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County of Kaua'i, State of Hawai'i
4444 Rice Street, Suite A-473, Līhu'e, Hawai'i 96766
TEL (808) 241-4050 FAX (808) 241-6699

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April 25, 2014

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Ms. Jessica Wooley, Director
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
State of Hawai'i, Department of Health
235 South Beretania Street, Room 702
Honolulu, Hawai'i 96813

SUBJECT: Draft Environmental Assessment (DEA) for the construction of the Kaua'i Philippine Cultural Center facility on a parcel located in Līhu'e, Kaua'i, Hawai'i, Tax Map Key: (4) 3-3-003:043

Dear Ms. Wooley:

The County of Kaua'i Planning Department hereby transmits the Draft Environmental Assessment and anticipated Finding of No Significant Impact (DEA-AFONSI) for the Kaua'i Philippine Cultural Center (KPCC) situated at Tax Map Key: (4) 3-3-003:043, in the Līhu'e District on the island of Kaua'i for publication in the May 8, 2014 edition of the Environmental Notice.

Enclosed is a completed OEQC Publication Form, two copies of the DEA-AFONSI, an Adobe Acrobat PDF file of the same, and an electronic copy of the publication form in MS Word. Simultaneous with this letter, we have submitted the summary of the action in a text file by electronic mail to your office.

If there be any questions relative to the above, please contact Staff Planner Dale A. Cua at (808) 241-4050.

Sincerely,

DEE M. CROWELL
Deputy Director of Planning

cc: Ron Agor, Architect/Agor Architects LLC.

APPLICANT ACTIONS
SECTION 343-5(C), HRS
PUBLICATION FORM (JANUARY 2013 REVISION)

Name of Project:	Kaua'i Philippine Cultural Center
Island:	Kaua'i
District:	Līhu'e
TMK:	3-3-003:043
Permits Required:	Use, Zoning, Building, Grading, NPDES
Approving Agency:	County of Kaua'i, Planning Department
Address	4444 Rice Street, Suite A273
City, State, Zip	Līhu'e, Hawaii 96766
Contact and Phone	Dale Cua, (808) 241-4050
Name of Applicant:	Kaua'i Philippine Cultural Center (KPCC)
Address	PO Box 1961
City, State, Zip	Līhu'e, Hawai'i 96766
Contact and Phone	Lesther Calipjo, (808) 645-0257
Consultant	Agor Architects, LLC.
Address	460 Ena Street, Suite 207
City, State, Zip	Honolulu, Hawai'i 96815
Contact and Phone	Ron Agor, (808) 945-2467

Status (check one only):

☒ DEA-AFNSI	Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day comment period ensues upon publication in the periodic bulletin.
☐ FEA-FONSI	Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov; no comment period ensues upon publication in the periodic bulletin.
☐ FEA-EISPN	Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day consultation period ensues upon publication in the periodic bulletin.
☐ Act 172-12 EISPN	Submit the approving agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov. NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.
☐ DEIS	The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.
☐ FEIS	The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

☐ Section 11-200-23 Determination	The approving agency simultaneous transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the applicant. No comment period ensues upon publication in the periodic bulletin.
☐ Statutory hammer Acceptance	The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it failed to timely make a determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and that the applicant's FEIS is deemed accepted as a matter of law.
☐ Section 11-200-27 Determination	The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.
☐ Withdrawal (explain)	

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page)**:**

This project proposes to develop a Philippine Cultural Center facility on Kaua'i. This new facility will allow KPCC's mission to provide, promote and enhance cultural, economic, educational training and social programs, as well as cultural exchange in Kauai's multi-ethnic environment. The project site is located at the southwest corner of Kaumuali'i Highway and Nuhou Street, at the western outskirt of Līhu'e Town. The site was a part of Grove Farm Company's community residential and commercial development plan for Līhu'e and Puhi.

The proposed facility will be situated on a portion of a 7.133-acre site and will involve construction of two buildings. The first structure is an administration building (approx. 12,725 SF) containing offices, a kitchen, restrooms and a secondary hall that's capable of seating up to 220 people. The second building is considered the "Main Hall" (approx. 16,852 SF) and would provide seating up to 480 people.

Water, sewer, electrical, cable and telephone services are readily available underground along Nuhou Street. The site contains a gentle down slope beginning from the northwestern corner to the southwest corner of the parcel. Kaumuali'i Highway is immediately adjacent and north of the property, while Nuhou Street is situated along its eastern border.

DRAFT
Environmental Assessment

for

Kauai Philippine Cultural Center

TMK: (4) 3-3-03:43 (por. Lot 1540)

April 2014

Prepared by:

Agor Architects, LLC
460 Ena Road, Suite 207
Honolulu, Hawaii 96815

TABLE OF CONTENTS:

1.0 INTRODUCTION AND SUMMARY

1.1 Scope and Authority:

This Environmental Assessment (EA) is prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS) and associated Title 11, Chapter 200, Hawaii Revised Statutes (HRS).

1.2 Project Information:

Project Name:	Kauai Philippine Cultural Center Facililty Lihue, Kauai, Hawaii
Applicant:	Kauai Philippine Cultural Center
Agent:	Ron Agor, Architect 425 Ena Road Suite 206A Honolulu, Hi 96815
Accepting Authority:	Planning Department, County of Kauai c/o Office of Environmental Quality Control (OEQC) 236 South Beretania Street, Suite 702 Honolulu, Hawaii 96813
Project Location:	Island of Kauai, Lihue District TMK: (4) 3-3-03:43
Total Affected Area:	Approximately 3.491 Acres
Existing Land Use:	Unimproved
County Zoning:	General Commercial, ST-P General Plan Designation-Urban
State Land Use:	Urban
Approvals Required:	County Class IV Zoning and Use Permit

2.0 GENERAL DESCRIPTION OF ACTION'S TECHNICAL, ECONOMICAL, SOCIAL AND ENVIRONMENTAL CHARACTERISTICS, TIME FRAME AND FUNDING

2.1 Location:

The project site is approximately 7.133 acres located at the intersection of Kaumuali`i Highway and Nuhou Street in Lihue, Kauai. (See Exhibit "1") The Kauai YMCA occupies approximately 3.642 acres of the northeast portion of the site. The KPCC has a license from the County of Kauai for the use of approximately 3.491 acres to the southwest portion of the site. (See Exhibit "6") Chiefess Kamakahelei Middle School is immediately adjacent and south of the subject site and unimproved land owned by Grove Farm is to the west of the project site. To the north is Kaumuali'i Highway and beyond the highway sits the Kilohana Plantation. See Exhibit "13" for an aerial view and photographs of the site and surrounding areas.

2.2 **Proposed Action**:

The applicant has submitted an applications to the Planning Commission of the County of Kauai for a Class IV Zoning Permit, Use Permit and Special Treatment District (ST-P) Permit for the construction of the Kaua'i Philippine Cultural Center ("KPCC" or the "Project").

KPCC's mission is to provide, promote and enhance cultural, economic, educational training and social programs, as well as cultural exchange in Kaua'i's multi-ethnic environment. KPCC will further its mission through the Project.

Access to the project will be by a shared driveway with the Kauai YMCA off of Nuhou Street from the east of the site.

Phase I encompasses a 12,725 square foot office and secondary hall building. The offices total 3,800 square feet and the hall makes up 4,298 square feet. The Hall in this Phase I will be converted into offices upon completion of Phase II. There will be kitchen and restroom spaces totaling 964 square feet and exterior corridors of 3,643 square feet. The hall is intended to provide 180 with party-style seating or 220 people with theatre-style seating. The hall will also be able to be partitioned off into two 2,100 square feet spaces.

Phase II will be the "Main Hall" comprising 11,658 square feet of hall space, 4,231 square feet of exterior corridors, and a *porte-cochere* of 963 square feet. The "Main Hall" will accommodate 380 people with party-style seating or 480 people in theatre-style seating. The "Main Hall" will also be able to be partitioned off into three 3,800 square feet spaces.

The Halls in both Phase I and Phase II are intended for the use by the community for public and private events. However, when Phase II is completed, the Hall space in Phase I will be converted into offices. The offices are projected to be income generated spaces to help offset the maintenance cost of up keeping the facility.

Phases I and II, along with the parking area, totals a lot coverage of 70%. The maximum height of all structures will be 38 feet. The Project provides for 120 paved parking stalls.

Required Parking for Completion of Phase I & II:

Offices	3,800 SF/200	19 Stalls
	4,298 SF/200	21 Stalls
Halls:	11,658 SF	
	480 Max Seating/7	68 Stalls
		108 Stalls Required
		120 Stalls Provided

The structures are rectangular in design with deep exterior corridors lined with substantial vertical columns. The roof is substantial with a 5:12 pitch rising up to a maximum of 38 feet at the highest ridge. The exterior finish will be light beige plaster and the roofing will be of wood shingles. The wood fascia will be plantation green. (See Exhibits "8" through "12)

The topography shows a gentle down slope from north to south of approximately 5 feet in approximately 30 feet. (See Exhibit "6")

2.3 Economic and Social:

The Project will provide a short-term (three- to five- year) boost to the commercial construction industry for Kaua`i. The KPCC will also employ members of the community on a full-time and part-time basis once it is operational. In addition, events at the KPCC will provide jobs for caterers, florists and other event specialists.

The Project will directly benefit the substantial Filipino community on Kaua`i, as well as all other community groups, as the facility will be open for all.

2.4 Environmental Characteristics:

The Project site is presently unimproved, vacant and mowed grassy land. The KPCC buildings will encompass no more than 70% of the approximately 3.491 acres on the Project site.

The proposed one-story structures will be visually compatible in size with the existing and proposed Kaua`i YMCA structures to the east and Chiefess Kamakahelei Middle School to the south. The maximum height of the structures will be 38 feet. The structures will be encompassed with exterior corridors supported by substantial columns. The finish of the exterior walls will be plaster. The high-pitched roofs will be finished with wood shingles.

Construction of the Project will temporarily impact air quality (dust) and noise levels. These impacts are considered short-term and are addressed in Section 4 hereof.

2.5 Time Frame and Funding:

Work on the Project is projected to begin in the summer of 2014. The Class IV Zoning and Use Permit approval is anticipated to take approximately 4 months, and the Environmental Assessment process may take a minimum of 6 months. Phase I construction is projected to take 9 to 12 months to complete. Phase II and III is anticipated to be completed in five to eight years, depending upon funding sources.

The KPCC received $1.5 million from the State of Hawai`i Grant in Aid program for construction of Phase I. The funds will be released upon approved of the Class IV Zoning Permit Application. In addition, private fund-raising events by the KPCC have generated nearly $100,000 to-date.

3.0 DESCRIPTION OF THE ENVIRONMENT

3.1 Land Classification and Zoning:

The State Land Use Commission designates the Project site as Urban. The County of Kaua`i zones the Project site as General Commercial (CG), Special Treatment-Public District (ST-P) and Residential R-1. The General Plan for Kaua`i designates the Project site Urban.

Applicant is applying for a Class IV Zoning Permit, a Use Permit, and a Special Treatment District (ST-P) Permit.

3.2 Physical Features:

A. Topography: The Project site gently slopes down from the south to the north. (approximately 5 feet in 300 linear feet). Applicant anticipates that no major grading will be required for the development.

B. Geology: According to "Maps the Soils Survey of the Islands of Kaua`i, Oahu, Maui, Moloka'i and Hawai'i", by the U.S. Department of Agriculture, Soil Conservation Service, soil at the Project site consists primarily of Lihue-Silty Clay. Permeability is moderately rapid, run-off is slow and the erosion hazard is slight.

C. Climate: The mean annual rainfall throughout the Project area is about 22 inches per year. Average temperatures in the region range from the 60's to the low 90's, Fahrenheit. Temperature differences between day and night are about 15 degrees. The consistent direction of the trade winds is from the northeast at between 10 and 15 miles per hour.

3.3 Infrastructure:

Chiefess Kamakahelei Middle School (Public School) is adjacent and to the south of the Project site. The Kauai YMCA is adjacent and to the northeast of the Project site. The current YMCA facilities consist of an Olympic size swimming pool, a gymnasium and a multi-purpose building with a health club open to members and the general public (including tourists) on a per-diem basis. Kilohana Plantation, a popular spot for tourists, sits across Kaumuali'i Highway. Kilohana Plantation contains a restaurant and shops, hosts a luau, and operates an educational tourist excursion through former sugar cane fields. Kukui Grove Shopping Center lies within one mile of the Project site.

Grove Farm will provide water to the Project, as well as sewer service. Design and plans for the sewer and water requirements will be submitted to Grove Farm for approval prior to submittal of building permits.

Electrical, Telephone and Cable services will be provided underground from existing infrastructure along Kaumuali'i Highway

Kaumuali`i Highway borders the Project along the north side of the Project site. Nuhou Street intersects Kaumuali`i Highway at a stoplight to the northeast of the site. Access to the Project will be off Nuhou Street, approximately 300 feet south of the stoplight. Access will be shared with the Kauai YMCA via a driveway and a 20-foot wide access easement on approximately 490 lineal feet of the YMCA portion of the site. This access runs parallel to the school property.

The attached TIAR report (Exhibit "15") concludes that no further public infrastructure is required for this project. Should any potential traffic or vehicular issues arise during the entitlement process, the Applicant will work with the County Department of Public Works and the State of Hawai`i Department of Transportation to resolve any issues.

Police protection for Lihue town is provided by the Kaua'i County Police Department, whose main headquarters are located in Lihue, approximately three miles from the Project site. The Kaua`i Fire Department provides fire protection for the Lihue area from a fire station located approximately 2.5 miles from the Project site. A paramedic station is located approximately 2.5 miles from the Project, with Kauai's main hospital, Wilcox Memorial Hospital, located approximately three miles from the Project.

3.4 Flood Hazard:

The property is within Zone X, as indicated by the Flood Insurance Map for the County of Kaua'i. (See Exhibit "5")

3.5 Ground Water:

The proposed development is not anticipated to have significant adverse impacts on ground water because no active water systems are on the Project site. The irrigation facility for this former sugar cane land is no longer active.

There is an abandoned irrigation ditch to the west of the Project site on Grove Farm Land. No impact on the ditch is anticipated as the result of the Project.

3.6 Drainage and Erosion:

A Drainage Report and Erosion Mitigation Plan will be prepared and submitted to the County of Kaua'i, Department of Public Works, Engineering Division ("DPW"), for approval during the building permit process. An NPDES application will be applied for during the building permit process. Any mitigation measures required upon comment and approval by DPW and the State of Hawai`i, Clean Water Branch, will be implemented

3.7 Flora and Fauna:

The Project site was used extensively for sugar cane cultivation for many years and is now lawned and continually mowed. Currently the site is used by the community for soccer practice and by swim teams for their dry-land workouts. There are no known rare, endangered, or threatened species of flora located within or in the vicinity of the Project site.

The Project site does include introduced species of terrestrial fauna such as cats, mice, and rats. Some of the avifauna introduced to the area includes the Spotted Dove, Barred Dove, Japanese white-eye, Cardinal, Red-Crested Cardinal, and Mynah.

3.8 Endangered Species:

There are no apparent endangered species in the project area.

According to the Hawai`i Natural Diversity Database, there have been no recordings of rare species or eco-systems on the Project site. Considering the lack of natural water resources, the near proximity of residential and commercial neighborhoods and the adjacent public school, rare, threatened or endangered species are not expected to frequent the Project site.

3.9 Scenic Resources:

The Project site is relatively flat and is not adjacent to the ocean nor is the ocean visible from the Project site. The Project will not significantly block scenic mountain views from the highway.

3.10 History of the Land:

The Project site stands on the central plains of the Haiku Ahupuaa, which ranges from the ridge of Mt. Waialeale to the ocean and includes the Huleia River Basin. Like all of Kauai, King Kaumualii owned the Haiku Ahupuaa. Upon his death in 1924, the land passed to Kaahumanu in trust

of King Kamehameha II. In 1881, George Norton Wilcox purchased a tract of land known as the Haiku lands (appoximately 10,500 acres) from Princess Ruth Keelikolani, who presumably inherited the lands.

The lower lands of the Haiku, particularly those around the Huleia River, historically produced an abundance of food. The upper central plains, location of the Project site, were home to grazing cattle and horses. The lands and the surrounding area are relatively level with no nearby natural streams or rivers. The site because farmland when Grove Farm imported water to the site for sugar cane cultivation. The Project site housed sugar cane fields from 1881 until the early 1970s.

3.11 Coastal Zone:

The subject property is inland and not within the coastal zone.

4.0 PROBABLE IMPACTS AND MITIGATIVE MEASURES

4.1 Short Term Impacts:

A. Construction: Site preparation and infrastructure improvements will result in an increase in dust, storm run-offs and noise at the Project. The prevailing trade wind patterns is from the north-east directions. Potential airborne matters will generally be carried in the south-west direction, away from the school and toward vacant land. However, on occasions, the westerly winds may carry the potential airborne matters towards the school and existing residential neighborhoods. Applicant expects some storm-water runoff to occur, especially during the rainy months. Construction noise relating to infrastructure installations is also expected.

B. Traffic: Construction workers will generate short term traffic on Nuhou Street and Kaumuali`i Highway. Potential parking problems may also occur given the shared access with the Kaua`i YMCA.

C. Employment: Construction of the Project will positively impact Kauai's economy for the an approximate three-to-five year time frame anticipated until Project completion.

4.2 Long Term Impacts:

A. Traffic: At times there may be intermittant long-term increase in traffic, but the functions generating this traffic will be held on the weekends. Access to the site is shared by the Kaua`i YMCA. The YMCA and the KPCC have an agreement not to schedule large events at the same time so as not to cause traffic congestion at the access point and surrounding areas. Bus stops are located within walking distance from the Project. Large residential neighborhoods are also within walking distance of the Project.

B. Visual: The Project consists of three one-story buildings. The primary building, the Main Hall, will run parallel to Kaumuali`i Highway with approximately 200 feet of road frontage. The office building will be located perpendicular to the Main Hall on the west side of the Project site. This building will be visible from those traveling east on Kaumuali`i Highway due to the vacant land to the west of the Project site. The multi-purposes building, as well as much of the parking, are located in the back and interior of the site and will not be visible from Kaumuali`i Highway. The design entails exterior corridors around the structures lined with substantial columns. The exterior finish will be plaster. The high pitched roof will have a wood shingle finish. The exterior plaster finish will be light beige, the wood fascia will be plantation green, and the roof natural cedar wood shingles. This design scheme will blend with the surrounding buildings.

4.3 Mitigative Measures:

Applicant will take mitigative measures during the various stages of construction to minimize short-term impacts as they occur, such as increased dust, noise and traffic.

Applicant will ensure that all construction activities comply with the provisions of the Hawai`i Administrative Rules, S-11-60.11.33 on Fugitive Dust. Dust preventive measures will include:

a. Planning of construction phases to minimize the amount of dust-generating
materials and activities, centralizing on-site vehicular traffic routes and locating of potential dust-generating equipment in areas of the least impact.
b. Provide adequate water source at the site prior to start of construction.
c. Landscape and provide rapid covering of bare areas developed during construction.
d. Minimize dust from shoulders and access roads.
e. Provide dust control measures during weekends, after hours, and prior to daily construction.
f. Control dust from debris being hauled away from the site.

Applicant will obtain a National Pollutant Discharge Elimination System (NPDES) general permit prior to the start of Project construction as required. The NPDES Permit will address storm run-off mitigative measures.

Applicant will prescribe specific hours and days during which construction may occur to minimize potential noise, being particularly mindful of the proximity of Chiefess Kamakahelei Middle School. Applicant will also work with the County of Kaua`i to minimize traffic impacts during construction.

A Traffic Impact Analysis Report (“TIAR”) has been prepared for the Project. (See Exhibit "15"). The TIAR determined that no further improvements are required for traffic purposes.

Once complete, the Project will visually enhance the area by providing conformity of use with the neighboring Kaua`i YMCA and Chiefess Kamakahelei Middle School. The Project will also increase the productive use of the site by providing much needed space for large and small private and public functions.

5. PROJECT ALTERNATIVES CONSIDERED

NO ACTION: A "No Action" alternative would leave no options for the use of Special Treatment-Public District zoned properties for public and private gatherings. It would be contrary to the Kaua`i General Plan Land Use Map designating the site as urban, as well as to the Lihue Town Plan.

CONSIDERATION OF ALTERNATE SITES: There are no other lands available in the vicinity that carry a compatible designation within the Kaua`i General Plan and the County Zoning Map. Use of the Project site for public and quasi-public use are part of a long-range vision set forth in the Lihue Town Plan and includes the Kaua`i YMCA.

PROCEED WITH THE PROJECT: The Project will accommodate Kauai's growing need for a gathering place for all cultures on Kaua`i. It is only fitting that the KPCC be located on former sugar plantation land – land which was made productive in large part due to the hard work and dedication of the Filipino and other migrated plantation workers.

6.0 FINDINGS AND DETERMINATION

Significant Criteria: According to the Department of Health Rules (11-200-12) ("Rules"), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significant Criteria" to be used as a basis for indentifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following
criteria:

1. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;*

   The Project will not cause any irrevocable loss of natural or cultural resouces. As discussed previously, the Project site was home to sugar cane fields from the late 1800s through the early 1970s.

   No known archaeological or cultural historic sites exist on the Project site. (See Exhibit "14", Archaeological Survey)

   Should any archaeologically significant artifacts, bones, or other indicators of previous

historic on-site activity be uncovered during construction, they will be treated in strict compliance with the requirements of the State of Hawaii Department of Land and Natural Resources, Historic Preservation Division ("SHPD") and all construction will cease until cleared by SHPD.

(See Section 7.0 for the Cultural Assessment discussion.)

2. *Curtail the range of beneficial uses of the environment;*

Although the the Project site was used for sugar cane cultivation for over eighty years, Lihue Plantation, the former owner of the property, closed in the early 1990s. Therefore, the traditional use of the property is no longer viable. Furthermore, the Kaua`i County General Plan and the Lihue Town Plan call for urban development in the area.

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

The project development is consistent with Chapter 344, HRS in that;

(a) The Project focuses on serving Kauai's existing population and does not expect to be a factor in any increase in the island's population.

