hour periods. It should be noted that at the Dole Street/Lower Campus Road intersection, the lane modification will reduce the number of lanes that drivers need to cross to enter the Lower Campus Road, thereby reducing capacity reductions caused by weaving movements.

ATA recommends that Phases I and II be implemented as a mitigation measure, while recognizing that the intent of this geometric augmentation would be to improve conditions for vehicles traveling northbound along University Avenue. Although vehicular flow will also improve in the westbound direction during the PM peak hour of traffic, such benefits would generally be realized locally, given that existing bottlenecks occur downstream at the following locations:

- University Avenue/H-1 Freeway eastbound on-ramp
- University Avenue/H-1 Freeway westbound on-ramp
- South King Street/Beretania Street/University Avenue
- Dole Street/Wilder Street
- University Avenue, south of Maile Way

Mitigation of these problems would require costly modifications, including improving congestion along the entire corridor. The H-1 Freeway, Beretania Street, and South King Street would all have to be widened to accomplish this. However, the implementation of the proposed rail transit system will ultimately reduce future vehicular traffic demand.

**Turning Movement Restriction** - During field observations, it was noted that along South King Street, east of University Avenue, and University Avenue in the Varsity Area, vehicular flow was hampered by the allowing of left-turns into driveways and small side streets.

*Varsity Area* - Vehicles turning left from the southbound direction cause other vehicles to switch lanes to maneuver around them. Due to the lack of an acceptable gap in northbound traffic, these vehicles often cause those behind them to arrive at the South King Street/Beretania Street/University Avenue intersection after the signal indication has turned red. The resulting flow interruptions have major implications along University

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Avenue in this area, due to the fact that the current cycle length at that intersection is 170 seconds. Effectively, all of the vehicles impacted by this problem will be delayed by an additional two minutes, fifty seconds as the traffic signal cycles through all of its phases again. Operations at the University Avenue/Varsity Place intersection are also affected by this problem.

Similarly, in the northbound direction left-turns impede the flow of the approximately 1,000 vehicles (for both AM and PM peak hours of traffic) traveling in the northbound direction, sometimes reducing the upstream capacity of the South King Street/Beretania Street/University Avenue intersection.

*South King Street – University Avenue to Humane Society* - South King Street, east of University Avenue has become a bottleneck for eastbound traffic during the PM peak hour of traffic. It has been observed that vehicles traveling eastbound along South King Street are affected by vehicles making left-turns into driveways, and at the signalized intersection near the Seven Eleven/Aloha Gas station.

Based on the conditions described above, ATA recommends that a dialogue be initiated between community members and the City to assess the potential for left-turn prohibitions during the PM peak hour of traffic for:

- Northbound and southbound University Avenue traffic, south of Varsity Place, and north of King Street
- Eastbound South King Street traffic, east of University Avenue and west of the Humane Society.

It is recognized that the merit of this mitigation measure will have to be balanced with the needs of the local community and businesses.

It should be noted that should these prohibitions be implemented, they would not eliminate LOS F at the South King Street/Beretania Street/University Avenue intersection. However, they would improve the efficiency of the intersection and the capacity of University Avenue and South King Street in the area.

*University Avenue/Sinclair Library Driveway* - While this intersection experiences a relatively low turning movement volume and operates at LOS B, the bus traffic that passes through the turnaround often have difficulty making the westbound left-turn out of the driveway. Therefore, ATA recommends that a traffic signal be installed to facilitate this movement. In conjunction with this, ATA recommends that the bus stop located along University Avenue, just north of Dole Street be relocated to the existing bus turnaround at this intersection.

*University Avenue/Maile Way* - Although analysis indicates that this intersection operates at LOS C (B) during the AM (PM) peak hours of traffic, existing operations have been

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

observed to be worse, especially during the AM peak hour of traffic, where vehicles destined towards the Mid-Pacific Institute and St. Francis cause the downstream intersection (Ka'ala Street) to be overburdened. Currently, this intersection only provides a single lane at each approach, with no channelization (turning lanes). ATA recommends that a dialogue be initiated between community members and the City to assess the feasibility for widening the segment of University Avenue between Ka'ala Street and Maile Way to incorporate a second northbound lane. This lane would terminate at Ka'ala Street as an exclusive right-turn lane.

### *Traffic Signal Coordination along University Avenue and Dole Street/Lower Campus Road*

All of the signalized intersections along University Avenue between Dole Street and Maile Way, and the Dole Street/Lower Campus Road intersection are within approximately 1,000 feet or less of each other. Therefore, in order to facilitate flow between these intersections, ATA recommends that the following intersections be coordinated:

- University Avenue/Maile Way
- University Avenue/Metcalf Street
- University Avenue/Sinclair Library Parking Lot (New Signal)
- University Avenue/Dole Street
- Dole Street/Lower Campus Road

### **Projected LOS With Mitigation Measures**

Table 4-3 provides a summary of the projected traffic level of service after proposed mitigation measures in the Year 2017 at representative intersections.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

**Table 4-3**

**Comparison of Existing and Year 2017 LOS (With and Without Mitigation Measures) at Representative Intersections**

INTERSECTION	EXISTING LOS – AM	EXISTING LOS - PM	YEAR 2017 w/o MITIGATION LOS – AM	YEAR 2017 w/o MITIGATION LOS - PM	YEAR 2017 w/ MITIGATION LOS – AM	YEAR 2017 w/ MITIGATION LOS - PM
University Avenue/ Dole Street	E	F	E	F	D	D
University Avenue/ Maile Way	B	B	B	B	C	A
University Avenue/ Metcalf Street	A	A	A	A	A	B
Dole Street/Lower Campus Road	A	F	A	F	A	B
Dole Street/East- West Road	B	B	B	B	B	B

**Traffic Impacts Associated with Implementation of the Proposed Project and the Rest of the Updated LRDP**

While the LRDP includes new parking structures, the number of students is not projected to increase as a result of these additions. Ultimately, as based on standard methods for generating trips for universities, this would mean that the number of vehicular trips generated by the implementation of the updated LRDP, including the proposed Performing Arts Facility project, will remain the same. However, a redistribution of the existing trips will occur, in this case more heavily concentrating traffic at the University Avenue/Dole Street, Dole Street/Lower Campus Road, and Dole Street/East-West Road intersections. However, given the improvements recommended in Base Year 2017 Mitigation Measures, these intersections will continue to operate at LOS E or better and under capacity. As stated earlier, one caveat to this statement is that downstream conditions along University Avenue and subsequently the H-1 Freeway, Beretania Street, and South King Street will continue to experience congestion, and may therefore limit the incoming/outgoing capacity in the area. No improvements beyond those recommended in Base Year 2017 Mitigative Measures are recommended. Improvements at the Old Wai‘alae Road

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Entrance/Exit and at the Varsity Place were investigated, and are generally not recommended.

## 4.3 NOISE

Existing noise levels at and immediately adjacent to the proposed site mimic those typical of a campus parking lot. The existing parking lot is surrounded on three sides by campus buildings (Kennedy Theatre, Keller Hall and the Physical Sciences Building). Many of the windows of the previously mentioned buildings facing the existing parking lot behind Kennedy Theatre are fully enclosed (windows do not open) and are air conditioned.

### *Potential Impacts and Mitigation Measures*

Construction activities for the re-development of the Kennedy Theatre will inevitably create temporary noise impacts. The building contractor may employ mitigation measures to minimize those temporary noise impacts including the use of mufflers and implementing construction curfew periods. Pursuant to Chapter 11-46, Hawai'i Administrative Rules, all project activities must comply with all community noise controls. The Mānoa Campus was not constructed all at once and has gradually developed. As each building was constructed, classes in the surrounding buildings presumably experienced the temporary inconvenience of louder construction noise during some classes. It is assumed that most students and instructors adapted to these temporary inconveniences.

Once in operation, the Kennedy Theatre will generate noise consistent with current operations. Noise levels will elevate when large numbers of vehicles enter or exit the parking structure (especially before and after classes – when classes are not in session). Because the surrounding buildings will eventually be fully enclosed, the parking structure will not create noise impacts or noise-related disruption to students and staff using these buildings. No mitigation measures are proposed as the noise generated as a result of the expansion represents no substantial change from current noise occurrences.

## 4.4 AIR QUALITY

The State's good air quality is largely a function of the predominant tradewinds blowing from the northeast. The typical tradewind pattern blows man-made and volcanic pollutants out from metro Honolulu toward the ocean. However, during non-tradewind periods, man-made and volcanic pollutants tend to accumulate on island impacting visibility.

### *Potential Impacts and Mitigation Measures*

The University recognizes the potential for impacts to air quality during construction. This could occur from additional traffic generated by construction vehicles, machinery, and dust generated during demolition of existing parking pavement and excavation.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

An effective dust control plan will be implemented as necessary. All construction activities will comply with the provisions of Title 11, Chapter 59, HAR related to Ambient Air Quality Standards and Section 11-60.1-33, HAR related to Fugitive Dust. Measures to control dust during various phases of construction include:

- Providing an adequate water source at the site prior to start-up construction activities;
- Irrigating the construction site during periods of drought or high winds;
- Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;
- Disturbing only the areas of construction that are in the immediate zone of construction to limit the amount of time that the areas will be subject to erosion;
- Providing adequate dust control measures during weekends, after hours, and before daily start-up of construction activities; and
- Installing silt screening in the areas of disturbance.

Long-term, a parking structure could have an impact on air-quality in the immediate vicinity if not ventilated properly. The parking structure is planned to be open-walled, thus allowing air to circulate through the structure, ensuring that indoor air as well as air in the immediate vicinity are not negatively impacted.

## 4.5 VISUAL RESOURCES

The proposed theatre expansion is located in the middle of the University campus surrounded by buildings similar in height and mass. The City & County's Primary Urban Center Development Plan does not recognize any view planes encompassing the construction site that requires consideration and accommodation.

### ***Potential Impacts and Mitigation Measures***

The dense nature of the University campus and the congruence of the proposed construction's mass and height with those of surrounding buildings will not induce adverse impacts to any recognized view planes. From East-West Road (east of the site), the Performing Arts Facility will be mostly obscured from views by the existing theatre building, and mature banyan trees. Similarly, from the north (mauka) and west, existing structures will mostly obscure the proposed parking structure and theater expansion building. In addition, the University's own design review process will help ensure that the proposed building is architecturally compatible with surrounding structures. Because no visually adverse impacts are expected, no additional mitigative measures are proposed.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 4.6 SOCIAL & ECONOMIC CHARACTERISTICS

According to the 2000 Census, the population of City and County of Honolulu numbered 876,156 individuals. The most recent American Community Survey conducted for City and County in 2006 by the Census Bureau accounted for 909,863 residents, representing a 4% increase in population. Approximately 19% of the City and County residents have obtained a bachelor's degree or higher. The City and County has 64.7% of its residents actively participating in the workforce, with the median household income reported to be \$51,914 per year.

