C. Kimo Alameda, Ph.D.
Mayor

William V. Brilhante Jr.
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Merrick Nishimoto
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Housing Administrator

Keiko M. Mercado
Assistant Housing Administrator

County of Hawai'i
Office of Housing and Community Development
1990 Kino'ole Street, Suite 102 • Hilo, Hawai'i 96720 • (808) 961-8379 • Fax (808) 961-8685
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February 13, 2026

Mary Alice Evans, Director
Office of Planning and Sustainable Development
Environmental Review Program
235 S. Beretania Street, Room 702
Honolulu, HI 96813

SUBJECT: ENVIRONMENTAL ASSESSMENT (EA)
ANTICIPATED FINDING OF NO SIGNIFICAN IMPACT (AFONSI) DETERMINATION
HILO YWCA – DEMOLITION AND CONSTRUCTION OF NEW CAMPUS PROJECT
LOCATION: Hilo, Hawai'i TMK: (3) 2-3-13:002

The County of Hawai'i's Office of Housing and Community Development (OHCD) has reviewed the draft environmental assessment for the subject project and anticipates a Finding of No Significant Impact (FONSI) determination for the proposed YWCA Demolition and Construction of New Campus project. Please publish notice of availability for this project in the next available publication of the Environmental Notice.

In addition to this letter, the applicant's representative on our behalf, has submitted the electronic version of the Environmental Review Program Publication Form and a searchable PDF – formatted copy of the DEA through the online submission platform

If there are questions relating to this matter, please contact Royce Shiroma at (808) 961-8379, or via email at royce.shiroma@hawaiicounty.gov. You may also contact the project consultant, John Pipan with questions related to the submittal of the DEA at (808) 333-3391.

Thank you very much,

Kehaulani M. Costa Digitally signed by KCosta Date: 2026.02.13 10:17:03 -10'00'

Kehaulani M. Costa
Housing Administrator

17260crys amended

EQUAL HOUSING OPPORTUNITY

From: dbedt.opsd.erp@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Friday, February 13, 2026 3:22:28 PM

Action Name

YWCA Demolition and Construction of New Campus

Type of Document/Determination

Draft environmental assessment and anticipated finding of no significant impact (DEA-AFNSI)

HRS §343-5(a) Trigger(s)

- (1) Propose the use of state or county lands or the use of state or county funds

Judicial district

South Hilo, Hawai‘i

Tax Map Key(s) (TMK(s))

(3) 2-3-013:002

Action type

Applicant

Other required permits and approvals

Building Permits

Discretionary consent required

Discretion of funding being granted for project

Agency jurisdiction

County of Hawai‘i

Approving agency

Office of Housing and Community Development

Agency contact name

Royce Shiroma

Agency contact email (for info about the action)

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Map It

Applicant

YWCA of Hawaii Island

Applicant contact name

Kathleen McGilvray

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Map It

Is there a consultant for this action?

Yes

Consultant

Land Planning Hawaii LLC

Consultant contact name

John Pipan

Consultant contact email

john@landplanninghawaii.com

Consultant contact phone

(808) 333-3391

Consultant address

194 Wiwoole Street
Hilo, Hawaii 96720
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Map It

Action summary

YWCA intends to secure federal funding through the Community Development Block Grant (CDBG) program and other public funding sources to demolish a portion of its current campus, construct a new preschool and transitional housing facility/community center, and renovate an existing multipurpose building to offices. The project seeks to enhance YWCA's existing services, expand to offer housing, and provide adequate space for administrative functions. The project is proposed to occur in three (3) phases. Phase 1 includes the demolition of an existing pool house, swimming pool, playground, and nearly 100-year-old 'cottage' used as a preschool facility. While not on the historic register, this structure may require evaluation by the State Historic Preservation Division. Phase 2 includes the construction of a new

preschool facility with classrooms, a kitchen, and conference room, a vehicle drop-off area, two (2) new playgrounds, and modifications to an existing parking lot. In addition, an existing two-story multi-purpose building that fronts Ululani Street will be renovated into office space for administrative needs. Phase 3 would consist of constructing a new two-story, 10-unit transitional housing facility/community center and additional parking. A total of three (3) buildings with forty-eight (48) parking spaces, three (3) ADA accessible stalls, and four (4) drop off/pick up spaces are proposed for the development.

Reasons supporting determination

Please refer to section 5.1 Summary of Environmental Assessment Factors and Mitigating Measures.

Attached documents (signed agency letter & EA/EIS)

- OHCD-AFONSI-LETTER-17260crys1.pdf
- 02-2026-YWCA-Final-Draft-HEPA-EA-ADA-Passed-v4.pdf

ADA Compliance certification (HRS §368-1.5):

The authorized individual listed below acknowledges that they retain the responsibility for ADA compliance and are knowingly submitting documents that are unlocked, searchable, and may not be in an ADA compliant format for publication. Audio files do not include transcripts, captions, or alternative descriptions. The project files will be published without further ADA compliance changes from ERP, with the following statement included below the project summary in The Environmental Notice: "If you are experiencing any ADA compliance issues with the above project, please contact (authorized individual submitting the project at email)."

Action location map

- Project-Location1.zip

Authorized individual

John Pipan

Authorized individual email

john@landplanninghawaii.com

Authorized individual phone

(808) 333-3391

Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

eliminating racism
empowering women
ywca
Hawai‘i Island

DRAFT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT FOR YWCA
DEMOLITION AND CONSTRUCTION OF NEW CAMPUS
HILO, ISLAND OF HAWAI‘I
TMK (3) 2-3-013: 002

JANUARY 2026

Prepared by
Land Planning Hawai‘i LLC
194 Wiwo‘ole Street
Hilo, Hawai‘i 96720

LAND PLANNING HAWAII LLC

This document is prepared pursuant to:
The Hawai'i Environmental Policy Act (HEPA)
Chapter 343, Hawai'i Revised Statutes (HRS), and
Title, 11, Chapter 200.1, Hawai'i Department of Health Administrative Rules (HAR)

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Appendix F: Reconnaissance Level Survey
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ABBREVIATIONS

Abbreviation	Meaning
APZ	Accident Potential Zone
ACM	Asbestos-Containing Materials
ALICE	Asset Limited, Income Constrained, Employed
BGS	Below Ground Surface
BMPs	Best Management Practices
BIISC	Big Island Invasive Species Committee
BSF	Bradshaw Army Airfield
COC	Chemicals of Concern
CEO	Chief Executive Officer
COO	Chief Operating Officer
CZ	Clear Zone
CRB	Coconut Rhinoceros Beetle
CFR	Code of Federal Regulations
CWRM	Commission on Water Resource Manament
CBDG	Community Development Block Grant
C-EHMP	Construction Environmental Hazard Management Plan
COPC	Contaminants of Potential Concern
DOFAW	County of Hawai‘i Division of Forestry and Wildlife
DU	Decision Unit
CDH	Downtown Hilo Commercial District
DEA	Draft Environmental Assessment
EHCC	East Hawai‘i Cultural Center
EAL	Environmental Action Level
EA	Environmental Assessment
EHE	Environmental Hazard Evaluation
EHMP	Environmental Hazard Management Plan
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FEA	Final Environmental Assessment
FONSI	Finding of No Significant Impact
FIRM	Flood Insurance Rate Map
HAR	Hawai‘i Administrative Rules
CWRM	Hawai‘i Commission on Water Resource Management
DEM	Hawai‘i County Department of Environmental Management
DPW	Hawai‘i County Department of Public Works
DWS	Hawai‘i County Department of Water Supply
OHCD	Hawai‘i County Office of Housing and Community Development

HDOH	Hawai‘i Department of Health
HIOSH	Hawai‘i Occupational Safety and Health
HRS	Hawai‘i Revised Statues
HWMO	Hawai‘i Wildfire Management Organization
HELCO	Hawaiian Electric Light Company
HVO	Hawaiian Volcano Observatory
HEER	Hazardous Environmental Emergency Response
HMSS	Hazardous Materials Survey and Soil Screen
HAZWOPER	Hazardous Waste Operations and Emergency Response
HASP	Health and Safety Plan
HF	Healthy Families
HCDP	Hilo Community Development Plan
ITO	Hilo International Airport
LUPAG	Land Use Pattern Allocation Guide
LBP	Lead-Based Paint
LCP	Lead-Containing Paint
L-EHMP	Long-Term Environmental Hazard Mitigation Plan
MGD	Million Gallons per Day
NAEYC	National Association for the Education of Young Children
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
PD	Planning Department
PTA	Pohakuloa Training Area
QEP	Qualified Environmental Professional
RLS	Reconnaissance Level Survey
SASS	Sexual Assault Support Services
PV	Solar Energy Photovoltaic
SWMP	Solid Waste Management Plan
SHPD	State Historic Preservation Division
DOH	State of Hawai‘i Department of Health
SWPPP	Storm Water Pollution Prevention Plan
TAM	Technical Assistance Memorandum
TIAR	Traffic Impact Analysis Report
USDA	United States Department of Agriculture
HUD	United States Department of Housing and Urban Development
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

EXECUTIVE SUMMARY

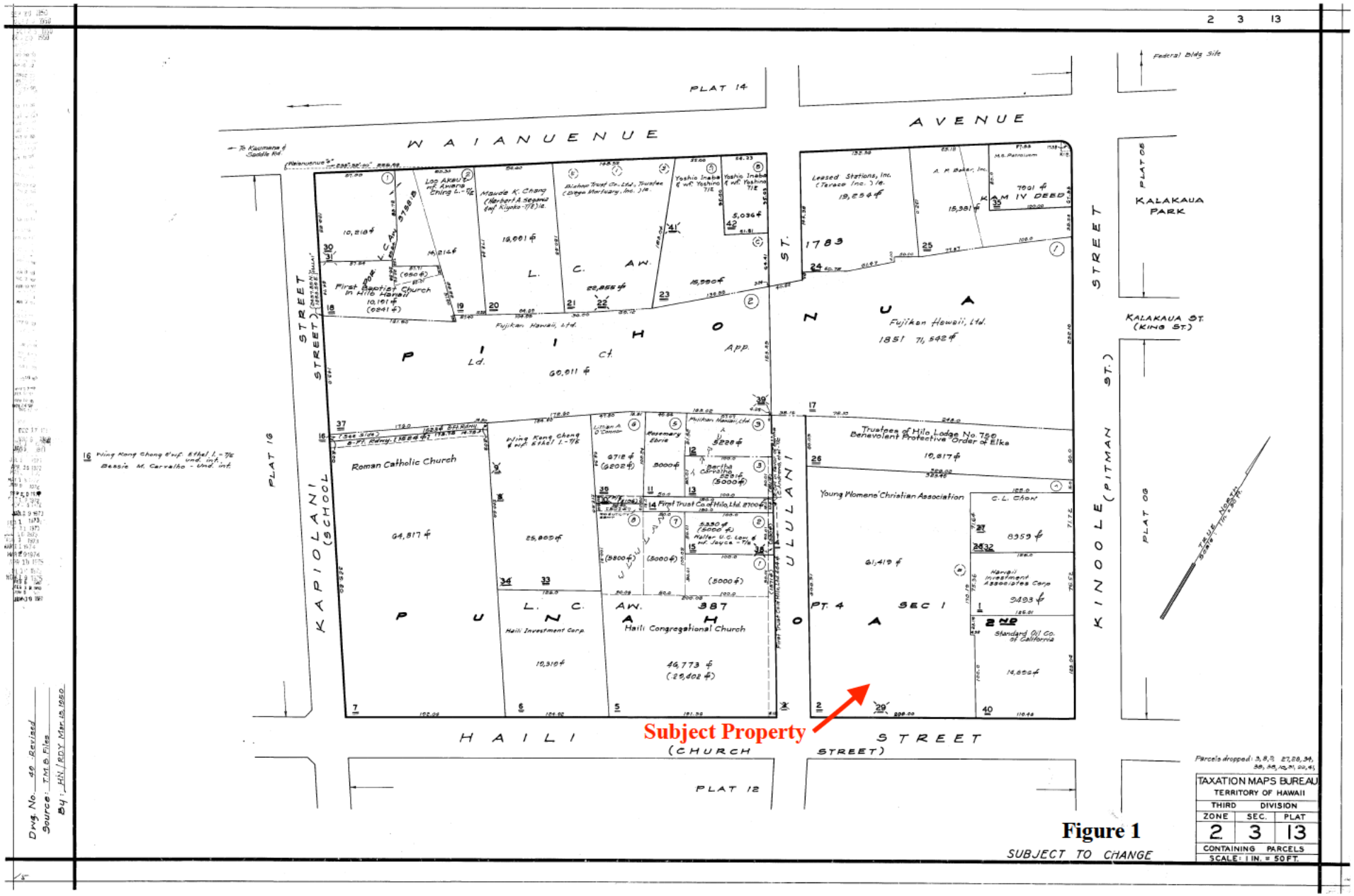
YWCA is a non-profit organization that has provided essential community services to Hawai‘i island for over 100 years. YWCA's mission is to eliminate racism, empower women, promote peace, justice, freedom, and dignity for all. The current YWCA campus is located at 145 Ululani Street at the intersection of Ululani and Haili Street in Hilo, Hawai‘i (**Figure 1**). The property is 1.41 acres zoned Downtown Hilo Commercial District (CDH).

YWCA intends to secure federal funding through the Community Development Block Grant (CDBG) program and other public funding sources, to demolish a portion of its current campus, construct a new preschool and transitional housing facility/community center, and renovate an existing multipurpose building to offices. The project seeks to enhance YWCA's existing services, expand to offer housing, and provide adequate space for administrative functions.

Land Planning Hawai‘i is preparing an Environmental Assessment in compliance with the Hawaii Environmental Policy Act (HEPA) on behalf of YWCA and the Hawai‘i County Office of Housing and Community Development (OHCD). A National Environmental Policy Act (NEPA) EA was completed in January of 2025 and issued a Finding of No Significant Impact.

The project is proposed to occur in three (3) phases. Phase 1 includes the demolition of an existing pool house, swimming pool, playground, and nearly 100-year-old 'cottage' used as a preschool facility. While not on the historic register, this structure may require evaluation by the State Historic Preservation Division. Phase 2 includes the construction of a new preschool facility with classrooms, a kitchen, and conference room, a vehicle drop-off area, two (2) new playgrounds, and modifications to an existing parking lot. In addition, an existing two-story multi-purpose building that fronts Ululani Street will be renovated into office space for administrative needs. Phase 3 would consist of constructing a new two-story, 10-unit transitional housing facility/community center and additional parking. A total of three (3) buildings with forty-eight (48) parking spaces, three (3) ADA accessible stalls, and four (4) drop off/pick up spaces are proposed for the development.

Construction activities will produce minor short-term impacts to noise, air quality, and scenic views, which will be mitigated by Best Management Practices (BMPs). A Hazardous Materials Survey and Soil Screen (HMSS), and a Construction Environmental Hazard Mitigation Plan (C-EHMP) were prepared by Lehua Environmental Inc. The HMSS survey and report found Asbestos-Containing Material, Lead-Based Paint and Lead-Containing Paint, mercury-containing fluorescent lamps, and PCB-containing fluorescent light ballasts within the planned areas of disturbance at the subject site. In addition, lead was detected in some soil on site at concentrations that exceed HDOH Tier 1 and 2 Environmental Action Level (EAL) for commercial and industrial land use. The C-EHMP details construction BMPs for all identified hazardous materials on site. A Long-Term Environmental Hazard Mitigation Plan (L-EHMP) will be prepared to address potential environmental hazards that may persist beyond the construction phase. The HMSS and C-EHMP are summarized in Section 4.1.10 of this EA.



16 Wing Kong Chang Emf. Ethel I. - 7/12 Und. Inf. Bessie M. Carvalho - Und. Inf.

Parcels dropped: 3, 8, 9, 27, 28, 34, 36, 38, 40, 41, 44, 45

TAXATION MAPS BUREAU
TERRITORY OF HAWAII

THIRD	DIVISION	
ZONE	SEC.	PLAT
2	3	13

CONTAINING PARCELS
SCALE: 1 IN. = 50 FT.

Dwg. No. 46 Revised
Source: Tmb Files
By: HN / RDY Mar. 19, 1980

Figure 1

SUBJECT TO CHANGE

On-site infrastructure is expected in the form of driveways, parking, electrical, water supply, stormwater management, and wastewater disposal. Electricity will be provided by an existing Hawaiian Electric Light Company (HELCO) connection. County water will be used for onsite potable uses. Estimated County water use calculations will be submitted to DWS for review and approval.

There are three (3) existing access points to the site including one (1) entrance and one (1) exit via Ululani Street and one (1) entrance/exit via Haili Street. Two (2) new exits are proposed including one (1) right-turn exit via Kinoʻole Street through an existing walkway outlet, and one (1) exit via Haili Street.

A biotic survey conducted on March 13, 2024, confirmed that no endangered or threatened species exist on the property. The subject site is fully developed with limited ornamental plantings including native hapuʻu (*Cibotium menziesii*), naupaka (*Scaevola taccada*), and sword fern (*Nephrolepis exaltata*); Polynesian-introduced ti (*Cordyline fruticosa*); and introduced shower tree (*Cassia fistula*), and areca palm (*Dypsis lutescens*).

The Archaeological Literature Review and Field Inspection and Reconnaissance Level Survey found no resources of significance on site. It is not known whether the Property has been previously used for traditional and customary rights by native Hawaiians. It is unlikely to be used as such today due to previous development and land use on the property for decades. In the unlikely event that undocumented archaeological or cultural resources, including shells, bones, midden deposits, lava tubes, or current traditional and customary gathering rights are discovered, all work will cease, and the State Historic Preservation Division will be contacted immediately to determine appropriate action.

The proposed action does not conflict with Federal, State, or County laws.

PART 1: PURPOSE AND NEED

1.1 Purpose and Need for Proposal

The purpose of the proposed project is to replace YWCA's aging campus with enhanced buildings and infrastructure that will create a healthier environment, expand essential community, family, and individual services, and improve efficiency in delivering those services.

The current Hilo campus was built between 1931 and 1983 and provides four (4) core services including preschool/daycare, a healthy families program, and support services for teen dating and sexual assault. The campus underscores a century-long commitment to addressing evolving community needs. Today east Hawaiʻi Island faces many challenges including high cost of living, limited housing, access to education and jobs, and adequate daycare for working families. The new campus would allow YWCA to expand their existing services as well as add multiple residential housing units and a community center for comprehensive support.

The proposed improvements align with the organization's commitment to eliminate racism, empower women, promote peace, justice, freedom, and dignity for all. By incorporating modern

preschool and daycare facilities, YWCA will be able to effectively address the community's needs for quality early education and affordable childcare, particularly benefiting working families. Upgraded infrastructure will enhance the efficiency of providing essential services relating to teen dating and sexual assault, contributing to a safer environment for women. The proposed community center and residential units aim to help alleviate housing challenges, aligning with YWCA's commitment to empowering individuals and enhancing community well-being.

1.2 Background of YWCA

The YWCA campus in Hilo has been operating for over 90 years. The three (3) core services provided on site include the healthy families program, developmental preschool program, and sexual assault support services.

1. Healthy Families Program

   The Healthy Families Program provides home visiting services to eligible families, aiming to empower parents and improve their lives. The program focuses on creating a home environment that allows parents to raise health and well-adjusted children who will become future community leaders. This program has a special emphasis on empowering women to influence positive domestic outcomes and break the cycle of poverty and despair.

   Service activities include a Nurturing Parenting Curriculum, prenatal care planning and baby care basics, parenting techniques and information, goal setting and resource building, developmental activities and screening, and support groups.

2. Developmental Preschool Program

   The YWCA preschool program offers an affordable, comprehensive, and supportive early learning experience. This program caters to the needs of working families by providing 50 weeks of preschool per year with minimal breaks and an extended 8.5-hour instructional day. The program is nationally accredited by the National Association for the Education of Young Children (NAEYC) and licensed by the Department of Human Services, ensuring high-quality standards. One of the program's notable features is its commitment to nutritional well-being, offering children a USDA-approved nutritious breakfast, lunch, and afternoon snack. With a nurturing learning environment based on the Creative Curriculum, the program accepts children aged 2-5 years, eliminating the requirement for immediate potty training but encouraging children to be in the "pull-up" stage, without diapers. This holistic approach aims to foster the overall development of young learners in a safe and supportive setting.

3. Sexual Assault Support Services

   Since the 1970s, the YWCA has been actively involved in responding to sexual assault through its Sexual Assault Support Services (SASS) programs. The YWCA of Hawai‘i Island is committed to transforming societal beliefs surrounding sexual violence. Their goal is to foster a community that refuses to downplay sexual crimes, eliminate the shame and silence imposed on survivors, and reject the concealment of such offenses due to embarrassment. They advocate for a society that holds perpetrators accountable, mandates their treatment, and takes preventive measures to ensure they do not offend again. YWCA offers free and confidential counseling, advocacy, crisis intervention, emotional and moral support, and therapeutic services for all ages.

These programs serve as essential community resources by tending to the well-being of individuals across different life stages. They actively encourage healthy relationships, support early childhood development, contribute to family stability, and provide crucial assistance for survivors of sexual assault. These services therefore play a vital role in enhancing the overall resilience and welfare of the Hilo community.

PART 2: ENVIRONMENTAL ASSESSMENT PROCESS, PROJECT SCHEDULE, AND FUNDING

2.1 Environmental Assessment Process and Scope

In 1974 the Hawai‘i State Legislature enacted the Hawai‘i Environmental Policy Act (HEPA), which requires State and County agencies to conduct an environmental impact analysis prior to making decisions on actions that may impact the environment.

This Environmental Assessment (EA) is being conducted in accordance with Chapter 343 of the Hawai‘i Revised Statutes (HRS), along with the implementing regulations, Title 11, Chapter 200.1, of the Hawai‘i Administrative Rules (HAR). This law is the basis for the environmental impact assessment process in the State of Hawai‘i. An EA is necessary for the proposed project since the project involves the use of State of Hawai‘i funds or land. Improvements within the State Right-Of-Way are anticipated for the proposed access to the project. Additionally, the project will utilize public funding sources for its completion. Since discretionary approval is required for the project in the form of a Use Permit and Special Permit, HRS 343-5.5 requires the EA to be completed.

According to Chapter 343, an EA is prepared to determine impacts associated with a proposed action, develop mitigation measures for any discovered adverse impacts, and determine whether the impacts are significant (according to the thirteen specific criteria). If a study concludes that no significant impacts would occur from implementation of the proposed action, a Finding of No Significant Impact (FONSI) is prepared. If a study finds that significant impacts are expected to occur because of a proposed action, then an Environmental Impact Statement (EIS) is prepared to allow deeper investigation of impacts and allow more extensive public involvement.

The following EA discusses alternatives to the proposed action, existing environment and impacts associated with the proposed action, the anticipated determination and the findings made by HBMC in consultation with the County of Hawai‘i Planning Department and the expert consultants who prepared supporting studies for this EA.

2.2 Project Schedule

Phase 1 demolition is scheduled to commence upon completion of permitting in November 2026 and should be finalized by April 2027. Following this, Phase 2 construction is anticipated to begin shortly thereafter. The timing of construction will be contingent upon the duration needed to secure funding. Tentatively, Phase 2 will be complete by 2028 and Phase 3 by 2029.

2.3 Funding

YWCA intends to secure federal funding through the Community Development Block Grant (CDBG) program. Other public funding sources are also possible. Total demolition and construction costs are estimated at roughly $23,329,314. See Table 1 for the estimated cost breakdown of the project.

Table 1: Demolition and Construction Cost Breakdown

Phase	Activity	Amount
1	Demolition	$1,668,000
2	Construction New Preschool/Renovations	$17,386,806
3	Constructing New Transitional Housing Facility/Community Center	$4,274,508
		TOTAL: $23,329,314

PART 3: PROPOSED ACTION AND ALTERNATIVES

3.1 Proposed Action

3.1.1 Project Location and Property Details

The current YWCA campus is located at 145 Ululani Street at the intersection of Ululani and Haili Street in Hilo, Hawai‘i. The property is approximately 0.25 miles west of State Highway 19 and the Hilo Bayfront area.

The subject property contains three (3) existing buildings, two (2) playgrounds, one (1) pool, and one (1) parking lot. The preschool “cottage” located on the northern corner of the site dates to 1931, while the pool and pool house in the western corner were constructed in 1974. Additionally, the multi-purpose building situated on the southern corner was built in 1983.

There are three (3) existing access points to the site including one (1) entrance and one (1) exit via Ululani Street and one (1) entrance/exit via Haili Street. Two (2) new exits are proposed including one (1) right-turn exit via Kino‘ole Street through an existing walkway outlet, and one (1) exit via Haili Street.

3.1.2 Project Details

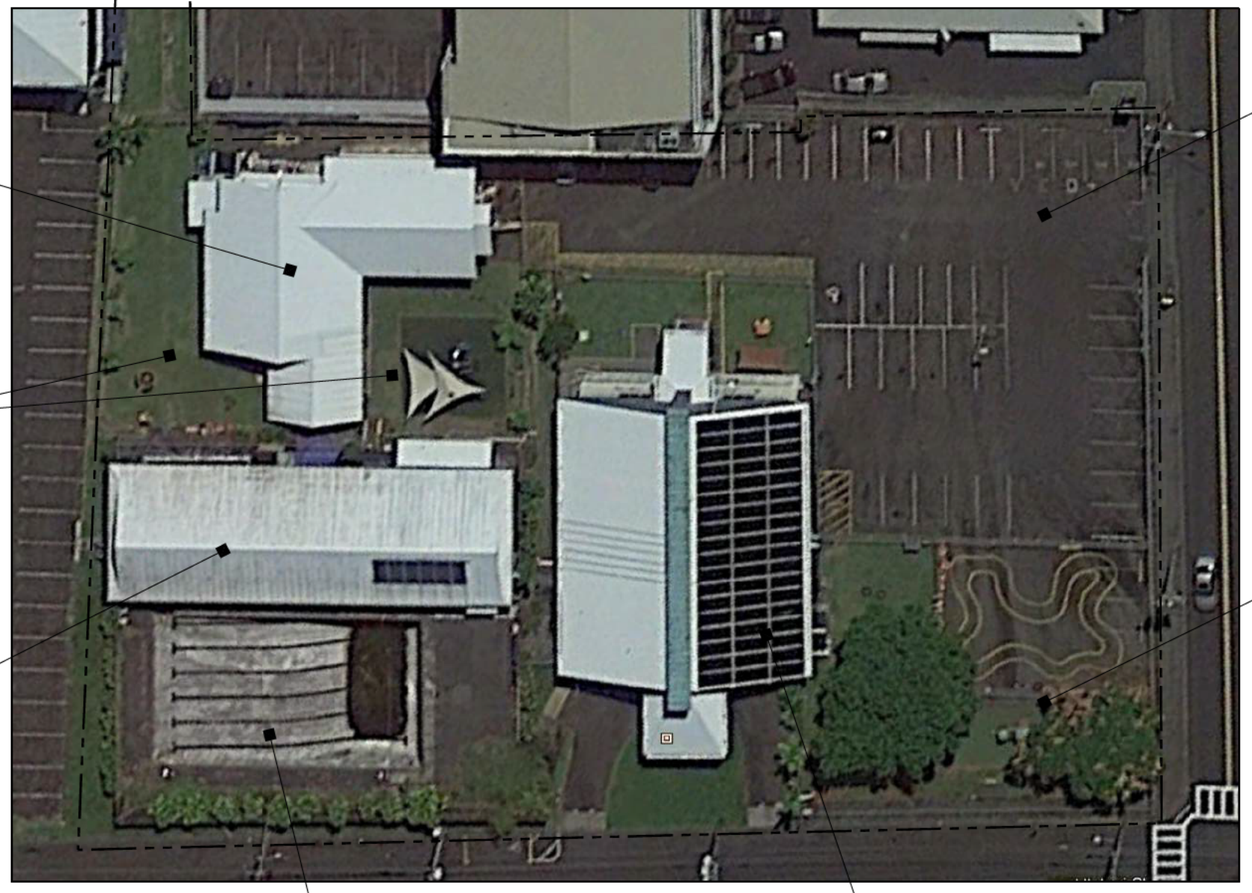
The proposed project includes 1) the demolition of an existing preschool cottage, pool house, swimming pool, and playground; 2) the construction of a new preschool facility, a transitional housing facility/community center, and 2 new playgrounds; (3) renovations to an existing office building; and (4) the construction of 48 parking spaces, 3 ADA accessible places, and 4 drop off/pick up spaces. **Figures 2-10** show the existing and proposed site plans, floor plans, and elevations. The following are details regarding demolition, construction, and renovation, including the phases of development, and operational details.

KINOOLE STREET

EXISTING PRESHOOL TO BE REMOVED

EXISTING PLAYGROUND TO BE REMOVED

EXISTING POOL BUILDING TO BE REMOVED



EXISTING PARKING LOT TO BE MODIFIED.

HAILI STREET

EXISTING PLAYGROUND TO BE REMOVED

EXISTING POOL TO BE REMOVED

ULULANI STREET

EXISTING YWCA BUILDING MULTI-PURPOSE / PRESCHOOL TO BE RENOVATED

1 OVERALL EXISTING SITE PLAN
SCALE: 1"=20' AT 24 X 36 PAGE SIZE

Figure 2

NORTH
0 10' 20'
SCALE IN INCH

FLEMING &
Associates, LLC
557 MANONO STREET
HILO, HAWAII

SCOTT E. FLEMING
LICENSED PROFESSIONAL ARCHITECT
No. 11441
HAWAII, U.S.A.

EXP. DATE: 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION DURING THE ENTIRE PERIOD OF CHAPTER 16-115 OF THE HAWAII ADMINISTRATIVE RULES, DEPT. OF COMMERCE AND CONSUMER AFFAIRS, ENTITLED PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.

YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

SHEET CONTENTS:
OVERALL
EXISTING
SITE PLAN

DATE: AUGUST 2020

SHEET:
A-1

KINOOLE STREET

PRESCHOOL PLAYGROUND
4 TO 5 YEAR OLDS

PRESCHOOL CLASSROOMS
4 TO 5 YEAR OLDS
KITCHEN

PARENT DROP-OFF
AND PICK-UP
4 SPACES

CONFERENCE ROOM
AND STORAGE

PRESCHOOL CLASSROOMS
2 TO 3 YEAR OLDS

PRESCHOOL PLAYGROUND
2 TO 3 YEAR OLDS

PARKING LOT 1
18 SPACES

RESIDENTIAL COMPLEX
10 UNITS AND
COMMUNITY CENTER

HAILI STREET

PARKING LOT 2
17 SPACES

PARKING LOT 3
13 SPACES

ULULANI STREET

YWCA OFFICE BUILDING

Figure 3

TOTAL PARKING = 52 SPACES

1 **OVERALL SITE PLAN**
SCALE: 1"=20' AT 24 X 36 PAGE SIZE

NORTH
0 10' 20'
SCALE IN INCH

FLEMING &
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557 MANONO STREET
HILO, HAWAII

SCOTT E. FLEMING
LICENSED PROFESSIONAL ARCHITECT
No. 11441
HAWAII, U.S.A.

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YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

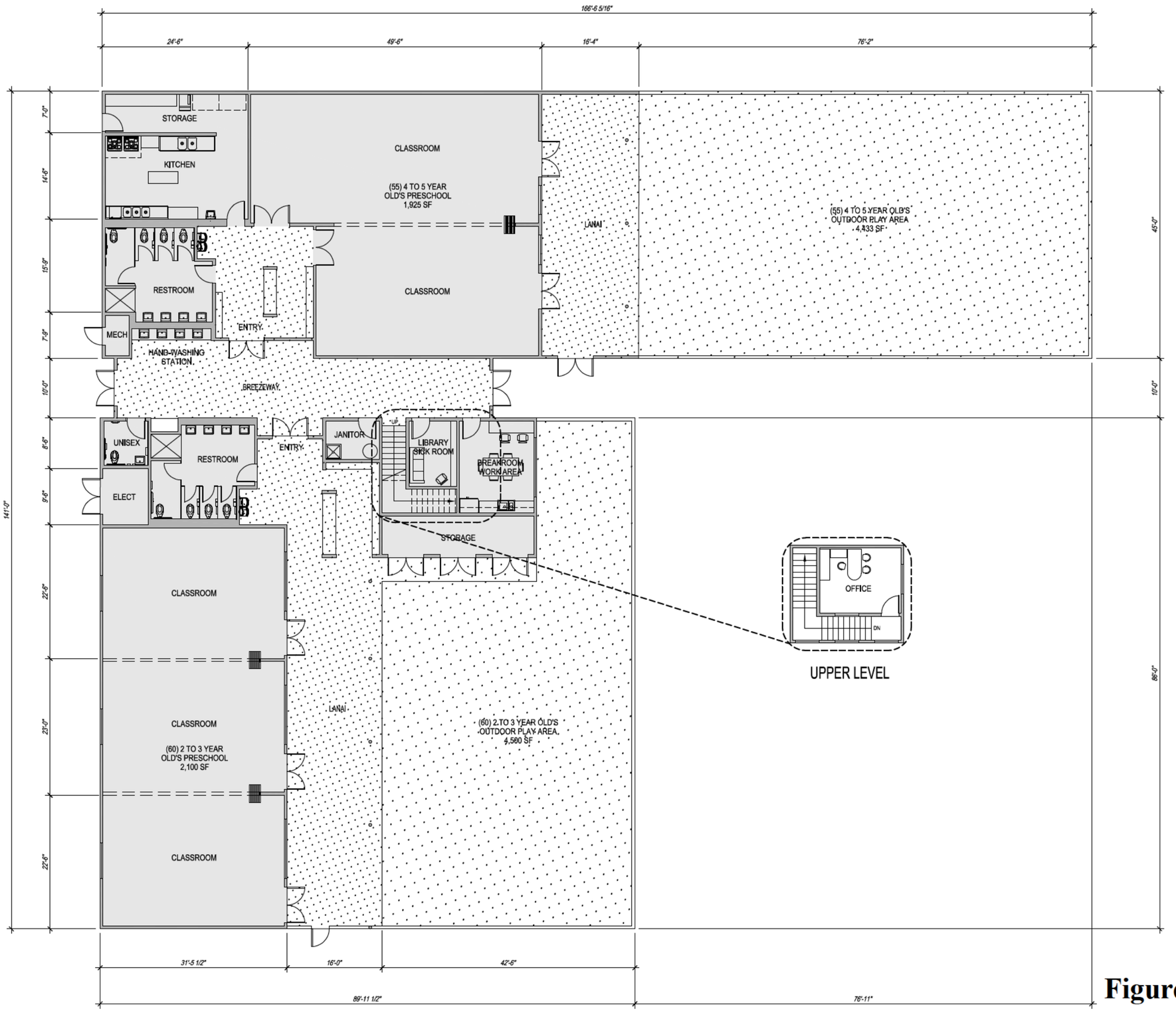
REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

SHEET CONTENTS:
OVERALL
SITE PLAN

DATE: AUGUST 2020

SHEET:
A-2



1 **PRESCHOOL FLOOR PLAN**
SCALE: 1/8"=1' AT 24 X 36 PAGE SIZE

Figure 4

NORTH

0 4' 8'
SCALE IN INCH

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145 ULULANI STREET
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TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

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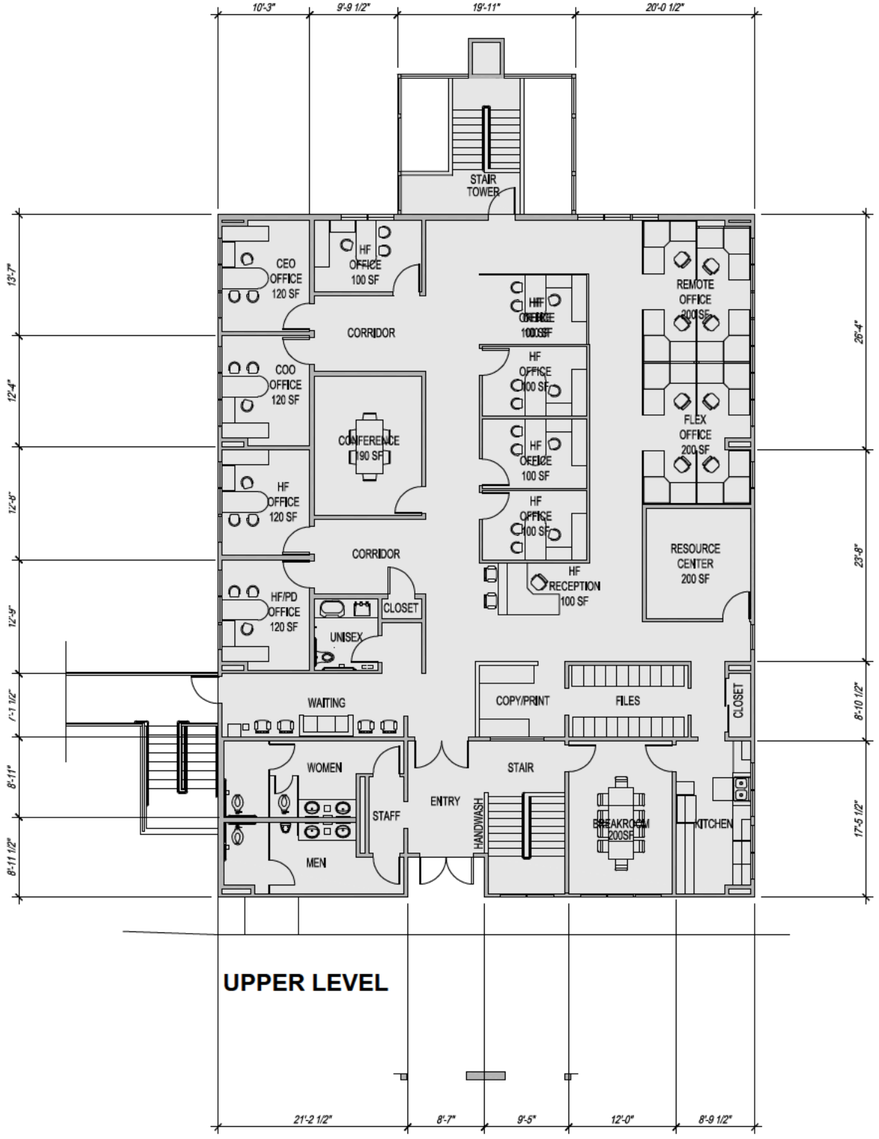
PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

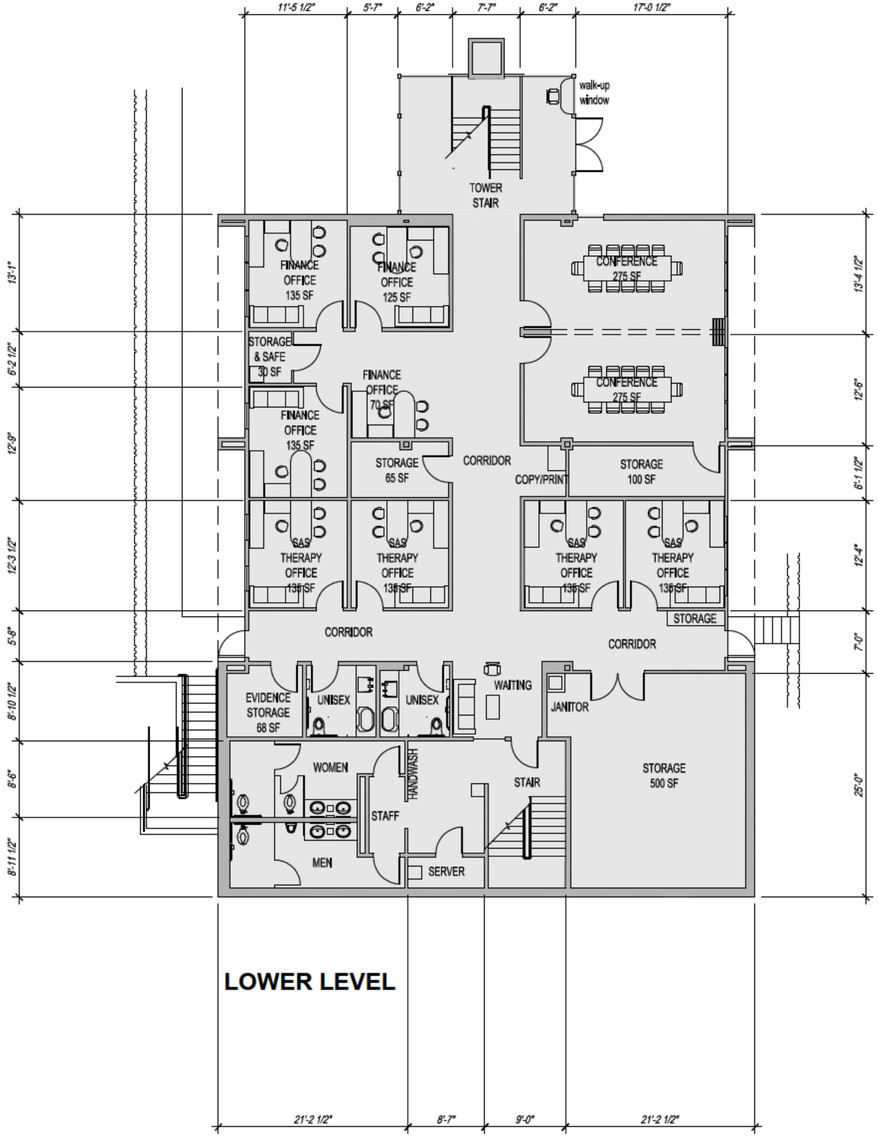
SHEET CONTENTS:
PRESCHOOL FLOOR PLAN

DATE: AUGUST 2020

SHEET:
A-3



UPPER LEVEL



LOWER LEVEL

1 **OFFICE FLOOR PLAN**
SCALE: 1/8"=1' AT 24 X 36 PAGE SIZE

Figure 5

NORTH
0 4' 8'
SCALE IN INCH

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YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

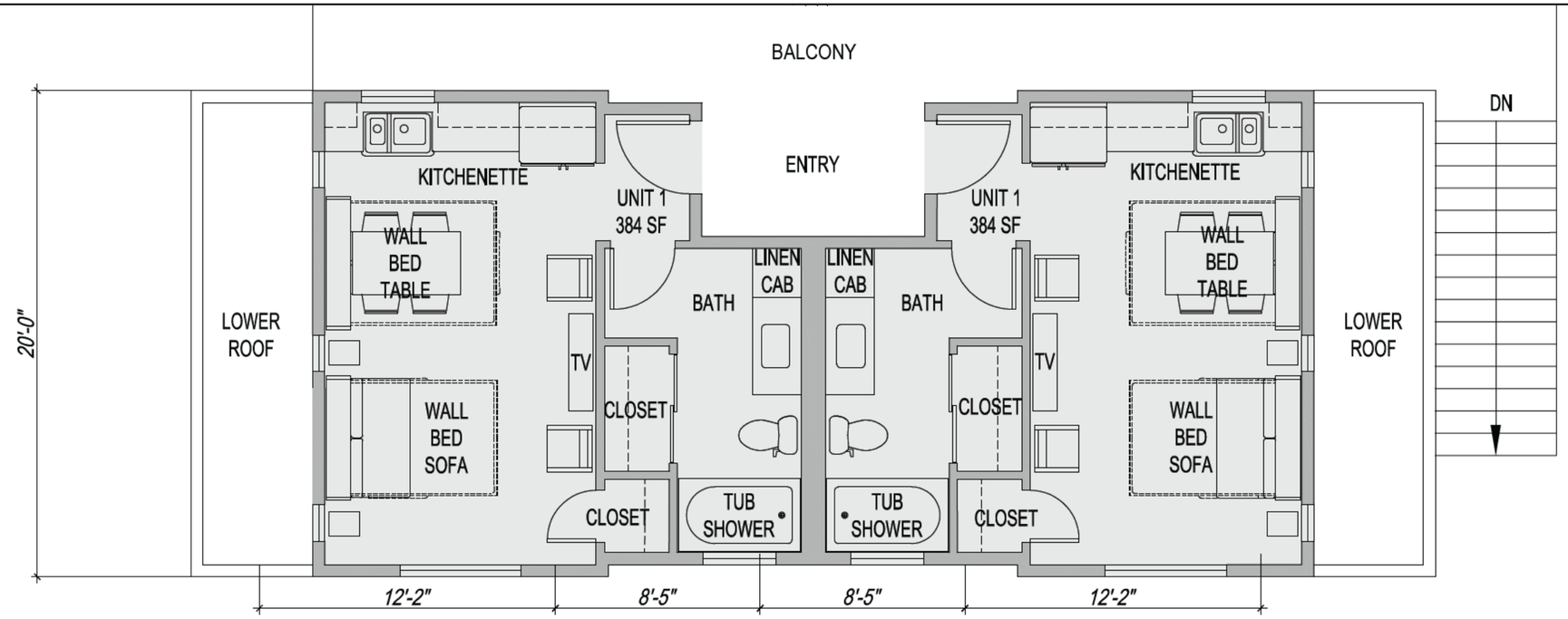
REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

SHEET CONTENTS:
OFFICE
FLOOR PLAN

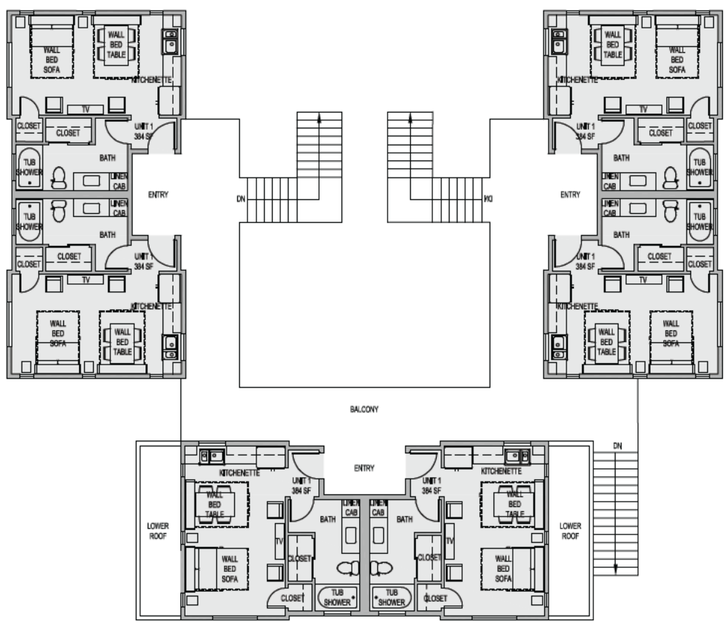
DATE: AUGUST 2020

SHEET:
A-4

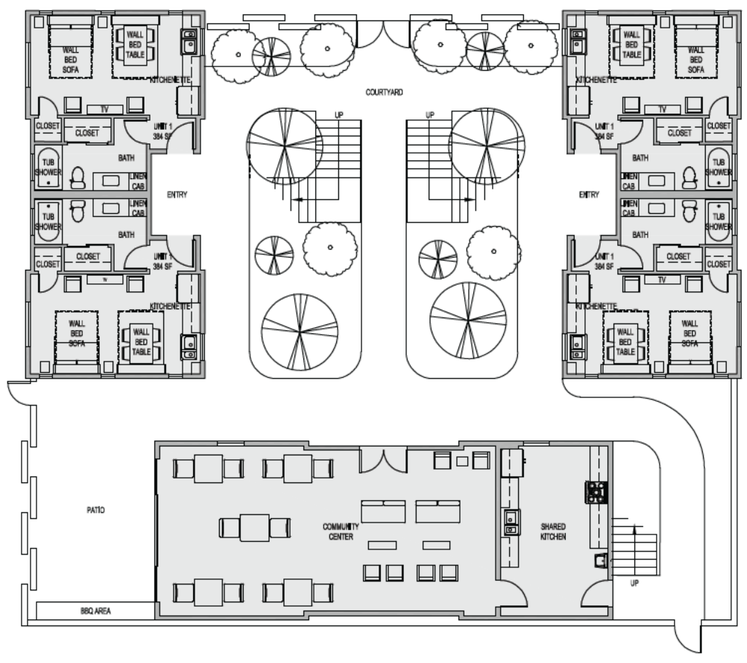


1 ENLARGED RESIDENTIAL FLOOR PLAN
SCALE: 1/4"=1'

NORTH
0 2' 4'
SCALE IN INCH



UPPER LEVEL



2 RESIDENTIAL FLOOR PLAN
SCALE: 1/8"=1' AT 24 X 36 PAGE SIZE

NORTH
0 4' 8'
SCALE IN INCH

Figure 6

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HILO, HAWAII

SCOTT E. FLEMING
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YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

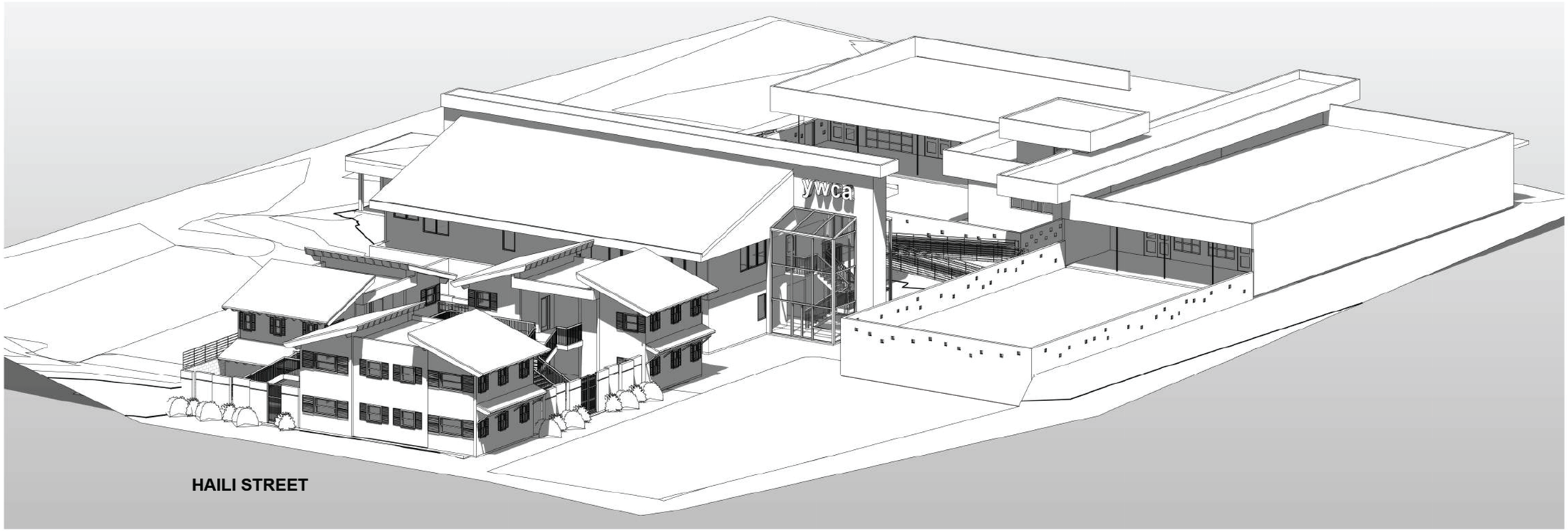
REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

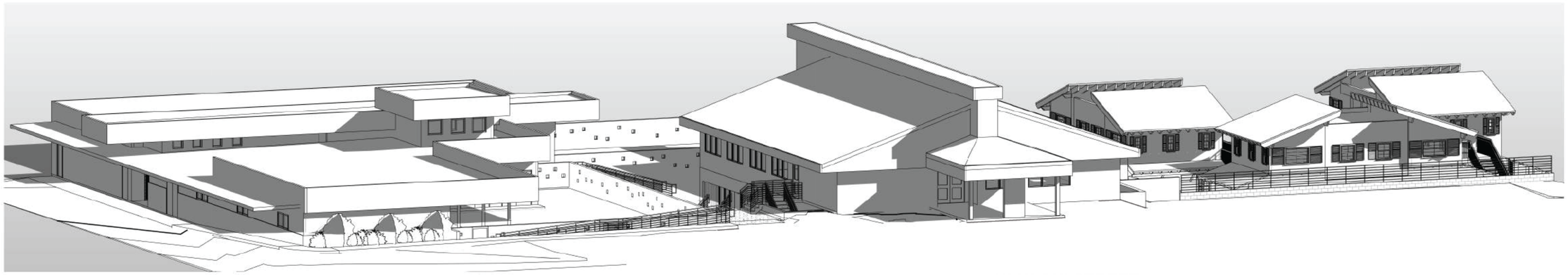
SHEET CONTENTS:
RESIDENTIAL
FLOOR PLAN

DATE: AUGUST 2020

SHEET:
A-5



1 **SITE -** LOOKING MAUKA FROM HAILI STREET



2 **SITE -** LOOKING MAKAI FROM ULULANI STREET

Figure 7

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557 MANONO STREET
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YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

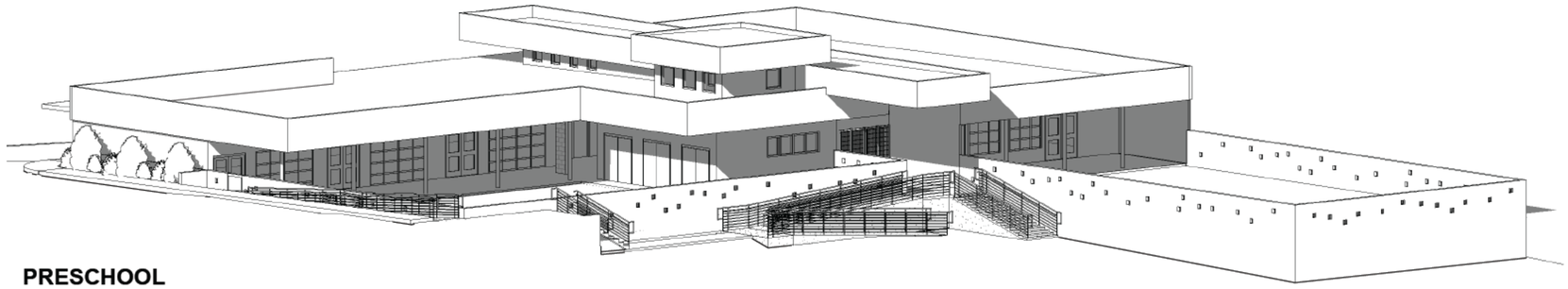
REVISIONS:

PROJECT NO.: 00000 00
PROJECT ARCH.: SF
PROJECT PLANS: XX

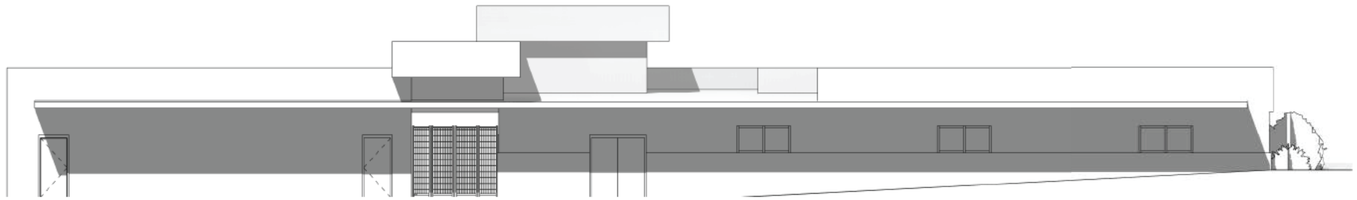
SHEET CONTENTS:
SITE PLAN - 3D VIEWS

DATE: MONTH, YEAR

SHEET:
A-6

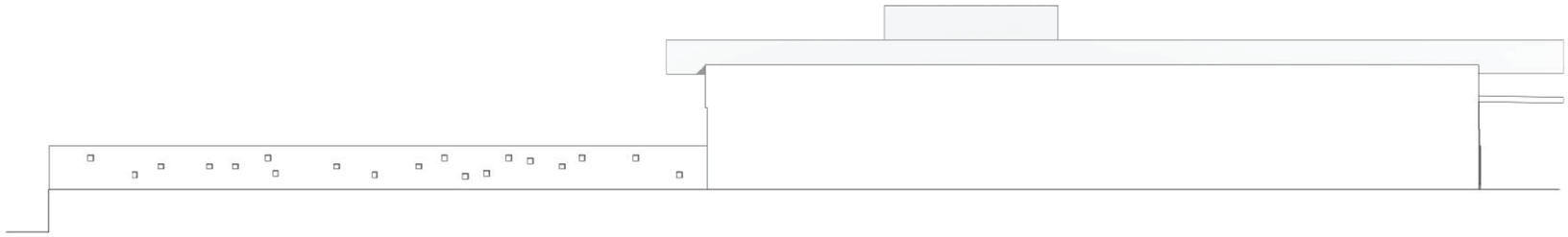


PRESCHOOL

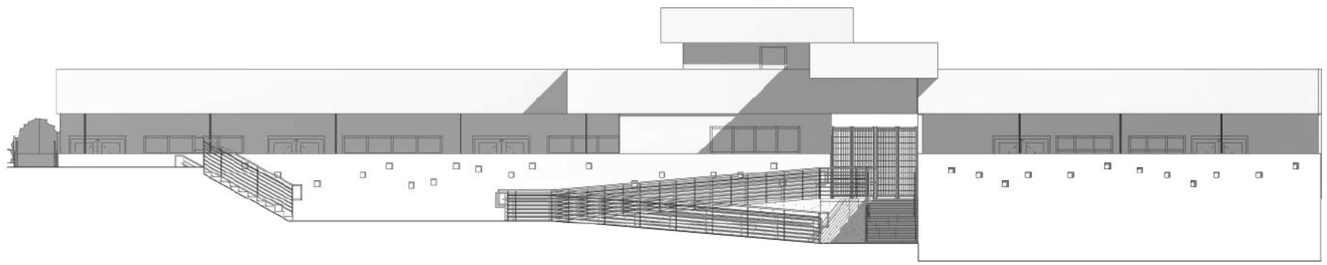


EXTERIOR
ELEVATION A
1/8" = 1'-0"

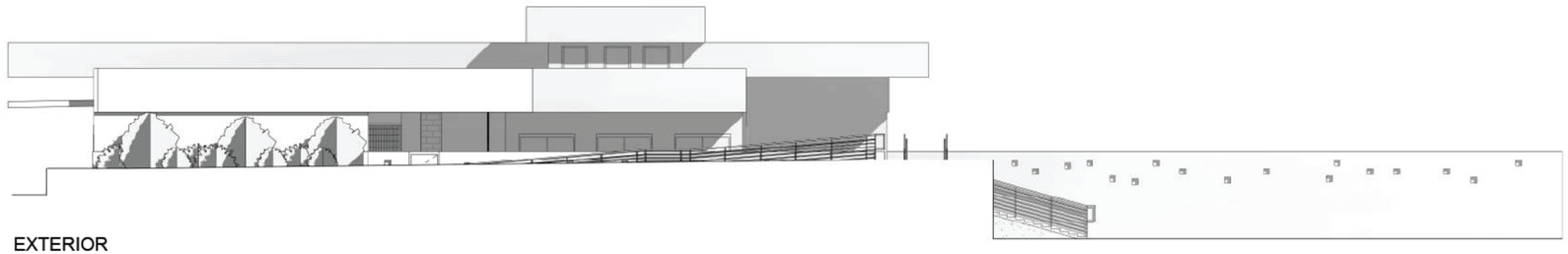
0' 4' 8'
SCALE IN FEET



EXTERIOR
ELEVATION B
1/8" = 1'-0"



EXTERIOR
ELEVATION C
1/8" = 1'-0"



EXTERIOR
ELEVATION D
1/8" = 1'-0"

Figure 8

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YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

REVISIONS:

PROJECT NO.: 00000 00
PROJECT ARCH.: SF
PROJECT PLANS: XX

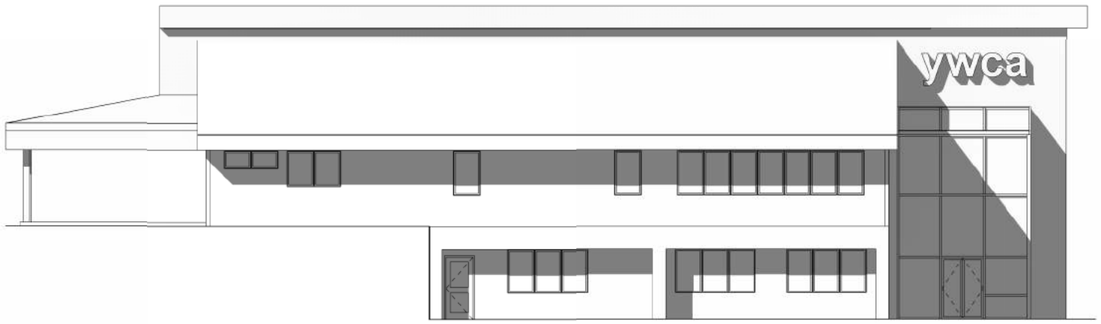
SHEET CONTENTS:
PRESCHOOL BUILDING - 3D VIEWS & EXTERIOR ELEVATIONS

DATE: MONTH, YEAR

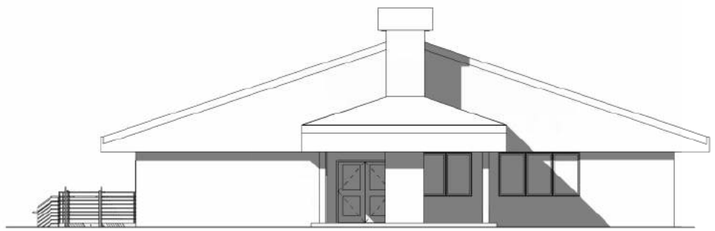
SHEET:
A-7

OFFICE

EXTERIOR
ELEVATION A
1/8" = 1'-0"



EXTERIOR
ELEVATION B
1/8" = 1'-0"



EXTERIOR
ELEVATION C
1/8" = 1'-0"

EXTERIOR
ELEVATION D
1/8" = 1'-0"

Figure 9

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557 MANONO STREET
HILO, HAWAII

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YWCA HILO
CONCEPTUAL MASTER PLAN
145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

REVISIONS:

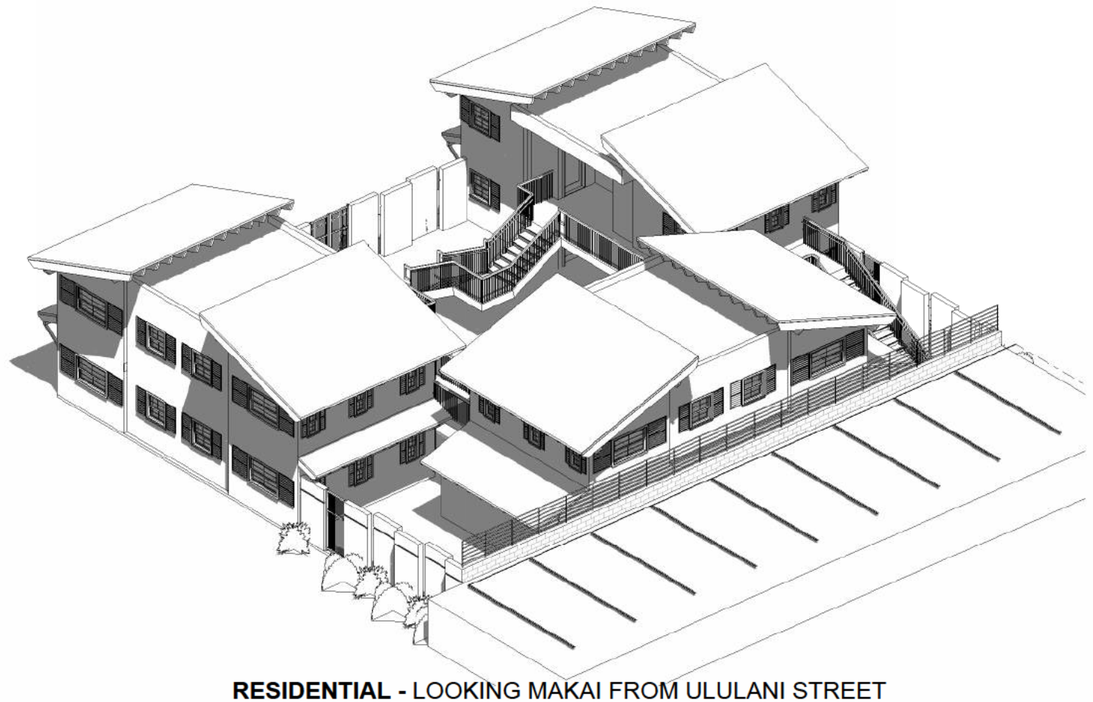
PROJECT NO.: 00000.00
PROJECT ARCH.: SF
PROJECT PLANS: XX

SHEET CONTENTS:
OFFICE BUILD NG
- 3D VIEWS &
INTERIOR
ELEVATIONS

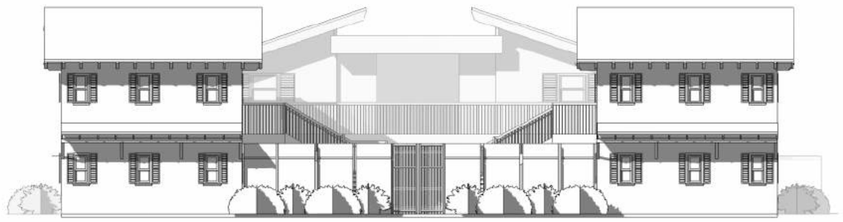
DATE: MONTH, YEAR

SHEET:
A-8

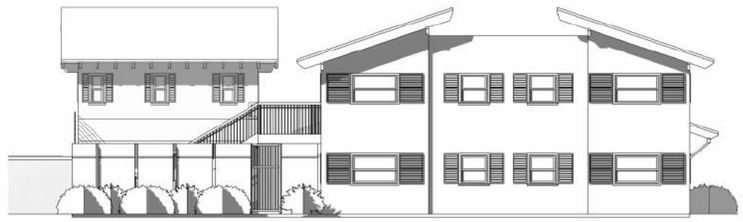
RESIDENTIAL - LOOKING MAUKA FROM HAILI STREET



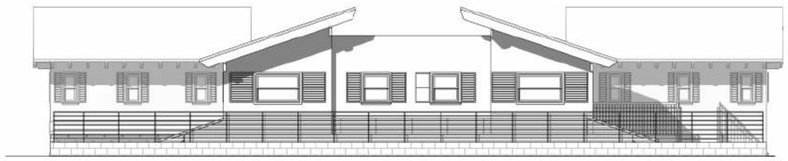
RESIDENTIAL - LOOKING MAKAI FROM ULULANI STREET



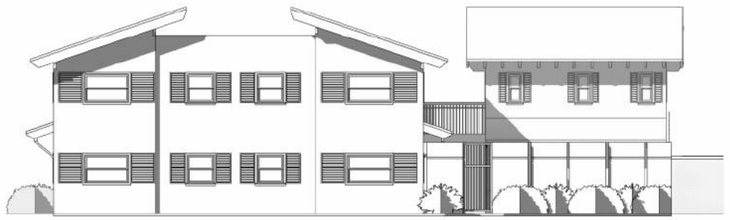
EXTERIOR
ELEVATION A
1/8" = 1'-0"



EXTERIOR
ELEVATION B
1/8" = 1'-0"



EXTERIOR
ELEVATION C
1/8" = 1'-0"



EXTERIOR
ELEVATION D
1/8" = 1'-0"

Figure 10

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YWCA HILO
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TAX MAP KEY: (3) 2-3-013: 002

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REVISIONS:

PROJECT NO.: 00000 00
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PROJECT PLANS: XX

SHEET CONTENTS:
RESIDENTIAL BUILDINGS - 3D VIEWS & EXTERIOR ELEVATIONS

DATE: MONTH, YEAR

SHEET:
A-9

PHASE BREAKDOWN:

Phase 1:
- Demolition
    - Existing Preschool 'Cottage'
    - Existing Pool House
    - Existing Swimming Pool
    - Existing Playground

Phase 2:
- Construction
    - New Preschool Building
    - Renovations to Existing Multi-Purpose Building to be turned into an Office Building
    - Two (2) New Playgrounds
    - Modifications to Existing Parking Lot (18 parking spaces)
- Access
    - Construction of new exit from the site via Kinoʻole Street

Phase 3:
- Construction
    - New Transitional Housing Facility/Community Center
    - New Parking Lot (30 parking spaces)

DEMOLITION

Under the proposed action, the existing preschool cottage, pool house and swimming pool, and playground will be demolished on site.