(b) The Project includes plans for the conservation and utilization of natural resources and efficient use of energy resources.
   (1) Applicant will utilize best management practices for waste prevention and recycling.
   (2) The Project includes a large open space area.
   (3) There are no natural wildlife, forest, marine, or unique ecological preserves on or near the Project site.
   (4) The Project is consistent with the Kaua`i County General Plan, the Lihue Town Plan and complies with the rules and regulations set forth in HRS Chapter 205 for lands designated Urban by the State Land Use Commission and the Comprehensive Zoning Ordinance of the County of Kaua`i.

(c) No endangered flora or fauna have been discovered on or adjacent to the Project site. Landscaping will consist of native trees, shrubs, and flowering plants as encouraged by the County of Kaua`i Department of Water as part of their recommendations for water conservation.

(d) The Project will create a cultural space. *KPCC's mission is to provide, promote and enhance cultural, economic educational training and social programs as well as cultural exchange in our multi-ethnic environment.* The site is well away from the shoreline and the coastal zone.

(e) Applicant anticipates the Project will be fully built out within three to five years. During construction, the construction industry will receive a short-term economic boost. The KPCC currently employs four individuals. As each phase of the facility is completed, KPCC expects to hire additional employees to operate and maintain the buildings and grounds on both a full-time and part-time basis. In addition, events held at the KPCC will likely involve outside vendors, including caterers, florists, musicians, dancers and equipment rental companies.

(f) The Project's location near a bus stops will serve to encourage members of the community to ride the bus to the KPCC, thereby conserving energy and reducing air and noise pollution.

(g) Applicant is committed to the efficient use of energy resources for the Project. It is the intent to install a Photo-Voltaic system, the use of energy efficient light fixtures and bulbs, the use of water saving plumbing fixtures, recycle building materials, etc.

(h) Environmental stewardship will be promoted at the KPCC to encourage those who utilize the facility to respect the surrounding environment, reduce waste and excessive consumption, and fulfill the responsibility as trustees of the environment for the present and the future generations.

(i) This project is consistent with the National Environmental Policy Act.

4. *Substantially affects the economy or social welfare of the community and/or state;.*

The Project will have an immediate positive impact on the construction industry for Kaua`i. The KPCC currently employs four individuals. As each phase of the facility is completed, KPCC expects to hire additional employees to operate and maintain the buildings and grounds on both a full-time and part-time basis. In addition, events held at the KPCC will likely involve outside vendors, including caterers, florists, musicians, dancers and equipment rental companies.

The plan for KPCC envisions a gathering place that serves the substantial Filipino population of Kaua`i and recognizes and honors the contribution Filipinos have made to Kaua`i and the State of Hawai`i. In addition, the KPCC plans to open its facilities to the community at large for gatherings and other cultural events. The KPCC will substantially affect the social welfare of the community by providing a safe, centrally-located center in which many peoples can gather, have meetings, learn about the Filipino culture and celebrate important events.

5. *Substantially affects public health;*

During the construction period, the Project will temporarily impact air qualilty and noise levels. Applicant will utilize Best Management Practices to minimize these impacts. Upon completion of the Project, projected air quality and noise impacts will be negligible if at all. The positive aspects of the Project will greatly benefit the community and serve

to more than offset any negative impacts that would give rise to a "No Action" alternative.

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

The Project will cause no population changes as it will serve the existing population. It will not effect public facilites in the area. In fact, the existing adjacent Kauai YMCA will will be positively impacted by this Project.

The site is currently used sparingly for soccer practice. There are various public parks nearby that can be used for soccer practice. A large soccer field adjacent to the County's Stadium is always available for soccer practices and is on the Kaua`i Bus route.

7. *Involves a substantial degradation of environmental quality;*

This Project will not cause any degradation of the environment. The Project site is vacant. The KPCC will increase the productive use of the land and upgrade the visual impact of the immediate vicinity.

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

(a) The Project's cumulative impact on the environment will not involve a commitment for larger action. Adequate parking will be available for this project. There will be no requirements for additional traffic infrastructure or utility infrastructure.

(b) Air: As discussed herein, air quality will be impacted during the construction phase for a short-term. As completed, the Project will not have any facilities or activities that produce air pollution.

Water: The Project site does not contain any natural water resources and, therefore, will have no impact on natural water resources. Grove Farm will provide water to the Project.

Noise: As discussed herein, construction will have a short-term impact on noise in the vicinty. When completed, however, the KPCC does not expect to generate any substantial noise. Activities scheduled at the KPCC will occur generally on the weekends, during the evenings and after school hours.

Endangered Species: No known rare, threatened or endangered species or their habitat exist on the property or the adjacent properties.

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

No known rare, threatened or endangered species or its habitat exists on the subject property. Exterior lighting and fixtures will be installed as not to impact Shearwater birds that may fly over the area.

10. *Detrimentally affects air or water quality or ambient noise level;*

The Project will not detrimentally affect air or water quality or ambient noise level in the long-term. Air quality will be affected during construction as dicussed herein and mitigation measures will be implemented to reduce any detrimental effects. Since the Project site does not contain any natural water resources, none will be detrimentally affected. Noise levels will increase intermittantly during the short-term due to construction as discussed herein. Set construction days and hours should minimize any detrimental effect. The Project will not generate any long-term affect on the ambient noise level in the area.

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

The Project is not located in an environmentally sensitive area, such as flood plain, tsunami zone, beach, erosion-prone areas, geologically hazardous land, estuary, freshwater, or coastal areas and, therefore, will not affect or suffer damage thereto.

12. *Substantially affects scenic vistas and view planes identified in county or state plans or studies;*

The Project will not affect any scenic vistas or view plane identified by either the County of Kaua`i or the State of Hawai`i. The Project site is not visible from the ocean, nor can the ocean be seen from the Project site. Mountain views from the highway will not be adversely affected.

13. *Requires substantial energy consumption;*

The Project will receive power from Kaua`i Island Utility Cooperative. Energy consumption will be minimized by the use of energy efficient lighting and equipment.

7.0 CULTURAL ASSESSMENT

Brief discussions with Holbrook Goodale, historian on Kauai were held for the preparation of this assessment.

The Project site stands on the central plains of the Haiku Ahupuaa, which ranges from the ridge of Mt. Waialeale to the ocean and includes the Huleia River Basin. Like all of Kauai, King Kaumualii owned the Haiku Ahupuaa. Upon his death in 1924, the land

passed to Kaahumanu in trust of King Kamehameha II. In 1881, George Norton Wilcox purchased a tract of land known as the Haiku lands (appoximately 10,500 acres) from Princess Ruth Keelikolani, who presumably inherited the lands.

The lower lands of the Haiku, particularly those around the Huleia River, historically produced an abundance of food. The upper central plains, location of the Project site, were home to grazing cattle and horses. The lands and the surrounding area are relatively level with no nearby natural streams or rivers. The site because farmland when Grove Farm imported water to the site for sugar cane cultivation. The Project site housed sugar cane fields from 1881 until the early 1970s.

The attached Exhibit "14", Archaeological Assessment, concludes that the Project would have "no effect on significant historic properties as historic properties are absent on the parcel." Should any archaeologically significant artifacts, bones, or other indicators of previous
historic on-site activity are uncovered during construction, the Applicant will strictly comply with the requirements of SHPD.

8.0 ORGANIZATIONS AND PERSONS CONTACTED

The following agencies were consulted and sent a copy of the EA for comments. A 21-day period was stipulated for comments.

A. Office of Environmental Quality Control (OEQC)
State of Hawaii
235 S. Beretania Street, Suite 702
Honolulu, Hi 96813

B. Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd
Suite 555
Kapolei, Hawaii 96707

C. Department of Land and Natural Resources
Engineering Branch
1151 Punchbowl Street
Honolulu, Hi 968013

D. Clean Air Branch
Hawaii State Department of Health
Suite 250
P. O. 3378
Honolulu,Hi, 96813

E. Clean Water Branch
Hawaii State Department of Heath
P. O. 301
9919 Ala Moana Blvd
Honolulu Hi 96813

F. Department of Transportation
Highway Division
1720 Haleukana
Lihue, Hi 96766

G. U.S. Fish and Wildlife Service
300 Ala Moana Blvd, Rm 63071
Honolulu, Hi 96813

H. Department of Housing and Urban Development
500 Ala Moana Blvd, Suite 3-A
Honolulu, Hi 96813

I. U.S. Army Corps of Engineers
Honolulu District
Fort Shafter, Hi. 96858

J. Ground Water Office
Water Division, WRT-9
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, Ca. 94105

K. Wetlands, Oceans and Esturary
Branch W-7
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, Ca 94105

L. Department of Planning
County of Kauai
4444 Rice Street
Lihue, Hawaii 96766

M. Department of Public Works
County of Kauai
4444 Rice Street
Lihue, Hawaii 96766

N. Department of Water
4398 Pua Loki Street
Lihue, Hi 96766

O. Kauai County Housing Agency
4444 Rice Street, Suite 330
Lihue, Hi 96766

9.0 REFERENCES

County of Kaua`i General Plan

County of Kaua`i Comprehensive Zoning Ordinance

Lihue Town Plan

Federal Emergency Management Agency "Flood Insurance Rate Map"

United States Fish & Wildlife Services (Online www.nwi.fws.gov)

National Wild & Scenic Rivers By State (Online www.nps.gov/rivers/wild)

U. S. Department of Agriculture, Soil Conservation Service

Archaeology of Kaua`i 1931

Archaeology of Puna, Kaua`i 1973

10.0 CERTIFICATION

Project Name and Identification: **KAUAI PHILIPPINE CULTURAL CENTER**

1. Is project in compliance with applicable laws and regulations as cited in the Statutory Checklist (24 CFR Part 58.1) ? **YES**

2. Is an Environmental Impact Statement required pursuant to 24 CFR Part 53.37? **NO**

3. Can a determination be made that the proposed activity will not significantly impact upon the quality of the human environment? **YES**

FINDING:

X **Findings of No Significant Impact:**
(The Project will not result in a significant impact on the quality of the human environment.)

_____ **Findings of Significant Impact:**
(The Project may significantly affect the quality of the human environment.)

Preparer's Signature: _____ 4/30/17
Ron Agor-Architect Date

Responsible Entity
Approving Official: _____ _____
Mayor Bernard Carvalho Date

11.0 TABLE OF EXHIBITS

STATUTORY CHECKLIST

(24 CFR 58.8)

Record the determination made regarding each listed statue, executive order of regulation. Provide appropriate source documentation. [Note reviews or consultations completed as well as any applicable permits or approvals obtained or required. Note dates of contact or page reference.] Provide compliance or consistency documentation. Attach additional material as appropriate. Note conditions, attenuation or mitigation measures required.

FACTORS DOCUMENTATION	DETERMINATION AND COMPLIANCE
Historic Preservation [24 CFR 800]	Archaeological Assessment forwarded to SHPD for review on November 12, 2013
Flood Plan Management [24 CFR 55, Executive Order 11988]	Printed No Effect-Section 3.4 Exhibit 5
Wetlands Protection [Executive Order 11990	Printed No Effect-Section 3.4 Exhibit 5
Coastal Zone Management [Section 307 (c) & (d)	Printed No Effect-Section 3.11 Outside CZM Area-Planning Dept.
Sole Source Aquifers [40 CFR 149)	Printed No Effect-Per EPA web site no designated Sole Source Aquifers for Kaua.i
Endangered Species Act [50 CFR 402]	Contact No Effect-Per U.S. Fish & Wildlife Service Site Observtion-3 morning, 3 noon, 3 evening site visits.
Wild & Scenic Rivers Act [Section 7 (b) & (c)	Printed No Effect-According to National Park Service Website, there are no Wild & Scenic Rivers.
Air Quality [Clean Air Act, Section 176 (c) & (d),	Printed No Effect-Web site for Region 9: Air Programs. Project is in “attainment area”.
Farmland Protection Policy Act [7 CFR 658]	Printed No Effect-Kauai General Plan designated project area as Urban Center.

ENVIRONMENTAL ASSESSMENT CHECKLIST

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref 40 1508.8 & 1508.27]
Evaluate the significance of the effects of proposal on the character, featurs and resources of the project area. Enter relevant base data and verifiable source documentation to support the finding. Then enter the appropriate impact code from the following list to make a determination of impact. **Impact Code: (1)** – No impact anticipated; **(2) –** Potentially beneficial; **(3)** – Potentially adverse; **(4)** – Requires mitigation; **(5)** – Requires project modification. Note names, dates of contact, telephone numbers and page reference. Attached additional material as appropriate. Note conditions or mitigation measures required.

LAND DEVELOPMENT	CODE	SOURCE OR DOCUMENTATION
Conformance with Comprehensive Plans and Zoning	4	Proposed project complies with the Kauai General Plan policies. The CZO requires Zoning & Use Permits and County Charter requires Coucil approval for zoning change.
Compatibility and Urban Impact	4	Same as above
Slope	1	Section 3.2
Erosion	1	Sections 3.2B and 3.6. Exhibit 6
Soil Stabilitly	1	Section 3.2
Hazards and Nuisance including Site Safety	4	Title 11, HAR, Chapters 1-26, Vector Control, 11-60.1, Air Pollution Control, and 11-58.1, Solid Waste Management Control
Energy Consumption	1	A Photo-Volaic System will be installed to offset the high electric rates and reduce fossil fuel dependency.
Noise-Contribution to Community	4	Title 11, HAR, Chapter 11-46, Community Noise Control.
Air Quality-Effects of Ambient Air Quality on Project and Contribution to Community Pollution Levels	4	Title 11, HAR, Chapter 11-60.1, Air Pollution.
Environmental Design-Visual Quality-Coherence, Diversity	1	The proposed project will be designed for minimal impact on the physical environment by being compatible with surrounding area and the land.

SOCIO-ECONOMIC	CODE	SOURCE OR DOCUMENTATION
Demographic Character Changes	1	The proposed project is in parallel to the Kauai General Plan in designating the subject property for need housing projects.
Displacement	1	The subject property is vacant and no displacement will need to take place.
Employment and Income Patterns	2	No data available.

COMMUNITY FACILITIES AND SERVICES	**CODE**	**SOURCE OR DOCUMENTATION**
Education Facilities	1	Chiefess Kamakahelei Middle School is an adjacent neighbor.
Commercial Facilities	1	The proposed project is within a short walking distance to Kukui Grove Shopping Center.
Health Care	1	The project is within 2.5 miles from Lihue, the prime center of trading, employment, health care facilities, and government offices.
Social Services	1	Services are available in Lihue, approximately 1 mile away.
Solid Waste	4	Section 3.3
Wastewater	4	Section 3.3
Storm Water	4	Sections 3.5 and 3.6
Water Supply	4	Section 3.3
Public Safety-Police	1	Section 3.3. Kauai Police Department headquarters are located in Lihue, approximately 3 miles away.
Public Safety-Fire	1	Section 3.3 A Lihue Fire Station is approximately 2.5 miles from the project site.
Emergency Medical	1	Emergency Care is available at Wilcox Memorial Hospital, approximately 2 miles away.
Open Space and Recreation	1	Open space and recreation will not be adversely affected.
Cultural Resources	1	See Exhibit "14", Archaeological Assessment.
Transportation	4	A Kaua`i Bus stop is within walking distance from the project.

NATURAL FEATURES	**CODE**	**SOURCE OR DOCUMENTATION**
Water Resources	1	Section 3.5.
Surface Water	4	Sections 3.5 and 3.6.
Unique Natural Feature and Agricultural Lands	1	Farmland Protection Policy Act (7 CR 658) not applicable to land committed to Urban development.
Vegetation and Wildlife	1	Sections 3.7 & 3.8.

OTHER FACTORS	CODE	SOURCE OR DOCUMENTATION
Flood Disaster Protection Act [Flood Insurance 58.6 (a)]	1	FEMA Flood Insurance Rate Map Subject property within Zone X. Section 3.4.
Coastal Barrier Resources Act [58.6 (c)]	1	Section 3.11. Subject property not within coastal management areas.
Airport Runway Clear Zone or Clean Zone Disclosure [58.6 (d)]	1	No airport within 3 miles from subject property.

EXHIBIT CONTENTS:

An Archaeological Assessment With Subsurface Testing ofthe Proposed Kauai Philippine Cultural Center

Ahupua`a of Nāwiliwili, Moku of Līhu`e, Island of Kaua`i, TMK: (4) 3-3-003: 043

By

Nancy McMahon, M.A. and Wendy Tolleson, M.A.

Prepared for:
Agor Architects LLC

Exploration Associates, Ltd

November 2013

EXHIBIT 14
ARCHEOLOGICAL ASSESSMENT

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Introduction

At the request of Agor Architects LLC, an Archaeological Inventory Survey (AIS) was performed on a small parcel allocated for the construction of a new Kaua‘i Philippine Cultural Center (KPCC) adjacent to Kaumualii Highway. The project area is a portion of a County of Kaua‘i parcel TMK: (4) 3-3-003: 043. Figure 1 is the USGS location of the project area (Figure 1). The YMCA of Kauai occupies a portion of the parcel, and the YMCA buildings include multipurpose buildings, a swimming pool and newly installed solar array. Access to the KPCC portion of the lot will be from the parking lot of the YMCA (Figure 3).

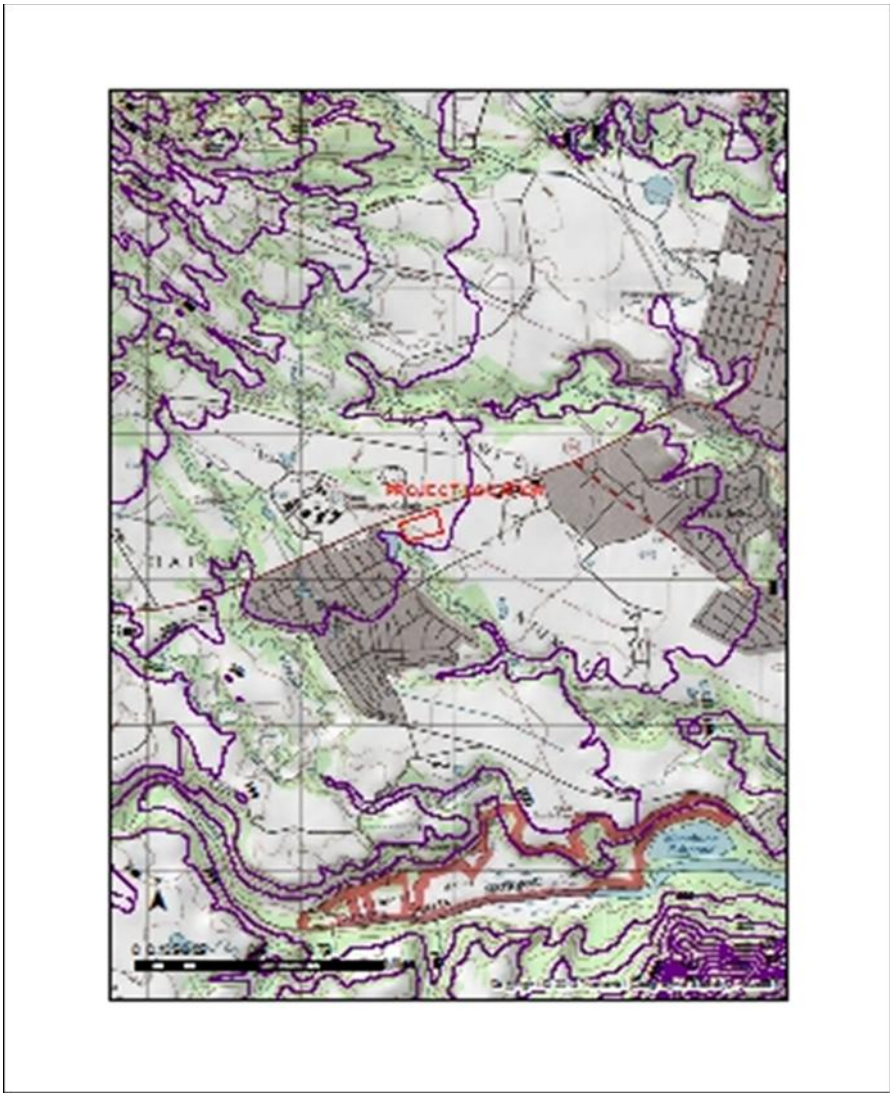

Figure 1 Project Location USGS Map

The applicant has submitted an application to the Planning Commission for a Class IV Zoning Permit and a Use Permit for the construction of KPCC. KPCC's mission is to provide, promote and enhance cultural, economic, educational training and social programs, as well as cultural exchange in Kaua'i's multi-ethnic environment. KPCC will further its mission through this Project.

KPCC comprises two separate buildings to be constructed in phases. Phase I encompasses a 12,725 square foot office and hall building. The offices total 3,800 square feet and the hall makes up 4,298 square feet. There will be 8 offices, 1 for administrative purposes and 7 for rental income purposes. There will be kitchen and restroom spaces totaling 964 square feet and exterior corridors of 3,643 square feet. The hall is intended to provide 180 party seating or 220 theatre style seating. The hall will also be able to be partitioned off into two 2,100 square feet spaces.

Phase II will be the "Main Hall" comprising 11,658 square feet of hall space, 4,231 square feet of exterior corridors, and a Porte-Cache of 963 square feet. The "Main Hall" will accommodate 380 party seating or 480 theatre style seating. The "Main Hall" will also be able to be partitioned off into three 3,800 square feet spaces.

The maximum height of the structures will be 38 feet. The site will have paved parking for 120 parking stalls. The total lot coverage will be at 70%.