The most densely populated urban area on O'ahu and statewide, Honolulu is the State's center of commerce and industry. According to the American Community Survey of 2006, City and County of Honolulu residents are slightly older, more likely to have a college degree and a higher per capita income than residents of Hawai'i's other Counties. The proposed project site is located within the County Administrative District V which includes Kapahulu, Kaimukī, Pālolo Valley, St. Louis Heights, Mānoa, Mō'ili'ili, McCully, Kaka'ako, Ala Moana and Makiki neighborhoods. These neighborhoods are largely residential with housing types ranging from single family dwellings, to low, mid- and high-rise multi-family dwellings. Institutional uses are scattered throughout these neighborhoods, with the University of Hawai'i, being the most dominant institutional use in the vicinity. Small commercial nodes service the neighborhoods, predominantly along arterial and collector streets.

### ***Potential Impacts and Mitigation Measures***

The proposed project will enhance the capacity for arts education and entertainment at the University of Hawai'i. Renovation, expansion and modernization of the facility will help to ensure that UH maintains a robust educational program, and continues to attract students from Hawai'i and mainland United States as well as international students. The University serves as an important economic driver for the local neighborhoods where students, faculty and administration staff utilize retail and commercial services. However, as the expanded Kennedy Theatre will supplement an existing facility, it is not expected to increase the number of O'ahu's residents. The scope of the construction project will contribute positively to the construction industry and the expanded facilities, including retail shops, may contribute more jobs for UH students and/or O'ahu residents.

## 4.7 INFRASTRUCTURE AND UTILITIES

### 4.7.1 Water System

The existing Mānoa Campus is served by the City's Board of Water Supply (BWS) system. In October 2007, Austin Tsutsumi & Associates, Inc. (ATA) prepared a report entitled: *Utility Systems Report, University of Hawaii at Manoa, Long Range Development Plan 2007 Update, (Category I), Manoa, Honolulu, Hawaii.* ATA reported that there are several

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

water meters on campus that connect to the BWS system. The two main meters on the central campus are located near Burns Hall on Dole Street and just north of Kennedy Theatre on East West Road. ATA reported that since the last LRDP, some of the water lines that were inadequate for fire flow have been improved. These areas include the Teachers College/Lab School and Hemenway Hall. In addition, there were a few fire hydrants added to the Central Campus. According to Hida, Okamoto & Associates, Inc., there is an existing 12-inch water main located along Correa Road fronting the project site.

## ***Potential Impacts and Mitigation Measures***

Hida, Okamoto & Associates, Inc. estimates that the domestic water demand for the proposed project will be 5,000 gallons per day. The proposed domestic water connection will be made to an existing 12-inch water main located along Correa Road fronting the project site. A new reduced pressure principle backflow preventer will be provided. A new fire sprinkler line with double check type backflow preventer will also be connected to the existing 12-inch water main. There is an existing fire hydrant along Correa Road. A new fire hydrant will be installed between the proposed building and the Physical Science Building.

During the pre-consultation process, the City and County of Honolulu Board of Water Supply (BWS) commented that based on current data, the existing water system is adequate to accommodate the proposed development. BWS also commented that it reserves the right to change its assessment and the final decision on the availability of water will be confirmed when the building permit application is submitted for BWS's approval. In response to BWS' comments, the University will be required to pay the BWS Water System Facilities Charges for resource development, transmission and daily storage. Also, the University acknowledges that on-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department. Finally, the University acknowledges that BWS' Cross-Connection Control and Backflow Prevention requirements will be fulfilled prior to the issuance of the building permit.

ATA notes that although the additional buildings proposed in the LRDP will be increasing the water demand for UHM, UHM-proposed water conservation efforts should actually decrease the total water demand for UHM. Since 2002, the guiding principle of the University of Hawai'i is sustainability – living in ways that meet the campus' present needs without limiting the potential of future generations to meet their needs. ATA reported that as part of this philosophy, the University of Hawai'i and the Honolulu Board of Water Supply signed a memorandum of understanding in 2003 to establish a program for reducing water and wastewater use at the Mānoa Campus. The goal of the program is reportedly to reduce water consumption by 10 percent annually. According to ATA, a Water Management Plan (WMP) is planned to be developed and adopted by the Facilities Planning and Management Office (FPMO) to help incorporate and evaluate UHM's water conservation efforts. ATA reported that the WMP will consist of the following:

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## Analysis of the existing water system on campus

- Sub-meters - There are a minimal number of water meters on the Mānoa Campus. According to FPMO, the master water meter near East West Road serves over half of the campus. This makes it difficult to determine the optimal locations for improvements since there is no way of determining individual water uses. Sub-meters throughout campus could be installed to better monitor the water usage on campus.
- Determine the amount of fixture units and the daily demands for each building.
- Run a hydraulic model of the water system to check for adequate water supply and pressures.

## Mitigation Measures

- Landscape and Irrigation – The water from the Quarry as discussed above could provide a large part of the irrigation water for the Mānoa Campus. In addition to using this resource, the landscaping on campus should use native or adapted plants to reduce or eliminate irrigation requirements. The irrigation controllers should also be high-efficiency equipment and/or climate-based controllers as discussed in the Sustainability Guidelines.
- Low-flow plumbing fixtures – The Mānoa Campus is currently renovating their campus buildings to use low-flow fixtures. This should continue through the 5-10 year period, if not already completed. In addition, all new buildings should be constructed with low-flow fixtures.
- Education – Research, curriculum and community service projects for water conservation are currently taking place at the University and should continue through this LRDP.

## Monitoring

- The water usage should be monitored on a regular basis to determine if the mitigation measures are working. This can also help determine trouble spots in the buildings or water system.

### 4.7.2 Wastewater System

The UHM Campus wastewater is disposed through the City and County of Honolulu wastewater collection system which runs through the campus. According to Hida, Okamoto & Associates, Inc. there is an existing 8-inch sewer line between Keller Hall and the Physical Sciences Building which connects to an existing 24-inch sewer main located behind the Physical Sciences Building. The sewer main crosses Correa Road and eventually connects to the City and County Sewer system in Dole Street.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## ***Potential Impacts and Mitigation Measures***

Hida, Okamoto & Associates, Inc. estimates that the wastewater demand of the proposed project will be 6,000 gallons per day. Two new sewer connections will be provided. One to the existing 8-inch sewer near Keller Hall and the other through the parking lot fronting the Physical Science Building to connect to the existing 24-inch sanitary sewer main. The proposed project is not anticipated to have any significant adverse impact on the City’s wastewater collection system. A sewer connection application is required with the Department of Planning and Permitting, Wastewater Branch, to determine adequacy of existing sewer lines.

### **4.7.3 Drainage System**

The majority of the development site is impervious surface associated with building rooftops and a parking area. According to Hida, Okamoto & Associates, Inc. there is an existing 12-inch drain line between Keller Hall and the Physical Sciences Building which connects to an existing 18-inch drain line along Correa Road. The Campus drainage system eventually daylight into Manoa Stream.

## ***Potential Impacts and Mitigation Measures***

The existing surface parking lot landscaping will be replaced by the proposed parking structure, representing a nominal loss in pervious surfaces that likely infiltrated a very small volume of stormwater. The small increase in impervious surface area over existing conditions will generate a nominal increase in stormwater runoff. The structure will be tied into the University’s existing stormwater management system which can accommodate the roof drainage. Roof downspouts will connect directly to an existing 12-inch drain line between Keller Hall and the Physical Sciences Building. Drainage mitigation measures to create a “no increase in storm water runoff leaving the site” may include an underground retention pipe system. The result is no additional stormwater runoff as a result of the proposed project from the campus onto off-campus properties. Site erosion control measures and Best Management Practices will be utilized to reduce pollution from construction activities prior to entering the City and County’s drainage system. Other permanent mitigation measures such as vegetated roofs, porous paving and stormwater separators with media filters may be used to reduce the amount of runoff and improve stormwater quality, as discussed in the LRDP’s Sustainability Guidelines.

### **4.7.4 Electrical and Telecommunications Systems**

#### Electrical

According to Ronald N.S. Ho & Associates, Inc., Hawaiian Electric Co. presently serves the Manoa campus from two existing Substations. The East West Center Substations

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

located behind the John A. Burns Hall on the upper campus. The Quarry Substation is located along the lower Campus Road near Les Murakami Baseball Stadium. Both HECO substations contain three - 10 MVA transformers. These transformers are connected to existing HECO.4 6 kilo-volt (kV) transmission lines routed on the eastern side of Manoa Valley.

Under an electrical distribution system modernization project completed during the late 1990's, the distribution circuits were re-configured from radial feeders to loop feeders.

## Telecommunications

According to Ronald N.S. Ho & Associates, Inc., there are presently five telecommunications systems routed through the existing underground telecommunications duct system: telephone; cable television; campus area network (CAN); distance learning; and fire alarm. Hawaiian Telcom (HTCo.) provides telephone service and Ocean Cable provides cable television service to the campus. The main switch and hub for the campus telephone system is located on the 5<sup>th</sup> floor of the Bilger Hall Annex Building. Oceanic Cable services the upper campus from two connections points, one on University Avenue near Sinclair Hall and the other at the East West Center Road/Dole Street intersection.

## ***Potential Impacts and Mitigation Measures***

### Electrical

During the pre-consultation process, HECO reported that it has no existing facilities within the subject property. The University's civil and electrical engineering consultants will continue to coordinate with HECO's Engineering Department as plans progress. As requested by HECO, development plans will show all affected HECO facilities, and address any conflicts between the proposed plans and HECO's existing facilities. Pre-final development plans will be forwarded to HECO for review. Should the relocation of or additional facilities be required, a formal request will be submitted and coordinated through the appropriate HECO department(s).

According to Ronald N.S. Ho & Associates, Inc., a University-owned duct system consisting of two 5-inch concrete-encased, PVC conduits, containing 12.47 kV cables will be extended from the nearest existing electrical manhole along Correa Road to a switchgear and transformer located adjacent to or within the building. The existing 500 kVA transformer presently serving Kennedy Theatre is to be removed and a new secondary feeder from the Kennedy Theatre Extension transformer will be extended to provide electric power to Kennedy Theatre.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## Telecommunications

According to Ronald N.S. Ho & Associates, Inc., a duct system consisting of six 4-inch PVC concrete-encased conduits will be constructed to interconnect the proposed building with the existing telecommunications duct systems. A ductline will be extended southward from the building equipment room/entrance facility to Correa Road and intercept the existing communications duct systems.