The Archaeological Literature Review and Reconnaissance Level Survey did not identify the preschool cottage or the pool house as notable historic features. However, the State Historic Preservation Division (SHPD) will need to make a final determination before demolition of this building can be approved.

Additionally, the Hazardous Materials Survey and Soil Screen did detect hazardous materials within the preschool cottage and pool house, including Asbestos-Containing Material, Lead-Based Paint and Lead-Containing Paint, mercury-containing fluorescent lamps, and PCB-containing fluorescent light ballasts. Therefore, specific Best Management Practices to mitigate health hazards must be strictly followed during all demolition work.

CONSTRUCTION

Preschool Building:

The proposed preschool building is designed with a total floor area of 6,350 square feet, comprising three distinct indoor areas. Area A spans 2,920 square feet and includes two (2) classrooms, a kitchen, a multi-stall restroom, storage, and a mechanical room. Area B covers 2,590 square feet and accommodates three (3) classrooms, a multi-stall restroom, a unisex

bathroom, and an electrical room. Area C, at 690 square feet, consists of a lower level for storage, a janitor room, and a library and breakroom work area, with an upper-level housing a 150-square-foot office.

The outdoor facilities include two (2) lanais, a breezeway, and two (2) outdoor play areas measuring 4,500 and 4,433 square feet respectively.

Residential/Community Center Building

The proposed residential/community center building is designed with a total floor area of 4,840 square feet. The upper level is comprised of six (6) residential units, each measuring 384 square feet. The residential units are studios equipped with versatile furnishings, including two (2) beds (one wall bed sofa and one wall bed table), a TV, kitchenette, bedroom closet, and a full bathroom with additional closet and linen cabinet space. The upper level has a total floor area of 2,300 square feet.

The lower-level features four (4) identical residential units, totaling 1,540 square feet, with the same well-appointed amenities. In total, the building accommodates ten (10) residential units spanning 3,840 square feet. Additionally, the lower level incorporates a 1,000-square-foot community center featuring a shared kitchen.

The building also features an outdoor courtyard. Access to the upper levels is facilitated by two (2) stairwells.

RENOVATION:

Office Building

The proposed office building is designed with a total floor area of 8,755 square feet with two (2) floors. The first floor is 4,225 square feet and includes four (4) finance offices, four (4) Sexual Assault Support (SASS) Therapy offices, two (2) conference rooms, a waiting area, six (6) storage areas, a multi-stall men’s restroom and multi-stall women’s restroom, two (2) unisex restrooms, a janitor’s area, and a server room.

The upper level is 4,530 square feet and includes a Chief Executive Officer (CEO) office, a Chief Operating Officer (COO) office, seven (7) Healthy Families Program offices, a reception area, a remote office space and a flex office space, a resource center room, a files room, a copy/print area, a general waiting room, a two (2) stall men’s restroom and a two (2) stall women’s restroom, a breakroom, kitchen, and closet area.

The entire building features one (1) stair tower at the northeast end and a stairwell at the southwest end. One (1) ADA accessible ramp is present on the west side of the building.

OPERATION:

The new preschool facility is proposed to accommodate a total of one hundred seven (107) students, thirty-five (35) of which will be 2-to-3-years old, and seventy-two (72) 4-to-5-years old. Preschool staff will total eighteen (18) employees. Operating hours of the preschool are 7:00 a.m. to 4:30 p.m. Additionally, literacy nights will occur twice a month between 4:30 p.m. to 5:30 p.m. and family hui once a month between 4:30 p.m. and 6:30 p.m. The renovated office building will have standard business operating hours. Occupancy within the transitional housing facility will include two (2) people per studio, for a total of twenty (20) residents.

3.2 Alternatives

3.2.1 Alternate Design

The preliminary site plan utilizes an existing office building, parking lot, some existing and available access points, and the existing location of the preschool cottage. Therefore, significant deviation from the current design could prove less advantageous for the existing infrastructure. However, the proposed new access points may need to be altered as a result of County reviews.

3.2.2 Alternate Location

There is no alternative location that will properly suit the project's needs. Hawai‘i County Code Chapter 25-7-20 defines the Downtown Hilo Commercial District (CDH) as a district 'established to reinforce and promote downtown Hilo's role as a compact high-density area for retail shopping, professional and administrative activities, cultural and arts activities, other supportive business and commercial services, and multiple-family housing'. Permitted uses within this zone includes community buildings, offices, schools, and multiple-family units, with a maximum density of five hundred square feet of land area per rentable unit or dwelling unit. The proposed action falls within this scope, encompassing all land use under consideration.

Available property within Hilo's commercial districts is very limited. It would be quite difficult to find an appropriate alternative site that is better suited to the proposed land use, existing utilities, and infrastructure. Furthermore, YWCA has used the subject site for over 100 years and has established a significant presence within the Hilo community. Maintaining this location would ensure continuity for the proposed project and offer community-wide benefits.

3.2.3 Partial Buildout

Under a partial buildout alternative, the existing preschool building, pool, and pool house would be demolished and replaced with an updated preschool facility, and the existing office building would be renovated. However, the transitional housing facility/community center would not be built.

Anticipated environmental impacts would be similar to the full buildout alternative but slightly less due to reduced construction, less wastewater, and traffic generated. Potential short- and long-term impacts to natural resources, scenic views, noise, air, and water quality would not

change appreciably under this alternative. Mitigating measures and BMPs will be followed under each alternative to reduce potential impacts to resources.

This alternative, however, foregoes the opportunity to provide essential transitional housing and community use spaces, resulting in a loss for the project's potential social and community benefits.

3.2.3 No Action Alternative

Under a No Action Alternative, the YWCA campus would be maintained as it exists today. The existing structures including the pool house, swimming pool, playground, residential structure, and multi-use building/preschool would not be demolished. The potential for enhancing YWCA's existing preschool and community services and expanding to offer transitional housing would largely be lost. This EA considers the No Action alternative as the baseline for this project and all environmental effects will be based off this alternative.

PART 4: ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATING MEASURES

4.1 Physical Environment

4.1.1 Geology, Geological Hazards, and Soils

Environmental Settings

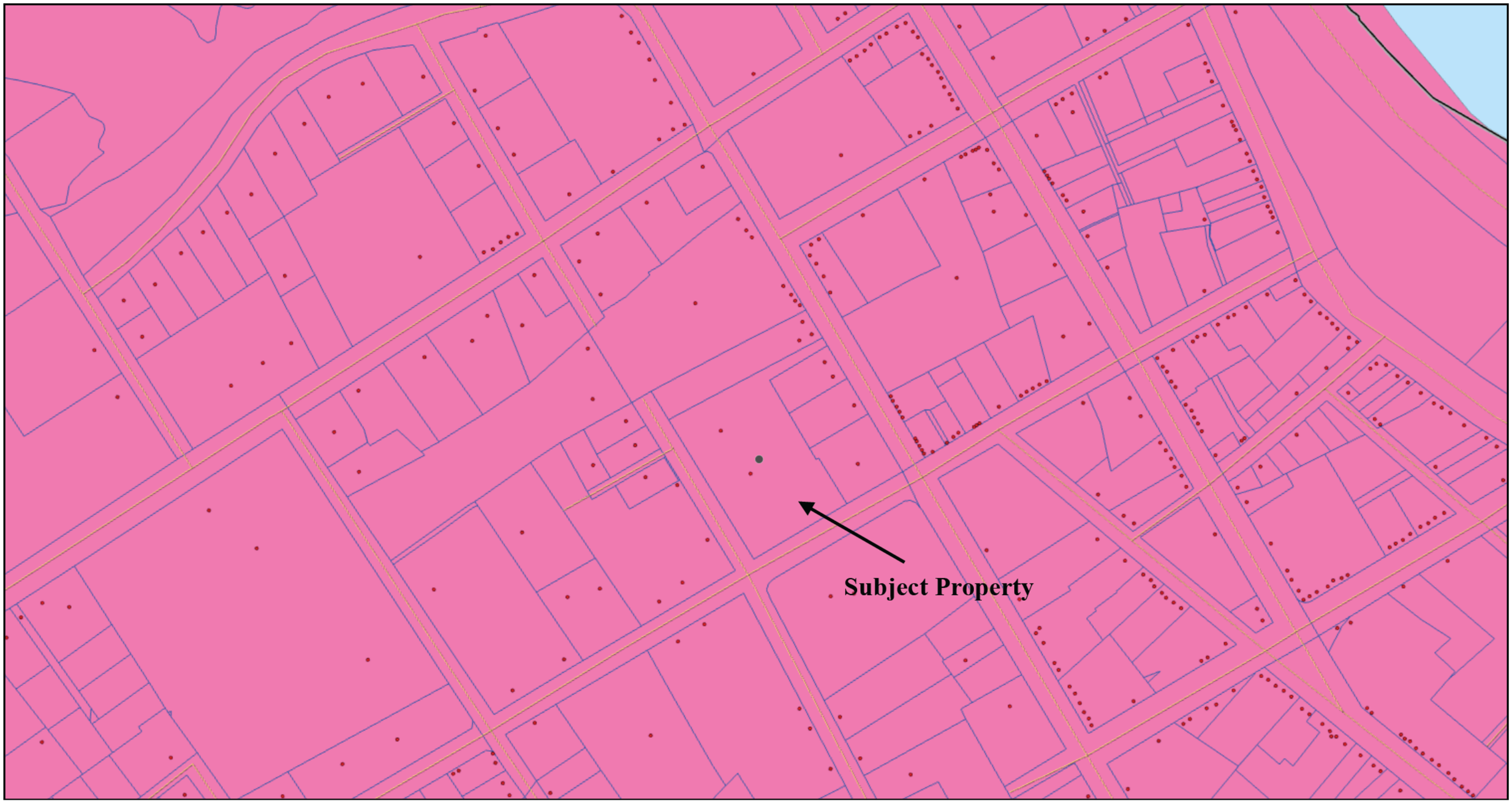
Volcanic Activity

The subject property is located on the northeastern flank of Mauna Loa Volcano. The site is In Lava Zone 3, on a scale ranging from 9 to 1, ranking least hazardous to most (**Figure 11**). Mauna Loa is the largest active volcano on earth, rising over 13,500 feet above sea level and extending to a depth of 16,400 feet below sea level. The sea floor is depressed another 26,250 feet due to the volcano's enormous mass. Therefore, from the base to the summit, Mauna Loa is more than 56,000 feet high (HVO, 2022).

Since 1843, Mauna Loa has erupted 33 times with an average of one eruption every five years. Exceptions to this pattern occurred during a 25-year hiatus between 1950 and 1975 and a 38-year hiatus from 1984 to 2022. On Sunday November 27, 2022, an eruption began in the summit caldera, Moku'āweoweo. After some hours, new fissures opened along the Northeast Rift Zone. By December 2, the eruption was limited to one fissure, which advanced less than 2 miles from Saddle Road. On December 13, 2022, the eruption ceased.

The most recent lava flow to threaten Hilo occurred in 1984. The flow reached within 4 miles of the city center. **Figure 12** is a photo of the lava flow taken from the Hilo Airport on April 4, 1984. In addition, **Figure 13** shows a USGS lava flow map depicting the advancement.

Volcanic Hazards Map TMK (3) 2-3-013: 002



12/7/2023, 10:34:39 AM

Volcano Hazard Zones

3

Parcels (current boundary lines)

Address Points

Street Centerlines

Hawaii County District Boundary

Coastline

1:2,257

0 0.03 0.05 0.1 mi

0 0.04 0.08 0.16 km

Figure 11

County of Hawaii IT Department, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, R jkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph,

Web AppBuilder for ArcGIS

The contents of this map were prepared for informational and planning purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes.

Figure 12: Mauna Loa Flow Approaching Hilo; View from Hilo Airport on April 4, 1984

The 1984 lava flow remains the first and only Mauna Loa eruption to have been well monitored and documented. Hawaiian Volcano Observatory (HVO) scientists were able to collect detailed observations of activity at vents located on the northeast rift zone and points along the lava channels that were moving towards Hilo. The data collected has developed current flow models that forecast how long a lava flow may extend, and what path it could potentially take, to better evaluate and protect Hilo against future lava flow threats (HVO, 2022).

Despite Mauna Loa's active history, the subject property has not been inundated by a lava flow for thousands of years. The subject site is located on distal tephra deposits, which are beds of fallout and surge deposits primarily from Mauna Kea with minor contributions from Kīlauea and Mauna Loa (**Figure 14**) (Trusdell and Lockwood, 2017).

1984 Mauna Loa Eruption
Map of Lava Advancement

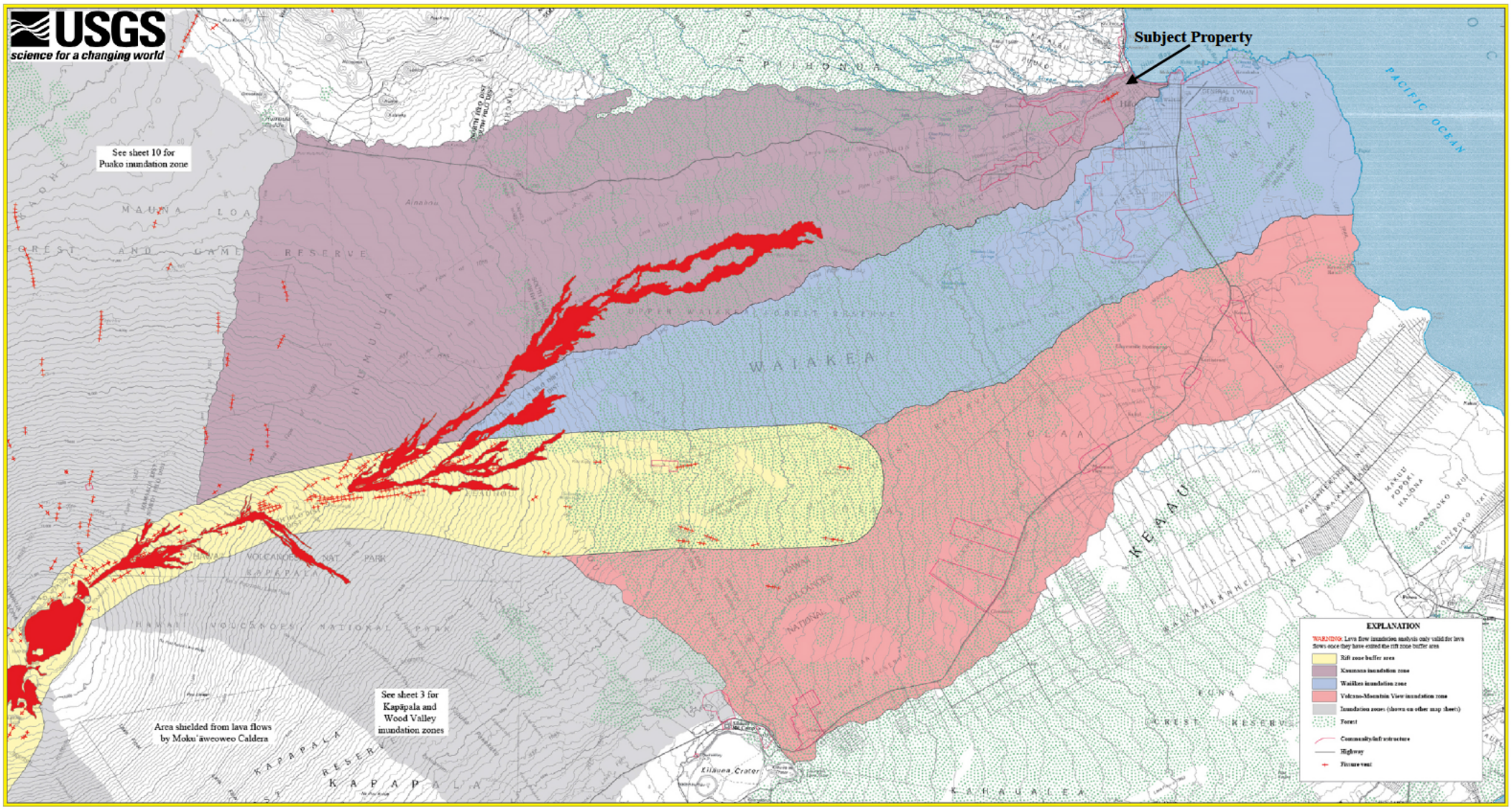


Figure 13

U.S. Department of the Interior
U.S. Geological Survey

Scientific Investigations Map 2932–A
Sheet 1 of 2
Pamphlet accompanies map

Geologic Map of the Northeast Flank of Mauna Loa Volcano, Island of Hawai'i, Hawaii

By
Frank A. Trusdell and John P. Lockwood
2017

THIS MAP IS NOT INTENDED FOR NAVIGATION

Table 3 Explanation of map unit labels: colors and pal ams for Mauna Loa Island of Hawai'i, Hawaii

(Map unit labels for lava flows and vent deposits consist of four ps to that identify flow morphology, flow age group, phenocryst mineralogy, and flow number in an age g oup. For example, unit p1da1 in a pāhoehoe flow (p) dated A.D 1855 to 1859 adiocarbon yr B.P. (1a), that contains <15% olivine phenocrysts (a) and is the youngest flow in Age Group 10 (1). Mineralogy listed includes the coarse mode ite (a vegetative filter or scattered wood (Lowing). All ages are reported in radiocarbon yrs B.P. (before the calendar year datum of A.D. 1950). Pyroxene is not an abundant phenocryst in Mauna Loa lava flows and therefore is not included in phenocryst mineralogy.)

Flow morphology (letter); for example p1da1

s	Spatter tephra and cinder fall deposits
p	Pāhoehoe
a	'A'ā
m	Mixed 'A'ā and pāhoehoe
l	Littoral
a,	Ash deposits

Flow age group (number); for example p1da1

0	A.D. 1843 and younger
	A.D. 1984 flow
	A.D. 1942 flow
	A.D. 1855–56 flow
	A.D. 1899 flow
	A.D. 1880–81 flow
	A.D. 1855–56 flow
	A.D. 1852 flows
	A.D. 1843 flow
1	Pre-A.D. 1832 to 1,000 yr B.P.
2	1,000–2,000 yr B.P.
3	2,000–3,000 yr B.P.
4	3,000–4,000 yr B.P.
5	4,000–5,000 yr B.P.
6	5,000–6,000 yr B.P.
7	6,000–7,000 yr B.P. (not in map area)
8	7,000–8,000 yr B.P.

Flow age group (number); for example p10a1) Continued

9	8,000–9,000 yr B.P.
10	9,000–10,000 yr B.P.
11	10,000–15,000 yr B.P.
12	15,000–20,000 yr B.P.
13	20,000–30,000 yr B.P.
14	30,000–100,000 yr B.P. (not in map area)
15	>100,000 yr B.P. (not in map area)

Phenocryst mineralogy (letter); for example p10a1)

a	Aphanitic (<1% of any mineral)
b	1–5% ol vine
c	5–10% oliv ne
d	10–15% olivines
e	>15% olivine
f	Var able amounts of olivine (2–30%)
g	1–5% plag oclase
h	5–10% plagioclase
i	Mixed 1–5% olivine + 1–5% plagioclase
j	Mixed >5% olivine + 1–5% plagioclase
k	Mixed 1–5% olivine +>5% plagioclase
l	Mixed >5% olivine +>5% plagioclase

Flow number in age group (number); for example p10a1)

1	Youngest flow in any age group
2	Next youngest flow in any age group
n	Number increases as age increases

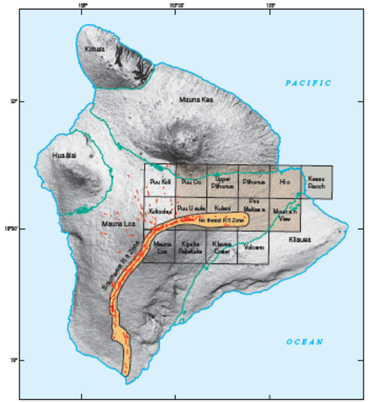


Figure 1. Map showing subaerial volcanoes (green boundary) or ming Island of Hawai'i. fissures (red l nes) on Mauna Loa and 7.5-m nute topographic quadrangles in (an) and adjacent to map area.

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Digital files available at https://doi.org/10.3133/sim3432

Suggested citation: Trusdell, F.A., and Lockwood, J.P., 2017, Geologic map of the northeast flank of Mauna Loa volcano, Island of Hawai'i, Hawaii: U.S. Geological Survey Scientific Investigations Map 3432, 2 sheets, scale 1:50,000, https://doi.org/10.3133/sim3432

Earthquake Activity

The USGS recently came out with a model of earthquake probability for the Hawaiian Islands, which better estimates hazard probability compared to previous models. The existing hazard model was created more than two decades ago. Since then, Hawai‘i has experienced several significant earthquakes and volcanic eruptions, which has further developed our understanding of deformation, soil conditions, and strong motion. This data has not been utilized to enhance the accuracy of earthquake predictions. The new ground shaking model indicates that Hawai‘i Island has a greater than 90 percent chance of experiencing an earthquake with slight (or greater) damage during the next 100 years (**Figure 15**). Ground shaking is forecasted to be highest near the active volcanoes of Kīlauea and Mauna Loa in the southernmost portion of the Island of Hawai‘i.

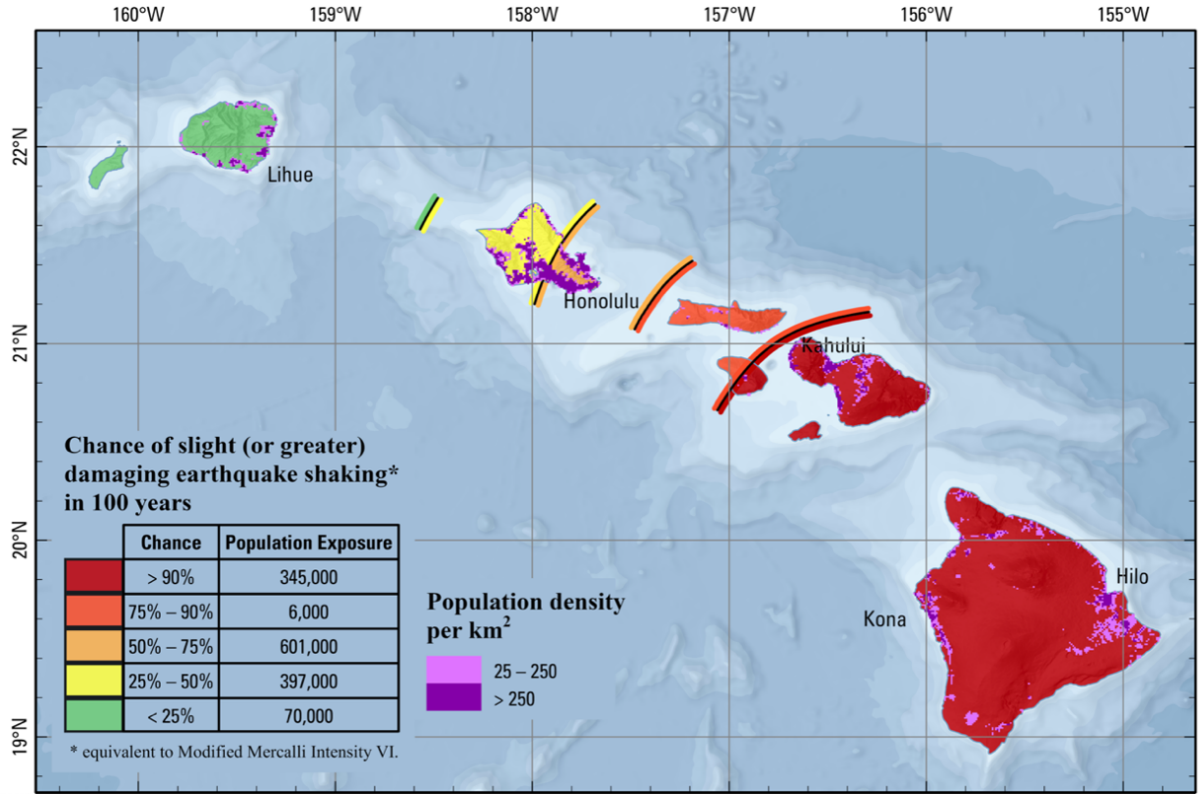


Figure 15: 2021 USGS Model of Earthquake Probability for the Hawaiian Islands

The Hilo area is susceptible to ground shaking from earthquakes originating near Mauna Loa and Kīlauea volcanoes. It is not uncommon to experience frequent slight tremors in Hilo as a result. Larger events, however, occur much less frequently and are more difficult to predict.

Three significant earthquake events to cause structural damage in Hilo occurred in 1868, 1973, 1975, and 2018. The 1868 ‘Great Ka‘u Earthquake’ was a 7.9 magnitude earthquake, which occurred on April 3rd.

In 1973, a magnitude-6.2 earthquake struck 29 miles beneath the town of Honomu, just north of Hilo. The depth of the earthquake is what caused such widespread and severe damage. Eleven

people were reported injured in Hilo, four of which were hospitalized. An unknown number of injuries were also reported in Waimea. Approximately $5.6 million dollars of structural damage was recorded across the island (~$40 million today). In 1975, a magnitude-7.2 earthquake struck the southern flank of Kīlauea volcano near the town of Kalapana and caused significant shaking throughout the entire island. This earthquake event also caused significant subsidence along southeastern shores of the island. Most recently, the 2018 Kīlauea eruption proved to be historic in many ways, including the magnitude-6.9 earthquake that rattled the entire island. This earthquake caused significant shaking throughout Puna and Hilo.

Soil

The United States Department of Agriculture (USDA) Natural Resources Conservation Service, Soils Survey Report classifies the soil to be Hilo hydrous silty clay loam with 0 to 10 percent slopes (*2mclv*). This series is basic volcanic ash over basalt, which is considered well drained with a medium runoff class.

Potential Environmental Impact from the Proposed Action

The proposed action is not anticipated to increase the likelihood of volcanic activity or earthquakes, and potential impacts from such events is expected to be minimal. In the event of an earthquake, there may be some ground shaking, particularly during a significant seismic event. However, all structures will be designed and engineered to withstand seismic activity, adhering to the standards outlined in Hawai‘i County Code Chapter 5A.

Under a no action alternative, the existing buildings face considerably higher risk of property damage and potential harm during seismic events due to aging infrastructure and the presence of hazardous materials in some buildings on site including lead and asbestos.

Should a lava flow pose a threat to Hilo, there would likely be adequate time to evacuate to a secure location. However, considering the intended use of the project as a school and community space, it may be necessary to develop an emergency response plan. If required, the applicant will ensure the development and implementation of a comprehensive evacuation strategy to safeguard the safety and well-being of all occupants.

Although the project will require minimal grading, mitigating measures will be required to control erosion and sedimentation.

Mitigating Measures for Geology, Geological Hazards, and Soils

All new buildings will be designed and engineered to withstand seismic activity, adhering to the standards outlined in Hawai‘i County Code Chapter 5A. If required, an Emergency Preparedness and Response Plan will be submitted to the Hawai‘i County Civil Defense Agency for review and approval. The limited scale of the proposed action, combined with mitigating measures, ensures negligible adverse impacts to geology and geological hazards.

Best Management Practices for construction activities will be strictly followed to prevent adverse impacts to soil. Hawai‘i Administrative Rules Chapter 11-55, Appendix C, under Special Conditions for Land Disturbances, describes the following construction management techniques to protect soil:

a. ! Clearing and grubbing shall be held to the minimum necessary for grading and equipment operation.
b. ! Construction shall be sequenced to minimize the exposure time of the cleared surface area.
c. ! Construction shall be staged or phased for large projects. Areas of one phase shall be stabilized before another phase is initiated. Stabilization shall be accomplished by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.
d. ! Erosion and sediment control measures shall be in place and functional before earth moving operations begin. These measures shall be properly constructed and maintained throughout the construction period.
e. ! All control measures shall be checked and repaired as necessary, for example, weekly in dry periods and within twenty-four hours after any rainfall of 0.5 inches or greater within a 24-hour period. During prolonged rainfall, daily checking is necessary. Record of checks and repairs must be maintained.
f. ! Records of the duration and estimated volume of storm water discharge must be ! maintained. !
g. ! A specific individual shall be designated to be responsible for erosion and sediment controls on the project site.

4.1.2 Climate and Climate Change

Environmental Settings

Climate

Climate in the subject area is warm and moist, with an average annual rainfall of 130 inches and a mean annual temperature of 75 degrees Fahrenheit (Giambelluca et al., 2013).

Climate Change

In compliance with HEPA EA requirements, it is crucial to incorporate a climate change perspective into the environmental assessment process. This entails evaluating how the outcomes of the analysis may be influenced by foreseeable future conditions impacted by climate change. Given the widespread impact of climate change on U.S. communities, it is imperative to assess the vulnerability of each factor under review to present and anticipate climate change effects. Additionally, careful consideration should be given to ensuring that the project and its occupants are adequately safeguarded from the potential impacts of climate change. This proactive approach aligns with the commitment to environmental responsibility and resilience in the face of evolving climatic conditions.

Human activities, particularly the emissions of greenhouse gases, have undeniably caused global warming, resulting in a 1.1°C increase in global surface temperature from 2011 to 2020 compared to 1850-1900 levels. The rise in greenhouse gas emissions stems from unsustainable practices in energy use, land use, lifestyle, and consumption patterns, contributing to an uneven global impact. This has triggered widespread and rapid change across the atmosphere, ocean, cryosphere, and biosphere, influencing various weather and climate extremes globally. These changes have led to adverse impacts on nature and people, causing significant losses and damages. Regional effects include heightened tropical cyclones, extratropical storms, increased aridity, and elevated fire weather. Continued emissions are projected to further raise global temperatures, potentially reaching 1.5°C in the near term, intensifying multiple concurrent hazards with each incremental warming (IPCC, 2023).

The University of Hawai‘i’s Sea Grant College Program confirms that Hawai‘i is getting warmer. Data shows an increase in air temperature over the last 30 years of roughly 0.3°F per decade. For Hawai‘i this not only means rising sea levels, but also more contrast in the wet and dry season, which may lead to more frequent and intense precipitation and flooding (Tetra Tech, 2020).

In general, rainfall in Hawai‘i has been variable in the recent past with some drier years and some wetter years on average. El Niño provides periodic variation in winds and sea surface temperatures in the Pacific contributing to warming phases, while La Niña contributes to cooling phases. Increases in air temperature related to climate change will lead to more evaporation and more moisture in the air, which will contribute to variability in El Niño and La Niña events.

The 2019 IPCC Special Report on the Ocean and Cryosphere in a Changing Climate explicitly highlights a rise in the frequency of Category 4 and 5 tropical cyclones, commonly referred to as ‘hurricanes’ in the central Pacific.

> The average intensity of tropical cyclones, the proportion of Category 4 and 5 tropical cyclones and the associated average precipitation rates are projected to increase for a 2°C global temperature rise above any baseline period (*medium confidence*). Rising mean sea levels will contribute to higher extreme sea levels associated with tropical cyclones (*very high confidence*). Coastal hazards will be exacerbated by an increase in the average intensity, magnitude of storm surge and precipitation rates of tropical cyclones (Collins et al., 2019).

In addition, according to the AR6 Synthesis Report produced by the IPCC in 2023, “It is *likely* that the global proportion of major (Category 3–5) tropical cyclone occurrence has increased over the last four decades”.

Historically, the Island of Hawai‘i has been viewed as largely protected from experiencing storms of this magnitude due to the presence of Mauna Loa and Mauna Kea. However, recent years have shown that storms such as Iselle (2014) and Lane (2018) can have very damaging effects to the island.

On August 8, 2014, Hurricane Iselle made landfall in the Puna District of Hawai‘i County as a moderate tropical storm with sustained wind speeds of 70 miles per hour. Significant damage was felt in the southeastern portions of the Big Island, especially in the Wai‘ōpae area, which is a coastal stretch dotted with anchialine ponds and tidepools, known as Kapoho Tide Pools. Many homes were heavily damaged in this area. This was the most heavily damaged area, which is approximately 23 miles southeast of the subject site. Most of the southeastern portion of the Big Island experienced high winds, heavy rain, downed trees, and powerlines, cutting thousands of people off from electricity, water, and transportation for several days (Kimberlain et al., 2018).

Hurricane Lane occurred in late August 2018 and brought significant damage to the Hawaiian Islands from flash flooding and mudslides. Over a four-day period, Hawai‘i Island received an average of 17 inches of rain. Up to 159 structures were damaged, making it the wettest tropical storm to impact the Island. Although most of the flooding impacts were concentrated to Hilo, much of the southern windward side, including southern Puna, experienced impacts (Beven, 2019).

Wildfires are becoming more frequent and intense due to rising temperatures, change in rainfall patterns and the growth of non-native, fire prone grasses and shrubs. According to the Pacific Fire Exchange (PFE) (2021), “Fire risk is closely tied to wet and dry cycles where grasslands and savannas grow and then dry out”. Up to 25% of land in Hawai‘i is at fire-prone risk. According to the Hawai‘i Wildfire Management Organization (HWMO), about 0.5% of Hawai‘i’s total land area burns every year. Climate change is beginning to play a very serious role in the frequency and intensity of fires seen across the state. “Human ignitions coupled with an increasing amount of non-native, fire-prone grasses and shrubs and a warming, drying climate have greatly increased the wildfire problem” (HWMO, 2018). Further, expanding non-native, fire-prone grasses are less likely to recover from wildfires. Wildfires were once limited to active volcanic eruptions and infrequent lightning strikes. The increase in wildfire prevalence poses threats to safety, agricultural production, natural and cultural resources (PFE, 2014).

In early August 2021, a vegetation fire ignited near Mana Road and traveled throughout Waimea and South Kohala. Approximately 40,000 acres were burned according to estimates from fire officials. It was the largest wildfire every recorded in Hawai‘i County. Thousands of people were forced to evacuate from Waiki‘i Ranch and Pu‘u Kapu Hawaiian Homesteads, where two homes were destroyed. Govenor David Ige declared a state of emergency on August 4, 2021, to protect the health, safety, and welfare of Hawai‘i (West Hawai‘i Today, 2021). **Figure 16** is a map of wildfires in Hawai‘i between 1999 and 2022, including the Mana Road Fire depicted in dark red.

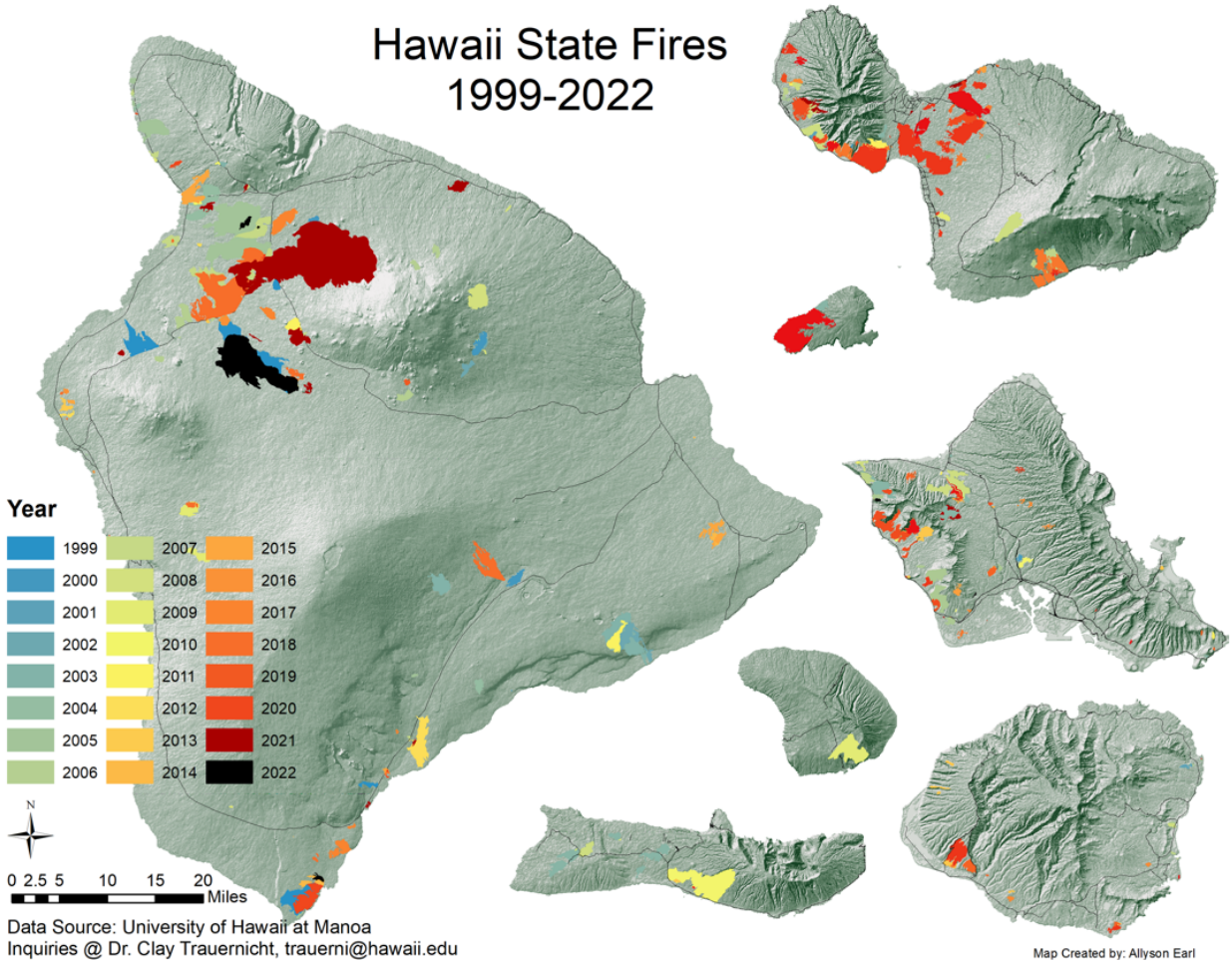


Figure 16: Hawai‘i State Fires Between 1999 and 2022

Not depicted on the above map are the devastating wildfires that occurred in August 2023. Hurricane Dora, moving south of the Island of Hawai‘i, interacted with a robust anticyclone north of the Hawaiian Islands. This interaction resulted in a sharp pressure gradient, generating powerful winds. Coupled with prevailing drought conditions, it led to wildfires on both Maui and Hawai‘i Island.

Early on August 8, 2023, several brush fires fueled by strong winds ignited on Maui. A Lahaina fire flareup prompted evacuations, road closures, and shelter-in-place advisories on western Maui. However, little warning, few escape routes, and interruption to cell phone service created a perfect storm of disastrous conditions. The Lahaina wildfire has since become the largest natural disaster in Hawai‘i’s state history and one of the deadliest wildfires in recorded U.S. history. More than 100 lives were lost, and over 2,200 buildings destroyed in Lahaina alone.

On the same day, wildfires ignited in the Kohala District on Hawai‘i Island, prompting evacuations for several nearby subdivisions and beach resorts. Roughly 1,000 acres of land burned with no loss of life.

Communities on the leeward side of the Hawaiian Islands are generally characterized by drier conditions and are therefore particularly vulnerable to wildfires. However, those on the windward side are progressively at greater risk due to the islands undergoing more frequent episodes of drought. As of February 2024, much of the windward side of Hawai‘i Island showed abnormally dry conditions according to the U.S. Drought Monitor (**Figure 17**).

Potential Environmental Impact on the Proposed Action

While the proposed action will not exacerbate the adverse effects of climate change, it may be at risk of experiencing impacts from climate events. Coastal flooding and sea level rise do not currently pose an immediate threat to the subject parcel due to its distance from the shoreline, however, hurricanes have the potential to extend their impact several miles inland. Potential impacts from hurricanes could include high winds, heavy rainfall, and localized flooding from mountain regions and overwhelmed drainage systems. Additionally, wildfires in the vicinity have the potential to produce poor air quality, disruptions to power, and property damage in extreme cases. Any potential impacts relating to climate change will not change appreciably under any alternative action.

Mitigating Measures for Climate and Climate Change

It is imperative that the development of any school and community space implements appropriate safety measures and protocols in case of an adverse climate event. All buildings will be designed and engineered to withstand wind hazards according to the Hawai‘i County Building Codes.

The proposed action will comply with all required codes and regulations regarding drainage and runoff mitigation. These protections will prevent any adverse impacts relating to flooding potential in a storm event.

The proposed action will not contribute to adverse impacts resulting from climate change. The subject site has been fully developed for many decades and the proposed project will stay within the current site limits. It will not necessitate additional development beyond what has already been established, nor will it implement any fire prone vegetation.

As these protective regulations apply equally to each alternative, there are no appreciable differences in potential impacts between project alternatives. If required, an emergency response plan will be drafted for the proposed development in the case of potential adverse impacts from a storm event.

4.1.3 Flood Zones

Environmental Setting

According to the Federal Emergency Management Agency (FEMA), the YWCA campus is located within Flood Zone X, which is outside the 500-year floodplain (**Figure 18**).

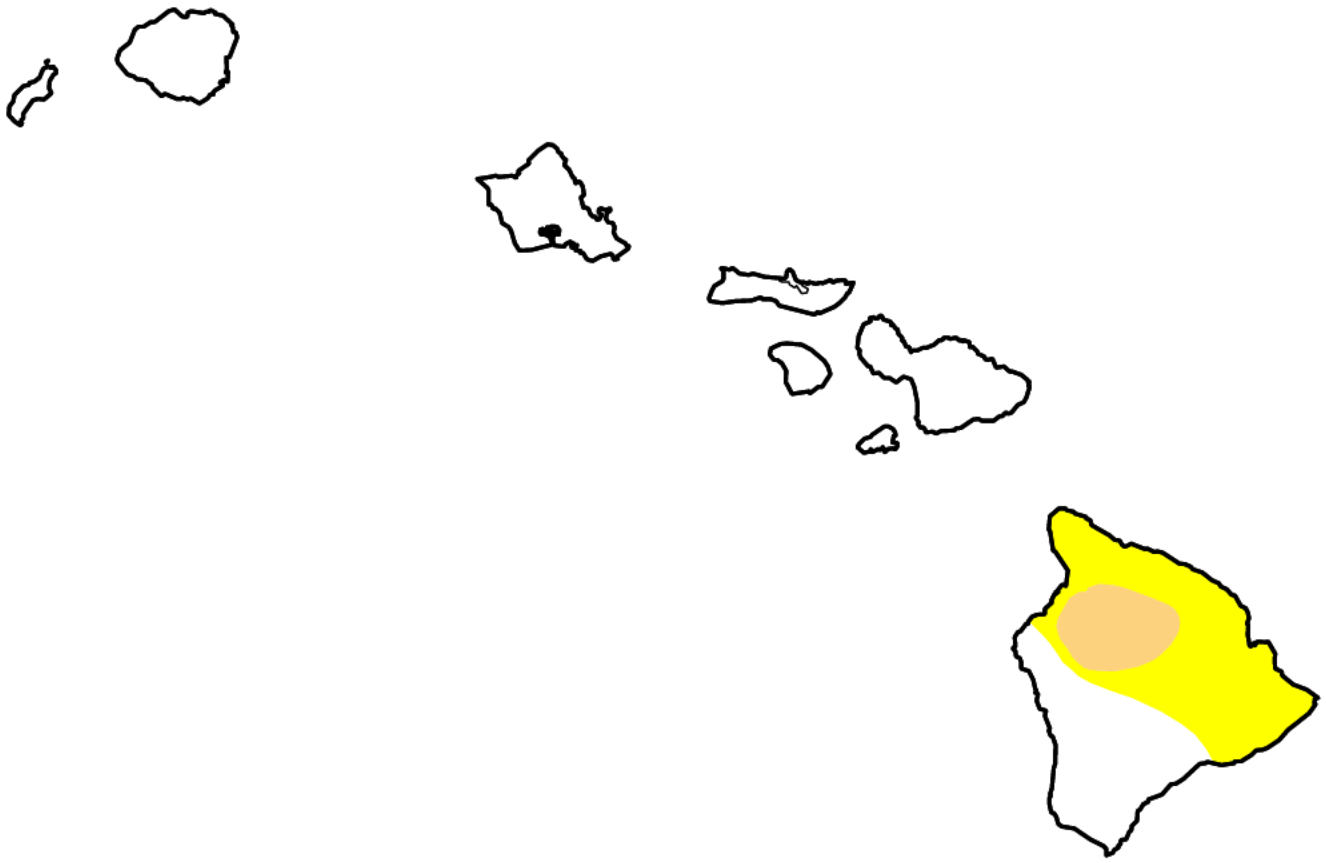
U.S. Drought Monitor

Hawaii

February 6, 2024

(Released Thursday, Feb. 8, 2024)

Valid 7 a.m. EST



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

Author:

Deborah Bathke
National Drought Mitigation Center

Figure 17

droughtmonitor.unl.edu

National Flood Hazard Layer FIRMette

FEMA

155°5'38"W 19°43'41"N

155°5'1"W 19°43'7"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/7/2023 at 3:03 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Figure 18

The property is roughly 0.25 miles from the coast and is just outside the Hawai‘i County Civil Defense Tsunami Evacuation Zone, which ends at Kino‘ole Street roughly 170 feet to the east of subject site. A Civil Defense siren (HA107) is located at the corner of Kino‘ole Street and Wainuenue Avenue, approximately 500 feet north of the parcel. The siren status is ‘Operational’ according to the Public Siren Dashboard provided by the Civil Defense Agency.

There are no naturally occurring wetlands, ponds, streams, or lakes in the immediate area. Wailuku River is approximately 0.2 miles to the north of the property.

Potential Environmental Impact from the Proposed Action

Since the property is outside of the 500-year floodplain, overall flooding risk for the site is low. During a storm event there is potential for localized flooding from overwhelmed drainage systems. However, the subject site is not known for experiencing significant puddling or flooding. Wailuku River is located a safe 0.25 miles from the subject property and does not have the potential to impact the site during times of heavy rain and river swelling. Potential impacts from flooding will not change appreciably under any alternative action.

Mitigating Measures for Flood Zones

All existing and proposed structures on the property will remain in Flood Zone X and will be built in accordance with established building codes. Further all site generated runoff from impervious surfaces will be disposed of appropriately on site with drywells or similar features. However, considering the intended use of the project as a school and community space, it may be necessary to develop an emergency response plan. If required, the applicant will ensure the development and implementation of a comprehensive evacuation strategy to safeguard the safety and well-being of all occupants.

4.1.4 Water Quality

Environmental Setting

Surface Water

Wailuku River is located roughly 0.25 miles to the north of the subject property at its closest point. Wailuku State Park and Rainbow Falls is located approximately 1.5 miles to the west of the subject site along Wainuenue Avenue. According to the United States Wild and Scenic Rivers Act of 1968, there are no designated wild and scenic rivers in the State of Hawai‘i.

Coastal Water

The subject site is roughly 0.25 miles from the ocean and Hilo Bay coastal waters.

Ground Water

The Island of Hawai‘i does not contain any sole source aquifers (SSA), based upon the EPA’s Pacific Southwest, Region 9 groundwater information (**Figure 19**).

The State of Hawai‘i Commission on Water Resource Management (CWRM) acknowledges nine (9) “Aquifer Sector Areas” on the Island of Hawai‘i, which are further subdivided into twenty-four (24) “Aquifer System Areas”. Aquifer System Areas are based on near-surface basal aquifers that are frequently recharged by low elevation rainfall. These basal aquifers are commonly used as County drinking water sources. Each Aquifer System Area has a Sustainable Yield (SY) defined by Million Gallons per Day (MGD) and are separated by the surface contact of historic lava flows.

The subject property is located within the Northeast Mauna Loa Aquifer Sector Area in the Hilo Aquifer System, identified by code 80401. This aquifer has a sustainable yield of 349 MGD (**Figure 20**). Hawai‘i Revised Statues §174C-3 defines Sustainable Yield as “the maximum rate at which water may be withdrawn from a water source without impairing the utility or quality of the water source as determined by CWRM.”

On the subject property, groundwater is reached approximately 50 feet below the ground surface.

Potential Environmental Impact from the Proposed Action

The proposed action is not expected to pose a significant adverse risk to water quality, aquatic, or marine habitats due to the establishment of mitigating measures and BMPs. Additionally, the proposed action would control stormwater runoff from the site with appropriate drywells or similar drainage features. Furthermore, current construction plans do not anticipate encountering groundwater at the site.

No jurisdictional water bodies are present on site per Section 404 of the Clean Water Act, and a jurisdictional determination from the U.S. Army Corps of Engineers will not be necessary.

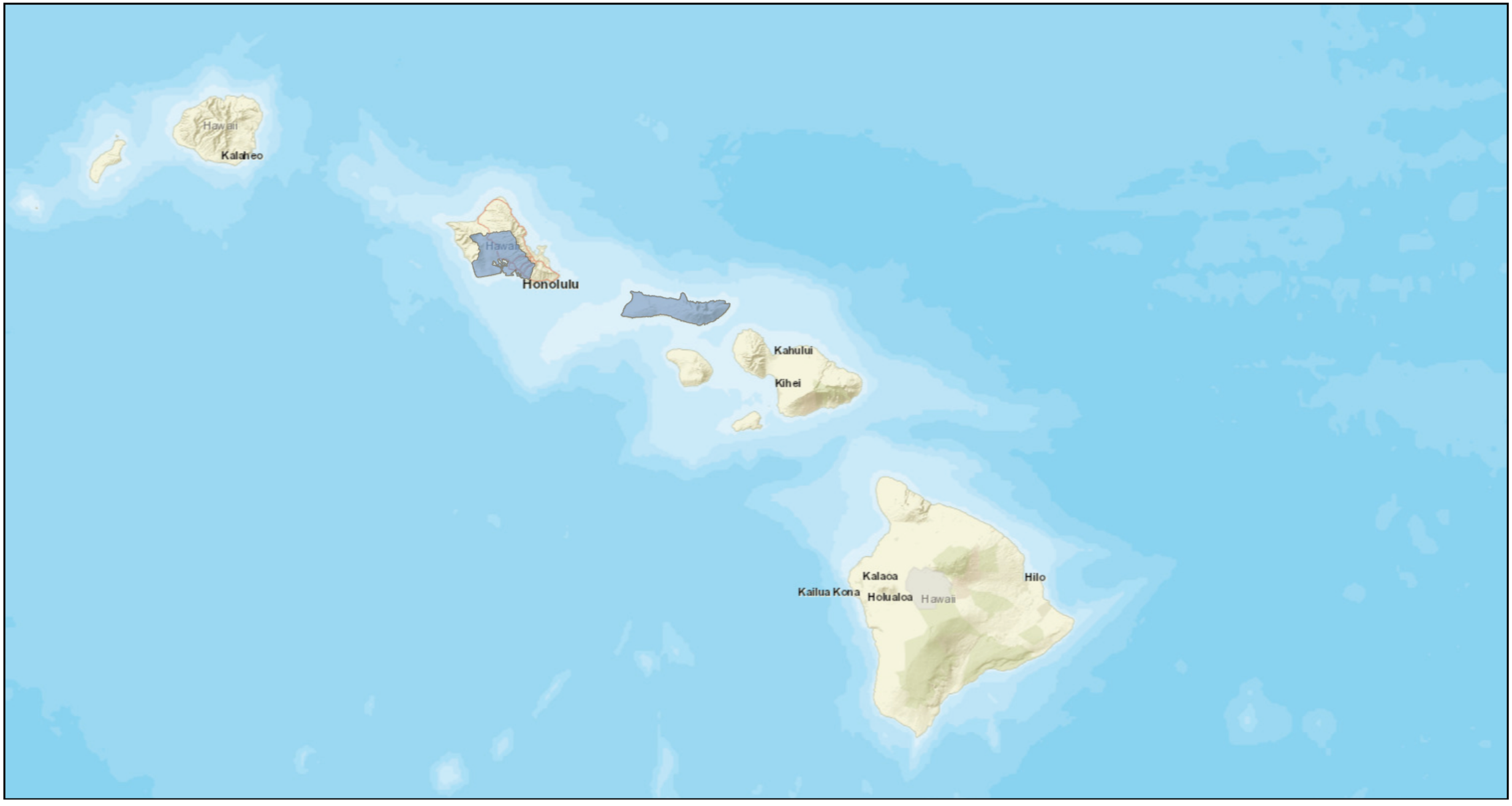
The implementation of mitigating measures means potential impacts to water quality won’t change appreciably under any alternative action.

Mitigating Measures for Water Quality

To safeguard near-shore waters and marine ecosystems, Best Management Practices will be implemented before and after construction to effectively contain soil and sediment and prevent potential harm. YWCA will ensure all earthwork and grading will be conducted in compliance with:

(a) “Storm Drainage Standards,” County of Hawai‘i, 1970 and as revised
(b) “Flood Control,” Chapter 27 of the Hawai‘i County Code
(c) Standards and regulations of the Federal Emergency Agency (FEMA)
(d) “Erosion and Sedimentation Control,” Chapter 10 of the Hawai‘i County Code

Sole Source Aquifers (SSA) in the State of Hawaii



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Sole_Source_Aquifers

1:2,311,162

0 25 50 100 mi

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Esri, HERE, Garmin, NGA, USGS

Figure 19

U.S. Environmental Protection Agency

Aquifer Sector and System Areas of Hawai'i Island

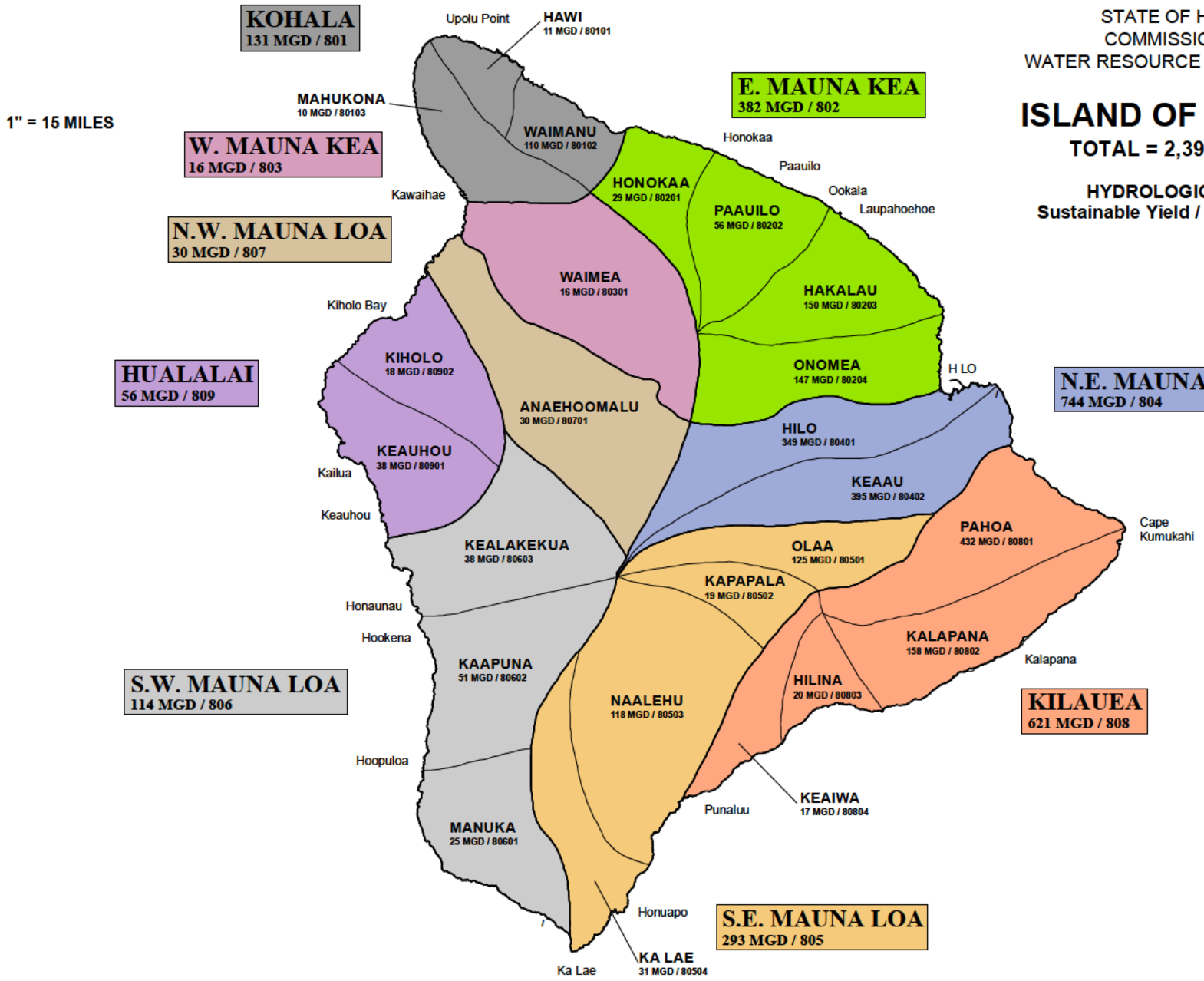

Figure 20

06/20/2018

Map Projection: Universal Transverse Mercator

(e) Conditions of an NPDES permit, if required, and any additional Best Management Practices required by the Department of Health Clean Water Branch

Construction activities may occur in an area greater than one acre and thus may require a National Pollutant Discharge Elimination System (NPDES) permit and a Storm Water Pollution Prevention Plan (SWPPP). A list of Best Management Practices (BMPs) will be established to properly manage storm water runoff. These BMPs may include, but are not limited to:

- Minimizing soil loss and erosion by revegetating and stabilizing slopes and disturbed areas of soil.
- Minimizing sediment loss by placing structural controls including silt fences, gravel bags, sediment ponds, check dams, and other barriers.
- Applying sediment wattles and protective covers to soil and material stockpiles.
- Gravel check dams in gutters.
- Constructing and using a stabilized construction vehicle entrance, with a designated vehicle wash area that discharges to a sediment pond.
- Washing of all vehicles in the designated wash area before leaving the project site.
- Use of drip pans beneath vehicles to trap vehicle fluid.
- Performing routine inspection and maintenance of structural BMPs by trained personnel.
- Properly cleaning significant leaks or spills and disposing at an approved site.

Impermeable surfaces can increase the volume and rate of stormwater runoff. However, per Hawai‘i County Code, Chapter 27, the volume of stormwater leaving the site will not increase. Wastewater will be handled by the County sewer system.

If information indicates that groundwater will be impacted, then the Construction Environmental Hazard Management Plan prepared for this project must be revised and resubmitted to the Hazardous Environmental Emergency Response office for review and approval 90 days prior to conducting groundwater disturbing activities.

4.1.5 Air Quality

Environmental Setting

The air quality surrounding the subject property is generally very good. Heavy vog has not usually been a significant concern in this part of Hilo during past Kīlauea eruptions. Vog is created when sulfur dioxide reacts chemically with sunlight, oxygen, dust particles, and water in the air. During eruptions, the trade winds generally keep the Hilo area free from severe conditions, however, weak winds, particularly in the winter, may result in worse atmospheric quality. Air quality related to emissions is not an immediate concern since Kīlauea is not currently erupting.

The subject is located roughly 1.59 miles from the property boundary of Hilo International Airport, and 10,545 feet from Runway 8. The sites' proximity to the airport may result in potential fumes, smoke, and odors resulting from occasional aircraft flight operations over or

near the property. The frequency of these incidences may fluctuate over time, depending on airport operations.

Potential Environmental Impacts from the Proposed Action

Air pollutants during construction will be limited and temporary. The main sources of short-term air pollutants are construction equipment exhaust and dust. However, the presence of asbestos, lead, and mercury within existing buildings to be demolished, along with lead and arsenic detected in certain areas of the site's soil, poses additional risks to air quality throughout the demolition and construction phases. Without proper mitigating measures, these toxins can become airborne and pose an inhalation risk to workers on site and surrounding areas.

During operation, the main source of air pollution will be through regular vehicle trips including the movement of employees, parents and students, residential occupants, and community members. The proposed use will not significantly increase traffic to the subject site beyond what is experienced today.

The potential impacts of hazardous materials and toxins to users of the site during operation will be significantly reduced through the removal of contaminated buildings and the implementation of long-term soil protection measures. Conversely, under a no-action alternative, the risk of exposure to harmful contaminants within compromised buildings will remain elevated.

Mitigating Measures for Air Quality

Dust control measures will comply with ambient air quality standards established in Hawai‘i Administrative Rules (HAR) §11-59 and pollution control requirements in HAR §11-60.1 including Fugitive Dust, which prohibits visible emissions of dust from constriction activities. These regulations will be strictly followed to prevent dust impacts to Ululani Street, Haili Street, and surrounding areas. In addition, reasonable measures to control airborne and visible fugitive dust from road areas are outlined by the State of Hawai‘i Department of Health's Clean Air Branch. These measures include, but are not limited to:

- Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact.
- Erecting dust fences around the worksite.
- Providing adequate water sources at the site prior to start-up of construction activities. Water should be sprayed on the surface of soil to prevent dust from being generated. However, the amount of water used for dust control shall be minimized as to not create run-off away from the excavation area.
- Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase.
- Minimizing airborne, visible fugitive dust from shoulders, and access roads.
- Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities.

- Controlling airborne, visible fugitive dust from debris being hauled away from the project site.

Best Management Practices and mitigating measures to control potential hazardous materials and toxins on site during demolition, construction, and operation are discussed in detail in Section 4.1.10 below.

4.1.6 Noise

Environmental Setting

The subject area is urban and has moderate noise levels from existing businesses and other commercial uses on surrounding properties. The subject sites' proximity to Hilo International Airport may result in occasional noise disturbances from aircraft flight operations. The frequency of these incidences may fluctuate over time, depending on airport operations.

Potential Environmental Impact from the Proposed Action

Short-term noise impacts may occur during the demolition of existing buildings and subsequent construction phases from vehicle and equipment operation, which will be mitigated by BMPs.

Under the proposed action, noise levels are expected to increase moderately. The proposed use will remain similar in scale, with improved infrastructure, and the addition of a transitional housing/community center building. Therefore, slightly higher levels of traffic are expected as well as more occupants and users from the community. Sources of noise may occur from regular vehicular trips, day care activities including outdoor playgrounds, community events, and residential use.

Outside of demolition and construction activities, the potential noise impacts are expected to remain largely unchanged across all alternative actions, including a no-action scenario, as the existing and proposed land uses are not significantly different.

Mitigating Measures for Noise

Rules and regulations outlined in Hawai‘i Administrative Rules Title 11, Chapter 46 "Community Noise Control," will be followed during all construction and operation activities. If there is a potential for demolition and/or construction noise to exceed the State Department of Health's maximum permissible noise levels, a noise permit will be sought. During operation, appropriate landscaping will be incorporated to screen the property and buffer noise to surrounding areas without creating hazardous wildlife conditions for aircraft operations at Hilo International Airport.

4.1.7 Scenic Resources

Environmental Setting

Notable scenic resources within 2 miles of the subject site include Hilo Bay, Wailuku River, and Rainbow Falls. The property is roughly 0.25 miles west of Hilo Bay, 0.25 miles south of Wailuku River, and 1.5 miles southeast of Rainbow Falls. There are no valuable scenic resources in the immediate vicinity of the subject site.

Potential Environmental Impact from the Proposed Action

No significant impacts are expected to scenic resources. The site has been fully developed for decades without any adverse effects. The proposed action is similar in scale to what exists on site today, with the main difference being the addition of one 2-story building. The grounds and buildings will be aesthetically pleasing and screened by appropriate vegetation. While there is a risk of light pollution affecting scenic views, the night sky visibility, and potentially impacting seabirds utilizing nearby resources, these concerns will be effectively addressed through the implementation of BMPs discussed below. Views to and from the shoreline will not be impacted by the project. Potential impacts to scenic resources will not change appreciably under any alternative action.

Mitigating Measures for Scenic Resources

The following guidelines to minimize light pollution will be adhered to:

1. ! Any outdoor lighting must conform to the standards established by the Hawai‘i County Outdoor Lighting Ordinance (Hawai‘i County Code Chapter 14, Article 9: “Outdoor Lighting”).
2. ! The minimum possible amount of outdoor/exterior lighting should be used and should be turned off when not needed. Motion sensor activated lighting will be used wherever feasible.
3. ! All exterior lighting should be fully shielded. This means that all lighting fixtures must emit zero light above the horizontal plane.
4. ! Conformity to the Outdoor Lighting Ordinance also requires the use of blue-deficient exterior lighting. This means that exterior LED lighting must emit less than 2% of its total energy at wavelengths less than 500 nm. The best choice for this is either filtered LED lights, or amber LED lights.
5. ! White light should be avoided. Any white light used should have Correlated Color Temperature of 2700 K or below.
6. ! Rig lights during construction and operation of the proposed water well must be shielded to minimize stray lighting.