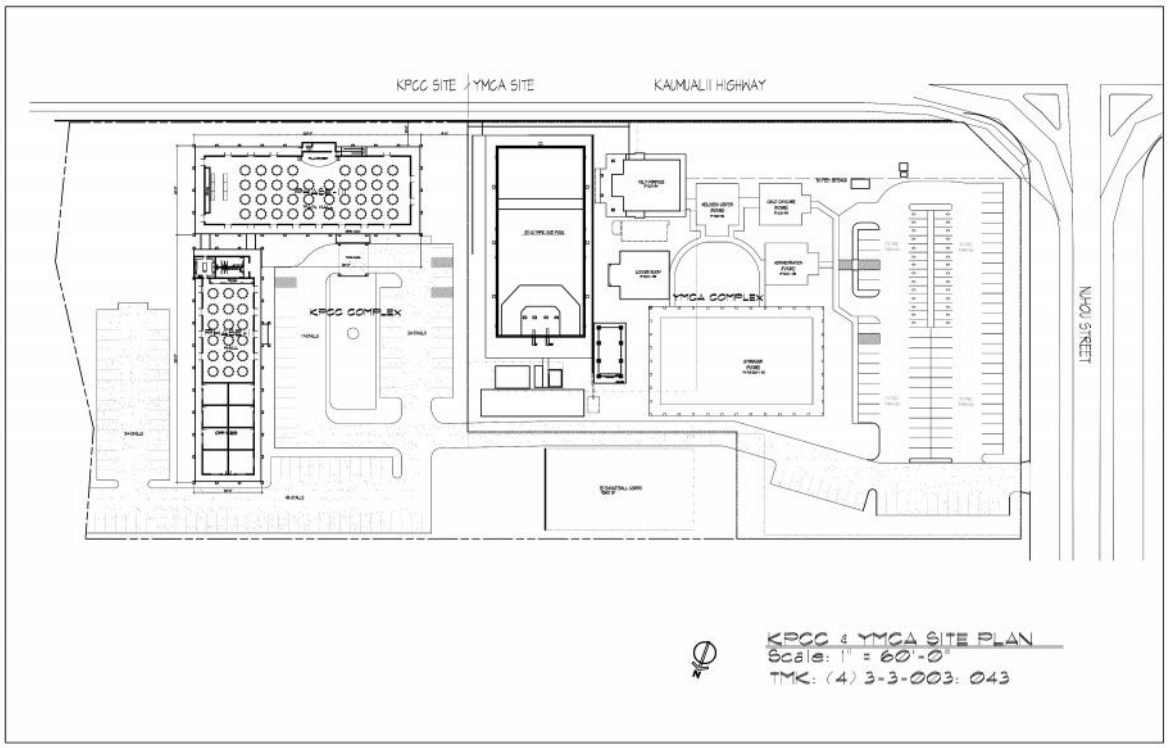

Figure 2 Project Site Plan

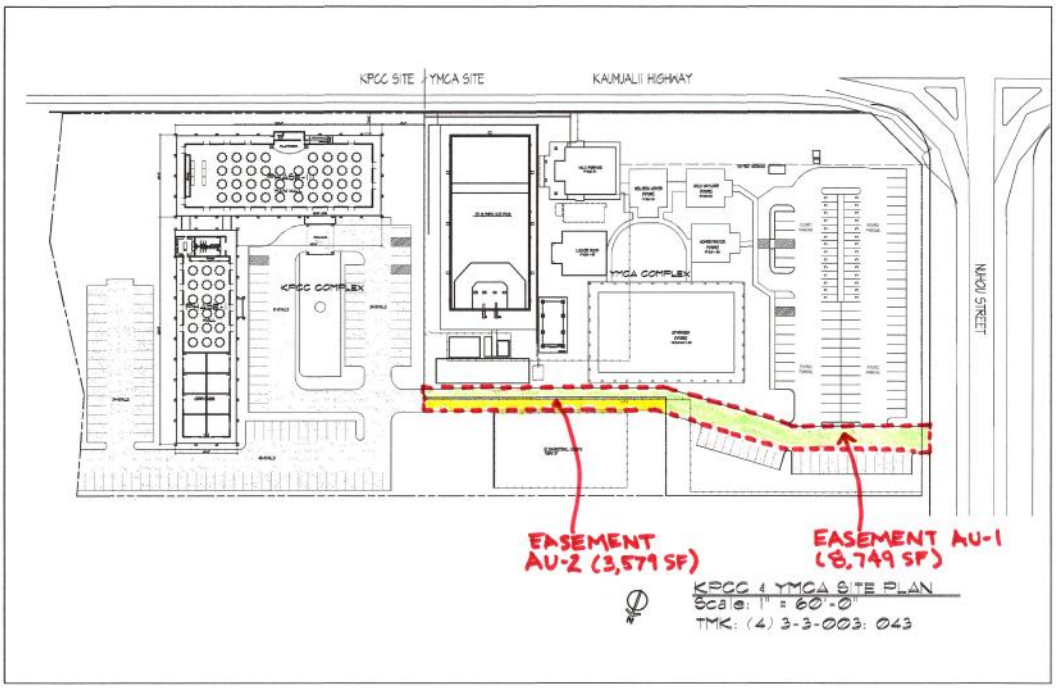

Figure 3 Plot Plan for the Kauai Philippine Cultural Center Showing the Easement Behind the YMCA of Kauai

Scope of Work

The purpose of this archaeological investigation is to address any archaeological and/or historical concerns. The proposed work includes a surface survey, subsurface testing, and a report detailing methods, results and recommendations. This archaeological work meets the requirements of an inventory-level survey per the rules and regulations of (State Historic Preservation Division/Department of Land and Natural Resources) SHPD/DLNR. The level of work is sufficient to address site types, locations, and allow for future mitigation recommendations if appropriate. Any property over 50 years of age must be evaluated for historic significance for the National Register of Historic places, and include remnant pre-contact and historic period site.

The scope of work includes:

- Historical research including study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property.

- Pedestrian survey of 100% of the subject parcel to identify any surface archaeological features and investigate and assess the potential for impact to such sites, and limited subsurface testing to identify soil types and any subsurface sensitive areas that may require further investigation or mitigation before the project proceeds.

- Preparation of a report which will include the results of the historical research and the fieldwork with an assessment of archaeological potential based on that research with recommendations for further archaeological work, if appropriate. The report will also provide mitigation recommendations if there are archaeologically sensitive areas that require further consideration.

Methods

On May 18, 2013 archaeologist Nancy McMahon, M.A., principle archaeologist for Exploration Associates, Ltd. performed a pedestrian survey utilizing transects oriented north-south spaced 5 m. apart. Subsurface survey consisted of 4 machine excavated trenches in the proposed building locations to examine the soils and determine stratigraphic sequences and record buried cultural deposits if present. Agor Architects LLC, staked out the footing locations on the ground prior to the survey. Subsurface testing was done with a backhoe 24 inch wide bucket. Field observations were recorded and photographs were taken of the project are and the surrounding area. Trenches were measured and trench profiles were photographed. Profiles were drawn of representative trenches. Soil identification and color and chroma were obtained using the Munsell color chart.

Historic background research included a review of previous archaeological studies on file at the State Historic Preservation Division of the Department of Land and Natural Resources; studies of documents at Hamilton Library UH Manoa, the Līhu‘e Public Library the Kaua‘i Museum, the Kaua‘i Historical Society and from the study of maps at the Survey Office of the Department of Land and Natural Resources and previous archaeological reports relevant to the project. A search of 19th century Land Commission Award claim records was accomplished via the Internet from the *Mahele* Database prepared by Waihona ‘Aina Corp.

Figure 4 Tax Map Location (4) 3-3-03: 43 of the Project Area.

Environmental Setting

Natural Setting

The project area is an inland parcel located approximately 2 miles west of Līhu‘e within Nāwiliwili *ahupua’a*, in the *moku* of Līhu‘e (traditionally the Puna District) in

southeastern Kaua'i. Located approximately 3 miles from the coast, the parcel is bounded on the *mauka* side by Kaumualii Highway, on the north by the YMCA infrastructure, and the Halehaka stream gulch drainage on the southern and *mauka* side. Chiefess Kamakahelei Middle School lies to the east. The parcel has been graded and planted with grass. A chain link fence surrounds the south, west and north portions of the parcel. The project area is swept by northeast trade winds, with rainfall accumulations up to 254 cm (100 inches).

Soils

A single soil classification is described for this project area (Foote *et.al.* 1972*)*: Puhi Silty Clay Loam [*PnB*] with 3-8% slopes. The Puhi series are "…well drained soils that developed on uplands…in materials" (Figure 5).

Figure 5 Soils Map for the Project Area from the NRCS Web Based Maps.

Vegetation

Vegetation in the survey area consists primarily of Bermuda grass. The project location had been used as the staging area for the construction of the YMCA of Kauai in 2007 and for the construction of the Chiefess Kamakahelei Middle School in 2000, then

reseeded (personal communication, Tom Tannery, PhD Director of the YMCA). The parcel has been used in the past as an activity area for sports events and has been used in the past as an activity area for sports events.

Figure 6 Aerial of the Parcel Showing the YMCA and the Chiefess Middle School

Historic Background

Settlement and Evolution of Hawaiian Culture

Kirch in *Feathered Gods and Fishhooks* (1985) synthesized data from archaeological sites and *mo'olelo* developing a theory, with an accompanying chronology, that attempts to explain Hawaiian settlement, cultural evolution and divergence from, and similarities with, cultures in the Polynesian triangle. The chronology consists of four periods; Colonization, Developmental, Expansion and proto-Historic. These will be briefly summarized here:

Colonization Period

This period extends from AD 300 to AD 600. It is postulated that this is when the first Hawaiians arrived from Marquesas. With radiocarbon dates from two sites, the Bellow Dune Site on O'ahu and the Pu'u Ali'i Dune site on Hawai'i island (Kirch 1985), and

bolstered by a date from the PHRI investigations at the Hyatt Regency hotel on Kaua'i (Walker, Rosendahl and Goodfellow 1992) he suggests that settlers focused on the well watered floors of coastal river valley for the cultivation of taro, with small habitation sites on the sandy beaches to facilitate ease of exploitation rich marine resources.

Development Period

The Development Period extends from AD 600 to AD 1100. Population increased during this period, though Kirch suggests that only 20,000 individuals inhabited the entire Hawaiian chain. This is a period when permanent small habitations appear in the river valleys. The Hawaiians continued the strategy for resource procurement from the Colonization Period. It is noted that the data for coastal settlement on Kaua'i is poorly documented or understood.

Expansion Period

The Expansion Period extends from AD 1100 to AD 1650. During this period the population increases; with the accompanying large scale agricultural practices and expanding aquaculture system. This resulted in the evolution of religious practices and social organization giving rise to new land division, the *ahupua'a*, unique to Hawai'i. This came as a result of a stratified political system with the division between the elite (*ali'i)* and commoners, the *maka'ainana,* placing control and allocation of resources in the hands of the elite (Hommon 1976, Green 1980). During this period agriculture expanded into "marginal areas" with the farming of dry land crops such as dry land taro and sweet potato cultivated in large upland agricultural complexes. The expansion into these areas was necessary to feed a burgeoning population and to provide food and tribute to the elite. It is thought that due to the dry conditions and lack of water the *maka'ainana* who worked the fields built only small temporary structures to occupy during the growing season.

Proto-Historic Period

The proto-Historic Period extended from AD 1650 to contact with European explorers in 1795. This period is marked by intensification and elaboration of the material culture and expansion of permanent habitations and fishponds, and movement to settle in the uplands. Contact with Europeans introduced new goods as well as diseases that decimated the population, resulting in a drastic change to the traditional life ways of Hawai'i.

The project is located inland, in mid-plateau of the coast, and it is likely that no sites associated with these periods, with the possible exception of proto-Historic upland dry

land agriculture and historic era cane infrastructure. This is the result of extensive historic disturbance and modification of these areas for large scale sugar cultivation which has reduced the possibility of remnant sites from this period.

The Mahele

There are no Mahele records related to the subject parcel. Briefly summarized, the Mahele records tell of native tenants living in the valleys, along rivers, and by the shore on Kaua'i. Most of the Land Commission Awards are located in the lowland and coastal areas of nearby Nāwiliwili. The records mention house sites, taro pond fields, irrigation systems, lower dryland agricultural parcels, fishponds, pastures, and other features of the landscape. The records do indicate that prior to clearing the land for plantation use, native tenants harvested various natural resources from the *kula* (plains lands), perhaps did some *kula* planting, and pastured animals above their *kuleana* (homestead lands). Because of the intensive nature of plantation land use, it is unlikely that evidence of these uses remains.

\

The Historic Period on Kaua‘i

The first sugar cane plant came to the Hawaiian Islands with the Polynesian settlers, with early technology for making sugar imported from China. The first successful commercial milling of sugar in Hawai‘i began at Koloa, Kaua‘i in 1835 by Ladd & Company. By 1880 there were seven plantations operating on Kaua‘i, “launching an entire economy, lifestyle and the practice of mono-cropping that lasted for over a century” (www.KauaiHistoricalSociety.org). The rapid expansion of the industry resulted from the ratification of the Reciprocity Treaty of 1875, between Hawai‘i and the U.S. whereby Hawaii could export sugar tariff free (Nellist 1925). Over the next 150 years, Hawaii boasted one of the most technologically advanced and efficient sugar industries in the world.

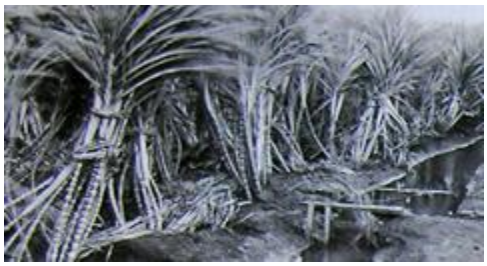

Figure 7 Photo of Sugar Cane

Across Kaumualii Highway *mauka* of the project area lies the estate of one of the oldest plantations on Kaua'I - Kilohana. Warren Goodale was the first owner of Grove Farm following the Great Mahele of 1848. The Great Mahele allowed Native Hawaiians, citizens, and non-citizens who were residents, to own land or lease lands that had formerly belonged only to the *ali'i.* He immediately sold the land to James Marshall for $3,000, who in turn, sold it to Judge Herman Widemann for $8,000 in 1856.

In November of 1864, George Norton Wilcox took over the lease for Grove Farm and became its sole owner. He ran the plantation from 1870 until his death at ninety three in 1933. Raised in Hanalei, Wilcox was an enterprising innovator of plantation sugar agriculture, as well as an influential man in Hawaiian politics and a philanthropist (Daws 1968). His homestead reflects his combination of the Hawaiian way of life and the development of the Grove Farm plantation. Under his leadership, Grove Farm came to be synonymous with high quality sugar and economic growth on Kaua'i. He developed and instituted modern agricultural technology to increase yields, including the Wilcox Ditch, part of an innovative water irrigation system, to new cultivating machinery and planting methods using the first sugar cane seed planting machine in the kingdom.

During the first 100 years of existence, Grove Farm grew to approximately 22,000 acres, with about half of the plantation in sugar cane and half in cattle pasture. Currently Grove Farm totals approximately 40,000 acres comprised of lands from three plantations: Grove Farm, Koloa Plantation and Līhu'e Plantation.

Gaylord Parke Wilcox, head of Grove Farm sugar plantation, decided to build his dream home with his wife, Ethel. He hired Mark Potter, an architect highly respected for his Diamond Head homes, to design the Tudor-style home that would become Kilohana. Gaylord and Ethel Wilcox moved to Kaua'i from Honolulu in 1936 when Gaylord took over the management of Grove Farm Plantation The 16,000 square foot mansion was the center of a 26,000 acre sugar tract and served as the family homestead for many generations.

The home was richly crafted with fine woods and Art Deco detailing. Lumber and materials arrived by barge from the West Coast, with detailed moldings from England. Beautiful pine wainscoting and coffered ceilings graced the living room, hallways, foyer, library and staircase. Hawaiian artifacts were proudly displayed along with rare artwork

imported from the Orient and the island kingdoms of the Pacific. Upon completion it was the most expensive home ever built on Kauai and it served as both a working homestead and host to many exuberant social gatherings and important diplomatic meetings.

Severely damaged by Hurricane Iwa in 1983, the home has been completely restored and today the original public spaces are filled with notable Hawaiian antiques, paintings, and carpet all reflecting the lifestyle of the Wilcox family. Visitors are encouraged to explore the home's original and restored features while discovering rooms that have been repurposed as shops, galleries, restaurant and lounge.

Kilohana Plantation estate was added to the National Register of Historic Places in 1974 and was named a State of Hawaii Historic Landmark in 1993.

Figure 8 Kilohana Plantation House of Gaylord Wilcox Across the Highway from the Project Area

Philippinos of Kauaʻi

Philippinos have been part of the Kauaʻi community for over 100 years. Contract laborers were imported into the Kingdom, beginning with the Chinese as early as 1852. With late 19th century, sugar agriculture dominating the economy of Hawai'i, a resulting labor shortage grew, and from 1885 through 1894 over 28,000 Japanese migrated to Hawai'i to work on the plantations. In 1908 after a "gentlemen's agreement" between

the planters' restricted Japanese immigration, coupled with a 1909 strike by Japanese plantation workers, the Hawaii Sugar Planters Association (HSPA) looked overseas again for cheap labor.

HSPA mounted an aggressive campaign to import Philippino laborers, called *sakadas*. This group of immigrants would be the last influx of contract plantation workers to Hawaii. Philippinos were viewed by the planters as the desired immigrant population and could become "first class workers" (Takaki 1983) as they were considered to be compliant and hardworking, and their status as protected U.S. nationals eased the immigration process. Unlike the Chinese and Japanese, Philippinos were assigned to the least desirable jobs and housing and earned the lowest wages.

In 1906, HSPA sent Albert F. Judd to Manila to recruit labors from the Philippines; however, after a six month effort he enlisted only 300 workers. HSPA intensified their efforts in other locations In the Philippine islands, but could only procure 15 laborers from rural Ilocano Sur. Between 1907 and 1919 plantations offered round trip fare as incentive to contract with the plantations resulting in 28,400 immigrants during this period. Between 1920 and 1924, 29,200 immigrated to Kaua'i. Most immigrants were male, but by 1920, there were 4,000 Philippinas, and 10,000 by the 1930's, comprising 16.6% of the population. In the last half of the 1920's immigration soared to 44,000 and was partially the result of successful Americanized workers returning to the Philippines, prompting others to immigrate in hopes of a better life (Marsh 2005; Zaide 1994).

With the supply of labor sufficient for operations, HSPA ceased recruitment, and round trip passage. On January 20, 1920 Philippino plantation workers struck with the Japanese workers officially joining on February 1, 1920. The strike, begun by Pablo Manlapit on Oahu, involved 8,300 workers spanning six plantations; 5,000 Japanese, 3,000 Philippinos, and 300 workers of Portuguese, Chinese, Puerto Rican, Spanish, Mexican, and Korean extraction. The strike shut down twenty three plantations in Hawai'i for eight months. The most violent riots occurred at the Hanapepe Plantation on Kaua'i. Here four sheriffs fired into a crowd of striking workers, killing twenty and wounding 20 others. The four sheriffs were killed in the attack. The leaders were arrested, tried and convicted, and some were deported.

The passage of the Tydings-McDuffie Act, also known as the Philippine Independence Act, legislated for independence of Philippines from the U.S by 1946.

Figure 9 Early Historic Cane Harvesting Sugar on Kauaʻi.

The act removed the protected status of Philippinos as U.S. nationals and barred further immigration to Hawai'i. However, during WWII Philippino nationals were eligible for the draft. By war's end more than 7,000 Philippinos had served in the United States Army (Melendy 1981).

Today, the plantations are closed and the camps are abandoned and the community dispersed, however, the Philippino community on Kaua'i is vibrant. Philippinos are preserving their culture; and they gather with others from their provinces for ritualistic and religious ceremonies and festivals. The construction of a new Cultural Center is a brick and mortar expression by the community to recognize and celebrate how Philippinos have become part of the Kaua'i community. During an address to award a 1.5 million dollar grant to build the center, Neil Abercrombie, Governor of Hawai'i stated:

> *"The Kauai Philippine Cultural Center will benefit the entire community as a central venue for events and activities, celebrating the contributions of the Filipino community on Kauai and across the islands... "Recognizing and celebrating our diversity, the center will also highlight Hawaii's many ethnic communities and bridge Kauai's multi-cultural heritage and history for both residents and visitors."*

Figure 10 Philippinos Immigrating to the U.S. in 1906

Figure 11 Conceptual plans of the Kaua‘i Philippine Cultural Center

Previous Archaeological Research

In 1988, Paul H. Rosendahl Inc. (PHRI) conducted an AIS on circa 450 acres at Grove Farm [TMK: (4) 3-3-03: Por.1]. The work recorded an historic Japanese Cemetery

(SIHP 503) likely associated with now defunct Japanese plantation workers camps formerly in the area, and SIHP 9390, the 1913 historic dwelling of Charles H. Wilcox. Neither site lies within the current project area. PHRI's subsurface portion of the investigations consisted of excavation of twenty backhoe trenches. No subsurface sites were recorded and the trenches yielded no cultural materials or historic period sites. Trench 6 was excavated within the boundary of the current project area. Excavated to a depth of 310 cmbs, soils within Trench 6 revealed single soil classification (5YR ¾) *clay* with no lower boundary (Walker and Rosendahl 1988).

In 1989, PHRI survey eight additional parcels for the Grove Farm project. These parcels are situated along the Halehaka and Pa'ai stream gulches, and adjoining houselot yards. The survey divided the work into three areas, with Areas 1 and 2 consisting of residential house properties and yards, Area 3 consisting of the moderately steep gulch slopes and Areas 4 through 8 consisting of the very steep gulch slopes. No archaeological sites were recorded (Walker *et.al* 1989).