The proposed project is not anticipated to have any significant adverse impact on existing electrical and telecommunications systems.

### **4.7.5 Solid Waste**

The Theatre expansion will generate solid waste volumes similar to that of the current facility.

### ***Potential Impacts and Mitigation Measures***

The proposed project will generate solid waste during construction. The contractor will be required to dispose of all waste in compliance with Department of Environmental Management requirements.

The University will incorporate provisions for the expanded facility into the existing solid waste management plan. Solid waste disposal will be in accordance with the guidelines set forth by the county's Department of Environmental Services.

## **4.8 PUBLIC SERVICES AND FACILITIES**

### **Police Protection**

The site is located within Honolulu Police Department District 7.

### **Fire Protection**

The Mānoa Fire Station and McCully Fire Stations are each within a mile of the University of Hawai'i Campus.

### **Health Care Services**

Across Correa Road from the project site is the University Health Services Mānoa (UHSM). UHSM is a unit within the Office of Student Affairs under the Vice Chancellor for Students. It was established in 1932 and has been at its present location, near project site, since 1964. The UHSM is staffed by physicians, nurse clinicians, nurses, and other support staff. A wide range of medical services and programs are offered. These include the General Medical Clinic, the Women's Health Clinic, Sports Medicine, dermatology, pharmacy, clinical laboratory, student training, employment and volunteer opportunities.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Although its primary service population are the students of UH Mānoa, many services are also available to faculty and staff members, and students from other campuses. Its hours are limited to normal business hours. Kapi'olani Medical Center, which includes emergency services, is located at 1319 Punahou Street, is less than a mile from the University of Hawai'i campus.

## **Recreational Facilities**

Recreational facilities near the Kennedy Theatre include on-campus recreational opportunities as well as City facilities such as Kānewai Community Park, Mō'ili'ili Park, and Old Stadium Park.

## **Schools**

A number of public and private elementary, middle and high schools are located in the vicinity of the UHM campus including University Laboratory School, Our Redeemer Elementary School, Lutheran High School, Mid-Pacific Institute, Hokulani Elementary School and Noelani Elementary School.

## ***Potential Impacts and Mitigation Measures***

The University does not anticipate the Performing Arts Facility to create an increased demand on existing public services as the facility replaces an existing Theatre facility. Initial comments received from the Police Department indicate that the Department does not anticipate the expansion of Kennedy Theatre to have any significant impact on police operations (see Appendix A). Initial comments from the Honolulu Fire Department indicate that appropriate access and water supply must be provided and that civil engineering drawings be provided for review prior to construction. Civil and appropriate construction plans will be provided to Honolulu Fire Department for review to ensure that all fire, life and safety requirements are satisfied. The use is not anticipated to create any additional demand on health care facilities, recreational facilities or schools.

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI‘I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

---

## **5.0 LAND USE CONFORMANCE**

State and City and County of Honolulu land use plans and policies and required permits and approvals relevant to the Performing Arts Facility are described below.

### **5.1 STATE OF HAWAI‘I**

#### **5.1.1 State Land Use Law, Chapter 205, Hawai‘i Revised Statutes**

The State Land Use Law (Chapter 205, HRS), establishes the State Land Use Commission (LUC) and authorizes this body to designate all lands in the State into one of four districts: Urban, Rural, Agricultural, or Conservation. These districts are defined and mapped by the State Land Use Commission in order to ensure compatibility with neighboring land uses and protection of public health.

The Performing Arts Facility is located within the State Urban District (Figure 9).

#### **5.1.2 Coastal Zone Management Act, Chapter 205A, Hawai‘i Revised Statutes**

The Coastal Zone Management Area, as defined in Chapter 205A, HRS, includes all the lands of the State. Therefore, the proposed Performing Arts Facility lies within the Coastal Zone Management Area.

The Coastal Zone Management (CZM) Program aims to provide recreational opportunities, protect historic resources, protect scenic and open space resources, protect coastal ecosystems, provide facilities for economic development, reduce hazards, and manage development. Program objectives and applicability to the proposed Performing Arts Facility are discussed below:

### **RECREATIONAL RESOURCES**

Objective: Provide coastal recreational opportunities accessible to the public.

Policy A: Improve coordination and funding of coastal recreational planning and management; and

Policy B: Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

- (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
- (ii) Requiring replacement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

- (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
- (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
- (v) Ensuring public recreational uses of County, State, and Federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;
- (vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;
- (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and
- (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and County authorities; and crediting such dedication against the requirements of section 46-6.

**Discussion:** The proposed Performing Arts Facility will be located inland, away from the shoreline (approximately 1.7 miles from the nearest coastline); therefore, it is anticipated that there will be no effect on existing coastal or inland recreational resources.

## 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.

Policy A: Identify and analyze significant archaeological resources;

Policy B: Maximize information retention through preservation of remains and artifacts or salvage operations; and

Policy C: Support State goals for protection, restoration, interpretation, and display of historic resources.

**Discussion:** Due to the extensive disturbance this site has experienced for development and subsequent redevelopment, it is unlikely that subsurface historic resources are present. Should any archaeological or cultural remains be encountered during construction, all work in the immediate vicinity of the find will cease and the State

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Historic Preservation Division will be contacted for establishment of appropriate mitigation in accordance with Chapter 6E, Hawai'i Revised Statutes.

## SCENIC AND OPEN SPACE RESOURCES

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

Policy A: Identify valued scenic resources in the coastal zone management area;

Policy B: Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;

Policy C: Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

Policy D: Encourage those developments which are not coastal dependent to locate in inland areas.

**Discussion:** The proposed Performing Arts Facility will be located inland, away from the shoreline; therefore, it is anticipated that there will be no effect on the quality of the coastal scenic resources.

## COASTAL ECOSYSTEMS

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

Policy A: Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

Policy B: Improve the technical basis for natural resource management;

Policy C: Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

Policy D: Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

Policy E: Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

**Discussion:** Best Management Practices (BMPs) will be employed during construction to reduce erosion of soils and fugitive dust during construction. Controlling runoff particularly will ensure that the construction will not increase inputs of sediment into Mānoa Stream. Since the Kennedy Theatre is located nearly two miles from the ocean; it is anticipated that over the long term there will be no effect on the quality of the coastal ecosystems.

## ECONOMIC USES

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

Policy A: Concentrate coastal dependent development in appropriate areas;

Policy B: Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

Policy C: Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

- (i) Use of presently designated locations is not feasible;
- (ii) Adverse environmental effects are minimized; and
- (iii) The development is important to the State's economy.

**Discussion:** The proposed Performing Arts Facility will contribute to Hawai'i's economy through promotion of arts and arts education at the collegiate level. The theatre is not dependant on coastal resources and therefore is located away from the shoreline on the University campus.

## COASTAL HAZARDS

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

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Policy A: Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and non-point source pollution hazards;

Policy B: Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and non-point source pollution hazards;

Policy C: Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

Policy D: Prevent coastal flooding from inland projects.

**Discussion:** The proposed Performing Arts Facility location nearly two miles inland from the coastline virtually negates any potential detriment to the quality of coastal ecosystems as a result of construction.

## MANAGING DEVELOPMENT

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

Policy A: Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;

Policy B: Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and

Policy C: Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

**Discussion:** Due to the Kennedy Theatre’s inland location from the shoreline, it should not be considered a “significant coastal development.” Its benign location relative to the coastline should not require an involved public participation process concerning coastal effects, although this EA provides an opportunity for input.

## PUBLIC PARTICIPATION

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

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Policy A: Promote public involvement in coastal zone management processes;

Policy B: Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

Policy C: Organize workshops, policy dialogues, and site- specific mediations to respond to coastal issues and conflicts.

**Discussion:** The project's mauka location, and distance from the shoreline provides a difficult segue toward relevant discussions on coastal zone management. This EA provides a means for public input.

## BEACH PROTECTION

Objective: Protect beaches for public use and recreation.

Policy A: Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;

Policy B: Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

Policy C: Minimize the construction of public erosion-protection structures seaward of the shoreline.

**Discussion:** The proposed Performing Arts Facility will be located nearly two miles from the ocean. Due to the project site's relatively far distance from the shoreline, no adverse impact to area beaches is anticipated.

## MARINE RESOURCES

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

Policy A: Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

Policy B: Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI‘I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

---

Policy C: Assert and articulate the interests of the State as a partner with Federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

Policy D: Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

Policy E: Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

**Discussion:** The proposed Performing Arts Facility will be located nearly two miles from the ocean. Due to the project site’s relatively far distance from the shoreline, no adverse impact to area marine resources is anticipated.

### **5.1.3 Hawai‘i State Planning Act, Chapter 226, Hawai‘i Revised Statutes**

The Hawai‘i State Plan, Chapter 226 HRS (2007) provides guidelines for the future growth of the State of Hawai‘i. The Hawai‘i State Plan identifies goals, objectives, policies, and priorities for allocating the State’s resources, including public funds, services, human resources, land, energy, and water. The plan was enacted to achieve “a desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.” Chapter 226 HRS (2007).

**Discussion:** Planning objectives outlined in Chapter 226 support the expansion of the Kennedy Theatre. Section 226-21 relating to education identifies supporting personal development of all groups in a broad range of pursuits. Section 226-26 sets forth goals related to cultural development including a goal to support activities that promote cultural values, customs and arts. The expansion of the University of Hawai‘i’s Kennedy Theatre is consistent with the State’s goals to enrich the lifestyles of Hawai‘i’s people through support of the arts and culture by enhancing educational opportunities in the arts.

## **5.2 CITY AND COUNTY OF HONOLULU PLANS**

### **5.2.1 O‘ahu General Plan**

The O‘ahu General Plan is the policy document for the long-range development of the Island of O‘ahu. The O‘ahu General Plan is a statement of general conditions to be sought in the 20 year planning horizon and policies to help direct attainment of the plan’s objectives.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Specific General Plan goals and policies applicable to the proposed Performing Arts Facility project are discussed below.

## Health and Education

Objective C – To make Honolulu the center of higher education in the Pacific.

### *Policies*

- (1) *Encourage continuing improvement in the quality of higher education in Hawaii.*
- (2) *Encourage the development of diverse opportunities in higher education.*

**Discussion:** The proposed project supports these policies by renovating and enlarging an established facility for arts higher education. The theatre expansion will strengthen the quality of arts education in Hawai‘i by providing a larger, state of the art facility.

## Culture and Recreation

Objective C – To foster visual and performing arts.