4.1.8 Flora

Environmental Setting

A biotic survey conducted on March 13, 2024, found no threatened, or endangered flora species on the property. The subject site is fully developed with limited ornamental plantings including native hapu‘u (*Cibotium menziesii*), naupaka (*Scaevola taccada*), and sword fern (*Nephrolepis exaltata*); Polynesian-introduced ti (*Cordyline fruticosa*); and introduced shower tree (*Cassia fistula*), and areca palm (*Dypsis lutescens*). **Table 2** has a complete list of each plant detected on the property during the survey. The surrounding area is highly developed with similar vegetation.

Table 2: Flora Species on the Subject Property

Scientific Name	**Common Name**	**Family**	**Status**
Allamanda schottii	Bush Allamanda	Apocynaceae	A
Ananas comosus	Pineapple	Bromeliaceae	A
Carica papaya	Papaya	Caricaceae	A
Caryota sp.	Fishtail Palm	Arecaceae	A
Cassia sp.	Shower Tree	Fabaceae	A
Chrysalidocarpus lutescens	Areca Palm	Arecaceae	A
Cibotium menziesii	Hapu‘u Fern	Cibotiaceae	N
Codiaeum variegatum	Croton	Euphorbiaceae	A
Cordyline fruticosa	Ti	Asparagaceae	PI
Cucurbita maxima	Pumpkin	Cucurbitaceae	A
Dracaena marginata	Money Tree	Asparagaceae	A
Dracaena reflexa	Song of India	Asparagaceae	A
Hibiscus sp.	Hibiscus	Malvaceae	A
Nephrolepis exaltata	Sword Fern	Nephrolepidaceae	N
Phymatosorus grossus	Laua'e fern	Polypodiaceae	A
Platycerium bifurcatum	Elkhorn Fern	Polypodiaceae	A
Scaevola taccada	Naupaka	Goodeniaceae	N
Schefflera actinophylla	Octopus Tree	Araliaceae	A

N: Native PI: Polynesian Introduced A: Alien

Potential Environmental Impact from the Proposed Action

There are no anticipated impacts to any state or federally listed flora species, or critical habitat from the project as none exist on site or within an impactable area around the site. The proposed action will not introduce nuisance or non-native species of vegetation that have the potential to be disruptive or invasive. Landscaping on site will be minimal and will not impact native plant habitats in the larger area or require excessive amounts of pesticide use or fertilization. The nearest vegetated area is Wailuku River approximately 0.25 miles north of the property. The project will have no impact to flora in this area. Potential environmental impact to flora will not change appreciably under any alternative action.

Mitigating Measures for Flora

Since there is minimal vegetation both on the site and in its vicinity, and no threatened, or endangered species were found, there are no expected requirements for mitigating measures for flora.

4.1.9 Fauna

Environmental Setting

A biotic survey conducted on March 13, 2024, found no native, threatened, or endangered fauna species on the property. Several common birds were also detected during the survey, including Common Myna (*Acridotheres tristis*), Spotted Dove (*Streptopelia chinensis*), House Finch (*Carpodacus mexicanus*), House Sparrow (*Passer Domesticus*), and Saffron Finch (*Sicalis flaveola*). Aside from birds, it is likely Indian mongoose (*Herpestes a. auropunctatus*) and feral cats (*Felis catus*) may also be present at times.

Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), requires an official species list from the United States Fish and Wildlife Service (USFWS) of identified threatened and endangered species, as well as critical habitat, that may occur within the boundary of the project area.

The Wailuku River and Rainbow Falls State Park (0.25 miles north and 1.5 miles west respectively) are heavily vegetated areas that may be utilized by threatened and endangered mammals and birds. In addition, the Loko Waka pond located in Keaukaha is a significant habitat for the Hawaiian waterbirds. This pond is located 4 miles southeast of the property.

According to the official species list generated by the USFWS, it would be possible for one (1) mammal and seven (7) Federally listed bird species to fly over, roost, or utilize resources near the subject property. While not on the federal list, it may also be possible for two (2) State listed mammals to frequent the area. These include the following:

<u>Federally Listed:</u>

1. Hawaiian Hoary Bat (‘Ope‘ape‘a) (*Lasiurus cinereus semotus*)
2. Hawaiian Coot (Alae ke‘oke‘o) (*Fulica alai*)
3. Hawaiian Duck (*Anas wyvilliana*)
4. Hawaiian Stilt (*Himantopus mexicanus knudseni*)
5. Band-rumped Storm-petrel (*Hydrobates castro*)
6. Hawaiian Goose (Nēnē) (*Brunta (=Nesochen) sandvicensis*)
7. Hawaiian Petrel (*Pterodroma sandwichensis*)
8. Newell’s Shearwater (*Puffinus newelli*)

State Listed:

9. Hawaiian Hawk (I‘o) (*Buteo solitarius*)

It should be noted that the USFWS species list also identified the following reptiles, flowering plants, and ferns to possibly exist in the area, although no critical habitat exists on or near the property. The official list can be found in **Appendix A.**

- Reptiles
    - Endangered Hawksbill Sea Turtle (*Eretmochelys imbricata)*
- Flowering Plants
    - Endangered Alani (*Melicope zahlbruckneri)*
    - Endangered Haiwale (*Cyrtandra nanawaleensis)*
    - Endangered Hau Kuahiwi (*Hibiscadelphus griffardianus)*
    - Endangered Hilo Ischaemum (*Ischaemum byrone)*
- Ferns
    - Endangered Microlepia strigosa var. mauiensis

This Environmental Assessment will focus on the nine (9) State and Federally listed mammal and bird species that may fly over, roost, or otherwise utilize resources near the subject property, as they are the most likely to be potentially impacted by the proposed project. The following provides a description of each species, their range, and preferred habitat.

1. Hawaiian Hoary Bat (‘Ope‘ape‘a) (*Lasiurus cinereus semotus*)

    Federally Listed Endangered

    The Hawaiian Hoary Bat prefers roosting within the foliage of both native and non-native trees. Their foraging grounds encompass a diverse range of habitats, such as forest gaps, clearings, areas above the forest canopy, and alongside roads. Notably, on the Big Island, the Ōpe‘ape‘a engage in seasonal migration, with summers spent in the lowlands and overwintering occurring in higher altitude regions.

2. Hawaiian Coot (Alae ke‘oke‘o) (*Fulica alai*)

    Federally Listed Endangered

    The Hawaiian Coot typically inhabits lowland wetland environments, generally below 1,300 feet in elevation, such as the Waiaka-Loko Waka ponds located on Hawaii Island. However, instances of their presence have been documented at altitudes as high as 6,600 feet on the island. These birds display a preference for wetland habitats characterized by the presence of appropriate emergent plant species amidst open water, particularly favoring freshwater wetlands and reservoirs.

3. Hawaiian Duck (*Anas wyvilliana*)

   Federally Listed Endangered

   The Hawaiian duck is found in various habitats such as low wetlands, river valleys, coastal ponds, lakes, swamps, flooded grasslands, and mountain streams, ranging from sea level to elevations of 3,300 meters. Social interactions may occur more frequently in managed wetlands for waterbirds compared to wetlands cultivated with taro, while resting was observed more often in taro cultivated wetlands. This suggests that both managed and cultivated wetlands are crucial for meeting the basic daily and seasonal needs of this species. However, the wider array of activities and foraging techniques observed in managed wetlands may indicate a greater diversity of habitats in these areas.

4. Hawaiian Stilt (*Himantopus mexicanus knudseni*)

   Federally Listed Endangered
   Hawaiian stilts make use of diverse aquatic environments, mostly in lower-altitude areas, yet their presence is influenced by water depth and the density of vegetation. These birds depend on early-stage marshlands with water depths below 24 centimeters (9 inches), and they frequent regions with scant, short perennial plants or open tidal flats. Hawaiian stilts seem to prefer nesting sites with minimal or no surrounding vegetation, likely to maintain visibility and better detect potential predators.

5. Band-rumped Storm-petrel (*Hydrobates castro*)

   Federally Listed Endangered

   The Band-rumped Storm-petrel is a seabird known to nest in remote cliff locations on, in steep open to vegetated cliffs, and in little vegetated, high-elevation lava fields. These birds are regularly seen in and around coastal waters of Kauaʻi, Niihau, and Hawaiʻi Island.

6. Hawaiian Goose (Nēnē) (*Brunta (=Nesochen) sandvicensis*)

   Federally Listed Threatened

   Historically, The Hawaiian Goose (Nēnē) (*Branta sandvicensis*) were found in lowland dry forests, shrublands, grasslands, and montane dry forests. Their current habitat preferences may be influenced by the release locations of captive-bred birds. Presently, they inhabit a diverse array of environments, such as coastal dune vegetation and non-native grasslands (like golf courses, pastures, and rural areas), sparsely vegetated low- and high-elevation lava flows, mid-elevation native and non-native shrublands, early successional cinderfall, cinder deserts, native alpine grasslands and shrublands, and open interfaces between native and non-native alpine shrubland-woodland communities. Nēnē nest in various habitats, including beach strands, shrublands, grasslands, lava rocks, and across different elevations.

7. Hawaiian Petrel (*Pterodroma sandwichensis*)

   Federally Listed Endangered

   The Hawaiian Petrel is found in remote and high elevation areas on the island of Hawai‘I, Maui, Moloka‘i, Lanai, and Kaua‘i.

8. Newell’s Shearwater (*Puffinus newelli*)

   Federally Listed Threatened

   The Newell’s Shearwater nest on the slopes and cliffs of Kaua‘i. Small colonies also exist on Moloka‘i, Maui, and the Hawai‘i Island.

9. Hawaiian Hawk (I‘o) (*Buteo solitarius*)

   Formerly State Listed Endangered

   The Hawaiian Hawk (I‘o) (*Buteo solitarius*) inhabits lowland non-native forests, urban locales, agricultural fields, pasturelands, and high-elevation native forests. Primarily, nesting takes place within native 'ōhi'a trees, though instances also occur in non-native tree species such as eucalyptus, ironwood, mango, coconut palm, and macadamia. During winter, sightings have been recorded in subalpine māmane-naio forests, indicating potential seasonal migrations. Their habitat can range between near sea level and 8,000 feet above sea level.

Potential Environmental Impact from the Proposed Action

The Hawaiian Hoary Bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. During the pupping season, clearing trees or shrubs taller than 15 feet poses a danger, as the young bats, unable to fly and still very vulnerable, may inadvertently suffer harm or death if they are unable to move away. Furthermore, these bats search for insects anywhere from as low as 3 feet to heights exceeding 500 feet above ground level, putting them at risk of becoming tangled in barbed wire typically used for fencing.

Hawaiian waterbirds, such as the Hawaiian stilt, coot, and duck listed by the USFWS, inhabit fresh and brackish-water marshes as well as natural or man-made ponds. Hawaiian stilts can also be seen in areas with temporary or permanent standing water. These species face challenges from non-native predators, loss of habitat, and habitat deterioration. Additionally, Hawaiian ducks are at risk due to hybridization with introduced mallards. The creation of standing or open water may result in the attraction of Hawaiian waterbirds to a site. In particular, the Hawaiian stilt is known to nest in sub-optimal locations (e.g. ponding water), if water is present. Hawaiian waterbirds attracted to sub-optimal habitat may suffer adverse impacts, such as predation and reduced reproductive success, and thus the project may create an attractive nuisance.

Hawaiian seabirds might pass through the project area during the nighttime breeding, nesting, and fledging seasons, spanning from March 1st to December 15th. The presence of outdoor lighting could lead to disorientation, fallout, and potential injury or death for these seabirds. These birds are naturally drawn to lights, and after circling them, they may become fatigued and collide with nearby structures such as wires, buildings, or other objects, or they may even land on the ground. Seabirds that have landed are at a higher risk of mortality due to collisions with vehicles, starvation, and attacks by predators such as dogs, cats, and other wildlife. Young birds, particularly fledglings, traversing the project area between September 15th and December 15th, during their first flights from mountain nests to the sea, are especially susceptible to being attracted to lights. Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. Additionally, seabirds have been known to collide with fences, powerlines, and other structures near nesting colonies.

YWCA will adhere to all mitigating measures to protect listed mammals and birds as outlined in the section below.

Soil and plant material may contain detrimental fungal pathogens (e.g., Rapid ʻŌhiʻa Death), vertebrate and invertebrate pests (e.g., Little Fire Ants and Coqui Frogs), or invasive plant parts (e.g., African Tulip, Octopus Tree, Trumpet Tree, etc.) that could harm native species and ecosystems. Additionally, the invasive Coconut Rhinoceros Beetle (CRB) scientifically known as *Oryctes rhinoceros,* is an invasive species present on the islands of Oʻahu, Hawaiʻi Island, Maui, and Kauaʻi. On July 1, 2022, the Hawaiʻi Department of Agriculture implemented Plant Quarantine Interim Rule 22-1. This regulation imposes restrictions on the transportation of CRB-host material within or to and from Oʻahu, which is defined as the Quarantine Area. Items considered regulated materials (such as host plants or materials) pose a potential risk for CRB infestation.

Specifically, CRB-host materials include:

a. Entire dead trees;
b. Mulch, compost, trimmings, fruit, and vegetative scraps;
c. Decaying stumps.

CRB host plants encompass live palm plants from the following genera:

- Washingtonia, Livistona, and Pritchardia (all commonly known as fan palms)
- Cocos (coconut palms)
- Phoenix (date palms)
- Roystonea (royal palms)

The movement of such materials or these specified plants carries the risk of CRB spread, as they could harbor CRB at any stage of their life cycle. Mitigating measures will be implemented to avoid or minimize all potential impacts from plant material.

During operation, landscaping may be used to screen the property. Certain flora species can pose a threat to airport operations as they can become a wildlife attractant. Therefore, chosen species will adhere to FAA mitigating measures to prevent hazards to aircraft operations for Hilo

International Airport. These potential impacts will not change appreciably under any alternative action.

Mitigating Measures for Fauna

Table 3 outlines mitigating measures for all listed species that may be potentially impacted by the proposed project.

In addition, the Hawai‘i County Division of Forestry and Wildlife (DOFAW) recommends minimizing the movement of plant or soil material between worksites to avoid or reduce potential impacts from fungal pathogens. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

Native plant species that are appropriate for the area will be used for landscaping. No detrimental invasive species will be planted on site. DOFAW recommends consulting with the Big Island Invasive Species Committee (BIISC) to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. The Plant Pono guide found at www.plantpono.org can also be used for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants to be used on site.

In adherence to Federal Aviation Administration regulations outlined in ‘Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants on or Near Airports,’ and considering the proximity to ITO, the YWCA will refrain from implementing landscaping or vegetation that could serve as a wildlife attractant. This precautionary measure is aimed at preventing potential hazards to aircraft operations.

Cats are natural predators of native birds, including State-listed endangered waterbirds, seabirds, and forest birds. Their hunting instincts mean that even well-fed cats will actively hunt and prey on wildlife. As a result, DOFAW advises that no feeding of feral cats take place on the property.

4.1.10 Hazardous Substances, Toxic Waste and Hazardous Conditions

Environmental Setting

A Hazardous Materials and Soil Screen (HMSS) Report was prepared by Lehua Environmental Inc. in December 2023 to survey the presence of hazardous materials and heavy metals in existing buildings and soil on site. The HMSS report is summarized in this section. The full report can be found in **Appendix B**.

Table 3: Mitigating Mesures for Federal and State Listed Mammals and Birds

Category	Common Name	Scientific Name	Status	Project Mitigating Measures
FEDERALLY LISTED				
Mammals	Hawaiian Hoary Bat	*Lasiurus cinereus semotus*	Endangered	**To avoid and minimize impacts to the endangered Hawaiian hoary bat, YWCA will follow these applicable measures:** - Do not disturb, remove, or trim woody plants greater than 15 feet during the bat birthing and pup rearing season between June 1 and September 15. - Do not use barbed wire for fencing.
Waterbirds	Hawaiian Coot	*Fulica alai*	Endangered	**To avoid and minimize potential project impacts to Hawaiian waterbirds, the following applicable measures will be incorporated:** - In areas where waterbirds are known to be present, post and enforce reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site. - Incorporate Best Management Practices for Work in Aquatic Environments into the project design. - Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys, where appropriate habitat occurs within the vicinity of the proposed project site, prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). - If a nest or active brood is found: 1. Contact USFWS within 48 hours for further guidance. 2. Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer. 3. Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.
	Hawaiian Duck	*Anas wyvilliana*	Endangered	
	Hawaiian Stilt	*Himantopus mexicanus knudseni*	Endangered	
Seabirds	Band-rumped Storm-petrel	*Hydrobates castro*	Endangered	**To avoid and minimize potential project impacts to seabirds, YWCA will incorporate the following measures:** - Any outdoor lighting must conform to the standards established by the Hawai'i County Outdoor Lighting Ordinance (Hawai'i County Code Chapter 14, Article 9: "Outdoor Lighting"). - The minimum possible amount of outdoor/exterior lighting should be used and should be turned off when not needed. Motion sensor activated lighting will be used wherever feasible. - All exterior lighting should be fully shielded. This means that all lighting fixtures must emit zero light above the horizontal plane. - Conformity to the Outdoor Lighting Ordinance also requires the use of blue-deficient exterior lighting. This means that exterior LED lighting must emit less than 2% of its total energy at wavelengths less than 500 nm. The best choice for this is either filtered LED lights, or amber LED lights. - White light should be avoided. Any white light used should have Correlated Color Temperature of 2700 K or below. - Rig lights during construction and operation of the proposed water well must be shielded to minimize stray lighting. - Avoid nighttime constructin during the seabird fledging period between September 15th and December 15th. If nighttime construction is required during the seabird fledging season (September 15 to December 15), a qualified biologst will be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen
	Hawaiian Petrel	*Pterodroma sandwichensis*	Endangered	

Table 3: Mitigating Mesures for Federal and State Listed Mammals and Birds

	Newell's Shearwater	*Puffinus newelli*	Threatened	circling the area, lights will be turned off. If a downed seabird is detected, the State Division of Forestry and Wildlife (DOFAW) will be contacted and their response protocol will be followed. **To avoid and minimize the likelihood of collision with fences, powerlines, and other structures, YWCA will incorporate the following:** - Where fences extend above vegetation, three strands of polytape will be integrated into the fence to increase visibility. - For powerlines, guywires, and other cables, minimize exposure above vegetation height and vertical profile.
Birds	Hawaiian Goose	*Branta (=Nesochen) sandvicensis*	Threatened	**To avoid and minimize potentail project impacts to nēnē YWCA will incorporate the following measures:** - Do not approach, feed, or disturb nēnē. - If nēnē are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with nēnē nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). - Cease all work immediately and contact USFWS for further guidance if a nest is discovered within a radius of 150 feet of proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins. - In areas where nēnē are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site. **Nēnē 4(d) rule:** A 4(d) rule was established at the time the nēnē was downlisted to threatned status. Under the 4(d) rule, the following actions are not prohibited under the Act, provided the additional measures described in the downlisting rule are adhered to: - Take by landowners, or their agents, conducting intentional harrassment in the form of hazing or other deterrent measures not likely to cause direct injury or mortality, or nēnē surveys. - Take that is incidental to conducting lawful control of introduced predators or habitat management activities for nēnē . - Take by authorized law enforcement officers for the purpose of aiding or euthanizing sick, injured, or orphaned nēnē; disposing of dead speciments; and salvaging a dead specimen that may be used for scientific study.
STATE LISTED				
Mammals	Hawaiian Hawk	(*Buteo solitarius*)	Endangered	**To avoid and minimize potentail project impacts to the Hawaiian hawk YWCA will incorporate the following measures:** DOFAW recommends that pre-construction surveys of the area be conducted by a qualified biologist following appropriate survey methods to ensure no Hawaiian Hawk nests are present, which may occur during the breeding season from March to September. The survey should be conducted at least 10 days prior to the start of construction. If a hawk nest is detected, a buffer zone of 100 meters (330 feet) should be established around it where no construction shall occur until the chick(s) have fledged, or the nest is abandoned and DOFAW stall should be immediately notified. If adult individuals are detected in the area during construction, all activities within 30 meters (100 feet) of the bird should cease. Work may continue when the bird has left the area on its own.

Buildings

The HMSS survey found Asbestos-Containing Material, Lead-Based Paint and Lead-Containing Paint, mercury-containing fluorescent lamps, and PCB-containing fluorescent light ballasts within existing buildings to be demolished on site. The following is a summary of those findings:

1. ! Asbestos-Containing Material (ACM).
    - Sink insulation located in the preschool cottage was identified as ACM.
    - A vent through roof mastic located on the pool house and preschool cottage are assumed to be ACM.
2. ! Lead-Based Paint (LBP)
    - Eight (8) of the sampled painted building components contained concentrations of lead at levels greater than or equal to 5,000 mg/kg to be Lead-Based Paint.

3. ! Lead-Containing Paint (LCP)
    - Fifty-two (52) of the sampled painted building components contained detectable concentrations of lead at levels less than 5,000 mg/kg or were identified to have an elevated laboratory detection limit to be considered and assumed as Lead-Containing Paint.

4. ! Arsenic-Containing Building Products (ArCBP)
    - Suspected canec wall and ceiling materials of the preschool cottage did not contain detectable concentrations of arsenic.

5. ! Mercury containing lamps !
    - Fifty (50) mercury-containing fluorescent lamps were found.

6. ! Polychlorinated Biphenyls (PCB)-containing light ballasts !
    - Twenty-five (25) PCB-containing light ballasts were identified.

Soil

The HMSS survey also detected lead in some soil on site at concentrations that exceed the Hawai‘i Department of Health (HDOH) Tier 1 and 2 Environmental Action Levels (EAL) for commercial and industrial land use.

Tier 1 Environmental Action Levels are the initial screening levels used by HDOH for the assessment of potential contamination on commercial and industrial properties. These levels are based on conservative assumptions that are designed to quickly identify areas where further investigation may be necessary. If concentrations of contaminants are found below Tier 1 EALs, it suggests that further investigation may not be required. However, if concentrations exceed Tier 1 EALs, it triggers the need for additional investigation.

Tier 2 EALs are used when further investigation is warranted based on the results of Tier 1 screening. Tier 2 EALs are developed based on a more thorough understanding of the contaminants, their potential risks, and the specific conditions of the site. These levels consider

factors such as the toxicity of the contaminants, exposure pathways, and potential receptors (such as workers or residents).

Soil samples were taken in twelve (12) Decision Units (DU) on site, which were chosen based on planned soil disturbance activities. Decision Units included the following locations (**Figure 21**):

- DU-1: Grassed area located from preschool cottage to Kino‘ole Street, surface sample collected from 0”-6” below ground surface (bgs).
- DU-2: Grassed area located from preschool cottage to Kin‘ole street, surface sample collected from 6”-12” bgs.
- DU-3A, B, C: Existing preschool cottage area, surface sample collected from 0”-6” bgs.
- DU-4: Existing preschool cottage area, subsurface sample collected from 6”-12” bgs.
- DU-5: Pool and pool house area, surface sample collected from 0”-6” bgs.
- DU-6: Pool and pool house area, surface sample collected from 6”-12” bgs.
- DU-7A, B, C: Multi-purpose building area, surface sample collected from 0”-6” bgs.
- DU-8: Multi-purpose building area, surface sample collected from 6”-12” bgs.
- DU-9: Existing paved parking area and driveway, surface sample collected from 0”-6” bgs.
- DU-10: Existing paved parking area and driveway, surface sample collected from 6”-12” bgs.
- DU-11: Area south of the multi-purpose building, surface sample collected from 0”-6” bgs.
- DU-12: Area south of the multi-purpose building, surface sample collected from 6”-12” bgs.

The following is a summary of the soil sample findings (**Figure 22**):

1. ! Lead in Soil
    - Lead was detected in Decision Units DU-1, DU-2 and DU-3 at concentrations that exceed the Hawai‘i Department of Health (HDOH) Tier 2 Environmental Action Level (EAL) for commercial and industrial land use.
    - Lead was detected in DU-4, DU-7, DU-8, DU-9, and DU-12 at concentrations that exceed HDOH Tier 1 EAL for unrestricted land use.

2. ! Bioaccessible Arsenic in Soil
    - Total arsenic was detected in DU-1, DU-2, DU-3, DU-4, DU-6, DU-7, DU-8, DU-9, DU-11, and DU-12 at concentrations that exceed the arsenic HDOH Tier 1 EAL for unrestricted land use.
        i. ! However, further laboratory analysis via bioaccessible arsenic did not identify concentrations of arsenic in these decision units that exceed the arsenic DOH EAL for unrestricted land use. Therefore, they are classified as Category B arsenic soils.
3. ! Eight (8) metals including barium, cadmium, chromium, mercury, selenium, and silver.
    - Not detected above HDOH Tier 1 EALs for unrestricted land use.

Figure 2. Decision Unit (DU) Boundaries Map
YWCA Island of Hawaii – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

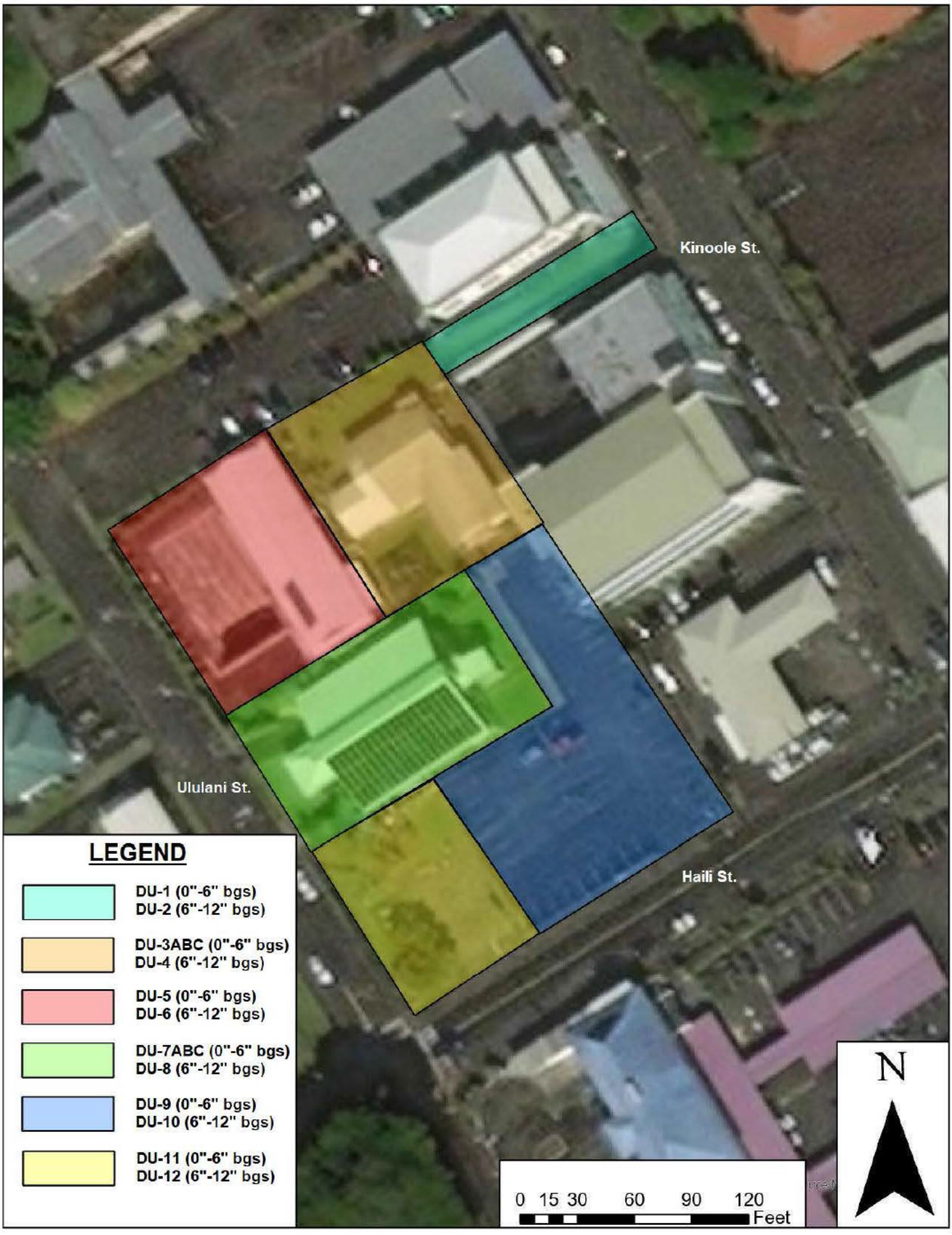

Figure 21

Figure 1. Map of Identified Lead-Impacted Soils
YWCA Island of Hawaii – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

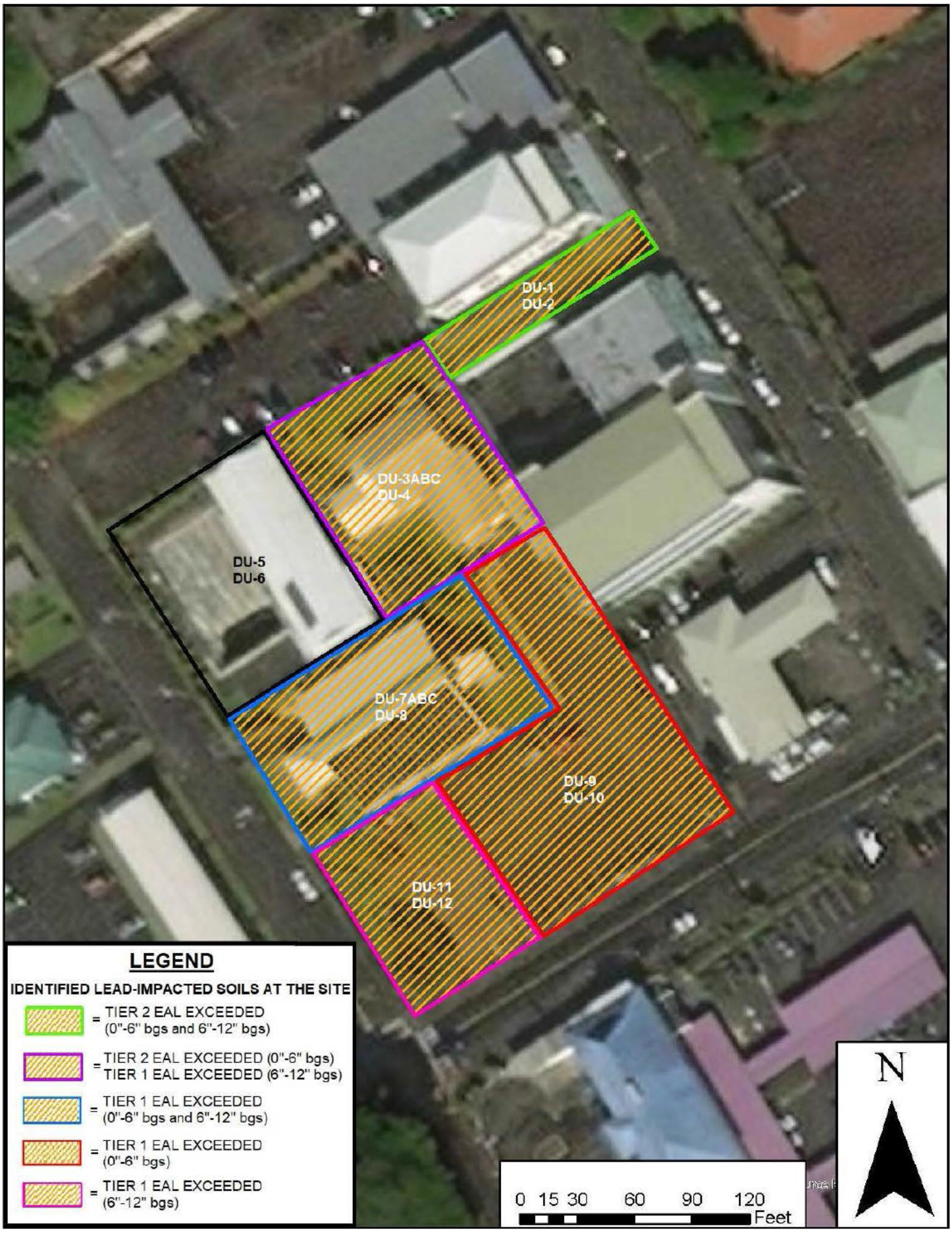

Figure 22

1. ! Organochlorine pesticide-contaminated soil.
    - Not detected above HDOH Tier 1 EALs for unrestricted land use.

Potential Environmental Impact from the Proposed Action

Contamination within construction sites presents a range of risks that necessitate careful management as outlined in the Construction Environmental Health and Management Plan (C-EHMP) (**Appendix C**). Although not all contamination directly threatens construction workers or site users, it is crucial that all contaminated materials are handled and disposed of correctly to prevent potential hazards. Mishandling these materials could lead to the spread of contamination, affecting both the site itself and nearby uncontaminated areas.

A potential environmental hazard pertains to the direct exposure of construction workers to impacted soil during project activities. This exposure can occur through inadvertent ingestion of solid particles or inhalation of airborne soil during construction processes. Another concern involves the potential impacts on terrestrial habitats due to contaminated soil at the site. To mitigate these risks, the C-EHMP recommends specific Best Management Practices, such as employing filter socks and dust fences, as well as covering soil stockpiles with poly sheeting. These measures aim to minimize or eliminate the runoff and erosion of impacted soil into the surrounding environment.

The presence of lead in soil introduces various risks, including direct exposure through ingestion or inhalation, leaching into surrounding areas, significant contamination, and potential ecotoxicity. This contamination poses a threat to several groups, including construction workers, site personnel, and future users of the site. Proper handling and management of lead-contaminated soil are essential not only for the immediate safety of those present but also to safeguard the environment and prevent long-term adverse effects on both human health and ecosystems.

These potential impacts, such as direct exposure to construction workers, impacts on terrestrial habitats, and risks associated with lead contamination in soil, will remain relatively constant under any alternative, including a no-action alternative. The no-action alternative would involve maintaining existing buildings that contain harmful contaminants with potential for exposure to its users.

Mitigating Measures for Hazardous Substances, Toxic Waste and Hazardous Conditions

ACM, LBP, and LCP Disturbance

Lehua Environmental Inc. recommends the following mitigating measures for ACM, LBP and LCP disturbance, mercury-containing lamps and PCB-containing light ballasts and lead impacted soil.

1. ! ACM Disturbance Mitigating Measures

   The friable and non-friable identified and assumed ACM, which could be crumbled and pulverized during renovation/demolition activities must be removed and disposed of by a qualified asbestos abatement contractor. Disturbance activities that would render the non-friable ACM to be friable must be avoided.

   In addition, the services of a qualified consultant should be obtained to conduct air monitoring and inspect the removal activities to ensure compliance with applicable Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and Hawaii Occupational Safety and Health (HIOSH) regulations pertaining to the handling of asbestos-containing material.

2. ! Identified and Assumed LBP and LCP Disturbance Mitigating Measures

   - Spot remove and dispose of all LBP and LCP that may be disturbed or become dislodged during renovation activities in accordance with applicable local, state, and federal regulations.
   - Spot remove and dispose of all loose and flaking (poor condition) LBP and LCP that may be disturbed or become dislodged during renovation activities in accordance with applicable local, state, and federal regulations.
   - Workers performing disturbance of LBP and LCP must take appropriate measures to comply with applicable OSHA and HIOSJ regulations pertaining to the handling of lead containing materials, lead dust and worker protection. Note that OSHA and HIOSH regulate activities that disturb paint which contain any detectable concentration of lead. Note that detectable levels of lead in the paint were found throughout the subject site.
   - A qualified consultant should be obtained to conduct air monitoring and inspection activities to ensure compliance with applicable state and federal regulations pertaining to the handling of lead paint.

3. ! Mercury-Containing Lamps and PCB-Containing Light Ballasts Mitigating Measures

   - Manage and/or remove and dispose of hazardous and regulated materials in accordance with applicable local, state, and federal regulations, prior to renovation and/or demolition activities that may disturb these materials.

4. ! Lead-Impacted Soil Mitigating Measures:

   - Have air monitoring conducted for airborne lead dust by qualified personnel during any lead-containing soil disturbance.
   - The following recommendations should be followed in areas with soils identified to exceed the Hawai‘i DOH EALs for lead in soils at the subject site.
     1. ! Contaminated soil removed from the subject site must be disposed of in accordance with Federal and State rules and regulations.

2. ! Dust control practices should include both wetting during soil disturbance activities and monitoring by a designated competent person, in addition to containing temporary soil stockpiles.
3. ! Use of good general hygiene practices for tenants, public, employees and workers to avoid soil exposure.
4. ! Long-term controls should be implemented on site to minimize the potential for exposure to contaminated soil by tenants, public, employees, and workers.
5. ! Possible need to cover any bare soil, if subject to wind or water transport off-site.
6. ! Notify the DOH HEER office of the contaminated soil findings and obtain guidance on remedial activities.
7. ! Limit exposure to the contaminated soils to properly trained personnel.

- Prepare and submit for approval to the Hawai‘i DOH Hazard Evaluation and Emergency Response (HEER) office a Construction-Environmental Hazard Management Plan (C-EHMP), which outlines the proper handling and management of soil and/or groundwater, sampling and analysis protocol for soil, the planned re-use/disposal locations for excavated soil, health, and safety measures to be taken to protect workers, environment, and the public. The C-EHMP should be approved by the Hawai‘i DOH HEER office prior to the start of the lead-contaminated soil disturbance as the subject site.
- Assume soils 12 inches and below ground surface in decision units DU-1, DU-2, DU-3, DU-4, DU-7, DU-8, and DU-12 are lead-impacted until further testing determines otherwise.

Soil Management

Lead was detected in surface and subsurface soil above the DOH EAL at the project site. Therefore, all soil disturbed on site should be managed as contaminated soil.

Given the high concentrations of lead in soil found onsite, the following interim remedial actions are recommended to immediately reduce the potential for human and environmental exposure. An Interim Action Memorandum can be found in **Appendix D.**

1. ! Fence or block off all bare soil or patchy grass areas so that children, site workers and the general public will not be able to access bare soil or patchy grass areas; or
2. ! Place 6-mil polyethylene sheeting on all bare soil or patchy grass areas. Place at least 3-6 inches of clean imported gravel (3/4 minus), clean soil fill, wood chips, mulch or any other material that will provide enough weight on top of the polyethylene sheeting in order to weigh it down and create an additional barrier to the lead-impacted soil. The favorable selection is gravel as it will allow stormwater to move through without pooling and/or transport of material. However, be careful not to damage the plastic sheeting with the gravel. Synthetic turf may also be used on top of the fill material to protect the user selected fill material from site occupants (i.e. children).
3. ! Surroundallbaresoilorpatchygrassareaswithfiltersocksinordertoprevent soil or stormwater infiltration/mixing with lead-impacted soil.

4. ! Monitor all interim remedial action areas on a daily basis to make sure all interim remedial actions are in good working condition without damage. Constant wind, rain and sun can quickly damage or render the above interim remedial actions ineffective if not properly maintained.

During demolition and construction, the site's disturbed soil will undergo continuous monitoring and documentation by a Qualified Environmental Professional (QEP) with at least 5 years of experience in environmental oversight linked to construction projects. If known or suspected contaminated soil is encountered during excavation, it is imperative to take appropriate actions in compliance with HDOH and EPA guidelines, laws, and regulations. This includes proactive planning to ensure workers have suitable Personal Protective Equipment (PPE) including long sleeve pants and shirts, gloves, half-faced respirators with P-100 filters, and goggles. In addition, a site-specific Health, and Safety Plan (HASP) should be provided by the contractor that discusses worker safety from soil chemical hazard exposure in detail. Tasks related to the proper management of contaminated soil encompass the following:

- When encountering contaminated soil, a QEP must be oversee the field to ensure:
    - Segregation of known or suspected contaminated soil from clean soil.
    - Proper storage and covering of known or suspected contaminated soil with plastic sheeting.
    - Adequate management of contaminated soil during and after excavation, along with providing health and safety guidance concerning potential worker exposure to COPCs.
- Workers expected to encounter contaminated soil must wear appropriate PPE.
- Workers in contact with contaminated soil must receive necessary training, including a minimum 40-hour HAZWOPER certification and current 8-hour annual refresher training.
- Soil transported offsite should undergo fluid drainage, and the load must be covered with a dust screen during transit.
- In case of newly discovered soil contamination from an unknown source or location, immediate notification to the HDOH HEER Office is mandatory, reporting it as a new release.

During excavation of known or suspected contaminated soil, the QEP must perform the following activities:

- Monitor the location of excavation activities to ensure that soil depicted on hazard maps is properly managed as contaminated, even when there is no field evidence of contamination.
- Visually screen soils for staining, debris, soil waste, discoloration, or other evidence of contamination as the soils are removed from the excavation.
- Check for petroleum or other unusual chemical odors emanating from the soil.
- Use the field observations to segregate the soil properly.

Excavation and Stockpiling

Suspected contaminated soil must be stored separately from clean soil. The following steps necessary for managing contaminated soil:

- Segregate contaminated soil from uncontaminated soil.
- Allow water within excavated soils to drain back into the excavation before stockpiling.
- Store contaminated soil in a bermed area lined with 20-mil plastic. Cover the stockpiles with plastic sheeting daily and during significant wind or rain events. Secure the sheeting adequately to prevent displacement by strong winds.
- Line the edges of the plastic sheeting with filter socks to create a filtering barrier around the stockpile.
- Position soil stockpiles away from storm inlets, surface waters, and stormwater pathways.
- Separate soil with strong petroleum or solvent odors and/or free-phase product from clean and moderately impacted soil. Such soil cannot be reused and must undergo proper disposal.
- Keep soil stockpiles on-site and refrain from transporting or storing them off-site without prior authorization or characterization.

Soil Reuse and Disposal

- No soil is planned for reuse on or offsite. If that changes, the C-EHMP must be revised and approved by the HDOH HEER office.
- All excavated soil will be properly handled and disposed of at the landfill and new imported clean basecourse will be used as backfill.
- The QEP must collect and maintain records of soil import, provide them to the HEER Office for approval, and ensure documentation confirming the cleanliness of the imported material. Additionally, a soil agreement must be signed between the generator and the site owner.

Decontamination of Vehicles, Equipment/Tools, and Personnel

Vehicles, and equipment including hand-held and manual tools in direct contact with contaminated soil must be decontaminated before handling uncontaminated materials and before leaving the work area. The QEP shall designate Decontamination Areas for all decontamination activities. Decontamination procedures should include the following:

- Physically remove soil from the vehicle/equipment/tool surface using appropriate hand tools at the excavation site.
    - Soil removed during this step should be returned to the impacted area, excavation, or appropriate stockpile.
- Rinse and wash the surfaces of vehicles/equipment/tools exposed to contaminated material with water at the excavation site, directing the wash water back to the impacted area or collecting it for proper disposal.

During equipment decontamination, proper PPE must be worn to minimize exposure to COPCs. This should include Modified Level D PPE consisting of nitrile gloves, rubber boots, long sleeves, and an appropriate face shield to protect against splash back during decontamination. All PPE that encounters contaminate soil must be separated and disposed of in double bagged garbage bags and deposited in the site dumpster or municipal landfill. Washing facilities must be provided at the worksite for workers to clean their hands and prevent contamination before eating, drinking smoking, or leaving for the day.

Stormwater Management

The following mitigating measures will minimize the potential for storm water encountering contaminated soil:

- Open excavations should be backfilled as soon as practicable to prevent storm water and direct precipitation from entering the excavation. When possible, open excavations should be bermed to prevent stormwater run-off from entering the excavation.
- Regularly monitor the weather throughout the day for signs of approaching storms and/or heavy rains.
- In the event of heavy rain, ensure that all stockpiles of contaminated soil are covered with plastic sheeting and substantially secured.

Spills or Release Response

Construction activities are also required to follow the guidelines of State and County requirements to minimize the possibility for spills and hazardous materials during construction. The applicant proposes the following construction mitigating measures:

- Construction activities with the potential to produce polluted runoff will be limited to periods of low rainfall.
- During construction, emergency spill treatment, storage, and disposal of all hazardous materials, will be explicitly required to meet all State and County requirements, and the contractor will adhere to "Good Housekeeping" for all appropriate substances, with the following instructions:
    - Onsite storage to minimum practical quantity of hazardous materials necessary to complete the job;
    - Fuel storage and use will be conducted to prevent leaks, spills or fires;
    - Products will be kept in their original containers unless un-resealable, and original labels and safety data will be retained;
    - Disposal of surplus will follow manufacturer's recommendation and all regulations;
    - Manufacturers' instructions for proper use and disposal will be strictly followed;
    - Regular inspection by contractor to ensure proper use and disposal;
    - Onsite vehicles and machinery will be monitored for leaks and receive regular maintenance;

    - Construction materials, petroleum products, wastes, debris, and landscaping substances (herbicides, pesticides, and fertilizers) will be prevented from blowing, falling, flowing, washing, or leaching into the ocean; and
- Unused materials and excess fill (if any) will be properly disposed of at an authorized waste disposal site.

All spills must be reported in according with HRS §128D and HAR §11-451. If a spill or release occurs, the following actions must be taken: Identify the spilled substance, its source, volume, severity, and determine if immediate emergency response is necessary.

- Halt work if the release is unmanageably large or poses imminent danger to human health or the environment and notify the Fire Department by calling 911.
- If the spill involves volatile, flammable, or combustible materials, remove potential ignition sources, direct workers upwind, and use an LEL meter to monitor for explosive vapors.
- Stop work if an unexpectedly large release or contaminated area is encountered, or if unanticipated chemicals or hazards are released.
- Cease work and initiate emergency response if a worker or member of the public is injured.
- If safe, eliminate the spill source (e.g., by closing a valve, stabilizing a container), but refrain from attempting to stop releases from active fuel pipelines.
- Safeguard sensitive ecological areas threatened by the spill.

If any new hazardous substances or waste are discovered on the property during construction, all work will cease, and appropriate authorities will be contacted. A remediation specialist can be contacted to supervise the appropriate disposal and management of substances, if deemed necessary. YWCA will require all users and occupants of the proposed facilities to follow all government regulations pertaining to hazardous and toxic substances.

4.2 Socioeconomic and Environmental Justice

4.2.1 Land Use

Environmental Setting

The subject property is zoned Downtown Hilo Commercial District (CDH). All properties to the immediate north, south, east, and west are also zoned CDH and are either commercial or residential in nature. To the immediate west of the subject property, on the other side of Ululani Street, is residential properties, including the Haili apartments. The adjacent parcel to the east is owned by Texaco Gas Station. Sack and Save is located to the south on the other side of Haili Street. Several other commercial businesses exist beyond the immediate area including Aloha Gas Station and McDonald's to the southeast.

Other notable land uses along Haili Street in the direction of the ocean from the subject property include the Central Christian Church (located approximately 400 feet east of the subject site), the

Historic Palace Theatre built in 1925 (located approximately 750 feet east), and Kamehameha Avenue (roughly 1,000 feet to the east), which is home to many retail shops, restaurants, and cafés.

Kalākaua Park is located approximately 300 feet to the north and is Open zoning. This park is considered the 'town square' of Hilo. It is named after King David Kalākaua who ruled the Kingdom of Hawai'i from 1874 to 1891. The park is home to a statue of King David and a war memorial for those who died during World War II from the Island of Hawai'i. The park is bounded by Waianuenue Avenue and Kalākaua Avenue, and Kino'ole Street and Keawe Street. Historical buildings surround this park including the East Hawai'i Cultural Center (EHCC), which was built in 1932 and previously used as a police station and county courthouse. A United States Post Office completed between the years of 1915 and 1917 is located along Wainuenue Avenue.

Potential Environmental Impact from the Proposed Action

There are no anticipated impacts to land use in the area. The proposed action will preserve the longstanding land use of the site, which has remained consistent for several decades. This continuity will be complemented by the addition of a transitional housing/community center, reflecting the core values and mission of the YWCA. Importantly, this development aligns with the existing land use patterns in the surrounding area, characterized by a mix of commercial businesses, housing, and community spaces. Potential impacts to land use will not change appreciably under any alternative.

Mitigating Measures for Land Use

The existing and proposed land use are consistent with the surrounding area and the property's intended land use; therefore, no mitigating measures will be necessary.

4.2.2 Socioeconomic Characteristics

Environmental Setting

Demographics, Employment, and Income Factors

The main employment sectors in Hawai'i County are tourism, agriculture, education and research, healthcare, retail and service, and government. As of May 2022, Hawai'i County had a median income of $65,400, which is notably lower than the State median of $83,173. The County's labor force comprised 93,000 people, with 89,700 individuals employed across 60,700 available jobs. Out of 30,632 individuals assessed for poverty status, slightly over 14% were found to be living below the poverty line and unemployment rate was at 3.6%.

In 2021, Hilo, had a population of 46,600 people. The demographics of the city showcased its diverse composition, with 31% identifying as Asian, 29.2% as Multiracial (Non-Hispanic), 15.7% as White (Non-Hispanic), 10.5% as Native Hawaiian and Other Pacific Islander (Non-Hispanic), 8.78% as Multiracial (Hispanic), and 2.5% as White (Hispanic).

In 2021, the city of Hilo reported a 16% poverty rate, indicating a significant portion of the population living below the poverty line. With a workforce employing 20,800 individuals, the largest industries in Hilo were educational services, with 2,912 employees, health care & social assistance with 2,719, and retail trade with 2,457. Notably, the highest paying sectors included utilities with an average income of $88,750, public administration at $56,631, and educational services at $47,632. Furthermore, there was a gender income disparity, with men in Hawaii earning an average income 1.21 times higher than that of women. The median earnings for men were reported at $41,006, compared to $33,970 for women. Additionally, the median property value in Hilo stood at $364,100 in 2021, which was 1.5 times higher than the national average, reflecting the city's property market dynamics.

The term Asset Limited, Income Constrained, Employed (ALICE) describes households in the community earning more than the Federal Poverty Level, yet falling short of covering the basic cost of living in Hawai‘i County, often despite working multiple jobs. Even though these households are employed, they grapple with meeting essential expenses such as housing, childcare, food, transportation, and healthcare. A significant 48% of families in Hawai‘i County are classified within the ALICE category.

Given the pervasive issue of poverty across Hawai‘i County’s economic landscape, there is a necessity to address the high cost of living, expanding the inventory of affordable and attainable housing, stimulate economic growth in densely populated areas, improve and enhance public transportation accessibility, and increase the availability and affordability of childcare and early childhood education.

A notable concern highlighted in Hawai‘i County and the city of Hilo is the shortage of childcare centers and facilities for early childhood education, with the existing options often being financially burdensome. The Hawai‘i Department of Human Services reported median childcare costs in Hawai‘i County ranging from $650 and $950 per month in 2019.

It is important to recognize childcare and early childhood education as being integral to the social infrastructure for economic development. Beyond providing care and education, childcare and early childhood education impact people’s ability to get work. Moreover, the sector also significantly influences land use planning, public and private financing, and household income. Consequently, planners and economic development strategists must consider effective ways to incorporate children into community and economic planning discourse (Hoover, 2023).

Potential Impacts from the Proposed Action

The proposed project will have a very positive impact on socioeconomic characteristics by providing stable employment opportunities with fair income, and affordable education and support programs for community members and families.

The existing YWCA programs have already demonstrated a significant impact on boosting employment, primarily through their emphasis on fostering family stability and early childhood development. With the planned addition of transitional housing, the potential for enhancing the

employment prospects of those seeking assistance will be further heightened. This expansion not only promises to create direct employment opportunities, especially through the need for additional administrative spaces and roles, but also underscores the YWCA's commitment to empowering individuals and families towards sustainable economic independence. Additionally, the YWCA remains steadfast in its mission to dismantle racism and empower youth to break through societal limitations, fostering a future where all individuals can thrive equitably.

There will be no displacement of individuals, businesses, institutions, or community facilities due to this project, and no alterations to demographic characteristics will take place. The proposed initiative holds the potential for significantly improving socioeconomic conditions in Hilo. Under a no alternative action, these benefits may remain unrealized due to limitations from existing and aged infrastructure.

Mitigating Measures for Socioeconomic Characteristics

The project is expected to have measurable positive impact on socioeconomic characteristics and therefore requires no mitigating measures.

4.2.3 Public and Occupational Health and Safety

Environmental Setting

The subject site is currently used for professional services including preschool/daycare and office administration. Harmful contaminants found within existing buildings and soil on site presents a significant occupational health and safety risk to users.

Potential Environmental Impact from the Proposed Action

The existing cottage building and pool house on site contain hazardous contaminants including lead and asbestos. While these materials do not pose a significant or immediate threat to the general public’s safety, individuals utilizing these structures are exposed to occupational health and safety hazards. As these aging buildings deteriorate, there is considerable concern that users of the buildings will be exposed to harmful levels of the hazardous materials.

Under the proposed action, the contaminated buildings will be demolished and replaced with new structures. Demolition and construction activities will require mitigating measures to protect the public and construction workers from potential hazards during these phases.

The project will allow the implementation of a Long-Term Environmental Hazard Mitigation Plan aimed at safeguarding the soil, which will provide enhanced protection for users on-site beyond what would be achievable if the site remains unchanged.

Therefore, the proposed action will greatly improve conditions on-site. Choosing the no-action alternative would mean that users of the site will continue to be exposed to harmful contaminants.

Mitigating Measures for Public and Occupational Health and Safety

During construction, potential impacts to the public and workers on site during demolition and movement of hazardous material will be mitigated by BMP's outlined in Section 4.1.10.

4.2.4 Environmental Justice

Environmental Setting

The subject property is located downtown Hilo, Hawai‘i, which is known for its cultural diversity and historical significance. In Hilo, environmental justice is deeply intertwined with the cultural and historical experiences of Native Hawaiians and other minority groups. The legacy of colonization, loss of traditional lands, and ongoing environmental challenges highlight the importance of centering indigenous voices in environmental decision-making.

Potential Impact from the Proposed Action

The proposed project signifies a significant stride towards environmental justice in Hilo. The YWCA has a primary focus on supporting low-income and minority groups, with the mission to 'eliminate racism, empower women, and promote peace, justice, freedom, and dignity for all'. Through the improvement of infrastructure and expansion of services, the project aims to positively impact low-income and minority communities in the area.

YWCA's commitment to affordability ensures the essential preschool education, support services for young teens and families, and transitional housing will be within reach of those in need.
This approach not only benefits the immediate community but also generates a positive outcome for environmental justice.

The subject site is roughly 0.25 miles inland from the ocean, which has the potential to face heightened risks from extreme weather events due to climate change. This risk is inherent in the area and evident under the current use. Notably, the aging infrastructure on site poses greater risk to the safety of occupants during such events. Therefore, the proposed improvements are essential not only for the safety of those utilizing the facility nut also for establishing a more resilient and just environment for the entire community.

Given the longstanding and similar use of the site over decades, there are no anticipated adverse impacts on the community.

Mitigating Measures for Environmental Justice

Community feedback and involvement will be encouraged throughout the permitting process including the 30-day comment period when the draft Environmental Assessment is published. Notice will be given prior to publication to inform the public of where and when to provide comments on the project.

4.3 Historic, Archaeological, and Cultural Resources

4.3.1 Cultural and Archaeological Resources

Environmental Setting

Hawai‘i is believed to be first inhabited by voyagers from the Marquesas around 1,000 A.D, however, recent studies have shown that initial Polynesian colonization of Hawai‘i Island occurred between 1220 and 1261 A.D.

Early Hawaiian settlements incorporated new strategies and structures to adapt to their new environment. Traditional Polynesian philosophies and ideals were used to form new societal standards and structures including the principle of genealogical seniority, observance of gods such as *Kāne, Ku, and Lono*, the *kapu* system of law and order, *ahupua‘a* land systems, and various beliefs and values that determined day-to-day protocol and lifestyle such as *mana* and the *‘aumakua*.

It is believed that Hilo is likely one of the first settlements on Hawai‘i Island. Hilo is known to have rich marine resources accessed at Hilo Bay and additional abundant resources from the forests that descend from Mauna Loa and Mauna Kea. Ancient Hawaiians understood the critical importance of fresh water. Fresh water streams and springs were believed to be created by the gods Kāne and Kanaloa, which established a spiritual connection between people and water. In accordance with the native Hawaiians respect for water, land management units were organized around freshwater supplies in a traditional system known as the *ahupua‘a* resource-management system (CWRM, 2019). According to the Water Resource Protection Plan, “water was viewed as such a critical resource to the health and well-bring of the people of ancient Hawai‘i, that the concept of private ownership did not exist” (CWRM, 2019).

The *ahupua‘a* system, divided near the end of the 16th century, or early 17th century, was designed to provide all the necessary resources to live including agricultural resources inland and ocean resources at the coast. These *ahupua‘a* in the Hilo region include Pu‘u‘eo, Pi‘ihonua, Punahoa, Pōnahawai Kūkūau and Waiākea.

The subject property is located within the Punahoa 1st Ahupua‘a. Punahoa is among the ahupua‘a in south Hilo that stretch inland from the coastal fishing grounds, bordered by Pi‘ihonua Ahupua‘a around the 3,500-foot elevation mark. The region's plentiful terrestrial and marine resources, along with ample rainfall and freshwater from springs and streams, contributed to Hilo's appeal as a center of royal power and chief residences until the 1870s. The project area lies within the "Upland Agricultural Zone," a section of heavily cultivated land above the bay, as noted by McEldowney (1979). Historical evidence suggests that the subject parcel was situated within the agricultural fields of Punahoa.

During the Māhele of 1848, Punahoa was divided between two ali‘i, with Punahoa 1 going to Enoka Kahakamakaliua and Punahoa 2, including the subject parcel, awarded to Asa Kae‘o, also known as Asa Ka‘eo Eleele in historical records. As a kaukau ali‘i of Hawai‘i, Ka‘eo held 35 land parcels before the Māhele, but received only four from King Kauikeaouli. Notably, Punahoa 2 was partly awarded to the American Board of Commissioners for Foreign Missions (ABCFM)

as Land Commission Award No. 387, Part 4. This was confirmed by testimonies from Titus Coan, David B. Lyman, and Lorrin Andrews in 1849, stating that the land was given to Joseph Goodrich (acting for ABCFM) by the king and Kaʻahumanu around 1827. At that time, some residents still lived on the land, while others leased or had permission to use it from the mission. No smaller kuleana parcels were granted within Punahoa 2. The ABCFM divided its land here into lots for missionary families, Hawaiian tenants, and institutions such as their church and the Hilo Boarding School.

In 1927, a group of YWCA supporters provided funding for the association to establish a permanent headquarters in Hilo. This purchase laid the groundwork for the Hilo YWCA campus, which evolved into its present form through various subdivisions and consolidations to create the subject parcel. By 1929, the Board of Directors had outlined plans for the lot, envisioning the remodeling of existing buildings for a new headquarters and gymnasium, with hopes with future additions such as a tennis court and swimming pool. Architect Frank Arakawa, renowned for his work across Hawaiʻi Island and downtown Hilo, designed the new building. The association activities quickly outgrew the initial administrative building. In 1936, a new multi-purpose building, designed by Honolulu architect Guy N. Rothwell, was completed at the site of the current multi-purpose building. Further alterations took place on the site in the 1960's, 1973, and 1983, including the rebuilding of the multi-purpose building after a fire. Since then, no significant changes have been made.

Potential Environmental Impact from the Proposed Action

Archaeological

An Archaeological Literature Review and Field Inspection of the subject parcel was prepared by Stantec GS, Inc. in December 2023. The literature review was prepared to assist with Hawaiʻi Revised Statutes Chapter 6E review of the project. The purpose of the literature review was to determine the likelihood of previously undocumented archaeological historic properties within the subject parcel. The report is summarized in this section and the full report can be found in **Appendix E**.

Field Inspection

On September 20, 2023, Dr. Benjamin Barna conducted a surface field inspection. The land surface of the property was examined for visible archaeological characteristics and signs of potential buried archaeological remains.

Most of the property has been developed previously, with structures, paved parking lots, and landscaped areas with grass. The alterations to the ground, such as graded sections, embankments, retaining walls, and landscaping, indicate significant prior modifications. Given the nature of this environment, no visible signs of archaeological features or deposits were detected on the surface. Additionally, the extensive historical alterations to the ground suggest that the current surface has been excavated below any pre-twentieth-century ground levels.

Cultural

The Hawai‘i State Supreme Court’s PASH and Ka Pa‘akai O Ka ‘Aina decisions require decision-makers to consider a project’s impact to native Hawaiian practices and resources. Specifically, prior to making a decision, State and County agencies must identify the cultural, historical, and natural resources and associated traditional and customary practices of the subject site, the impacts of the proposed project to those resources and practices, and the feasible action (i.e. mitigating measures), if any, to protect such resources and practices.

It is not known whether the subject property or immediate surrounding area have ever been used for the gathering of plants by native Hawaiians in the past. However, it would appear very unlikely that the site would serve such purpose today and/or in the recent past due to being fully developed for many decades. Therefore, it does not appear that the project would have any potential adverse impact relating to cultural practices in the area. These potential impacts will not change appreciably under any alternative.

Mitigating Measures for Cultural Resources

The Archaeological Literature Review and Field Inspection confirmed significant changes to the landscape and property since the early 1900s. The scope of this ground alteration indicates a highly improbable chance of intact archaeological sites remaining on the property. Given this low likelihood, it is expected that any development on the property would have no impact on archaeological features.

In the event any inadvertent discoveries of historic, archaeological, or cultural resources are made during any activities related to the proposed project, work will cease, and the applicant will immediately notify the Planning Department and the State DLNR and secure their clearances before proceeding further.

4.3.2 Historic Resources

Environmental Setting

The earliest documentation of Hilo is found in ‘Umi-a-Liloa’s conquest of Hawai‘i Island in the sixteenth century, which established Hilo as a royal center for the island. In the account, ‘Umi-a-Liloa began his conquest of the Island of Hawai‘i by defeating chief Kulukulu‘ā, who lived in Waiākea, and the other chiefs of Hilo. ‘Umi-a-Liloa’s son Keawe-nui-a-‘Umi ruled Hāmākua, Hilo and Puna. After the death of Keawe-nui-a-‘Umi, the ruling kingdom was divided into three parts and was established under warring chiefs (Kamakau, 1992).

In 1738 Kamehameha I was born. Chief Kalani‘opu‘u was the high chief during Cook’s arrival in 1778. After the chief’s death in 1782, his son Kiwala‘o, and his nephew, Kamehameha I began to compete for control of the west side of Hawai‘i Island. Kamehameha won the battle of Moku‘ohai against Kiwala‘o in Kona, officially controlling the western half of the island. In 1791, Kamehameha, having gained control of Hilo, fought, and won a battle against his cousin Keoua at Kawaihae for control of the entire Island of Hawai‘i. At this time, fur traders and other

seamen began to come to the islands. By 1791, the exploitation of sandalwood began and Hilo's reputation as a significant port emerged. A few years later, in 1795, Kamehameha conquered Maui, Moloka‘i, Lana‘i and O‘ahu. He also received Kaua‘i by cession in 1810 (Kamakau, 1992). Kamehameha's son Liholiho was born in Hilo in November 1797. Waiākea was inherited by Lihiliho after Kamehameha's death. The *‘ili kūpono* of Pi‘opi‘o and its royal fishpond were given to his favorite wife, Ka‘ahumanu.

At the end of the sandalwood era, Christian missionaries led by William Ellis, arrived at the islands. In 1824, a missionary station was established at the mouth of Wailoa River in Waiākea. By 1837, two-thirds of the population relocated to Hilo from villages outside of the area. The mission eventually moved to the top of Haili Street from Waiākea, which established the present location of Hilo.

In 1839, King Kamehameha III signed the Bill of Rights, which sought to ensure that the people's land would not be taken from them. In 1840, the first Constitution of Hawai‘i was enacted. In 1845, the Land Commission was created by Kamehameha III to award land claims, although this could not be done under the current feudal system of land tenure as individuals did not hold title to the land. In 1848 The Great Māhele (Land Division) established a system of private land ownership, which divided all Hawai‘i's land into three classifications: Crown Lands, Government Lands and Konohiki Lands. Crown, Government and Konohiki lands remained subject to the rights of the *kanaka* who were in possession and cultivated the lands. As land sales between the Crown, Government and Konohiki continued, the rights of the kanaka became an issue. In 1850, the Land Commission moved to award title of land to kanaka who remained in physical possession, cultivated, or improved any portion of Konohiki Lands. These became Kuleana Lands.

By 1875 the sugar cane industry was firmly established. New sugar mills were being built, laborers were arriving from Asia and Europe, and Hilo became a thriving economic center. In 1893, the Hawaiian Monarchy was over-thrown, and Queen Lili‘uokalani was imprisoned. The remaining Crown Lands were confiscated by the government and made a part of the public domain (Chinen, 1961). Hilo began to significantly change in the 1900's through the increased presence of foreign vessels, expansion and growth of tourism, the establishment of missions, private land ownership legalization, the presence of the whaling, cattle, and sugar industries, and the construction of Government roads and railroad lines (Kelly et al. 1981).

Postal services in Hilo began in 1858, and with the Hawaiian Islands becoming a U.S. territory in 1900, efforts were made to expand postal and court facilities in Hilo. In 1913, the Hilo Board of Trade and the territorial representative secured $200,000 for the construction of a new federal building. Designed by New York architect Henry Whitfield in 1915, the building adopted the Mediterranean Renaissance Revival style and was one of Hawaii's early structures using reinforced concrete. Completed in 1917, it served as a courthouse, post office, custom house, and housed various government agencies. In the 1930s, two wings were added for additional space. The building remains a small U.S. postal service office today, despite most postal services having relocated in 1978. The building remains a historic site, listed in the National Register of Historic Places under No. 74000708 since 1974. Other buildings listed on the National Register of Historic Places in the surrounding area include the Palace Theater (No. 93000376), Waiakea

Mission Station – Hilo Station (No. 02000387), and East Hawai‘i Cultural Center (No. 79000752).

Potential Environmental Impact from the Proposed Action

A Reconnaissance Level Survey (RLS) was completed by Stantec GS Inc. in December 2023, which conducted archival research, site visits, and an evaluation of significance and integrity of the existing preschool “cottage” and pool house on site in accordance with Hawai‘i Administrative Rules (HAR) §13-284-6. The report has been summarized in this section, the full report can be found in **Appendix F**.