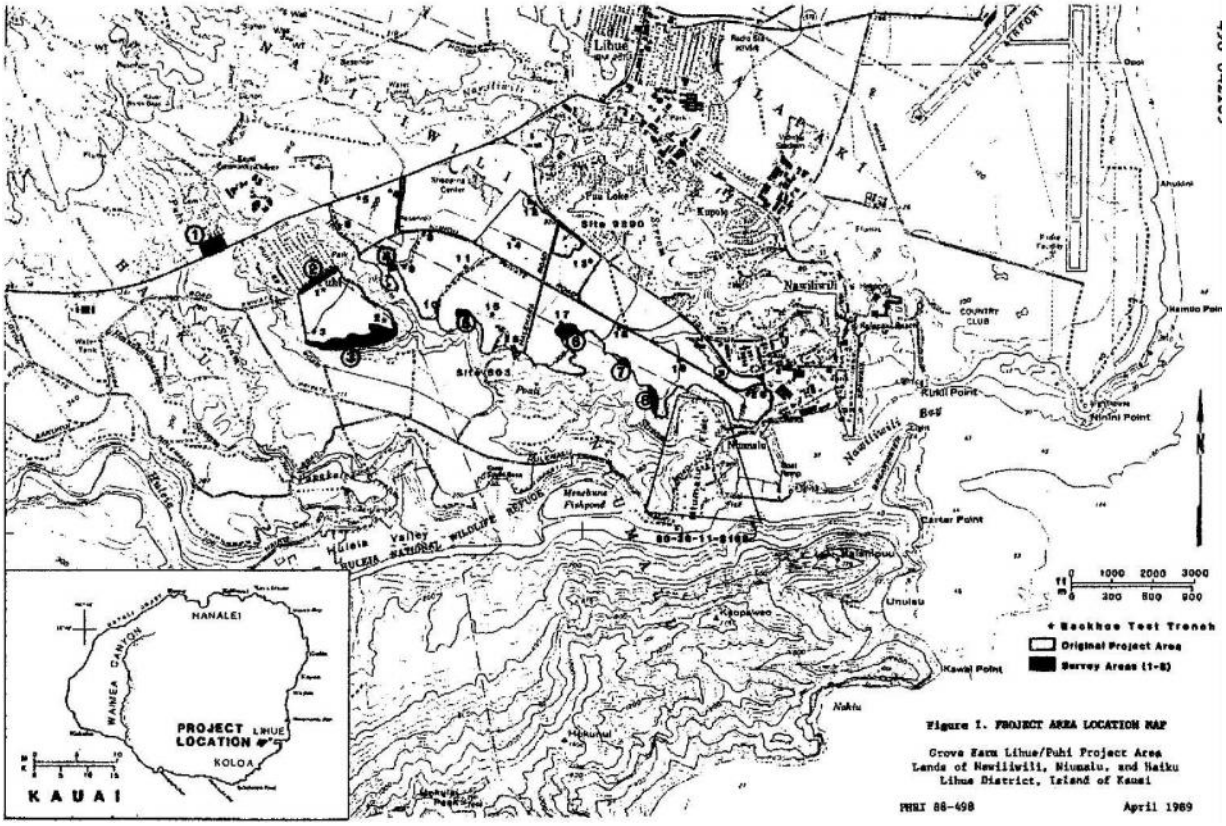

Figure 12 Map of Previous Archaeological work by PHRI (Walker and Rosendahl, 1989) adjacent and in the Project area.

In February 1990 Nancy McMahon of DLNR's Historic Preservation Program conducted a field check of three parcels in the Līhu'e Judiciary District (McMahon 1990). One included in her field check coincides with the current project area.

In 2013, Cultural Surveys Hawaii conducted a literature search and an AIS for the Island School master plan (in draft). The parcel lays *mauka* of Kaumualii Highway and to the west behind the Kauai Community College. No pre-contact sites were recorded, however, remnants of plantation infrastructure including concrete and dirt ditches and *makaha* with outlets were present.

Survey Findings

A 100% pedestrian survey was conducted on May 19, 2013. No surface historic properties were identified.

Four trenches were excavated with a backhoe with a 24 in. wide bucket (Figures 13 and Table 1). Phase II and III building locations were tested. Each evinced the same soil composition.

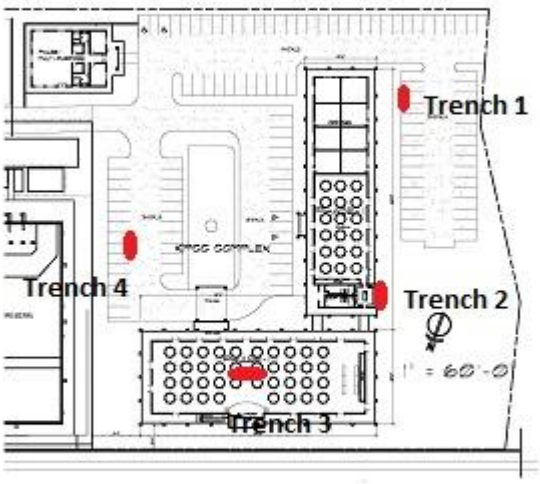

Figure 13 KPCC Test Trench Locations

Two trenches [Trenches 3 and 4] are presented as representative profiles of the soils within the project area (Figure 14 and 16). All four trenches evince the same stratigraphy. Soils consist of two soil layers with a single boundary delineating the topsoil from the underlying soil. The topsoil is fill mixed with organics from the overlying Bermuda grass. The topsoil in each trench was 7.5 YR 4/1 dark *reddish grey organic* from surface to 10 cmbs, and the soil 10 cmbs to the base of excavation was a *dark reddish brown* (5YR 4/3 dry) *reddish brown*; moderate, fine to coarse, sub-angular blocky structure; hard, firm, sticky with a plastic consistency and fine vesicular roots.

Table 1. Summary of Backhoe Trench Stratigraphy

Trench No.	Magnitudes (in meters)	Max. Depth (in meters)	Cultural Deposit
1	**3.6 at 8° x 1.0**	**1.00**	**None**
2	**4.0 at 2° x 1.0**	**.70**	**None**
3	**3.0 at 0° x 1.0**	**.80**	**None**
4	**3.0 at 186° x 1.0**	**.80**	**None**

Figure 15 shows the parcels already built modern development.

Figure 14 Trench 4 profile located near the YMCA of Kauai where abandon water line for dust fencing for the YMCA was found buried about 20 cmbs

Figure 15. Trench 4 location near backhoe, behind is the YMCA of Kauai, Swimming Pool and to the right Cafeteria of Chiefess Middle School.

Figure 16 Trench Three Profile

Summary and Conclusion

As no cultural sites are present this AIS is now considered an Archaeological Assessment of the KPCC project area consisted of extensive surface and limited subsurface examinations. A 100% pedestrian survey was conducted, and subsurface examinations consisted of the mechanical excavation of a total of four backhoe test trenches, to determine the presence or absence of potentially significant buried cultural deposits. Previous archaeological investigations in the vicinity of the current project area confirm the absence of archaeological features in sugar cane fields (Walker and Rosendahl 1989). During this PHRI's survey, two trenches were excavated immediately adjacent to the current project area [Trench 5 and 6] in what was the then cane fields. This area was subsequently developed for a Middle School and the YMCA of Kaua'i.

During this development the current parcel was graded, leveled and covered with topsoil. No subsurface cultural deposits were encountered during backhoe testing. The locations of the backhoe trenches are illustrated in Figures 11 and 13.

Recommendations

No further archaeological work is recommended for this project. The construction of the KPCC will have no effect on significant historic properties as historic properties are absent on the parcel.

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Final

Kauai Philippine Cultural Center
Lihue, Kauai

Traffic Impact Report

October 22, 2013

Prepared for

Philippine Cultural Center

Prepared by

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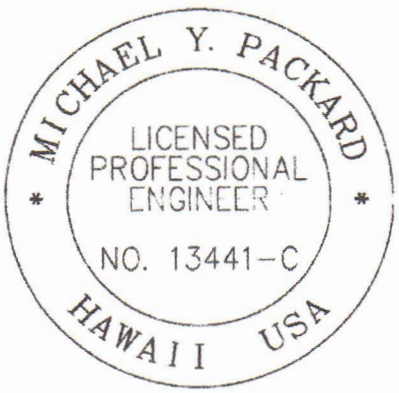

This work was prepared by me or under my supervision:

Michael Y. Packard

Date: 10/22/2013
Licensed Professional Engineer
License Number 13441
Expires: 4/30/2014

EXHIBIT 15

TIAR

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I. PROJECT DESCRIPTION

The non-profit Philippine Cultural Center is proposing to construct and utilize two structures at a project site in the southwest corner of the intersection of Kaumualii Highway and Nuhou Street, in the western part of Lihue on the island of Kauai (see Figure 1). The final build of the proposed Kauai Philippine Cultural Center (KPCC) consists of a 16,852 square-foot main hall with capacity for 380 people, a 8,098 square-foot two-story office building, and 120 parking stalls. The KPCC is being proposed on a portion of Tax Map Key (4) 3-3-03:43, lot 1540, behind the YMCA (see Figure 2). Access to the property would be off of Nuhou Street through a shared driveway with the YMCA, approximately 300 feet south of the intersection with Kaumualii Highway.

Phase 1 will include the utilities, driveway, limited parking, and a 12,725 square-foot single story building, including a 4,298 square feet hall and 3,800 square feet of office spaces. Phase 1 is proposed to be completed within four years. Phase 2 will include construction of the main hall, the remainder of the parking, and the conversion of the Phase 1 hall into two-story office space with resulting office area totaling 8,098 square-feet. Phase 2 is anticipated to be completed within seven years.

The primary purpose of the KPCC is as a venue for conferences, plays, and other similar special events for all in the community. Special events held at the KPCC will primarily be on Friday and Saturdays and will likely begin at 5:30 PM and end by 10:00 PM. KPCC plans to employ a small amount of office employees in addition to holding classes at the facility daily. Office operations are anticipated to occur during normal (8:00 AM to 5:00 PM) weekday business hours. Approximately 120 parking spaces will be provided on the KPCC lot with an additional 118 spaces available at the YMCA to serve as overflow parking since the intent is to not have concurrent large events at the two facilities.

This intent of this traffic impact report is to assess existing conditions in the area as well as document traffic related impacts as a result of the full final-build operations of the proposed KPCC for short term future conditions in 2020. With ongoing and future additional development proposed in the area, long term impacts will also be addressed.

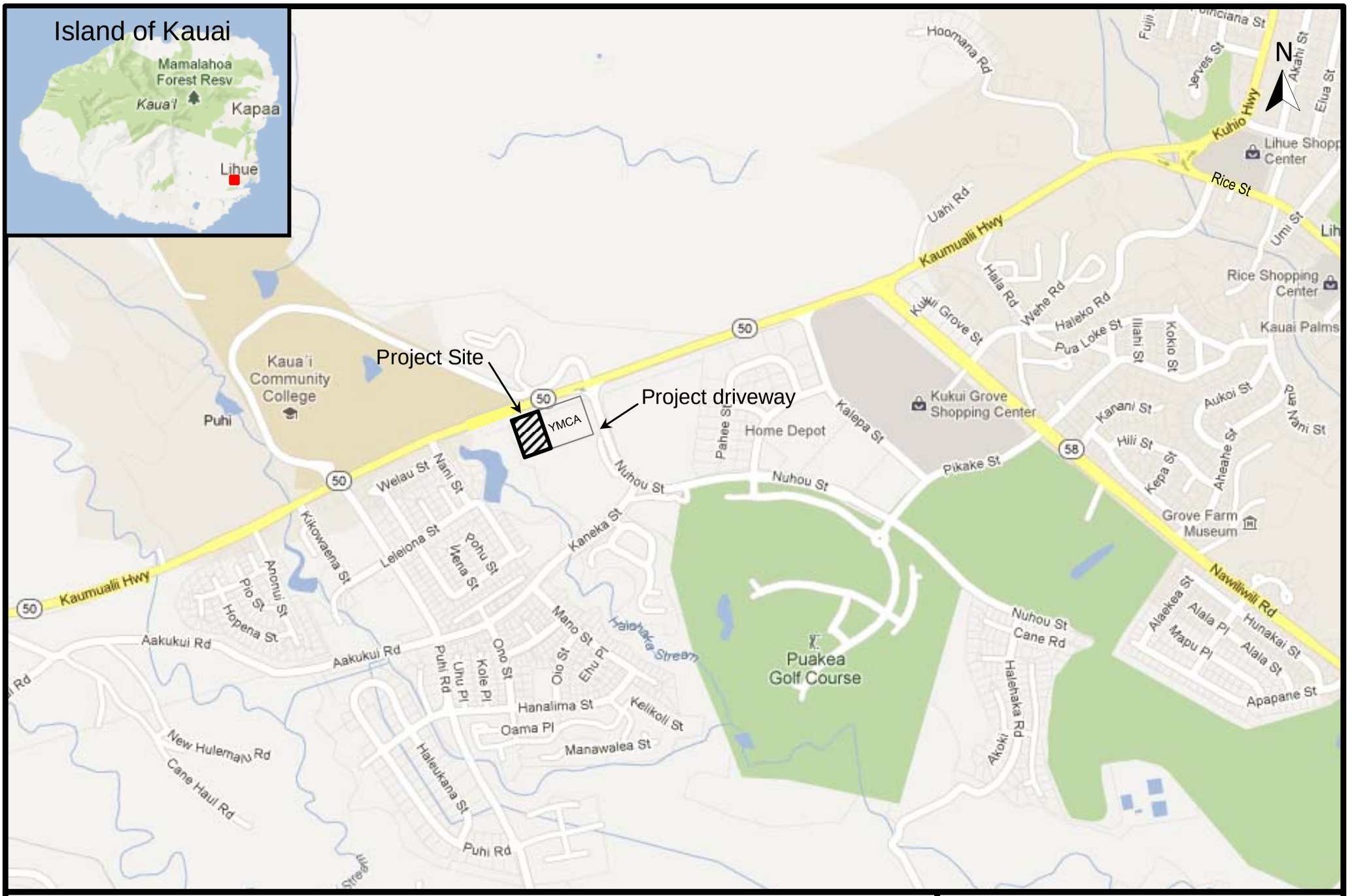

Figure 1: Project Location Map

Kauai Philippine Cultural Center - Lihue, Kauai, Hawaii

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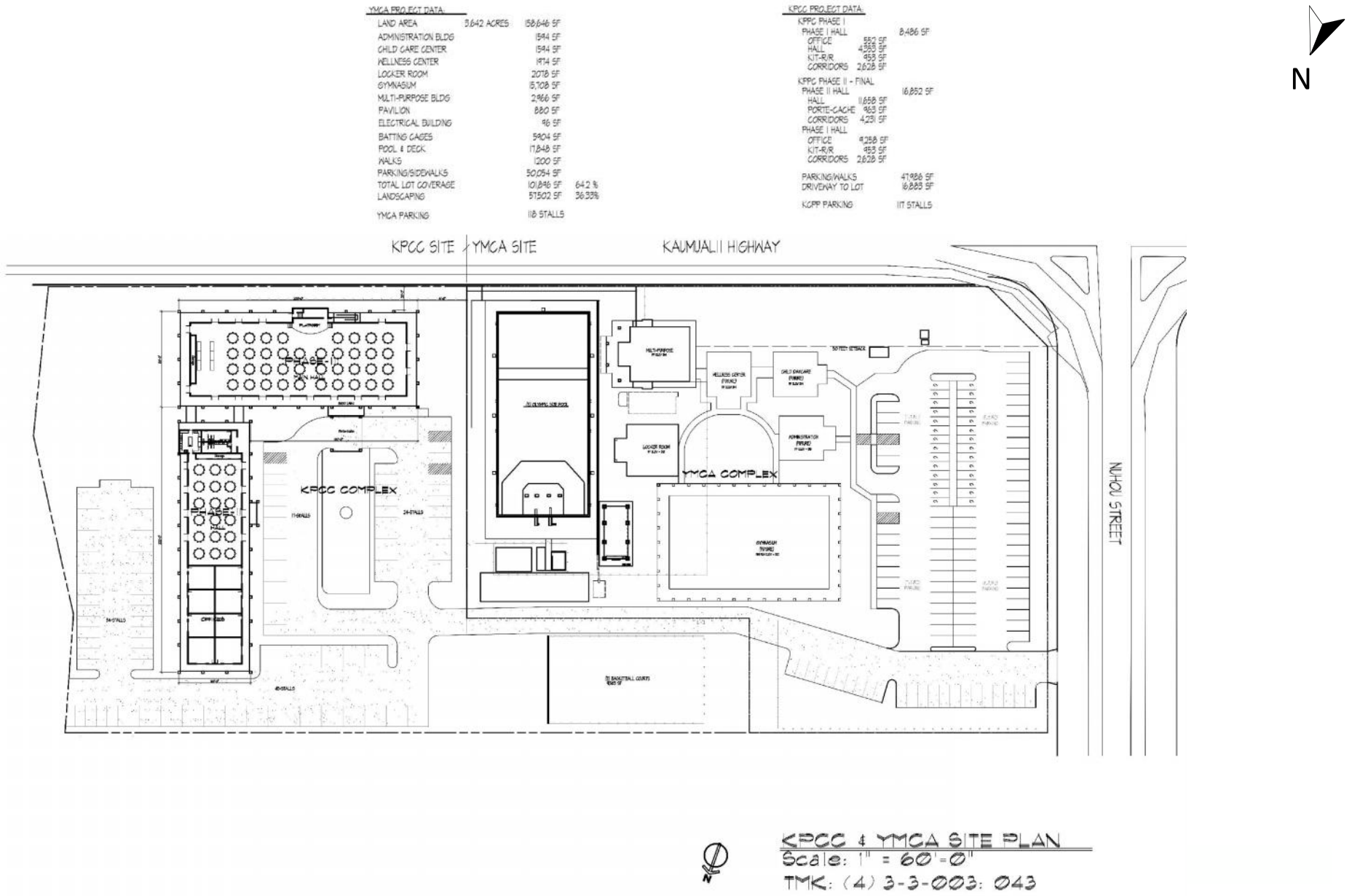

Source: Ago Architecture, May 2013.

Figure 2: Area Site Plan

Kauai Philippine Cultural Center - Lihue, Kauai, Hawaii

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II. EXISTING CONDITIONS

The KPCC development is being proposed on a lot that will have shared driveway access with the existing YMCA. The YMCA was in construction to expand its existing facilities at the time of this report. The YMCA build-out plans include an administration building, child care center, wellness center, locker room, gymnasium, multi-purpose building, swimming pool, and batting cages. YMCA normal operating hours are noted to be Monday – Friday, 5:30 AM – 8:00 PM (pool closes at 7:00 PM), and Saturday – Sunday, 10:00 AM – 6:00 PM according to its website.

Immediately south of the project site is the Chiefess Kamakahelei Middle School which has one-way driveway access off of Nuhou Street. Further south off of Nuhou Street is a regional big box shopping center, which includes a Costco and Home Depot, and a residential community with golf course. West of the project site is a residential subdivision. Across Kaumualii Highway, Nuhou Street provides access to Kauai Community College, Island School, and Kilohana Plantation which hosts special events and has various shops (Luau Kalamaku, Kauai Plantation Railway, Gaylord's Restaurant, Koloa Rum Tasting Room, and The Shops at Kilohana). Special events include public luaus which are held on Tuesdays and Fridays, cruise ship luaus, and concerts. Attendees of cruise ship luaus are transported to the site by bus while public luaus include a mix of buses and personal/rental passenger vehicles. Luaus and concerts can accommodate 850-900 people. Check in for the luaus are between 5:00-5:30 PM and the show is from 6:00-8:30 PM. To the east of the project is a commercially zoned, vacant plot of land. Plans for a shopping center at this location have been delayed.

A. Geometric Configuration

Access to the KPCC development will be through an existing driveway approximately 300 feet south of the intersection with Kaumualii Highway and Nuhou Street and approximately 130 feet north of the driveway access to Chiefess Kamakahelei Middle School. Kaumualii Highway (State Highway Route 50) is classified as an urban principal arterial between the intersection with Kuhio Highway in the east and Puhi Road in the west. Widening and improvements to Kaumualii Highway are underway, transforming the corridor from a two-lane undivided highway to a four-lane divided highway between Rice Street in Lihue and west of Maluhia Road in Koloa, as noted in the *Kaumualii Highway Improvements Lihue to West of Maluhia Road Traffic Assessment Report* (ATA, 2000). Construction between Anonui Road and Lihue Bridge was completed in September 2012 and the next phase from Lihue Bridge to Rice Street has an expected completion by mid-2015. Kaumualii Highway has approximately 12-foot travel and auxiliary lanes, five-foot bike lanes, and eight-foot sidewalks. The posted speed limit along this section of road is 35 mph.

Nuhou Street is owned by the County of Kauai and classified as an urban collector, running between Kaumualii Highway to a location where it dead ends east of Halehaka Road. Access to Nawiliwili Road is through Pikake Street and intersects with Nuhou Street 0.7 miles from the intersection with Kaumualii Highway. Nuhou Street is four lanes, undivided, with 12-foot lanes and no shoulder. Further south along the corridor, Nuhou Street transitions to a single through lane in either direction and dedicated turn lanes. All-way stop sign control was recently installed at the intersection with Kaneka Street. The posted speed limit along this road is 25 mph with a 15 mph school speed limit when school is in session and

children are present. Eight-foot wide sidewalks with a landscaped buffer exist along the west side of Nuhou Street, fronting the YMCA site. Current access to the YMCA is through a paved 27-foot driveway apron that leads to a dirt/gravel parking lot.

B. Volumes

1. 24-Hour Volumes

Average daily traffic (ADT) along Kaumualii Highway and Nuhou Street in the project area are based on Hawaii Department of Transportation (HDOT) *Historical Traffic Station Maps* and are shown in Table 1.

Table 1: Roadway Average Daily Traffic

Roadway	Station	Location	Year	ADT
Kaumualii Highway	B73005000065	Between Kalepa Street and Nuhou Street	2011	23,500
Nuhou Street	B73503000000	Between Ulu Maika Street and Pikake Street	2011	13,800

Source: *Historical Traffic Station Maps* (HDOT)

2. Peak Hour Volumes

a) Traffic Counts

Turning movement counts were taken at the intersection of Kaumualii Highway and Nuhou Street on Friday, March 15, 2013 from 4:00-7:00 PM. The counts included classification of passenger vehicles, heavy vehicles (buses, trucks, vehicles with trailers), bicycles, and pedestrians. Friday afternoon peak hours were found to be 4:00 – 5:00 PM (see Appendix A for detailed count data).

Friday afternoon counts were taken to represent the potential largest traffic impact resulting from vehicle attractions to evening functions held at the KPCC during the Friday afternoon traffic peak period. It can be assumed that Friday afternoon base traffic in the surrounding area is worse than on Saturday, another day proposed for evening special event functions. In addition, it was assumed that daily employee and class trip generation would have a negligible impact as compared to the special event functions.

On the day of the intersection turning movement counts a public luau, with approximately 540 attendees, was held at Kilohana. It was observed during the traffic counts that this included attraction of passenger vans, mini-buses (25 passenger) and full-size tour buses (50-56 passenger). Although this does not represent the maximum capacity of an event at Kilohana, it does reflect a large generation of vehicles during the Friday afternoon peak period.

b) YMCA Trip Generation

Traffic counts were not taken at the intersection of Nuhou Street and the YMCA driveway due to ongoing construction at the YMCA. It is anticipated that the entire YMCA will have an approximate 50,600 square-foot gross floor area. The pool, locker room and multi-purpose center, which accounts for 22,900 square-foot (45% of the total project), is completed and operational. Resulting trip generation for the completed YMCA was calculated using *Trip Generation, 8th Edition* (ITE, 2008) rates for the PM peak hour of adjacent street traffic for a Recreational Community Center (see Table 2). In *Trip*

Generation, 8th Edition (ITE, 2008), the description for Recreational Community Center gives YMCAs as a similar facility.