### *Policies*

- (1) *Encourage and support programs and activities for the visual and performing arts.*

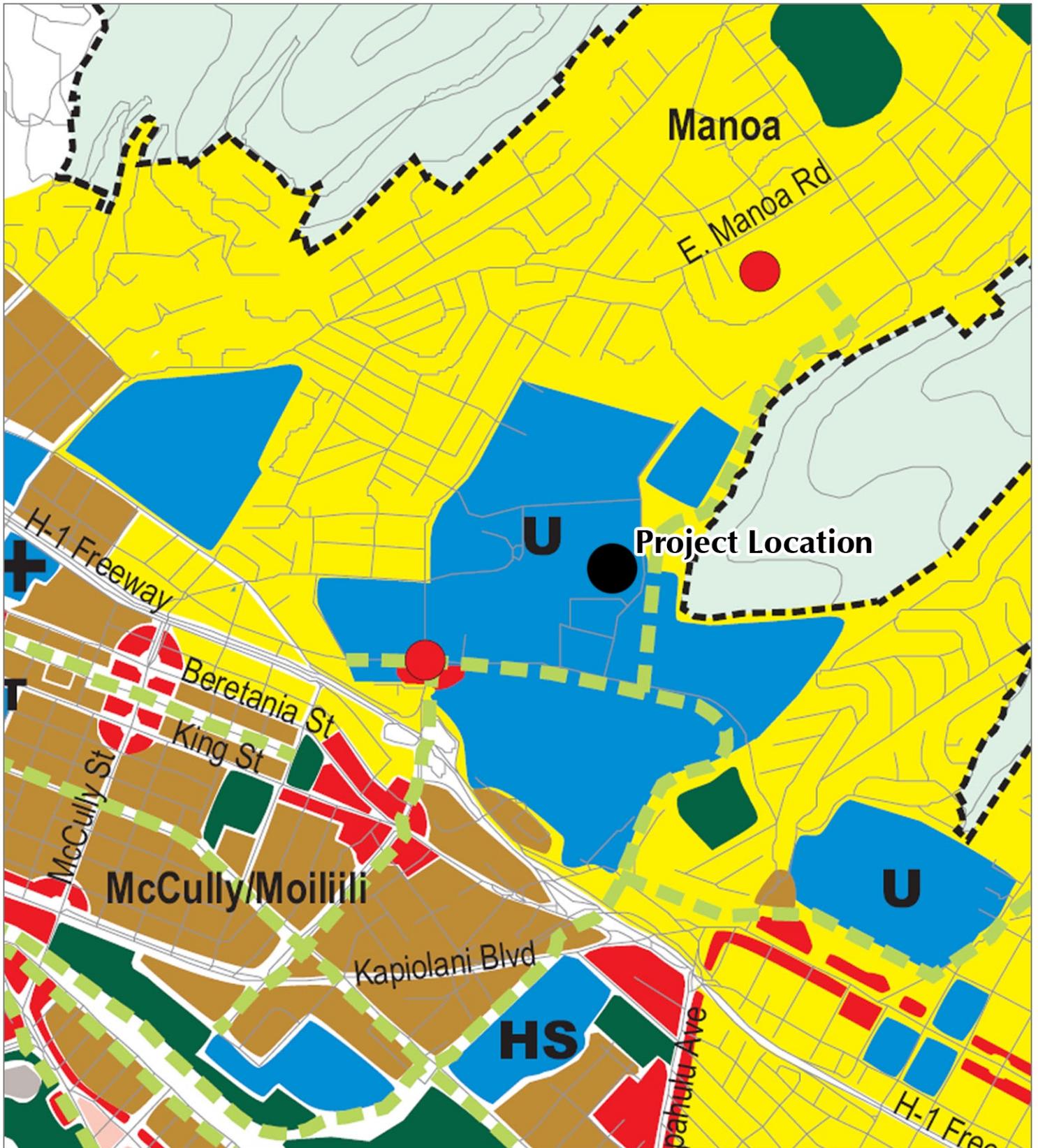
**Discussion:** The Performing Arts Facility supports this policy by enhancing the performing arts facility at the University of Hawai‘i.

### **5.2.2 Primary Urban Center Development Plan**

The City and County of Honolulu has adopted the Primary Urban Center Development Plan as one of eight community-oriented plans to guide public policy, investment and decision making through the 2025 planning horizon. The document contains policies specific to Honolulu’s primary urban center. These policies are then implemented through ordinances such as the Land Use Ordinance (zoning code).

The Primary Urban Center Development Plan includes a policy to, “support the development of a high quality educational system of schools and post-secondary institutions that increase the attractiveness of the Primary Urban Center as a place to live and work...”

**Discussion:** Expansion and modernization of the Kennedy Theatre at the University of Hawai‘i’s main campus at Mānoa contributes to the continuation of a vibrant, campus community in the heart of the city.



**LEGEND**

	Project Location		Resort		College/University
	Lower-Density Residential		Institutional		Hospital/Medical Center
	Medium and Higher-Density Residential/Mixed Use		Major Parks and Open Space		Intermediate School (State)
	Community/Neighborhood Commercial		Preservation		High School (State)
	District Commercial		Military		Small Boat Marina
	Industrial		Urban Community Boundary		Harbor
			Pedestrian Network		Airport

Source: City and County of Honolulu, Department of Planning & Permitting (2004)  
 Disclaimer: This graphic has been prepared for general planning purposes only.

**Figure 10**  
 City and County of Honolulu  
 Primary Urban Center Development Plan  
**Performing Arts Facility**

University of Hawai'i at Mānoa ISLAND OF O'AHU



NOT TO SCALE



# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI‘I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

## 5.2.3 Land Use Ordinance

The Land Use Ordinance implements the goals and objectives of the O‘ahu General Plan and the Primary Urban Center Development Plan. All lands within the City & County are zoned into specific districts. According to the Department of Planning and Permitting, the project site is zoned Residential (R-5). According to Sec. 21-3.70 of the Land Use Ordinance (LUO):

*The purpose of the residential district is to allow for a range of residential densities. The primary use shall be detached residences. Other types of dwellings may also be allowed, including zero lot line, cluster and common wall housing arrangements. Nondwelling uses which support and complement residential neighborhood activities shall also be permitted.*

According to the LUO Master Use Table (Table 21-3), universities and colleges are permitted in all zoning districts regulated by the City and County of Honolulu with Plan Review Use (PRU) approval.

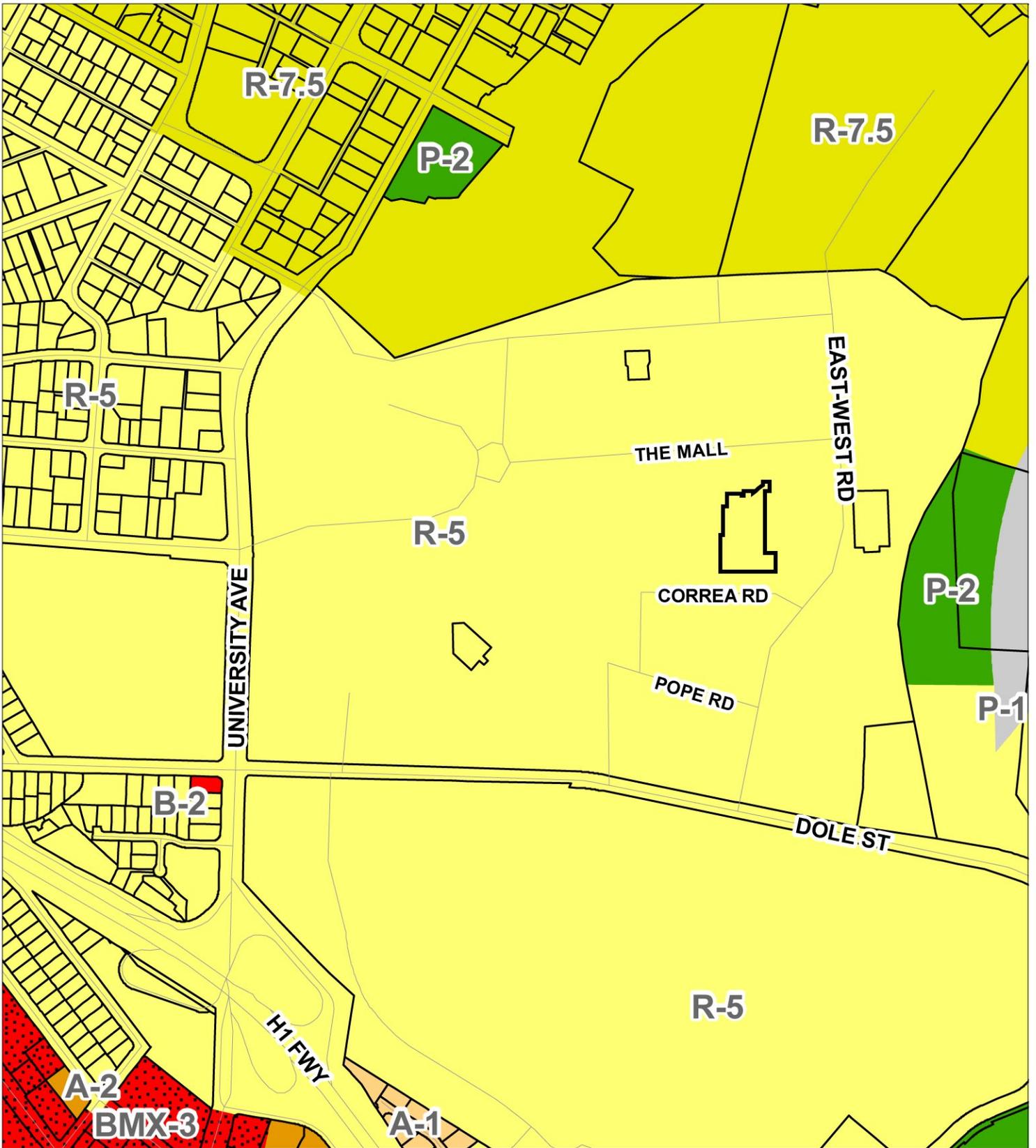
**Discussion:** The proposed Performing Arts Facility is consistent with the purposes of the R-5 land use district in that it is part of a long-established university campus. A PRU (Resolution 95-278) has been adopted for the campus. The campus gives the Mānoa and Mō‘ili‘ili neighborhoods their identity and the Theatre expansion will serve to contribute to the vitality of these communities.

## 5.3 LIST OF REQUIRED PERMITS AND APPROVALS

Anticipated required permits and approvals are outlined in Table 5-1, below.