HAR §13-284-6 outline the standards for determining the significance of a historic property, requiring it to maintain integrity in various in various aspects such as location, design, setting, materials, workmanship, feeling, and association. A property must meet one or more of the following criteria to be considered significant:

1. ! **Criterion A**: Linked to events that have made significant contributions to the overarching history patterns.

2. ! **Criterion B:** Associated with individuals of importance in our historical past.

3. ! **Criterion C:** Represents the unique characteristics of a specific type, era, or construction method; reflects the work of a skilled craftsman; or holds notable artistic value.
4. ! **Criterion D:** Provides or has the potential to provide essential information for research or prehistory or history.

5. ! **Criterion E:** Holds significant value for the native Hawaiian people or another ethnic group in the state due to its connections with cultural practices carried out, or still practiced, at the site, or its association with traditional beliefs, events, or oral histories – associations that are integral to the group’s historical and cultural identity.

According to HAR §13-284-6(c), before submitting significance evaluations for properties other than architectural ones, the agency must consult with ethnic organizations or members of the relevant ethnic group to gather their perspectives on the evaluations under Criterion E. As per this regulation, assessments of significance under Criterion E have not yet been completed.

The following is a summary of the evaluation of significance for the preschool “cottage” and pool house under each criterion:

<u>Preschool “Cottage”</u>

1. ! **Criterion A:** The Hilo YWCA, established in 1919, has long served the needs of women and families in Hilo. The Cottage, its initial permanent home since 1929, hosted crucial programs until the construction of the Activities Building in 1936. Although the Cottage meets Criterion “a” through its association with the social contributions of the Hilo YCWA, the many alterations to the building have resulted in a loss of loss of integrity

that significantly impairs the building's ability to convey the history of that association.

2. &**Criterion B:** While many notable figures from Hilo and Hawai‘i were engaged in acquiring and building the cottage, and others were active in the YWCA's programs and operations, it cannot be firmly linked to individuals of historical significance.

3. &**Criterion C:** The cottage was designed by Frank Futoshi Arakawa, a prominent architect and engineer in Hawai‘i from the 1920s to World War II. Arakawa, known for designing various public buildings and residences, created the Cottage with a modest yet elegant expression of local Craftsman- and plantation-inspired design. This is evident in the clean stonework of the original lānai and the horizontal banks of windows at the entrance.

    a. &**Integrity:** Substantial changes have been made to the main frontage of the Cottage, notably the addition of a sizable covered lānai and adjustments to the roof line and outer wall structure. Further alterations have been carried out on other sides of the building, along with extensive renovations to the interior. These modifications have diminished the original integrity of the design, materials, craftsmanship, and overall atmosphere of the Cottage.

    b. &**Location:** The cottage is in its original location, thus retaining integrity of location.

    c. &**Design:** The modifications to the main facade, especially the addition of a covered lānai, have significantly altered the building's style and structure, obscuring Frank Futoshi Arakawa's original vision. Changes such as adding and covering doorways, inserting new windows, and replacing original ones with aluminum frames are incongruous with Arakawa's design. Extensive interior renovations have further transformed the layout, rendering the cottage unrecognizable from its potential significant period. As a result, the building lacks integrity in its design.

    d. &**Setting:** The cottage's setting has changed since its construction, with other structures on the property now differing architecturally and encroaching on its once open space. These buildings are historically and functionally related, dating to the same period except for the existing multi-purpose building. However, beyond the property lines, the setting has been altered by sporadic replacement of older buildings. This lack of continuity with the historical setting means the Cottage lacks integrity in its setting.

    e. &**Materials:** Many of the original materials remain in the exterior and interior walls of the Cottage. However, the inclusion of non-authentic materials such as aluminum jalousie windows, a modern security door, concrete slab lānai, and contemporary doors diminishes the authenticity of the building. As a result, the cottage lacks integrity in its materials.

    f. &**Workmanship:** The newer changes, such as the added covered lānai, corrugated metal awnings on the rear windows, and the covered stairs at the southern

entrance, seem to lack the meticulous craftsmanship and attention to detail found in Frank Futoshi Arakawa's original design. Thus, the cottage does not preserve its integrity in workmanship.

g. &**Feeling:** Despite significant alterations to the Cottage over time, as well as replacement or renovation of neighboring buildings within and after the significant period, it continues to serve as the YWCA's "home" in Hilo. However, the changes to the front, particularly the addition of the substantial covered lānai, have shifted the property's ambiance. It now projects an institutional rather than domestic character. Consequently, the cottage does not maintain its integrity in terms of its original feeling.

h. &**Association:** Despite significant alterations over the years, the Cottage still holds its identity as the original home of the Hilo YWCA. It remains recognizable and sufficiently intact to be acknowledged as such, maintaining its integrity of association.

Overall, the loss of integrity makes the preschool “cottage” not significant under any criterion.

Pool House

1. &**Criterion A:** Although plans for a swimming pool at the Hilo YWCA were discussed as far back as 1929, it was not built until 1974. By that time, Hilo already had various swimming pools, both public and private, catering to exercise, training, and instruction. Thus, the property does not fulfill Criterion A.

2. &**Criterion B:** A review of the Hawai‘i Swimming Hall of Fame records ("Inductees" 2022) did not reveal any connection between the Swimming Pool Complex and significant athletes, coaches, or contributors in swimming, diving, or water polo in Hilo or Hawai‘i. Therefore, the Swimming Pool Complex does not satisfy Criterion B.
3. &**Criterion C:** The Swimming Pool Complex, a smaller-scale example of ODA/McCarty's locally inspired designs, originally featured open sides connecting the pool to the lānai beneath the irimoya-styled roof. However, 1990s alterations significantly impacted its design integrity. This disqualifies the Swimming Pool Complex from meeting Criterion C.

4. &**Criterion D:** The property has not provided significant historical research information unique from other sources, nor is it anticipated to do so in the future. Thus, it does not meet the requirements of Criterion D.
    a. ! An assessment of integrity is not necessary without any identified significance.

Mitigating Measures for Historic Resources

No mitigating measures are expected to be necessary to protect historic resources. The Reconnaissance Level Survey determined that neither the cottage nor pool house qualify as significant historic structures.

4.4 Transportation and Traffic

Environmental Setting

The subject property is located downtown Hilo at the intersection of Haili Street and Ululani Street where existing traffic is moderate.

The site is currently served by three (3) access points, one (1) entrance and one (1) exit via Ululani Street and one (1) entrance/exit via Haili Street. Two (2) new exits are proposed including one (1) right-turn exit via Kino‘ole Street through an existing walkway outlet, and one (1) exit via Haili Street.

Parking on site is proposed to include forty-eight (48) stalls, three (3) ADA accessible stalls, and four (4) drop off/pick up spaces.

Potential Environmental Impact from the Proposed Action

The existing preschool facility hosts a maximum of 115 students and 14 staff members, totaling 129 occupants. The proposed preschool will accommodate 107 students and 18 staff, totaling 125 occupants. For daycare use, an average of 70.612 trips is anticipated during peak traffic hours. It’s crucial to note that these vehicular movements are already ongoing to the site in its current state. In fact, the proposed plan will see similar enrollment on site for daycare services. Additionally, an estimated average of 7.62 trips for office use and 5.6 trips for multi-family housing use are expected under the proposed action. Nevertheless, this represents a minor increase compared to the current activity on site.

Moreover, the project is set to unfold in three phases, which will help mitigate potential traffic impacts. This will help ensure minimal disruption to traffic flow and parking availability throughout the project’s development.

Mitigating Measures for Transportation and Traffic

The campus has been designed to promote efficient drop-off and pick-up of preschool students to prevent traffic backing up to the County Streets. As such traffic flow during the peak drop-off and pick-up times is anticipated to improve under the proposed action.

It is possible alternative access will be required at the intersection of Haili and Ululani Street as well as Kino‘ole Street from what is proposed. YWCA will work closely with the Department of Public Works (DPW) to ensure compliance with all rules and regulations. Additionally, a Traffic Impact Analysis Report (TIAR) or Traffic Assessment will also be completed if deemed necessary.

4.5 Public Services and Utilities

4.5.1 Airports

Environmental Setting

Hilo International Airport (ITO) serves the eastern part of Hawai‘i Island and is situated on the northeastern coast in Hilo. The airfields at ITO include two runways, Runway 8 (east to west orientation) and 3 (generally southwest to northeast orientation). The subject property is located 1.59 miles from the property boundary of ITO and 10,545 feet from the end of Runway 8.

Bradshaw Army Airfield (BSF) stands as the sole military airport on Hawai‘i Island and is an integral component of the U.S. Army’s Pohakuloa Training Area (PTA). PTA is positioned between Mauna Kea and Mauna Loa and features one active runway (Runway 9), which is generally oriented from east to west.

Potential Environmental Impact from the Proposed Action

The subject sites proximity to ITO will require some mitigating measures to ensure compliance with state and federal regulations. The project roughly 35 miles from PTA and is therefore not located within 15,000 feet (2.84) miles of an active military airport and is not sited within a military airfield Clear Zone (CZ) or Accident Potential Zone (APZ).

Mitigating Measures for Airports

All projects within 5 miles from Hawai‘i State Airports are advised to read the ‘Technical Assistance Memorandum’ (TAM) for guidance with development and activities that may require further review and permits. YWCA will review the memorandum and comply with any further review or permitting required by the State of Hawai‘i Department of Transportation (HDOT).

Federal Aviation Administration (FAA) regulation required the submittal of FAA Form 7460-1 ‘Notice of Proposed Construction or Alteration’ pursuant to the Code of Federal Regulations, Title 14, Part 77.9, if construction is proposed to occur within 20,000 feet of a public use or military airport which exceeds 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet.

YWCA will submit FAA Form 7460-1 ‘Notice of Proposed Construction or Alteration’ pursuant to the Code of Federal Regulations, Title 14, Part 77.9 with construction equipment and staging heights, including heights of temporary construction cranes (if necessary) to the FAA and the HDOT Airport Planning Section.

4.5.2 Energy

Environmental Setting

The subject site is served by an existing Hawaiian Electric Light Company connection, which will be adequate for the proposed use.

Potential Environmental Impact from the Proposed Action

The proposed project will moderately increase energy use on site compared to what is used today. However, energy efficiency will likely increase due to improved buildings and infrastructure on site.

Solar energy photovoltaic (PV) systems located in or near approach paths of aircrafts can create hazardous conditions for pilots due to the possible glint and glare reflected from the PV panel array. The subject property's proximity to ITO means YWCA must be aware of these hazards if a PV system is to be installed at any stage of the project.

Solar energy PV systems have also been known to emit radio frequency interference (RFI) to aviation-dedicated radio signals, thereby disrupting the reliability of air-to-ground communications. YWCA may incorporate a PV system into the proposed project, and if they do choose to install PV, the YWCA will commit to the mitigating measures below.

Mitigating Measures for Energy

If a PV system is constructed on site, YWCA will submit a FAA Form 7460-1 for the system and adhere to FAA glint and glare analysis requirements. After the FAA determination of Form 7540-1 flint and glare analysis, a copy will be sent to HDOT Airport Planning Section. YWCA will implement any necessary mitigation measures from glint and glare issues and/or RFI hazards promptly upon notification from HDOT or the FAA to ensure aircraft safety.

4.5.3 Fire Protection

Environmental Setting

The Hilo Fire Station is located 0.4 miles to the south of the subject property at the intersection of Kino'ole Street and Ponahawai Street.

Potential Environmental Impact from the Proposed Action

There are no anticipated impacts to fire protection from the proposed action. New and updated buildings on site will improve the fire safety measures and overall emergency response capabilities compared to what exists today.

Mitigating Measures for Fire Protection

Water calculations will be determined in consultation with the Department of Water Supply to ensure adequate water is available for fire suppression.

4.5.4 Hospitals

Environmental Setting

Hilo Medical Center (HMC) is the main hospital that serves the east side of the Island of Hawai‘i. HMC is located approximately 2 miles to the west of the subject property along Wainuenue Avenue.

Potential Impact from the Proposed Action

The proposed action will have no impact to or from hospitals in the area. The site is within 2 miles of the hospital for quick emergency response, with adequate access for emergency vehicles.

Mitigating Measures for Hospitals

The proposed project is not expected to require any mitigation measures for hospitals.

4.5.5 Water Supply

Environmental Setting

County water is available to the site via an existing Department of Water Supply water meter that supports the sites current use.

Potential Environmental Impact from the Proposed Action

The proposed project will require a modest increase in water supply on site compared to its current use. Estimated maximum daily water usage calculations, prepared by a professional engineer, licensed in the State of Hawai‘i, will be submitted to DWS for review and approval. These calculations will include estimated peak flow in gallons per minute and the total estimated maximum daily water usage in gallons per day, including irrigation use. Based on the water demand calculations, the Department will determine the appropriate service lateral and meter size required to satisfy all water needs including fire suppression requirements.

Mitigating Measures for Water Supply

Water conservation measures will be implemented into the project design to minimize water use. Water efficient fixtures such as low flow systems and timed shut off will be used for all appropriate devices in bathrooms and kitchens.

The Commission on Water Resource Management also recommends implementing appropriate landscaping irrigation conservation Best Management Practices endorsed by the Landscape Industry Council of Hawai‘i. These include installation and maintenance BMPs.

Installation Best Management Practices:

1. ! Irrigation system plans and specifications should include post-construction documentation, including drawing of record (as-built drawings), maintenance recommendations, design precipitation rates and manufacturer's operational guide.
2. ! Design irrigation system with sprinklers spaced with head-to-head coverage or better.
3. ! Irrigate with a precipitation rate not exceeding soil infiltration rate.
4. ! Design systems to irrigate similar hydrozones such as slope, sun exposure, soil conditions, and plant materials with similar water use.
5. ! Use smart controllers.
6. ! Encourage the use of drip irrigation for individual specimen plants, shrubs, and trees during establishment period.
7. ! Use flow sensors with smart controllers to detect leaks or drastic changes in water use.
8. ! Use an irrigation submeter that measures water use on large sites.
9. ! Use water conservation irrigation components, such as rotary nozzles, pressure regulated spray heads and valves, rain switches, and high efficiency nozzles.
10. Sprinklers in low-lying areas and slopes should be equipped with check valves.
11. Incorporate Low Impact Development (LID) storm water design methods, including rain gardens, infiltration beds, rain barrels, swales, and basins, that allow water to collect and soak into the ground on site.
12. Preserve existing native trees and non-invasive vegetation where feasible during development and do not install irrigation in these areas.
13. Incorporate compost into soils at planting.
14. Encourage xeriscaping practices to include native and non-invasive ornamental plants.
15. Encourage the use of non-potable water for irrigation.
16. Use a qualified irrigation designer, irrigation supplier, landscape architect and installation contractor.

Maintenance Best Management Practices:

1. ! If not using a climate-based controller, manually manage controller run times and days to water according to soil conditions and seasonal weather conditions.
2. ! Program irrigation controller to encourage deep watering by using longer, less frequent watering times to improve deep rooting and increase drought resistance.
3. ! To reduce the amount of water evaporating from the soil surface, schedule night or early morning (5 p.m. to 9 a.m.) start times for established plantings. In areas where ponding, compaction, or runoff occurs, set 2-3 short run time cycles.
4. ! Mulch with wood chips around base of trees and shrub beds and refresh as necessary to maintain a minimum of two inches.
5. ! Allow grass to grow taller in summer months to conserve water and encourage deep rooting.
6. ! Aerate lawns when compaction occurs.
7. ! At a minimum, conduct a monthly inspection to verify system operation and correct deficiencies.
8. ! Conduct a practical water audit once every 2 to 5 years by a qualified irrigation professional.

9. ! Attend water conservation seminars and webinars including Board of Warer Supply, Landscape Architects, University of Hawai‘i, EPA Water Sense, and the Irrigation Association.
10. Use a licensed maintenance contractor with water conservation expertise.

4.5.6 Wastewater

Environmental Setting

The county sewer line is available to the subject site to adequately handle wastewater for the proposed project.

Potential Environmental Impact from the Proposed Action

The Hilo Wastewater Treatment Plant facility needs significant repairs to maintain long term functional operations. Wastewater on site will increase modestly under the proposed action, which will subsequently increase demand on the wastewater treatment plant. Efforts to minimize wastewater will be reflected in the design of the project.

Mitigating Measures for Wastewater

The Hawai‘i County Department of Environmental Management (DEM) Wastewater Division requires connections of proposed structures to the public sewer in accordance with Section 21-5 of the Hawai‘i County Code. YWCA will submit a permit to disconnect the sewer line available to the site during demolition and another permit to reconnect the sewer line for development.

Efforts to minimize wastewater are reflected in the design of the project, including water efficient fixtures (e.g. low flow systems and timed shut off for appropriate devices in all bathroom and proposed kitchens) and landscaping practices as outlined above.

4.5.7 Solid Waste

Environmental Setting

Solid waste is expected to be generated from demolition activities including the existing preschool ‘cottage’, pool house, swimming pool, and existing playground. During operation, solid waste will be produced from pre-school, office, and residential activities.

Potential Environmental Impact from the Proposed Action

Demolition activities will produce some hazardous waste due to the presence of asbestos, lead, and mercury in existing buildings. These materials will need to be disposed of properly to minimize potential impacts on site and to the community. The quantity of waste to be produced from demolition and operation of the proposed project is not known. However, a solid waste management plan will be developed prior to any project activities to determine potential impacts and appropriate mitigating measures.

Mitigating Measures for Solid Waste

During operation, local waste management companies will be contracted to dispose of waste on site. YWCA will also plan for recycling stations throughout the facilities, including green waste and composting.

Additionally, YWCA will comply with the following regulations outlined by the Hawai‘i County Department of Environmental Management (DEM) Solid Waste Division:

- Commercial operations, State and Federal agencies, religious entities and non-profit organizations may not use transfer stations for disposal.
- Aggregates and any other construction/demolition waste should be responsibly reused to its fullest extent.
- Ample room should be provided for rubbish and recycling.
- Green waste may be transported to the green waste sites located at the West Hawai‘i Organics Facility and East Hawai‘i Organics Facility, or other suitable diversion programs.
- Construction and demolition waste is prohibited at all County Transfer Stations.
- All construction and demolition waste shall be transported to the West Hawai‘i Sanitary Landfill for disposal.

YWCA will submit a Solid Waste Management Plan (SWMP) completed by a licensed engineer or architect in accordance with DEM guidelines. The Solid Waste Management Plan will be used to:

1. ! Promote and implement recycling and recycling programs.
2. ! Predict the waste generated by the proposed development and anticipate the impacts on County Solid Waste Management Facilities.
3. ! Predict the additional vehicular traffic being generated because of waste and recycling transfers.

According to DEM guidelines, the SWMP will contain the following:

1. ! A description of the project and the potential waste that may be generated: e.g. analysis of anticipated waste volume and composition. This includes waste generated during the construction and operation or maintenance phases. Waste types shall include (but not be limited to):
    a. ! Organics (including food waste and green wastes);
    b. ! Construction and demolition materials;
    c. ! Paper (including cardboard);
    d. ! Metal (including ferrous and non-ferrous metals);
    e. ! Plastic;
    f. ! Special (including ash, sludge, treated medical waste, bulky items, tires);
    g. ! Hazardous (including paint, vehicle fluids, oil, batteries); and
    h. ! Glass.

2. ! Indicate onsite source separation by waste type, e.g. source separation bins for glass, metal, plastic, cardboards, aluminum, etc. Provide ample space for rubbish and recycling.
3. ! Identification and location of the proposed waste reduction, waste re-use, recycling facility or disposal site and associated transportation methods for the various components of the development's waste management system, including the number of vehicle movements and associated routes that will be used to transport the waste and recycled materials.
4. ! The report will include identification of any impact to County-operated waste management facilities, and the appropriate mitigation measures that will be implemented by the development to minimize these impacts.
5. ! Analysis will be based on the highest potential use or zoning of the development.

4.5.8 Parks and Recreation

Environmental Setting

Kalākaua Park is located roughly 300 feet to the north of the subject property and the ocean is approximately 0.25 miles east. Additionally, Wailuku State Park and Rainbow Falls are located approximately 1.5 miles to the west of the subject site along Wainuenue Avenue.

Potential Environmental Impact from the Proposed Action

The proposed action will have negligible impact on nearby parks and recreation activities. Public access to the parks and ocean will not be impacted by the request. This will not change under any action alternative.

Mitigating Measures for Parks and Recreation

No mitigating measures are expected to be necessary for parks and recreation.

4.6 Secondary and Cumulative Impacts

The proposed action will not produce any major secondary impacts, such as population changes or produce any significant impacts to geological processes, water quality, flora and fauna, historic and cultural resources, or public facilities. The development will help provide essential services, employment, and housing to the people of Hilo. Traffic is not expected to increase significantly under the proposed action compared to what is experienced on site. There are no major developments known to be occurring or plan to occur near the subject property that could contribute to cumulative impacts.

PART 5: FINDINGS AND CONCLUSIONS

5.1 Summary of Environmental Assessment Factors and Mitigating Measures

Table 4 attached summarizes all environmental assessment factors and mitigating measures.

Table 4: Summary of Environmental Assessment Factors and Mitigating Measures

Environmental Assessment Factor	Impact Code	Sub-Category	Impact Evaluation and Mitigation Measures
LAND DEVELOPMENT			
Land Use and Zoning	2		N/A
Drainage and Stormwater Runoff	3	Earthwork	YWCA will ensure all earthwork and grading will be conducted in compliance with: (a) “Storm Drainage Standards,” County of Hawai‘i, 1970 and as revised (b) “Flood Control,” Chapter 27 of the Hawai‘i County Code (c) Standards and regulations of the Federal Emergency Agency (FEMA) (d) “Erosion and Sedimentation Control,” Chapter 10 of the Hawai‘i County Code
		Construction	Construction BMPs may include, but are not limited to: • Minimizing soil loss and erosion by revegetating and stabilizing slopes and disturbed areas of soil. • Minimizing sediment loss by placing structural controls including silt fences, gravel bags, sediment ponds, check dams, and other barriers. • Applying sediment wattles and protective covers to soil and material stockpiles. • Gravel check dams in gutters. • Constructing and using a stabilized construction vehicle entrance, with a designated vehicle wash area that discharges to a sediment pond. • Washing of all vehicles in the designated wash area before leaving the project site. • Use of drip pans beneath vehicles to trap vehicle fluid. • Performing routine inspection and maintenance of structural BMPs by trained personnel. •Properly cleaning significant leaks or spills and disposing at an approved site.
		ACM Disturbance	The friable and non-friable identified and assumed ACM, which could be crumbled and pulverized during renovation/demolition activities must be removed and disposed of by a qualified asbestos abatement contractor. Disturbance activities that would render the non-friable ACM to be friable must be avoided. In addition, the services of a qualified consultant should be obtained to conduct air monitoring and inspect the removal activities to ensure compliance with applicable Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and Hawaii Occupational Safety and Health (HIOSH) regulations pertaining to the handling of asbestos-containing material.
		LBP and LCP Disturbance	• Spot remove and dispose of all LBP and LCP that may be disturbed or become dislodged during renovation activities in accordance with applicable local, state, and federal regulations. • Spot remove and dispose of all loose and flaking (poor condition) LBP and LCP that may be disturbed or become dislodged during renovation activities in accordance with applicable local, state, and federal regulations. • Workers performing disturbance of LBP and LCP must take appropriate measures to comply with applicable OSHA and HIOSJ regulations pertaining to the handling of lead containing materials, lead dust and worker protection. Note that OSHA and HIOSH regulate activities that disturb paint which contain any detectable concentration of lead. Note that detectable levels of lead in the paint were found throughout the subject site. • A qualified consultant should be obtained to conduct air monitoring and inspection activities to ensure compliance with applicable state and federal regulations pertaining to the handling of lead paint.
		Mercury-Containing Lamps and PCB-Containing Light	Manage and/or remove and dispose of hazardous and regulated materials in accordance with applicable local, state, and federal regulations, prior to renovation and/or demolition activities that may disturb these materials.

Table 4: Summary of Environmental Assessment Factors and Mitigating Measures

Hazardous Materials	3	Soil Management	The site's disturbed soil will undergo continuous monitoring and documentation by a Qualified Environmental Professional (QEP) with at least 5 years of experience in environmental oversight linked to construction projects. If known or suspected contaminated soil is encountered during excavation, it is imperative to take appropriate actions in compliance with HDOH and EPA guidelines, laws, and regulations. This includes proactive planning to ensure workers have suitable Personal Protective Equipment (PPE) including long sleeve pants and shirts, gloves, half-faced respirators with P-100 filters, and goggles. In addition, a site-specific Health, and Safety Plan (HASP) should be provided by the contractor that discusses worker safety from soil chemical hazard exposure in detail. Tasks related to the proper management of contaminated soil encompass the following: • When encountering contaminated soil, a QEP must be oversee the field to ensure: - Segregation of known or suspected contaminated soil from clean soil. - Proper storage and covering of known or suspected contaminated soil with plastic sheeting. - Adequate management of contaminated soil during and after excavation, along with providing health and safety guidance concerning potential worker exposure to COPCs. • Workers expected to encounter contaminated soil must wear appropriate PPE. • Workers in contact with contaminated soil must receive necessary training, including a minimum 40-hour HAZWOPER certification and current 8-hour annual refresher training. • Soil transported offsite should undergo fluid drainage, and the load must be covered with a dust screen during transit. • In case of newly discovered soil contamination from an unknown source or location, immediate notification to the HDOH HEER Office is mandatory, reporting it as a new release. During excavation of known or suspected contaminated soil, the QEP must perform the following activities: • Monitor the location of excavation activities to ensure that soil depicted on hazard maps is properly managed as contaminated, even when there is no field evidence of contamination. • Visually screen soils for staining, debris, soil waste, discoloration, or other evidence of contamination as the soils are removed from the excavation. • Check for petroleum or other unusual chemical odors emanating from the soil. • Use the field observations to segregate the soil properly.
		Excavation and Stockpiling	Suspected contaminated soil must be stored separately from clean soil. The following steps necessary for managing contaminated soil: • Segregate contaminated soil from uncontaminated soil. • Allow water within excavated soils to drain back into the excavation before stockpiling. • Store contaminated soil in a bermed area lined with 20-mil plastic. Cover the stockpiles with plastic sheeting daily and during significant wind or rain events. Secure the sheeting adequately to prevent displacement by strong winds. • Line the edges of the plastic sheeting with filter socks to create a filtering barrier around the stockpile. • Position soil stockpiles away from storm inlets, surface waters, and stormwater pathways. • Separate soil with strong petroleum or solvent odors and/or free-phase product from clean and moderately impacted soil. Such soil cannot be reused and must undergo proper disposal. • Keep soil stockpiles on-site and refrain from transporting or storing them off-site without prior authorization or characterization.
		Soil Reuse and Disposal	• No soil is planned for reuse on or offsite. If that changes, the C-EHMP must be revised and approved by the HDOH HEER office. • All excavated soil will be properly handled and disposed of at the landfill and new imported clean basecourse will be used as backfill. • The QEP must collect and maintain records of soil import, provide them to the HEER Office for approval, and ensure documentation confirming the cleanliness of the imported material. Additionally, a soil agreement must be signed between the generator and the site owner.
		Decontamination of Vehicles, Equipment, and Personnel	Vehicles, and equipment including hand-held and manual tools in direct contact with contaminated soil must be decontaminated before handling uncontaminated materials and before leaving the work area. The QEP shall designate Decontamination Areas for all decontamination activities. Decontamination procedures should include the following: • Physically remove soil from the vehicle/equipment/tool surface using appropriate hand tools at the excavation site. - Soil removed during this step should be returned to the impacted area, excavation, or appropriate stockpile. • Rinse and wash the surfaces of vehicles/equipment/tools exposed to contaminated material with water at the excavation site, directing the wash water back to the impacted area or collecting it for proper disposal. During equipment decontamination, proper PPE must be worn to minimize exposure to COPCs. This should include Modified Level D PPE consisting of nitrile gloves, rubber boots, long sleeves, and an appropriate face shield to protect against splash back during decontamination. All PPE that encounters contaminate soil must be separated and disposed of in double bagged garbage bags and deposited in the site dumpster or municipal landfill. Washing facilities must be provided at the worksite for workers to clean their hands and prevent contamination before eating, drinking smoking, or leaving for the day.

Table 4: Summary of Environmental Assessment Factors and Mitigating Measures

		Spills or Release Response	Construction activities are also required to follow the guidelines of State and County requirements to minimize the possibility for spills and hazardous materials during construction. The applicant proposes the following construction mitigating measures: • Construction activities with the potential to produce polluted runoff will be limited to periods of low rainfall. • During construction, emergency spill treatment, storage, and disposal of all hazardous materials, will be explicitly required to meet all State and County requirements, and the contractor will adhere to "Good Housekeeping" for all appropriate substances, with the following instructions: - Onsite storage to minimum practical quantity of hazardous materials necessary to complete the job; - Fuel storage and use will be conducted to prevent leaks, spills or fires; - Products will be kept in their original containers unless un-resealable, and original labels and safety data will be retained; - Disposal of surplus will follow manufacturer's recommendation and all regulations; - Manufacturers' instructions for proper use and disposal will be strictly followed; - Regular inspection by contractor to ensure proper use and disposal; - Onsite vehicles and machinery will be monitored for leaks and receive regular maintenance; - Construction materials, petroleum products, wastes, debris, and landscaping substances (herbicides, pesticides, and fertilizers) will be prevented from blowing, falling, flowing, washing, or leaching into the ocean; and • Unused materials and excess fill (if any) will be properly disposed of at an authorized waste disposal site. All spills must be reported in according with HRS §128D and HAR §11-451. If a spill or release occurs, the following actions must be taken: Identify the spilled substance, its source, volume, severity, and determine if immediate emergency response is necessary. • Halt work if the release is unmanageably large or poses imminent danger to human health or the environment and notify the Fire Department by calling 911. • If the spill involves volatile, flammable, or combustible materials, remove potential ignition sources, direct workers upwind, and use an LEL meter to monitor for explosive vapors. • Stop work if an unexpectedly large release or contaminated area is encountered, or if unanticipated chemicals or hazards are released. • Cease work and initiate emergency response if a worker or member of the public is injured. • If safe, eliminate the spill source (e.g., by closing a valve, stabilizing a container), but refrain from attempting to stop releases from active fuel pipelines. • Safeguard sensitive ecological areas threatened by the spill. If any new hazardous substances or waste are discovered on the property during construction, all work will cease, and appropriate authorities will be contacted. A remediation specialist can be contacted to supervise the appropriate disposal and management of substances, if deemed necessary. YWCA will require all users and occupants of the proposed facilities to follow all government regulations pertaining to hazardous and toxic substances.
Air Quality	3	N/A	Dust control measures will comply with ambient air quality standards established in Hawai'i Administrative Rules (HAR) §11-59 and pollution control requirements in HAR §11-60.1 including Fugitive Dust, which prohibits visible emissions of dust from constriction activities. These regulations will be strictly followed to prevent dust impacts to Ululani Street, Haili Street, and surrounding areas. In addition, reasonable measures to control airborne and visible fugitive dust from road areas are outlined by the State of Hawai'i Department of Health's Clean Air Branch. These measures include, but are not limited to: • Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact. • Erecting dust fences around the worksite. • Providing adequate water sources at the site prior to start-up of construction activities. Water should be sprayed on the surface of soil to prevent dust from being generated. However, the amount of water used for dust control shall be minimized as to not create run-off away from the excavation area. • Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase. • Minimizing airborne, visible fugitive dust from shoulders, and access roads. • Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities. • Controlling airborne, visible fugitive dust from debris being hauled away from the project site.
Visual Quality and Aesthetics	3	N/A	Mitigating measures for outdoor lighting and screening landscape can be found in the threatened and endangered species section of this table.
Noise	3	N/A	Rules and regulations outlined in Hawai'i Administrative Rules Title 11, Chapter 46 "Community Noise Control," will be followed during all construction and operation activities. If there is a potential for demolition and/or construction noise to exceed the State Department of Health's maximum permissible noise levels, a noise permit will be sought. During operation, appropriate landscaping will be incorporated to screen the property and buffer noise to surrounding areas without creating hazardous wildlife conditions for aircraft operations at Hilo International Airport.
NATURAL FEATURES			
Geology, Topography, and Soils	2	N/A	N/A

Table 4: Summary of Environmental Assessment Factors and Mitigating Measures

Surface Waters and Water Quality	3	N/A	The following mitigating measures will minimize the potential for storm water encountering contaminated soil: • Open excavations should be backfilled as soon as practicable to prevent storm water and direct precipitation from entering the excavation. When possible, open excavations should be bermed to prevent stormwater run-off from entering the excavation. • Regularly monitor the weather throughout the day for signs of approaching storms and/or heavy rains. • In the event of heavy rain, ensure that all stockpiles of contaminated soil are covered with plastic sheeting and substantially secured.
Coastal Resources	2	N/A	N/A
Wetlands	2	N/A	N/A
Floodplains	2	N/A	N/A
Vegetation	2	N/A	N/A
Terrestiral and Aquatic Wildlife	2	N/A	N/A
Threatened and Endangerd Species and Critical Habitat		Hawaiian Hoary Bat	To avoid and minimize impacts to the endangered Hawaiian hoary bat, YWCA will follow these applicable measures: - Do not disturb, remove, or trim woody plants greater than 15 feet during the bat birthing and pup rearing season between June 1 and September 15. - Do not use barbed wire for fencing.
		Hawaiian Coot	To avoid and minimize potential project impacts to Hawaiian waterbirds, the following applicable measures will be incorporated: - In areas where waterbirds are known to be present, post and enforce reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site. - Incorporate Best Management Practices for Work in Aquatic Environments into the project design. - Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys, where appropriate habitat occurs within the vicinity of the proposed project site, prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). - If a nest or active brood is found: 1. Contact USFWS within 48 hours for further guidance. 2. Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer. 3. Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.
		Hawaiian Duck	
		Hawaiian Stilt	
		Band-rumped Storm-petrel	To avoid and minimize potential project impacts to seabirds, YWCA will incorporate the following measures: - Any outdoor lighting must conform to the standards established by the Hawai'i County Outdoor Lighting Ordinance (Hawai'i County Code Chapter 14, Article 9: "Outdoor Lighting"). - The minimum possible amount of outdoor/exterior lighting should be used and should be turned off when not needed. Motion sensor activated lighting will be used wherever feasible. - All exterior lighting should be fully shielded. This means that all lighting fixtures must emit zero light above the horizontal plane. - Conformity to the Outdoor Lighting Ordinance also requires the use of blue-deficient exterior lighting. This means that exterior LED lighting must emit less than 2% of its total energy at wavelengths less than 500 nm. The best choice for this is either filtered LED lights, or amber LED lights. - White light should be avoided. Any white light used should have Correlated Color Temperature of 2700 K or below. - Rig lights during construction and operation of the proposed water well must be shielded to minimize stray lighting. - Avoid nighttime constructin during the seabird fledging period between September 15th and December 15th. If nighttime construction is required during the seabird fledging season (September 15 to December 15), a qualified biologst will be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling the area, lights will be turned off. If a downed seabird is detected, the State Division of Forestry and Wildlife (DOFAW) will be contacted and their response protocol will be followed. To avoid and minimize the likelihood of collision with fences, powerlines, and other structures, YWCA will incorporate the following: - Where fences extend above vegetation, three strands of polytape will be integrated into the fence to increase visibility. - For powerlines, guywires, and other cables, minimize exposure above vegetation height and vertical profile.
		Hawaiian Petrel	
		Newell's Shearwater	

Table 4: Summary of Environmental Assessment Factors and Mitigating Measures

	3	Hawaiian Goose	To avoid and minimize potentail project impacts to nēnē YWCA will incorporate the following measures: - Do not approach, feed, or disturb nēnē. - If nēnē are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with nēnē nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). - Cease all work immediately and contact USFWS for further guidance if a nest is discovered within a radius of 150 feet of proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins. - In areas where nēnē are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site. Nēnē 4(d) rule: A 4(d) rule was established at the time the nēnē was downlisted to threatned status. Under the 4(d) rule, the following actions are not prohibited under the Act, provided the additional measures described in the downlisting rule are adhered to: - Take by landowners, or their agents, conducting intentional harrassment in the form of hazing or other deterrent measures not likely to cause direct injury or mortality, or nēnē surveys. - Take that is incidental to conducting lawful control of introduced predators or habitat management activities for nēnē . - Take by authorized law enforcement officers for the purpose of aiding or euthanizing sick, injured, or orphaned nēnē; disposing of dead speciments; and salvaging a dead specimen that may be used for scientific study.
		Hawaiian Hawk	To avoid and minimize potentail project impacts to the Hawaiian hawk YWCA will incorporate the following measures: DOFAW recommends that pre-construction surveys of the area be conducted by a qualified biologist following appropriate survey methods to ensure no Hawaiian Hawk nests are present, which may occur during the breeding season from March to September. The survey should be conducted at least 10 days prior to the start of construction. If a hawk nest is detected, a buffer zone of 100 meters (330 feet) should be established around it where no construction shall occur until the chick(s) have fledged, or the nest is abandoned and DOFAW stall should be immediately notified. If adult individuals are detected in the area during construction, all activities within 30 meters (100 feet) of the bird should cease. Work may continue when the bird has left the area on its own.
		General	In addition, DOFAW recommends minimizing the movement of plant or soil material between worksites to avoid or reduce potential impacts from fungal pathogens. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Native plant species that are appropriate for the area will be used for landscaping. No detrimental invasive species will be planted on site. DOFAW recommends consulting with the Big Island Invasive Species Committee (BIISC) to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. The Plant Pono guide found at www.plantpono.org can also be used for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants to be used on site. In adherence to Federal Aviation Administration regulations outlined in ‘Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants on or Near Airports,’ and considering the proximity to ITO, the YWCA will refrain from implementing landscaping or vegetation that could serve as a wildlife attractant. This precautionary measure is aimed at preventing potential hazards to aircraft operations. Cats are natural predators of native birds, including State-listed endangered waterbirds, seabirds, and forest birds. Their hunting instincts mean that even well-fed cats will actively hunt and prey on wildlife. As a result, DOFAW advises that no feeding of feral cats take place on the property.
SOCIOECONOMIC			
Employment and Income Patterns	1	N/A	N/A
Demographic Character Changes, Displacement	2	N/A	N/A
Cultural and Historic Resources	2	N/A	N/A
Environmental Justice	1	N/A	N/A
COMMUNITY FACILITIES AND SERVICES			
Transportation and Accessibility	3	N/A	It is possible alternative access will be required at the intersection of Haili and Ululani Street as well as Kino‘ole Street from what is proposed. YWCA will work closely with the Hawai‘i Department of Transportation (HDOT) to ensure compliance with all rules and regulations. Additionally, a Traffic Impact Analysis Report (TIAR) will also be completed if deemed necessary.
Utilities	2	N/A	N/A

Table 4: Summary of Environmental Assessment Factors and Mitigating Measures

Solid Waste	3	N/A	YWCA will comply with the following regulations outlined by the Hawai‘i County Department of Environmental Management (DEM) Solid Waste Division: • Commercial operations, State and Federal agencies, religious entities and non-profit organizations may not use transfer stations for disposal. • Aggregates and any other construction/demolition waste should be responsibly reused to its fullest extent. • Ample room should be provided for rubbish and recycling. • Green waste may be transported to the green waste sites located at the West Hawai‘i Organics Facility and East Hawai‘i Organics Facility, or other suitable diversion programs. • Construction and demolition waste is prohibited at all County Transfer Stations. • All construction and demolition waste shall be transported to the West Hawai‘i Sanitary Landfill for disposal. YWCA will submit a Solid Waste Management Plan (SWMP) completed by a licensed engineer or architect in accordance with DEM guidelines.
Wastewater	2	N/A	N/A
Water supply	3	Landscape Irrigation Installation BMPs	1. Irrigation system plans and specifications should include post-construction documentation, including drawing of record (as-built drawings), maintenance recommendations, design precipitation rates and manufacturer’s operational guide. 2. Design irrigation system with sprinklers spaced with head-to-head coverage or better. 3. Irrigate with a precipitation rate not exceeding soil infiltration rate. 4. Design systems to irrigate similar hydrozones such as slope, sun exposure, soil conditions, and plant materials with similar water use. 5. Use smart controllers. 6. Encourage the use of drip irrigation for individual specimen plants, shrubs, and trees during establishment period. 7. Use flow sensors with smart controllers to detect leaks or drastic changes in water use. 8. Use an irrigation submeter that measures water use on large sites. 9. Use water conservation irrigation components, such as rotary nozzles, pressure regulated spray heads and valves, rain switches, and high efficiency nozzles. 10. Sprinklers in low-lying areas and slopes should be equipped with check valves. 11. Incorporate Low Impact Development (LID) storm water design methods, including rain gardens, infiltration beds, rain barrels, swales, and basins, that allow water to collect and soak into the ground on site. 12. Preserve existing native trees and non-invasive vegetation where feasible during development and do not install irrigation in these areas. 13. Incorporate compost into soils at planting. 14. Encourage xeriscaping practices to include native and non-invasive ornamental plants. 15. Encourage the use of non-potable water for irrigation. 16. Use a qualified irrigation designer, irrigation supplier, landscape architect and installation contractor.
		Landscape Irrigation Maintenance BMPs	1. If not using a climate-based controller, manually manage controller run times and days to water according to soil conditions and seasonal weather conditions. 2. Program irrigation controller to encourage deep watering by using longer, less frequent watering times to improve deep rooting and increase drought resistance. 3. To reduce the amount of water evaporating from the soil surface, schedule night or early morning (5 p m. to 9 a.m.) start times for established plantings. In areas where ponding, compaction, or runoff occurs, set 2-3 short run time cycles. 4. Mulch with wood chips around base of trees and shrub beds and refresh as necessary to maintain a minimum of two inches. 5. Allow grass to grow taller in summer months to conserve water and encourage deep rooting. 6. Aerate lawns when compaction occurs. 7. At a minimum, conduct a monthly inspection to verify system operation and correct deficiencies. 8. Conduct a practical water audit once every 2 to 5 years by a qualified irrigation professional. 9. Attend water conservation seminars and webinars including Board of Warer Supply, Landscape Architects, University of Hawai‘i, EPA Water Sense, and the Irrigation Association. 10. Use a licensed maintenance contractor with water conservation expertise.
Public Safety	3	N/A	During construction, potential impacts to the public and workers on site during demolition and movement of hazardous material will be mitigated by BMP’s outlined in the Hazardous Materials section
Parks, Open Space, and Recreation	2	N/A	N/A
CLIMATE AND ENERGY			
Climate Change	2	N/A	N/A
Energy Efficiency	2	N/A	N/A

***Impact Codes: (1) Minor Beneficial Impact; (2) No Impact Anticipated; (3) Minor Adverse Impact - May Require Mitigation; (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement**

PART 6: CONFORMANCE WITH LAWS, AUTHORITIES, AND COMPREHENSIVE PLANS

6.1 Hawai‘i County General Plan

The Hawai‘i County General Plan serves as a guiding document for decision-making and the implementation of goals for Hawai‘i Island. The plan was adopted in 1989 by ordinance and most recently revised in 2005.

The General Plan uses the Land Use Pattern Allocation Guide (LUPAG) Map to designate land on Hawai‘i Island for future developments. The LUPAG is a broad, flexible design tool to guide the direction and quality of future developments in a coordinated and manner. It indicates the general location of various land uses in relation to each other. The designation for the subject property is High Density Urban. Due to the importance of the General Plan in determining the suitability of land-use projects and developments, the following goals, policies, and standards that align with the proposed action are discussed below:

ECONOMIC GOALS

a. ! Provide residents with opportunities to improve their quality of life through economic development that enhances the County’s natural and social environments.
b. ! Economic development and improvement shall be in balance with the physical, social, and cultural environments of the island of Hawai‘i.
c. ! Strive for diversity and stability in the economic system.
d. ! Provide an economic environment that allows new, expanded, or improved economic opportunities that are compatible with the County’s cultural, natural, and social environment.
e. ! Strive for an economic climate that provides its residents an opportunity for choice of occupation.
f. ! Strive for diversification of the economy by strengthening existing industries and attracting new endeavors.
g. ! Strive for full employment.

ECONOMIC POLICIES

f. ! Support all levels of educational, employment, and training opportunities and institutions.
x. ! Encourage the health/wellness industry.

Discussion: The proposed project is set to advance economic development in the area by creating stable employment opportunities, including roles such as educators, office administrators, program specialists, and staff for grounds and building maintenance. This initiative will enable the YWCA to expand its daycare services and enhance its programs supporting teenagers and families. These services are crafted to equip individuals and community members with the tools they need for success, thereby promoting professional development and overall wellness within the community.

ENVIRONMENTAL QUALITY GOALS

a. ! Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.
b. ! Maintain and, if feasible improve the existing environmental quality of the island.
c. ! Control pollution.

ENVIRONMENTAL QUALITY POLICIES

a. ! Take positive action to further maintain the quality of the environment.

ENVIRONMENTAL QUALITY STANDARDS

a. ! Pollution shall be prevented, abated, and controlled at levels that will protect and preserve the public health and well-being, through the enforcement of appropriate Federal, State and County standards.
b. ! Incorporate environmental quality controls either as standards in appropriate ordinances or as conditions of approval.
c. ! Federal and State environmental regulations shall be adhered to.

Discussion: YWCA will adhere to all environmental quality goals, policies, and standards. The subject site is serviced by the County sewer system to manage wastewater. Guidelines outlined in the HMSS and C-EHMP for mitigating measures and BMPs will be strictly followed to safeguard all users and occupants of the site during construction and operation from potential contamination.

FLOODING AND OTHER NATURAL HAZARDS GOALS

a. ! Protect human life.
b. ! Prevent damage to man-made improvements.
c. ! Control pollution.
d. ! Prevent damage from inundation.
e. ! Reduce surface water and sediment runoff.
f. ! Maximize soil and water conservation.

FLOODING AND OTHER NATURAL HAZARDS POLICIES

d. ! Any development within the Federal Emergency Management Agency designated floodplain must be in compliance with Chapter 27.
g. ! Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.
q. ! Consider natural hazards in all land use planning and permitting.
r. ! Discourage intensive development in areas of high volcanic hazard.

FLOODING AND OTHER NATURAL HAZARDS STANDARDS

a. ! "Storm Drainage Standards," County of Hawai‘i, October 1970, and as revised.
b. ! Applicable standards and regulations of Chapter 27, "Flood Control," of the Hawai‘i County Code.
c. ! Applicable standards and regulations of the Federal Emergency Management Agency (FEMA).
d. ! Applicable standards and regulations of Chapter 10, "Erosion and Sedimentation Control," of the Hawai‘i County Code. !
e. ! Applicable standards and regulations of the Natural Resources Conservation Service and the Soil and Water Conservation Districts.

Discussion: The Flood Insurance Rate Map (FIRM) designates the subject site to be in Flood Zone X (areas outside of the 500-year floodplain). There are no identified drainage ways, naturally occurring wetlands, ponds, lakes, or rivers on the parcel. The site is already fully developed and has been in use decades. Accordingly, the site has not been and should not be subject to flooding, coastal hazards, or erosion. The property is outside the Tsunami Evacuation Zone, which ends approximately 170 feet to the east at the intersection of Ululani and Kino‘ole Street. A Civil Defense siren (HA107) is located at the corner of Kino‘ole Street and Wainuenue Avenue, approximately 500 feet north of the parcel.

HISTORIC SITES GOALS

a. ! Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawai‘i.
b. ! Appropriate access to significant historic sites, buildings, and objects of public interest should be made available.

HISTORIC SITES POLICIES

a. ! Agencies and organizations, either public or private, pursuing knowledge about historic sites should keep the public apprised of projects.
b. ! Amend appropriate ordinances to incorporate the stewardship and protection of historic sites, buildings, and objects.
c. ! Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.
d. ! Public access to significant historic sites and objects shall be acquired, where appropriate.

Discussion: There are no buildings on site that have been determined to have significant historic value. There are also no known archaeological or cultural resources on the property as it has been developed and used for commercial purposes for decades. In the event any inadvertent historic, archaeological, or cultural discoveries are made, all work will cease, and the applicant

will immediately notify the Hawai‘i County Planning Department and the State DLNR and secure their clearances before proceeding further.

NATURAL BEAUTY GOALS

a. ! Protect, preserve, and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources. !
b. ! Protect scenic vistas and view planes from becoming obstructed.
c. ! Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.

NATURAL BEAUTY POLICIES

h. ! Protect the views of areas endowed with natural beauty by carefully considering the effects of proposed construction during all land use reviews.

Discussion: The subject property is in the downtown core of Hilo, which is highly developed. There are no notable areas of natural beauty that would be impacted by the proposed action. The current campus contains aged structures, which lack modern amenities and may not efficiently support the evolving needs of the community. The proposed improvements will be aesthetically pleasing and may improve the overall visual appeal and functionality of the site of the site. Appropriate landscaping will be incorporated to screen the property without creating hazardous wildlife conditions for aircraft operations at Hilo International Airport.

NATURAL RESOURCES AND SHORELINES GOALS

a. ! Protect and conserve the natural resources from undue exploitation, encroachment, and damage.
b. ! Provide opportunities for recreation, economic, and educational needs without despoiling or endangering natural resources.
c. ! Protect and promote the prudent use of Hawai‘i’s unique, fragile, and significant environmental and natural resources. !
d. ! Protect rare or endangered species and habitats native to Hawai‘i.
e. ! Protect and effectively manage Hawai‘i’s open space, watersheds, shoreline, and natural areas.
f. ! Ensure that alterations to existing landforms, vegetation, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of an earthquake.

NATURAL RESOURCES AND SHORELINES POLICIES

a. ! Require users of natural resources to conduct their activities in a manner that avoids or minimizes adverse effects on the environment.

i. ! Encourage an overall conservation ethic in the use of Hawai‘i’s resources by protecting, preserving, and conserving the critical and significant natural resources of the County of Hawai‘i.
p. ! Encourage the use of native plants for screening and landscaping.
r. ! Ensure public access is provided to the shoreline, public trails and hunting areas, including free public parking where appropriate. !

Discussion: The subject site is situated in Hilo’s downtown core and has existing infrastructure, which minimizes potential impacts on rare or endangered species and native habitats. The proposed project will adhere to strict environmental standards and will not encroach on any open spaces or areas of natural beauty. Wastewater will integrate with the county sewer system and will follow all County and State laws to manage stormwater runoff during demolition and construction. Native plants will screen the property, with selected to exclude wildlife attractants to mitigate potential risks to aircraft operations at Hilo International Airport. The site is not adjacent to the ocean and does not have any access to shoreline areas, public trails, or hunting areas. It is roughly 0.25 miles inland at an elevation of approximately 60 feet above sea level. It is also outside the County Tsunami Evacuation Zone. As such, the proposed project should not have any adverse impacts on the area’s coastal zone or shoreline resources.

HOUSING GOALS

a. ! Attain safe, sanitary, and livable housing for the residents of the County of Hawai‘i.
d. ! Create viable communities with affordable housing and suitable living environments.
g. ! Ensure that housing is available to all persons regardless of age, sex, marital status, ethnic background, and income.
h. ! Make affordable housing available in reasonable proximity to employment centers.

HOUSING POLICIES

a. ! Encourage a volume of construction and rehabilitation of housing sufficient to meet growth needs and correct existing deficiencies.
m. Accommodate the housing requirements of special needs groups including the elderly, handicapped, homeless, and those residents in rural areas.

HOUSING STANDARDS

Housing standards shall consist of and comply with:

a. ! Building Code
b. ! Electrical Code
c. ! Plumbing Code
d. ! Zoning Code
e. ! Subdivision Code
f. ! Standards of the single-family and multiple residential land use elements.

SOUTH HILO HOUSING COURSES OF ACTION

c. ! Aid and encourage housing projects for low- and moderate-income families, "gap-groups" and the elderly.

Discussion: The proposed action will provide ten (10) affordable rental units for transitional housing on site. The proposed residential units will comply with all applicable and current State and Federal building codes and land use elements.

PUBLIC FACILITIES GOALS

a. ! Encourage the provision of public facilities that effectively service community and visitor needs and seek ways of improving public service through better and more functional facilities in keeping with the environmental and aesthetic concerns of the community.

PUBLIC FACILITIES POLICIES

a. ! Continue to seek ways of improving public service through the coordination of service and maximizing the use of personnel and facilities.
b. ! Coordinate with appropriate State agencies for the provision of public facilities to serve the needs of the community.

Discussion: Under the proposed action, YWCA will be able to provide daycare services, individual and family support programs, and a community center for public use, all of which are limited in the downtown Hilo area.

EDUCATION POLICIES

Educational policies relate to the provision of facilities rather than programs, which are the province of the State. It is nevertheless recognized that the facilities and programs are the tools necessary to improve total educational service.

EDUCATION STANDARDS

a. ! In proposed communities, sufficient acreage shall be reserved for school facilities. Sites shall be free from flooding and drainage problems, excessive slope, and shall incorporate appropriate street and driveway design and location to minimize traffic interference, pedestrian hazard, and enable safe and easy access for vehicles, bicycles, and pedestrians.

SOUTH HILO EDUCATION COURSES OF ACTION

e. ! Encourage continual improvements to existing educational facilities.

Discussion: Daycare and preschool services are recognized by the County and State of Hawai‘i as essential service for the development of children. These services are often not available or affordable within the community. The proposed action seeks to invest in building an adequate, affordable, and stable facility for children, teens, and adults to benefit from for their professional development and overall well-being.

LAND USE GOALS

a. ! Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.
b. ! Protect and preserve forest, water, and natural and scientific reserves and open areas.

LAND USE POLICIES

f. ! Encourage the development and maintenance of communities meeting the needs of its residents in balance with the physical and social environment.

Discussion: There are no significant adverse land use concerns since the proposed action will replace an existing developed campus. The Hilo area is growing rapidly and requires enhanced community services to support its growth. The proposed improvements to the YWCA campus would help the development and maintenance of the community and meet the needs of its residents through social and economic welfare.

6.2 Hilo Community Development Plan

The Hilo Community Development Plan (HCDP) was adopted by the Planning Commission in 1975 and was intended to further define the General Plan and provide short and middle range implementation strategies of the General Plan. Since the adoption of the HCDP, there have been significant land developments in the City of Hilo, including the shopping complexes in and around the Puainako/Kanoelehua Intersection, expanded commercial uses near the University complexes, and commercial/industrial uses along the southern portion of the Waiākea Houselots area. These developments along with many other changes in Hilo over the years render many of the HCDP land use concepts obsolete.

Although the document was reviewed by the County Council, the HCDP was never adopted by ordinance. When the HCDP was drafted, its Land Use Allocation Map also identified the subject area as High Density Urban. Therefore, this designation is consistent with the current County General Plan and surrounding area.

EnVision Downtown Hilo 2025 is a ‘Community-Based Vision and Living Action Plan’ that “serves as a guide for planning in Downtown Hilo and establishes the strategies and actions for creating an environment that is sustainable, livable, and attractive to its residents, workers, and visitors.” The Hilo Bayfront Trails Planning project is an aspect of EnVision Downtown Hilo. It is a system of multi-use pathways along Hilo Bayfront from the Wailuku River to Hilo Harbor. The proposed project will not interfere with the EnVision Downtown Hilo plan in any way.

6.3 Special Management Area and Conservation District

The subject site is outside of both the Hawai‘i County Special Management Area and State of Hawai‘i Conservation District.

PART 7: REQUIRED PERMITS AND APPROVALS

County of Hawai‘i

Building Code/Structural Permits
Grubbing/Grading Permits
Electrical Review
Mechanical/Plumbing Review
Fire Review
Engineering Review
Sanitation Review
Sewer Line Disconnection and Reconnection Permits
Potential Noise Permit
Solid Waste Management Plan

State of Hawai‘i

National Pollutant Discharge Elimination System (NPDES) Permit
Storm Water Pollution Prevention Plan (SWPPP)

PART 8: LIST OF AGENCIES, ORGANIZATIONS, AND PUBLIC INVOLVEMENT

8.1 Agency Coordination

The following County, State, and Federal Agencies were consulted for comment regarding the proposed project. All agency comments and responses can be found in **Appendix G**.

County

Civil Defense Agency
Department of Environmental Management
Department of Public Works
Fire Department
Police Department
Department of Water Supply

State

Department of Land and Natural Resources
Department of Health
Department of Transportation
Office of Hawaiian Affairs

Office of Planning and Sustainable Development

Federal

United States Fish and Wildlife Service

8.2 HEPA Public Involvement Process

Agency coordination and public involvement are crucial components of the environmental assessment process to understand the impacts caused by the proposed action. The agencies, organizations, and individuals below have been consulted as part of the environmental assessment process. Copies of correspondence during the early consultation period can be found in Appendix G.

In accordance with HEPA, this draft EA will be made available to the public and relevant agencies for a 30-day review and comment period. Any feedback received on this initial EA will be taken into account in the final version, where applicable.

The public will be notified of the opportunity to provide comment on the proposed action, potential alternatives, and preliminary identification of environmental issues. The comment period for the draft EA will start when the public notice of EA availability is published and will extend for 30 days. Comments on the draft EA may be submitted to john@landplanninghawaii.com.

PART 9: LIST OF PREPARERS

The provided list consists of contributors involved in crafting this EA. Those mentioned herein played key roles in its preparation. Additionally, numerous others, such as senior managers, administrative support teams, and technical staff, made invaluable contributions to its creation.

Preparers	Expertise	Role in Preparation
John Pipan	Planning Administrator	Drafting EA
Leigh Varela	Planner	Drafting EA
Benjamin Barna	Archaeologist	Field Inspection
Kamalana Kobayashi	Environmental Professional	Construction Environmental Hazard Management Plan
		Hazardous Materials Survey and Soil Screen

PART 10: REFERENCES

Beven, J. and Wroe, D. 2019. Hurricane Lane (EP142018). National Hurricane Center, Central Pacific Hurricane Center, Tropical Cyclone Report.

Collins M. et al., 2019: Extremes, Abrupt Changes and Managing Risk. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Partner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegr□a, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. In press.

Commission on Water Resource Management (CWRM). 2019a. Water Resource Protection Plan Update (WRPP) Appendix F. *Hawai'i Water Plan*, State of Hawai'i.

Department of Land and Natural Resources. 2024. Division of Forestry and Wildlife: Wildlife Program. Native Birds of Hawai'i. Hawaii.gov.

Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte, 2013: Online Rainfall Atlas of Hawai'i. *Bull. Amer. Meteor. Soc.* 94, 313-316, doi: 10.1175/BAMS-D-11-00228.1.

Hawai'i County Planning Department. 2005. *General Plan, County of Hawai'i*. Hilo.

Hawai'i State Department of Land and Natural Resources (DLNR). 2017. *Rapid 'Ōhi'a Death: Part I: Strategic Response Plan for Hawai'i, 2017-2019*. Prep. by Division of Forestry & Wildlife. Honolulu.

Hawaiian Volcano Observatory (HVO). 2022. Frequently Asked Questions about Mauna Loa Volcano. United States Geological Survey (USGS). Retrieved from: https://www.usgs.gov /observatories/hawaiian-volcano-observatory/frequently-asked-questions-about-mauna-loa-volcano.

Hoover, J. 2023. 2022 Hawai'i County Comprehensive Economic Development Strategy. Hawai'i Island Economic Development Board.

IPCC, 2023: Summary for Policymakers. In: *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001

Kamakau, S.M. 1992. Ruling Chiefs of Hawaii. Kamehameha Schools Press, Honolulu.

Kelly, M., B. Nakamura, and D. Barrere. 1981 Hilo Bay: A Chronological History, Land and Water Use in the Hilo Bay Area, Island of Hawai'i. Department of Anthropology, Bernice P. Bishop Museum.

Kimberlain, T., Brennan, M., and Wroe, D. 2018. Hurricane Iselle (EP092014). National Hurricane Center, Central Pacific Hurricane Center, Tropical Cyclone Report.

McEldowney, H. 1979 Inventory of Archaeological and Historical Resources, Lava Flow Control Study, Hilo, Hawai‘i. Department of Anthropology, B.P. Bishop Museum.

Tetra Tech. 2020. County of Hawai‘i Multi-Hazard Mitigation Plan. Prepared for County of Hawai‘i Civil Defense Agency.

Trusdell, F.A., and Lockwood, J.P., 2017, Geologic map of the northeast flank of Mauna Loa volcano, Island of Hawai‘i, Hawaii: U.S. Geological Survey Scientific Investigations Map 2932-A, pamphlet 25 p., 2 sheets, scale 1:50,000, https//doi.org/10.3133/sim2932A.

West Hawai‘i Today. 2021. Brush fire burns 40,000 acres on Hawai‘i’s Big Island. Retrieved from: https://wildfiretoday.com/2021/08/03/brush-fire-burns-40000-acres-on-hawaiis-big-island/

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX A !
USFWS OFFICIAL SPECIES LIST OF FEDERALLY LISTED SPECIES !

United States Department of the Interior &

FISH AND WILDLIFE SERVICE &
Pacific Islands Fish And Wildlife Office &
300 Ala Moana Boulevard, Box 50088 &
Honolulu, HI 96850-5000 &
Phone: (808) 792-9400 Fax: (808) 792-9580 &

In Reply Refer To: 04/03/2024 18:09:27 UTC
Project Code: 2024-0072295
Project Name: YWCA Environmental Assessment

Subject: &List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened and endangered species, as well as designated critical habitat that may occur within the boundary of your proposed project and that may be affected by project related actions. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Please contact the Service's Pacific Islands Fish and Wildlife Office (PIFWO) at 808-792-9400 if you have any questions regarding your IPaC species list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may adversely affect threatened and endangered species and/or designated critical habitat.

Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a Biological

Evaluation, similar to a Biological Assessment, be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment or Biological Evaluation are described at 50 CFR 402.12.

Due to the significant number of listed species found on each island within PIFWO's regulatory jurisdiction, and the difficulty in accurately mapping ranges for species that we have limited information about, your species list may include more species than if you obtained the list directly from a Service biologist. We recommend you use the species links in IPaC to view the life history, habitat descriptions, and recommended avoidance and minimization measures to assist with your initial determination of whether the species or its habitat may occur within your project area. If appropriate habitat is present for a listed species, we recommend surveys be conducted to determine whether the species is also present. If no surveys are conducted, we err on the side of the species, by regulation, and assume the habitat is occupied. Updated avoidance and minimization measures for plants and animals, best management practices for work in or near aquatic environments, and invasive species biosecurity protocols can be found on the PIFWO website at: https://www.fws.gov/office/pacific-islands-fish-and-wildlife/library.

If a Federal agency determines, based on the Biological Assessment or Biological Evaluation, that a listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/index.

Non-federal entities can also use the IPaC generated species list to develop Habitat Conservation Plans (HCP) in accordance with section 10(a)(1)(B) of the Act. We recommend HCP applicants coordinate with the Service early during the HCP development process. For additional information on HCPs, the Habitat Conservation Planning handbook can be found at https://www.fws.gov/sites/default/files/documents/habitat-conservation-planning-handbook-entire.pdf.

Please be aware that wind energy projects should follow the Service’s wind energy guidelines (http://www.fws.gov/windenergy) for minimizing impacts to migratory birds. Listed birds and the Hawaiian hoary bat may also be affected by wind energy development and we recommend development of a Habitat Conservation Plan for those species, as described above. Guidance for minimizing impacts to migratory birds for projects including communications towers can be found at:

- http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers
- http://www.towerkill.com
- http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation actions that benefit threatened and endangered species into their project planning to further the purposes of the Act in accordance with section 7(a)(1). Please include the Consultation Tracking Number associated with your IPaC species list in any

request for consultation or correspondence about your project that you submit to our office. Please feel free to contact us at PIFWO_admin@fws.gov or 808-792-9400 if you need more current information or assistance regarding the potential impacts to federally listed species and federally designated critical habitat.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Pacific Islands Fish And Wildlife Office
300 Ala Moana Boulevard, Box 50088
Honolulu, HI 96850-5000
(808) 792-9400

PROJECT SUMMARY

Project Code: & 2024-0072295

Project Name: & YWCA Environmental Assessment

Project Type: & New Constr - Above Ground

Project Description: & Land Planning Hawai‘i LLC is preparing an Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) on behalf of YWCA and the Hawai‘i County Office of Housing and Community Development (OHCD). The EA will adhere to the United States Department of Housing and Urban Development (HUD) regulations outlined in Title 24 of the Code of Federal Regulations (CFR), Part 58.

The project is proposed to occur in two (2) phases. Phase 1 includes the demolition of an existing pool house, swimming pool, playground, and nearly 100-year-old ‘cottage’ used as a preschool facility. While not on the historic register, this structure may require evaluation by the State Historic Preservation Division. Phase 1 also includes the construction of a new preschool facility with classrooms, a kitchen, and conference room, a vehicle drop-off area, two (2) new playgrounds, and modifications to an existing parking lot. In addition, an existing two-story multi-use building that fronts Ululani Street will be renovated into office space for administrative needs. Phase 2 would consist of constructing a new two-story, 10-unit transitional housing facility/community center and additional parking. A total of three (3) buildings with forty-eight (48) parking spaces, three (3) ADA accessible stalls, and four (4) drop off/pick up spaces are proposed for the development.

The site has been fully developed for decades. This project seeks to update buildings and infrastructure that have been in place on site for many years.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@19.723517649999998,-155.08893250874644,14z

Counties: Hawaii County, Hawaii

ENDANGERED SPECIES ACT SPECIES

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. &NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS '

NAME	STATUS
Hawaiian Hoary Bat *Lasiurus cinereus semotus*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/770
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6477.pdf

BIRDS

NAME	STATUS
Band-rumped Storm-petrel *Hydrobates castro*	Endangered

Population: USA (HI)
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1226
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6939.pdf

Hawaiian Coot (alae Ke`oke`o) *Fulica alai* — Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7233
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6934.pdf

Hawaiian Duck *Anas wyvilliana* — Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7712
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6934.pdf

Hawaiian Goose *Branta (=Nesochen) sandvicensis* — Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1627
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6925.pdf

Hawaiian Petrel *Pterodroma sandwichensis* — Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6746
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6939.pdf

Hawaiian Stilt *Himantopus mexicanus knudseni* — Endangered &

No critical habitat has been designated for this species.