Table 2: Existing YMCA Trip Generation

Land Use [ITE Code]	Qty	Units	Trip Generation			
			Rate	In	Out	Total
Recreational Community Center [495]	22.9	1000 Sq. Ft. GFA	1.45	12	21	33

Source: *Trip Generation, 8th Edition* (ITE, 2008)

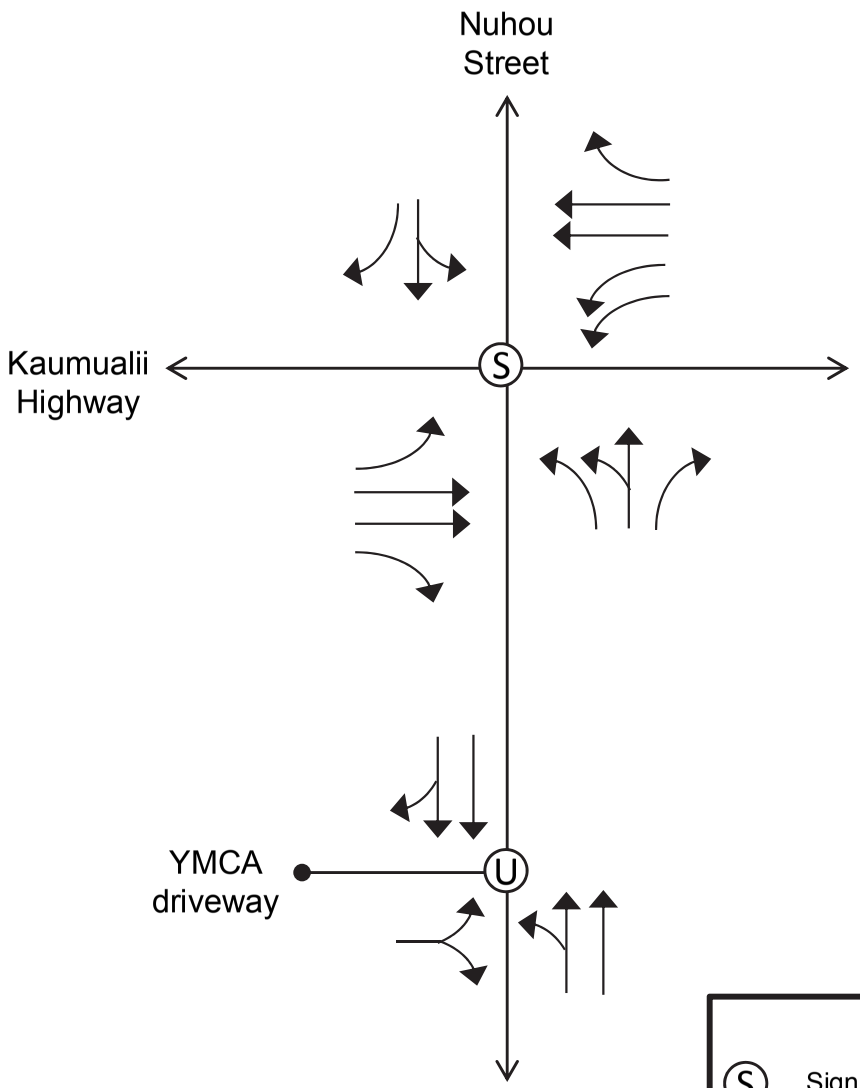
Intersection lane configuration and Friday afternoon peak hour volumes, including existing YMCA trip generation volumes, are shown in Figure 3.

3. Multi Modal System

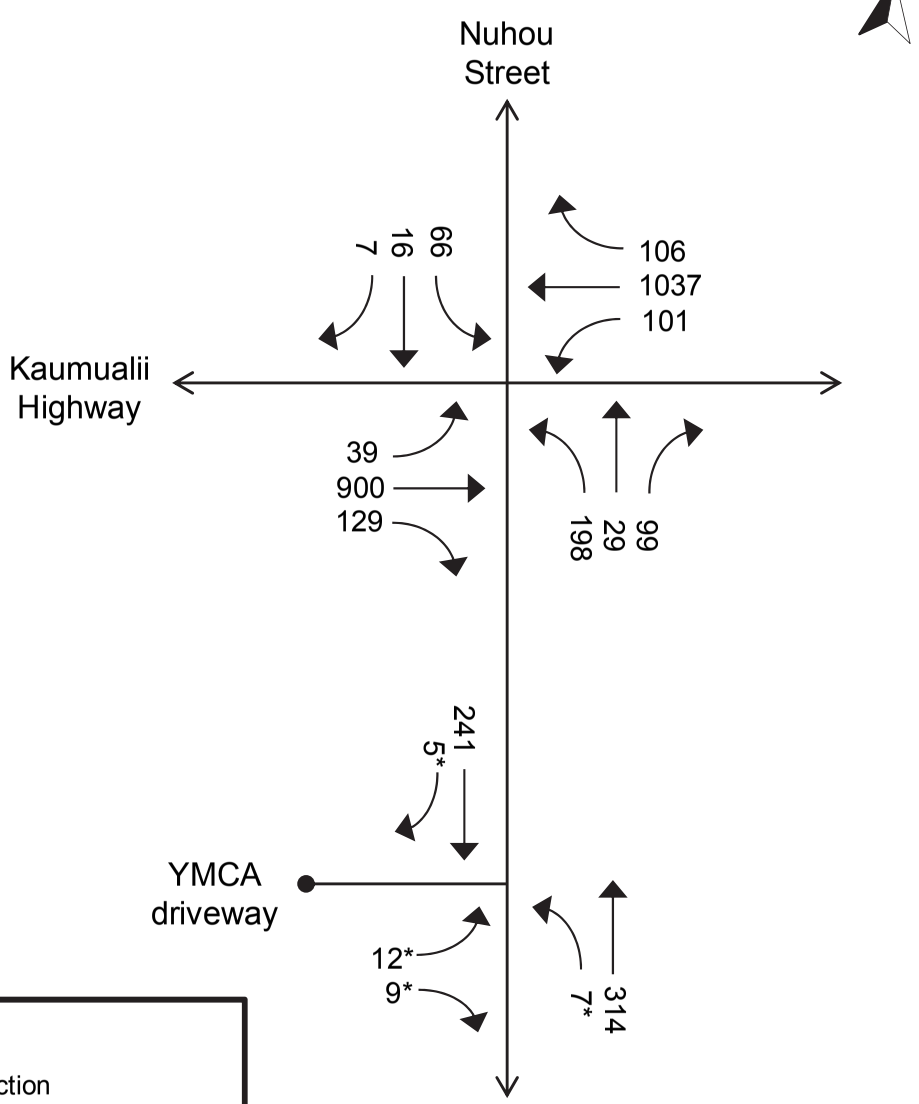
The County of Kauai transit system Kekaha-Lihue Mainline bus route runs between the Lihue Neighborhood center and the Pacific Missile Range Facility Barking Sands with the closest stop at the adjacent Kauai Community College. The mainline transit bus has scheduled hourly stops in both directions between 5:30 AM and 10:30 PM. This results in one bus per hour per direction traveling along Kaumualii Highway past the project site. Adjacent to the project site, heavy vehicle percent along Kaumualii Highway was 1.6% during the Friday afternoon peak period.

Kaumualii Highway has bike lanes in the project area although no designated bike facilities exist along Nuhou Street. During the three-hour Friday afternoon manual counts, only 11 bikes and four pedestrians were observed traveling through the intersection of Kaumualii Highway and Nuhou Street. This low number of bikes and pedestrians likely has more to do with the time of day of the counts taken. Multi-modal trip generators such as the adjacent school and residential neighborhood would be expected to generate pedestrian and bicycle trips during daytime hours, especially before and after school.

Lane Configuration



Peak Hour Volumes



Legend

(S)	Signalized Intersection
(U)	Unsignalized Intersection
##	Friday 4:00-5:00 PM Volume (Veh/hr)
*	YMCA Trip Generation Volumes

Figure 3: Existing (2013) Lane Configuration and Peak Hour Volumes

Kauai Philippine Cultural Center - Lihue, Kauai, Hawaii

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C. Level of Service

1. Methodology

Level of service (LOS) is a rating system used in traffic engineering to measure the effectiveness of roadway operating conditions. There are six LOS ranging from A to F. LOS A is defined as being the least interrupted flow conditions with little or no delays, whereas LOS F is defined as conditions where extreme delays exist. Guidelines from the *Statewide Uniform Design Manual for Streets and Highways* (HDOT, 1980) state that an appropriate LOS for an urban arterial, which is the classification of Kaumualii Highway in the project area, is LOS C or better. Guidelines don't exist for the County of Kauai in determining appropriate roadway LOS and therefore *A Policy on Geometric Design of Highways and Streets* (AASHTO, 2011) was referenced. This states that an appropriate LOS for an urban collector, which is the classification of Nuhou Street, is LOS D or better.

As stated in the *Highway Capacity Manual (HCM)* (TRB, 2010), LOS for a TWSC intersection is determined by the measured control delay (see Table 3) and is defined for each minor movement, not for the intersection as a whole. Vehicles traveling along the major, free-flow road, of a TWSC intersection, proceed through with minimal delay. Those vehicles approaching the intersection along the minor movement are controlled by a stop sign and thus experience delay attributable to the volume of vehicles passing along the free-flow road and the gaps available.

Table 3: LOS Criteria for Unsignalized Intersections

Average Control Delay (s/veh)	LOS by v/c Ratio	
	<=1.0	>1.0
≤ 10.0	A	F
>10 and ≤15	B	F
>15 and ≤25	C	F
>25 and ≤35	D	F
>35 and ≤50	E	F
>50	F	F

Source: *HCM* (TRB, 2010)

The LOS analysis for signalized intersections is based on average total vehicle delay based on the methodologies of the *HCM* (TRB, 2010) shown in Table 4. High numbers of vehicles passing the intersection, long cycle lengths, inappropriate signal phasing, or a poor signal progression can result in long delays, and consequently poor LOS.

Table 4: LOS Criteria for Signalized Intersections

Average Control Delay (s/veh)	LOS by v/c Ratio	
	<=1.0	>1.0
≤ 10.0	A	F
>10 and ≤20	B	F
>20 and ≤35	C	F
>35 and ≤55	D	F
>55 and ≤80	E	F
>80	F	F

Source: *HCM* (TRB, 2010)

Another measure of intersection operation is the volume to capacity (v/c) ratio. This is the ratio of the volume of traffic utilizing the intersection compared to the maximum volume of vehicles that can be accommodated by the intersection during a specific period of time. A v/c ratio under 0.85 means the intersection is operating under capacity and excessive delays are not experienced. An intersection is operating near its capacity when v/c ratios range from 0.85 to 0.95. Unstable flows are expected when the v/c ratio is between 0.95 and 1.0. Any v/c ratio greater than or equal to 1.0 indicates that the intersection is operating at or above capacity which results in a LOS F per the *HCM* (TRB, 2010). A traffic movement can have a poor LOS but low v/c which suggests that the traffic volumes along that movement are low but have to wait a long time to make the movement. This is common for low volume protected turn movements or side streets that have to wait through a long cycle length for their split to come up.

2. Existing (2013) Intersection Conditions

Existing (2013) intersection LOS and delay was determined for the Friday afternoon peak hour of 4:00 – 5:00 PM using *Synchro Version 8.0* traffic analysis software. Existing (2013) LOS for the intersections of Kaumualii Highway at Nuhou Street and Nuhou Street at YMCA driveway during the Friday afternoon peak hour operated at an appropriate LOS (see Table 5). The left turn traffic movements off of Kaumualii Highway, at the intersection with Nuhou Street, resulted in LOS D although had appropriate v/c. Therefore, despite having a higher vehicle delay, the turn movements are under capacity. Appendix B provides the detailed analysis reports for the Existing (2013) conditions.

Table 5: Existing (2013) Intersection Level of Service

Intersection	Approach	Movement	Friday afternoon – Peak Hour		
			Delay	v/c	LOS
Kaumualii Highway and Nuhou Street	Intersection		21.6	-	C
	Eastbound	Left	50.1	0.40	**D**
		Through	19.3	0.57	B
		Right	*		
	Westbound	Left	44.1	0.44	**D**
		Through	20.0	0.64	B
		Right	*		
	Northbound	Left	25.2	0.39	C
		Left-Through	20.7	0.05	C
		Right	*		
	Southbound	Left-Through	21.5	0.12	C
		Right	*		
Nuhou Street and YMCA driveway	Eastbound	Left-Right	10.7	0.03	B
	Northbound	Left	7.8	0.01	A
* - Yield controlled therefore per HCM 2010 no quantifiable delay.					

D. Mitigation

Driveway access to the YMCA is currently located approximately 300 feet south of the signalized intersection of Nuhou Street and Kaumualii Highway. The access is approximately 130 feet north of the driveway access to Chiefess Kamakahelei Middle School. The *Kauai County Road Standards* (DPW, Dec. 1972) and *Traffic Engineering Handbook, 5th Edition* (ITE, 1999) recommends a minimum 150-foot offset between intersections which does not exist between the YMCA driveway and the Chiefess Kamakahelei Middle School driveway access. Although the YMCA hours of operation overlap with the drop-off and pick-up times at the school, the highest volume of trips generated by the YMCA will likely occur after school hours and therefore this does not present a significant conflict.

At the intersection of Kaumualii Highway and Nuhou Street, eastbound and westbound left turn movements resulted in LOS D although had low v/c which means that these movements were under capacity. This suggests that the resulting delay is due to long traffic signal cycle lengths and not a high volume traffic movement. With LOS C for total intersection operations, it is determined that no mitigation is needed for these existing traffic movements.

III. FUTURE CONDITIONS

The KPCC is planning to have the proposed development fully constructed and operational by 2018. Therefore, for an understanding and comparison of short term build-out conditions in the area, study intersections are being analyzed for the year 2018.

A. Surrounding Area Conditions

Kaumualii Highway has been undergoing roadway improvements and widening for the past couple of years which will ultimately result in it being a four-lane divided highway between Anonui Road and the Lihue Mill Bridge. The highway will have two through-travel lanes in each direction with auxiliary lanes provided at the intersections along this segment.

The YMCA is continuing with planned construction of the proposed development and is expected to have full-construction completed by 2018, as noted in *Final Environmental Assessment for YMCA of Kauai Facilities* (Agor, November 2003) and subsequent follow-up.

The Kauai Community College's Long-Range Development Plan includes expansion of existing programs by 2020, as included in *Traffic Impact Report for the Kauai Community College Long Range Development Plan* (WOC, 2010). This is projected to result in a minimal increase in vehicle trips generated through the intersection of Kaumualii Highway and Nuhou Street.

Island School's future master plan includes the expansion of its campus over the next ten years to provide additional classrooms and facilities coinciding with an increase in enrollment from 360 to 500 students. As noted in the *Traffic Impact Report For the Kauai Community College Long Range Development Plan* (WOC, December 2010), this is expected to result in a significant number of new trips during school drop-off and pick-up times although this should not affect traffic volumes during the Friday or weekend evening hours.

West of the project area, the shopping center development Hokulei Village was approved by the Kauai Planning Commission in 2009. The *Traffic Impact Analysis Report Hokulei Village* (ATA, 2009) projected full-construction and operation completed by 2011. Since then, the project has been delayed resulting in reconsideration of potential phasing of the project as noted in the article, *New Safeway construction set soon* (The Garden Island, June 2010), accessed through the Garden Island newspaper website. The development proposes to provide access at four locations, two of which are being proposed off of Nuhou Street. Access off of Nuhou Street will be through driveways aligned with the intersection with Kaneka Street as well as the intersection with the north driveway entrance to Chiefess Kamakahelei Middle School. The *Traffic Impact Analysis Report Hokulei Village* (ATA, 2009) forecasts Hokulei Village generating 250 vehicles through the intersection of Nuhou Street and Kaumualii Highway in the PM peak hour. The majority of these vehicles are approaching from the west and making a right turn movement onto Nuhou Street. A single-lane roundabout is proposed at the intersection of Nuhou Street and Kaneka Street to mitigate delay and provide traffic calming. In addition, a southbound left-turn lane is being proposed off of Nuhou Street at the intersection with the Chiefess Kamakahelei Middle School to access Hokulei Village. Construction status of this development is unknown and therefore it is not

being considered for completion by 2018 but will be discussed in this report as it pertains to long-term impacts.

From research into the *State of Hawaii Office of Environmental Quality Control* library and *Statewide Transportation Improvements Program* (STIP), no additional significant developments or construction are expected in the area that would affect the roadway geometrics or traffic volumes in the study area.

B. Geometric Conditions

Due to the recently completed widening and improvements to Kaumualii Highway, no changes are anticipated to the study roadways and intersections in the immediate surrounding area in advance of the proposed build-out. Therefore, it was assumed that Future (2018) Without Project utilizes a similar lane configuration as Existing (2013).

C. Volumes

1. Background Growth

Comparing State DOT historical traffic counts taken along Kaumualii Highway, in the vicinity of the project site, traffic volumes were noted to fluctuate with recent trends showing a decline from 2005 to 2011. Considering the additional capacity available through the widening of Kaumualii Highway and the proposed surrounding area development, a conservative annual 0.5% increase in traffic volume was projected from 2013 through 2018 which equates to a growth factor of 1.03. This coincides with projections made in the *Traffic Impact Report for the Kauai Community College Long Range Plan* (WO, December 2009).

It is anticipated that the remaining 27,700 square-feet of the future YMCA will be completed prior to 2018. Calculated resulting trip generation for the remaining construction of the future YMCA during the PM peak hour of adjacent street traffic is shown in Table 6.

Table 6: Future YMCA Trip Generation

Land Use [ITE Code]	Qty	Units	Trip Generation			
			Rate	In	Out	Total
Recreational Community Center [495]	27.7	1000 Sq. Ft. GFA	1.45	15	25	40

Source: *Trip Generation, 8th Edition* (ITE, 2008)

The projected growth factor was applied to existing through-traveling vehicular volumes along Kaumualii Highway and estimated trips resulting from the future YMCA trip generation final build volumes were added to the study intersections to obtain Future (2018) Without Project volumes.

2. Project Volumes

Traffic volumes associated with the utilization of the KPCC development includes a minimal amount of employees traveling to the site during weekday work hours, up to 30 attendees for weekday classes, as

well as special event functions being held at the main hall on scheduled Friday or Saturday nights. The main hall will have a capacity of 380 people.

The *Trip Generation, 8th Edition* (ITE, 2008) does not contain an existing land use that is directly comparable to the proposed attractions generated by the KPCC "special events". It was believed that of land uses in *Trip Generation, 8th Edition* (ITE, 2008), the trip generation of a Church (including parishioners and employees) most accurately reflected those of a KPCC special event. This land use was used to estimate attractions from a complex of similar size to the proposed 20,400 square-foot KPCC main hall. Resulting trip generation for office space during the weekday PM and an equally sized church to the main hall is included in Table 7.

Table 7: Project Related Volumes Trip Generation

Land Use [ITE Code]	Qty	Units	Trip Generation			
			Rate	In	Out	Total
Church [560]	20.4	1000 Sq. Ft. GFA	11.76	120	120	240
General Office Building [710]	9.3	1000 Sq. Ft. GFA	1.49	2	12	14

Source: *Trip Generation, 8th Edition* (ITE, 2008)

Using the resulting 120 trips attractions of an equally sized church, and 380 person capacity of the KPCC main hall, this equates to a vehicle occupancy of 3.2 people per vehicle. FHWA and EPA reports on special event vehicular trip generation reference an average vehicle occupancy of 2.5 and 3.5 people per vehicle respectively which is in line with calculations made using the church trip generation. Therefore, the 120 attractions calculated by the trip generation of a 20,400 square-foot church were assumed to be an accurate estimation of potential trip generation for a 380-person special event at the KPCC. Even though the trip generation calculations for a church included an equal number of vehicle egress movements, this is not included in peak hour project related volumes due to the intent of KPCC special events to last longer than one hour. Thereby, exiting traffic movements will occur at a later time outside of the Friday afternoon peak hour and have less of an impact on surrounding traffic conditions.

It is assumed that the traffic volumes and distribution counted at the intersection of Kaumualii Highway and Nuhou Street in 2013 provide the best representation of origin for distribution of future peak hour attractions to the proposed KPCC development. At the existing intersection of Kaumualii Highway and Nuhou Street, 47% of all vehicles are approaching from the east, 41% from the west and 12% from the south. Peak hour project related volumes, including office trip generation and special event attractions, were distributed using this intersection distribution.

3. Future Peak Hour Volumes

To analyze worst case conditions, KPCC peak hour project related volumes were added to the Future (2018) Without Project traffic volumes for the resulting Future (2018) With Project traffic volumes. These volumes were used in the analysis for Future (2018) With Project conditions.

Future (2018) Without Project peak hour volumes, project related volumes, and Future (2018) With Project peak hour volumes are included in Figure 4.