**Table 5-1: Required Permits and Approvals**

Agency	Permit/Approval
<b>State of Hawai‘i</b>	
Department of Land and Natural Resources, Historic Preservation Division	<ul style="list-style-type: none"><li>• Section 6E, Hawaii Revised Statutes (HRS) Review</li></ul>
Department of Health	<ul style="list-style-type: none"><li>• NPDES</li></ul>
<b>City and County of Honolulu</b>	
Department of Planning and Permitting	<ul style="list-style-type: none"><li>• Zoning Variance or Waiver to Exceed Maximum Height</li></ul>
Department of Planning and Permitting	<ul style="list-style-type: none"><li>• Grading Permit</li></ul>
Department of Planning and Permitting	<ul style="list-style-type: none"><li>• Building Permit</li></ul>



**LEGEND**

-  Project Boundary
-  Street
-  A-1 Low-density Apartment District
-  A-2 Medium-density Apartment District
-  B-2 Community Business District
-  BMX-3 Community Business Mixed Use District
-  P-1 Restricted Preservation District
-  P-2 General Preservation District
-  R-5 Residential District
-  R-7.5 Residential District

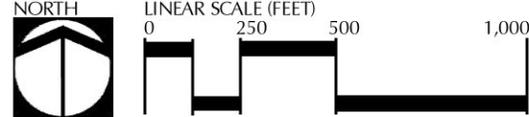
Source: City and County of Honolulu  
 Disclaimer: This graphic has been prepared for general planning purposes only.

**Figure 11**  
 City and County of Honolulu Zoning  
 Performing Arts Facility

University of Hawai'i at Mānoa ISLAND OF O'AHU

NORTH LINEAR SCALE (FEET)

0 250 500 1,000



  
 PBR HAWAII  
 & ASSOCIATES, INC.

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI'I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

---

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**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI‘I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

---

## **6.0 ALTERNATIVES**

In compliance with the provisions of Section 11-200-17(f), HAR relating to Environmental Impact Statements, an environmental assessment must discuss potential alternatives to the proposed action.

The alternatives considered include:

### **6.1 NO ACTION**

The no-action alternative is no change to the existing building or parking area. Under this alternative the proposed Performing Arts Facility will not be constructed. This would be inconsistent with the University's 2007 Long Range Development Plan which lists the expansion of the Kennedy Theatre first among projects on its Capitol Improvement Program to be completed within five to ten years. Without the additional structured parking, demand will remain acute and an unsightly surface parking area will continue to dominate Correa Road.

### **6.2 ALTERNATIVES**

In order to accommodate a facility with greater auxillary uses such as additional performance space, studios, classrooms and shops, the University could expand vertically. However, the existing building is likely not structurally equipped to accommodate the additional floors required. Further, a taller building would not be in keeping with the low to mid-rise character of the campus.

Another alternative would be to accommodate more parking area by demolishing the existing structure, expanding the surface parking lot and seeking Theatre space elsewhere. This alternative is not feasible as a performing arts center is integral to a University campus. Also, to move the Kennedy Theatre off-campus would be financially prohibitive due to expensive land prices on O‘ahu. Expanding surface parking at the center of campus, along Correa Road which is envisioned by the LRDP to be a pedestrian thoroughfare is counter to the University's goals for a pedestrian-friendly environment.

These alternatives, as well as the No Action alternative discussed in Section 6.1, above are considered at a minimum, inconsistent with the campus' long range plans, and are considered not feasible if the University is to maintain its status as a world-class institution.

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI'I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

---

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## **7.0 FINDINGS, SUPPORTING REASONS, AND ANTICIPATED DETERMINATION**

To determine whether the Performing Arts Facility may have a significant impact on the physical and human environment, all phases and expected consequences of the proposed project have been evaluated, including potential primary, secondary, short-range, long-range, and cumulative impacts. Based on this evaluation, the Approving Agency (University of Hawai‘i at Mānoa) is expected to issue a Finding of No Significant Impact (FONSI) for the Performing Arts Facility. The supporting rationale for this anticipated finding is presented in this chapter.

### **7.1 PROBABLE IMPACT, INCLUDING CUMULATIVE IMPACTS**

Cumulative impacts are impacts on the environment that result from the action when added to other past, present, and foreseeable future actions by other agencies or persons. As discussed throughout this document, the University has prepared an update of the Long Range Development Plan (LRDP) to guide campus development in the next five to ten years. Assumed cumulative impacts could be those related to increased traffic and greater demand on water, sanitary sewer and storm drainage capacity. However, the projects outlined in the LRDP are based on current space and activity needs on campus. They are not based on any anticipated increase in enrollment during the five to ten year planning horizon.

One of the major themes in the current LRDP is Environmental Sustainability. The LRDP Design Guidelines emphasize that structures further resource conservation through energy efficiency, water conservation, recycling and other environmentally sensible practices. Ostensibly, the design guidelines’ environmental sustainability theme will result in renovations that make buildings more efficient, improve stormwater conveyance practices and encourage alternative transportation. In addition, all new buildings will be subject to an Environmental Assessment and the development of the projects will include appropriate mitigation measures to address any impacts.

Based on the fact that the University’s LRDP looks to replace and renovate existing structures using environmentally sensible design and construction, it is assumed that the cumulative impacts will be minimal.

Social-economic impacts resulting from the proposed projects are anticipated to be beneficial. Construction generates employment and economic opportunities. Expansion of the Kennedy Theatre center will allow the University of Hawai‘i to continue to provide quality performing arts education. The provision of additional parking in a structure will address existing parking demand without paving over additional land for surface lots. Overall, the net cumulative impact is expected to have a positive effect on the campus, the Mānoa neighborhood and greater Honolulu.

**PERFORMING ARTS FACILITY**  
**UNIVERSITY OF HAWAI'I AT MĀNOA**  
**UH PROJECT NO. 04-085**  
**DRAFT ENVIRONMENTAL ASSESSMENT**

---

Also currently proposed is the renovation of Gartley Hall in the historic quadrangle of the University of Hawai'i Mānoa Campus listed on the Hawai'i Register of Historic Places. Gartley Hall is a historic building which is in need of: environmental remediation, structural modifications, improvements for greater accessibility, as well as greater sustainability features/measures. This project is in the beginning stages of the design process, and construction is not anticipated to begin until March 2010 at the earliest. The proposed renovation of Gartley Hall will not increase the number of students who are currently attending classes within the building, nor increase the number of students attending the University of Hawai'i Mānoa Campus.

## **7.2 SIGNIFICANCE CRITERIA**

Based upon the previous information presented in this document the proposed permitting and construction of the Performing Arts Facility will likely have no significant environmental impacts. This determination is based upon the Significance Criteria outlined in Chapter 343, HRS, as amended and Title 11 Chapter 200 HAR 1996, discussed below.

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

The site's status as an existing building/parking lot, plus prior land disturbance suggests that the site is absent any resources potentially subject to irrevocable loss as a result of construction.

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

The Performing Arts Facility will not curtail the range of beneficial uses of the environment as the site is currently developed.

**(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 Environmental Policies enumerated in Chapter 344, HRS, and NEPA promote conservation of natural resources, and an enhanced quality of life for all citizens. The proposed Performing Arts Facility will not significantly impact natural resources due to the fact that the site is already developed with a building and surface parking lot.

**(4) *Substantially affects the economic or social welfare of the community or State;***

The Performing Arts Facility will positively influence social welfare by enhancing higher education opportunities in the arts.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

**(5) *Substantially affects public health;***

The potential impacts related to noise, air or water quality during construction will be addressed through construction management practices in compliance with Federal, State and County requirements. The University's self-imposed mandate in the LRDP to build sustainably will help to ensure that the expanded theatre and associated parking structure will not negatively affect public health.

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

The University anticipates no increase in student population as a result of the Theatre expansion. The expansion and provision of additional parking are proposed to address needs at the current and planned enrollment levels.

**(7) *Involves a substantial degradation of environmental quality;***

No substantial environmental degradation is anticipated. The University has committed itself to a development theme of environmental sustainability, adopted into the LRDP design standards. The project will need to meet minimum applicable statutes and regulations as well as the more stringent self imposed sustainability requirements.

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

The proposed action will not have any substantial negative secondary impacts on the environment. Construction of the expanded Theatre is consistent with the University's 2007 Long Range Development Plan Update, a public document developed with input by University stakeholders, including the community. Expansion of the theatre and additional parking will not commit the University or the City and County of Honolulu public facilities to any other larger actions, and will not generate any additional actions having a cumulative effect on the environment.

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

The Kennedy Theatre and parking structure expansion will occupy a site that is already committed to structures and surface parking. The site contains no habitat for rare, threatened or endangered plant or animal species.

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

Air Quality: No State or Federal air quality standards will be violated during or after the construction of Performing Arts Facility.

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

Water Quality: No State or Federal water quality standards will be violated during or after the construction of Performing Arts Facility.

Ambient Noise Levels: Construction activities for the development of the property will inevitably create temporary noise impacts. The developer may employ mitigation measures to minimize those temporary noise impacts including the use of mufflers and implementing construction curfew periods. Pursuant to Chapter 11-46, Hawai'i Administrative Rules, the project activities will comply with all community noise controls.

**(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 project site does not lie in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, estuary, freshwater or coastal waters. Likewise, the Performing Arts Facility is not anticipated to have any impact on any natural hazard conditions and no mitigative measures are planned.

**(12) *Substantially affects scenic vistas and view planes identified in County or State plans or studies; or,***

Adverse affects to mauka views will not occur due to the surrounding built environment (Kennedy Theatre, Keller Hall and the Physical Sciences Building).

**(13) *Requires substantial energy consumption.***

The proposed project will not require substantial energy consumption. As mentioned above, energy saving design elements will be integrated into building design.

### 7.3 ANTICIPATED DETERMINATION

On the basis of impacts and mitigation measures examined in this document and analyzed under the above criteria, it is anticipated that the Performing Arts Facility will not have a significant effect on the physical or human environments. Pursuant to Chapter 343, HRS, the approving agency, The University of Hawai'i at Mānoa, is anticipated to issue a Finding of No Significant Impact (FONSI).

# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

---

## 8.0 REFERENCES CITED

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# PERFORMING ARTS FACILITY

UNIVERSITY OF HAWAI'I AT MĀNOA

UH PROJECT NO. 04-085

DRAFT ENVIRONMENTAL ASSESSMENT

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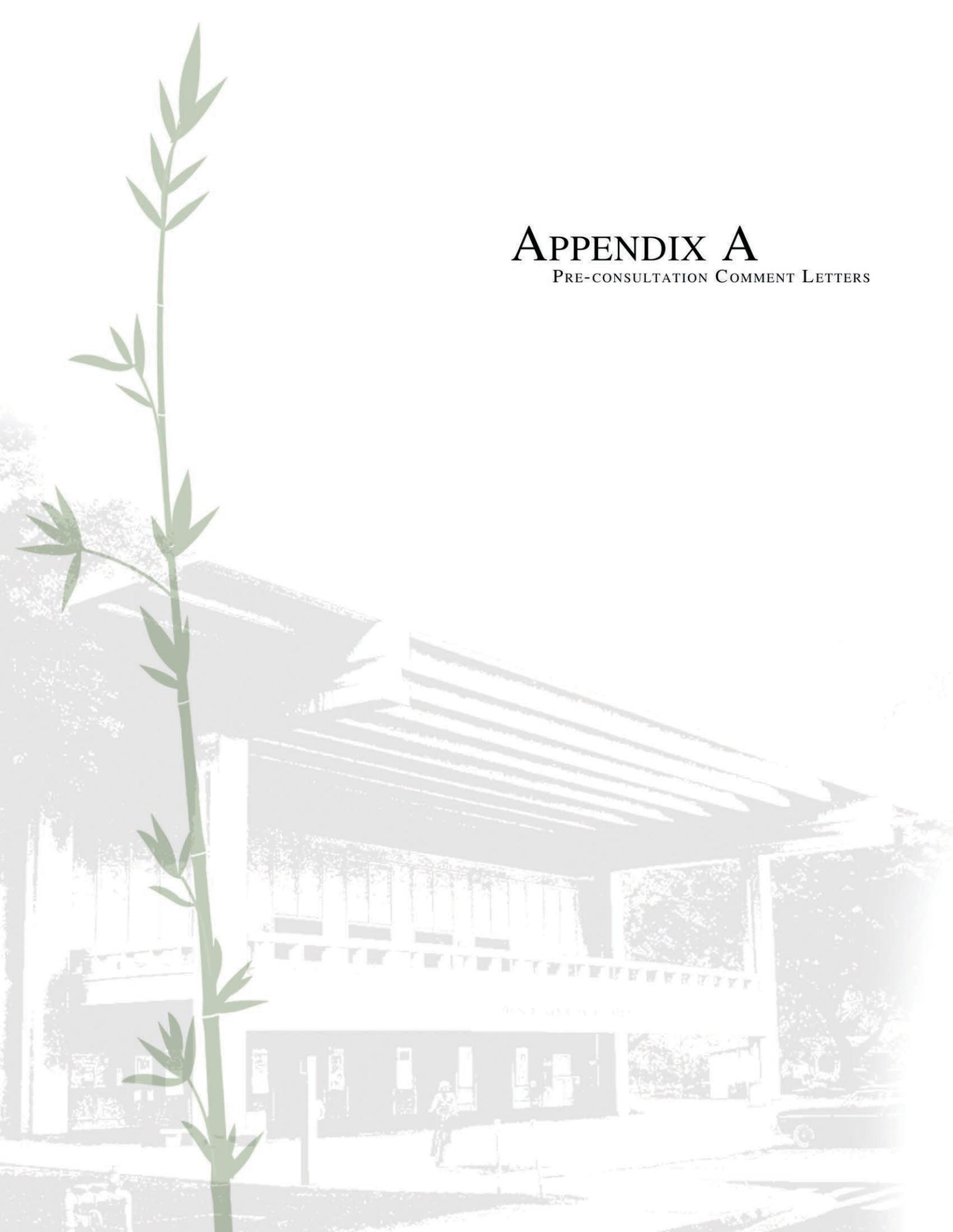
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# APPENDIX A

PRE-CONSULTATION COMMENT LETTERS



POLICE DEPARTMENT  
CITY AND COUNTY OF HONOLULU  
801 SOUTH BERETANIA STREET - HONOLULU, HAWAII 96813  
TELEPHONE: (808) 528-3111 - INTERNET: www.honolulu.gov



DUFI HANDEMAN  
MAYOR

OUR REFERENCE BS-KP

June 9, 2008

Mr. Vincent Shigekuni, Vice President  
PBR Hawaii and Associates, Inc.  
ASB Tower, Suite 650  
1001 Bishop Street  
Honolulu, Hawaii 96813-3484

Dear Mr. Shigekuni:

This is in response to your letters of June 2, 2008, requesting comments on two Pre-Consultations, Draft Environmental Assessments, for the Proposed Kennedy Theatre Expansion and the Proposed Gartley Hall Renovation projects. Both projects are located at the University of Hawaii at Manoa.

These projects 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 Office at 529-3644.

Sincerely,

BOISSE P. CORREA  
Chief of Police

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



July 29, 2008

WERANA BRANDI, D.M.S.A.  
Chairman

THOMAS WITTEN, A.S.A.  
President

R. STANFORD NGAN, A.S.A.  
Executive Vice President

RUSSELL CHUNG, A.S.A.  
Executive Vice President

VINCENT SHIGEKUNI  
Vice President

GRANT MURAKAMI, A.C.P.  
Principal

TOM SCHINDLAKIP  
Senior Associate

RAYMOND T. JIG, A.S.A.  
Senior Associate

KYVIN K. NISHIKAWA, A.S.A.  
Associate

KIMIKAKI MATSUO, U.I.P.F.A.P.  
Associate

SCOTT ALMA, A.B.R.I.C.O.  
Associate

SCOTT MURAKAMI, A.S.A.  
Associate

HONOLULU OFFICE  
1015 Bishop Street  
ASB Tower, Suite 650  
Honolulu, Hawaii 96813-3484  
Tel: (808) 241-4643  
Fax: (808) 524-1602  
E-mail: vshigekuni@pbrhawaii.com

HILO OFFICE  
101 Aiea Street  
Hilo Leeward Center, Suite 210  
Hilo, Hawaii 96720-1362  
Tel: (808) 941-1111  
Fax: (808) 941-1061

WAILUKU OFFICE  
1752 Wailuku Loop, Suite 4  
Wailuku, Hawaii 96791-1371  
Tel: (808) 241-2978

Mr. Boisse P. Correa, Chief of Police  
Police Department  
City and County of Honolulu  
801 South Beretania Street  
Honolulu, Hawaii 96813  
Attn: Mr. Brandon Stone

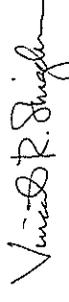
SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF HAWAII AT MANOA, KENNEDY THEATRE ADDITION & PARKING ASSESSMENT, HONOLULU, ISLAND OF O'AHU

Dear Mr. Stone:

Thank you for your letter dated June 2, 2008 (your reference number: BS-KP). We acknowledge your assessment that the project should have no significant impact on the facilities or operations of the Honolulu Police Department.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,



Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control

Serving and Protecting With Aloha

HONOLULU FIRE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

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



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

MURF HANNEMANN  
MAYOR

June 17, 2008

Mr. Vincent Shigekuni  
Vice President  
PBR Hawaii & Associates, Inc.  
Suite 650, ASB Tower  
1001 Bishop Street  
Honolulu, Hawaii 96813-3484

Dear Mr. Shigekuni:

Subject: Preconsultation for the Proposed Kennedy Theatre Expansion  
University of Hawaii at Manoa, Honolulu, Island of Oahu  
Tax Map Key: 2-8-023: 003 (Portion)

In response to your letter dated June 2, 2008, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from a fire apparatus access road as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)
2. Provide a water supply, approved by the county, capable of supplying required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of the 150 feet (45 720 mm) from a water supply on a fire

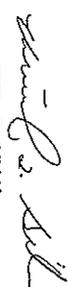
Mr. Vincent Shigekuni  
Page 2  
June 17, 2008

apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2, as amended.)

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151.

Sincerely,

  
KENNETH G. SILVA  
Fire Chief

KGS/SK:cn



July 29, 2008

W. FRANK RUKANDI, ASLA  
Chairman

THOMAS WITTEN, ASLA  
President

R. STAN DUNCAN, ASLA  
Executive Vice-Pb. Subst.

RUSSELL J. CHUNG, ASLA  
Executive Vice-Pb. Subst.

VINCENT SHIGEKUNI  
Vice President

GRANT M. RUKAMIA, AICP  
Principal

TAMU KINILAL, AICP  
Senior Associate

KEVIN DUFF, ASLA  
Senior Associate

KEVINE NISHIKAWA, ASLA  
Associate

KIM MIKAMI YUTSU, M.D., AP  
Associate

SCOTT AIKKA, AURIGO  
Associate

SCOTT M. RUKAMIA, ASLA  
Associate

HONOLULU OFFICE  
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Honolulu, Hawaii 96813-1104  
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E-mail: admin@pbr-hawaii.com

HILO OFFICE  
1011 Aupuni Street  
Hilo, Hawaii 96720-1702  
Tel: (808) 945-1111  
Fax: (808) 941-1109

WAILUKU OFFICE  
1707 W. Ala Pk. Loop, Suite 1  
Wailuku, Hawaii 96791-1271  
Tel: (808) 212-2528

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 521-9600 • Fax: (808) 523-4587  
Web Site: [www.honolulu.gov](http://www.honolulu.gov)



MUFI HAMMERMANN  
MAYOR

EUGENE C. LEE, P.E.  
DIRECTOR  
RUSSELL H. TAKABA, P.E.  
DEPUTY DIRECTOR

June 18, 2008

Mr. Vincent Shigekuni, Vice President  
PBR Hawaii & Associates, Inc.  
1001 Bishop Street  
ASB Tower, Suite 650  
Honolulu, Hawaii 96813-3484

Dear Mr. Shigekuni:

Subject: Pre-Consultation for the Proposed Gartley Hall Renovation and Kennedy Theatre Expansion, University of Hawaii at Manoa, Honolulu, Island of Oahu Draft Environmental Assessment

Thank you for giving us the opportunity to comment on the above Draft Environmental Assessment.

The Department of Design and Construction does not have any comments to offer at this time.