NAME STATUS

Species profile: https://ecos.fws.gov/ecp/species/2082
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6934.pdf

Newell"s Shearwater *Puffinus newelli* Threatened
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2048
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/OKYJXQV3DJHE7I35NRMTXR3YYI/documents/generated/6939.pdf

REPTILES

NAME STATUS

Hawksbill Sea Turtle *Eretmochelys imbricata* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3656

FLOWERING PLANTS

NAME STATUS

Alani *Melicope zahlbruckneri* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7338

Haiwale *Cyrtandra nanawaleensis* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/9492

Hau Kuahiwi *Hibiscadelphus giffardianus* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3458

Hilo Ischaemum *Ischaemum byrone* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/3903

FERNS AND ALLIES

NAME STATUS

Microlepia strigosa var. mauiensis Endangered
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4737

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
'apapane *Himatione sanguinea* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/9659	Breeds Dec 1 to Jul 31
Black Noddy *Anous minutus melanogenys* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/10559	Breeds Apr 1 to Nov 30
Black-footed Albatross *Phoebastria nigripes* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/8033	Breeds Apr 1 to Aug 31
Bulwer's Petrel *Bulweria bulwerii* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/10579	Breeds May 1 to Sep 30
Christmas Shearwater *Puffinus nativitatis* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/9636	Breeds Apr 1 to Oct 31
Red-tailed Tropicbird *Phaethon rubricauda melanorhynchos* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/10563	Breeds Dec 15 to Oct 15
Wandering Tattler *Tringa incana* This is a Bird of Conservation Concern (BCC) throughout its range in Hawaii and the Pacific Islands. https://ecos.fws.gov/ecp/species/11941	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

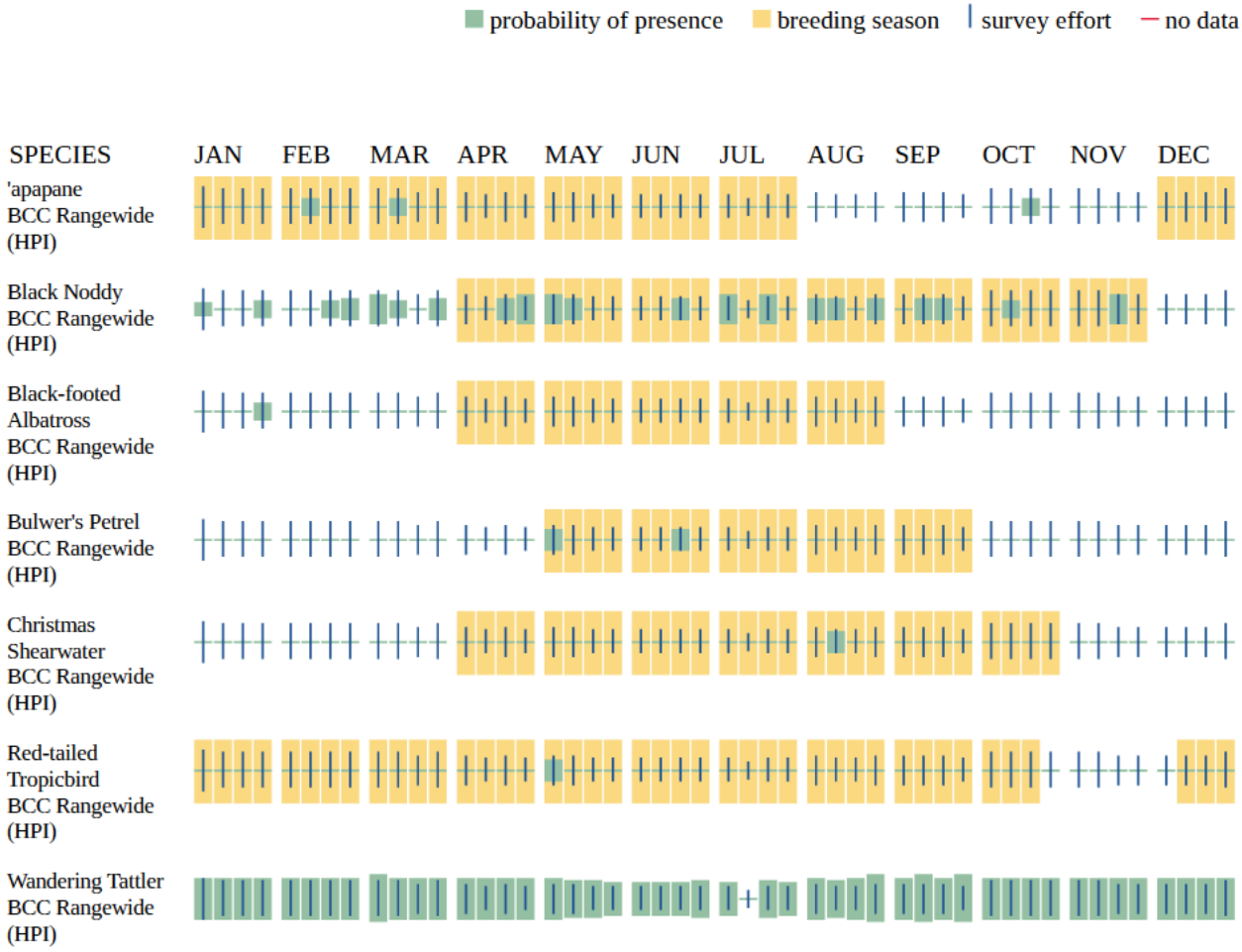
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Leigh Varela
Address: 194 Wiwoole Street
City: Hilo
State: HI
Zip: 96720
Email leigh@landplanninghawaii.com
Phone: 8084987492

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX B !
HAZARDOUS MATERIALS SURVEY AND SOIL SCREEN REPORT !

TARGETED HAZARDOUS MATERIALS SURVEY AND SOIL SCREEN REPORT

YWCA OF HAWAII ISLAND – MASTER PLAN (PHASE I)
145 ULULANI STREET
HILO, HAWAII 96720

Prepared for:
FLEMING & ASSOCIATES, LLC
557 Manono Street
Hilo, Hawaii 96720

Prepared by:

LEHUA ENVIRONMENTAL INC.
P.O. Box 1018
Kamuela, Hawaii 96743

December 14, 2023

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Soil Laboratory Analytical Results and Chain-Of-Custody Forms

LIST OF ACRONYMS

<	less than
%	percent
%R	percent recovery
AHERA	Asbestos Hazard Emergency Response Act
ACM	asbestos-containing material
bgs	below ground surface
COPC	chemicals of potential concern
DOH	State of Hawai‘i Department of Health
DU	decision unit
DQO	data quality objective
EAL	Environmental Action Level
EPA	Environmental Protection Agency
ft	feet
g	gram
HEER	Hazard Evaluation and Emergency Response
HUD	Housing and Urban Development
in	inch
LEI	Lehua Environmental Inc.
LBP	lead-based paint
LCP	lead-containing paint
mg/kg	milligrams per kilogram
MIS	multi-increment sampling
NA	not applicable
ND	not detected
RCRA	Resource Conservation Recovery Act
SBRC	Solubility/Bioavailability Research Consortium
USEPA	United States Environmental Protection Agency

1.0 CERTIFICATIONS AND LIMITATIONS

Lehua Environmental Inc. (LEI) has completed this Targeted Hazardous Materials Survey and Soil Screen for the Master Plan – Phase I project at the YWCA of Hawaii Island located at 145 Ululani Street in Hilo, Hawaii. LEI's findings and recommendations contained herein are based on research, site observations, government regulations and laboratory data, which were gathered at the time and location of the study. Opinions stated in this report do not apply to changes that may have occurred after the services were performed.

LEI has performed specified services for this project with the degree of care, skill and diligence ordinarily exercised by professional consultants performing the same or similar services. No other warranty, guarantee, or representation, expressed or implied, is included or intended; unless otherwise specifically agreed to in writing by both LEI and LEI's Client.

This report is intended for the sole use of LEI's client exclusively for the Subject Site. LEI's client may use and release this report, including making and retaining copies, provided such use is limited to the particular site and project for which this report is provided. However, the services performed may not be appropriate for satisfying the needs of other users. Release of this report to third-parties will be at the sole risk of LEI's Client and/or said user, and LEI shall not be liable for any claims or damages resulting from or connected with such release or any third party's use or reuse of this report.

Prepared By:

Kamalana Kobayashi
State of Hawaii Asbestos Certification
Certification #: HIASB-0613, Expires: 6/18/24
State of Hawaii Certified Lead Risk Assessor
Certification #: PB-0132, Expires: 5/16/25

Date: December 14, 2023

2.0 EXECUTIVE SUMMARY

This report describes the results of LEI's Targeted Hazardous Materials Survey and Soil Screen (Survey) for the Master Plan – Phase I project at the YWCA of Hawaii Island located at 145 Ululani Street in Hilo, Hawaii (Subject Site). The site work for this Survey was completed on November 16-17, 2023 at the Subject Site.

SUMMARY OF TARGETED HAZARDOUS MATERIALS SURVEY

During LEI's targeted hazardous materials survey, asbestos-containing materials (ACM), lead-based paint (LBP), lead-containing paint (LCP), mercury-containing fluorescent lamps and PCB-containing fluorescent light ballasts were identified within the planned areas of disturbance at the Subject Site. The following summarizes the hazardous materials identified during LEI's Survey:

Summary of Asbestos Survey

The white/black sink insulation located in the cottage is identified to be ACM. Additionally, the black vent through roof mastic located on the pool house and cottage are assumed to be ACM.

The below table summarizes these findings.

Identified and Assumed ACM
YWCA of Hawaii Island – Master Plan (Phase I)
Hilo, Hawaii

Int./ Ext.	*Bldg.*	*Homogeneous Materials*	*Color*	*Friable*	*Type*	*Cond.*	*Est. Amt. of Material (ft^2)*
Ext.	Pool House (Roof)	Vent Through Roof Mastic	Black	No	Misc.	Fair	4
Int.	Cottage	Sink Insulation	White/black	Yes	Surf.	Fair	8
Ext.	Cottage (Roof)	Vent Through Roof Mastic	Black	No	Misc.	Fair	8

ACM Disturbance Recommendations

The friable and non-friable identified and assumed ACM, which could be crumbled and pulverized during renovation/demolition activities must be removed and disposed of by a qualified asbestos abatement contractor. Disturbance activities that would render the non-friable ACM to be friable must be avoided.

In addition, the services of a qualified consultant should be obtained to conduct air monitoring and inspect the removal activities to ensure compliance with applicable Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and Hawaii Occupational Safety and Health (HIOSH) regulations pertaining to the handling of asbestos-containing material.

Summary of Lead Paint Survey
Eight (8) of the sampled painted building components contained concentrations of lead at levels greater than or equal to 5,000 mg/kg to be Lead-Based Paint (LBP). Additionally, fifty-two (52) of the sampled painted building components contained detectable concentrations of lead at levels less than 5,000 mg/kg or were identified to have an elevated laboratory detection limit to be considered and assumed as Lead-Containing Paint (LCP).

The following table lists the identified LBP and LCP painted building materials within the planned areas of disturbance at the Subject Site.

Identified and Assumed LBP and LCP
YWCA of Hawaii Island – Master Plan (Phase I)
Hilo, Hawaii

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*LCP or LBP?*
Ext.	Pool House	Window Frame	Stain	Wood	Fair	LCP
Ext.	Pool House	Downspout	Beige	Metal	Fair	LCP
Ext.	Pool House	Downspout	Blue	Metal	Fair	LCP
Ext.	Pool House	Corrugated Roof (Underside)	Grey	Metal	Fair	LCP
Ext.	Pool House	Door	White	Wood	Fair	LCP
Ext.	Pool House	Pool Walls	White	Plaster	Fair	LCP
Ext.	Pool House	Pool Perimeter	Light Grey	Concrete	Fair	LCP
Ext.	Pool House	Fascia	Black	Wood	Fair	LCP
Int.	Pool House	Wall Trim	Brown	Wood	Fair	LCP
Int.	Pool House	Window Trim	Brown	Wood	Fair	LCP
Int.	Pool House	Window	Beige	Wood	Fair	LCP
Int.	Pool House	Wall	Yellow	Sheetrock	Poor	LCP
Int.	Pool House	Pool Pump Fitting	Red	Metal	Poor	LCP
Int.	Pool House	Wall	Teal	Sheetrock	Poor	LCP
Ext.	Exterior Pool	Lettering	Red	Concrete	Poor	LCP
Ext.	Cottage	Corrugated Roof (Top)	White	Metal	Fair	LCP

(Continued) Identified and Assumed LBP and LCP
YWCA of Hawaii Island – Master Plan (Phase I)
Hilo, Hawaii

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*LCP or LBP?*
Ext.	Cottage	Fascia, Rafter, & Purlins	Grey	Wood	Fair	LCP
Ext.	Cottage	Wall & Trim	Off White	Wood	Fair	LBP
Ext.	Cottage	Lattice	Light Brown	Wood	Fair	LCP
Ext.	Cottage	Corrugated Roof (Under)	Grey	Metal	Fair	LCP
Ext.	Cottage	Window Frame	Orange	Wood	Fair	LCP
Ext.	Cottage	Security Window	Orange	Metal	Fair	LCP
Ext.	Cottage	Conduit	Off White	Metal	Poor	LCP
Ext.	Cottage	Wall	Grey	Wood	Fair	LBP
Ext.	Cottage	Window Overhang	Grey	Wood	Fair	LBP
Ext.	Cottage	Stairs	Grey	Concrete	Fair	LCP
Ext.	Cottage	Downspout	Grey	Metal	Poor	LBP
Ext.	Cottage	Stairs & Railing	Light Brown	Wood	Fair	LBP
Ext.	Cottage	Bench Box	Grey	Wood	Fair	LCP
Ext.	Cottage	Striping	Yellow	Concrete	Fair	LBP
Ext.	Cottage	Floor	Grey	Wood	Fair	LCP
Ext.	Cottage	Door	Teal	Wood	Fair	LCP
Ext.	Cottage	Rock Wall	Black	Rock	Fair	LCP
Int.	Cottage	Wall	Off-white	Canec	Fair	LCP
Int.	Cottage	Ceiling	White	Canec	Fair	LCP
Int.	Cottage	Door Frame	Green	Wood	Fair	LCP
Int.	Cottage	Window Frame	Green	Wood	Fair	LCP

(Continued) Identified and Assumed LBP and LCP
YWCA of Hawaii Island – Master Plan (Phase I)
Hilo, Hawaii

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*LCP or LBP?*
Int.	Cottage	Door	Green	Wood	Fair	LCP
Int.	Cottage	Threshold	Brown	Wood	Poor	LCP
Int.	Cottage	Base Board & Trim	White	Wood	Fair	LCP
Int.	Cottage	Door Frame	Blue	Wood	Fair	LCP
Int.	Cottage	Window Frame	Blue	Wood	Fair	LCP
Int.	Cottage	Door	Blue	Wood	Fair	LCP
Int.	Cottage	Wall Siding	White	Wood	Fair	LCP
Int.	Cottage	Base Board & Trim	Blue	Wood	Fair	LCP
Int.	Cottage	Door Frame	Dark Blue	Wood	Fair	LCP
Int.	Cottage	Window Frame	Dark Blue	Wood	Fair	LCP
Int.	Cottage	Door	Dark Blue	Wood	Fair	LCP
Int.	Cottage	Ceiling	White	Wood	Fair	LCP
Int.	Cottage	Floor	White	Wood	Poor	LCP
Int.	Cottage	Floor	White	Metal	Poor	LBP
Int.	Cottage	Wall	White	Metal	Poor	LBP
Int.	Cottage	Floor	White	Wood	Poor	LCP
Int.	Cottage	Door & Window Frame	Brown	Wood	Fair	LCP
Int.	Cottage	Door Frame	Orange	Wood	Fair	LCP
Int.	Cottage	Window Frame	Orange	Wood	Fair	LCP
Int.	Cottage	Door Frame	Yellow	Wood	Fair	LCP
Int.	Cottage	Window Frame	Yellow	Wood	Fair	LCP

(Continued) Identified and Assumed LBP and LCP
YWCA of Hawaii Island – Master Plan (Phase I)
Hilo, Hawaii

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*LCP or LBP?*
Int.	Cottage	Door	Yellow	Wood	Fair	LCP
Int.	Cottage	Cabinet	White	Wood	Poor	LCP

Identified and Assumed LBP and LCP Disturbance Recommendations
LEI recommends the following for LBP and LCP disturbance:

- Spot remove and dispose of all LBP and LCP that may be disturbed or become dislodged during renovation activities in accordance with applicable local, state, and federal regulations.
- Spot remove and dispose of all loose and flaking (poor condition) LBP and LCP that may be disturbed or become dislodged during renovation activities in accordance with applicable local, state, and federal regulations.
- Workers performing disturbance of LBP and LCP must take appropriate measures to comply with applicable OSHA and HIOSH regulations pertaining to the handling of lead containing materials, lead dust and worker protection. Note that OSHA and HIOSH regulate activities that disturb paint which contain any detectable concentration of lead. Note that detectable levels of lead in the paint were found throughout the Subject Site.
- A qualified consultant should be obtained to conduct air monitoring and inspection activities to ensure compliance with applicable state and federal regulations pertaining to the handling of lead paint.

Summary of Mercury-Containing Fluorescent Lamps and PCB-Containing Light Ballasts Survey
LEI personnel identified fifty (50) mercury-containing fluorescent lamps and twenty-five (25) PCB-containing light ballasts at the Subject Site. The following table summarizes these findings.

Mercury-Containing Lamps and PCB-Containing Light Ballasts
YWCA of Hawaii Island – Master Plan (Phase I)
Hilo, Hawaii

Interior/ Exterior	***Description***	***Quantity***	***Description***	***Quantity***
Interior/ Exterior	Mercury-Containing – 4' Fluorescent Lights	50	Assumed PCB-Containing Light Ballasts	25
	MERCURY-CONTAINING FLUORESCENT LAMPS TOTAL	**50**	**PCB-CONTAINING LIGHT BALLASTS TOTAL**	**25**

Mercury-Containing Fluorescent Lamps and PCB-Containing Light Ballasts Disturbance Recommendations
LEI recommends the following for mercury-containing fluorescent lamps and PCB-containing light ballasts disturbance:

- Manage and/or remove and dispose of hazardous and regulated materials in accordance with applicable local, state, and federal regulations, prior to renovation and/or demolition activities that may disturb these materials.

Summary of Arsenic-Containing Building Products (ArCBP) Survey
The sampled suspect ArCBP canec wall and ceiling materials of the cottage did not contain detectable concentrations of arsenic.

SUMMARY OF MULTI-INCREMENT SAMPLING SOIL SCREEN SURVEY

Total Lead

Lead was detected in decision units: DU-1, DU-2 and DU-3 at concentrations that exceed the Hawaii Department of Health (HDOH) Tier 2 Environmental Action Level (EAL) for commercial and industrial land use. Additionally, lead was detected in decision units: DU-4, DU-7, DU-8, DU-9 and DU-12 at concentrations that exceed the HDOH Tier 1 EAL for unrestricted land use.

Total and Bioaccessible Arsenic

Total arsenic was detected in decision units: DU-1, DU-2, DU-3, DU-4, DU-6, DU-7, DU-8, DU-9, DU-11 and DU-12 at concentrations that exceed the arsenic HDOH Tier 1 EAL for unrestricted land use. However, further laboratory analysis via bioaccessible arsenic did not identify concentrations of arsenic in these decision units that exceed the arsenic DOH EAL for unrestricted land use. The soils in decision units: DU-1, DU-2, DU-3, DU-4, DU-6, DU-7, DU-8, DU-9, DU-11 and DU-12 are classified as Category B arsenic soils.

Barium, Cadmium, Chromium, Mercury, Selenium and Silver (Remaining RCRA 8 Metals)

The remaining RCRA 8 metals (barium, cadmium, chromium, mercury, selenium and silver) were not detected above the HDOH Tier 1 EALs for unrestricted land use.

Organochlorine Pesticides

Organochlorine pesticides were not detected above the HDOH Tier 1 EALs for unrestricted land use.

Recommendations for management and handling of Identified Lead-Impacted Soil

LEI recommends the following for the identified lead-impacted soils at the Subject Site:

- Have air monitoring conducted for airborne lead dust by qualified personnel during any lead-contaminated soil disturbance.
- The following recommendations should be followed in areas with soils identified to exceed the Hawaii DOH EALs for lead in soils at the Subject Site. 1) contaminated soil removed from the Subject Site must be disposed of in accordance with Federal and State rules and regulations, 2) dust control practices should include both wetting during soil disturbance activities and monitoring by a designated competent person, in addition to containing temporary soil stockpiles, 3) use of good general hygiene practices for tenants, public, employees and workers to avoid soil exposure, 4) long-term controls should be implemented on the site to minimize the potential for exposure to contaminated soil by tenants, public, employees and workers, 5) possible need to cover any bare soil, if subject to wind or water transport off-site, 6) notify the DOH HEER office of the contaminated soil findings and obtain guidance on remedial activities, 7) limit exposure to the contaminated soils to properly trained personnel.
- Prepare and submit for approval to the Hawaii DOH Hazard Evaluation and Emergency Response (HEER) office a Construction-Environmental Hazard Management Plan (C-EHMP) which outlines the proper handling and management of soil and/or groundwater, sampling and analysis protocol for soil, the planned re-use/disposal locations for

excavated soil, health and safety measures to be taken to protect workers, environment and the general public. The C-EHMP should be approved by the Hawaii DOH HEER office prior to the start of lead-contaminated soil disturbance at the Subject Site.

- Assume soils ≥ 12" below ground surface in decision units: DU-1, DU-2, DU-3, DU-4, DU-7, DU-8 and DU-12 are lead-impacted until further testing determines otherwise.

3.0 INTRODUCTION/PURPOSE

The objective of the Survey was to identify the existence (if any), extent, and condition of any ACM, LCP, LBP, ArCBP, mercury-containing lamps and PCB-containing light ballasts and the presence of RCRA 8 metals- and organochlorine pesticide-contaminated soil within the areas of planned disturbance at the Subject Site, so that the information can be incorporated in the design of the renovation project. Specifically, LEI completed the following tasks:

- Performed site reconnaissance at the Subject Site;
- Collected one-hundred thirty-four (134) samples of suspect asbestos-containing material (ACM) within the areas of planned disturbance at the Subject Site;
- Submitted the one-hundred thirty-four (134) samples of suspected ACM to Hawaii Analytical Laboratories, LLC for analysis of asbestos via Polarized Light Microscopy (PLM) in accordance with the AHERA protocol and NIOSH Method 600/R-93/116;
- Collected one-hundred fifteen (115) paint chip samples from the areas of planned disturbance at the Subject Site;
- Submitted the one-hundred fifteen (115) paint chip samples to Hawaii Analytical Laboratories, LLC for analysis via EPA Method 7420 for total lead content;
- Collected one (1) bulk sample for arsenic analysis;
- Submitted the one (1) bulk sample to Hawaii Analytical Laboratories, LLC for analysis via EPA Method 3051m/ 7000Bm for total arsenic content;
- Inspected the Subject Site for suspect mercury-containing light bulbs and PCB-containing light ballasts;
- Identified a total of twelve (12) decision units within the Subject Site;
- Collected a total of sixteen (16) multi-increment samples (MIS) from the 12 decision units of the Subject Site which included triplicate samples per DOH HEER TGM recommendations. Each MIS included 50 sub-samples collected utilizing DOH recommended hand tools and equipment;
- Submitted the sixteen (16) MIS soil samples to Hawaii Analytical Laboratories, LLC in Honolulu, Hawaii for the following analysis:
    - MIS laboratory preparation non-volatile
    - RCRA 8 Metals by EPA 6020B/EPA 3050B
    - Bioaccessible arsenic by EPA 1340
    - Organochlorine pesticides by EPA 8081
- Prepared this report documenting the field activities and the results of the investigation including analytical results, photographs and recommendations.

4.0 METHODOLOGY

4.1 Asbestos

LEI's State of Hawaii certified asbestos inspector Ms. Nicole Garaganza-Tengan, collected one-hundred thirty-four (134) samples of suspect building materials within the planned areas of disturbance for asbestos analysis. All of the suspect ACM samples were collected from the Subject Site in general accordance with DOH and EPA guidelines and recommendations.

The suspect ACM were wetted with amended water before sample collection. A small piece was then carefully cut out and placed into a labeled re-sealable plastic bag. The sampling equipment was cleaned between each sample collection to avoid cross-contamination between samples. The approximate quantity of each suspect ACM was noted. Sample locations were randomly selected in accordance with EPA protocols and recommendations.

All samples were properly logged and recorded following strict chain of custody procedure and submitted to Hawaii Analytical Laboratories, LLC in Honolulu, Hawaii for analysis by polarized light microscopy in accordance with EPA Method 600/R-93/116. Hawaii Analytical Laboratories, LLC is accredited for bulk asbestos analysis through successful participation in the National Voluntary Lab Accreditation Program (NVLAP).

4.2 Lead Paint

LEI's State of Hawaii certified lead-based paint inspector Ms. Nicole Garaganza-Tengan, collected one-hundred and fourteen (114) paint chip samples from the areas of planned disturbance at the Subject Site in accordance with the EPA guidelines and recommendations.

The suspect lead-containing paints were wetted with amended water before sample collection. Paint was carefully scraped and placed into a labeled re-sealable plastic bag. The sampling equipment was cleaned between each sample collection to avoid cross-contamination between samples. All samples were properly logged and recorded following strict chain of custody procedure and submitted to Hawaii Analytical Laboratories, LLC for analysis in accordance with EPA method 7420.

4.3 Arsenic-Containing Building Products (ArCBP)

LEI personnel collected one (1) bulk sample suspected to be an ArCBP in accordance with EPA recommendations.

The suspect ArCBP was wetted with amended water before sample collection. The bulk sample was carefully cut out and placed into a labeled re-sealable plastic bag. The sample was properly logged and recorded following strict chain of custody procedure and submitted to Hawaii Analytical Laboratories, LLC for analysis in accordance with EPA method 3051m/7000Bm.

4.4 Mercury-Containing Fluorescent Lamps and PCB-Containing Light Ballasts

LEI inspected and documented mercury-containing fluorescent lamps and PCB-containing light ballasts within the planned areas of disturbance at the Subject Site.

4.5 Soil Screen

The multi-increment sampling (MIS) soil screen at the Subject Site included a surface (0"-6" bgs) and subsurface (6”-12” bgs) soils screen for the contaminants of potential concern (COPC) at the Subject Site with established Department of Health (DOH) Environmental Action Levels (EALs) to be disturbed during this project. Laboratory analytical results of the soil samples were used to determine if the surface and subsurface soils contain COPC that exceed applicable DOH Environmental Action Levels (EALs) at the Subject Site.

The COPC were identified based on past land use of the Site. COPC for the Site includes: RCRA 8 metals and organochlorine pesticides. The Decision Units (DUs) at the Site were based on the planned soil disturbance activities at the Subject Site and included the following locations:

- DU-1: Grassed area located from pre-school cottage to Kinoole street, surface sample collected from 0”-6” bgs
- DU-2: Grassed area located from pre-school cottage to Kinoole street, subsurface sample collected from 6”-12” bgs
- DU-3A, B, C: Existing pre-school cottage area, surface sample collected from 0”-6” bgs
- DU-4: Existing pre-school cottage area, subsurface sample collected from 6”-12” bgs
- DU-5: Pool and pool house area, surface sample collected from 0”-6” bgs
- DU-6: Pool and pool house area, subsurface sample collected from 6”-12” bgs
- DU-7A, B, C: Multi-purpose building area, surface sample collected from 0”-6” bgs
- DU-8: Multi-purpose building area, subsurface sample collected from 6”-12” bgs
- DU-9: Existing paved parking area and driveway, surface sample collected from 0”-6” bgs
- DU-10: Existing paved parking area and driveway, subsurface sample collected from 6”-12” bgs
- DU-11: Area south of the multi-purpose building, surface sample collected from 0”-6” bgs
- DU-12: Area south of the multi-purpose building, subsurface sample collected from 6”-12” bgs

MIS soil sampling was chosen for the Subject Site so that reproducible data, representative of average background concentrations, can be obtained for use as reference control data. A total of twelve (12) DUs were identified at the Subject Site. DU boundaries were based on the location of the proposed site work and site characteristics (Figure 2, Appendix II). Each MIS soil sample consisted of 50 increments. Based on sampling theory (Pitard, 1993), a minimum of 30 increments per sample is generally recommended in order to obtain a reliable estimate of the mean concentration. The DOH typically specifies the use of 30 to 100 increments per sample in their Technical Guidance Manual (DOH, 2009b). Each increment was taken from 0-6 inches below ground surface (bgs) for surface soils and from 6-12 inches bgs for subsurface soils.

The location of each increment was based on a systematic random grid that was developed during the site visit. The grid was drawn with a random starting point for even distribution across the sampling area. The systematic random sampling design provided coverage of the DU along a horizontal plane, without the gaps associated with purely random designs.

For non-volatile soil sample analysis, each increment was taken and then placed into a double-bagged Ziploc® bag. This process was repeated until 50 increments were collected for each decision unit. Soil samples were placed in a field cooler with ice packs and sent to the analytical laboratory in Honolulu, Hawaii.

Equipment Decontamination

All sampling equipment used to collect MIS samples were decontaminated prior to use between DUs. The decontamination procedure for sampling equipment is as follows:

1. Clean with distilled water and brush, if necessary, to remove particulate matter and surface films.
2. Rinse thoroughly with distilled water.
3. Rinse thoroughly with Liquinox™.
4. Rinse with distilled water.

5.0 RESULTS

5.1 Asbestos Survey

The white/black sink insulation located in the cottage is identified to be ACM. Additionally, the black vent through roof mastic located on the pool house and cottage are assumed to be ACM.

Table 1 located in Appendix I summarizes the asbestos survey results at the Subject Site. Figure 3 in Appendix II identifies the site layout and building names of the Subject Site. Identified and assumed ACM are listed in bold text. Photograph Log 1 in Appendix III includes photographs of all sampled materials collected during the asbestos survey at the Subject Site. Finally, the laboratory results are included in Appendix IV.

5.2 Lead Paint Survey

Eight (8) of the sampled painted building components contained concentrations of lead at levels greater than or equal to 5,000 mg/kg to be Lead-Based Paint (LBP). Additionally, fifty-two (52) of the sampled painted building components contained detectable concentrations of lead at levels less than 5,000 mg/kg or were identified to have an elevated laboratory detection limit to be considered and assumed as Lead-Containing Paint (LCP).

Table 2 located in Appendix I summarizes the results of the paint samples collected at the Subject Site. Figure 3 in Appendix II identifies the site layout and building names of the Subject Site. Identified and assumed LBP and LCP are listed in bold text. Photograph Log 2 located in Appendix III includes pictures of all the sampled paints at the Subject Site. Laboratory results are included in Appendix IV.

5.3 Arsenic-Containing Building Products (ArCBP) Survey

The sampled suspect ArCBP canec wall and ceiling materials of the cottage did not contain detectable concentrations of arsenic.

Table A below summarizes the results of the arsenic survey at the Subject Site.

Table A. ArCBP Survey Results

Int./ Ext.	***Building***	***Description***	***Color***	***Substrate***	***Cond.***	***Arsenic Conc. (mg/kg)***	***Arsenic-Containing?***	***Sample ID***
Int.	Cottage	Wall & Ceiling	White	Canec	Fair	<39	None Detected	COT2 ARS1

Figure 3 in Appendix II identifies the site layout and building names of the Subject Site. Photograph Log 3 located in Appendix III includes a picture of the sampled suspect ArCBP at the Subject Site. Laboratory results are included in Appendix IV.

5.4 Mercury-Containing Fluorescent Lamps and PCB-Containing Light Ballasts Survey

LEI personnel identified fifty (50) mercury-containing fluorescent lamps and twenty-five (25) PCB-containing light ballasts at the Subject Site.

Table B below summarizes the observed mercury-containing fluorescent lamps and PCB-containing light ballasts at the Subject Site.

Table B. Mercury-Containing Lamps and PCB-Containing Light Ballasts Survey Results

Interior/ Exterior	***Description***	***Quantity***	***Description***	***Quantity***
Interior/ Exterior	Mercury-Containing – 4' Fluorescent Lights	50	Assumed PCB-Containing Light Ballasts	25
	MERCURY-CONTAINING FLUORESCENT LAMPS TOTAL	**50**	**PCB-CONTAINING LIGHT BALLASTS TOTAL**	**25**

5.5 Multi-Increment Sampling Soil Screen for COPC Survey

Total Lead

Lead was detected in decision units: DU-1, DU-2 and DU-3 at concentrations that exceed the Hawaii Department of Health (HDOH) Tier 2 Environmental Action Level (EAL) for commercial and industrial land use. Additionally, lead was detected in decision units: DU-4, DU-7, DU-8, DU-9 and DU-12 at concentrations that exceed the HDOH Tier 1 EAL for unrestricted land use.

Total and Bioaccessible Arsenic

Total arsenic was detected in decision units: DU-1, DU-2, DU-3, DU-4, DU-6, DU-7, DU-8, DU-9, DU-11 and DU-12 at concentrations that exceed the arsenic HDOH Tier 1 EAL for unrestricted land use. However, further laboratory analysis via bioaccessible arsenic did not identify concentrations of arsenic in these decision units that exceed the arsenic DOH EAL for unrestricted land use. The soils in decision units: DU-1, DU-2, DU-3, DU-4, DU-6, DU-7, DU-8, DU-9, DU-11 and DU-12 are classified as Category B arsenic soils.

Barium, Cadmium, Chromium, Mercury, Selenium and Silver (Remaining RCRA 8 Metals)

The remaining RCRA 8 metals (barium, cadmium, chromium, mercury, selenium and silver) were not detected above the HDOH Tier 1 EALs for unrestricted land use.

Organochlorine Pesticides

Organochlorine pesticides were not detected above the HDOH Tier 1 EALs for unrestricted land use.

Table 3 located in Appendix I summarizes the soil screen results for the Subject Site. Figure 1 in Appendix II identifies the locations of the identified lead-impacted soils at the Subject Site. Figure 2 located in Appendix II identifies the decision unit locations at the Subject Site. Laboratory results are included in Appendix IV.

6.0 REFERENCES

- Code of Federal Regulations. Occupational Safety and Health Standards. Title 29, Part 1910 (1910.1000 TO END). Washington DC. US Government Printing Office, 2001.
- Code of Federal Regulations. Occupational Safety and Health Standards. Title 29, Part 1926.62. Washington DC. US Government Printing Office, 2001.
- Pitard, Francis F., 1993. Pierre Gy's Sampling Theory and Sampling Practice: Heterogeneity, Sampling Correctness, and Statistical Process Control. 2nd Ed. Boca Raton, FL: CRC Press.
- US Department of Housing and Urban Development. Guidance for the Evaluation and Control of Lead Paint Hazards in Housing, 2001.
- University of Wisconsin-Milwaukee, Department of Environmental Health, Safety and Risk Management website, http://www.uwm.edu/Dept/EHSRM/HAZEXCEPTIONS/a.html, 2000.
- Department of Health, Hazard Evaluation and Emergency Response (HEER) website, http://www.hawaiidoh.org/tgm.aspx.
- State of Hawaii, Department of Health. Update to Soil Action Levels for Inorganic Arsenic and Recommended Soil Management Practices (updates default, background arsenic soil action level presented in 2010 guidance to 24 mg/kg; arsenic exposure units in Section 3.0 table corrected to µg/day September 2012), November 2011 (updated September 2012).
- State of Hawaii, Department of Health, 2009a. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Office of Hazard Evaluation and Emergency Response. March.
- State of Hawaii, Department of Health, 2009b. Technical Guidance Manual for the Implementation of the Hawai'i State Contingency Plan. June.
- State of Hawaii, Department of Health, 2011. Evaluation of Environmental Hazards at Sites with Contaminated Soil and Groundwater Honolulu. August.

Appendix I

TABLES OF RESULTS:
TABLE 1. ASBESTOS SURVEY RESULTS
TABLE 2. LEAD PAINT SURVEY RESULTS
TABLE 3. SOIL SCREEN RESULTS

Table 1. Asbestos Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Homogeneous Materials*	*Color*	*Friable*	*Type*	*Cond.*	*Est. Amt. of Material (ft^2)*	*Asbestos Content*	*Sample ID*
Ext.	Pool House	Concrete Floor	Grey	No	Misc.	Fair	400	None Detected	PH A-1
								None Detected	PH A-2
								None Detected	PH A-3
Ext.	Pool House	Concrete Stairs	Grey	No	Misc.	Fair	30	None Detected	PH A-4
								None Detected	PH A-5
								None Detected	PH A-6
Ext.	Pool House	Concrete Floor Skim Coat	Blue	No	Misc.	Poor	100	None Detected	PH A-7
								None Detected	PH A-8
								None Detected	PH A-9
Ext.	Pool House	Concrete Floor Skim Coat	White	No	Misc.	Poor	300	None Detected	PH A-10
								None Detected	PH A-11
								None Detected	PH A-12
Ext.	Pool House	Door Frame Caulking	White	No	Misc.	Fair	175	None Detected	PH A-13
								None Detected	PH A-14
								None Detected	PH A-15
Ext.	Pool House	Concrete Slab	Grey		Misc.	Fair	800	None Detected	PH A-16
								None Detected	PH A-17
								None Detected	PH A-18
Ext.	Pool House	Spray-on Foam	Orange	Yes	Misc.	Fair	20	None Detected	PH A-19
								None Detected	PH A-20
								None Detected	PH A-21
Ext.	Pool House	Concrete Pier Blocks	Black	No	Misc.	Fair	5	None Detected	PH A-22
								None Detected	PH A-23
								None Detected	PH A-24
Ext.	Pool House	Concrete Pool Floor Walls	White	No	Misc.	Fair	1,500	None Detected	PH A-25
								None Detected	PH A-26
								None Detected	PH A-27
Ext.	Pool House	Concrete Pool Floor Skim Coat	White	No	Misc.	Fair	1,500	None Detected	PH A-28
								None Detected	PH A-29
								None Detected	PH A-30

Table 1. Asbestos Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Homogeneous Materials*	*Color*	*Friable*	*Type*	*Cond.*	*Est. Amt. of Material (ft^2)*	*Asbestos Content*	*Sample ID*
Ext.	Pool House	Concrete Pool Perimeter	Grey	No	Misc.	Fair	100	None Detected	PH A-31
								None Detected	PH A-32
								None Detected	PH A-33
Ext.	Pool House	6" x 6" Ceramic Wall Tile Grout	White	No	Misc.	Fair	100	None Detected	PH A-34
								None Detected	PH A-35
								None Detected	PH A-36
Ext.	Pool House	Concrete Pool Deck Skim Coat	Black	No	Misc.	Poor	700	None Detected	PH A-37
								None Detected	PH A-38
								None Detected	PH A-39
Ext.	Pool House	Concrete Pool Deck	Black	No	Misc.	Fair	700	None Detected	PH A-40
								None Detected	PH A-41
								None Detected	PH A-42
Ext.	Pool House	Rock Wall Grout	Grey	No	Misc.	Fair	150 linear ft. (lf)	None Detected	PH A-43
								None Detected	PH A-44
								None Detected	PH A-45
Int.	Pool House	Sheetrock Wall/ Ceiling Joint Compound	Brown	No	Misc.	Fair	1,300	None Detected	PH A-46
								None Detected	PH A-47
								None Detected	PH A-48
Int.	Pool House	2" x 2" Ceramic Wall Tile Grout	Light Brown	No	Misc.	Fair	700	None Detected	PH A-49
								None Detected	PH A-50
								None Detected	PH A-51
Int.	Pool House	2" x 2" Ceramic Floor Tile Grout	Black	No	Misc.	Fair	550	None Detected	PH A-52
								None Detected	PH A-53
								None Detected	PH A-54
Int.	Pool House	Sink Toilet Caulking	White	No	Misc.	Fair	20 lf	None Detected	PH A-55
								None Detected	PH A-56
								None Detected	PH A-57
Int.	Pool House	Sheetrock Wall/ Ceiling Joint Compound	Various	No	Misc.	Poor	1,500	None Detected	PH A-58
								None Detected	PH A-59
								None Detected	PH A-60

Table 1. Asbestos Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Homogeneous Materials*	*Color*	*Friable*	*Type*	*Cond.*	*Est. Amt. of Material (ft^2)*	*Asbestos Content*	*Sample ID*
Ext.	**Pool House**	**Vent Through Roof Mastic**	**Black**	**No**	**Misc.**	**Fair**	**4**	**Assumed ACM**	**Not Applicable**
Ext.	Exterior Pool	Concrete Pool Deck Skim Coat	Various	No	Misc.	Poor	2,100	None Detected	OP A-1
								None Detected	OP A-2
								None Detected	OP A-3
Ext.	Exterior Pool	Grout	Grey	No	Misc.	Poor	250	None Detected	OP A-4
								None Detected	OP A-5
								None Detected	OP A-6
Ext.	Exterior Pool	4.25" x 4.25" Ceramic Tile Grout	Various	No	Misc.	Fair	450	None Detected	OP A-7
								None Detected	OP A-8
								None Detected	OP A-9
Ext.	Exterior Pool	Plaster Pool Floor and Walls	Black	No	Misc.	Fair	3,500	None Detected	OP A-10
								None Detected	OP A-11
								None Detected	OP A-12
Ext.	Exterior Pool	Concrete Pool Deck	Black	No	Misc.	Fair	2,600	None Detected	OP A-13
								None Detected	OP A-14
								None Detected	OP A-15
Ext.	Cottage	Concrete Walkway	Grey	No	Misc.	Fair	200	None Detected	COT A-1
								None Detected	COT A-2
								None Detected	COT A-3
Ext.	Cottage	Concrete Floor	Grey	No	Misc.	Fair	500	None Detected	COT A-4
								None Detected	COT A-5
								None Detected	COT A-6
Ext.	Cottage	Window Frame Caulking	White	No	Misc.	Fair	200 lf	None Detected	COT A-7
								None Detected	COT A-8
								None Detected	COT A-9
Ext.	Cottage	Door Frame Caulking	White	No	Misc.	Fair	50 lf	None Detected	COT A-10
								None Detected	COT A-11
								None Detected	COT A-12

Table 1. Asbestos Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Homogeneous Materials*	*Color*	*Friable*	*Type*	*Cond.*	*Est. Amt. of Material (ft^2)*	*Asbestos Content*	*Sample ID*
Ext.	Cottage	Sheetrock Ceiling Joint Compound	White	No	Misc.	Fair	500	None Detected	COT A-13
								None Detected	COT A-14
								None Detected	COT A-15
Ext.	Cottage (Northeast)	Concrete Walkway	Grey	No	Misc.	Fair	300	None Detected	COT A-16
								None Detected	COT A-17
								None Detected	COT A-18
Ext.	Cottage (East)	Concrete Walkway	Grey	No	Misc.	Fair	400	None Detected	COT A-19
								None Detected	COT A-20
								None Detected	COT A-21
Ext.	Cottage	Concrete Stairs/ Wall	Black	No	Misc.	Fair	50	None Detected	COT A-22
								None Detected	COT A-23
								None Detected	COT A-24
Int.	Cottage	Canec Ceiling Walls	White	No	Misc.	Fair	Throughout	None Detected	COT2 A-1
								None Detected	COT2 A-2
								None Detected	COT2 A-3
Int.	Cottage	Sheet Vinyl and Mastic	Brown	No	Misc.	Fair	1,000	None Detected	COT2 A-4
								None Detected	COT2 A-5
								None Detected	COT2 A-6
Int.	Cottage	Carpet Glue	Blue	No	Misc.	Fair	250	None Detected	COT2 A-7
								None Detected	COT2 A-8
								None Detected	COT2 A-9
Int.	Cottage	Door Frame Caulking	White	No	Misc.	Fair	200 lf	None Detected	COT2 A-10
								None Detected	COT2 A-11
								None Detected	COT2 A-12
Int.	Cottage	Window Frame Caulking	White	No	Misc.	Fair	200 lf	None Detected	COT2 A-13
								None Detected	COT2 A-14
								None Detected	COT2 A-15
Int.	Cottage	Sink and Toilet Caulking	White	No	Misc.	Fair	25 lf	None Detected	COT2 A-16
								None Detected	COT2 A-17
								None Detected	COT2 A-18
Int.	Cottage	Sink Insulation	White	No	Misc.	Fair	8	None Detected	COT2 A-19
								None Detected	COT2 A-20
								None Detected	COT2 A-21

Table 1. Asbestos Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Homogeneous Materials*	*Color*	*Friable*	*Type*	*Cond.*	*Est. Amt. of Material (ft^2)*	*Asbestos Content*	*Sample ID*
Int.	Cottage	Sheet Vinyl and Mastic	White	No	Misc.	Fair	75	None Detected	COT2 A-22
								None Detected	COT2 A-23
								None Detected	COT2 A-24
Int.	Cottage	Paint	Silver	No	Misc.	Fair	15	None Detected	COT2 A-25
								None Detected	COT2 A-26
								None Detected	COT2 A-27
Int.	**Cottage**	**Sink Insulation**	**White/black**	**Yes**	**Surf.**	**Fair**	**8**	**5% Chrysotile**	**COT2 A-28**
								5% Chrysotile	**COT2 A-29**
								5% Chrysotile	**COT2 A-30**
Int.	Cottage	Counter Top Caulking	White	No	Misc.	Fair	15 lf	None Detected	COT2 A-31
								None Detected	COT2 A-32
								None Detected	COT2 A-33
Ext.	**Cottage**	**Vent Through Roof Mastic**	**Black**	**No**	**Misc.**	**Fair**	**8**	**Assumed ACM**	**Not Applicable**

Table 2. Lead Paint Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*Lead Conc. (mg/kg)*	*LCP or LBP?*	*Sample ID*
Ext.	Pool House	Under Roof	White	Wood	Fair	< 43	ND	PH L1
Ext.	Pool House	Support Beams	Black	Wood	Fair	< 40	ND	PH L2
Ext.	Pool House	Wall Siding	Blue	Wood	Fair	< 40	ND	PH L3
Ext.	Pool House	Wall Siding	Green	Wood	Fair	< 40	ND	PH L4
Ext.	Pool House	Door Frame	White	Wood	Fair	< 40	ND	PH L5
Ext.	Pool House	Base Board	White	Wood	Fair	< 49	ND	PH L6
Ext.	Pool House	Base Board	Green	Wood	Fair	< 40	ND	PH L7
Ext.	Pool House	Slab	Black	Concrete	Fair	< 40	ND	PH L8
Ext.	Pool House	Under Roof	Grey	Wood	Fair	< 40	ND	PH L9
Ext.	Pool House	Wall Siding	Grey	Wood	Fair	< 40	ND	PH L10
Ext.	Pool House	Wall Siding	Blue	Wood	Poor	< 40	ND	PH L11
Ext.	Pool House	Support Post	Red	Wood	Fair	< 40	ND	PH L12
Ext.	**Pool House**	**Window Frame**	**Stain**	**Wood**	**Fair**	**79**	**LCP**	**PH L13**
Ext.	Pool House	Pool Edge	Blue	Concrete	Fair	< 40	ND	PH L14
Ext.	Pool House	Floor	Blue	Concrete	Fair	< 40	ND	PH L15
Ext.	Pool House	Floor	White	Concrete	Fair	< 40	ND	PH L16
Ext.	**Pool House**	**Downspout**	**Beige**	**Metal**	**Fair**	**< 140[1]**	**LCP**	**PH L17**
Int.	Pool House	Wall	Tan	Sheetrock	Fair	< 58	ND	PH L18
Ext.	Pool House	Door Door Frame	Grey	Wood	Fair	< 43	ND	PH L19
Ext.	**Pool House**	**Downspout**	**Blue**	**Metal**	**Fair**	**150**	**LCP**	**PH L20**
Ext.	Pool House	Fence	Grey	Wood	Fair	< 62	ND	PH L21
Ext.	Pool House	Roof Overhang	Grey	Wood	Fair	< 94	ND	PH L22
Ext.	Pool House	Conduit	Grey	Metal	Fair	< 61	ND	PH L23
Ext.	**Pool House**	**Corrugated Roof (Underside)**	**Grey**	**Metal**	**Fair**	**< 160[1]**	**LCP**	**PH L24**
Ext.	Pool House	A Frame Siding	Black	Wood	Fair	< 85	ND	PH L25
Ext.	**Pool House**	**Door**	**White**	**Wood**	**Fair**	**< 190[1]**	**LCP**	**PH L26**
Ext.	Pool House	Pool Floor	White	Plaster	Fair	< 44	ND	PH L27

[1] *Elevated laboratory detection limit, assumed LCP.*
LBP and LCP listed in bold text.

Table 2. Lead Paint Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*Lead Conc. (mg/kg)*	*LCP or LBP?*	*Sample ID*
Ext.	**Pool House**	**Pool Walls**	**White**	**Plaster**	**Fair**	**160**	**LCP**	**PH L28**
Ext.	Pool House	Floor	Black	Concrete	poor	< 40	ND	PH L29
Ext.	**Pool House**	**Pool Perimeter**	**Light Grey**	**Concrete**	**Fair**	**83**	**LCP**	**PH L30**
Ext.	**Pool House**	**Fascia**	**Black**	**Wood**	**Fair**	**580**	**LCP**	**PH L31**
Ext.	Pool House	Corrugated Roof (Top)	White	Metal	Poor	< 40	ND	PH L32
Int.	Pool House	Celling	White	Sheetrock	Fair	< 40	ND	PH L33
Int.	Pool House	Wall	Brown	Sheetrock	Fair	< 51	ND	PH L34
Int.	Pool House	Wall	Light Brown	2" x 2" Ceramic Wall Tile	Fair	< 87	ND	PH L35
Int.	Pool House	Floor	Black	2" x 2" Ceramic Floor Tile	Fair	< 63	ND	PH L36
Int.	**Pool House**	**Wall Trim**	**Brown**	**Wood**	**Fair**	**< 150[1]**	**LCP**	**PH L37**
Int.	**Pool House**	**Window Trim**	**Brown**	**Wood**	**Fair**	**< 120[1]**	**LCP**	**PH L38**
Int.	Pool House	Walls	Light Brown	Sheetrock	Fair	< 94	ND	PH L39
Int.	Pool House	Stall Partition Doors	Brown	Wood	Fair	< 88	ND	PH L40
Int.	Pool House	Support Post	Brown	Wood	Fair	< 83	ND	PH L41
Int.	Pool House	Wall	White	Sheetrock	Fair	< 40	ND	PH L42
Int.	Pool House	Ceiling	White	Sheetrock	Fair	< 40	ND	PH L43
Int.	Pool House	Window Trim	White	Wood	Fair	< 40	ND	PH L44
Int.	**Pool House**	**Window**	**Beige**	**Wood**	**Fair**	**< 130[1]**	**LCP**	**PH L45**
Int.	Pool House	Bench Blocks	Brown	CMU	Fair	< 93	ND	PH L46
Int.	Pool House	Curb	Dark Brown	Concrete	poor	< 40	ND	PH L47
Int.	**Pool House**	**Wall**	**Yellow**	**Sheetrock**	**poor**	**86**	**LCP**	**PH L48**
Int.	**Pool House**	**Pool Pump Fitting**	**Red**	**Metal**	**poor**	**700**	**LCP**	**PH L49**
Int.	Pool House	Pump Housing	Green	Metal	poor	< 40	LCP	PH L50
Int.	Pool House	Door	Brown	Wood	poor	< 40	ND	PH L51
Int.	**Pool House**	**Wall**	**Teal**	**Sheetrock**	**poor**	**44**	**LCP**	**PH L52**
Int.	Pool House	Door	Off White	Wood	poor	< 40	ND	PH L53
Ext.	Exterior Pool	Lettering	Yellow	Concrete	poor	< 40	ND	OP L1

[1] *Elevated laboratory detection limit, assumed LCP.*
LBP and LCP listed in bold text.

Table 2. Lead Paint Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*Lead Conc. (mg/kg)*	*LCP or LBP?*	*Sample ID*
Ext.	Exterior Pool	Pool Deck	Beige	Concrete	poor	< 40	ND	OP L2
Ext.	**Exterior Pool**	**Lettering**	**Red**	**Concrete**	**poor**	**< 170[1]**	**LCP**	**OP L3**
Ext.	Exterior Pool	Pool Deck	Blue	Concrete	poor	< 55	ND	OP L4
Ext.	Exterior Pool	Ceramic Tile	Black	Ceramic tile	poor	< 40	ND	OP L5
Ext.	Exterior Pool	Pool Floor Walls	Black	Plaster	poor	< 40	ND	OP L6
Ext.	Exterior Pool	Pool Wall	Dark-grey	Plaster	Fair	< 40	ND	OP L7
Ext.	Exterior Pool	Pool Floor Walls	White	Plaster	poor	< 40	ND	OP L8
Ext.	**Cottage**	**Corrugated Roof (Top)**	**White**	**Metal**	**Fair**	**<150[1]**	**LCP**	**COT L1**
Ext.	Cottage	Gutter	White	Metal	Fair	<40	ND	COT L2
Ext.	**Cottage**	**Fascia, Rafter, Purlins**	**Grey**	**Wood**	**Fair**	**<290[1]**	**LCP**	**COT L3**
Ext.	**Cottage**	**Wall & Trim**	**Off White**	**Wood**	**Fair**	**7,100**	**LBP**	**COT L4**
Ext.	**Cottage**	**Lattice**	**Light Brown**	**Wood**	**Fair**	**1,100**	**LCP**	**COT L5**
Ext.	**Cottage**	**Corrugated Roof (Under)**	**Grey**	**Metal**	**Fair**	**<480[1]**	**LCP**	**COT L6**
Ext.	Cottage	Ceiling	White	Sheetrock	Fair	<83	ND	COT L7
Ext.	Cottage	Support Post	Off White	Wood	Fair	<40	ND	COT L8
Ext.	**Cottage**	**Window Frame**	**Orange**	**Wood**	**Fair**	**890**	**LCP**	**COT L9**
Ext.	Cottage	Door Frame	Orange	Wood	Fair	<59	ND	COT L10
Ext.	**Cottage**	**Security Window**	**Orange**	**Metal**	**Fair**	**70**	**LCP**	**COT L11**
Ext.	**Cottage**	**Conduit**	**Off White**	**Metal**	**Poor**	**1,900**	**LCP**	**COT L12**
Ext.	**Cottage**	**Wall**	**Grey**	**Wood**	**Fair**	**42,000**	**LBP**	**COT L13**
Ext.	**Cottage**	**Window Overhang**	**Grey**	**Wood**	**Fair**	**15,000**	**LBP**	**COT L14**
Ext.	**Cottage**	**Stairs**	**Grey**	**Concrete**	**Fair**	**130**	**LCP**	**COT L15**
Ext.	**Cottage**	**Downspout**	**Grey**	**Metal**	**Poor**	**15,000**	**LBP**	**COT L16**
Ext.	**Cottage**	**Stairs & Railing**	**Light Brown**	**Wood**	**Fair**	**25,000**	**LBP**	**COT L17**
Ext.	**Cottage**	**Bench Box**	**Grey**	**Wood**	**Fair**	**67**	**LCP**	**COT L18**
Ext.	**Cottage**	**Striping**	**Yellow**	**Concrete**	**Fair**	**7,400**	**LBP**	**COT L19**
Ext.	Cottage	Railing	Orange	Wood	Fair	<64	ND	COT L20

[1] *Elevated laboratory detection limit, assumed LCP.*
LBP and LCP listed in bold text.

Table 2. Lead Paint Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*Lead Conc. (mg/kg)*	*LCP or LBP?*	*Sample ID*
Ext.	**Cottage**	**Floor**	**Grey**	**Wood**	**Fair**	**63**	**LCP**	**COT L21**
Ext.	Cottage	Door	Orange	Wood	Fair	<46	ND	COT L22
Ext.	**Cottage**	**Door**	**Teal**	**Wood**	**Fair**	**120**	**LCP**	**COT L23**
Ext.	**Cottage**	**Rock Wall**	**Black**	**Rock**	**Fair**	**580**	**LCP**	**COT L24**
Int.	**Cottage**	**Wall**	**Off-white**	**Canec**	**Fair**	**150**	**LCP**	**COT2 L1**
Int.	**Cottage**	**Ceiling**	**White**	**Canec**	**Fair**	**340**	**LCP**	**COT2 L2**
Int.	**Cottage**	**Door Frame**	**Green**	**Wood**	**Fair**	**93**	**LCP**	**COT2 L3**
Int.	**Cottage**	**Window Frame**	**Green**	**Wood**	**Fair**	**210**	**LCP**	**COT2 L4**
Int.	**Cottage**	**Door**	**Green**	**Wood**	**Fair**	**200**	**LCP**	**COT2 L5**
Int.	Cottage	Door	White	Wood	Fair	<40	ND	COT2 L6
Int.	**Cottage**	**Threshold**	**Brown**	**Wood**	**poor**	**440**	**LCP**	**COT2 L7**
Int.	**Cottage**	**Base Board & Trim**	**White**	**Wood**	**Fair**	**160**	**LCP**	**COT2 L8**
Int.	**Cottage**	**Door Frame**	**Blue**	**Wood**	**Fair**	**84**	**LCP**	**COT2 L9**
Int.	**Cottage**	**Window Frame**	**Blue**	**Wood**	**Fair**	**2,000**	**LCP**	**COT2 L10**
Int.	**Cottage**	**Door**	**Blue**	**Wood**	**Fair**	**180**	**LCP**	**COT2 L11**
Int.	**Cottage**	**Wall Siding**	**White**	**Wood**	**Fair**	**320**	**LCP**	**COT2 L12**
Int.	**Cottage**	**Base Board & Trim**	**Blue**	**Wood**	**Fair**	**2,300**	**LCP**	**COT2 L13**
Int.	**Cottage**	**Door Frame**	**Dark Blue**	**Wood**	**Fair**	**2,000**	**LCP**	**COT2 L14**
Int.	**Cottage**	**Window Frame**	**Dark Blue**	**Wood**	**Fair**	**1,300**	**LCP**	**COT2 L15**
Int.	**Cottage**	**Door**	**Dark Blue**	**Wood**	**Fair**	**3,200**	**LCP**	**COT2 L16**
Int.	Cottage	Door Frame	White	Wood	Fair	<40	ND	COT2 L17
Int.	**Cottage**	**Ceiling**	**White**	**Wood**	**Fair**	**460**	**LCP**	**COT2 L18**
Int.	**Cottage**	**Floor**	**White**	**Wood**	**Poor**	**1,400**	**LCP**	**COT2 L19**
Int.	**Cottage**	**Floor**	**White**	**Metal**	**Poor**	**230,000**	**LBP**	**COT2 L20**
Int.	**Cottage**	**Wall**	**White**	**Metal**	**Poor**	**12,000**	**LBP**	**COT2 L21**
Int.	**Cottage**	**Floor**	**White**	**Wood**	**Poor**	**3,100**	**LCP**	**COT2 L22**
Int.	**Cottage**	**Door & Window Frame**	**Brown**	**Wood**	**Fair**	**330**	**LCP**	**COT2 L23**

[1] *Elevated laboratory detection limit, assumed LCP.*
LBP and LCP listed in bold text.

Table 2. Lead Paint Survey Results
YWCA - Island of Hawaii Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Int./ Ext.	*Building*	*Description*	*Color*	*Substrate*	*Cond.*	*Lead Conc. (mg/kg)*	*LCP or LBP?*	*Sample ID*
Int.	**Cottage**	**Door Frame**	**Orange**	**Wood**	**Fair**	**560**	**LCP**	**COT2 L25**
Int.	**Cottage**	**Window Frame**	**Orange**	**Wood**	**Fair**	**4,600**	**LCP**	**COT2 L26**
Int.	Cottage	Door	Orange	Wood	Fair	<40	ND	COT2 L27
Int.	**Cottage**	**Door Frame**	**Yellow**	**Wood**	**Fair**	**860**	**LCP**	**COT2 L28**
Int.	**Cottage**	**Window Frame**	**Yellow**	**Wood**	**Fair**	**1,300**	**LCP**	**COT2 L29**
Int.	**Cottage**	**Door**	**Yellow**	**Wood**	**Fair**	**120**	**LCP**	**COT2 L30**
Int.	**Cottage**	**Cabinet**	**White**	**Wood**	**Poor**	**2,600**	**LCP**	**COT2 L31**

[1] *Elevated laboratory detection limit, assumed LCP.*
LBP and LCP listed in bold text.

Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

			Sample Location	Grassed area located from pre-school cottage to Kinoole Street (0"-6" bgs)			Grassed area located from pre-school cottage to Kinoole Street (6"-12" bgs)		
			Descriptive Sample ID	DU-1			DU-2		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	160	2	Fail	91	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	6	0.1	Pass	3.3	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	250	2	Pass	250	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	**1,700**	**40**	**Fail**	**2,100**	**40**	**Fail**
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	0.027	0.02	Pass	ND	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

Notes:
DOH = State of Hawai'i Department of Health
EPA = Environmental Protection Agency
NA = Not applicable
ND = Not detected above the laboratory detection limit
EAL = Environmental Action Level
mg/kg = Milligrams per kilogram
bgs = Below ground surface

Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

			Sample Location	Pre-school cottage area (0"-6" bgs)			Pre-school cottage area (0"-6" bgs)		
			Descriptive Sample ID	DU-3A			DU-3B		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	61	2	Fail	56	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	2.9	0.1	Pass	2.3	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	290	2	Pass	290	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	**1,300**	**40**	**Fail**	**1,100**	**40**	**Fail**
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	0.41	0.02	Pass	0.39	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

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Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

			Sample Location	Pre-school cottage area (0"-6" bgs)			Pre-school cottage area (6" -12" bgs)		
			Descriptive Sample ID	DU-3C			DU-4		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	63	2	Fail	39	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	2.5	0.1	Pass	1.5	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	290	2	Pass	300	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	**1,200**	**40**	**Fail**	**570**	**40**	**Fail**
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	0.37	0.02	Pass	0.37	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

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Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

				Sample Location	Pool and pool house area (0" -6")			Pool and pool house area (6" -12")		
				Descriptive Sample ID	DU-5			DU-6		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	21	2	Pass	43	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	NA	NA	NA	2.6	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	92	2	Pass	110	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	ND	40	Pass	83	40	Pass
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	ND	0.02	Pass	ND	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

Notes:
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Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

			Sample Location	Multi-purpose building area (0" -6")			Multi-purpose building area (0" -6")		
			Descriptive Sample ID	DU-7A			DU-7B		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	44	2	Fail	37	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	1.6	0.1	Pass	2.5	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	250	2	Pass	230	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	**280**	**40**	**Fail**	**280**	**40**	**Fail**
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	ND	0.02	Pass	ND	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

Notes:
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DOH = State of Hawai'i Department of Health
EAL = Environmental Action Level
EPA = Environmental Protection Agency
mg/kg = Milligrams per kilogram
NA = Not applicable
bgs = Below ground surface

Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

			Sample Location	Multi-purpose building area (0" -6")			Multi-purpose building area (6" -12")		
			Descriptive Sample ID	DU-7C			DU-8		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	40	2	Fail	33	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	1.6	0.1	Pass	2.1	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	240	2	Pass	260	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	**310**	**40**	**Fail**	**300**	**40**	**Fail**
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	ND	0.02	Pass	0.039	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

Notes:
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EPA = Environmental Protection Agency
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Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

			Sample Location	Existing paved parking area and driveway (0" -6")			Existing paved parking area and driveway (6" -12")		
			Descriptive Sample ID	DU-9			DU-10		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	46	2	Fail	22	2	Pass
Arsenic (Bioaccessible)	EPA 1340	24	95	4.5	0.1	Pass	NA	NA	NA
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	200	2	Pass	88	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	**430**	**1**	**Fail**	160	40	Pass
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	ND	0.02	Pass	ND	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

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Table 3. Soil Screen Results
YWCA Island of Hawaii - Master Plan (Phase I)
Hilo, Hawaii

				Sample Location	Area south of the multi-purpose building (0" -6")			Area south of the multi-purpose building (6" -12")		
				Descriptive Sample ID	DU-11			DU-12		
Analyte	**Laboratory Analytical Method**	**DOH EAL Unrestricted Land Use (mg/kg)**	**DOH EAL Commercial/ Industrial Land Use (mg/kg)**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**	**Result (mg/kg)**	**Laboratory Reporting Limit (mg/kg)**	**Pass/Fail**
RCRA 8 Metals									
Arsenic (Total)	EPA 6020B/EPA 3050B	24	95	25	2	Fail	34	2	Fail
Arsenic (Bioaccessible)	EPA 1340	24	95	1.6	0.1	Pass	1.6	0.1	Pass
Barium	EPA 6020B/EPA 3050B	1000	2500	ND	500	Pass	ND	500	Pass
Cadmium	EPA 6020B/EPA 3050B	14	72	ND	10	Pass	ND	10	Pass
Chromium (Total)	EPA 6020B/EPA 3050B	1100	1100	210	2	Pass	270	2	Pass
Lead	EPA 6020B/EPA 3050B	200	800	130	40	Pass	**200**	**40**	**Fail**
Selenium	EPA 6020B/EPA 3050B	78	1000	ND	2	Pass	ND	2	Pass
Silver	EPA 6020B/EPA 3050B	78	1000	ND	20	Pass	ND	20	Pass
Mercury	EPA 6020B/EPA 3050B	4.7	61	ND	4	Pass	ND	4	Pass
Organochlorine Pesticides									
alpha-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
gamma-BHC (Lindane)	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
beta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Heptachlor	EPA 8081A	1.3	5.6	ND	0.02	Pass	ND	0.02	Pass
delta-BHC	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Aldrin	EPA 8081A	3.9	8.4	ND	0.02	Pass	ND	0.02	Pass
Heptachlor epoxide	EPA 8081A	0.2	2.7	ND	0.02	Pass	ND	0.02	Pass
Endosulfan I	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDE	EPA 8081A	1.9	8.2	ND	0.02	Pass	ND	0.02	Pass
Dieldrin	EPA 8081A	2.5	24	ND	0.02	Pass	ND	0.02	Pass
Endrin	EPA 8081A	3.8	30	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDD	EPA 8081A	2.2	8.4	ND	0.02	Pass	ND	0.02	Pass
Endosulfan II	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
4,4'-DDT	EPA 8081A	1.8	5.6	ND	0.02	Pass	ND	0.02	Pass
Endrin Aldehyde	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Methoxychlor	EPA 8081A	16	16	ND	0.02	Pass	ND	0.02	Pass
Endrin ketone	EPA 8081A	N/A	N/A	ND	0.02	Pass	ND	0.02	Pass
Endosulfan sulfate	EPA 8081A	13	13	ND	0.02	Pass	ND	0.02	Pass
Chlordane (Technical)	EPA 8081A	17	23	ND	0.4	Pass	ND	0.4	Pass
Toxaphene	EPA 8081A	0.48	1.8	ND	0.02	Pass	ND	0.02	Pass

Notes:
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Appendix II

FIGURE 1: MAP OF IDENTIFIED LEAD-IMPACTED SOILS
FIGURE 2: DECISION UNIT (DU) BOUNDARIES MAP
FIGURE 3: SITE LAYOUT

Figure 1. Map of Identified Lead-Impacted Soils
YWCA Island of Hawaii – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

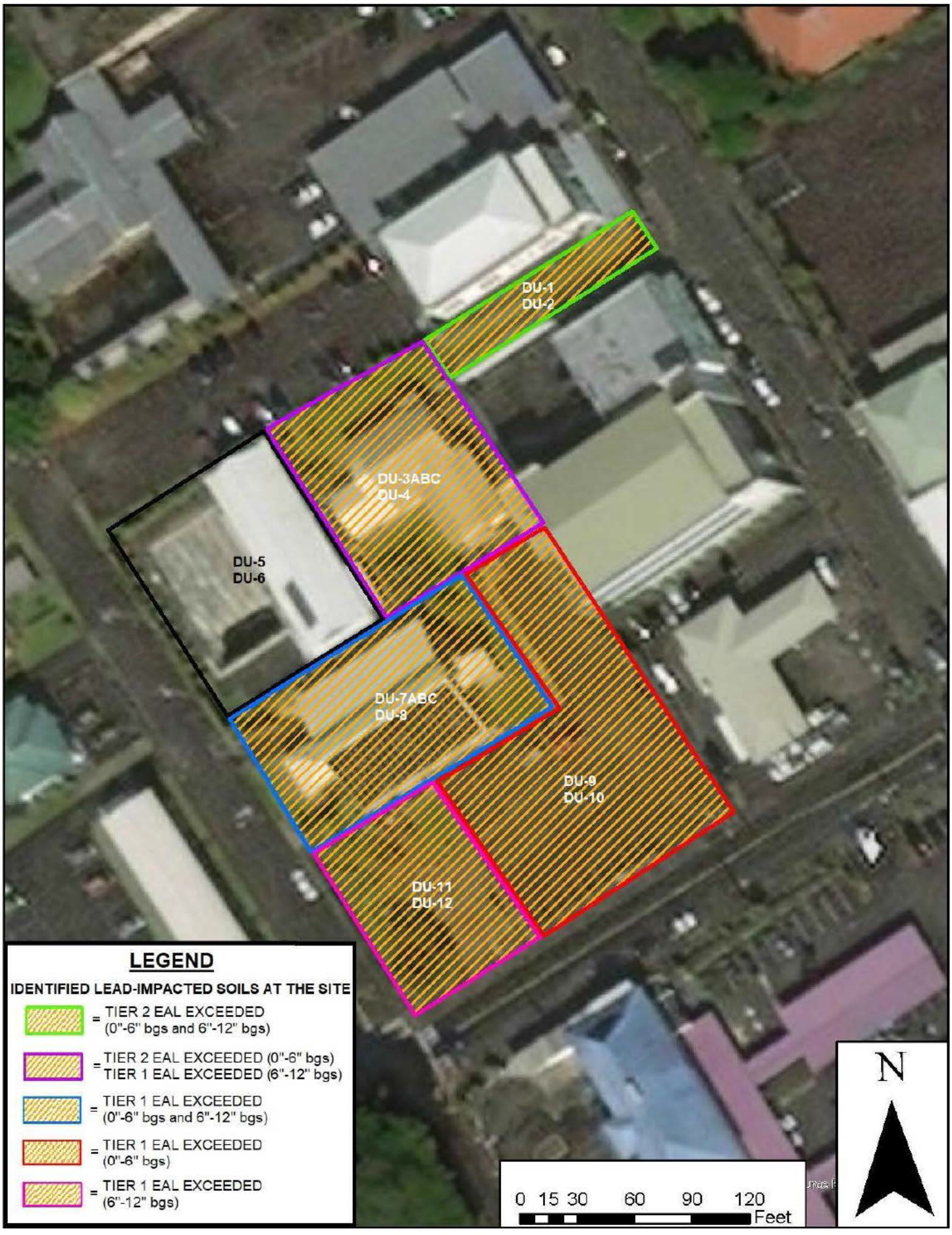


Figure 2. Decision Unit (DU) Boundaries Map
YWCA Island of Hawaii – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

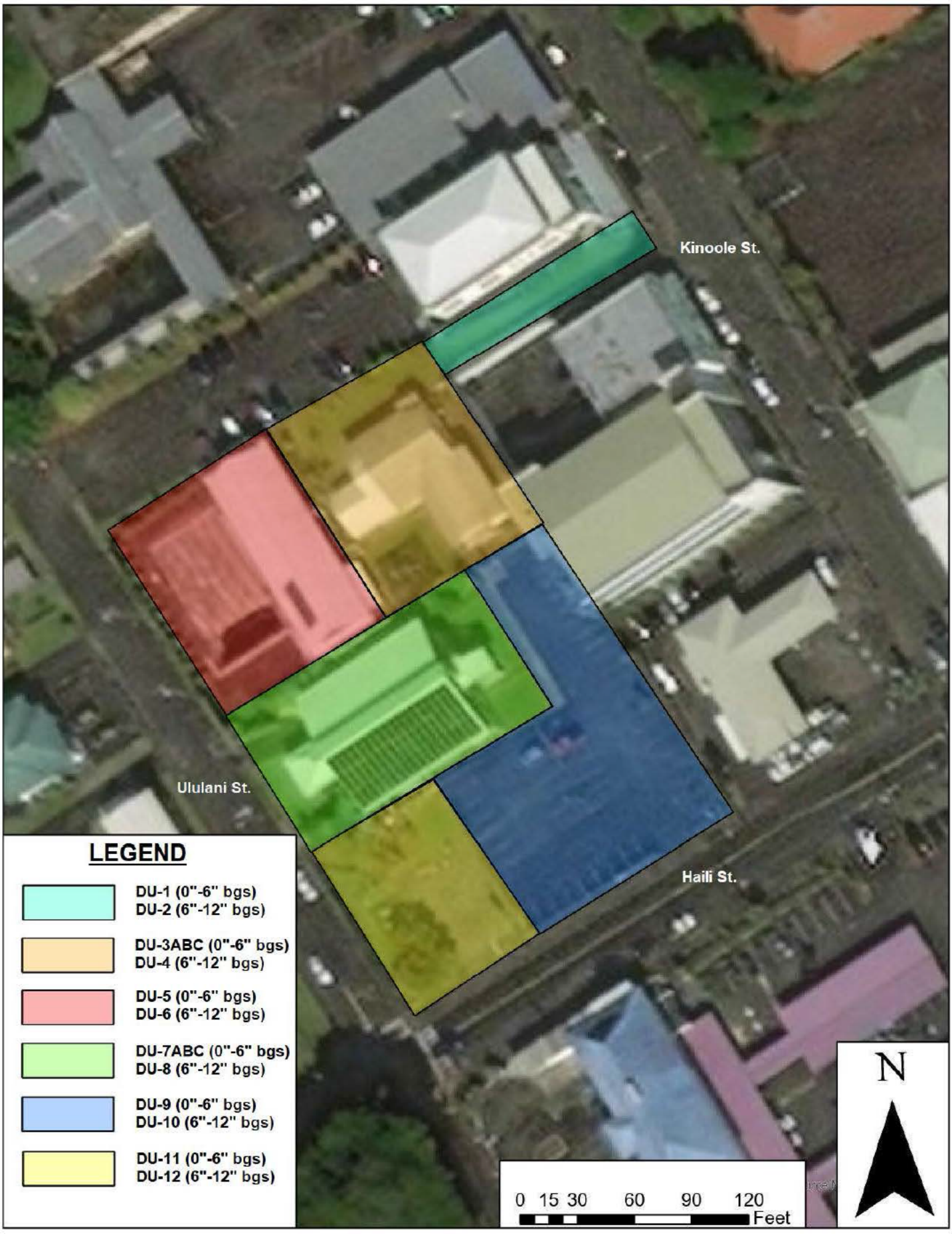


Figure 3. Site Layout
YWCA Island of Hawaii – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

Appendix III

PHOTOGRAPH LOG 1: ASBESTOS SURVEY
PHOTOGRAPH LOG 2: LEAD PAINT SURVEY
PHOTOGRAPH LOG 3: ARSENIC SURVEY

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH A-1: **None Detected**
PH A-2: **None Detected**
PH A-3: **None Detected**

Exterior grey concrete floor located in the lanai area of the pool house.

PH A-4: **None Detected**
PH A-5: **None Detected**
PH A-6: **None Detected**

Exterior grey concrete stair located at the east entrance of the pool house.

PH A-7: **None Detected**
PH A-8: **None Detected**
PH A-9: **None Detected**

Exterior blue concrete floor skim coat located in the lanai area of the pool house.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH A-10: **None Detected**
PH A-11: **None Detected**
PH A-12: **None Detected**

Exterior white concrete floor skim coat located in the lanai area of the pool house.

PH A-13: **None Detected**
PH A-14: **None Detected**
PH A-15: **None Detected**

Exterior white door frame caulking located throughout the pool house.

PH A-16: **None Detected**
PH A-17: **None Detected**
PH A-18: **None Detected**

Exterior grey concrete slab located throughout the west half of the pool house.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH A-19: **None Detected**
PH A-20: **None Detected**
PH A-21: **None Detected**

Exterior orange spray-on foam located at the pool house.

PH A-22: **None Detected**
PH A-23: **None Detected**
PH A-24: **None Detected**

Exterior black concrete pure blocks located in interior pool area of the pool house.

PH A-25: **None Detected**
PH A-26: **None Detected**
PH A-27: **None Detected**

Exterior white concrete pool floor & walls located throughout the interior pool of the pool house.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH A-28: **None Detected**
PH A-29: **None Detected**
PH A-30: **None Detected**

Exterior white concrete pool skim coat located throughout the interior pool of the pool house.

PH A-31: **None Detected**
PH A-32: **None Detected**
PH A-33: **None Detected**

Exterior grey concrete pool perimeter located throughout the perimeter of the interior pool of the pool house.

PH A-34: **None Detected**
PH A-35: **None Detected**
PH A-36: **None Detected**

Exterior white 6" x 6" ceramic wall tile grout located throughout the perimeter of the interior pool of the pool house.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH A-37: **None Detected**
PH A-38: **None Detected**
PH A-39: **None Detected**

Exterior black concrete pool deck skim coat located throughout the interior pool area of the pool house.

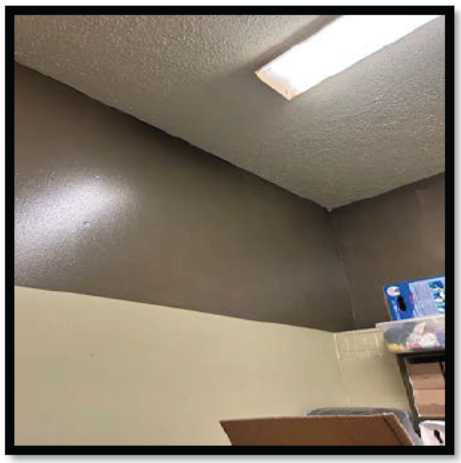
PH A-40: **None Detected**
PH A-41: **None Detected**
PH A-42: **None Detected**

Exterior black concrete pool deck located throughout the interior pool area of the pool house.

PH A-43: **None Detected**
PH A-44: **None Detected**
PH A-45: **None Detected**

Exterior grey rock wall grout located throughout the eastern edge of the pool house.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720



PH A-46: **None Detected**
PH A-47: **None Detected**
PH A-48: **None Detected**

Interior sheetrock wall/ ceiling and joint compound located throughout the men and women bathrooms of the pool house.

PH A-49: **None Detected**
PH A-50: **None Detected**
PH A-51: **None Detected**

Interior light brown 2" x 2" ceramic wall tile grout located throughout the men and women bathrooms of the pool house.

PH A-52: **None Detected**
PH A-53: **None Detected**
PH A-54: **None Detected**

Interior black 2" x 2" ceramic floor tile grout located throughout the men and women bathrooms of the pool house.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH A-55: **None Detected**
PH A-56: **None Detected**
PH A-57: **None Detected**

Interior white sink & toilet caulking located in the men and women bathrooms of the pool house.

PH A-58: **None Detected**
PH A-59: **None Detected**
PH A-60: **None Detected**

Interior sheetrock wall/ ceiling & joint compound located throughout the water heater room, pump rooms 1 & 2, and the meter room of the pool house.

Assumed ACM - Vent Through Roof Mastic

Exterior vent through roof mastic located on south side of pool house roof.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

OP A-1: **None Detected**
OP A-2: **None Detected**
OP A-3: **None Detected**

Exterior concrete pool deck skim coat located throughout the pool deck of the exterior pool.

OP A-4: **None Detected**
OP A-5: **None Detected**
OP A-6: **None Detected**

Exterior grey grout located throughout the perimeter of the exterior pool.

OP A-7: **None Detected**
OP A-8: **None Detected**
OP A-9: **None Detected**

Exterior black 4.25" x 4.25" ceramic floor tile grout located in the exterior pool.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

OP A-10: **None Detected**
OP A-11: **None Detected**
OP A-12: **None Detected**

Exterior black pool plaster floor and walls located throughout the exterior pool.

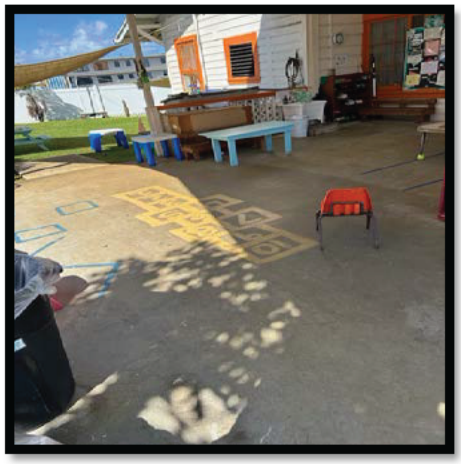
OP A-13: **None Detected**
OP A-14: **None Detected**
OP A-15: **None Detected**

Exterior black concrete located throughout the pool deck of the exterior pool.

COT A-1: **None Detected**
COT A-2: **None Detected**
COT A-3: **None Detected**

Exterior grey concrete walkway located west of the cottage.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720



COT A-4: None Detected
COT A-5: None Detected
COT A-6: None Detected

Exterior grey concrete floor located throughout the lanai area of the cottage.

COT A-7: None Detected
COT A-8: None Detected
COT A-9: None Detected

Exterior white window frame caulking located throughout the cottage.

COT A-10: None Detected
COT A-11: None Detected
COT A-12: None Detected

Exterior white door frame caulking located throughout the cottage.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT A-13: **None Detected**
COT A-14: **None Detected**
COT A-15: **None Detected**

Exterior white sheetrock ceiling & joint compound located throughout the lanai area of the cottage.

COT A-16: **None Detected**
COT A-17: **None Detected**
COT A-18: **None Detected**

Exterior grey concrete walkway located northeast of the cottage.

COT A19: **None Detected**
COT A-20: **None Detected**
COT A-21: **None Detected**

Exterior grey concrete walkway located east of the cottage.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT A-22: **None Detected**
COT A-23: **None Detected**
COT A-24: **None Detected**

Exterior concrete stairs located east of the cottage.

COT2 A-1: **None Detected**
COT2 A-2: **None Detected**
COT2 A-3: **None Detected**

Interior white canec ceiling and walls located throughout the cottage.

COT2 A-4: **None Detected**
COT2 A-5: **None Detected**
COT2 A-6: **None Detected**

Interior brown sheet vinyl flooring and mastic located throughout the kitchen, bath 1 & 3, dining area, class 3, and office 4.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 A-7: None Detected
COT2 A-8: None Detected
COT2 A-9: None Detected

Interior blue carpet glue located throughout office 1 & office 3.

COT2 A-10: None Detected
COT2 A-11: None Detected
COT2 A-12: None Detected

Interior white door frame caulking located throughout the cottage.

COT2 A-13: None Detected
COT2 A-14: None Detected
COT2 A-15: None Detected

Interior white window frame caulking located throughout the cottage.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 A-16: **None Detected**
COT2 A-17: **None Detected**
COT2 A-18: **None Detected**

Interior white sink and toilet caulking located in bath 1-3 of the cottage.

COT2 A-19: **None Detected**
COT2 A-20: **None Detected**
COT2 A-21: **None Detected**

Interior white sink insulation located in bath 1 of the cottage.

COT2 A-22: **None Detected**
COT2 A-23: **None Detected**
COT2 A-24: **None Detected**

Interior white sheet vinyl flooring and mastic located throughout bath 1 of the cottage.

Photograph Log 1. Asbestos Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 A-25: **None Detected**
COT2 A-26: **None Detected**
COT2 A-27: **None Detected**

Interior silver paint located in bath 2 closet of the cottage.

COT2 A-28: **5% Chrysotile**
COT2 A-29: **5% Chrysotile**
COT2 A-30: **5% Chrysotile**

Interior white sink insulation located in the kitchen of the cottage.

COT2 A-31: **None Detected**
COT2 A-32: **None Detected**
COT2 A-33: **None Detected**

Interior white counter top caulking located in the kitchen of the cottage.

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YWCA Hilo – Master Plan (Phase I)
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Assumed ACM- Vent Through Roof Mastic

Exterior vent through roof mastic located on cottage roof.

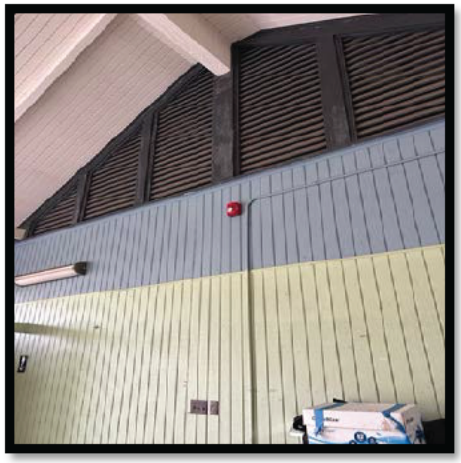
Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-1: Does not contain lead above the laboratory detection limit (<43 mg/kg)

Exterior grey wood under roof located throughout the lanai and interior pool area of the pool house.

PH L-2: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior black wood support beam located in the lanai and interior pool area of the pool house.



PH L-3: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior blue wood wall siding located in the lanai area of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-4: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior green wood wall siding located throughout the lanai area of the pool house.

PH L-5: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior white wood door frame located in the lanai area of the pool house.

PH L-6: Does not contain lead above the laboratory detection limit (<49 mg/kg)

Exterior white wood base board located in the lanai area of the pool house.

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145 Ululani Street, Hilo, Hawaii 96720

PH L-7: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior green wood base board located in the lanai area of the pool house.

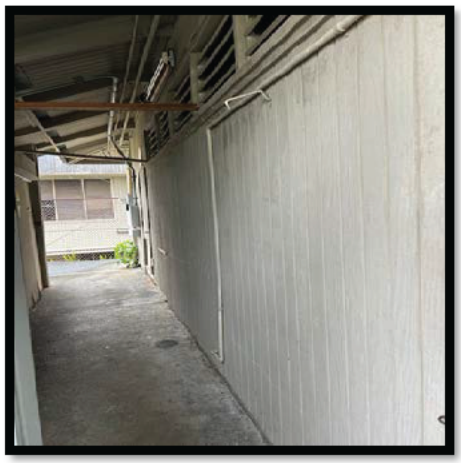
PH L-8: Does not contain lead above the laboratory detection limit (< 40 mg/kg)

Exterior black concrete slab located on the south half of the pool house.

PH L-9: Does not contain lead above the laboratory detection limit (< 40 mg/kg)

Exterior grey wood under roof located throughout the pool house.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720



PH L-10: Does not contain lead above the laboratory detection limit (< 40 mg/kg)

Exterior grey wood wall siding located on the south half of the pool house.

PH L-11: Does not contain lead above the laboratory detection limit (< 40 mg/kg)

Exterior blue wood wall siding located in the interior pool area of the pool house.

PH L-12: Does not contain lead above the laboratory detection limit (< 40 mg/kg)

Exterior red wood support post located in the interior pool area of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-13: LCP (79 mg/kg)

Exterior stained wood window frame located in the interior pool area of the pool house.

PH L-14: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior blue concrete pool edge located in the interior pool area of the pool house.

PH L-15: Does not contain lead above the laboratory detection limit (< 40 mg/kg)

Exterior blue concrete floor located throughout the lanai area of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-16: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior white concrete floor located in the lanai area of the pool house.

PH L-17: Assumed LCP (<140 mg/kg)

Exterior beige metal downspout located in the lanai area of the pool house.

PH L-18: Does not contain lead above the laboratory detection limit (<58 mg/kg)

Interior tan sheetrock wall located in the meter room of the pool house.

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PH L-19: Does not contain lead above the laboratory detection limit (<43 mg/kg)

Exterior grey door and door frame located at the south end of the pool house.

PH L-20: LCP (150 mg/kg)

Exterior blue metal downspout located on the south west end of the pool house.

PH L-21: Does not contain lead above the laboratory detection limit (<62 mg/kg)

Exterior grey wood fence located on the south west end of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-22: Does not contain lead above the laboratory detection limit (< 94 mg/kg)

Exterior grey wood roof overhang located on the south west end of the pool house.

PH L-23: Does not contain lead above the laboratory detection limit (<61 mg/kg)

Exterior grey metal conduits located throughout the pool house.

PH L-24: Assumed LCP (<160 mg/kg)

Exterior grey corrugated roof (underside) located on the south west end of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-25: Does not contain lead above the laboratory detection limit (<85 mg/kg)

Exterior black wood A frame siding located in the lanai and interior pool area of the pool house.

PH L-26: Assumed LCP (<190 mg/kg)

Exterior white door located in the lanai area of the pool house.

PH L-27: Does not contain lead above the laboratory detection limit (<44 mg/kg)

Exterior white concrete pool floor located in the interior pool area of the pool house.

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145 Ululani Street, Hilo, Hawaii 96720

PH L-28: LCP (<160 mg/kg)

Exterior white concrete pool walls located in the interior pool area of the pool house.

PH L-29: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior black concrete pool floor located throughout the interior pool area of the pool house.

PH L-30: LCP (83 mg/kg)

Exterior light grey concrete pool perimeter located in the interior pool area of the pool house.

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145 Ululani Street, Hilo, Hawaii 96720

PH L-31: LCP (580 mg/kg)

Exterior black wood fascia located throughout the pool house.

PH L-32: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior white metal corrugated roof (top) located throughout the pool house.

PH L-33: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white sheetrock ceiling located throughout the men's bathroom of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-34: Does not contain lead above the laboratory detection limit (<51 mg/kg)

Interior brown sheetrock wall located in the men's bathroom of the pool house.

PH L-35: Does not contain lead above the laboratory detection limit (<87 mg/kg)

Interior light brown painted 2" x 2" ceramic wall tile located throughout the men and women bathrooms of the pool house.

PH L-36: Does not contain lead above the laboratory detection limit (<63 mg/kg)

Interior black painted 2" x 2" ceramic floor tile located throughout the men and women bathrooms of the pool house.

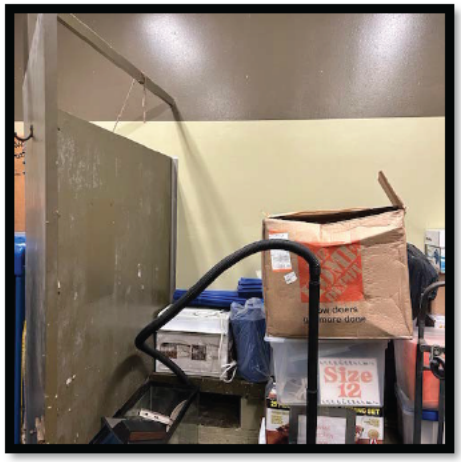
Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-37: Assumed LCP (<150 mg/kg)

Interior brown wood wall trim located in the men's bathroom of the pool house.

L-38: Assumed LCP (<120 mg/kg)

Interior brown wood trim located in the men's bathroom of the pool house.



PH L-39: Does not contain lead above the laboratory detection limit (<94 mg/kg)

Interior light brown sheetrock walls located throughout the men and women bathrooms of the pool house.

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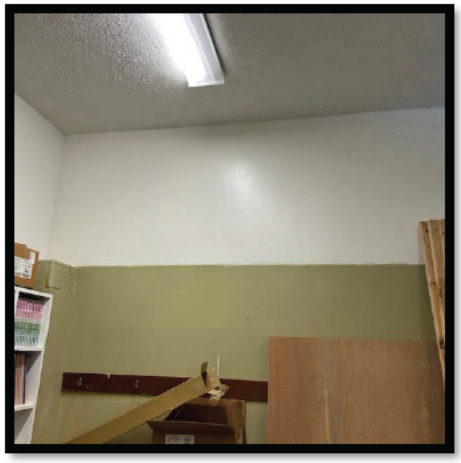
145 Ululani Street, Hilo, Hawaii 96720

PH L-40: Does not contain lead above the laboratory detection limit (<88 mg/kg)

Interior brown wood stall partitions and doors located in the men's bathroom of the pool house.

PH L-41: Does not contain lead above the laboratory detection limit (<83 mg/kg)

Interior brown wood support posts located in the men and women bathrooms of the pool house.



PH L-42: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white sheetrock wall located throughout the women's bathroom of the pool house.

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PH L-43: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white sheetrock ceiling located throughout the women's bathroom of the pool house.

PH L-44: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white wood window trim located in the women's bathroom of the pool house.

PH L-45: Assumed LCP (<130 mg/kg)

Interior beige wood window located in the women's bathroom of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-46: Does not contain lead above the laboratory detection limit (<93 mg/kg)

Interior light brown CMU bench blocks located in the women's bathroom of the pool house.

PH L-47: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior concrete curb located in the women's bathroom of the pool house.

PH L-48: LCP (86 mg/kg)

Interior yellow sheetrock wall located throughout pump room 1 of the pool house.

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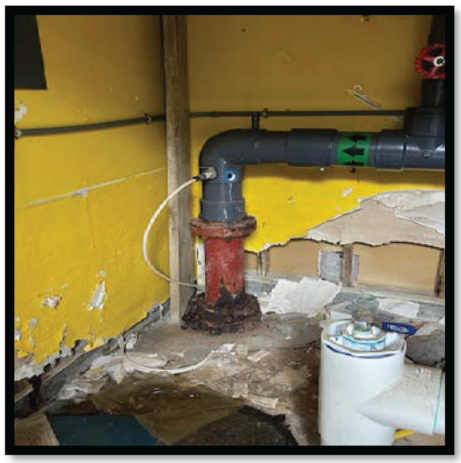
145 Ululani Street, Hilo, Hawaii 96720



PH L-49: LCP (700 mg/kg)

Interior red metal pool pump fitting located in pump room 1 of the pool house.

PH L-50: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior green metal pump housing located in pump room 1 of the pool house.

PH L-51: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior brown wood doors located in the water heater room, pump rooms 1 & 2, and the meter room of the pool house.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

PH L-52: LCP (44 mg/kg)

Interior teal sheetrock wall located throughout pump room 2 of the pool house.

PH L-53: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white wood door located in the men and women bathrooms of the pool house.

OP L-1: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior yellow lettering located around the exterior pool.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

OP L-2: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior beige concrete floor located around the perimeter of the exterior pool.

OP L-3: Assumed LCP (<170 mg/kg)

Exterior red concrete floor located around the exterior pool.

OP L-4: Does not contain lead above the laboratory detection limit (<55 mg/kg)

Exterior blue concrete floor located around the exterior pool.

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145 Ululani Street, Hilo, Hawaii 96720

OP L-5: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior black 2" x 2" ceramic floor tile located on the floor of the exterior pool.

OP L-6: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior black plaster floor and walls located throughout the exterior pool.

OP L-7: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior dark grey plaster wall located in the exterior pool.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

OP L-8: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior white plaster floor located throughout the exterior pool.

COT L-1: Assumed LCP (<150 mg/kg)

Exterior white metal corrugated roof located throughout the cottage.

COT L-2: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior white metal gutter located throughout the perimeter of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-3: Assumed LCP (<290 mg/kg)

Exterior grey wood fascia, rafter, and purlin located throughout the cottage.

COT L-4: LBP (7,100 mg/kg)

Exterior white wood wall and trim located throughout the cottage.

COT L-5: LCP (1,100 mg/kg)

Exterior light brown wood lattice located throughout the cottage.

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COT L-6: Assumed LCP (<480 mg/kg)

Exterior grey metal corrugated roof (under) located throughout the cottage.

COT L-7: Does not contain lead above the laboratory detection limit (<83 mg/kg)

Exterior white sheetrock ceiling located throughout the lanai area of the cottage.

OP L-8: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Exterior off white wood support post located in the lanai area of the cottage.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-9: LCP (890 mg/kg)

Exterior orange wood window frame located throughout the cottage.

COT L-10: Does not contain lead above the laboratory detection limit (<59 mg/kg)

Exterior orange wood door frame located throughout the cottage.

COT L-11: LCP (70 mg/kg)

Exterior orange metal security window located on the north west side of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-12: LCP (1,900 mg/kg)

Exterior off white metal conduit located throughout the cottage.

COT L-13: LBP (42,000 mg/kg)

Exterior grey wood wall located on the east side of the cottage.

COT L-14: LBP (15,000 mg/kg)

Exterior grey wood window over hang located on the east side of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-15: LCP (130mg/kg)

Exterior grey concrete stairs located on the north east side of the cottage.

COT L-16: LBP (15,000 mg/kg)

Exterior white wood door frame located in the lanai area of the pool house.

COT L-17: LBP (25,000 mg/kg)

Exterior light brown stair case & railing located on the east and south side of the cottage.

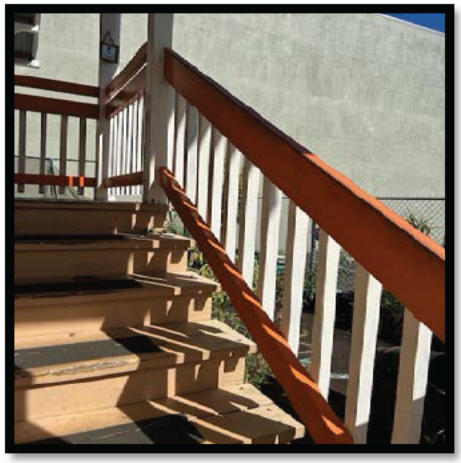
Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-18: LCP (67 mg/kg)

Exterior grey wood bench box located on the west side of the cottage.

COT L-19: LBP (7,400 mg/kg)

Exterior yellow striping on the west side concrete walkway of the cottage.



COT L-20: Does not contain lead above the laboratory detection limit (<64 mg/kg)

Exterior orange wood railing located on the south end of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-21: LCP (63mg/kg)

Exterior grey wood floor located on the porch of the cottage.

COT L-22: Does not contain lead above the laboratory detection limit (<46 mg/kg)

Exterior orange wood door located on the porch of the cottage.

COT L-23: LCP (120 mg/kg)

Exterior teal wood door located on the porch of the cottage.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT L-24: LCP (580 mg/kg)

Exterior black rock wall located on the north east side of the cottage.

COT2 L-1: LCP (150 mg/kg)

Interior off-white canec wall located throughout the cottage.

COT2 L-2: LCP (340 mg/kg)

Interior white canec ceiling located throughout the cottage.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-3: LCP (93 mg/kg)

Interior green wood door frame located in office 3-4, bath 3, and hallway 1-2 of the cottage.

COT2 L-4: LCP (210 mg/kg)

Interior green wood window frame located in office 3 &-4 and bath 3 of the cottage.

COT2 L-5: LCP (200 mg/kg)

Interior green wood door located in office 3-4 and hallway 1.

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YWCA Hilo – Master Plan (Phase I)
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COT2 L-6: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white wood door located in office 3-4, class room 1, and hallway 1.

COT2 L-7: LCP (440 mg/kg)

Interior brown wood threshold located throughout the cottage.

COT2 L-8: LCP (160 mg/kg)

Interior white wood base board and trim located throughout the cottage.

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YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-9: LCP (84 mg/kg)

Interior blue wood door frame located in classroom 1 of the cottage.

COT2 L-10: LCP (2,000 mg/kg)

Interior blue wood window frame located in classroom 1.

COT2 L-11: LCP (180 mg/kg)

Interior blue wood doors located in classroom 1 of the cottage.

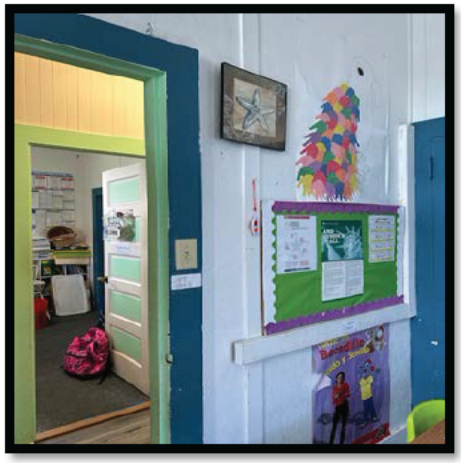
Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-12: LCP (320 mg/kg)

Interior white wood wall siding located throughout hallway 1 and bath 2.

COT2 L-13: LCP (2,300 mg/kg)

Interior blue wood base board and trim located in hallway 1, classroom 1, and bath 2 of the cottage.



COT2 L14: LCP (2,000 mg/kg)

Interior dark blue door frame located in office 1 & 2 of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-15: LCP (1,300 mg/kg)

Interior dark blue window frame located in office 1 & 2 of the cottage.

COT2 L-16: LCP (3,200 mg/kg)

Interior dark blue wood door located in office 1 & 2 of the cottage.

COT2 L-17: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior white wood door frame located in hallway 1 of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-18: LCP (460 mg/kg)

Interior white wood ceiling located hallway 1-2, bath 2, and office 3 of the cottage.

COT2 L-19: LCP (1,400 mg/kg)

Interior white wood floor located in the bath 2 closet of the cottage.

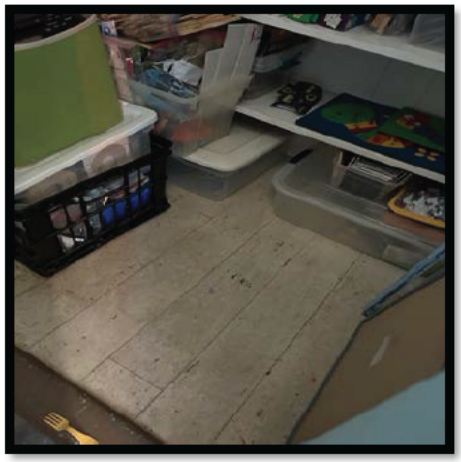
COT2 L-20: LBP (23,000 mg/kg)

Interior white metal floor located in the bath 2 closet of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

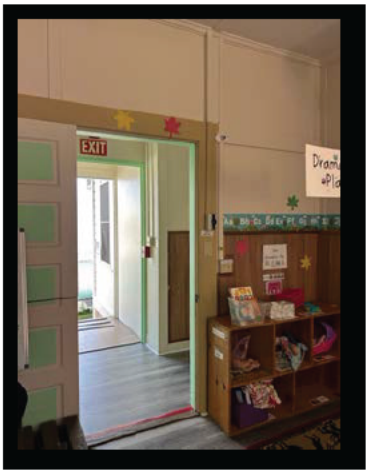
COT2 L-21: LBP (12,000 mg/kg)

Interior white metal wall located in the bath 2 closet of the cottage.



COT2 L-22: LCP (3,100 mg/kg)

Interior white wood floor located in closet 1-4 of the cottage.



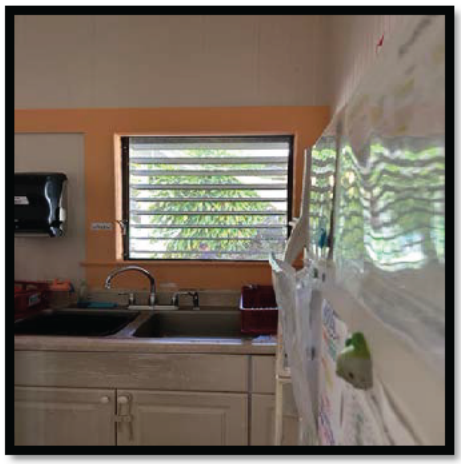
COT2 L-23: LCP (330 mg/kg)

Interior brown wood door and window frame located in class 2 of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-25: LCP (560 mg/kg)

Interior orange door frame located in the kitchen and dining area of the cottage.



COT2 L-26: LCP (4,600 mg/kg)

Interior orange wood window frame located in the kitchen and dining area of the cottage.

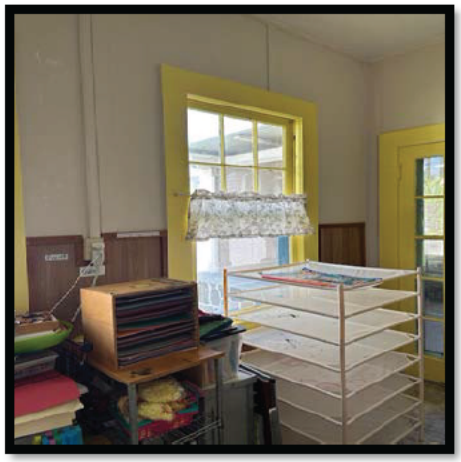
COT2 L-27: Does not contain lead above the laboratory detection limit (<40 mg/kg)

Interior orange wood door located in the dining area of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-28: LCP (860 mg/kg)

Interior yellow wood door frame located in class 3 of the cottage.



COT2 L-29: LCP (1,300 mg/kg)

Interior yellow wood window frame located in class 3 of the cottage.

COT2 L-30: LCP (120 mg/kg)

Interior yellow door located in class 3 of the cottage.

Photograph Log 2. Lead Paint Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 L-31: LCP (2,600 mg/kg)

Interior white wood cabinet located in the kitchen of the cottage.

Photograph Log 3. Arsenic- Containing Building Material Survey
YWCA Hilo – Master Plan (Phase I)
145 Ululani Street, Hilo, Hawaii 96720

COT2 ARS-1: Does not contain arsenic above the laboratory detection limit (<39 mg/kg)

Interior canec walls & ceilings located throughout the cottage.

Appendix **IV**

ASBESTOS LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS
LEAD AND ARSENIC LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS
SOIL LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS

Hawaii Analytical Laboratory
3615 Harding Avenue, Suite 308, Honolulu, Hawaii, 96816
Tel: (808) 735-0422 – Fax: (808) 735-0047

December 4, 2023

Kama Kobayashi
Lehua Environmental
PO Box 1018
Kamuela Hawaii

Project Name:	YWCA -Cottage
Date collected:	11/17/2023
Date received:	11/27/2023
HAL #:	202312455

Dear Mr. Kobayashi,

Enclosed are the analytical results for the samples received by our laboratory on November 27, 2023. All samples on the chain of custody were received in good condition unless otherwise noted.

The fifty-five (55) bulk samples submitted for asbestos analysis were subcontracted to Eurofins EMLab P&K in Monrovia, CA, a NVLAP accredited Laboratory NVLAP LAB CODE: 600282-0. Its report is enclosed in its entirety.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Quality assurance data is collected to accompany all analyses and to ensure that results generated meet Hawaii Analytical Laboratory's quality standards. This data is available upon request.

Please contact us at 808-735-0422 if you have questions.

Thank you for using Hawaii Analytical Laboratory and have a great day!!

Anne Antin

Anne Antin
Quality Manager
Hawaii Analytical Laboratory
3615 Harding Ave. Ste. 308
Honolulu, HI 96816
Phone: (808) 735-0422
E-mail: aantin@analyzehawaii.com

eurofins | Built Environment Testing

Report for:

Anne Antin
Hawaii Analytical Lab
3615 Harding Ave
Suite 308
Honolulu, HI 96816

Regarding: Eurofins EPK Built Environment Testing, LLC
Project: 202312455; YWCA - Cottage
EML ID: 3467891

Approved by:

Approved Signatory
Marisa Braziel

Dates of Analysis:
Asbestos PLM: 12-04-2023

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 600266-0

A samp es were rece ved n acceptab e cond t on un ess noted n the Report Comments port on n the body of the report. The resu ts re ate on y to the samp es as rece ved and tested. The resu ts nc ude an nherent uncerta nty of measurement assoc ated w th est mat ng percentages by po ar zed ght m croscopy. Measurement uncerta nty data for samp e resu ts w th >1% asbestos concentrat on can be prov ded when requested.

Eurof ns EPK Bu t Env ronment Test ng, LLC ("the Company"), a member of the Eurof ns Bu t Env ronment Test ng group of compan es, sha have no ab ty to the c ent or the c ent s customer w th respect to dec s ons or recommendat ons made, act ons taken or courses of conduct mp emented by e ther the c ent or the c ent s customer as a resu t of or based upon the Test Resu ts. In no event sha the Company be ab e to the c ent w th respect to the Test Resu ts except for the Company s own w fu m sconduct or gross neg gence nor sha the Company be ab e for nc denta or consequent a damages or ost prof ts or revenues to the fu est extent such ab ty may be d sc a med by aw, even f the Company has been adv sed of the poss b ty of such damages, ost prof ts or ost revenues. In no event sha the Company s ab ty w th respect to the Test Resu ts exceed the amount pa d to the Company by the c ent therefor.

Eurofins EPK Built Environment Testing, LLC
19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312455; YWCA - Cottage

Date of Sampling: 11-17-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Total Samples Submitted:	57
Total Samples Analyzed:	57
Total Samples with Layer Asbestos Content > 1%:	3

Location: 1, COT A1 Lab ID-Version‡: 16904922-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 2, COT A2 Lab ID-Version‡: 16904923-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 3, COT A3 Lab ID-Version‡: 16904924-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 4, COT A4 Lab ID-Version‡: 16904925-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 5, COT A5 Lab ID-Version‡: 16904926-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 6, COT A6

Lab ID-Version‡: 16904927-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 7, COT A7

Lab ID-Version‡: 16904928-1

Sample Layers	Asbestos Content
Beige Cementitious Material	ND
White Caulk	ND
Sample Composite Homogeneity:	Moderate

Location: 8, COT A8

Lab ID-Version‡: 16904929-1

Sample Layers	Asbestos Content
Beige Cementitious Material	ND
White Caulk	ND
Sample Composite Homogeneity:	Moderate

Location: 9, COT A9

Lab ID-Version‡: 16904930-1

Sample Layers	Asbestos Content
Beige Cementitious Material	ND
White Caulk	ND
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 10, COT A10

Lab ID-Version‡: 16904931-1

Sample Layers	Asbestos Content
White Caulk with Paint	ND
Sample Composite Homogeneity:	Good

Location: 11, COT A11

Lab ID-Version‡: 16904932-1

Sample Layers	Asbestos Content
White Caulk (Trace) with Paint	ND
Sample Composite Homogeneity:	Good

Location: 12, COT A12

Lab ID-Version‡: 16904933-1

Sample Layers	Asbestos Content
White Caulk (Trace) with Paint	ND
Sample Composite Homogeneity:	Good

Location: 13, COT A13

Lab ID-Version‡: 16904934-1

Sample Layers	Asbestos Content
White Drywall (Trace) with Brown Paper	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 14, COT A14

Lab ID-Version‡: 16904935-1

Sample Layers	Asbestos Content
White Drywall	ND
Composite Non-Asbestos Content:	2% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 15, COT A15

Lab ID-Version‡: 16904936-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose 2% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 16, COT A16

Lab ID-Version‡: 16904937-1

Sample Layers	Asbestos Content
Beige Cementitious Material	ND
Dark Gray Cementitious Material	ND
Sample Composite Homogeneity:	Moderate

Location: 17, COT A17

Lab ID-Version‡: 16904938-1

Sample Layers	Asbestos Content
Beige Cementitious Material	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 18, COT A18

Lab ID-Version‡: 16904939-1

Sample Layers	Asbestos Content
Dark Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 19, COT A19

Lab ID-Version‡: 16904940-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 20, COT A20

Lab ID-Version‡: 16904941-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 21, COT A21

Lab ID-Version‡: 16904942-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 22, COT A22

Lab ID-Version‡: 16904943-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 23, COT A23

Lab ID-Version‡: 16904944-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 24, COT A24

Lab ID-Version‡: 16904945-1

Sample Layers	Asbestos Content
Black Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 25, COT2 A1

Lab ID-Version‡: 16904946-1

Sample Layers	Asbestos Content
Brown Ceiling Tile	ND
Beige Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 26, COT2 A2

Lab ID-Version‡: 16904947-1

Sample Layers	Asbestos Content
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 27, COT2 A3

Lab ID-Version‡: 16904948-1

Sample Layers	Asbestos Content
Brown Ceiling Tile	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 28, COT2 A4

Lab ID-Version‡: 16904949-1

Sample Layers	Asbestos Content
Gray Sheet Flooring	ND
Yellow Mastic	ND
Composite Non-Asbestos Content:	10% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: 29, COT2 A5

Lab ID-Version‡: 16904950-1

Sample Layers	Asbestos Content
Gray Sheet Flooring	ND
Yellow Mastic	ND
Composite Non-Asbestos Content:	10% Glass Fibers
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 30, COT2 A6

Lab ID-Version‡: 16904951-1

Sample Layers	Asbestos Content
Gray Sheet Flooring	ND
Yellow Mastic	ND
Composite Non-Asbestos Content:	10% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: 31, COT2 A7

Lab ID-Version‡: 16904952-1

Sample Layers	Asbestos Content
Yellow Mastic	ND
Sample Composite Homogeneity:	Good

Location: 32, COT2 A8

Lab ID-Version‡: 16904953-1

Sample Layers	Asbestos Content
Yellow Mastic	ND
Sample Composite Homogeneity:	Good

Location: 33, COT2 A9

Lab ID-Version‡: 16904954-1

Sample Layers	Asbestos Content
Yellow Mastic	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 34, COT2 A10

Lab ID-Version‡: 16904955-1

Sample Layers	Asbestos Content
White Paint	ND
Sample Composite Homogeneity:	Good

Location: 35, COT2 A11

Lab ID-Version‡: 16904956-1

Sample Layers	Asbestos Content
White Paint	ND
Sample Composite Homogeneity:	Good

Location: 36, COT2 A12

Lab ID-Version‡: 16904957-1

Sample Layers	Asbestos Content
White Paint	ND
Sample Composite Homogeneity:	Good

Location: 37, COT2 A13

Lab ID-Version‡: 16904958-1

Sample Layers	Asbestos Content
Beige Cementitious Material with Paint	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 38, COT2 A14

Lab ID-Version‡: 16904959-1

Sample Layers	Asbestos Content
Beige Cementitious Material with Paint	ND
Sample Composite Homogeneity:	Good

Location: 39, COT2 A15

Lab ID-Version‡: 16904960-1

Sample Layers	Asbestos Content
Beige Cementitious Material with Paint	ND
Sample Composite Homogeneity:	Good

Location: 40, COT2 A16

Lab ID-Version‡: 16904961-1

Sample Layers	Asbestos Content
White Texture with Paint	ND
Sample Composite Homogeneity:	Good

Location: 41, COT2 A17

Lab ID-Version‡: 16904962-1

Sample Layers	Asbestos Content
White Texture with Paint	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 42, COT2 A18

Lab ID-Version‡: 16904963-1

Sample Layers	Asbestos Content
Tan Caulk	ND
Sample Composite Homogeneity:	Good

Location: 43, COT2 A19

Lab ID-Version‡: 16904964-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Sample Composite Homogeneity:	Good

Location: 44, COT2 A20

Lab ID-Version‡: 16904965-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Sample Composite Homogeneity:	Good

Location: 45, COT2 A21

Lab ID-Version‡: 16904966-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 46, COT2 A22

Lab ID-Version‡: 16904967-1

Sample Layers	Asbestos Content
Cream Sheet Flooring with Fibrous Backing	ND
Gray Leveling Compound	ND
Composite Non-Asbestos Content:	10% Glass Fibers 3% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 47, COT2 A23

Lab ID-Version‡: 16904968-1

Sample Layers	Asbestos Content
Cream Sheet Flooring with Fibrous Backing	ND
Gray Leveling Compound	ND
Composite Non-Asbestos Content:	10% Glass Fibers 3% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 48, COT2 A24

Lab ID-Version‡: 16904969-1

Sample Layers	Asbestos Content
Cream Sheet Flooring with Fibrous Backing	ND
Gray Leveling Compound	ND
Composite Non-Asbestos Content:	10% Glass Fibers 3% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 49, COT2 A25

Lab ID-Version‡: 16904970-1

Sample Layers	Asbestos Content
Silver Non-Fibrous Material	ND
White Powdery Material	ND
Sample Composite Homogeneity:	Moderate

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Re: 202312455; YWCA - Cottage

Date of Sampling: 11-17-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 50, COT2 A26

Lab ID-Version‡: 16904971-1

Sample Layers	Asbestos Content
Silver Non-Fibrous Material	ND
White Powdery Material	ND
Sample Composite Homogeneity:	Moderate

Location: 51, COT2 A27

Lab ID-Version‡: 16904972-1

Sample Layers	Asbestos Content
Silver Non-Fibrous Material	ND
White Powdery Material	ND
Sample Composite Homogeneity:	Moderate

Location: 52, COT2 A28

Lab ID-Version‡: 16904973-1

Sample Layers	Asbestos Content
Black Mastic	5% Chrysotile
Sample Composite Homogeneity:	Good

Location: 53, COT2 A29

Lab ID-Version‡: 16904974-1

Sample Layers	Asbestos Content
Black Mastic	5% Chrysotile
Sample Composite Homogeneity:	Good

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Eurofins EPK Built Environment Testing, LLC
19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312455; YWCA - Cottage

Date of Sampling: 11-17-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 54, COT2 A30

Lab ID-Version‡: 16904975-1

Sample Layers	Asbestos Content
Black Mastic	5% Chrysotile
Sample Composite Homogeneity:	Good

Location: 55, COT2 A31

Lab ID-Version‡: 16904976-1

Sample Layers	Asbestos Content
White Caulk	ND
Composite Non-Asbestos Content:	4% Cellulose
Sample Composite Homogeneity:	Good

Location: 56, COT2 A32

Lab ID-Version‡: 16904977-1

Sample Layers	Asbestos Content
White Caulk	ND
Composite Non-Asbestos Content:	4% Cellulose
Sample Composite Homogeneity:	Good

Location: 57, COT2 A33

Lab ID-Version‡: 16904978-1

Sample Layers	Asbestos Content
White Caulk	ND
Composite Non-Asbestos Content:	4% Cellulose
Sample Composite Homogeneity:	Good

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eurofins | EMLab P&K

www.EMLabPK.com

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Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * **(800) 651-4802**
SSF, CA: 6000 Shoreline Ct, Ste. 205, S. San Francisco, CA 94080 * **(866) 888-6653**

WEATHER	Fog	Rain	Snow	Wind	Clear
LEVEL None					
Light					
Moderate					
Heavy					

003467891

CONTACT INFORMATION

Company:	Hawaii Analytical Laboratory	Address: 3615 Harding Avenue, suite 308 - Honolulu HI 96816
Contact:	Anne Antin	Special Instructions: *Please analyze samples on a 2 day TAT*
Phone:	808-735-0422	

PROJECT INFORMATION

Project ID:	202312455		
Project Description:	YWCA- Cottage		
Project Zip Code:		Sampling Date/Time:	11/17/2023
PO Number:		Sampled By:	Lehua Environmental Inc.

TURN AROUND TIME CODES - (TAT)

STD - Standard (Default)
ND - Next Business Day
SD - Same Business Day
WH - Weekend/Holiday/ASAP

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

SAMPLE ID	DESCRIPTION	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	NOTES (Time of day, Temp, RH, etc.)
COT A1		B	2D		See attached COC for details
to					
COT A24		B	2D		
COT2 A1		B	2D		
to					
COT2 A33		B	2D		

REQUESTED SER

| Non-Culturable | | | Culturable | | | | |

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kar
Company	Lehu
Address*	
	Kam
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

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Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		COT A1	11/17/2023	Bulk		Asbestos %		
2		COT A2	11/17/2023	Bulk		Asbestos %		
3		COT A3	11/17/2023	Bulk		Asbestos %		
4		COT A4	11/17/2023	Bulk		Asbestos %		
5		COT A5	11/17/2023	Bulk		Asbestos %		
6		COT A6	11/17/2023	Bulk		Asbestos %		
7		COT A7	11/17/2023	Bulk		Asbestos %		
8		COT A8	11/17/2023	Bulk		Asbestos %		
9		COT A9	11/17/2023	Bulk		Asbestos %		
10		COT A10	11/17/2023	Bulk		Asbestos %		
11		COT A11	11/17/2023	Bulk		Asbestos %		
12		COT A12	11/17/2023	Bulk		Asbestos %		
13		COT A13	11/17/2023	Bulk		Asbestos %		
14		COT A14	11/17/2023	Bulk		Asbestos %		
15		COT A15	11/17/2023	Bulk		Asbestos %		

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☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamala
Company	Lehua Er
Address*	PO
	Kamuel
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Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

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Lab Report No.: 12455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16		COT A16	11/17/2023	Bulk		Asbestos %		
17		COT A17	11/17/2023	Bulk		Asbestos %		
18		COT A18	11/17/2023	Bulk		Asbestos %		
19		COT A19	11/17/2023	Bulk		Asbestos %		
20		COT A20	11/17/2023	Bulk		Asbestos %		
21		COT A21	11/17/2023	Bulk		Asbestos %		
22		COT A22	11/17/2023	Bulk		Asbestos %		
23		COT A23	11/17/2023	Bulk		Asbestos %		
24		COT A24	11/17/2023	Bulk		Asbestos %		
25		COT2 A1	11/17/2023	Bulk		Asbestos %		
26		COT2 A2	11/17/2023	Bulk		Asbestos %		
27		COT2 A3	11/17/2023	Bulk		Asbestos %		
28		COT2 A4	11/17/2023	Bulk		Asbestos %		
29		COT2 A5	11/17/2023	Bulk		Asbestos %		
30		COT2 A6	11/17/2023	Bulk		Asbestos %		

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via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamala
Company	Lehua En
Address*	PO I
	Kamuela, Hawaii 967[illegible]
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Lab Report No.: 12455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
31		COT2 A7	11/17/2023	Bulk		Asbestos %		
32		COT2 A8	11/17/2023	Bulk		Asbestos %		
33		COT2 A9	11/17/2023	Bulk		Asbestos %		
34		COT2 A10	11/17/2023	Bulk		Asbestos %		
35		COT2 A11	11/17/2023	Bulk		Asbestos %		
36		COT2 A12	11/17/2023	Bulk		Asbestos %		
37		COT2 A13	11/17/2023	Bulk		Asbestos %		
38		COT2 A14	11/17/2023	Bulk		Asbestos %		
39		COT2 A15	11/17/2023	Bulk		Asbestos %		
40		COT2 A16	11/17/2023	Bulk		Asbestos %		
41		COT2 A17	11/17/2023	Bulk		Asbestos %		
42		COT2 A18	11/17/2023	Bulk		Asbestos %		
43		COT2 A19	11/17/2023	Bulk		Asbestos %		
44		COT2 A20	11/17/2023	Bulk		Asbestos %		
45		COT2 A21	11/17/2023	Bulk		Asbestos %		

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via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

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	Kamuela,
Phone / Cell No.*	
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Site/Project Name: YWCA- Cottage ☐

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- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
46		COT2 A22	11/17/2023	Bulk		Asbestos %		
47		COT2 A23	11/17/2023	Bulk		Asbestos %		
48		COT2 A24	11/17/2023	Bulk		Asbestos %		
49		COT2 A25	11/17/2023	Bulk		Asbestos %		
50		COT2 A26	11/17/2023	Bulk		Asbestos %		
51		COT2 A27	11/17/2023	Bulk		Asbestos %		
52		COT2 A28	11/17/2023	Bulk		Asbestos %		
53		COT2 A29	11/17/2023	Bulk		Asbestos %		
54		COT2 A30	11/17/2023	Bulk		Asbestos %		
		COT2 A31	11/17/2023	Bulk		Asbestos %		
		COT2 A32	11/17/2023	Bulk		Asbestos %		
55		COT2 A33	11/17/2023	Bulk		Asbestos %		

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23A11:21 RCVD

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☑ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up
awb#: 173-32842263

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		COT A1	11/17/2023	Bulk		Asbestos %		
2		COT A2	11/17/2023	Bulk		Asbestos %		
3		COT A3	11/17/2023	Bulk		Asbestos %		
4		COT A4	11/17/2023	Bulk		Asbestos %		
5		COT A5	11/17/2023	Bulk		Asbestos %		
6		COT A6	11/17/2023	Bulk		Asbestos %		
7		COT A7	11/17/2023	Bulk		Asbestos %		
8		COT A8	11/17/2023	Bulk		Asbestos %		
9		COT A9	11/17/2023	Bulk		Asbestos %		
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11		COT A11	11/17/2023	Bulk		Asbestos %		
12		COT A12	11/17/2023	Bulk		Asbestos %		
13		COT A13	11/17/2023	Bulk		Asbestos %		
14		COT A14	11/17/2023	Bulk		Asbestos %		
15		COT A15	11/17/2023	Bulk		Asbestos %		

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Honolulu, HI 96816
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https://analyzehawaii.com

☐ New Client?

Report To*	: Kama Kobayashi	Invoice To*	: Kamalana Kobayashi
Company	: Lehua Environmental Inc.	Company	: Lehua Environmental Inc.
Address*	: PO BOX 1018	Address*	: PO BOX 1018
	Kamuela, Hawaii 96743		Kamuela, Hawaii 96743
Phone / Cell No.*	: 808-494-0365	Phone / Cell No.*	:
Report results to	: K. Kobayashi	Purchase Order No.	:
via email or fax	: nicoleg@lehuaenv.com lehuaenvironmental@gmail.com	Email Invoice To	: lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
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- ☐ 2 WD
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Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

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- ☐ + stop / SAMPLE
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Verbal results? ☐

Lab Report No.: 12455

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16		COT A16	11/17/2023	Bulk		Asbestos %		
17		COT A17	11/17/2023	Bulk		Asbestos %		
18		COT A18	11/17/2023	Bulk		Asbestos %		
19		COT A19	11/17/2023	Bulk		Asbestos %		
20		COT A20	11/17/2023	Bulk		Asbestos %		
21		COT A21	11/17/2023	Bulk		Asbestos %		
22		COT A22	11/17/2023	Bulk		Asbestos %		
23		COT A23	11/17/2023	Bulk		Asbestos %		
24		COT A24	11/17/2023	Bulk		Asbestos %		
25		COT2 A1	11/17/2023	Bulk		Asbestos %		
26		COT2 A2	11/17/2023	Bulk		Asbestos %		
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37		COT2 A13	11/17/2023	Bulk		Asbestos %		
38		COT2 A14	11/17/2023	Bulk		Asbestos %		
39		COT2 A15	11/17/2023	Bulk		Asbestos %		
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42		COT2 A18	11/17/2023	Bulk		Asbestos %		
43		COT2 A19	11/17/2023	Bulk		Asbestos %		
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45		COT2 A21	11/17/2023	Bulk		Asbestos %		

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46		COT2 A22	11/17/2023	Bulk		Asbestos %		
47		COT2 A23	11/17/2023	Bulk		Asbestos %		
48		COT2 A24	11/17/2023	Bulk		Asbestos %		
49		COT2 A25	11/17/2023	Bulk		Asbestos %		
50		COT2 A26	11/17/2023	Bulk		Asbestos %		
51		COT2 A27	11/17/2023	Bulk		Asbestos %		
52		COT2 A28	11/17/2023	Bulk		Asbestos %		
53		COT2 A29	11/17/2023	Bulk		Asbestos %		
54		COT2 A30	11/17/2023	Bulk		Asbestos %		
		COT2 A31	11/17/2023	Bulk		Asbestos %		
		COT2 A32	11/17/2023	Bulk		Asbestos %		
55		COT2 A33	11/17/2023	Bulk		Asbestos %		

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23 A11:21 RCVD
		Trinidad Shutt	

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☑ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up
awb#: 173-32862003

Controlled Document: YWCA COC
Hawaii Analytical Laboratory Chain of custody - Rev. 20180419

Hawaii Analytical Laboratory
ANALYTICAL REPORT

Monday, December 4, 2023

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312472
Date Submitted: 11/27/2023
Project Name: YWCA - Cottage, 11/17/23

Total Recoverable Arsenic (FAAS)

EPA Method: 3051m / 7000Bm

Sample No.	Sample ID / Description	Results	Units	Date Analyzed
202386623	COT2 Ars 1	< 39	mg/kg	12/1/2023

Comments:

All Quality Control data are acceptable unless otherwise noted.

General Comments
The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document profiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions
> This testing result is greater than the numerical value listed.
< This testing result is less than the numerical value listed.
# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.
MRL = Method Reporting Limit.

Eva Skogsberg
Laboratory Supervisor

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on www.aihaaccreditedlabs.org, in accordance with the recognized ISO/ IEC 17025:2017. AIHA LAP is a NLLAP recognized accrediting body. Controlled doc.: Analytical Report, rev. 2 - 20160829

HAWAII ANALYTICAL LABORATORY, LLC

3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:
**per client (Nicole) 11/27/23 @ 4:18pm TS

PLM POSITIVE STOP?
☐ + stop / SAMPLE
☐ + stop / LAYER

Verbal results? ☐

Lab Report No.:
202312472

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1	**COT 2 ~~COT~~ARS 1	11/17/2023	Bulk		Total Arsenic		202386623

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23 A11:20 RCVD

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
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☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-32862863

Page: _____ of _____

Hawaii Analytical Laboratory %
ANALYTICAL REPORT %

Monday, December 4, 2023

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312477
Date Submitted: 11/27/2023
Your Project: YWCA - Cottage, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386694	**COT L1**	< 150	mg/kg	12/4/2023
Comments				
202386695	**COT L2**	< 40	mg/kg	12/4/2023
Comments				
202386696	**COT L3**	< 290	mg/kg	12/4/2023
Comments				
202386697	**COT L4**	7100	mg/kg	12/4/2023
Comments				
202386698	**COT L5**	1100	mg/kg	12/4/2023
Comments				
202386699	**COT L6**	< 480	mg/kg	12/4/2023
Comments				
202386700	**COT L7**	< 83	mg/kg	12/4/2023
Comments				
202386701	**COT L8**	< 40	mg/kg	12/4/2023
Comments				

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Lehua Environmental Inc.
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Kamuela HI 96743

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Email: lehuaenvironmental@gmail.com

Lab Job No: 202312477
Date Submitted: 11/27/2023
Your Project: YWCA - Cottage, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386702	**COT L9**	890	mg/kg	12/4/2023
Comments				
202386703	**COT L10**	< 59	mg/kg	12/4/2023
Comments				
202386704	**COT L11**	70	mg/kg	12/4/2023
Comments				
202386705	**COT L12**	1900	mg/kg	12/4/2023
Comments				
202386706	**COT L13**	42000	mg/kg	12/4/2023
Comments				
202386707	**COT L14**	15000	mg/kg	12/4/2023
Comments				
202386708	**COT L15**	130	mg/kg	12/4/2023
Comments				
202386709	**COT L16**	15000	mg/kg	12/4/2023
Comments				
202386710	**COT L17**	25000	mg/kg	12/4/2023
Comments				
202386711	**COT L18**	67	mg/kg	12/4/2023
Comments				
202386712	**COT L19**	7400	mg/kg	12/4/2023
Comments				

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P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312477
Date Submitted: 11/27/2023
Your Project: YWCA - Cottage, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386713	**COT L20**	< 64	mg/kg	12/4/2023
Comments				
202386714	**COT L21**	63	mg/kg	12/4/2023
Comments				
202386715	**COT L22**	< 46	mg/kg	12/4/2023
Comments				
202386716	**COT L23**	120	mg/kg	12/4/2023
Comments				
202386717	**COT L24**	580	mg/kg	12/4/2023
Comments				
202386718	**COT2 L1**	150	mg/kg	12/4/2023
Comments				
202386719	**COT2 L2**	340	mg/kg	12/4/2023
Comments	Due to sample heterogeneity, the sample Relative Percent Difference (RPD) was outside our statistical limits.			
202386720	**COT2 L3**	93	mg/kg	12/4/2023
Comments				
202386721	**COT2 L4**	210	mg/kg	12/4/2023
Comments				
202386722	**COT2 L5**	200	mg/kg	12/4/2023
Comments				
202386723	**COT2 L6**	< 40	mg/kg	12/4/2023
Comments				

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Lab Job No: 202312477
Date Submitted: 11/27/2023
Your Project: YWCA - Cottage, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386724	**COT2 L7**	440	mg/kg	12/4/2023
Comments				
202386725	**COT2 L8**	160	mg/kg	12/4/2023
Comments				
202386726	**COT2 L9**	84	mg/kg	12/4/2023
Comments				
202386727	**COT2 L10**	2000	mg/kg	12/4/2023
Comments				
202386728	**COT2 L11**	180	mg/kg	12/4/2023
Comments				
202386729	**COT2 L12**	320	mg/kg	12/4/2023
Comments				
202386730	**COT2 L13**	2300	mg/kg	12/4/2023
Comments				
202386731	**COT2 L14**	2000	mg/kg	12/4/2023
Comments				
202386732	**COT2 L15**	1300	mg/kg	12/4/2023
Comments				
202386733	**COT2 L16**	3200	mg/kg	12/4/2023
Comments				
202386734	**COT2 L17**	< 40	mg/kg	12/1/2023
Comments				

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Kamuela HI 96743

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Lab Job No: 202312477
Date Submitted: 11/27/2023
Your Project: YWCA - Cottage, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386735	**COT2 L18**	460	mg/kg	12/1/2023
Comments				
202386736	**COT2 L19**	1400	mg/kg	12/1/2023
Comments				
202386737	**COT2 L20**	230000	mg/kg	12/1/2023
Comments				
202386738	**COT2 L21**	12000	mg/kg	12/1/2023
Comments				
202386739	**COT2 L22**	3100	mg/kg	12/1/2023
Comments				
202386740	**COT2 L23**	330	mg/kg	12/1/2023
Comments				
202386742	**COT2 L25**	560	mg/kg	12/1/2023
Comments				
202386743	**COT2 L26**	4600	mg/kg	12/1/2023
Comments				
202386744	**COT2 L27**	< 40	mg/kg	12/1/2023
Comments				
202386745	**COT2 L28**	860	mg/kg	12/1/2023
Comments				
202386746	**COT2 L29**	1300	mg/kg	12/1/2023
Comments				

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Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312477
Date Submitted: 11/27/2023
Your Project: YWCA - Cottage, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386747	**COT2 L30**	120	mg/kg	12/1/2023
Comments				
202386748	**COT2 L31**	2600	mg/kg	12/1/2023
Comments				

All Quality Control data are acceptable unless otherwise noted.
MRL for lead air is 5ug.
MRL for lead wipe is 10ug.
MRL for lead paint or soil is 40 mg/kg for a 0.25g sample. $

General Comments &
The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the & "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be & representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document profiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii & Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been & calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for & blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable. &

Results and Symbols Definitions &
> This testing result is greater than the numerical value listed. &
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MRL = Method Reporting Limit. &

Jennifer Hsu Liao
Laboratory Manager

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi	Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.	Company	Lehua Environmental Inc.
Address*	PO BOX 1018	Address*	PO BOX 1018
	Kamuela, Hawaii 96743		Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365	Phone / Cell No.*	
Report results to	K. Kobayashi	Purchase Order No.	
via email or fax	nicoleg@lehuaenv.com lehuaenvironmental@gmail.com	Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions: * Sample COT L24 nothing in bag, discarded per client - SN- 11/29/23

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312477

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		COT L1	11/16/2023	Paint Chips		Total Lead		202386694
2		COT L2	11/16/2023	Paint Chips		Total Lead		202386695
3		COT L3	11/16/2023	Paint Chips		Total Lead		202386696
4		COT L4	11/16/2023	Paint Chips		Total Lead		202386697
5		COT L5	11/16/2023	Paint Chips		Total Lead		202386698
6		COT L6	11/16/2023	Paint Chips		Total Lead		202386699
7		COT L7	11/16/2023	Paint Chips		Total Lead		202386700
8		COT L8	11/16/2023	Paint Chips		Total Lead		202386701
9		COT L9	11/16/2023	Paint Chips		Total Lead		202386702
10		COT L10	11/16/2023	Paint Chips		Total Lead		202386703
11		COT L11	11/16/2023	Paint Chips		Total Lead		202386704
12		COT L12	11/16/2023	Paint Chips		Total Lead		202386705
13		COT L13	11/16/2023	Paint Chips		Total Lead		202386706
14		COT L14	11/16/2023	Paint Chips		Total Lead		202386707
15		COT L15	11/16/2023	Paint Chips		Total Lead		202386708

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Honolulu, HI 96816
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☐ New Client?