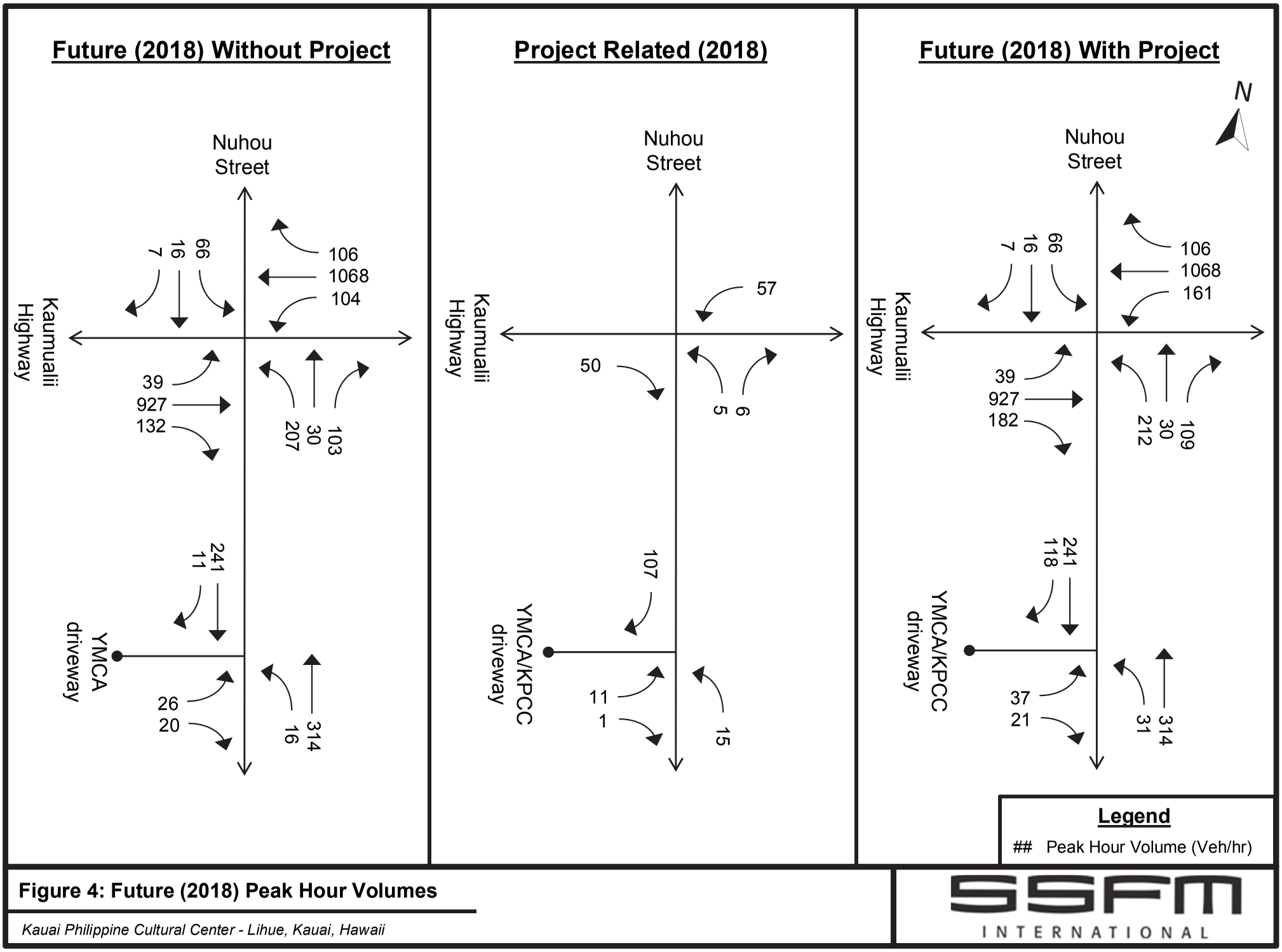

Figure 4: Future (2018) Peak Hour Volumes

Kauai Philippine Cultural Center - Lihue, Kauai, Hawaii

SSFM INTERNATIONAL

4. Future 24-Hour Volumes

There will be a negligible increase to Future (2018) daily traffic volumes along Kaumualii Highway as a result of the project related traffic. Projected Future (2018) roadway ADT is shown in Table 8.

Table 8: Future (2018) Roadway ADT

Roadway	ADT
Kaumualii Highway	24,440

D. Level of Service

1. Future (2018) Without Project

The Future (2018) Without Project conditions result in no change to LOS at the study intersections, with overall delay actually reducing (see Table 9). The lower delay for Future (2018) conditions, as compared to Existing (2013) conditions, is likely because the additional Kaumualii Highway through-traveling vehicles have a low delay. When averaged with all vehicles utilizing the intersection, the overall intersection delay is lessened. Appendix C provides the detailed analysis reports for the Future (2018) Without Project conditions.

Table 9: Future (2018) Without Project Intersection Level of Service

Intersection	Approach	Movement	Friday afternoon – Peak Hour		
			Delay	v/c	LOS
Kaumualii Highway and Nuhou Street	Intersection		21.5	-	C
	Eastbound	Left	50.1	0.40	**D**
		Through	19.6	0.59	B
		Right	*		
	Westbound	Left	41.4	0.39	**D**
		Through	19.4	0.64	B
		Right	*		
	Northbound	Left	26.6	0.42	C
		Left-Through	21.5	0.06	C
		Right	*		
	Southbound	Left-Through	22.3	0.13	C
		Right	*		
Nuhou Street and YMCA driveway	Eastbound	Left-Right	11.1	0.08	B
	Northbound	Left	7.8	0.01	A
* - Yield controlled therefore per HCM 2010 no quantifiable delay.					

2. Future (2018) With Project

The Future (2018) With Project conditions show a negligible change in LOS at the study intersections with the addition of project related traffic (see Table 10). Left turn movements off of Kaumualii Highway at the intersection with Nuhou Street remain LOS D although v/c is still under capacity. Appendix D provides the detailed analysis reports for the Future (2018) With Project conditions.

Table 10: Future (2018) With Project Intersection Level of Service

Intersection	Approach	Movement	Friday afternoon – Peak Hour		
			Delay	v/c	LOS
Kaumualii Highway and Nuhou Street	Intersection		22.4	-	C
	Eastbound	Left	50.1	0.40	**D**
		Through	20.5	0.60	C
		Right	*		
	Westbound	Left	43.2	0.52	**D**
		Through	19.4	0.64	B
		Right	*		
	Northbound	Left	26.8	0.43	C
		Left-Through	21.5	0.06	C
		Right	*		
	Southbound	Left-Through	22.3	0.13	C
		Right	*		
Nuhou Street and YMCA/KPCC driveway	Eastbound	Left-Right	12.5	0.11	B
	Northbound	Left	8.1	0.03	A
* - Yield controlled therefore per HCM 2010 no quantifiable delay.					

At the intersection of Kaumualii Highway and Nuhou Street, the Future (2018) westbound left-turn volume is anticipated to be 160 vehicles during the Friday afternoon peak hour. This requires a storage length of 200 feet using methodology in *A Policy on Geometric Design of Highways and Streets* (AASHTO, 2011). Recently constructed turn lane lengths for the westbound left-turn movements are approximately 300-feet and 400-feet for the outside and inside lanes respectively. Even if all KPCC bound vehicles were to use the inside turn lane to allow for ease of turn into the KPCC driveway, a sufficient turn lane length exists to accommodate Future (2018) With Project traffic volumes.

E. Mitigation

1. Short Term

The projected project-related traffic from the KPCC is not expected to overlap times of use with those of the Chiefess Kamakahelei Middle School and therefore the 130-foot separation of driveways is not anticipated to be a problem.

Intersection LOS remains appropriate and no significant change occurs for the left-turn movements off of Kaumualii Highway. In addition, existing turn lane storage lengths are sufficient to handle the special event traffic projected for the KPCC. Therefore, no mitigation is suggested in the short term.

2. Long Term

For future long term conditions, the development of Hokulei Village was considered. Intersection and roadway improvements are proposed in the *Traffic Impact Analysis Report Hokulei Village* (ATA, 2009) at the development's driveway access off of Nuhou Street and the north driveway entrance to Chiefess Kamakahelei Middle School. This includes dedicated turn lanes off of Nuhou Street. This proposed four-leg intersection will potentially complicate left turn access to the YMCA/KPCC. With the YMCA/KPCC driveway located 130-feet from the intersection with the proposed Chiefess Kamakahelei Middle School/Hokulei Village access, vehicles queued to enter Hokulei Village will obstruct those vehicles attempting to turn left into or out of the YMCA/KPCC driveway. Unlike the existing driveway entrance to Chiefess Kamakahelei Middle School, Hokulei Village will likely generate traffic during similar times of use as the KPCC. Due to this conflict, with the construction of Hokulei Village, additional mitigation is recommended to alleviate the conflicts with the closely offset intersections. Potential mitigation options for consideration include:

- Relocating the access to Hokulei Village across from the driveway access to the YMCA/KPCC driveway and include dedicated left-turn lanes or a roundabout. With a single-lane roundabout at the intersection, a dedicated left-turn lane could be provided for vehicles turning into the Chiefess Kamakahelei Middle School from the south to reduce conflicts with vehicles queuing from the YMCA/KPCC.
- Retaining the access to Hokulei Village across from Chiefess Kamakahelei Middle School and restricting the YMCA/KPCC driveway to right-in/right-out only. This would complicate access to the YMCA/KPCC but limit conflicts with through-traveling vehicles. Those vehicles attempting to leave YMCA/KPCC and head north could instead make a U-turn at the proposed roundabout at Nuhou Street and Kaneka Street. Those vehicles wanting to access the YMCA/KPCC from the south would have to reroute to approach from Kaumualii Highway.

IV. SUMMARY AND RECOMMENDATION

The non-profit Philippine Cultural Center is proposing to build and utilize a main hall and an office building at a project site in the southwest corner of the intersection of Kaumualii Highway and Nuhou Street. Access to the property would be through a shared driveway with the YMCA off of Nuhou Street, approximately 300 feet south of the intersection with Kaumualii Highway and 130 feet north of Chiefess Kamakahelei Middle School.

Existing (2013) LOS for the intersections of Kaumualii Highway at Nuhou Street and Nuhou Street at YMCA driveway during the Friday afternoon peak hour operate at an appropriate LOS C. At the intersection of Kaumualii Highway and Nuhou Street, eastbound and westbound left turn movements resulted in LOS D although had low v/c which means that these movements were under capacity. This suggests that the resulting delay is due to long traffic signal cycle lengths and not a high volume traffic movement.

For Future (2018) Without Project and Future (2018) With Project conditions, there are minimal changes in LOS with total intersection operations remaining appropriate and left turn movement v/c remaining under capacity. This reflects the traffic impact of a 380-person special event being held at the KPCC with vehicle trip attractions coinciding with the Friday afternoon peak hour. It can be assumed that special events held at other times on a Friday or Saturday would have less impact on traffic operations and therefore no mitigation is recommended in the short term.

In the long term there are plans for development of Hokulei Village in the southeast corner of Kaumualii Highway and Nuhou Street. According to the TIAR for Hokulei Village there are plans for access driveways off of Nuhou Street that may potentially conflict with the existing driveway access to the YMCA (and future KPCC). Therefore, it is recommended that for future long-term operations the location of the Hokulei Village driveway access and improvements along Nuhou Street consider the impacts to the YMCA/KPCC driveway.

V. REFERENCES

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APPENDIX A
Intersection Peak Period Traffic Count

SSFM International, Inc

501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Counter: myp
Weather: clear

File Name : 130315 Kaumualii_Nuhou FRI
Site Code : 00000400
Start Date : 3/15/2013
Page No : 1

Groups Printed- Passenger - Bikes - Truck/Bus

	Nuhou Street Southbound					Kaumualii Highway Westbound					Nuhou Street Northbound					Kaumualii Highway Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	12	4	2	0	18	21	277	31	0	329	57	11	19	0	87	3	239	33	0	275	709
04:15 PM	18	10	1	0	29	28	233	16	0	277	37	8	26	0	71	7	190	32	0	229	606
04:30 PM	19	0	2	0	21	26	275	21	0	322	53	2	24	0	79	16	242	32	0	290	712
04:45 PM	17	2	2	0	21	26	252	38	0	316	51	8	30	0	89	13	229	32	2	276	702
Total	66	16	7	0	89	101	1037	106	0	1244	198	29	99	0	326	39	900	129	2	1070	2729
05:00 PM	9	7	6	0	22	24	235	29	0	288	51	6	17	0	74	8	263	35	0	306	690
05:15 PM	15	6	2	0	23	30	203	37	0	270	47	4	20	0	71	15	181	33	0	229	593
05:30 PM	9	0	3	0	12	12	207	18	0	237	57	0	25	0	82	12	233	31	0	276	607
05:45 PM	21	8	3	0	32	27	183	15	0	225	43	0	19	0	62	9	196	37	0	242	561
Total	54	21	14	0	89	93	828	99	0	1020	198	10	81	0	289	44	873	136	0	1053	2451
06:00 PM	15	2	4	0	21	23	201	10	0	234	47	3	13	0	63	1	166	20	0	187	505
06:15 PM	5	7	0	0	12	16	189	11	0	216	55	2	21	0	78	4	174	23	1	202	508
06:30 PM	11	3	3	0	17	10	186	9	0	205	24	2	19	0	45	4	203	16	1	224	491
06:45 PM	11	3	6	0	20	17	144	10	0	171	25	3	18	0	46	3	155	22	0	180	417
Total	42	15	13	0	70	66	720	40	0	826	151	10	71	0	232	12	698	81	2	793	1921
Grand Total	162	52	34	0	248	260	2585	245	0	3090	547	49	251	0	847	95	2471	346	4	2916	7101
Apprch %	65.3	21	13.7	0		8.4	83.7	7.9	0		64.6	5.8	29.6	0		3.3	84.7	11.9	0.1		
Total %	2.3	0.7	0.5	0	3.5	3.7	36.4	3.5	0	43.5	7.7	0.7	3.5	0	11.9	1.3	34.8	4.9	0.1	41.1	
Passenger	158	52	34	0	244	257	2534	239	0	3030	546	49	247	0	842	94	2432	341	4	2871	6987
% Passenger	97.5	100	100	0	98.4	98.8	98	97.6	0	98.1	99.8	100	98.4	0	99.4	98.9	98.4	98.6	100	98.5	98.4
Bikes	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	8	1	0	9	11
% Bikes	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0.3	0.3	0	0.3	0.2
Truck/Bus	4	0	0	0	4	3	49	6	0	58	1	0	4	0	5	1	31	4	0	36	103
% Truck/Bus	2.5	0	0	0	1.6	1.2	1.9	2.4	0	1.9	0.2	0	1.6	0	0.6	1.1	1.3	1.2	0	1.2	1.5

SSFM International, Inc

501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Counter: myp
Weather: clear

File Name : 130315 Kaumualii_Nuhou FRI
Site Code : 00000400
Start Date : 3/15/2013

	Nuhou Street Southbound					Kaumualii Highway Westbound					Nuhou Street Northbound					Kaumualii Highway Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	12	4	2	0	18	21	277	31	0	329	57	11	19	0	87	3	239	33	0	275	709
04:15 PM	18	10	1	0	29	28	233	16	0	277	37	8	26	0	71	7	190	32	0	229	606
04:30 PM	19	0	2	0	21	26	275	21	0	322	53	2	24	0	79	16	242	32	0	290	712
04:45 PM	17	2	2	0	21	26	252	38	0	316	51	8	30	0	89	13	229	32	2	276	702
Total Volume	66	16	7	0	89	101	1037	106	0	1244	198	29	99	0	326	39	900	129	2	1070	2729
% App. Total	74.2	18	7.9	0		8.1	83.4	8.5	0		60.7	8.9	30.4	0		3.6	84.1	12.1	0.2		
PHF	.868	.400	.875	.000	.767	.902	.936	.697	.000	.945	.868	.659	.825	.000	.916	.609	.930	.977	.250	.922	.958

APPENDIX B
Analysis Reports
Existing (2013) Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	900	129	101	1037	106	198	29	99	66	16	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	2	1	1	1	1	0	1	1
Cap, veh/h	103	1646	700	240	1689	718	529	585	497	557	0	497
Arrive On Green	0.06	0.44	0.00	0.07	0.45	0.00	0.31	0.31	0.00	0.31	0.31	0.00
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1685	1863	1583	1774	0	1583
Grp Volume(v), veh/h	41	938	0	105	1080	0	206	30	0	69	17	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1685	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.9	16.2	0.0	2.5	19.2	0.0	8.2	1.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	16.2	0.0	2.5	19.2	0.0	8.2	1.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	1646	700	240	1689	718	529	585	497	557	0	497
V/C Ratio(X)	0.40	0.57	0.00	0.44	0.64	0.00	0.39	0.05	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	103	1646	700	240	1689	718	529	585	497	557	0	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	17.9	0.0	38.4	18.1	0.0	23.1	20.6	0.0	21.1	0.0	0.0
Incr Delay (d2), s/veh	11.1	1.4	0.0	5.7	1.9	0.0	2.2	0.2	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	7.1	0.0	1.3	8.4	0.0	3.7	0.5	0.0	1.1	0.0	0.0
Lane Grp Delay (d), s/veh	50.1	19.3	0.0	44.1	20.0	0.0	25.2	20.7	0.0	21.5	0.0	0.0
Lane Grp LOS	D	B		D	B		C	C		C		
Approach Vol, veh/h		979			1185			236			86	
Approach Delay, s/veh		20.6			22.1			24.6			17.3	
Approach LOS		C			C			C			B	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	10.0	43.0		11.0	44.0			32.0			32.0	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	5.0	38.0		6.0	39.0			27.0			9.0	
Max Q Clear Time (g_c+I1), s	3.9	18.2		4.5	21.2			10.2			4.4	
Green Ext Time (p_c), s	0.0	13.8		0.0	12.7			1.2			0.5	

Intersection Summary		
HCM 2010 Ctrl Delay	21.6	
HCM 2010 LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	12	9	7	314	241	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	9	7	327	251	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	432	128	256	0	-	0
Stage 1	254	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Follow-up Headway	3.52	3.32	2.22	-	-	-
Pot Capacity-1 Maneuver	552	898	1306	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	548	898	1306	-	-	-
Mov Capacity-2 Maneuver	548	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1306	-	658	-	-
HCM Lane V/C Ratio	0.006	-	0.033	-	-
HCM Control Delay (s)	7.772	0	10.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.017	-	0.103	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

APPENDIX C
Analysis Reports
Future (2018) Without Project Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	927	132	104	1068	106	207	30	103	66	16	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	2	1	1	1	1	0	1	1
Cap, veh/h	103	1646	700	280	1733	736	510	563	479	536	0	479
Arrive On Green	0.06	0.44	0.00	0.08	0.47	0.00	0.30	0.30	0.00	0.30	0.30	0.00
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1685	1863	1583	1774	0	1583
Grp Volume(v), veh/h	41	966	0	108	1112	0	216	31	0	69	17	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1685	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.9	16.8	0.0	2.6	19.6	0.0	8.8	1.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	16.8	0.0	2.6	19.6	0.0	8.8	1.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	1646	700	280	1733	736	510	563	479	536	0	479
V/C Ratio(X)	0.40	0.59	0.00	0.39	0.64	0.00	0.42	0.06	0.00	0.13	0.00	0.00
Avail Cap(c_a), veh/h	103	1646	700	280	1733	736	510	563	479	536	0	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	18.1	0.0	37.5	17.5	0.0	24.0	21.3	0.0	21.8	0.0	0.0
Incr Delay (d2), s/veh	11.1	1.5	0.0	4.0	1.8	0.0	2.6	0.2	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	7.3	0.0	1.2	8.5	0.0	4.0	0.5	0.0	1.1	0.0	0.0
Lane Grp Delay (d), s/veh	50.1	19.6	0.0	41.4	19.4	0.0	26.6	21.5	0.0	22.3	0.0	0.0
Lane Grp LOS	D	B		D	B		C	C		C		
Approach Vol, veh/h		1007			1220			247			86	
Approach Delay, s/veh		20.9			21.3			25.9			17.9	
Approach LOS		C			C			C			B	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	10.0	43.0		12.0	45.0			31.0			31.0	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	5.0	38.0		7.0	40.0			26.0			9.0	
Max Q Clear Time (g_c+I1), s	3.9	18.8		4.6	21.6			10.8			4.4	
Green Ext Time (p_c), s	0.0	13.8		0.1	13.4			1.2			0.6	

Intersection Summary		
HCM 2010 Ctrl Delay		21.5
HCM 2010 LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	26	20	16	314	241	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	21	17	327	251	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	454	131	263	0	-	0
Stage 1	257	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Follow-up Headway	3.52	3.32	2.22	-	-	-
Pot Capacity-1 Maneuver	535	894	1298	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	526	894	1298	-	-	-
Mov Capacity-2 Maneuver	526	-	-	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1298	-	641	-	-
HCM Lane V/C Ratio	0.013	-	0.075	-	-
HCM Control Delay (s)	7.81	0.1	11.1	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.039	-	0.242	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

APPENDIX D
Analysis Reports
Future (2018) With Project Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	927	182	161	1068	106	212	30	109	66	16	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	2	1	1	1	1	0	1	1
Cap, veh/h	103	1603	681	320	1733	736	510	563	479	536	0	479
Arrive On Green	0.06	0.43	0.00	0.09	0.47	0.00	0.30	0.30	0.00	0.30	0.30	0.00
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1685	1863	1583	1774	0	1583
Grp Volume(v), veh/h	41	966	0	168	1112	0	221	31	0	69	17	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1685	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.9	17.2	0.0	4.0	19.6	0.0	9.1	1.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	17.2	0.0	4.0	19.6	0.0	9.1	1.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	1603	681	320	1733	736	510	563	479	536	0	479
V/C Ratio(X)	0.40	0.60	0.00	0.52	0.64	0.00	0.43	0.06	0.00	0.13	0.00	0.00
Avail Cap(c_a), veh/h	103	1603	681	320	1733	736	510	563	479	536	0	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	18.8	0.0	37.2	17.5	0.0	24.1	21.3	0.0	21.8	0.0	0.0
Incr Delay (d2), s/veh	11.1	1.7	0.0	6.0	1.8	0.0	2.7	0.2	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	7.6	0.0	1.9	8.5	0.0	4.1	0.5	0.0	1.1	0.0	0.0
Lane Grp Delay (d), s/veh	50.1	20.5	0.0	43.2	19.4	0.0	26.8	21.5	0.0	22.3	0.0	0.0
Lane Grp LOS	D	C		D	B		C	C		C		
Approach Vol, veh/h		1007			1280			252			86	
Approach Delay, s/veh		21.7			22.5			26.1			17.9	
Approach LOS		C			C			C			B	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	10.0	42.0		13.0	45.0			31.0			31.0	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	5.0	37.0		8.0	40.0			26.0			9.0	
Max Q Clear Time (g_c+I1), s	3.9	19.2		6.0	21.6			11.1			4.4	
Green Ext Time (p_c), s	0.0	13.0		0.1	13.4			1.2			0.6	

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	37	21	31	314	241	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	22	32	327	251	123

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	541	187	374	0	-	0
Stage 1	313	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Follow-up Headway	3.52	3.32	2.22	-	-	-
Pot Capacity-1 Maneuver	471	823	1181	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	455	823	1181	-	-	-
Mov Capacity-2 Maneuver	455	-	-	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1181	-	543	-	-
HCM Lane V/C Ratio	0.027	-	0.111	-	-
HCM Control Delay (s)	8.134	0.1	12.5	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.084	-	0.373	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

KAUA'I PHILIPPINE CULTURAL CENTER

"A Place for All"

November 12, 2013

Authorization Letter

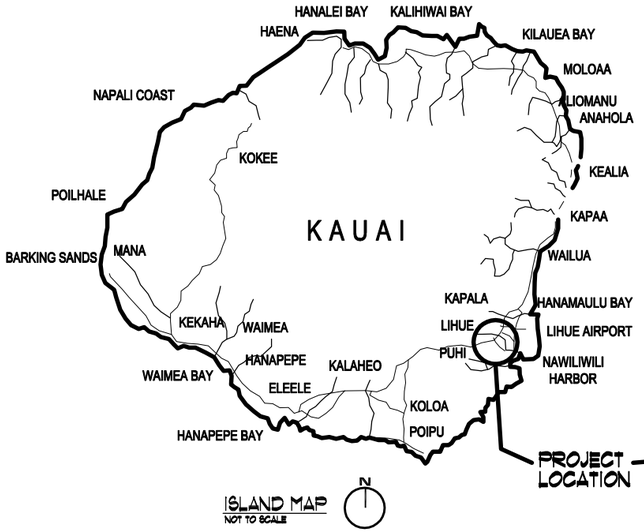
KPCC hereby authorizes Ron Agor of Agor Architects LLC to be our agent for the submittal of all necessary permit applications to the planning commission for TMK: (4) 3-3-003:043.