Very truly yours,

FOR Eugene C. Lee, P.E.  
Director

ECL:it (264361)

SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF HAWAII AT MANOA, KENNEDY THEATRE ADDITIONAL & PARKING STRUCTURE DRAFT ENVIRONMENTAL ASSESSMENT, HONOLULU, ISLAND OF O'AHU

Attn: Battalion Chief Socrates Bratakos

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

Dear Chief Silva:

Thank you for your letter dated June 17, 2008. We offer the following responses to your comments:

1. Fire apparatus access roads shall be designed and constructed in accordance with the Uniform Fire Code, Section 902.2.1, as amended.
2. Water infrastructure shall be designed and installed in accordance with the Uniform Fire Code, Section 903.2, as amended.
3. Civil drawings will be submitted to your department for your review and approval.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

Vincent R. Shigekuni  
Vice President

Cc: Katherine Keatoha, Office of Environmental Quality Control



# PBR HAWAII & ASSOCIATES, INC.

July 29, 2008

WE FRANK BRANDELLA  
*Chairman*

THOMAS WITTES, ASIA  
*President*

KEVIN BONGAN, ASIA  
*Executive Vice President*

MI-SHUN CHUNG, ASIA  
*Executive Vice President*

VINCENT SHIGEKUNI  
*Vice President*

GRANT TAMERAKA, AUP  
*Principal*

TONY SCINTE, AUP  
*Senior Associate*

RAYMOND HIGA, ASIA  
*Senior Associate*

KEVIN K. NISHIKAWA, ASIA  
*Associate*

AMAR KAMATHEN, AUP  
*Associate*

SCOTT AIKA ABERGO  
*Associate*

SCOTT MERRICK, ASIA  
*Associate*

**HONOLULU OFFICE**  
1000 Ala Moana Blvd., Suite 1100  
Honolulu, Hawaii 96813-1100  
Tel: (808) 251-5631  
Fax: (808) 251-1102  
E-mail: [we@pbrhawaii.com](mailto:we@pbrhawaii.com)

**HILLO OFFICE**  
301 Aiea Street  
Hilo, Hawaii 96720-1102  
Tel: (808) 933-1111  
Fax: (808) 933-1100

**WAILUKU OFFICE**  
1755 Waihi Loop, Suite 1  
Wailuku, Hawaii 96793-1271  
Tel: (808) 212-2828

Mr. Eugene C. Lee, P.E., Director  
Department of Design and Construction  
City and County of Honolulu  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, Hawaii 96813

**SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF HAWAII AT MAŌNA, KENNEDY THEATRE ADDITION & PARKING STRUCTURE DRAFT ENVIRONMENTAL ASSESSMENT, HONOLULU, ISLAND OF O'AHU**

Dear Mr. Lee:

Thank you for your letter dated June 18, 2008. We acknowledge that the Department of Design and Construction does not have any comments to offer at this time.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control

LINDA LINGLE  
GOVERNOR OF HAWAII



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

June 18, 2008

PBR Hawaii & Associates, Inc.  
525 Tower, Suite 650  
1001 Bishop Street  
Honolulu, HI 96813-3484

Attention: Mr. Vincent Shigekuni  
Vice President

Dear Mr. Shigekuni:

**SUBJECT:** Pre Consultation for the Proposed Kennedy Theatre Expansion University of Hawaii at Maŋona, Honolulu, Island of Oahu, Draft Environmental Assessment, TMK: (1) 2-8-023-003 por.

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 comments.

At this time, enclosed are comments from the (a) Engineering Division, (b) Commission on Water Resource Management, and (c) Oahu District of the Land Division on the subject matter. Should you have any questions, please feel free to call Darlene Nakamura at 587-0417. Thank you.

Sincerely,

Charlotte M. Aita  
Administrator

Enclosures

LARRY H. THURMAN  
CHAIRMAN, PLANNING  
COMMISSION, UNIVERSITY OF HAWAII





DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION



STATE OF HAWAII  
LAND DIVISION  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

June 4, 2008

MEMORANDUM

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

FROM: Morris M. Atta, Administrator  
SUBJECT: Pre-Consultation for the Proposed Kennedy Theatre Expansion, University of Hawaii at Manoa, Honolulu, Island of Oahu - Draft Environmental Assessment  
LOCATION: Manoa, Island of Oahu; TMK: (1) 2-8-023-003 por.  
APPLICANT:

RECEIVED  
LAND DIVISION  
2008 JUN 13 P 3:27  
DEPT. OF LAND & NATURAL RESOURCES  
STATE OF HAWAII

LD/MorrisMAtta  
REF:PreConDEAUKennedyTheatreExpansion  
Oahu.621

COMMENTS

- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone \_\_\_\_\_.
  - (X) Please take note that based on the map that you provided, 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.
  - ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_\_.
  - ( ) 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. Kian 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.

( ) Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 18, 2008.

( ) 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.

- ( ) 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 applicants should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
- ( ) Additional Comments: \_\_\_\_\_
- ( ) Other: \_\_\_\_\_

Attachments

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

Signed: [Signature]  
Date: 6/13/08

cc: Central Files

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

Signed: [Signature]  
Date: 6/13/08  
ERIC HIRANO, CHIEF ENGINEER



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

08 JUN 5 4:00

RECEIVED

LINDA H. THIELER  
MANAGING ELECTRONIC RECORDS  
COORDINATOR OF WATER RESOURCES MANAGEMENT

June 4, 2008

MEMORANDUM

TO:

- DLNR Agencies:
  - Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division
  - Div. of Forestry & Wildlife
  - Div. of State Parks

RECEIVED  
LAND DIVISION  
2008 JUN 10 10 35  
DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

FR:

Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - Oahu District

FROM: Morris M. Ata, Administrator *M. Ata*

SUBJECT: Pre-Consultation for the Proposed Kennedy Theatre Expansion, University of Hawaii at Manoa, Honolulu, Island of Oahu - Draft Environmental Assessment

LOCATION: Manoa, Island of Oahu; TMK: (1) 2-8-023:003 por.

APPLICANT:

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 18, 2008.

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: *Morris M. Ata*  
Date: 6/16/08

cc: Central Files



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

June 4, 2008

MEMORANDUM

TO:

- DLNR Agencies:
  - Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division
  - Div. of Forestry & Wildlife
  - Div. of State Parks

RECEIVED  
LAND DIVISION  
2008 JUN 10 10 35  
DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

FR:

Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - Oahu District

FROM: Morris M. Ata, Administrator *M. Ata*

SUBJECT: Pre-Consultation for the Proposed Kennedy Theatre Expansion, University of Hawaii at Manoa, Honolulu, Island of Oahu - Draft Environmental Assessment

LOCATION: Manoa, Island of Oahu; TMK: (1) 2-8-023:003 por.

APPLICANT:

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 18, 2008.

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: *Morris M. Ata*  
Date: 6/16/08

cc: Central Files



# PBR HAWAII & ASSOCIATES, INC.

July 29, 2008

W. FRANK BRANDELANIA  
*Chairman*

THOMAS WITTEN, ASIA  
*President*

R. STAN DUNCAN, ASIA  
*Executive Vice-President*

RUSSELL CHENG ASIA  
*Executive Vice-President*

VINCENT SHIGEKUNI  
*Vice President*

GRANT LAURAKAMALAI  
*Principal*

TOMAKI NISHIKAWA  
*Senior Associate*

RAYMOND UHIGA ASIA  
*Senior Associate*

KEVIN K. NISHIKAWA ASIA  
*Associate*

KIMI ARAKAMI YUN, JEEP/AP  
*Associate*

SCOTT ALBA ABRIGO  
*Associate*

SCOTT MURAKAMI ASIA  
*Associate*

HONOLULU OFFICE  
1 Bishop Street, 5th  
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Honolulu, Hawaii 96811-1811  
Tel: (808) 521-5011  
Fax: (808) 521-3102  
E-mail: [asia@pbrhawaii.com](mailto:asia@pbrhawaii.com)

HILO OFFICE  
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Tel: (808) 931-1929  
Fax: (808) 931-1929

WAILUKU OFFICE  
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## BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
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June 20, 2008

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Deputy Manager and Chief Engineer

Mr. Vincent Shigekuni  
Vice President  
PBR Hawaii & Associates, Inc.  
1001 Bishop Street  
ASB Tower, Suite 650  
Honolulu, Hawaii 96813-3484

Dear Mr. Shigekuni:

Subject: Your Letter Dated June 2, 2008 on the Pre-Consultation for the Proposed Kennedy Theatre Expansion, University of Hawaii at Manoa. TMK: 2-8-23-3

Thank you for the opportunity to comment on the proposed theatre expansion.

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 project 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

**SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF HAWAII AT MANOA, KENNEDY THEATRE ADDITION & PARKING STRUCTURE DRAFT ENVIRONMENTAL ASSESSMENT, HONOLULU, ISLAND OF O'AHU**

Dear Mr. Alta:

Thank you for the letter dated June 18, 2008. As the Engineering Division commented, we acknowledge that according to the Flood Insurance Rate Map, the project site is located in Flood Zone X and the National Flood Insurance Program does not have any regulations for development within Zone X. We also acknowledge that the Commission on Water Resource Management and Land Division have no comments.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control



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July 29, 2008

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Associate

Mr. Keith S. Shida, Program Administrator  
Customer Care Division  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96843  
Attn: Mr. Robert Chunn

**SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF HAWAII AT MĀNOA, KENNEDY THEATRE ADDITION & PARKING STRUCTURE DRAFT ENVIRONMENTAL ASSESSMENT, HONOLULU, ISLAND OF O'AHU**

Dear Mr. Shida:

Thank you for your letter dated June 20, 2008. We offer the following responses to your comments:

1. We acknowledge your statement that based on current data, the existing water system is adequate to accommodate the proposed development. We acknowledge that the Board of Water Supply (BWS) reserves the right to change its assessment and the final decision on the availability of water will be confirmed when the building permit application is submitted for approval.
2. We acknowledge that UHM will be required to pay the BWS Water System Facilities Charges for resource development, transmission and daily storage.
3. Please be assured that on-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.
4. We acknowledge that Board of Water Supply Cross-Connection Control and Backflow Prevention requirements will be fulfilled prior to the issuance of the building permit.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

*Vincent R. Shigekuni*

Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control

**WAIKUKU OFFICE**  
1777 Kalia Road, Suite 300  
Honolulu, Hawaii 96815-2121  
Tel: (808) 312-2878  
Fax: (808) 312-2878



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, HONOLULU  
FORT SHAFTER, HAWAII 96855-5440  
June 26, 2008

Regulatory Branch

File Number POH-2008-162

Mr. Vincent Shigekuni  
PBR Hawaii & Associates, Inc.  
1001 Bishop Street  
ASB Tower, Suite 650  
Honolulu, Hawaii 96813-3484

Dear Mr. Shigekuni:

We have received your June 2, 2007 requests for early consultation comments in preparation of a Draft Environment Assessment (EA) for two projects, the proposed Gately Hall renovation and Kennedy Theatre expansion both located at the University of Hawaii at Manoa, Oahu Island, Hawaii. (TWMK: (1) 2-8-23-03). The file number POH-2007-339 is assigned to both projects and should be referred to in future correspondence with us.