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Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
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Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12477

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16		COT L16	11/16/2023	Paint Chips		Total Lead		202386709
17		COT L17	11/16/2023	Paint Chips		Total Lead		202386710
18		COT L18	11/16/2023	Paint Chips		Total Lead		202386711
19		COT L19	11/16/2023	Paint Chips		Total Lead		202386712
20		COT L20	11/16/2023	Paint Chips		Total Lead		202386713
21		COT L21	11/16/2023	Paint Chips		Total Lead		202386714
22		COT L22	11/16/2023	Paint Chips		Total Lead		202386715
23		COT L23	11/16/2023	Paint Chips		Total Lead		202386716
24		COT L24	11/16/2023	Paint Chips		Total Lead		202386717
25		COT2 L1	11/17/2023	Paint Chips		Total Lead		202386718
26		COT2 L2	11/17/2023	Paint Chips		Total Lead		202386719
27		COT2 L3	11/17/2023	Paint Chips		Total Lead		202386720
28		COT2 L4	11/17/2023	Paint Chips		Total Lead		202386721
29		COT2 L5	11/17/2023	Paint Chips		Total Lead		202386722
30		COT2 L6	11/17/2023	Paint Chips		Total Lead		202386723

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- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12477

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
31		COT2 L7	11/17/2023	Paint Chips		Total Lead		202386724
32		COT2 L8	11/17/2023	Paint Chips		Total Lead		2023867 25
33		COT2 L9	11/17/2023	Paint Chips		Total Lead		2023867 26
34		COT2 L10	11/17/2023	Paint Chips		Total Lead		2023867 27
35		COT2 L11	11/17/2023	Paint Chips		Total Lead		2023867 28
36		COT2 L12	11/17/2023	Paint Chips		Total Lead		2023867 29
37		COT2 L13	11/17/2023	Paint Chips		Total Lead		2023867 30
38		COT2 L14	11/17/2023	Paint Chips		Total Lead		2023867 31
39		COT2 L15	11/17/2023	Paint Chips		Total Lead		2023867 32
40		COT2 L16	11/17/2023	Paint Chips		Total Lead		2023867 33
41		COT2 L17	11/17/2023	Paint Chips		Total Lead		2023867 34
42		COT2 L18	11/17/2023	Paint Chips		Total Lead		2023867 35
43		COT2 L19	11/17/2023	Paint Chips		Total Lead		2023867 36
44		COT2 L20	11/17/2023	Paint Chips		Total Lead		2023867 37
45		COT2 L21	11/17/2023	Paint Chips		Total Lead		2023867 38

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Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12477

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
46		COT2 L22	11/17/2023	Paint Chips		Total Lead		202386739
47		COT2 L23	11/17/2023	Paint Chips		Total Lead		202386740
48		~~COT2 L24~~	~~11/17/2023~~	~~Paint Chips~~		Total Lead		202386741
49		COT2 L25	11/17/2023	Paint Chips		Total Lead		202386742
50		COT2 L26	11/17/2023	Paint Chips		Total Lead		202386743
51		COT2 L27	11/17/2023	Paint Chips		Total Lead		202386744
52		COT2 L28	11/17/2023	Paint Chips		Total Lead		202386745
53		COT2 L29	11/17/2023	Paint Chips		Total Lead		202386746
54		COT2 L30	11/17/2023	Paint Chips		Total Lead		202386747
		COT2 L31	11/17/2023	Paint Chips		Total Lead		202386748

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23 A11:20 RCVD
		Trinidad Shutt	

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up
awb#: 173-32860263

Page: _____ of _____

Hawaii Analytical Laboratory
ANALYTICAL REPORT

Monday, December 4, 2023

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312473
Date Submitted: 11/27/2023
Your Project: YWCA - Outside Pool, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386624	**OP L1**	< 40	mg/kg	11/29/2023
Comments				
202386625	**OP L2**	< 40	mg/kg	11/29/2023
Comments				
202386626	**OP L3**	< 170	mg/kg	11/29/2023
Comments				
202386627	**OP L4**	< 55	mg/kg	11/29/2023
Comments				
202386629	**OP L6**	< 40	mg/kg	11/29/2023
Comments				
202386630	**OP L7**	< 40	mg/kg	11/29/2023
Comments				

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on www.aihaaccreditedlabs.org, in accordance with the recognized ISO/ IEC 17025:2005. AIHA is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 – 20181015

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312473
Date Submitted: 11/27/2023
Your Project: YWCA - Outside Pool, 11/16/23

Total Recoverable Lead

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386628	**OP L5**	< 40	mg/kg	11/29/2023
Comments				
202386631	**OP L8**	< 40	mg/kg	11/29/2023
Comments				

All Quality Control data are acceptable unless otherwise noted.
MRL for lead air is 5ug.
MRL for lead wipe is 10ug.
MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.

General Comments
The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document profiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions
> This testing result is greater than the numerical value listed.
< This testing result is less than the numerical value listed.
# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.
MRL = Method Reporting Limit.

Eva Skogsberg
Laboratory Supervisor

HAWAII ANALYTICAL LABORATORY, LLC

3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Outside Pool ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312473

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		OP L1	11/16/2023	Paint Chips		Lead Paint		202386624
2		OP L2	11/16/2023	Paint Chips		Lead Paint		202386625
3		OP L3	11/16/2023	Paint Chips		Lead Paint		202386626
4		OP L4	11/16/2023	Paint Chips		Lead Paint		202386627
5		OP L5	11/16/2023	Paint Chips		Lead Paint		202386628
6		OP L6	11/16/2023	Paint Chips		Lead Paint		202386629
7		OP L7	11/16/2023	Paint Chips		Lead Paint		202386630
8		OP L8	11/16/2023	Paint Chips		Lead Paint		202386631

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23 A 11:20 KCVD

***Sample description can be paint chips, concrete, specific sample collection location, etc...**
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
***Required fields, failure to complete these fields may result in a delay in your samples being processed.**

☑ via HAG ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-.....
173-~~32862765~~
32862963

Page: _____ of _____

Hawaii Analytical Laboratory

3615 Harding Avenue, Suite 308, Honolulu, Hawaii, 96816

Tel: (808) 735-0422 – Fax: (808) 735-0047

December 4, 2023

Kama Kobayashi
Lehua Environmental
PO Box 1018
Kamuela Hawaii

Project Name:	YWCA – Outside Pool
Date collected:	11/16/2023
Date received:	11/27/2023
HAL #:	202312457

Dear Mr. Kobayashi,

Enclosed are the analytical results for the samples received by our laboratory on November 27, 2023. All samples on the chain of custody were received in good condition unless otherwise noted.

The fifteen (15) bulk samples submitted for asbestos analysis were subcontracted to Eurofins EMLab P&K in Monrovia, CA, a NVLAP accredited Laboratory NVLAP LAB CODE: 600282-0. Its report is enclosed in its entirety.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Quality assurance data is collected to accompany all analyses and to ensure that results generated meet Hawaii Analytical Laboratory's quality standards. This data is available upon request.

Please contact us at 808-735-0422 if you have questions.

Thank you for using Hawaii Analytical Laboratory and have a great day!!

Anne Antin

Anne Antin
Quality Manager
Hawaii Analytical Laboratory
3615 Harding Ave. Ste. 308
Honolulu, HI 96816
Phone: (808) 735-0422
E-mail: aantin@analyzehawaii.com

eurofins | Built Environment Testing

Report for:

Anne Antin
Hawaii Analytical Lab
3615 Harding Ave
Suite 308
Honolulu, HI 96816

Regarding: Eurofins EPK Built Environment Testing, LLC
Project: 202312457; YWCA - Outside Pool
EML ID: 3467877

Approved by:

Approved Signatory
Marisa Braziel

Dates of Analysis:
Asbestos PLM: 12-04-2023

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 600266-0

A samp es were rece ved n acceptab e cond t on un ess noted n the Report Comments port on n the body of the report. The resu ts re ate on y to the samp es as rece ved and tested. The resu ts nc ude an nherent uncerta nty of measurement assoc ated w th est mat ng percentages by po ar zed ght m croscopy. Measurement uncerta nty data for samp e resu ts w th >1% asbestos concentrat on can be prov ded when requested.

Eurof ns EPK Bu t Env ronment Test ng, LLC ("the Company"), a member of the Eurof ns Bu t Env ronment Test ng group of compan es, sha have no ab ty to the c ent or the c ent s customer w th respect to dec s ons or recommendat ons made, act ons taken or courses of conduct mp emented by e ther the c ent or the c ent s customer as a resu t of or based upon the Test Resu ts. In no event sha the Company be ab e to the c ent w th respect to the Test Resu ts except for the Company s own w fu m sconduct or gross neg gence nor sha the Company be ab e for nc denta or consequent a damages or ost prof ts or revenues to the fu est extent such ab ty may be d sc a med by aw, even f the Company has been adv sed of the poss b ty of such damages, ost prof ts or ost revenues. In no event sha the Company s ab ty w th respect to the Test Resu ts exceed the amount pa d to the Company by the c ent therefor.

Eurofins EPK Built Environment Testing, LLC
19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312457; YWCA - Outside Pool

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Total Samples Submitted:	15
Total Samples Analyzed:	15
Total Samples with Layer Asbestos Content > 1%:	0

Location: 1, OP A1

Lab ID-Version‡: 16904899-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 2, OP A2

Lab ID-Version‡: 16904900-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 3, OP A3

Lab ID-Version‡: 16904901-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 4, OP A4

Lab ID-Version‡: 16904902-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Eurofins EPK Built Environment Testing, LLC
19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312457; YWCA - Outside Pool

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 5, OP A5

Lab ID-Version‡: 16904903-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 6, OP A6

Lab ID-Version‡: 16904904-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 7, OP A7

Lab ID-Version‡: 16904905-1

Sample Layers	Asbestos Content
Black Ceramic Tile	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Good

Location: 8, OP A8

Lab ID-Version‡: 16904906-1

Sample Layers	Asbestos Content
Black Ceramic Tile	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Good

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(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312457; YWCA - Outside Pool

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 9, OP A9

Lab ID-Version‡: 16904907-1

Sample Layers	Asbestos Content
Black Ceramic Tile	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Good

Location: 10, OP A10

Lab ID-Version‡: 16904908-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 11, OP A11

Lab ID-Version‡: 16904909-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 12, OP A12

Lab ID-Version‡: 16904910-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
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19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312457; YWCA - Outside Pool

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 13, OP A13

Lab ID-Version‡: 16904911-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 14, OP A14

Lab ID-Version‡: 16904912-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 15, OP A15

Lab ID-Version‡: 16904913-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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CHAIN OF CUSTODY

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www.EMLabPK.com

Marlton, NJ: 3000 Lincoln Dr E, Ste. A, Marlton, NJ 08053 * **(866) 871-1984**
Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * **(800) 651-4802**
SSF, CA: 6000 Shoreline Ct, Ste. 205, S. San Francisco, CA 94080 * **(866) 888-6653**

WEATHER	Fog	Rain	Snow	Wind	Clear
LEVEL None					
Light					
Moderate					
Heavy					

003467877

CONTACT INFORMATION

Company:	Hawaii Analytical Laboratory	Address: 3615 Harding Avenue, suite 308 - Honolulu HI 96816
Contact:	Anne Antin	Special Instructions: *Please analyze samples on a 2 day TAT*
Phone:	808-735-0422	

PROJECT INFORMATION

Project ID:	202312457		
Project Description:	YWCA- Outside Pool		
Project Zip Code:		Sampling Date/Time:	11/16/2023
PO Number:		Sampled By:	Lehua Environmental Inc.

TURN AROUND TIME CODES - (TAT)

STD - Standard (Default)
ND - Next Business Day
SD - Same Business Day
WH - Weekend/Holiday/ASAP

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

REQUESTED SER

Non-Culturable

Spore Trap

Tape, Swab, Bulk

Culturable

BioCassette™, Andersen, Swab, Water, Bulk, Dust Contact Plate

SAMPLE ID	DESCRIPTION	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	NOTES (Time of day, Temp, RH, etc.)	Spore Trap Analysis	Other biological particles - supplement	Direct Microscopic Exam (Qualitative)	Quantitative spore count direct exam	Dust Characterization	1-Media Surface Fungi (Genus ID + *Asp.* spp.)	Culturable Air Fungi (Genus ID + *Asp.* spp.)	Gram Stain and Counts (Culturable Air and Surface Bacteria)	*Legionella* culture	Total Coliform, *E.coli* (Presence/Absence)	QuantiTray-Sewage Screen	OTHER: (please specify test)	Asbestos in Air - PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Bulk - PLM	Lead (Pb) - Flame AA	PCR (please specify test)	Allergens (please specify test)
OP A1		B	2D																x			
to					See attached COC for details																	
OP A15		B	2D																x			

SAMPLE TYPE CODES

BC - BioCassette™	**CP** - Contact Plate	**T** - Tape	**O** - Other:
A1S - Andersen	**ST** - Spore Trap	**SW** - Swab	
SAS - Surface Air Sampler	**B** - Bulk	**SO** - Soil	
NP - Non-potable Water	**P** - Potable Water	**D** - Dust	

RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
Anne Antin	11/28/2023	FedEx	
			11/30/23 10:15 am

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/terms-of-service
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HAWAII ANALYTICAL LABORATORY, LLC
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☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
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Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamala
Company	Lehua Em
Address*	PO E 003467877
	Kamuela,
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Outside Pool ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312457

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		OP A1	11/16/2023	Bulk		Asbestos %		
2		OP A2	11/16/2023	Bulk		Asbestos %		
3		OP A3	11/16/2023	Bulk		Asbestos %		
4		OP A4	11/16/2023	Bulk		Asbestos %		
5		OP A5	11/16/2023	Bulk		Asbestos %		
6		OP A6	11/16/2023	Bulk		Asbestos %		
7		OP A7	11/16/2023	Bulk		Asbestos %		
8		OP A8	11/16/2023	Bulk		Asbestos %		
9		OP A9	11/16/2023	Bulk		Asbestos %		
10		OP A10	11/16/2023	Bulk		Asbestos %		
11		OP A11	11/16/2023	Bulk		Asbestos %		
12		OP A12	11/16/2023	Bulk		Asbestos %		
13		OP A13	11/16/2023	Bulk		Asbestos %		
14		OP A14	11/16/2023	Bulk		Asbestos %		
15		OP A15	11/16/2023	Bulk		Asbestos %		

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	[signature] 11/20/23 10:15am	

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kama
Company	Lehua E
Address*	P
	Kamu
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

003467877

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Outside Pool ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12457

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***

***Sample description can be paint chips, concrete, specific sample collection location, etc...**
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
***Required fields, failure to complete these fields may result in a delay in your samples being processed.**

☑ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

inv#: 173- 173-3286286

Page: _____ of _____

Trinidad Shutt

Trinidad Shutt 11-27-23A11:21 RCVD

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Outside Pool ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312457

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		OP A1	11/16/2023	Bulk		Asbestos %		
2		OP A2	11/16/2023	Bulk		Asbestos %		
3		OP A3	11/16/2023	Bulk		Asbestos %		
4		OP A4	11/16/2023	Bulk		Asbestos %		
5		OP A5	11/16/2023	Bulk		Asbestos %		
6		OP A6	11/16/2023	Bulk		Asbestos %		
7		OP A7	11/16/2023	Bulk		Asbestos %		
8		OP A8	11/16/2023	Bulk		Asbestos %		
9		OP A9	11/16/2023	Bulk		Asbestos %		
10		OP A10	11/16/2023	Bulk		Asbestos %		
11		OP A11	11/16/2023	Bulk		Asbestos %		
12		OP A12	11/16/2023	Bulk		Asbestos %		
13		OP A13	11/16/2023	Bulk		Asbestos %		
14		OP A14	11/16/2023	Bulk		Asbestos %		
15		OP A15	11/16/2023	Bulk		Asbestos %		

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330		

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Company	Lehua Environmental Inc.
Address*	PO BOX 1018
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Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:

- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Outside Pool ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12457

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***

***Sample description can be paint chips, concrete, specific sample collection location, etc...**
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
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awb#: 173-17332862863

Page: _____ of _____

Trinidad Shutt

Trinidad Shutt 11-27-23A11:21 RCVD

Hawaii Analytical Laboratory

3615 Harding Avenue, Suite 308, Honolulu, Hawaii, 96816

Tel: (808) 735-0422 – Fax: (808) 735-0047

December 4, 2023

Kama Kobayashi
Lehua Environmental
PO Box 1018
Kamuela Hawaii

Project Name:	YWCA – Pool House
Date collected:	11/16/2023
Date received:	11/27/2023
HAL #:	202312456

Dear Mr. Kobayashi,

Enclosed are the analytical results for the samples received by our laboratory on November 27, 2023. All samples on the chain of custody were received in good condition unless otherwise noted.

The sixty (60) bulk samples submitted for asbestos analysis were subcontracted to Eurofins EMLab P&K in Monrovia, CA, a NVLAP accredited Laboratory NVLAP LAB CODE: 600282-0. Its report is enclosed in its entirety.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Quality assurance data is collected to accompany all analyses and to ensure that results generated meet Hawaii Analytical Laboratory's quality standards. This data is available upon request.

Please contact us at 808-735-0422 if you have questions.

Thank you for using Hawaii Analytical Laboratory and have a great day!!

Anne Antin

Anne Antin
Quality Manager
Hawaii Analytical Laboratory
3615 Harding Ave. Ste. 308
Honolulu, HI 96816
Phone: (808) 735-0422
E-mail: aantin@analyzehawaii.com

eurofins | Built Environment Testing

Report for:

Anne Antin
Hawaii Analytical Lab
3615 Harding Ave
Suite 308
Honolulu, HI 96816

Regarding: Eurofins EPK Built Environment Testing, LLC
Project: 202312456; YWCA - Outside Pool - Bulk Asbestos Report
EML ID: 3467882

Approved by:

Approved Signatory
Marisa Braziel

Dates of Analysis:
Asbestos PLM: 12-04-2023

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 600266-0

A samp es were rece ved n acceptab e cond t on un ess noted n the Report Comments port on n the body of the report. The resu ts re ate on y to the samp es as rece ved and tested. The resu ts nc ude an nherent uncerta nty of measurement assoc ated w th est mat ng percentages by po ar zed ght m croscopy. Measurement uncerta nty data for samp e resu ts w th >1% asbestos concentrat on can be prov ded when requested.

Eurof ns EPK Bu t Env ronment Test ng, LLC ("the Company"), a member of the Eurof ns Bu t Env ronment Test ng group of compan es, sha have no ab ty to the c ent or the c ent s customer w th respect to dec s ons or recommendat ons made, act ons taken or courses of conduct mp emented by e ther the c ent or the c ent s customer as a resu t of or based upon the Test Resu ts. In no event sha the Company be ab e to the c ent w th respect to the Test Resu ts except for the Company s own w fu m sconduct or gross neg gence nor sha the Company be ab e for nc denta or consequent a damages or ost prof ts or revenues to the fu est extent such ab ty may be d sc a med by aw, even f the Company has been adv sed of the poss b ty of such damages, ost prof ts or ost revenues. In no event sha the Company s ab ty w th respect to the Test Resu ts exceed the amount pa d to the Company by the c ent therefor.

Eurofins EPK Built Environment Testing, LLC
19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312456; YWCA - Outside Pool - Bulk Asbestos Report

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Total Samples Submitted:	63
Total Samples Analyzed:	60
Total Samples with Layer Asbestos Content > 1%:	0

Location: 1, PH A1 Lab ID-Version‡: 16904804-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Green Coating with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 2, PH A2 Lab ID-Version‡: 16904805-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 3, PH A3 Lab ID-Version‡: 16904806-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 4, PH A4 Lab ID-Version‡: 16904807-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312456; YWCA - Outside Pool - Bulk Asbestos Report

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 5, PH A5 Lab ID-Version‡: 16904808-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 6, PH A6 Lab ID-Version‡: 16904809-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 7, PH A7 Lab ID-Version‡: 16904810-1

Sample Layers	Asbestos Content
Green Coating with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Good

Location: 8, PH A8 Lab ID-Version‡: 16904811-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Green Coating with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 9, PH A9 Lab ID-Version‡: 16904812-1

Sample Layers	Asbestos Content
Green Coating with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 10, PH A10 Lab ID-Version‡: 16904813-1

Sample Layers	Asbestos Content
Gray Coating with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 11, PH A11 Lab ID-Version‡: 16904814-1

Sample Layers	Asbestos Content
Gray Texture with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 12, PH A12 Lab ID-Version‡: 16904815-1

Sample Layers	Asbestos Content
Gray Texture with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 13, PH A13

Lab ID-Version‡: 16904816-1

Sample Layers	Asbestos Content
White Putty with Paint	ND
Composite Non-Asbestos Content:	5% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 14, PH A14

Lab ID-Version‡: 16904817-1

Sample Layers	Asbestos Content
White Putty with Paint	ND
Composite Non-Asbestos Content:	5% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 15, PH A15

Lab ID-Version‡: 16904818-1

Sample Layers	Asbestos Content
White Putty with Paint	ND
Composite Non-Asbestos Content:	5% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 16, PH A16

Lab ID-Version‡: 16904819-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 17, PH A17

Lab ID-Version‡: 16904820-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 18, PH A18

Lab ID-Version‡: 16904821-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 19, PH A19

Lab ID-Version‡: 16904822-1

Sample Layers	Asbestos Content
Yellow Foam with Paint	ND
Sample Composite Homogeneity:	Good

Location: 20, PH A20

Lab ID-Version‡: 16904823-1

Sample Layers	Asbestos Content
Yellow Foam with Paint	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 21, PH A21 Lab ID-Version‡: 16904824-1

Sample Layers	Asbestos Content
Yellow Foam with Paint	ND
Sample Composite Homogeneity:	Good

Location: 22, PH A22 Lab ID-Version‡: 16904825-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 23, PH A23 Lab ID-Version‡: 16904826-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 24, PH A24 Lab ID-Version‡: 16904827-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 25, PH A25 Lab ID-Version‡: 16904828-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 26, PH A26 Lab ID-Version‡: 16904829-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 27, PH A27 Lab ID-Version‡: 16904830-1

Sample Layers	Asbestos Content
White Texture with Paint	ND
Composite Non-Asbestos Content:	5% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 28, PH A28 Lab ID-Version‡: 16904831-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 29, PH A29 Lab ID-Version‡: 16904832-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 30, PH A30 Lab ID-Version‡: 16904833-1

Sample Layers	Asbestos Content
Gray Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 31, PH A31 Lab ID-Version‡: 16904834-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 32, PH A32 Lab ID-Version‡: 16904835-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	5% Cellulose
Sample Composite Homogeneity:	Moderate

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Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 33, PH A33

Lab ID-Version‡: 16904836-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 34, PH A34

Lab ID-Version‡: 16904837-1

Sample Layers	Asbestos Content
White Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 35, PH A35

Lab ID-Version‡: 16904838-1

Sample Layers	Asbestos Content
White Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 36, PH A36

Lab ID-Version‡: 16904839-1

Sample Layers	Asbestos Content
White Cementitious Material	ND
Red Ceramic Tile	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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C/O: Anne Antin
Re: 202312456; YWCA - Outside Pool - Bulk Asbestos Report

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 37, PH A37 Lab ID-Version‡: 16904840-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 38, PH A38 Lab ID-Version‡: 16904841-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 39, PH A39 Lab ID-Version‡: 16904842-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 40, PH A40 Lab ID-Version‡: 16904843-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Eurofins EPK Built Environment Testing, LLC
19515 North Creek Pkwy N, #100, Bothell, WA 98011
(800) 651-4802 www.eurofinsus.com/Built

Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312456; YWCA - Outside Pool - Bulk Asbestos Report

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 41, PH A41 Lab ID-Version‡: 16904844-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 42, PH A42 Lab ID-Version‡: 16904845-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 43, PH A43 Lab ID-Version‡: 16904846-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 44, PH A44 Lab ID-Version‡: 16904847-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 45, PH A45

Lab ID-Version‡: 16904848-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 46, PH A46

Lab ID-Version‡: 16904849-1

Sample Layers	Asbestos Content
White Texture with Paint	ND
Cream Tape	ND
White Joint Compound	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 47, PH A47

Lab ID-Version‡: 16904850-1

Sample Layers	Asbestos Content
White Texture with Paint	ND
Cream Tape	ND
White Joint Compound	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 48, PH A48

Lab ID-Version‡: 16904851-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper with Paint	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Moderate

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ASBESTOS PLM REPORT

Location: 49, PH A49

Lab ID-Version‡: 16904852-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 50, PH A50

Lab ID-Version‡: 16904853-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 51, PH A51

Lab ID-Version‡: 16904854-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 52, PH A52

Lab ID-Version‡: 16904855-1

Sample Layers	Asbestos Content
Black/White Cementitious Material with Paint	ND
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	5% Cellulose
Sample Composite Homogeneity:	Moderate

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Client: Hawaii Analytical Lab
C/O: Anne Antin
Re: 202312456; YWCA - Outside Pool - Bulk Asbestos Report

Date of Sampling: 11-16-2023
Date of Receipt: 11-30-2023
Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 53, PH A53 Lab ID-Version‡: 16904856-1

Sample Layers	Asbestos Content
Black/White Cementitious Material with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 54, PH A54 Lab ID-Version‡: 16904857-1

Sample Layers	Asbestos Content
Black/White Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 55, PH A55 Lab ID-Version‡: 16904858-1

Sample Layers	Asbestos Content
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 56, PH A56 Lab ID-Version‡: 16904859-1

Sample Layers	Asbestos Content
White Putty with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

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Date of Report: 12-04-2023

ASBESTOS PLM REPORT

Location: 57, PH A57 Lab ID-Version‡: 16904860-1

Sample Layers	Asbestos Content
White Putty with Paint	ND
Composite Non-Asbestos Content:	2% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 58, PH A58 Lab ID-Version‡: 16904861-1

Sample Layers	Asbestos Content
Gray Paper	ND
Composite Non-Asbestos Content:	95% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 59, PH A59 Lab ID-Version‡: 16904862-1

Sample Layers	Asbestos Content
Gray Paper	ND
Composite Non-Asbestos Content:	95% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 60, PH A60 Lab ID-Version‡: 16904863-1

Sample Layers	Asbestos Content
White Drywall with Brown Paper with Paint	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Good

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CHAIN OF CUSTODY

eurofins | EMLab P&K

www.EMLabPK.com

Marlton, NJ: 3000 Lincoln Dr E, Ste. A, Marlton, NJ 08053 * **(866) 871-1984**
Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * **(800) 651-4802**
SSF, CA: 6000 Shoreline Ct, Ste. 205, S. San Francisco, CA 94080 * **(866) 888-6653**

WEATHER	Fog	Rain	Snow	Wind	Clear
LEVEL None					
Light					
Moderate					
Heavy					

003467891

CONTACT INFORMATION

Company:	Hawaii Analytical Laboratory	Address: 3615 Harding Avenue, suite 308 - Honolulu HI 96816
Contact:	Anne Antin	Special Instructions: *Please analyze samples on a 2 day TAT*
Phone:	808-735-0422	

PROJECT INFORMATION

Project ID:	202312455		
Project Description:	YWCA- Cottage		
Project Zip Code:		Sampling Date/Time:	11/17/2023
PO Number:		Sampled By:	Lehua Environmental Inc.

TURN AROUND TIME CODES - (TAT)

STD - Standard (Default)
ND - Next Business Day
SD - Same Business Day
WH - Weekend/Holiday/ASAP

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

SAMPLE ID	DESCRIPTION	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	NOTES (Time of day, Temp, RH, etc.)
COT A1		B	2D		See attached COC for details
to					
COT A24		B	2D		
COT2 A1		B	2D		
to					
COT2 A33		B	2D		

REQUESTED SER

| Non-Culturable | | | Culturable | | | | |

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kar
Company	Lehu
Address*	
	Kam
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

003467891

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		COT A1	11/17/2023	Bulk		Asbestos %		
2		COT A2	11/17/2023	Bulk		Asbestos %		
3		COT A3	11/17/2023	Bulk		Asbestos %		
4		COT A4	11/17/2023	Bulk		Asbestos %		
5		COT A5	11/17/2023	Bulk		Asbestos %		
6		COT A6	11/17/2023	Bulk		Asbestos %		
7		COT A7	11/17/2023	Bulk		Asbestos %		
8		COT A8	11/17/2023	Bulk		Asbestos %		
9		COT A9	11/17/2023	Bulk		Asbestos %		
10		COT A10	11/17/2023	Bulk		Asbestos %		
11		COT A11	11/17/2023	Bulk		Asbestos %		
12		COT A12	11/17/2023	Bulk		Asbestos %		
13		COT A13	11/17/2023	Bulk		Asbestos %		
14		COT A14	11/17/2023	Bulk		Asbestos %		
15		COT A15	11/17/2023	Bulk		Asbestos %		

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamala
Company	Lehua Er
Address*	PO
	Kamuel
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

003467891

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16		COT A16	11/17/2023	Bulk		Asbestos %		
17		COT A17	11/17/2023	Bulk		Asbestos %		
18		COT A18	11/17/2023	Bulk		Asbestos %		
19		COT A19	11/17/2023	Bulk		Asbestos %		
20		COT A20	11/17/2023	Bulk		Asbestos %		
21		COT A21	11/17/2023	Bulk		Asbestos %		
22		COT A22	11/17/2023	Bulk		Asbestos %		
23		COT A23	11/17/2023	Bulk		Asbestos %		
24		COT A24	11/17/2023	Bulk		Asbestos %		
25		COT2 A1	11/17/2023	Bulk		Asbestos %		
26		COT2 A2	11/17/2023	Bulk		Asbestos %		
27		COT2 A3	11/17/2023	Bulk		Asbestos %		
28		COT2 A4	11/17/2023	Bulk		Asbestos %		
29		COT2 A5	11/17/2023	Bulk		Asbestos %		
30		COT2 A6	11/17/2023	Bulk		Asbestos %		

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Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamala
Company	Lehua En
Address*	PO I
	Kamuela, Hawaii 967[illegible]
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

003467891

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
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- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
31		COT2 A7	11/17/2023	Bulk		Asbestos %		
32		COT2 A8	11/17/2023	Bulk		Asbestos %		
33		COT2 A9	11/17/2023	Bulk		Asbestos %		
34		COT2 A10	11/17/2023	Bulk		Asbestos %		
35		COT2 A11	11/17/2023	Bulk		Asbestos %		
36		COT2 A12	11/17/2023	Bulk		Asbestos %		
37		COT2 A13	11/17/2023	Bulk		Asbestos %		
38		COT2 A14	11/17/2023	Bulk		Asbestos %		
39		COT2 A15	11/17/2023	Bulk		Asbestos %		
40		COT2 A16	11/17/2023	Bulk		Asbestos %		
41		COT2 A17	11/17/2023	Bulk		Asbestos %		
42		COT2 A18	11/17/2023	Bulk		Asbestos %		
43		COT2 A19	11/17/2023	Bulk		Asbestos %		
44		COT2 A20	11/17/2023	Bulk		Asbestos %		
45		COT2 A21	11/17/2023	Bulk		Asbestos %		

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Invoice To*	Kamalan
Company	Lehua Env
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	Kamuela,
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Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

003467891

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- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Cottage ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12455

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
46		COT2 A22	11/17/2023	Bulk		Asbestos %		
47		COT2 A23	11/17/2023	Bulk		Asbestos %		
48		COT2 A24	11/17/2023	Bulk		Asbestos %		
49		COT2 A25	11/17/2023	Bulk		Asbestos %		
50		COT2 A26	11/17/2023	Bulk		Asbestos %		
51		COT2 A27	11/17/2023	Bulk		Asbestos %		
52		COT2 A28	11/17/2023	Bulk		Asbestos %		
53		COT2 A29	11/17/2023	Bulk		Asbestos %		
54		COT2 A30	11/17/2023	Bulk		Asbestos %		
		COT2 A31	11/17/2023	Bulk		Asbestos %		
		COT2 A32	11/17/2023	Bulk		Asbestos %		
55		COT2 A33	11/17/2023	Bulk		Asbestos %		

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23A11:21 RCVD

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☑ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up
awb#: 173-32842263

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
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Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
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	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:

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- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Pool House ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
☐ + stop / SAMPLE
☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312456

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		PH A1	11/16/2023	Bulk		Asbestos %		
2		PH A2	11/16/2023	Bulk		Asbestos %		
3		PH A3	11/16/2023	Bulk		Asbestos %		
4		PH A4	11/16/2023	Bulk		Asbestos %		
5		PH A5	11/16/2023	Bulk		Asbestos %		
6		PH A6	11/16/2023	Bulk		Asbestos %		
7		PH A7	11/16/2023	Bulk		Asbestos %		
8		PH A8	11/16/2023	Bulk		Asbestos %		
9		PH A9	11/16/2023	Bulk		Asbestos %		
10		PH A10	11/16/2023	Bulk		Asbestos %		
11		PH A11	11/16/2023	Bulk		Asbestos %		
12		PH A12	11/16/2023	Bulk		Asbestos %		
13		PH A13	11/16/2023	Bulk		Asbestos %		
14		PH A14	11/16/2023	Bulk		Asbestos %		
15		PH A15	11/16/2023	Bulk		Asbestos %		

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Pool House ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12456

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16		PH A16	11/16/2023	Bulk		Asbestos %		
17		PH A17	11/16/2023	Bulk		Asbestos %		
18		PH A18	11/16/2023	Bulk		Asbestos %		
19		PH A19	11/16/2023	Bulk		Asbestos %		
20		PH A20	11/16/2023	Bulk		Asbestos %		
21		PH A21	11/16/2023	Bulk		Asbestos %		
22		PH A22	11/16/2023	Bulk		Asbestos %		
23		PH A23	11/16/2023	Bulk		Asbestos %		
24		PH A24	11/16/2023	Bulk		Asbestos %		
25		PH A25	11/16/2023	Bulk		Asbestos %		
26		PH A26	11/16/2023	Bulk		Asbestos %		
27		PH A27	11/16/2023	Bulk		Asbestos %		
28		PH A28	11/16/2023	Bulk		Asbestos %		
29		PH A29	11/16/2023	Bulk		Asbestos %		
30		PH A30	11/16/2023	Bulk		Asbestos %		

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via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

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Special Instructions:

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Verbal results? ☐

Lab Report No.: 12456

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
31		PH A31	11/16/2023	Bulk		Asbestos %		
32		PH A32	11/16/2023	Bulk		Asbestos %		
33		PH A33	11/16/2023	Bulk		Asbestos %		
34		PH A34	11/16/2023	Bulk		Asbestos %		
35		PH A35	11/16/2023	Bulk		Asbestos %		
36		PH A36	11/16/2023	Bulk		Asbestos %		
37		PH A37	11/16/2023	Bulk		Asbestos %		
38		PH A38	11/16/2023	Bulk		Asbestos %		
39		PH A39	11/16/2023	Bulk		Asbestos %		
40		PH A40	11/16/2023	Bulk		Asbestos %		
41		PH A41	11/16/2023	Bulk		Asbestos %		
42		PH A42	11/16/2023	Bulk		Asbestos %		
43		PH A43	11/16/2023	Bulk		Asbestos %		
44		PH A44	11/16/2023	Bulk		Asbestos %		
45		PH A45	11/16/2023	Bulk		Asbestos %		

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☐ New Client?

Report To*	Kama Kobayashi	Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.	Company	Lehua Environmental Inc.
Address*	PO BOX 1018 Kamuela, Hawaii 96743	Address*	PO BOX 1018 Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365	Phone / Cell No.*	
Report results to	K. Kobayashi	Purchase Order No.	
via email or fax	nicoleg@lehuaenv.com lehuaenvironmental@gmail.com	Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Pool House ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
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Verbal results? ☐

Lab Report No.: 12456

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
46		PH A46	11/16/2023	Bulk		Asbestos %		
47		PH A47	11/16/2023	Bulk		Asbestos %		
48		PH A48	11/16/2023	Bulk		Asbestos %		
49		PH A49	11/16/2023	Bulk		Asbestos %		
50		PH A50	11/16/2023	Bulk		Asbestos %		
51		PH A51	11/16/2023	Bulk		Asbestos %		
52		PH A52	11/16/2023	Bulk		Asbestos %		
53		PH A53	11/16/2023	Bulk		Asbestos %		
54		PH A54	11/16/2023	Bulk		Asbestos %		
55		PH A55	11/16/2023	Bulk		Asbestos %		
56		PH A56	11/16/2023	Bulk		Asbestos %		
57		PH A57	11/16/2023	Bulk		Asbestos %		
58		PH A58	11/16/2023	Bulk		Asbestos %		
59		PH A59	11/16/2023	Bulk		Asbestos %		
60		PH A60	11/16/2023	Bulk		Asbestos %		
61		PH A61	11/16/2023	Bulk		Asbestos %		
62		PH A62	11/16/2023	Bulk		Asbestos %		

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	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
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via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

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	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

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- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Pool House ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12456

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
	PH A63	11/16/2023	Bulk		Asbestos %		

63

#	Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
	Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23A11:20 RCVD

***Sample description can be paint chips, concrete, specific sample collection location, etc...**
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
***Required fields, failure to complete these fields may result in a delay in your samples being processed.**

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-.....

173-~~32862863~~
32862863

Page: _____ of _____

Hawaii Analytical Laboratory
ANALYTICAL REPORT

Monday, December 4, 2023

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312474
Date Submitted: 11/27/2023
Your Project: YWCA - Pool House, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386632	**PH L1**	< 43	mg/kg	12/1/2023
Comments				
202386633	**PH L2**	< 40	mg/kg	12/1/2023
Comments				
202386634	**PH L3**	< 40	mg/kg	12/1/2023
Comments				
202386635	**PH L4**	< 40	mg/kg	12/1/2023
Comments				
202386636	**PH L5**	< 40	mg/kg	12/1/2023
Comments				
202386637	**PH L6**	< 49	mg/kg	12/1/2023
Comments				
202386638	**PH L7**	< 40	mg/kg	12/1/2023
Comments				
202386639	**PH L8**	< 40	mg/kg	12/1/2023
Comments				

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on www.aihaaccreditedlabs.org, in accordance with the recognized ISO/ IEC 17025:2005. AIHA is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 – 20181015

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312474
Date Submitted: 11/27/2023
Your Project: YWCA - Pool House, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386640	**PH L9**	< 40	mg/kg	12/1/2023
Comments				
202386641	**PH L10**	< 40	mg/kg	12/1/2023
Comments				
202386642	**PH L11**	< 40	mg/kg	12/1/2023
Comments				
202386643	**PH L12**	< 40	mg/kg	12/1/2023
Comments				
202386644	**PH L13**	79	mg/kg	12/1/2023
Comments				
202386645	**PH L14**	< 40	mg/kg	12/1/2023
Comments				
202386646	**PH L15**	< 40	mg/kg	12/1/2023
Comments				
202386647	**PH L16**	< 40	mg/kg	12/1/2023
Comments				
202386648	**PH L17**	< 140	mg/kg	12/1/2023
Comments				
202386649	**PH L18**	< 58	mg/kg	12/1/2023
Comments				
202386650	**PH L19**	< 43	mg/kg	12/1/2023
Comments				

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312474
Date Submitted: 11/27/2023
Your Project: YWCA - Pool House, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386651	**PH L20**	150	mg/kg	12/1/2023
Comments				
202386652	**PH L21**	< 62	mg/kg	12/1/2023
Comments				
202386653	**PH L22**	< 94	mg/kg	12/1/2023
Comments				
202386654	**PH L23**	< 61	mg/kg	12/1/2023
Comments				
202386655	**PH L24**	< 160	mg/kg	12/1/2023
Comments				
202386656	**PH L25**	< 85	mg/kg	12/1/2023
Comments				
202386657	**PH L26**	< 190	mg/kg	12/1/2023
Comments				
202386658	**PH L27**	< 44	mg/kg	12/1/2023
Comments				
202386659	**PH L28**	< 160	mg/kg	12/1/2023
Comments				
202386660	**PH L29**	< 40	mg/kg	12/1/2023
Comments				
202386661	**PH L30**	83	mg/kg	12/1/2023
Comments				

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312474
Date Submitted: 11/27/2023
Your Project: YWCA - Pool House, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386662	**PH L31**	580	mg/kg	12/1/2023
Comments				
202386663	**PH L32**	< 40	mg/kg	12/1/2023
Comments				
202386664	**PH L33**	< 40	mg/kg	12/1/2023
Comments				
202386665	**PH L34**	< 51	mg/kg	12/1/2023
Comments				
202386666	**PH L35**	< 87	mg/kg	12/1/2023
Comments				
202386667	**PH L36**	< 63	mg/kg	12/1/2023
Comments				
202386668	**PH L37**	< 150	mg/kg	12/1/2023
Comments				
202386669	**PH L38**	< 120	mg/kg	12/1/2023
Comments				
202386670	**PH L39**	< 94	mg/kg	12/1/2023
Comments				
202386671	**PH L40**	< 88	mg/kg	12/1/2023
Comments				
202386672	**PH L41**	< 83	mg/kg	12/1/2023
Comments				

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Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386673	**PH L42**	< 40	mg/kg	12/1/2023
Comments				
202386674	**PH L43**	< 40	mg/kg	12/1/2023
Comments				
202386675	**PH L44**	< 40	mg/kg	12/1/2023
Comments				
202386676	**PH L45**	< 130	mg/kg	12/1/2023
Comments				
202386677	**PH L46**	< 93	mg/kg	12/1/2023
Comments				
202386678	**PH L47**	< 40	mg/kg	12/1/2023
Comments				
202386679	**PH L48**	86	mg/kg	12/1/2023
Comments				
202386680	**PH L49**	700	mg/kg	12/1/2023
Comments				
202386681	**PH L50**	< 40	mg/kg	12/1/2023
Comments				
202386682	**PH L51**	< 40	mg/kg	12/1/2023
Comments				
202386683	**PH L52**	44	mg/kg	12/1/2023
Comments				

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Kamuela HI 96743

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Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312474
Date Submitted: 11/27/2023
Your Project: YWCA - Pool House, 11/16/23

Total Lead (paint chips)

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202386684	**PH L53**	< 40	mg/kg	12/1/2023
Comments				

All Quality Control data are acceptable unless otherwise noted.
MRL for lead air is 5ug.
MRL for lead wipe is 10ug.
MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.

General Comments
The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document profiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

Results and Symbols Definitions
> This testing result is greater than the numerical value listed.
< This testing result is less than the numerical value listed.
# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.
MRL = Method Reporting Limit.

Eva Skogsberg
Laboratory Supervisor

HAWAII ANALYTICAL LABORATORY, LLC
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Client Project No.:

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Special Instructions:

PLM POSITIVE STOP?
☐ + stop / SAMPLE
☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312474

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		PH L1	11/16/2023	Paint Chips		Total Lead		202386632
2		PH L2	11/16/2023	Paint Chips		Total Lead		202386633
3		PH L3	11/16/2023	Paint Chips		Total Lead		202386634
4		PH L4	11/16/2023	Paint Chips		Total Lead		202386635
5		PH L5	11/16/2023	Paint Chips		Total Lead		202386636
6		PH L6	11/16/2023	Paint Chips		Total Lead		202386637
7		PH L7	11/16/2023	Paint Chips		Total Lead		202386638
8		PH L8	11/16/2023	Paint Chips		Total Lead		202386639
9		PH L9	11/16/2023	Paint Chips		Total Lead		202386640
10		PH L10	11/16/2023	Paint Chips		Total Lead		202386641
11		PH L11	11/16/2023	Paint Chips		Total Lead		202386642
12		PH L12	11/16/2023	Paint Chips		Total Lead		202386643
13		PH L13	11/16/2023	Paint Chips		Total Lead		202386644
14		PH L14	11/16/2023	Paint Chips		Total Lead		202386645
15		PH L15	11/16/2023	Paint Chips		Total Lead		202386646

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Sampled By & Certif. # : Nicole Garaganza-Tengan

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- ☐ + stop / SAMPLE
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Verbal results? ☐

Lab Report No.: 12474

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16		PH L16	11/16/2023	Paint Chips		Total Lead		202386647
17		PH L17	11/16/2023	Paint Chips		Total Lead		202386648
18		PH L18	11/16/2023	Paint Chips		Total Lead		202386649
19		PH L19	11/16/2023	Paint Chips		Total Lead		202386650
20		PH L20	11/16/2023	Paint Chips		Total Lead		202386651
21		PH L21	11/16/2023	Paint Chips		Total Lead		202386652
22		PH L22	11/16/2023	Paint Chips		Total Lead		202386653
23		PH L23	11/16/2023	Paint Chips		Total Lead		202386654
24		PH L24	11/16/2023	Paint Chips		Total Lead		202386655
25		PH L25	11/16/2023	Paint Chips		Total Lead		202386656
26		PH L26	11/16/2023	Paint Chips		Total Lead		202386657
27		PH L27	11/16/2023	Paint Chips		Total Lead		202386658
28		PH L28	11/16/2023	Paint Chips		Total Lead		202386659
29		PH L29	11/16/2023	Paint Chips		Total Lead		202386660
30		PH L30	11/16/2023	Paint Chips		Total Lead		202386661

HAWAII ANALYTICAL LABORATORY, LLC
3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Pool House ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12474

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
31		PH L31	11/16/2023	Paint Chips		Total Lead		202386662
32		PH L32	11/16/2023	Paint Chips		Total Lead		202386663
33		PH L33	11/16/2023	Paint Chips		Total Lead		202386664
34		PH L34	11/16/2023	Paint Chips		Total Lead		202386665
35		PH L35	11/16/2023	Paint Chips		Total Lead		202386666
36		PH L36	11/16/2023	Paint Chips		Total Lead		202386667
37		PH L37	11/16/2023	Paint Chips		Total Lead		202386668
38		PH L38	11/16/2023	Paint Chips		Total Lead		202386669
39		PH L39	11/16/2023	Paint Chips		Total Lead		202386670
40		PH L40	11/16/2023	Paint Chips		Total Lead		202386671
41		PH L41	11/16/2023	Paint Chips		Total Lead		202386672
42		PH L42	11/16/2023	Paint Chips		Total Lead		202386673
43		PH L43	11/16/2023	Paint Chips		Total Lead		202386674
44		PH L44	11/16/2023	Paint Chips		Total Lead		202386675
45		PH L45	11/16/2023	Paint Chips		Total Lead		202386676

HAWAII ANALYTICAL LABORATORY, LLC

3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:
- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA- Pool House ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions:

PLM POSITIVE STOP?
- ☐ + stop / SAMPLE
- ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 12474

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
46		PH L46	11/16/2023	Paint Chips		Total Lead		202386677
47		PH L47	11/16/2023	Paint Chips		Total Lead		202386678
48		PH L48	11/16/2023	Paint Chips		Total Lead		202386679
49		PH L49	11/16/2023	Paint Chips		Total Lead		202386680
50		PH L50	11/16/2023	Paint Chips		Total Lead		202386681
51		PH L51	11/16/2023	Paint Chips		Total Lead		202386682
52		PH L52	11/16/2023	Paint Chips		Total Lead		202386683
53		PH L53	11/16/2023	Paint Chips		Total Lead		202386684
54								
55								

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23 A 11:21 RCVD

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-32862863

Page: _____ of _____

Hawaii Analytical Laboratory %
ANALYTICAL REPORT %

Thursday, December 7, 2023

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile:
Email: lehuaenvironmental@gmail.com

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Chlordane (Technical Grade)

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on www.aihaaccreditedlabs.org, in accordance with the recognized ISO/ IEC 17025:2005. AIHA is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 – 20181015

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Chlordane (Technical Grade) # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386478	**DU-7A**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386481	**DU-8**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	< 0.4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	< 0.4	mg/kg	12/6/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	< 0.4	mg/kg	12/6/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470 $	**DU-1**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	0.027	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386471 $	**DU-2**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386472 $	**DU-3A**			12/5/2023
Comments *	4,4'-DDD	< 0.02 mg/kg		
	4,4'-DDE	< 0.02 mg/kg		
	4,4'-DDT	< 0.02 mg/kg		
	Aldrin	< 0.02 mg/kg		
	alpha-BHC	< 0.02 mg/kg		
	beta-BHC	< 0.02 mg/kg		
	delta-BHC	< 0.02 mg/kg		
	Dieldrin	0.41 mg/kg		
	Endosulfan I	< 0.02 mg/kg		
	Endosulfan II	< 0.02 mg/kg		
	Endosulfan Sulfate	< 0.02 mg/kg		
	Endrin	< 0.02 mg/kg		
	Endrin Aldehyde	< 0.02 mg/kg		
	Endrin Ketone	< 0.02 mg/kg		
	gamma-BHC	< 0.02 mg/kg		
	Heptachlor	< 0.02 mg/kg		
	Heptachlor Epoxide	< 0.02 mg/kg		
	Methoxychlor	< 0.02 mg/kg		
	Multi-incremental sampling (50 increments) was performed on the sample			
202386473 $	**DU-3B**			12/6/2023
Comments *	4,4'-DDD	< 0.02 mg/kg		
	4,4'-DDE	< 0.02 mg/kg		
	4,4'-DDT	< 0.02 mg/kg		
	Aldrin	< 0.02 mg/kg		
	alpha-BHC	< 0.02 mg/kg		
	beta-BHC	< 0.02 mg/kg		
	delta-BHC	< 0.02 mg/kg		
	Dieldrin	0.39 mg/kg		
	Endosulfan I	< 0.02 mg/kg		
	Endosulfan II	< 0.02 mg/kg		
	Endosulfan Sulfate	< 0.02 mg/kg		
	Endrin	< 0.02 mg/kg		
	Endrin Aldehyde	< 0.02 mg/kg		
	Endrin Ketone	< 0.02 mg/kg		
	gamma-BHC	< 0.02 mg/kg		
	Heptachlor	< 0.02 mg/kg		
	Heptachlor Epoxide	< 0.02 mg/kg		
	Methoxychlor	< 0.02 mg/kg		
	Multi-incremental sampling (50 increments) was performed on the sample			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386474 $	**DU-3C**			12/6/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	0.37	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386475 $	**DU-4**			12/7/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	0.37	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386476 $	**DU-5**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386477 $	**DU-6**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386478 $	**DU-7A**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386479 $	**DU-7B**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386480 $	**DU-7C**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386481 $	**DU-8**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	0.039	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386482 $	**DU-9**			12/5/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386483 $	**DU-10**			12/6/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Organochlorinated Pesticides # $

EPA Method: 8081B -m [Gas Chromatography - ECD]

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386484 $	**DU-11**			12/6/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			
202386485 $	**DU-12**			12/6/2023
Comments *	4,4'-DDD	< 0.02	mg/kg	
	4,4'-DDE	< 0.02	mg/kg	
	4,4'-DDT	< 0.02	mg/kg	
	Aldrin	< 0.02	mg/kg	
	alpha-BHC	< 0.02	mg/kg	
	beta-BHC	< 0.02	mg/kg	
	delta-BHC	< 0.02	mg/kg	
	Dieldrin	< 0.02	mg/kg	
	Endosulfan I	< 0.02	mg/kg	
	Endosulfan II	< 0.02	mg/kg	
	Endosulfan Sulfate	< 0.02	mg/kg	
	Endrin	< 0.02	mg/kg	
	Endrin Aldehyde	< 0.02	mg/kg	
	Endrin Ketone	< 0.02	mg/kg	
	gamma-BHC	< 0.02	mg/kg	
	Heptachlor	< 0.02	mg/kg	
	Heptachlor Epoxide	< 0.02	mg/kg	
	Methoxychlor	< 0.02	mg/kg	
	Multi-incremental sampling (50 increments) was performed on the sample			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Lead (soil)

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	1700	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	2100	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	1300	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	1100	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	1200	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	570	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	< 40	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	83	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	280	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	280	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	310	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Lead (soil)

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	300	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	430	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	160	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	130	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	200	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Arsenic (Gaseous Hydride) # $

EPA Method: 3051m / 7061Am

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	160	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	91	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	61	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	56	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	63	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	39	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	21	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	43	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	44	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	37	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	40	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Arsenic (Gaseous Hydride) # $

EPA Method: 3051m / 7061Am

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	33	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	46	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	22	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	25	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	34	mg/kg	11/30/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Barium # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Barium # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	< 500	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Cadmium # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Cadmium # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	< 10	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Chromium # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	250	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	250	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	290	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	290	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	290	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	300	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	92	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	110	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	250	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	230	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	240	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Chromium # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	260	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	200	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	88	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	210	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	270	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Mercury (Manual Cold-Vapor Technique)

EPA Method: 3051m / 7471Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Mercury (Manual Cold-Vapor Technique)

EPA Method: 3051m / 7471Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	< 4	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Silver # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386470	**DU-1**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386471	**DU-2**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386472	**DU-3A**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386473	**DU-3B**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386474	**DU-3C**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386475	**DU-4**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386476	**DU-5**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386477	**DU-6**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386478	**DU-7A**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386479	**DU-7B**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386480	**DU-7C**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

Mr. Kama Kobayashi
Lehua Environmental Inc.
P.O. Box 1018
Kamuela HI 96743

Phone Number: (808)494-0365
Facsimile: $
Email: lehuaenvironmental@gmail.com *

Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

Total Recoverable Silver # $

EPA Method: 3051m / 7000Bm

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202386481	**DU-8**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386482	**DU-9**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386483	**DU-10**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386484	**DU-11**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			
202386485	**DU-12**	< 20	mg/kg	12/5/2023
Comments	Multi-incremental sampling (50 increments) was performed on the sample.			

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Lab Job No: 202312437
Date Submitted: 11/27/2023
Your Project: YWCA, 11/22/23

All Quality Control data are acceptable unless otherwise noted.
MRL for lead air is 5ug.
MRL for lead wipe is 10ug.
MRL for lead paint or soil is 40 mg/kg for a 0.25g sample. $

General Comments *
The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the * "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be * representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document profiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii * Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been * calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for * blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable. *

Results and Symbols Definitions *
> This testing result is greater than the numerical value listed. *
< This testing result is less than the numerical value listed. *
# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation. *
MRL = Method Reporting Limit. *

Jennifer Hsu Liao
Laboratory Manager

HAWAII ANALYTICAL LABORATORY, LLC

3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:

- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions: 11.1°C upon receiving 11/27/23 10:47 TS

5 day TAT: MI Lab Prep- Non Volitile, Total RCRA 8,Organochlorine Pestisides
1 Day TAT: Total Arsenic 3 Day TAT: Bioaccessible arsenic

PLM POSITIVE STOP? ☐ + stop / SAMPLE ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312437

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		DU-1	11/22/2023	Soil		* See Special Instructions		202386470
2		DU-2	11/22/2023	Soil		* See Special Instructions		202386471
3		DU-3A	11/17/2023	Soil		* See Special Instructions		202386472
4		DU-3B	11/17/2023	Soil		* See Special Instructions		202386473
5		DU-3C	11/17/2023	Soil		* See Special Instructions		202386474
6		DU-4	11/17/2023	Soil		* See Special Instructions		202386475
7		DU-5	11/22/2023	Soil		* See Special Instructions		202386476
8		DU-6	11/22/2023	Soil		* See Special Instructions		202386477
9		DU-7A	11/17/2023	Soil		* See Special Instructions		202386478
10		DU-7B	11/17/2023	Soil		* See Special Instructions		202386479
11		DU-7C	11/17/2023	Soil		* See Special Instructions		202386480
12		DU-8	11/17/2023	Soil		* See Special Instructions		202386481
13		DU-9	11/22/2023	Soil		* See Special Instructions		202386482
14		DU-10	11/22/2023	Soil		* See Special Instructions		202386483
15		DU-11	11/17/2023	Soil		* See Special Instructions		202386484

HAWAII ANALYTICAL LABORATORY, LLC

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Honolulu, HI 96816
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https://analyzehawaii.com

☐ New Client?

12437

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:

- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:	Site/Project Name:	Sampled By & Certif. # :
	YWCA ☐	Nicole Garaganza-Tengan

Special Instructions:
5 day TAT: MI Lab Prep- Non Volitile, Total RCRA 8,Organochlorine Pestisides
1 Day TAT: Total Arsenic 3 Day TAT: Bioaccessible arsenic

PLM POSITIVE STOP? ☐ + stop / SAMPLE ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.:

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16	DU-12	11/17/2023	Soil		* See Special Instructions		202386485

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23A10:45 RCVD
		Trinidad Shutt	

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☑ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-32862843

Page: _____ of _____

RECEIPT& ACKNOWLEDGEMENT FORM 12437

Hawaii Analytical Laboratory
3615 Harding Avenue, Suite 308, Honolulu, Hawaii, 96816

RECEIPT & ACKNOWLEDGEMENT FORM

Our Receiving Records show the following information about your sample(s).

Basic project information can be found on the COC for job number :

TAT: 5 days - MIS prep, OCP / 1 day total As

Due Date: 11/28 , 12/4

Client: Lenora

Project name: YMCA

Applies only to valid conditions *(Answer: Yes - No - NA)*

Cooler Temp °C 11.1°C Tracking Number: 173- 32862803

Containers Intact: Y Preservation Confirmed: Y COC Present: Y

COC / Labels Agree: Y Received On Ice: Y COC Signed when relisd / recd: Y

Samples intact / proper cont: Y

1	**Samples were received via?**	*USPS*	*FedEx*	*UPS*	*DHL*	*Other*	HAC
2	**Samples were received in? (circle)**		*Cooler*	*Box*	*Envelope*	*Other*	
3	**Packing material used:**	*Bubble Wrap*	*Gel Packs*		*Paper*	*Other*	

4	Were custody papers properly filled out (ink, signed, etc)?	Y	N	N/A
5	Did samples / bottles arrive in good condition (unbroken)?	Y	N	N/A
6	Were all sample labels complete?	Y	N	N/A
7	Did all sample labels and tags agree with custody papers?	Y	N	N/A
8	Were appropriate bottles / containers and volumes received for the tests indicated?	Y	N	N/A
9	Were the pH-preserved bottles received at the appropriate pH?	Y	N	N/A
10	Were VOA vials received without headspace?	Y	N	N/A

Note, Discrepancies, and Resolutions:

Trinidad Shutt

Form Completed By: Trinidad Shutt

Hawaii Analytical Laboratory

3615 Harding Avenue, Suite 308, Honolulu, Hawaii, 96816

Tel: (808) 735-0422 – Fax: (808) 735-0047

December 7, 2023

Kama Kobayashi
Lehua Environmental
PO Box 1018
Kamuela Hawaii

Project Name:	YWCA
Date collected:	11/22/2023
Date received:	11/27/2023
HAL #:	202312437
MIS requested:	NO (Already performed by Hawaii Lab)

Dear Mr. Kobayashi,

Enclosed are the analytical results for the samples received by our laboratory on November 27, 2023. All samples on the chain of custody were received in good condition unless otherwise noted.

The fourteen (14) soil samples were subcontracted for bio-accessible arsenic analysis to Advanced Analytical Laboratory / Accu Laboratory in Seattle, WA. Its report is enclosed in its entirety. The MIS prep. has already been performed in our lab.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Quality assurance data is collected to accompany all analyses and to ensure that results generated meet Hawaii Analytical Laboratory's quality standards. This data is available upon request.

Please contact us at 808-735-0422 if you have questions.

Thank you for using Hawaii Analytical Laboratory and have a great day!!

Anne Antin

Anne Antin
Quality Manager
Hawaii Analytical Laboratory
3615 Harding Ave. Ste. 308
Honolulu, HI 96816
Phone: (808) 735-0422
E-mail: aantin@analyzehawaii.com

ADVANCED ANALYTICAL LABORATORY INC

December 7, 2023

Hawaii Analytical Laboratory.
3615 Harding Avenue, Ste. 308
Honolulu, HI
96816

Dear Anne Antin:

Please find enclosed the analytical report for:

Project Name:	YWCA
AAL Project #:	Y957
Date Received:	12/04/2023
MIS Prep:	No

The results, applicable reporting limits, QA/QC data, invoice, and copy of COC are included.

Advanced Analytical Laboratory appreciates the opportunity to provide analytical services for this project. If you have any questions regarding this project, please don't hesitate to contact AAL.

Thank you for your business and continuing support.

Sincerely,

Uwe Baumgartner, Ph.D
Owner

Elisa M. Young
Owner

ACCU LABORATORY

12524 130th Lane NE
Kirkland WA 98034

Tel: (425) 214-5858
(425) 214-5868
Email: lisa@accu-lab.com
website: www.accu-lab.com

Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
Client Project#	**202312437**		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID			**DU-1 202386470**	**DU-2 202386471**	**DU-3A 202386472**	**DU-3B 202386473**	**DU-3C 202386474**	**DU-4 202386475**
Lab ID	**MRL**	**Unit**	23-AL1204-1-1	23-AL1204-1-2	23-AL1204-1-3	23-AL1204-1-4	23-AL1204-1-5	23-AL1204-1-6
Matrix			Soil	Soil	Soil	Soil	Soil	Soil
Date Extracted			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Bioaccessible Arsenic (As)	0.10	mg/kg	6.0	3.3	2.9	2.3	2.5	1.5

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Any use, copying or disclosure other than by the intended recipient is unauthorized.

ACCU LABORATORY

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Kirkland WA 98034

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(425) 214-5868
Email: lisa@accu-lab.com
website: www.accu-lab.com

Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
Client Project#	**202312437**		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID			**DU-6 202386477**	**DU-7A 202386478**	**DU-7B 202386479**	**DU-7C 202386480**	**DU-8 202386481**	**DU-9 202386482**
Lab ID	**MRL**	**Unit**	23-AL1204-1-7	23-AL1204-1-8	23-AL1204-1-9	23-AL1204-1-10	23-AL1204-1-11	23-AL1204-1-12
Matrix			Soil	Soil	Soil	Soil	Soil	Soil
Date Extracted			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Bioaccessible Arsenic (As)	0.10	mg/kg	2.6	1.6	2.5	1.6	2.1	4.5

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Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
Client Project#	**202312437**		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID			**DU-11 202386484**	**DU-12 202386485**
Lab ID	**MRL**	**Unit**	23-AL1204-1-13	23-AL1204-1-14
Matrix			Soil	Soil
Date Extracted			12/4/2023	12/4/2023
Date Analyzed			12/4/2023	12/4/2023
Bioaccessible Arsenic (As)	0.10	mg/kg	1.6	1.6

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Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
	202312437		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID		**DU-1**	**DU-2**	**DU-3A**	**DU-3B**	**DU-3C**	**DU-4**
		202386470	**202386471**	**202386472**	**202386473**	**202386474**	**202386475**
Lab ID	**Unit**	23-AL1204-1-1	23-AL1204-1-2	23-AL1204-1-3	23-AL1204-1-4	23-AL1204-1-5	23-AL1204-1-6
Matrix		Soil	Soil	Soil	Soil	Soil	Soil
Date Extracted		12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed		12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Arsenic (As) Bioaccessibility	%	3.8%	3.6%	4.8%	4.1%	6.6%	4%

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Kirkland WA 98034

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Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
	202312437		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID		**DU-6**	**DU-7A**	**DU-7B**	**DU-7C**	**DU-8**	**DU-9**
		202386477	**202386478**	**202386479**	**202386480**	**202386481**	**202386482**
Lab ID	**Unit**	23-AL1204-1-7	23-AL1204-1-8	23-AL1204-1-9	23-AL1204-1-10	23-AL1204-1-11	23-AL1204-1-12
Matrix		Soil	Soil	Soil	Soil	Soil	Soil
Date Extracted		12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed		12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Arsenic (As) Bioaccessibility	%	6.0%	3.6%	6.6%	4.7%	6.4%	9.8%

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Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
	202312437		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID		**DU-11 202386484**	**DU-12 202386485**
Lab ID	**Unit**	23-AL1204-1-13	23-AL1204-1-14
Matrix		Soil	Soil
Date Extracted		12/4/2023	12/4/2023
Date Analyzed		12/4/2023	12/4/2023
Arsenic (As) Bioaccessibility	%	6.4%	4.7%

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Kirkland WA 98034

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Email: lisa@accu-lab.com
website: www.accu-lab.com

Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
	202312437		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID					**DU-1 202386470**	**DU-2 202386471**	**DU-3A 202386472**	**DU-3B 202386473**	**DU-3C 202386474**
Lab ID	**MRL**	**Unit**	**MTH BLK**	**LCS**	23-AL1204-1-1	23-AL1204-1-2	23-AL1204-1-3	23-AL1204-1-4	23-AL1204-1-5
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Digested			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Bioaccessible Arsenic (As)	0.0020	mg/l	nd	107%	0.060	0.033	0.029	0.023	0.030

Acceptable Recovery Limits:

LCS	*85-115%*
MS/MSD	*75-125%*
Acceptable RPD limit:	*20%*

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ACCU LABORATORY

12524 130th Lane NE
Kirkland WA 98034

Tel: (425) 214-5858
(425) 214-5868
Email: lisa@accu-lab.com
website: www.accu-lab.com

Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
	202312437		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID			**DU-4 202386475**	**DU-6 202386477**	**DU-7A 202386478**	**DU-7B 202386479**	**DU-7C 202386480**	**DU-8 202386481**
Lab ID	**MRL**	**Unit**	23-AL1204-1-6	23-AL1204-1-7	23-AL1204-1-8	23-AL1204-1-9	23-AL1204-1-10	23-AL1204-1-11
Matrix			Soil	Soil	Soil	Soil	Soil	Soil
Date Digested			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Bioaccessible Arsenic (As)	0.0020	mg/l	0.015	0.026	0.016	0.025	0.024	0.021

Acceptable Recovery Limits:

LCS	*85-115%*
MS/MSD	*75-125%*
Acceptable RPD limit:	*20%*

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Analytical Report

Client	**Advanced Analytical Laboratory**	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
	202312437		
Project#	**Y957**		

Bioaccessible Arsenic in Soil (<0.25mm Fraction) by EPA1340

Accu Lab Batch# AL120423-10

Client sample ID			**DU-9 202386482**	**DU-11 202386484**	**DU-12 202386485**	**MS**	**MSD**	**RPD**
Lab ID	**MRL**	**Unit**	23-AL1204-1-12	23-AL1204-1-13	23-AL1204-1-14	23-AL1130-4-1	23-AL1130-4-1	23-AL1130-4-1
Matrix			Soil	Soil	Soil	Soil	Soil	Soil
Date Digested			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Date Analyzed			12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023	12/4/2023
Bioaccessible Arsenic (As)	0.0020	mg/l	0.045	0.016	0.016	123%	115%	6%

Acceptable Recovery Limits:

LCS	*85-115%*
MS/MSD	*75-125%*
Acceptable RPD limit:	*20%*

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Analytical Report

Client	Advanced Analytical Laboratory	**Acculab WO#**	**23-AL1204-1**
	544 Ohohia Street #10		
	Honolulu, HI, 96819	Date Sampled	11/17/2023
Project Manager	Uwe Baumgartner/ Elisa Young	Date Received	12/4/2023
Project Name	**YWCA**	Date Reported	12/7/2023
Client Project#	**202312437**		
Project#	**Y957**		

Data Qualifiers and Comments:

Results reported on dry-weight basis for soil samples.