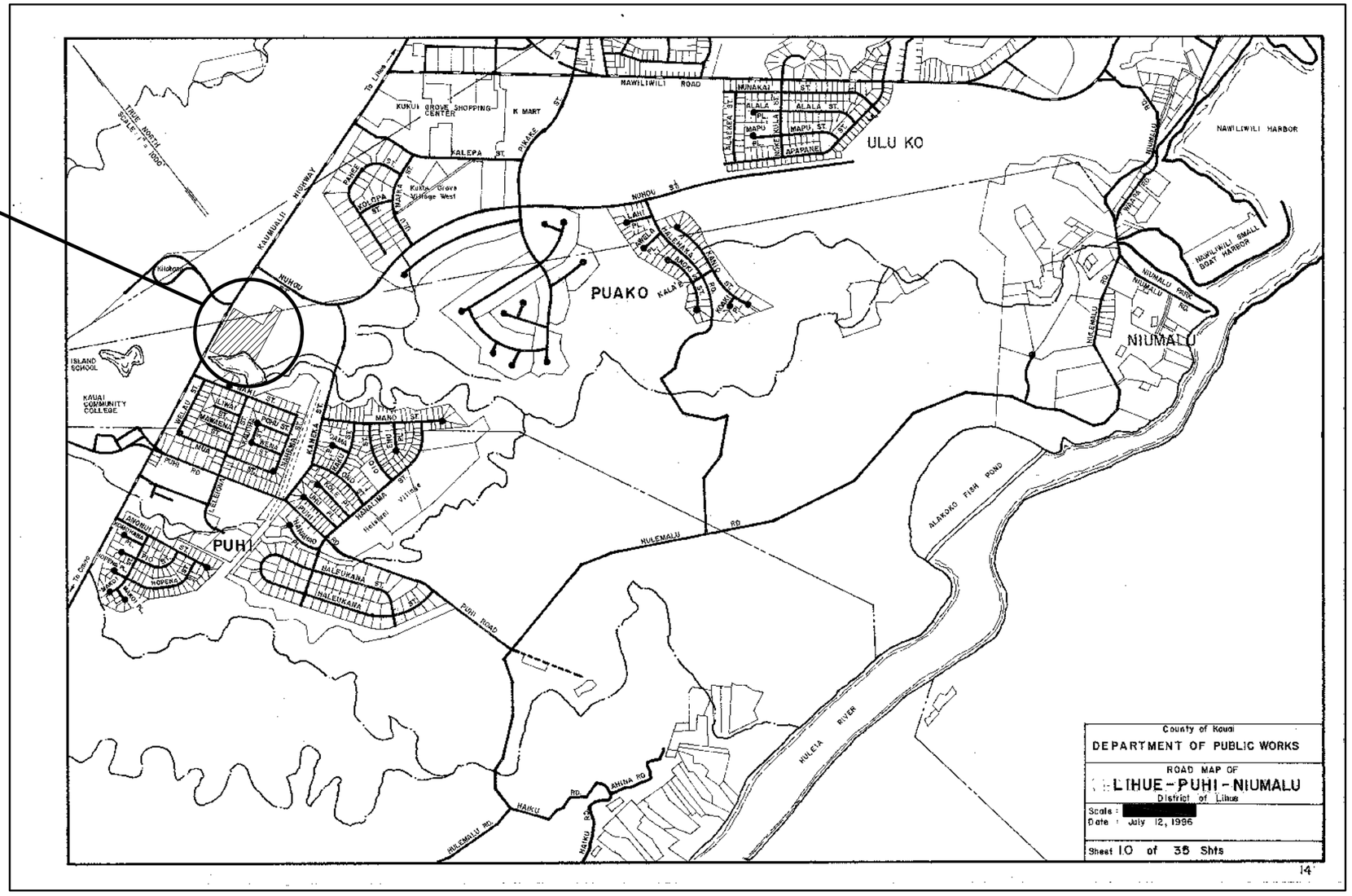
Sincerely,

Lesther Calipjo
President,
Kauai Philippine Cultural Center

EXHIBIT A
AUTHORIZATION

P.O. Box 1961 • Lihu'e, Kaua'i, Hawai'i 96766 • 808.645.0257 • kpcc2020@gmail.com • www.kauaiphilippineculturalcenter.org



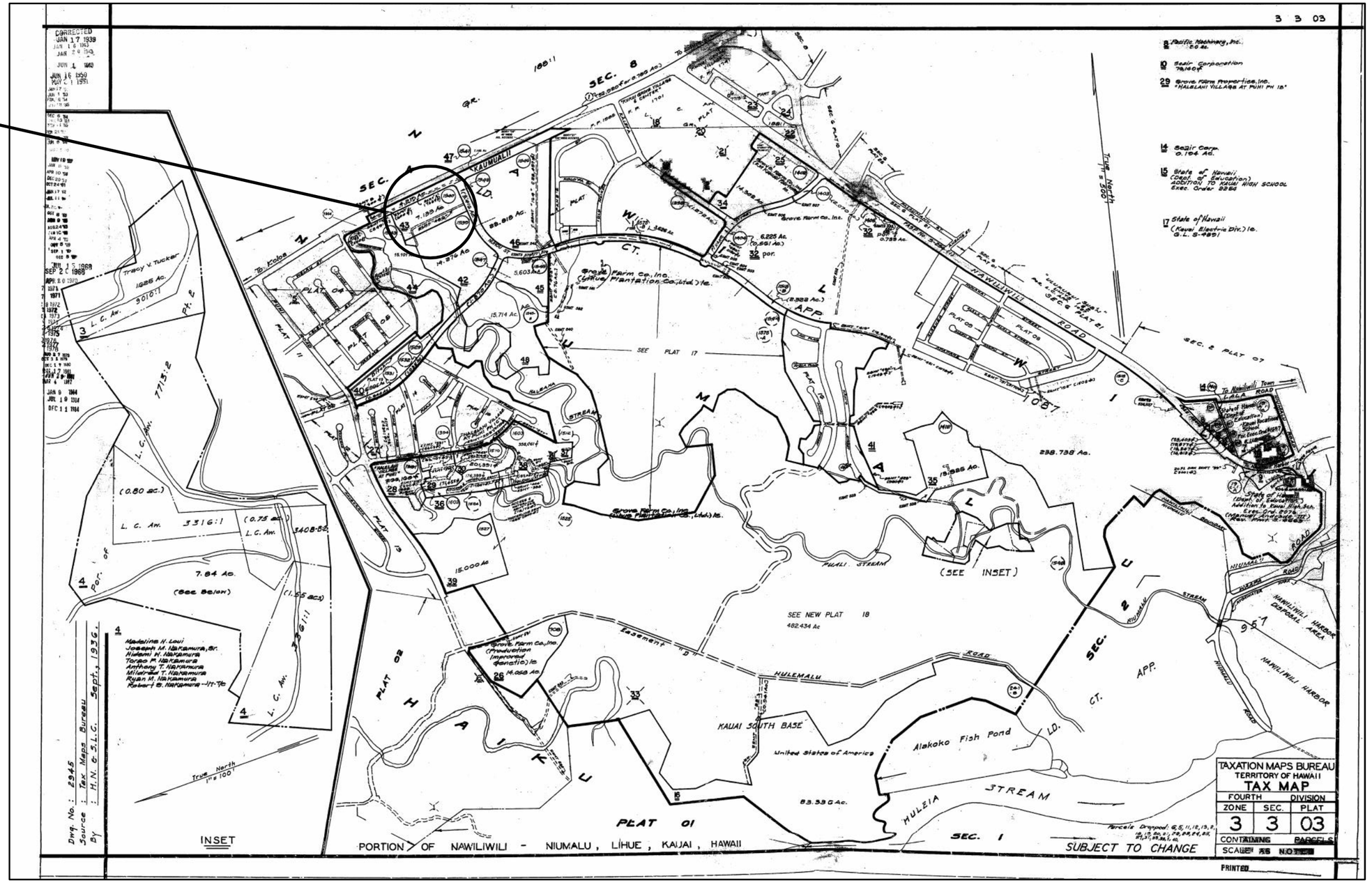


LOCATION MAP
NOT TO SCALE

EXHIBIT 1
ISLAND & VICINITY MAP

PROJECT LOCATION

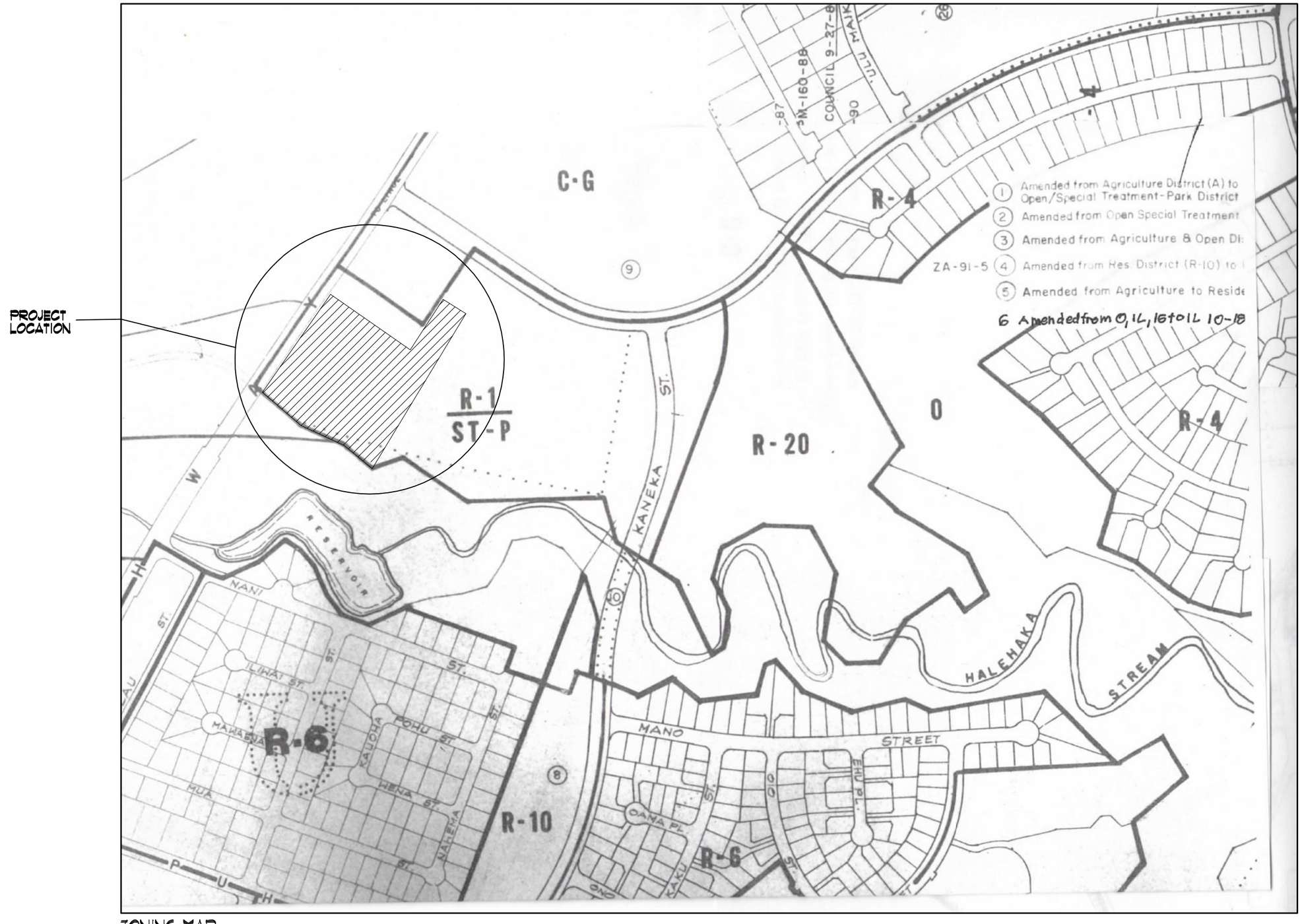
TMK
(4) 3-3-003:043



TMK MAP
NOT TO SCALE

EXHIBIT 2

TMK MAP



ZONING MAP
NOT TO SCALE

EXHIBIT 3
ZONING MAP

PROJECT LOCATION

GENERAL LAND USE: URBAN

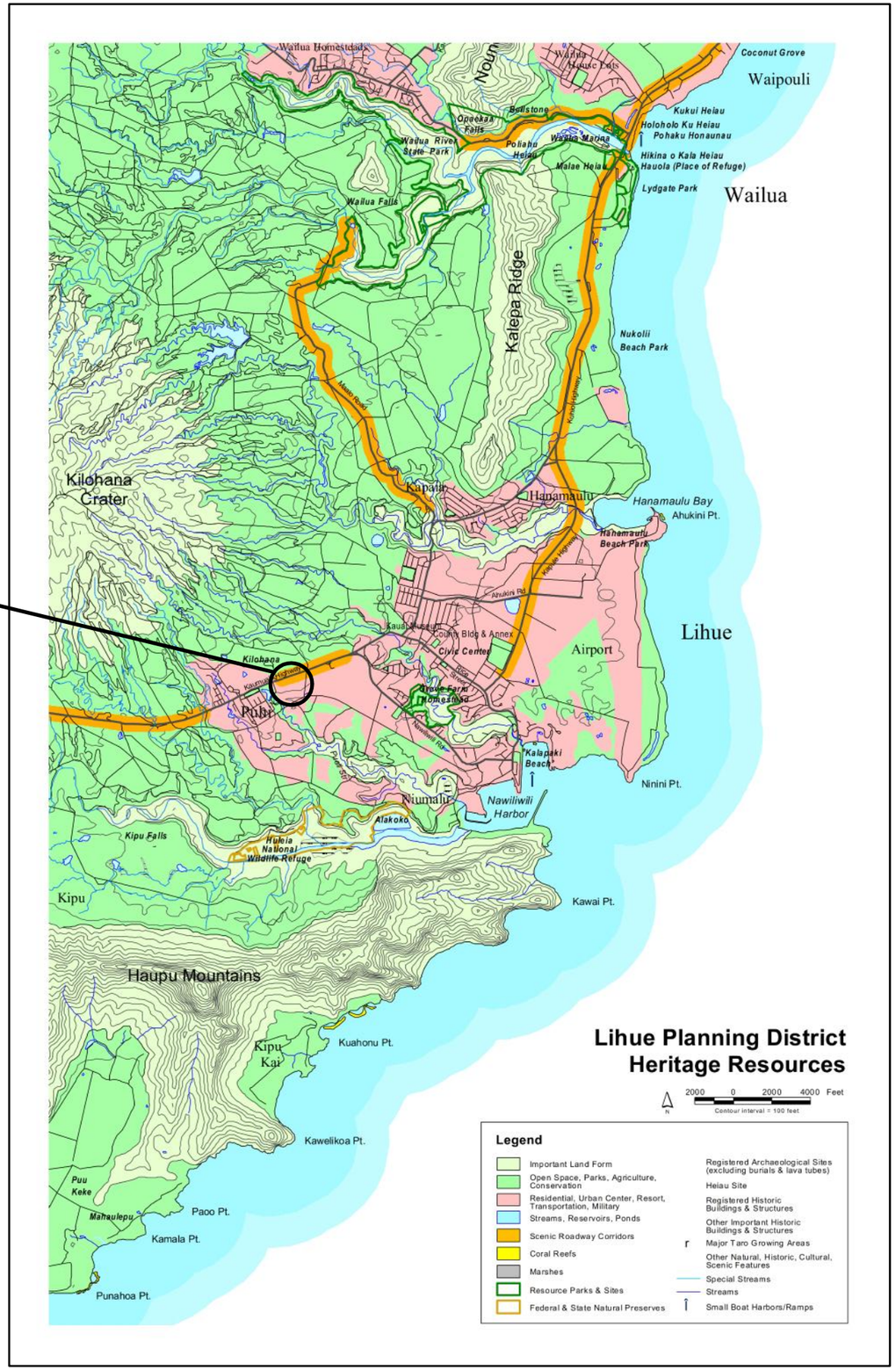
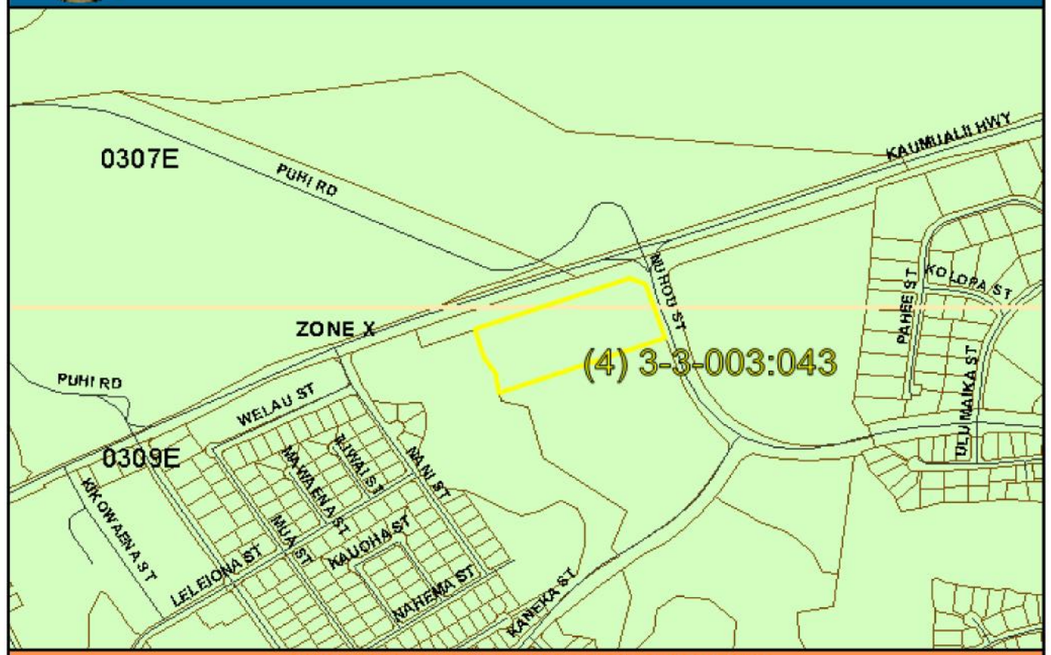


EXHIBIT 4

GENERAL LAND USE MAP

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF:** Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **Zone XS (X shaded):** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	KAUAI
TMK NO:	(4) 3-3-003-043
PARCEL ADDRESS:	KUHIO HWY LIHUE, HI 96766
FIRM INDEX DATE:	NOVEMBER 26, 2010
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	1500020309E-SEPTEMBER 16, 2005 1500020307E-SEPTEMBER 16, 2005
PARCEL DATA FROM:	JANUARY 2012
IMAGERY DATA FROM:	MAY 2005

IMPORTANT PHONE NUMBERS

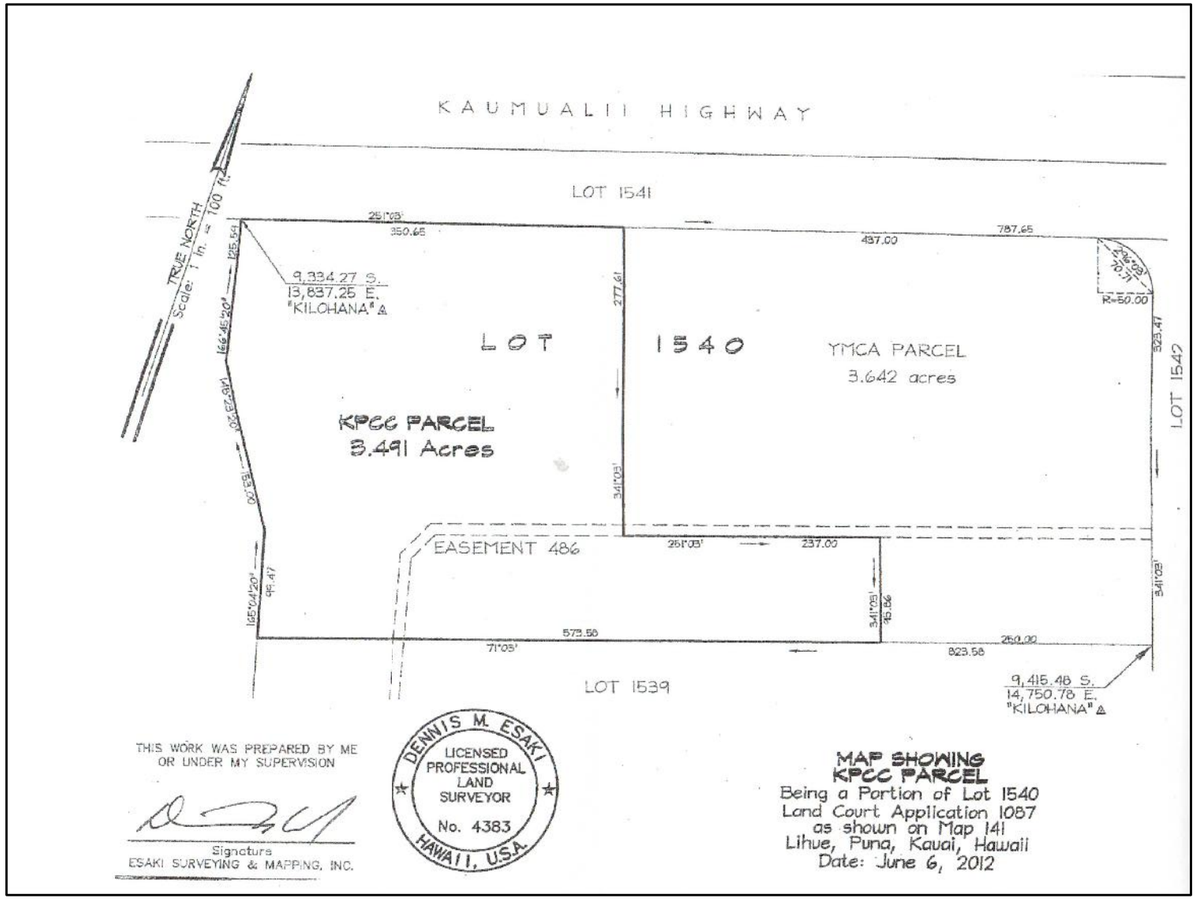
County NFIP Coordinator	
County of Kauai	
Stanford Iwamoto, P.E.	(808) 241-4896
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

Disclaimer: The Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use of the information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR from any liability, which may arise from its use.