We recommend that the draft EAs address whether any potential waters of the U.S., as represented by the presence of perennial, intermittent or ephemeral streams or wetlands, are in, adjacent to or flow through, the land parcel subject to development. The EAs should also disclose whether any streams or other aquatic resources that may occur within the land parcel have an existing direct or indirect surface water connection to the Pacific Ocean.

Section 404 of the Clean Water Act requires that a Department of the Army (DA) permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide extending shoreward to the mean high water mark.

We appreciate the opportunity to provide comments on the proposed development of both projects and respective EAs. Should you have any questions, please contact Ms. Joy Ananiza of my staff at (808) 438-7023 or at [joy.ananiza@usace.army.mil](mailto:joy.ananiza@usace.army.mil). For additional information about our Regulatory Program, visit our web site at <http://www.poh.usace.army.mil/ECA/REC-R.htm>.

Sincerely,

*George P. Young*

George P. Young, P.E.  
Chief, Regulatory Branch



July 29, 2008

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Associate

SCOTT AJIKA, ABRIGO  
Associate

SCOTT MURAKAMI, ASIA  
Associate

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DEPARTMENT OF FACILITY MAINTENANCE  
CITY AND COUNTY OF HONOLULU

1000 Union Street, Suite 215, Kapoia, Hawaii 96707  
Phone: (808) 768-3343 • Fax: (808) 768-3381  
Website: [www.honolulu.gov](http://www.honolulu.gov)



MUPI HANNEMANN  
MAYOR

CRAIG L. NISHIMURA, P.E.  
DIRECTOR AND CHIEF ENGINEER  
GEORGE KENNY WYAMOTO  
DEPUTY DIRECTOR

IN REPLY REFER TO:  
DRM 08-642

June 27, 2008

**SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF HAWAII AT MAŌNOA, KENNEDY THEATRE ADDITION & PARKING STRUCTURE DRAFT ENVIRONMENTAL ASSESSMENT, HONOLULU, ISLAND OF O'AHU**

Dear Mr. Young,

Thank you for your letter dated June 26, 2008 (File Number POH-2008-162). We offer the following response to your comments:

There appears to be no waters of the United States, as represented by perennial, intermittent and ephemeral streams or wetlands, are in, adjacent to, or flow through the project site subject to development. Enclosed is the USGS map which does not delineate any streams located nearby or in the proposed project area (Figure 1). This map will also be included in the DEA. The map should confirm that there are no streams or aquatic resources that may occur within the project site that have an existing direct or indirect surface water connection to the Pacific Ocean.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

*Vincent R. Shigekuni*  
Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control

Mr. Vincent Shigekuni  
Vice President  
PBR Hawaii & Associates  
1001 Bishop Street  
ASB Tower, Suite 650  
Honolulu, Hawaii 96813-3484

Dear Mr. Shigekuni:

Subject: Pre-Consultation for the Proposed Kennedy Theatre Expansion  
University of Hawaii at Manoa, Honolulu, Island of Oahu, Draft  
Environmental Assessment (DEA)

Thank you for giving us the opportunity to comment on the proposed subject pre-consultation. Your proposed improvements appear to be entirely contained within State property. As such, we have no comments to offer.

Should you have any questions, please contact Larry Leopardi, Chief of the Division of Road Maintenance, at 768-3600.

Sincerely,

*Craig T. Nishimura*  
Craig T. Nishimura  
Director and Chief Engineer



# PBR HAWAII & ASSOCIATES, INC.

July 29, 2008

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Associate

SCOTT NURKAMAH, ASIA  
Internship

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PLANNING • LANDSCAPE ARCHITECTURE • ENVIRONMENTAL STUDIES • ENTITLEMENTS • PERMITTING • GRAPHIC DESIGN

Mr. Craig I. Nishimura, Director  
Department of Facility Maintenance  
1000 Uluohia Street, Suite 215  
Kapolei, HI 96707

Attn: Larry Leopardi

**SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF  
HAWAII AT MA'ONO, KENNEDY THEATRE ADDITION &  
PARKING STRUCTURE DRAFT ENVIRONMENTAL  
ASSESSMENT, HONOLULU, ISLAND OF O'AHU**

Dear Mr. Nishimura:

Thank you for your letter dated June 27, 2008. We acknowledge your assessment that the project is located entirely on State property and as such, have no comments to offer. Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 535  
KAPOLEI, HAWAII 96707



July 17, 2008

Mr. Vincent Shigekuni  
Vice President  
PBR Hawaii & Associates, Inc.  
1001 Bishop Street, ASB Tower, Suite 550  
Honolulu, HI 96813-3484

Dear Mr. Shigekuni:

**SUBJECT: Chapter 6E-8 (HRS) Review  
Draft Environmental Assessment - Pre-Consultation for Proposed Expansion  
University of Hawaii at Manoa - Kennedy Theatre  
Honolulu, Oahu, Hawaii  
TMK: (1) 2-8-023-003 (part)**

This is in regards to the submittal received June 3, 2008. The Draft Environmental Assessment is for proposed expansion of Kennedy Theatre at the University of Hawaii at Manoa (UHMY). UHMY is listed on the State Register of Historic Places (3/19/1984 and 8/24/1984).

Our determination for the proposed work is pending ongoing design developments. SHPD staff will attend a meeting with Kober Hanssen Mitchell Architects that is planned for July 21, 2008 at our Kapolei office.

Thank you for the opportunity to comment. Should you have any questions regarding architectural concerns, please call Susan Tasaki and regarding archaeology concerns, please call Lauren Morawski in our Oahu office at (808) 692-8015.

Sincerely,

Astrid M.B. Liverman, Ph.D.  
Architecture Branch Chief

Cc: Mr. Stuart Jov, Kober Hanssen Mitchell Architects, 55 Merchant St., Ste. 1812, Honolulu, HI 96813

LATIBA H. THIELER  
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LOG NO: 2008.2080  
DOC NO: 0807ST09  
Architecture



July 29, 2008

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Associate

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Ms. Astrid M.B. Liverman, Ph.D.  
Architecture Branch Chief  
State of Hawaii  
Department of Land and Natural Resources  
State Historic Preservation Division  
601 Kamokila Boulevard, Room 555  
Kapolei, Hawaii 96707

Attn: Ms. Susan Tasaki

**SUBJECT: PRE-CONSULTATION FOR THE UNIVERSITY OF HAWAII  
KENNEDY THEATRE EXPANSION (PERFORMING ARTS  
FACILITY) DRAFT ENVIRONMENTAL ASSESSMENT  
HONOLULU, ISLAND OF O'AHU**

Dear Ms. Liverman:

Thank you for the letter dated July 17, 2008. We acknowledge that SHPD's Chapter 6E-8 HRS determination is pending ongoing design development. Please be assured that the University of Hawaii will continue to coordinate with SHPD on this proposed project.

Thank you again for your participation in the preparation of the upcoming Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control  
Stuart Jow, Kober, Hansen, Mitchell Architects, 55 Merchant St., Ste. 1812, Honolulu, HI 96813



July 16, 2008

Mr. Vincent Shigekuni - Vice President  
PBR Hawaii & Associates, Inc.  
ASB Tower - Suite 650  
1001 Bishop Street  
Honolulu, HI 96813

Dear Mr. Shigekuni:

Re: Proposed Kennedy Theatre Expansion  
University of Hawaii at Manoa  
Honolulu, Oahu  
TMK: (1) 2-8-23-03 (por.)

Thank you for the opportunity to comment on the above-referenced project. Hawaiian Electric Company, Inc. (HECO) has no objections at this time. The following pre-assessment comments were received from our Engineering Department:

- (1) HECO has no existing facilities within the subject parcel. We appreciate your efforts to keep us apprised of the planning process. As the expansion project progresses, please continue to keep us informed. We will be better able to evaluate any effects on our system facilities further along in the project's development. We request that development plans show all affected HECO facilities and address any conflicts between the proposed plans and our existing facilities. Please forward the pre-final development plans to HECO for review. A brief description and environmental analysis of any requirements for relocation or new facilities should be included in the DEA.
- (2) Should it become necessary to relocate HECO's facilities, please submit a request in writing and we will work with you so that construction of the project may proceed as smoothly as possible. Please note that there may be costs associated with any relocation work, and that such costs may be borne by the requestor. Because any redesign or relocation of our facilities may cause lengthy delays, upon determination that HECO facilities will need to be relocated or built, HECO should be notified immediately in order to minimize any delays in or impacts on the project schedule.

Our point of contact for this project, and the originator of these comments, is Michelle Yoshioka, Transmission & Distribution Division, Engineering Department (543-7082). I suggest dealing directly with her to coordinate HECO's continuing input in this project.

Sincerely,

Kirk S. Tomita  
Senior Environmental Scientist

cc: M. Yoshioka/R. Tamayo/M. Lum



# PBR HAWAII & ASSOCIATES, INC.

July 29, 2008

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*Senior Associate*

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*Associate*

KAMIHAKAMI YUIN, JEPYAP  
*Associate*

SCOTT AIKA, AMRGO  
*Associate*

SCOTT MURAKAMI, ASIA  
*Associate*

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Tel: (808) 319-2578

Mr. Kirk S. Tomia, Senior Environmental Scientist  
Hawaiian Electric Company, Inc.  
P.O. Box 2750  
Honolulu, Hawaii 96840-0001

Attn: Ms. Michelle Yoshoka

**SUBJECT: PRE-CONSULTATION FOR THE PROPOSED UNIVERSITY OF  
HAWAII AT MANOA, KENNEDY THEATRE ADDITION &  
PARKING STRUCTURE DRAFT ENVIRONMENTAL  
ASSESSMENT, HONOLULU, ISLAND OF O'AHU**

Dear Mr. Tomia:

Thank you for your letter dated July 16, 2008, which we just received on July 22, 2008. We acknowledge that the Hawaiian Electric Company, Inc. (HECO) has no objections at this time. We have reviewed your letter and offer the following responses to your comments:

1. We acknowledge that HECO has no existing facilities within the subject property. The University's civil and electrical engineering consultants will continue to coordinate with HECO's Engineering Department as plans progress. As requested, development plans will show all affected HECO facilities, and address any conflicts between the proposed plans and HECO's existing facilities. Pre-final development plans will be forwarded to HECO for review.
2. Should the relocation of or additional facilities be required, a formal request will be submitted and coordinated through the appropriate HECO department(s).

Thank you again for your participation in the Environmental Assessment process for this project. Your comment letter and this response will be included in the Draft Environmental Assessment. If you have any questions regarding this project, please do not hesitate to contact me at 521-5631.

Sincerely,

PBR HAWAII

  
Vincent R. Shigekuni  
Vice President

Cc: Katherine Kealoha, Office of Environmental Quality Control