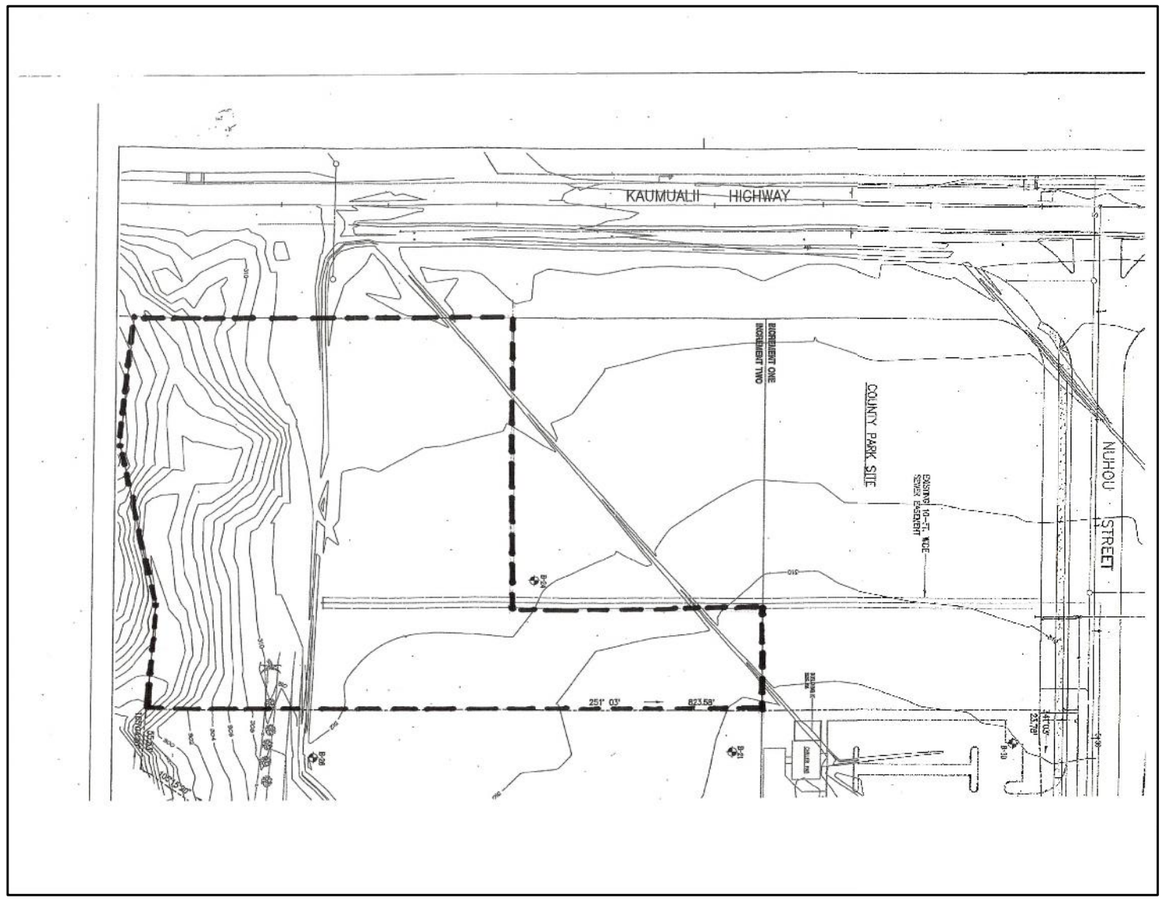
If this map has been identified as 'PRELIMINARY' or 'UNOFFICIAL', please note that it is being provided for informational purposes and is not to be used for official/legal decisions, regulatory compliance, or flood insurance rating. Contact your county NFIP coordinator for flood zone determinations to be used for compliance with local floodplain management regulations.

EXHIBIT 5

FEMA MAP



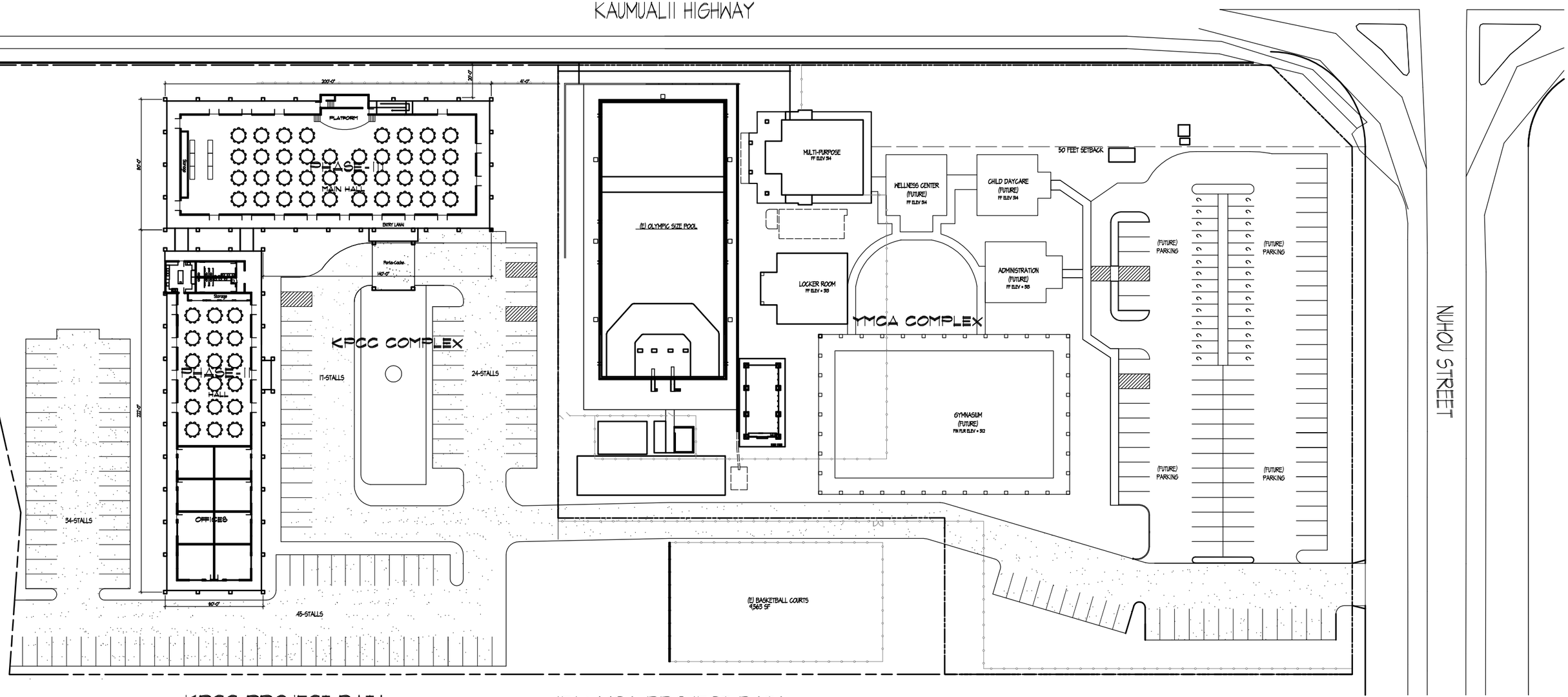
SITE METES & BOUNDS
NOT TO SCALE



TOPO MAP
NOT TO SCALE

EXHIBIT 6

SITE METES & BOUNDS/TOPO MAP



KPCC PROJECT DATA:

LAND AREA	3.642 ACRES/ 158,646 SF	
PHASE I-OFFICE BLDG		12,725 SF
OFFICE	3,800 SF	
HALL	4,298 SF	
KIT-R/R	984 SF	
CORRIDORS	3,643 SF	
KPPC PHASE III - MAIN HALL		
PHASE II HALL		16,852 SF
HALL	11,658 SF	
PORTE-CACHE	963 SF	
CORRIDORS	4,231 SF	
PARKING/WALKS		47,460 SF
DRIVEWAY TO LOT		16,883 SF
(E) BASKETBALL COURTS		9,653 SF
TOTAL LOT COVERAGE		103,573 SF ≈70 %
LANDSCAPING/OPEN		55,073 SF ≈30 %
KCPP PARKING		120 STALLS

(E) YMCA PROJECT DATA:

ADMINISTRATION BLDG	1594 SF	
CHILD CARE CENTER	1594 SF	
WELLNESS CENTER	1974 SF	
LOCKER ROOM	2078 SF	
GYMNASIUM	15,708 SF	
MULTI-PURPOSE BLDG	2,966 SF	
PAVILION	880 SF	
ELECTRICAL BUILDING	96 SF	
BATTING CAGES	5904 SF	
POOL & DECK	17,848 SF	
WALKS	1200 SF	
PARKING/SIDEWALKS	50,054 SF	
TOTAL LOT COVERAGE	101,896 SF	64.2 %
LANDSCAPING	57,502 SF	36.33%
YMCA PARKING	118 STALLS	

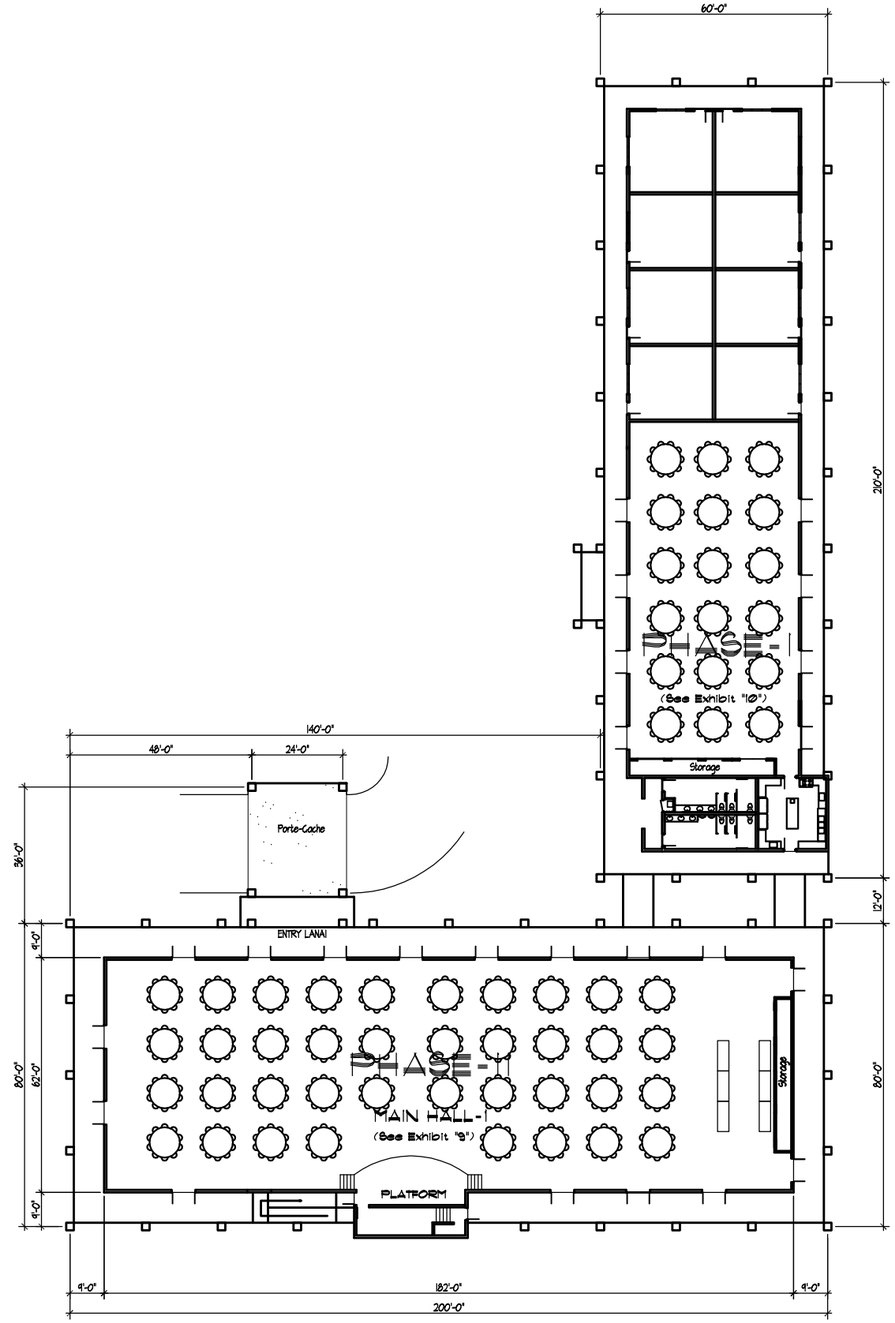
KPCC & YMCA SITE PLAN

Scale: 1" = 60'-0"

TMK: (4) 3-3-003: 043

EXHIBIT 7

PROPOSED SITE PLAN



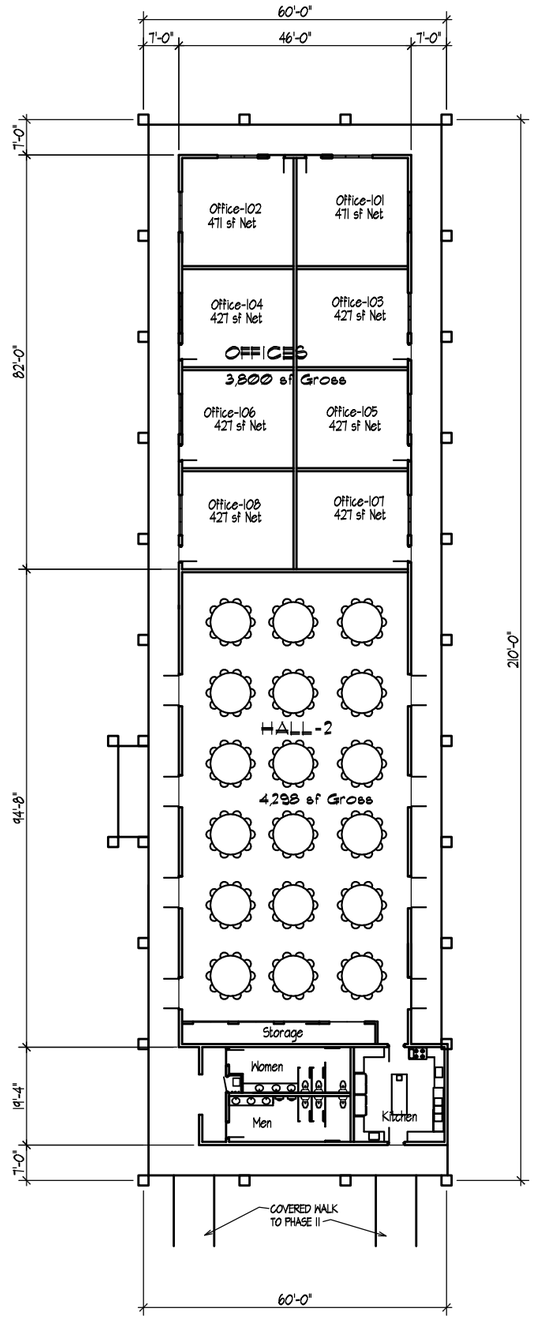
PHASE I & II FLOOR PLAN

Scale: 1" = 40'-0"

TMK: (4) 3-3-003: 043

EXHIBIT 8

PHASE I & II BLDG FLOOR PLAN



PHASE I DATA:

OFFICES	3,800 sf
HALL	4,298 sf
KIT-R/R	984 sf
CORRIDORS	4,231 sf
	12,725 sf TOTAL

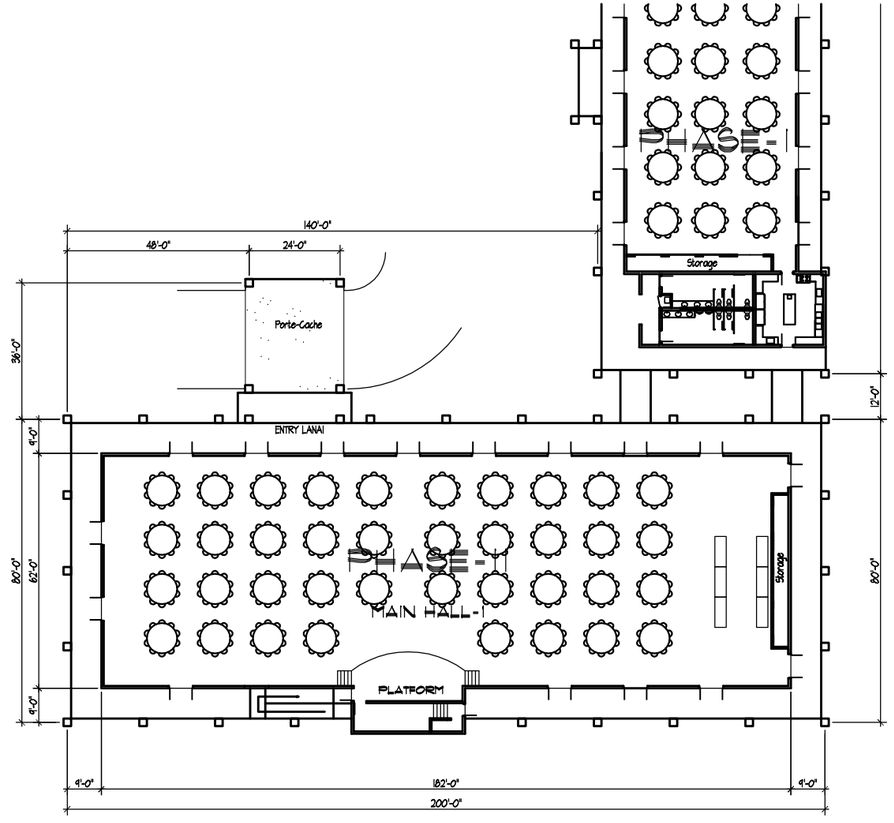
PHASE I FLOOR PLAN

Scale: 1" = 30'-0"

TMK: (4) 3-3-003: 043

EXHIBIT 9

PHASE I BLDG FLOOR PLAN



PHASE II DATA:

HALL	11,658 sf
PORTE-CACHE	963 sf
CORRIDORS	4,231 sf
	16,852 sf TOTAL

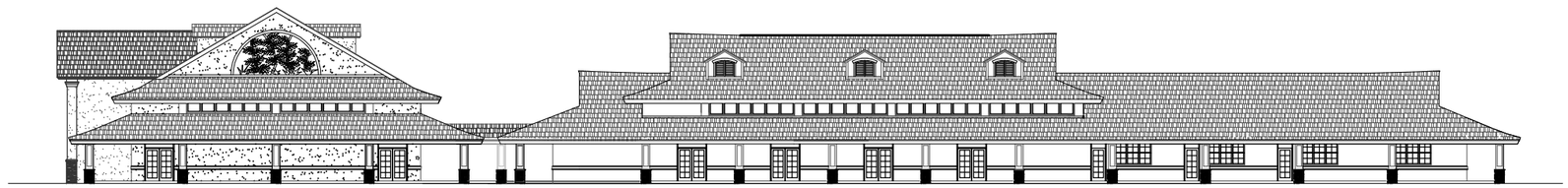
PHASE I FLOOR PLAN

Scale: 1" = 40'-0"

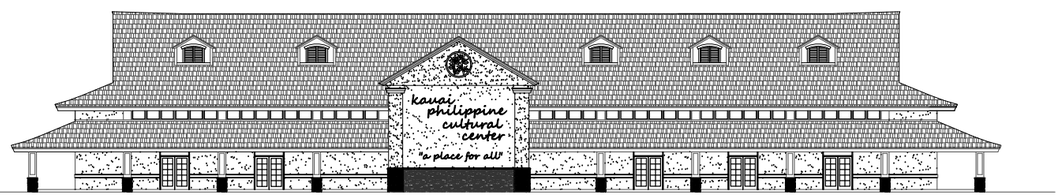
TMK: (4) 3-3-003: 043

EXHIBIT 10

PHASE II BLDG FLOOR PLAN

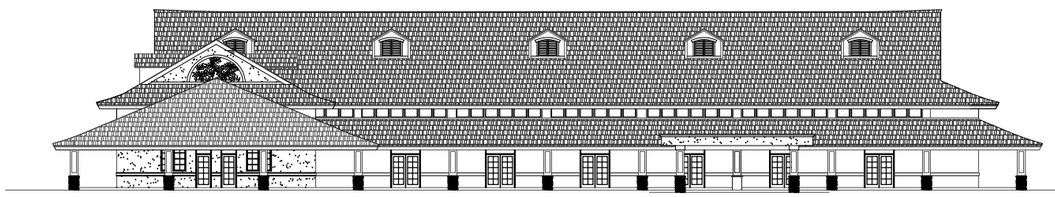


NORTH ELEVATION



WEST ELEVATION

SOUTH ELEVATION



EAST ELEVATION

PHASE II&III BLDG ELEVATIONS

Scale: 1/32" = 1'-0"
TMK: (4) 3-3-003: 043

EXHIBIT 11

PHASE I BLDG ELEVATIONS

EXHIBIT 12

RENDERINGS

YMCA

KAMAKAHELEI MIDDLE SCHOOL

KAUMAULII HWY

KCC

EXHIBIT 13

PHOTOS OF SURROUNDING AREA