MRL- Method Reporting Limit
nd- Indicates the analyte is not detected at the listing reporting limit.
C- Coelution with other compounds.
M- % Recovery of surrogate, MS/MSD is out of the acceptable limit due to matrix effect.
B- Indicates the analyte is detected in the method blank associated with the sample.
J- The analyte is detected at below the reporting limit.
E- The result reported exceeds the calibration range, and is an estimate.
D- Sample required dilution due to matrix. Method Reporting Limits were elevated due to dilutions.
H- Sample was received or analyzed past holding time
Q- Sample was received with head space, improper preserved or above recommended temperature.
I- Due to insufficient sample, LCS/LCS DUP were analyzed in place of MS/MSD.
R- The recovery of this analyte in QC sample failed high, but the analyte was not detected in all related samples. No action was taken.
R-1- The RPD value for the MS/MSD was outside of QC acceptance limits however both recoveries were acceptable. All related samples were "nd". No action was taken.
R-2- The recovery of the surogate in sample failed high, but all related analytes were not detected in the sample. No action was taken.

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ACCULAB WO# 23-AL1204-1

ADVANCED ANALYTICAL LABORATORY-CHAIN OF CUSTODY RECORD

Phone: (808) 836 2252 Fax:(808) 836 2250 Address: 3210 Koapaka Street#A Honolulu, HI 96819

RNAROUND TIME: 3 Day TAT AAL PROJECT#: Y957

Client:	Hawaii Analytical Laboratory	Project name:	YWCA
Address:	3615 Harding Ave, Suite 308 - Honolulu HI, 96816		
Phone / Email:	808-735-0422 / jhsu@analyzehawaii.com	Collector:	Nicole Garaganza-Tengan with Lehua
	& aantin@analyzehawaii.com	Date of collection:	11/17/23
Client Project #:	202312437	Project manager:	Anne Antin

Sample Number	Sample Type	Container Type	ANALYSES: Bio Accessible Arsenic	Field Notes	Number of containers	Number containers received received
DU-1 (202386470) Tot As 160 mg/kg	Soil	1 ziploc	X		1	
DU-2 (202386471) Tot As 91 mg/kg	Soil	1 ziploc	X		1	
DU-3A (202386472) Tot As 61 mg/kg	Soil	1 ziploc	X		1	
DU-3B (202386473) Tot As 56 mg/kg	Soil	1 ziploc	X		1	
DU-3C (202386474) Tot As 63 mg/kg	Soil	1 ziploc	X		1	
DU-4 (202386475) Tot As 39 mg/kg	Soil	1 ziploc	X		1	
DU-6 (202386477) Tot As 43 mg/kg	Soil	1 ziploc	X		1	
DU-7A (202386478) Tot As 44 mg/kg	Soil	1 ziploc	X		1	
DU-7B (202386479) Tot As 37 mg/kg	Soil	1 ziploc	X		1	
DU-7C (202386480) Tot As 40 mg/kg	Soil	1 ziploc	X		1	
DU-8 (202386481) Tot As 33 mg/kg	Soil	1 ziploc	X		1	
DU-9 (202386482) Tot As 46 mg/kg	Soil	1 ziploc	X		1	
DU-11 (202386484) Tot As 25 mg/kg	Soil	1 ziploc	X		1	
DU-12 (202386485) Tot As 34 mg/kg	Soil	1 ziploc	X		1	

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Anne Antin	12/1/2023		12/4/2023
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SEALS INTACT

RECEIVED IN GOOD CONDITION

TEMPERATURE

Page 1 of 1

LABORATORY NOTES:

Big Island soil samples.
MIS was already performed.
Please provide QAQC data.

HAWAII ANALYTICAL LABORATORY, LLC

3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:

- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:

Site/Project Name: YWCA ☐

Sampled By & Certif. # : Nicole Garaganza-Tengan

Special Instructions: 11.1°C upon receiving 11/27/23 10:47 TS

5 day TAT: MI Lab Prep- Non Volitile, Total RCRA 8,Organochlorine Pestisides
1 Day TAT: Total Arsenic 3 Day TAT: Bioaccessible arsenic

PLM POSITIVE STOP? ☐ + stop / SAMPLE ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.: 202312437

	Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
1		DU-1	11/22/2023	Soil		* See Special Instructions		202386470
2		DU-2	11/22/2023	Soil		* See Special Instructions		202386471
3		DU-3A	11/17/2023	Soil		* See Special Instructions		202386472
4		DU-3B	11/17/2023	Soil		* See Special Instructions		202386473
5		DU-3C	11/17/2023	Soil		* See Special Instructions		202386474
6		DU-4	11/17/2023	Soil		* See Special Instructions		202386475
7		DU-5	11/22/2023	Soil		* See Special Instructions		202386476
8		DU-6	11/22/2023	Soil		* See Special Instructions		202386477
9		DU-7A	11/17/2023	Soil		* See Special Instructions		202386478
10		DU-7B	11/17/2023	Soil		* See Special Instructions		202386479
11		DU-7C	11/17/2023	Soil		* See Special Instructions		202386480
12		DU-8	11/17/2023	Soil		* See Special Instructions		202386481
13		DU-9	11/22/2023	Soil		* See Special Instructions		202386482
14		DU-10	11/22/2023	Soil		* See Special Instructions		202386483
15		DU-11	11/17/2023	Soil		* See Special Instructions		202386484

HAWAII ANALYTICAL LABORATORY, LLC

3615 Harding Avenue, Suite 308
Honolulu, HI 96816
Ph: 808-735-0422 - Fax: 808-735-0047
https://analyzehawaii.com

☐ New Client?

12437

Report To*	Kama Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	808-494-0365
Report results to	K. Kobayashi
via email or fax	nicoleg@lehuaenv.com
	lehuaenvironmental@gmail.com

Invoice To*	Kamalana Kobayashi
Company	Lehua Environmental Inc.
Address*	PO BOX 1018
	Kamuela, Hawaii 96743
Phone / Cell No.*	
Purchase Order No.	
Email Invoice To	lehuaenvironmental@gmail.com

Need Results By*:

- ☑ 5 Working Days (WD)
- ☐ 4 WD
- ☐ 3 WD
- ☐ 2 WD
- ☐ 24 hours
- ☐ 6 hours or less
- ☐ 4 hours or less
- ☐ 1-2 hours

Client Project No.:	Site/Project Name:	Sampled By & Certif. # :
	YWCA ☐	Nicole Garaganza-Tengan

Special Instructions:
5 day TAT: MI Lab Prep- Non Volitile, Total RCRA 8,Organochlorine Pestisides
1 Day TAT: Total Arsenic 3 Day TAT: Bioaccessible arsenic

PLM POSITIVE STOP? ☐ + stop / SAMPLE ☐ + stop / LAYER

Verbal results? ☐

Lab Report No.:

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	***Lab Sample(s) No.:***
16	DU-12	11/17/2023	Soil		* See Special Instructions		202386485

Relinquished By (Print and Sign)	Date/Time	Received By (Print and Sign)	Date/Time
Nicole Garaganza-Tengan	11/22/23 1330	Trinidad Shutt	11-27-23A10:45 RCVD
		Trinidad Shutt	

*Sample description can be paint chips, concrete, specific sample collection location, etc...
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.
*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☑ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-32862843

Page: _____ of _____

RECEIPT& ACKNOWLEDGEMENT FORM

12437

Hawaii Analytical Laboratory
3615 Harding Avenue, Suite 308, Honolulu, Hawaii, 96816

RECEIPT & ACKNOWLEDGEMENT FORM

Our Receiving Records show the following information about your sample(s).

Basic project information can be found on the COC for job number :

TAT: 5 days - MLS prep, OCP / 1 day total AC

Due Date: 11/28 , 12/4

Client: Lenora

Project name: YMCA

Applies only to valid conditions *(Answer: Yes - No - NA)*

Cooler Temp °C 11.1°C Tracking Number: 173- 32862803

Containers Intact: Y Preservation Confirmed: Y COC Present: Y

COC / Labels Agree: Y Received On Ice: Y COC Signed when relqd / recd: Y

Samples intact / proper cont: Y

1	**Samples were received via?**	*USPS*	*FedEx*	*UPS*	*DHL*	*Other*	HAC
2	**Samples were received in? (circle)**		*Cooler*	*Box*	*Envelope*	*Other*	
3	**Packing material used:**	*Bubble Wrap*	*Gel Packs*		*Paper*	*Other*	

4	Were custody papers properly filled out (ink, signed, etc)?	Y	N	N/A
5	Did samples / bottles arrive in good condition (unbroken)?	Y	N	N/A
6	Were all sample labels complete?	Y	N	N/A
7	Did all sample labels and tags agree with custody papers?	Y	N	N/A
8	Were appropriate bottles / containers and volumes received for the tests indicated?	Y	N	N/A
9	Were the pH-preserved bottles received at the appropriate pH?	Y	N	N/A
10	Were VOA vials received without headspace?	Y	N	N/A

Note, Discrepancies, and Resolutions:

Trinidad Shutt

Form Completed By: Trinidad Shutt

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX C !
CONSTRUCTION ENVIRONMENTAL HAZARD MITIGATION PLAN REPORT !

January 11, 2024

TO: DOH HEER Office

RE: Submittal of the Project-Specific Construction EHMP (C-EHMP) for the Proposed Hilo YWCA Renovations
145 Ululani Street
Hilo, Hawaii 96720
TMK: (3) 2-3-013: 002

Submitted by:

Lehua Environmental Inc.
P.O. Box 1018
Kamuela, Hawaii 96743

Table 1: Pre-Construction Evaluation of Environmental Issues at Your Site &

Yes	No	
X		Are concentrations of COPCs above the lowest unrestricted Tier 1 EAL[1]?[2]
	X	Has the release been reported to the HDOH HEER Office?[2]
X		Are concentrations of COPCs above the construction worker EAL?
	X	Has the extent of contamination been fully delineated (both vertically and laterally)?
	X	Have sufficient soil vapor samples been collected in areas where a future building will be present?
	X	Is there an ongoing release at the site that must be mitigated prior to construction?
	X	Does contaminated media need to be removed or remediated prior to construction?
	X	Are COPC concentrations and contaminated media unknown but presumed or suspected to be present at the site at potentially hazardous levels based on historic site activities or other evidence?[1]
X		Will demolition of structures be conducted at the site prior to redevelopment?
X		If demolition will occur, has asbestos and lead-paint abatement been completed prior to demolition in accordance with all State and Federal regulations?

EAL= Environmental Action Level
COPC=Chemical of Potential Concern
[1]If no contaminants are present or suspected to be present at the site at concentrations greater than the lowest unrestricted Tier 1 EAL then a C-EHMP is not required. The lowest Tier 1 EAL is defined as the EAL for unrestricted land use where groundwater is a potential drinking water resource and the nearest surface water body is less than 150 meters away.
[2]All releases must be reported to the HEER Office Emergency Preparedness and Response Section (EP&R) by calling (808) 586-4249 and following up with a written Release Notification

Any residual excavated contaminated soil will be disposed prior to the completion of construction. A Site-Specific Environmental Hazard Evaluation (EHE) / Environmental Hazard Management Plan (EHMP) will still be required to manage the contamination in the long-term since the extent of soil contamination has not been fully delineated. EHEs and EHMPs must be submitted to the HDOH for review and approval following the completion of construction activities detailed in this C-EHMP.

Project-Specific Construction EHMP (C-EHMP)

For

The Proposed Hilo YWCA Renovations
145 Ululani Street
Hilo, Hawaii 96720
TMK: (3) 2-3-013: 002

Prepared by: Lehua Environmental Inc.
PO Box 1018
Kamuela, HI 96743

Prepared for: Hilo YWCA
145 Ululani Street
Hilo, Hawaii 96720

Document Date: January 11, 2024

Signatures

This document is not finalized until it is signed. A signed copy will be present on-site at all times.

I certify that as property owner, I am responsible for ensuring all parties who work or reside at my site are aware of the contamination at my property, and the associated hazards, and that the information in this document is true and accurate to the best of my knowledge. I am responsible for ensuring compliance with all land use controls as well as advance notifications to the Hawaii Department of Health (HDOH) of anticipated land use changes or groundbreaking activity at my property.

Property Owner or Representative of Property Owner

I certify that I am a qualified environmental professional, capable of ensuring compliance with the requirements of this Construction Environmental Hazard Management Plan (C-EHMP), as well as applicable sections of the HDOH Technical Guidance Manual for the Implementation of the State Contingency Plan (TGM). It is my duty on this project to understand the requirements of this document and be on site during ground-breaking activities. I will communicate hazards, management protocols, and other C-EHMP requirements to construction professionals at the site. I will document such activities, and communicate with HDOH, as needed.

Kamalana Kobayashi

Qualified Environmental Professional

As Construction Manager, I am responsible for understanding the requirements of this C-EHMP, effectively communicating the requirements and hazards to my crews and subcontractors and providing the required training and personal protective equipment to site workers. I will work with the Qualified Environmental Professional to ensure compliance with this C-EHMP during work at this property.

Construction Manager

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Attachment 2: Sampling and Analysis Plan-See Section 7.2 of this C-EHMP
Attachment 3: Erosion and Sediment Control Plan- See Section 7.0 of this C-EHMP
Attachment 4: Construction Plans

Acronyms

BMP	Best management practices
C-EHMP	Construction Environmental Hazard Management Plan
COPC	Chemicals of potential concern
COC	Chemicals of concern
cy	Cubic yard
EAL	Environmental Action Level
EHE	Environmental Hazard Evaluation
EHMP	Environmental Hazard Management Plan
ESA	Environmental Site Assessment
HAR	Hawaii Administrative Rules
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response Standard
HDOH	Hawaii Department of Health
HEER	Hazard Evaluation and Emergency Response
HIOSH	Hawaii Department of Labor and Industrial Relations, Occupational Safety and Health
HRS	Hawaii Revised Statutes
LEI	Lehua Environmental Inc.
LEL	Lower explosive limit
LEPC	Local Emergency Planning Committee
MI	Multi-increment
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
PEL	Permissible exposure limit
PID	Photoionization detector
PPE	Personal protective equipment
PQL	Practical Quantitation Limit
QEP	Qualified environmental professional
SAP	Sampling and Analysis Plan
SHWB	Solid and Hazardous Waste Branch
TGM	Technical Guidance Document
TPH	Total petroleum hydrocarbons
TPH-D	Total petroleum hydrocarbons in the diesel range
TPH-R	Total petroleum hydrocarbons in the residual range
USCG	United States Coast Guard
VOC	Volatile organic compound

1.0 Introduction

This Project-Specific Construction Environmental Hazard Management Plan (C-EHMP) provides guidance to environmental consultants, owners, operator, tenants, and construction/utility workers, who are proposing construction-related and ground-disturbing activities that change building configuration and property use at sites with known or presumed contamination (renovation/redevelopment). Examples of such activities include, but are not limited to demolition, grading, excavation, trenching, or drilling at sites with identified or potential contamination. These guidelines should be used by all who may be hired to assist any of the activities described above to keep workers, site users, the environment, and the general public safe from contact with contamination on site and prevent COPCs from leaving the site without proper management. Not adhering to this plan may have serious consequences including, but not limited to stopping construction and being liable for any damage or harm caused by onsite contamination.

Additional Details Regarding the Usability of the C-EHMP

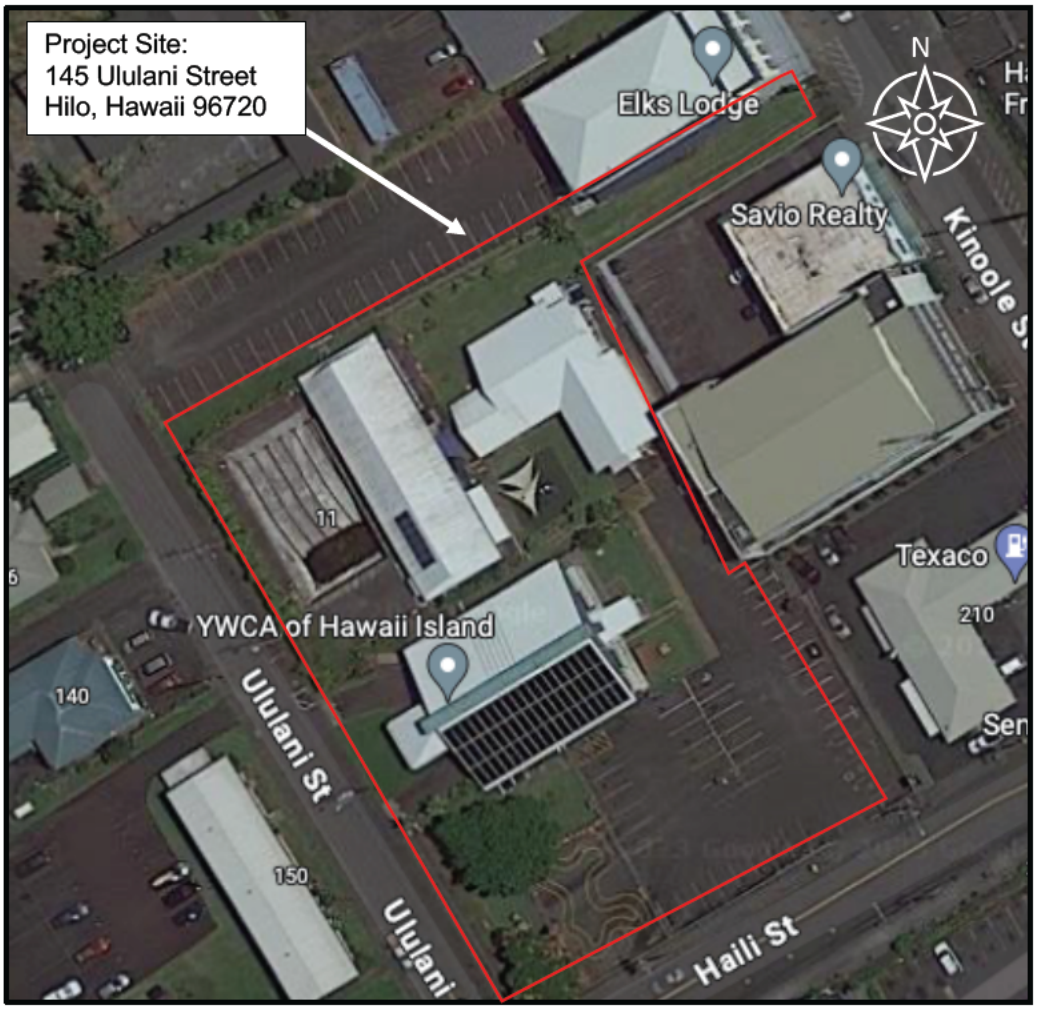
These guidelines are specific to the demolition and/or construction phase(s) of the specific project described in Section 6.0 below only and do not address the ongoing operations subsequent to construction. Future projects at the site will require a separate C-EHMP if contaminated media will be impacted. Once 100% of the design is complete, this plan will be updated with the actual construction methodology.

Since contaminated media will be left on-site following the completion of construction, an Environmental Hazard Evaluation (EHE) must be conducted and a separate Environmental Hazard Management Plan (EHMP) will have to be prepared to manage the contamination in the long-term. EHEs and EHMPs must be submitted to the HDOH for review and approval following the completion of construction activities detailed in this C-EHMP.

2.0 Background

The C-EHMP applies to the property shown in **Figure 1**.

Figure 1: Site Location Map



The property is also identified by the following.

Address	145 Ululani Street Hilo, Hawaii 96720
TMK #	(3) 2-3-013: 002
Latitude/Longitude	19°43'25.58"N 155° 5'20.34"W

Site Conditions

Distance to Nearest Surface Water Body	**Wailuku River is located 0.18 miles northeast of the project site, which drains into Hilo Bay.**
Approximate Depth to Groundwater	**Approximately 50 feet bgs**
Is the Property Above or Below UIC Line	**Above**
Is the first-encountered groundwater classified as a potential source of drinking water in the Mink & Lau Aquifer Identification and Classification Report?	**Yes**
Current Property Use Type (Residential, Commercial, Zoning, etc.)	**YWCA and Preschool. Child-occupied facility**
Proposed/Future Property Use Type (Residential, Commercial, Mixed Use Zoning, etc.)	**Preschool and residential complex/community center**
Typical Soil Profile from Surface to Groundwater (Include Depth Range, Lithology)	**Hilo Hydrous silty clam loam, 0 to 10 percent slopes; Well drained soil with medium runoff potential.**
Utilities Serving Site (e.g., Storm Drains, Electrical, Gas, Water, Sewer [Cesspool, Septic, Other])	**HELCO Electric, County of Hawaii Department of Water Supply-potable water, County of Hawaii Wastewater Division-wastewater.**

2.1. Existing Environmental Conditions

The project site is located in downtown Hilo and includes the YWCA complex (project site). Building demolition and renovations that will disturb soil the project site is planned as part of construction activities (Figure 1). Therefore, A soil investigation was completed by Lehua Environmental Inc. (LEI) in December 2023 at the project site in order to characterize soil conditions in the areas planned for soil disturbance during construction.

The investigation included collection surface (0-6 inches bgs) and subsurface (6-12 inches bgs) multi-increment (MI) soil samples, with two triplicate samples for quality control, from 12 decision units within the footprint of

ground disturbance for the planned construction work at the project site. Soil samples were screened for the 8 RCRA metals (total), and for total organochlorine pesticides. Laboratory analytical results from the soil investigation indicated that lead was detected above the Unrestricted DOH EAL, and the Commercial/Industrial DOH EAL. Bioaccessible arsenic was also detected below the Unrestricted DOH EAL, and is therefore not considered a hazard in soil at the project site.

Based on the data collected, lead in soil was selected as the COPC based on the data obtained at the project site, and current and future planned land use (Preschool/residential). Therefore lead is the chemical of concern COC for this C-EHMP.

2.2. Chemicals of Potential Concern

The following chemical of potential concern (COPC) has been detected above DOH EALs and may pose a hazard.

Media: Soil

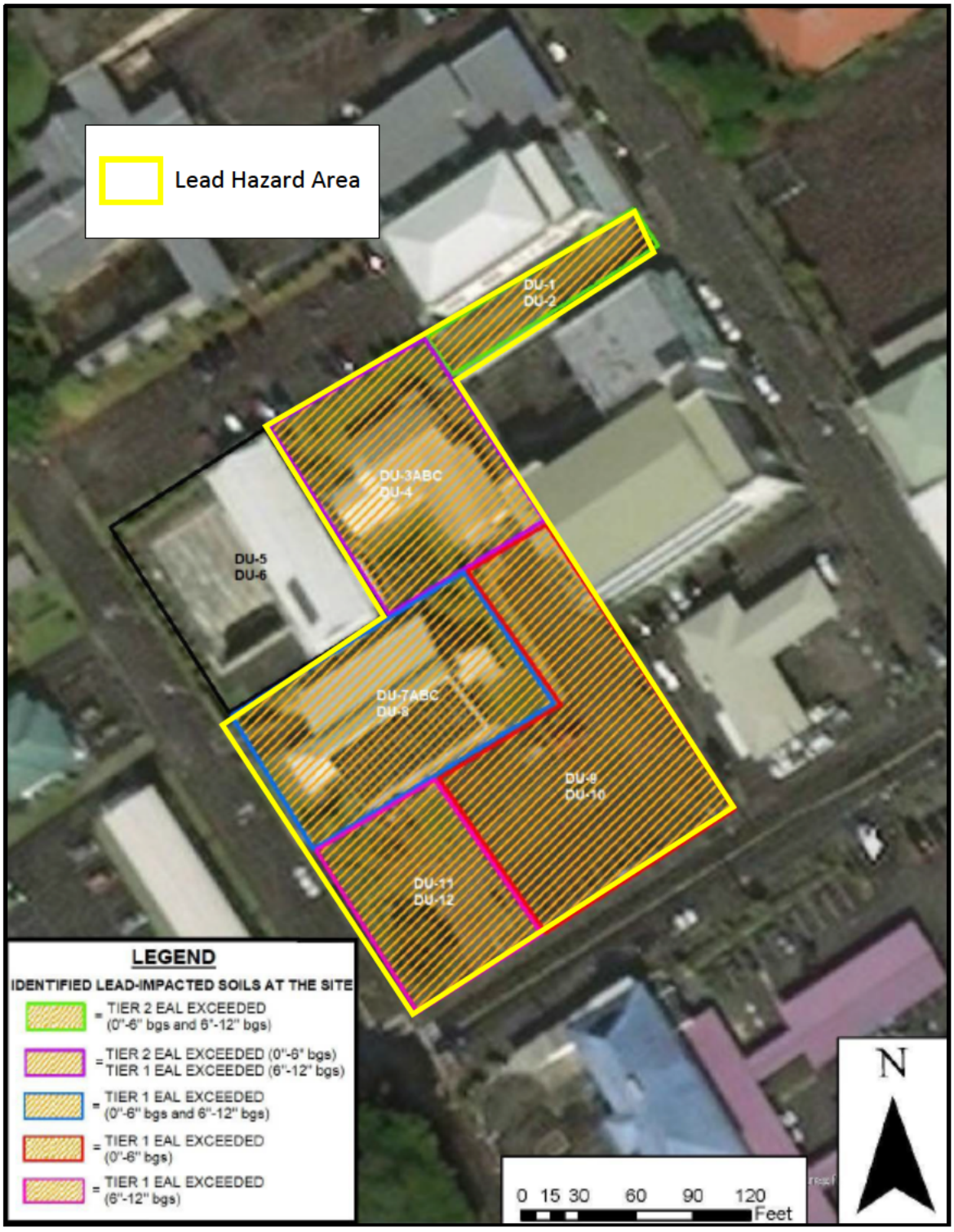
COPC	Concentration Range	EAL*
Total Lead	ND-2,100 mg/kg	200

* Unrestricted EALs; < 150 meters (m) from surface water; above drinking water
COPC=Chemicals of Potential Concern
ND = not detected at or above the laboratory method reporting limit

The area of suspected contamination are shown in **Figure 2**. The area with known soil concentrations exceeding the EALs for total lead within the area of planned disturbance are depicted in **Figure 3**.

Figure 2: Suspected Hazard Map

Figure 3: Hazard Map



2.2.1 Chemicals of Potential Concern and Construction Materials

Question	Yes	No
Are storm drains (including interceptors) or will storm drains be present at the site?	X	
Will any portion of a storm drain (including interceptors) be present at an elevation that is potentially in contaminated groundwater?		X
Will any portion of a utility corridor be present at an elevation that is potentially in contaminated groundwater?		X
Will a portion of any other utility or subsurface structure (other than foundations) extend potentially into contaminated groundwater?		X
Are any potentially flammable or explosive COPC present at the site (e.g., methane, total petroleum hydrocarbons as gasoline, etc.)?		X
Will any electrical lines/utility corridors be subsurface?	X	
Are any COPC in vapors present at or above 10 % of the LEL?		X
Will any elevator shafts or escalator pits, potentially extend into contaminated groundwater?		X

Construction Materials Assessment

Construction Material in Contact with Contaminated Media	COPC, Concentration and Media	Proposed Material to be used	Material Safe with COPC	
			Yes	No
Basecourse	Lead- 2,100 mg/kg (soil)	Imported Certified Clean Basecourse	X	
Utility Piping	Lead- 2,100 mg/kg (soil)	PVC, Metal	X	

COPC=Chemical of Potential Concern

3.0 Summary of Potential Environmental Hazards

Potential environmental hazards posed by the identified lead-containing soil include the following potential exposure pathways:

Direct exposure to impacted soil by construction workers at the project site is the main potential environmental hazard pathway for human receptors through means of unintentional ingestion of solid and/or airborne soil particles during construction.

Impacts to terrestrial habitats are potential environmental hazards posed by contaminated soil at the Site. The planned BMPs, including filter socks and dust fences, and covering soil stockpiles with poly sheeting would minimize/eliminate runoff/erosion of impacted soil to the affected environment.

Environmental Hazard Table

COPC	Media			Hazard					Potential Receptors			
	Soil	Water	Vapor	Direct Exposure	Leaching	Gross Contamination	Ecotoxicity	Vapor Intrusion	Construction Workers	Site Visitors	Site Workers	Future Site Users
Lead	X			X	X	X	X		X		X	X

COPC=Chemical of Potential Concern

Below is a simplified chart detailing short and long-term exposure hazards to lead:

Chronic and Acute Direct Exposure Hazards

COPC	Direct Exposure Hazard				Acute Exposure	Chronic Exposure
	Ingestion	Inhalation	Absorption	Injection		
Lead	X	X			pain, muscle weakness, numbness and tingling, and, rarely, symptoms associated with inflammation of the brain. Abdominal pain, nausea, vomiting, diarrhea, and constipation.	• Abdominal pain • Constipated • Depressed • Distracted • Forgetful • Irritable • Nauseous/Sick People with prolonged exposure to lead may also be at risk for high blood pressure, heart disease, kidney disease, and reduced fertility.

COPC=Chemical of Potential Concern

References:

NIOSH Pocket Guide to Chemical Hazards, 2007
DOH TGM EHE Guidance, 2021

EPA Ecotox Database

Hazard Maps

A detailed Hazard Map is included as **Figure 3** of this C-EHMP. Hazard Maps delineate the location of known or presumed contamination at the site within the area of disturbance and what type of hazard the contamination represents. Not all contamination is a Direct Exposure Hazard to Construction Workers and other Site Users, however, all contaminated media must be properly handled and disposed of in accordance with the guidance in this C-EHMP. Mishandling of contaminated media could result in spreading the contamination to uncontaminated areas of the site or to uncontaminated off-site locations, which could result in fines and other penalties.

4.0 Notification Requirements

The effective environmental management of any project requires a coordinated effort from all individuals involved. The following sections outline the need to identify the responsibilities of key personnel involved in project construction.

4.1. Key Project Personnel

The project manager is expected to maintain a list of project contacts throughout the construction phase of the project.

The key project personnel are as follows. An updated key project personnel list needs to be maintained throughout the project and submitted to HDOH in writing whenever a change in key project personnel occurs.

Role	Affiliation	Name	Phone #	e-mail
Construction Project Manager	TBD	TBD	TBD	TBD
Construction Foreman	TBD	TBD	TBD	TBD
Onsite Qualified Environmental Professional	Lehua Environmental	TBD	TBD	TBD
Qualified Environmental Professional (Project Manager)	Lehua Environmental	Kama Kobayashi	808-494-0365	lehuaenvironmental@gmail.com
Owner	YWCA of Hawaii Island	Kathleen McGilvray	808-930-5760	kmcgilvray@ywcahawaiiisland.org

Role	Affiliation	Name	Phone #	e-mail
County Building Permit contact	County of Hawaii, Dept. of Public Works, Building Division	Kelly Wilson	808-961-8472	Kelly.Wilson@hawaiicounty.gov
HDOH HEER Office Project Manager	TBD	TBD	TBD	TBD
Landfill Disposal Contact	TBD	TBD	TBD	TBD
Waste Transporter Contact	TBD	TBD	TBD	TBD

TBD = to be determined

In addition, if site conditions or planned building configurations change following submittal and acceptance of this C-EHMP by the HDOH HEER Office, then the following agencies must be notified at least 90 days prior to conducting ground disturbing activities or as soon as the change has been identified. Please note that if HDOH is notified of a change in site conditions or planned building configuration less than 90 days prior to ground disturbing activities, there could be delays in construction if additional assessment work needs to be conducted. The initial notification of construction activities and any changes can be submitted through the HDOH e-permitting portal using the website link below.

Agency	Phone	Link/Website
HDOH HEER Office	808-586-4249	https://eha-cloud.doh.hawaii.gov/epermit/app/#/formversion/ed9ca916-7863-459b-b5dd-e66f881381d5

5.0 Requirements for Onsite Environmental Oversight

On-site monitoring is a key component of ensuring that the procedures documented in this C-EHMP are implemented properly and function as intended (e.g. appropriate installation and location of erosion and sediment control measures, cleanliness of equipment, suitability of secondary containment for fuel storage, screening of potential contaminated material, and stockpile segregation, etc.). A qualified environmental professional (QEP) will be retained as the environmental monitor to provide guidance on implementing the recommended measures and to develop additional mitigation measures if the need arises. The onsite QEP will have at least 5 years of experience providing environmental oversight for construction projects and must have completed HAZWOPER 40-hour training with current 8-hour refresher.

Monitoring events will be conducted at an appropriate frequency based on specific work tasks/procedures and the potential for adverse impacts to occur. An appropriate schedule (frequency and duration of site visits) will be established between the QEP and all

involved regulatory agencies regarding when the QEP is onsite. In general, the QEP will be familiar with the day-to-day conduct of project activities and be on-site during activities with the potential to impact human health or the environment, when contaminated media will be disturbed, when mitigation measures are implemented, or as determined in discussion with the regulatory agencies. Monitoring should be conducted with greater frequency during periods of inclement weather (e.g., heavy precipitation, strong winds) and during critical components/tasks of the project. The QEP will be onsite whenever potentially contaminated soil may be disturbed and when hazardous vapors may be present. If demolition activities include abatement of lead-based paint or asbestos, abatement activities must be completed in accordance with all State and Federal laws and regulation prior to demolition. This is necessary to ensure the protection of construction workers, the general public, and the environment. Key monitoring stages may include, but are not necessarily limited to:

- During pre-construction geotechnical and/or environmental sampling
- During soil exposing (e.g., building, concrete/asphalt removal) and soil movement activities (e.g., demolition, grading, excavation, soil stockpiling, soil disposal etc.)
- Prior to and after heavy rain/storm events
- During installation of erosion and sediment control measures

The primary responsibility of the QEP is to ensure that the environmental and human health protection measures are implemented and are adhered to and that any movement, transport, and disposal of contaminated material (onsite and to an offsite location) is properly documented.

Typical responsibilities of the QEP include those identified below:

- Direct the segregation of contaminated soil.
- Communicate the requirements of the C-EHMP to project members during pre-job and tailgate meetings.
- Remain onsite as per the schedule established between parties prior to project start. The QEP will remain on-call during non-critical work periods to respond to emerging environmental issues.
- Review the contractor's work procedures to ensure functionality and compliance with the C-EHMP and applicable regulations, standards and best management practices (BMP).
- Provide advice in preparing for work activities in a manner that mitigates adverse environmental or health effects.
- Exercise the authority to modify and/or halt any construction activity at any time if deemed necessary for the protection of human health and the environment.
- Advise project members if project activities have caused or are likely to cause an environmental incident and make recommendations for corrective action.
- Monitor compliance with the C-EHMP and relevant permit conditions.
- Liaise directly with project members and provide technical advice for the purpose of resolving situations that may impact human health and the environment as they arise.

- Maintain complete records of activities related to the implementation of the C-EHMP. This should include any measurements taken (e.g. air monitoring, manifests, truck receipts, truck counting spreadsheets etc.), photographs and incident reports.
- Complete and submit environmental monitoring reports to the HDOH HEER and report any unanticipated adverse effects to the environment. Such reports must include the nature of the effect, its cause, mitigation and/or remediation implemented, and whether a work stoppage was ordered, as well photographs, analyses, and measurements, if applicable.
- Report unanticipated encounters with contamination at the site in accordance with HRS 128D. Reportable releases include contamination not already identified at the site, as well as tanks, drums, and/or abandoned pipelines that are not identified in advance and are encountered during excavation.

Table of Project Activities when QEP Must be Present

Activity	Planned at Site?		QEP Will Be Present?		Monitoring Equipment to be Used by QEP
	Yes	No	Yes	No	
Environmental Sampling	X		X		Soil sampling tools
Geotechnical Sampling	X			X	None
Silt Fence Installation		X		X	Visual observation
Demolition	X		X		Visual observation
Grading	X		X		Visual observation
Excavation	X		X		Visual observation
Pile Installation		X		X	
UST Removal		X		X	
Dewatering		X		X	
Utility Trenching	X		X		Visual observation
Soil Stockpiling	X		X		Visual observation
Soil Import	X		X		Visual observation
Vapor Barrier Installation		X		X	
Vapor Extraction		X		X	
Confined Space Work		X		X	
Work Below High-Water Mark		X		X	
Engineering Control Installation and Testing		X		X	
Pipeline Tapping	X		X		Visual observation
Installation of Erosion/ Sediment Controls	X		X		Visual observation
Prior to/During Rainstorm Events	X		X		Visual observation

Additional details regarding QEP monitoring schedule: The QEP will be on-site to collect soil samples from any residual soil generated that cannot be reused on-site for disposal characterization. This will occur during or after the site grading phase of construction.

6.0 Construction Activities

Construction activities planned at the Site include the demolition of the existing preschool, playgrounds, pool and pool building, as well as the renovation of the existing YWCA building, and modification of the existing parking lot. A 10-unit multi-family residential apartment building is also planned onsite as part of the proposed construction project.

The following subtasks outline the planned construction phases relevant to disturbance of soil onsite:

- soil exposure during building demolition
- soil excavation for utility trenching.
- site grading
- Installation of erosion / sediment controls
- Subsurface utility installation (wastewater connection)
- Stockpiling of excavated soil onsite
- Loading and disposal of excavated soil at landfill
- Import and compaction of clean import fill soil.

Imported clean basecourse fill will be placed and compacted onsite, as needed. **Figure 4** depicts the area of disturbance.

Planned Types of Excavations:

Excavation Type	Maximum Depth
Utility trenching	12 inches
Foundation Construction	12 inches

7.0 Soil Management Plan

The purpose of this section is to ensure that contaminated soil is properly handled and managed. If the full extent of contaminated soil is unknown (e.g., if the contamination is not delineated), then all soil at the site must be treated as potentially contaminated. The management of potentially contaminated soil will be overseen by an onsite QEP.

7.1. Soil Management

Soil disturbed at the Site will be continuously monitored and documented by a QEP with at least five years' experience in environmental oversight associated with construction projects. Where known or suspect contaminated soil is encountered during excavation, the appropriate response actions must be taken that conform with HDOH and EPA guidance, laws, and regulations. This includes proactive planning to ensure that workers

have the appropriate level of PPE and that contaminated soil is managed properly when excavated. Tasks associated with properly managing contaminated soil include the following:

- Where contaminated soil is encountered, a QEP shall provide field oversight to ensure:
    - that known or suspect contaminated soil is segregated from clean soil,
    - that known or suspected contaminated soil is properly stored and covered with plastic sheeting,
    - that the contaminated soil is managed properly during and following excavation,
    - and that health and safety guidance related to potential exposure of workers to COPCs is provided.
- Workers who may come into contact with contaminated soil must wear the appropriate level of PPE.
- Workers who may come into contact with contaminated soil must have required training (at a minimum, 40-hour HAZWOPER certification and current 8-hour annual refresher training).
- Soil trucked offsite should be drained of fluids and the load must be covered with a dust screen during transport.
- If newly encountered soil contamination is discovered at a previously unknown source or location, the HDOH HEER Office must be immediately notified of its discovery by reporting it as a new release.

Figure 4 shows that area of potential soil disturbance planned during construction activities. Soil removed from the impacted hazard area wil be segregated, covered and disposed at the landfill in compliance with county rules. All workers should don long sleeve pants and shirts, gloves, half faced respirators with P-100 filters, and goggles while disturbing impacted soil. A site-specific Health and Safety Plan (HASP) should be provided by the contractor that discusses worker safety from soil chemical hazard exposure in detail.

Figure 4: Area of Disturbance

7.1.1 Field Identification of Contaminated Soil

Since lead cannot be identified in the field through visual and olfactory observations, the contaminated soil must be managed in a manner protective of site workers, the public, and the environment. Areas of known contaminated soil are depicted in **Figure 3**. Soils in these areas must be segregated and stockpiled separately from clean soil.

During excavation of known or suspected contaminated soil, the QEP must perform the following activities:

- Monitor the location of excavation activities to ensure that soil depicted on hazard maps is properly managed as contaminated, even when there is no field evidence of contamination.
- Visually screen soils for staining, debris, soil waste, discoloration, or other evidence of contamination as the soils are removed from the excavation.
- Check for petroleum or other unusual chemical odors emanating from the soil.
- Use the field observations to segregate the soil properly.

The COPC for the site is lead, which was detected in surface and subsurface soil above the DOH EAL at the project area. Therefore, all soil disturbed in the areas shown in Figure 3 should be managed as contaminated soil.

Contaminated soil that is excavated from the ground that is presumed to be contaminated needs to be carefully managed so it is not spread to other areas on or off-site. It is anticipated that the project site will be a net import site. Please reference the project HASP for more details regarding worker health protections.

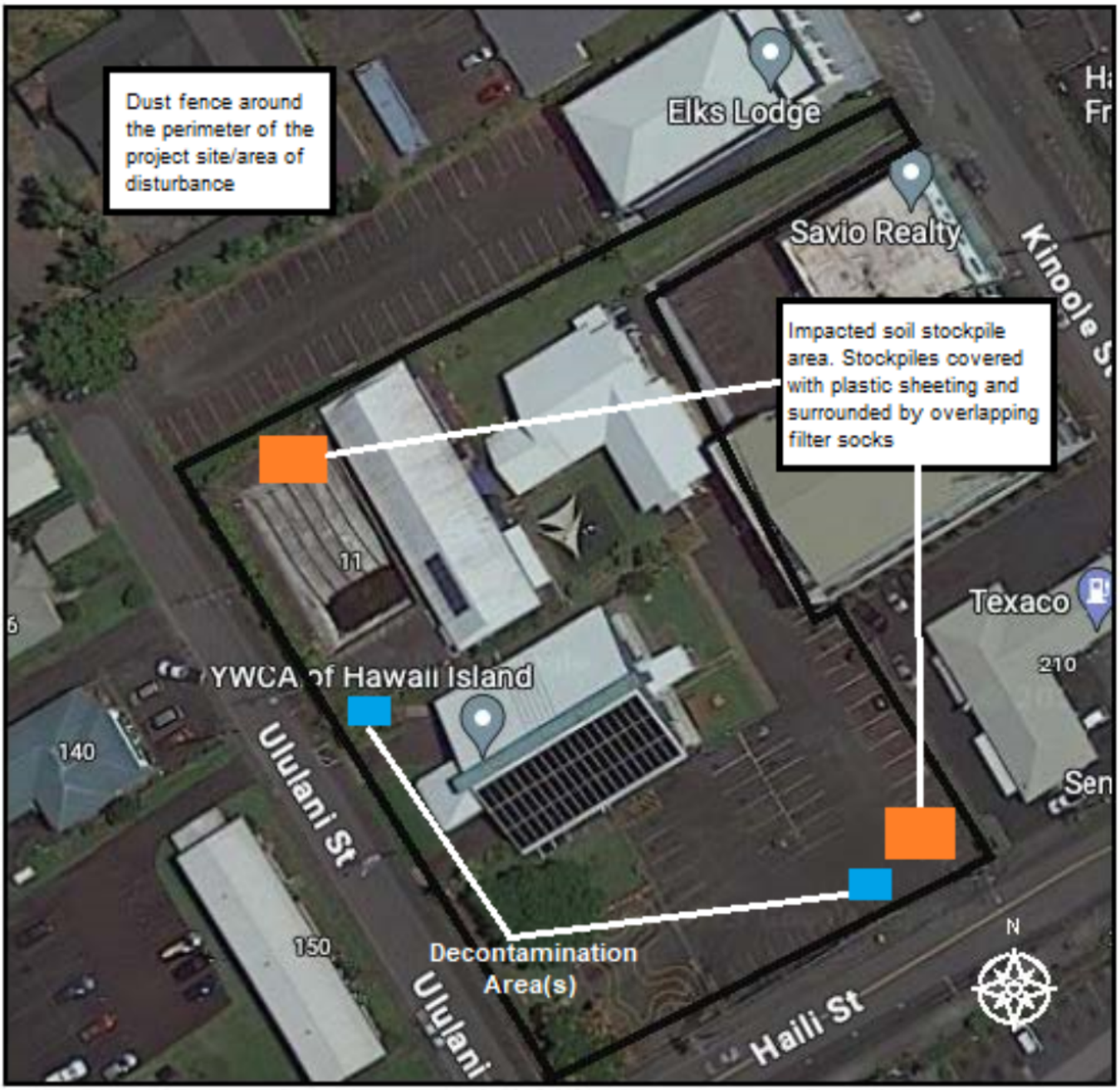
7.1.2 Dust and Erosion Control

Dust and erosion controls at the Site will be monitored and documented by a QEP with at least five years' experience in environmental oversight associated with construction projects. Prior to excavation activities, the Contractor and the QEP must evaluate and establish erosion control and dust control measures. The erosion control and dust control measures must prevent impacted soils from migrating away from the excavation area. Typically, Best Management Practices (BMPs) are employed to control erosion and prevent the spread of contamination via runoff or wind.

Dust control measures should ensure compliance with ambient air quality standards established in the Hawaii Administrative Rules (HAR) 11-59 and should comply with air pollution control requirements specified in HAR 11-60.1. During excavation and handling of impacted soil, the following dust control measures must be implemented to minimize dust generation:

- Dust fences: BMPs associated with dust and erosion control measures shall include dust fences erected around the work site. The locations of dust fences that will be constructed for this site are depicted on **Figure 5**.
- Equipment decontamination: BMPs to control the transport of contaminated soil from the project site and within the project site shall be used to limit the tracking of soil away from the excavation area. Decontamination areas should be set up adjacent to excavation areas where contaminated media will be disturbed, adjacent to stockpile areas, and where vehicles and equipment leaves the project site. Decontamination protocols are described in Section 14.0. The location of the decontamination area is depicted on **Figure 5**.
- Wetting/misting: BMPs associated with dust control measures shall include the use of water to be sprayed on the soil during excavation activities. During excavation, water shall be sprayed on the surface of the soil to prevent dust from being generated. However, the amount of water used for dust control shall be minimized as to not create run-off away from the excavation.

Figure 5: Short-Term Engineering Controls and BMPs



7.1.3 Excavation and Stockpiling

Suspect contaminated soil must be stockpiled and segregated from clean soil. The following tasks must be performed with respect to managing contaminated soil.

- Contaminated soil will be segregated from uncontaminated soil.
- Water contained within excavated soils will be allowed to drain back into the excavation prior to stockpiling the soil.
- Stockpile contaminated soil in a 20-mil plastic-lined, bermed area. The stockpiles must be covered with plastic sheeting at the end of each day and during any major wind or rain events. The plastic sheeting must be secured with enough ballast so that it will not be dislodged by strong winds.
- Underlay the edges of the plastic sheeting with filter socks, to create a filter berm around the stockpile.
- Ensure that the height of the berm will be sufficient to prevent storm water runoff or run-on from breaching it. The contaminated soil must be placed inside the bermed area on top of the plastic sheeting.
- Soil stockpiles shall be located away from storm drain inlets, surface waters, and storm water drainage pathways/channels.
- Stockpile soil that has a strong petroleum or solvent odor and/or free phase product separately from both clean and moderately impacted soil. This soil may not be reused and must be properly disposed of.
- Soil stockpiles must remain on-site and cannot be transported or stored off-site without prior authorization or characterization.

7.2. Soil Reuse and Disposal

No soil is planned for reuse offsite. If the plan changes, this C-EHMP must be revised and approved by the HDOH HEER office.

On-site Reuse of Known or Suspect Contaminated Soil

No excavated soil will be reused onsite. All excavated soil will be properly handled and disposed at the landfill and new imported clean basecourse will be used as backfill.

7.2.1 Soil Sampling for Offsite Re-Use

No soil is planned for exported re-use.

7.2.2 Stockpile Sampling for Disposal at a Disposal Facility

No soil is planned to be exported from the project site.

7.2.3 Record Keeping

Since soil will be imported to the site, the QEP must collect and maintain records of soil import and provide them to the HEER Office for review and approval. Documentation that the import material is clean must be provided by the soil generator, and a soil agreement must be signed between the generator and the site owner.

8.0 Groundwater Management Plan

Estimated Depth to Groundwater at Site:	50 feet bgs		
Proposed Maximum Excavation Depth:	12 inches bgs		
Estimated Direction of Groundwater Flow:	northeast		
Will Contaminated Groundwater be Encountered During this Project?	Yes	No	Unknown
		X	
Will Groundwater from this Site be Dewatered into the Sanitary Sewer System?		X	
Will Groundwater from this Site be Dewatered into the Storm Sewer System?		X	
Does the Contractor have a Dewatering Permit Issued by the County and/or HDOH Clean Water Branch?		X	
Is Free Product Known or Suspected to be Present at the Site?		X	

The current construction plans do not anticipate encountering groundwater at this site; therefore, a groundwater management plan is not needed for this C-EHMP. If plans change or new information indicates that groundwater will be impacted, then this C-EHMP will be revised and re-submitted to the HEER Office for review and approval at least 90 days prior to conducting groundwater disturbing activities or as soon as the change has been identified."

9.0 Free Product Management Plan

The purpose of the free product management plan is to ensure proper handling and management of free product that may be encountered. Free product is generally encountered floating on the groundwater or at the capillary fringe, and typically presents as either free-flowing, black or brown, viscous product; a thin layer of black or brown product; a discontinuous layer of product (e.g., spots or globules); or a petroleum hydrocarbon sheen. In areas where groundwater level is tidally influenced there may be increase in the amount of free product at either high or low tide.

Question	Yes	No	Unknown
Is free product known or suspected to be present at the site?		X	
Is the groundwater at the site tidally influenced?		X	
Is groundwater at the site confined?		X	
Will excavation activities at the site potentially encounter contaminated groundwater and free product?		X	

The current construction plans do not anticipate encountering groundwater at this site; therefore, a free product management plan is not needed for this C-EHMP. If plans change or new information indicates that groundwater will be impacted, then this C-EHMP will be revised and re-submitted to the HEER Office for review and approval at least 90 days prior to conducting groundwater disturbing activities or as soon as the change has been identified.

10.0 Storm Water Management Plan

Proactive actions must be taken to prevent storm water from coming into contact with contaminated soil at the site. The actions listed below will minimize the potential for contaminating storm water.

- Place contaminated soil on plastic sheeting in a lined, bermed area to prevent storm water from contacting contaminated soil.
- Open excavations should be backfilled as soon as practicable to prevent storm water and direct precipitation from entering the excavation. When possible, open excavations should be bermed to prevent storm water run-off from entering the excavation.
- In the event of heavy rain, ensure that all stockpiles of contaminated soil are covered with plastic sheeting and substantially secured.
- Regularly monitor the weather throughout the day for signs of approaching storms and/or heavy rains.

11.0 Vapor Management Plan

The identified soil COC at the site (lead) is not a volatile constituent that is anticipated to create a soil vapor hazard at the site during construction. Therefore, a vapor management plan is not needed for this C-EHMP. If new information indicates that hazardous soil vapors may be present, then this C-EHMP will be revised and re-submitted to the HEER Office for review and approval at least 90 days prior to conducting soil disturbing activities or as soon as the change has been identified.

12.0 Spill or Release Response

Releases, should they occur, must be reported in accordance with HRS 128D and HAR 11-451. In addition to contractor releases, a release may include pre-existing contamination encountered during construction activities. If new contamination is discovered that is different from any known previously reported releases, the release must be reported as described in the abovementioned regulations.

12.1. Release Response

If a release occurs, the following actions must be taken:

- Determine the identity of what was spilled, the source of the spill, the volume of the spill, the severity of the spill, and if immediate emergency response actions are necessary.
- Stop work if contaminant releases are extremely large and cannot be contained. If an imminent threat to human health or the environment exists, or if human or environmental receptors are impacted (e.g., human receptors falling ill or suffering sudden illness), notify the City and County of Honolulu Fire Department by calling 911.
- If the spill is of a volatile, flammable, or combustible liquid or vapor, possible ignition sources should be eliminated, and workers will be directed to remain upwind. In addition, monitor for explosive vapors using an LEL meter.
- Stop work if an unusually large release or contaminated area is encountered unexpectedly or if there is any release of chemicals or hazards not covered by the plan.
- Stop work and take immediate emergency response actions if a worker or member of the general public is injured.
- Eliminate the source of the spill to the extent practicable (e.g., shutting off a valve, righting an overturned container), if it is safe to do so. Do not attempt to stop a release from an active fuel pipeline.
- Protect sensitive ecological receptors threatened by the spill.

12.2. Release Reporting

In the event of a release of a hazardous substance that causes imminent threat to human health or the environment, the first call should be to 9-1-1. Example of releases requiring a call to 911 include, but are not limited to fuel or gas leaking from an active pipeline, an ammonia tank leak, or workers and/or the public becoming ill.

All releases must be reported to the HEER Office (808-586-4249 or 808-247-2191 after work hours) and the Local Emergency Planning Committee (LEPC) at 808-586-4424. Both agencies must be contacted by telephone or in person immediately following a

release. Note, there is no penalty for reporting a release unnecessarily, but there are large penalties for not reporting a release.

If petroleum is observed on surface water, then notify the U.S. Coast Guard (USCG) through the National Response Center (NRC) at (800) 424-8802. Please note, petroleum observed on groundwater is not reportable to the NRC. For oil and hazardous substance spills that threaten or occur in navigable waters, the USCG is the lead agency

The on-site personnel responsible for ensuring that the appropriate release notifications are conducted are listed below. Please note, that in the case of an emergency or imminent threat to the environment, any on-site personnel can contact 911.

Personnel Responsible for Release Notifications

Name	Company	Title	Phone Number
TBD	TBD	TBD	TBD

TBD = to be determined

13.0 Worker Protection

A site-specific HASP needs to be prepared for this project. Worker protection requirements include but are not limited to the use of the appropriate level of PPE and appropriate personal hygiene steps associated with the identified COPCs as the site. The Site-Specific HASP will be completed by the contractor prior to the start of construction.

Administrative Controls for Protecting Workers from COPC Hazards (further detailed in the HASP) include:

- 40-hour HAZWOPER training and current 8-hour refresher required for all workers who may come into contact with contaminated media. %
- A discussion of COPC hazards that may be encountered will be discussed during daily tailgate safety meetings.
- A QEP with at least five years' experience in environmental oversight associated with construction projects will be present when contaminated media will be moved or disturbed.

Engineering Controls for Protecting Workers from COPC Hazards (further detailed in the HASP) include:

- The appropriate level of PPE shall be selected based on the potential hazards and COPCs associated with the individual construction tasks. The level of PPE may be upgraded or downgraded depending upon the tasks being conducted and the level of contact with the soil. At a minimum, Modified Level D PPE consisting of long sleeves, chemical-resistant boots, and nitrile gloves is to be

required for workers directly exposed to contaminated soils within the excavations.
- Stanchions (delineators) and hazard tape shall be used to delineate exclusion areas where COPCs are present and access is restricted.

14.0 Decontamination

Prior to excavation activities, the Contractor and the QEP must designate areas for decontamination activities. The QEP must also evaluate and establish decontamination procedures for personnel, tools, equipment and vehicles, prior to construction. Decontamination procedures for personnel and BMPs to limit direct exposure to COPCs should also be discussed in the Site-Specific HASP.

14.1. Decontamination of Tools and Personnel

Appropriate personal hygiene practices shall be adhered to at all times when handling potentially impacted soil. Washing facilities shall be made available on the jobsite to allow workers to wash their hands and avoid cross-contamination before eating, drinking, smoking, and/or heading home for the day.

After contact with the impacted soil, proper decontamination procedures shall be conducted including the removal, segregation, and disposal of PPE. Any used PPE shall be placed in plastic garbage bags, double bagged, and deposited in the site dumpster, or a municipal landfill.

Hand-held and manual tools in direct contact with impacted soil must be decontaminated to remove any contaminated soil or water prior to handling un-impacted material that are assumed to be uncontaminated and before they are removed from the work area. The decontamination of tools must include the following:

- At the excavation location, physically remove soil adhering to the surface of the equipment using appropriate hand tools. Soil removed during this step should be placed back into the impacted area, excavation, or the appropriate stockpile following removal.
- Rinse off contaminated groundwater at the excavation location, allowing rinse water to drain back into the excavation or be collected in a container for proper disposal.
- While the tools are located at the excavation, water should be used to wash the surfaces of the tools that were exposed to impacted material. The water used to wash the exposed surfaces should be directed back to the impacted area or excavation and allowed to infiltrate.

During equipment decontamination, proper PPE shall be employed to minimize exposure to COPCs. Proper PPE should include Modified Level D PPE with nitrile gloves, rubber boots, long sleeves, and an appropriate face shield to protect against splash back during decontamination. The QEP shall designate Decontamination Areas

for the donning and doffing of disposable PPE and for the cleaning of materials. The Decontamination Area is depicted on **Figure 5**.

14.2. Decontamination of Vehicles and Equipment

Vehicle and equipment decontamination should occur following the use of vehicles and equipment (to include haul trucks and heavy machinery) in direct contact with impacted soil. The equipment decontamination procedures are intended to describe methods for reducing and controlling the spread of site COPCs to unimpacted portions of the site or un-impacted materials, and to off-site locations.

Equipment and vehicles in direct contact with impacted soil must be decontaminated to remove any contaminated soil before they leave the work area. The decontamination of vehicles equipment must include the following:

- At the excavation location, physically remove soil adhering to the surface of the equipment using appropriate hand tools. Soil removed during this step should be placed back into the impacted area, excavation, or the appropriate stockpile following removal.
- While the vehicle/equipment is located at the excavation, water should be used to wash the surfaces of the vehicle/equipment that was exposed to impacted material. The water used to wash the exposed surfaces should be directed back to the impacted area or excavation and allowed to infiltrate.

During equipment decontamination, proper PPE shall be employed to minimize exposure to COPCs. Proper PPE may include Modified Level D PPE with nitrile gloves, rubber boots, long sleeves, and an appropriate face shield to protect against splash back during decontamination. The Contractor and QEP shall designate Decontamination Areas for the decontamination of vehicles and heavy machinery. The Decontamination Area is depicted in **Figure 5**.

15.0 Recordkeeping and Reporting Requirements

Detailed records of all environmental activities conducted during construction should be kept. These records may include air monitoring results, stockpile sampling, soil segregation, soil sampling methodologies and results, dewatering activities, free product recovery, vapor suppression, soil disposal, and any other environmental activities conducted in association with construction activities.

In addition to maintaining these records, within 30 days of the completion of ground disturbing activities a removal action report summarizing the environmental activities conducted during construction is to be submitted to HDOH for review and comment. Guidance for preparation of a removal action report can be found in Section 18 of the HEER Office Technical Guidance Manual. The report should also include copies of all disposal receipts, truck logs, and laboratory analytical results, as well as a map

illustrating the approximate GPS location(s) where any contaminated soil was encountered and/or reused onsite.

Since contaminated media will remain onsite in the subsurface environment following the construction activity, the property owner must complete an Environmental Hazard Evaluation (EHE) and prepare an Environmental Hazard Management Plan (EHMP) to manage the contamination in the long-term. EHEs and EHMPs must be submitted to the HDOH for review and approval following the completion of construction activities detailed in this C-EHMP.

16.0 References

HAR 11-59. Hawai'i Administrative Rules, Department of Health. Title 11, Chapter 59. Ambient Air Quality Standard. September 15, 2001.

HAR 11-60.1. Hawai'i Administrative Rules, Department of Health. Title 11, Chapter 60.1. Air Pollution Control. June 30, 2014.

HAR 11-451. Hawai'i Administrative Rules, Department of Health. Title 11, Chapter 451, State Contingency Plan (SCP). August 2, 1995.

HDOH, 2019. State of Hawaii Department of Health (HDOH), Solid and Hazardous Waste Branch. *Use of HEER Office Environmental Action Level Guidance and HEER Office Technical Guidance Manual for Characterization and Remediation of Contaminated Properties Overseen by the Solid and Hazardous Waste Branch.* January 30, 2019.

HDOH, 2017a. State of Hawaii Department of Health (HDOH), Hazard Evaluation and Emergency Response (HEER) Office. *Guidance for Stockpile Characterization and Evaluation of Imported and Exported Fill Material.* October 2017.

HDOH, 2017b. HDOH Environmental Action Levels (EALs) Surfer (Fall 2017). Accessed at: https://health.hawaii.gov/heer/guidance/ehe-and-eals/ . Accessed December 2022.

HRS 128D. Hawaii Revised Statutes. Hawaii Environmental Response Law (HERL), Chapter 128D. Website URL: https://www.capitol.hawaii.gov/hrscurrent/Vol03_Ch0121-0200D/HRS0128D/HRS_0128D-0001.htm

LEI, 2023. Targeted Hazardous Materials Survey and Soil Screen Report, YWCA of Hawaii Island-Master Plan (Phase I). Prepared for: Fleming & Associates, LLC. Prepared by Lehua Environmental Inc. December 14, 2023

Mink and Lau, 1990. Aquifer Identification and Classification for Oahu: Groundwater and Protection Strategy for Hawaii. Water Resources Research Center, University of Hawaii at Manoa. Technical Report No. 179. Revised 1990

TGM. Technical Guidance manual for the Implementation of the Hawai'i State Contingency Plan. Website URL: http://www.hawaiidoh.org/tgm.aspx

Appendix A – BMPs $

10-Foot Tall Dust Fence Filter Fabric Specification

DESIGN SPECIFICATION

1.1 Perimeter Control - Compost Filter Sock

filtrexx® SUSTAINABLE TECHNOLOGIES

PURPOSE & DESCRIPTION

Filtrexx SiltSoxx® (Soxx) compost filter sock is a three-dimensional tubular sediment control and stormwater runoff filtration device typically used for **Perimeter Control** of sediment, on and around construction activities. Perimeter control traps sediment by *filtering* runoff water as it passes through the matrix of the Soxx *and* by allowing water to temporarily pond behind the Soxx, allowing *deposition* of suspended solids. Perimeter control is also used to reduce runoff flow velocities on sloped surfaces.

APPLICATION

Perimeter control is to be installed down slope of any disturbed area requiring erosion and sediment control and filtration from runoff. Perimeter control is effective when installed perpendicular to sheet or low concentrated flow, and in areas that silt fence is normally considered appropriate. Acceptable applications include:

- Site perimeters
- Above and below disturbed areas subject to sheet runoff, interrill and rill erosion
- Above and below exposed and erodable slopes
- Along the toe of stream and channel banks
- Around area drains or inlets located in a 'sump'
- On compacted soils where trenching of silt fence is difficult or impossible
- Around sensitive trees where trenching of silt fence is not beneficial for tree survival or may unnecessarily disturb established vegetation
- On frozen ground where trenching of silt fence is impossible
- On paved surfaces where trenching of silt fence is impossible

Perimeter control can be applied to areas of high sheet runoff and erosion, on slopes up to a 1:1 grade (should be used in conjunction with slope stabilization/erosion control technology on slopes > 4:1), around inlets, and in other disturbed areas of construction sites requiring sediment control. Perimeter control may also be used in sensitive environmental areas, where migration of wildlife may be impeded by the use of fences or trenching may damage roots.

It is possible to drive over perimeter control during construction (although not recommended), however, these areas should be immediately repaired by manually moving perimeter control back into place, if disturbed. Continued heavy construction traffic may destroy the fabric mesh, reduce the dimensions, and reduce the effectiveness of the perimeter control.

ADVANTAGES AND DISADVANTAGES

Advantages

- Tubular filtration matrix allows for better trapping and removal of sediment in stormwater runoff compared to planar constructed sediment control devices (i.e., silt fence).
- Greater surface area contact with soil than typical sediment control devices reduces potential for runoff to create rills under the device leading to unfiltered sediment.
- No trenching is required; therefore soil is not disturbed upon installation or removal.
- Perimeter control can be installed year-round in difficult soil conditions such as frozen or wet ground, and dense and compacted soils, as long as stakes can be driven.
- Perimeter control is easily implemented as a treatment in a greater treatment train approach to erosion and sediment control.
- Soxx (the mesh netting containment system) allows perimeter control to be placed in areas of high sheet flow and low concentrated flow.
- Perimeter control can be direct seeded at time of application to provide greater stability and filtration capability once vegetation is established.
- FilterMedia is organic and can be left on site after permanent stabilization is complete, to be used in landscape design and/or seeded and planted with permanent vegetation.
- FilterMedia improves existing soil structure if spread out and used as a soil amendment after construction activity is complete.
- Biodegradable or photodegradable perimeter control can be left on site after construction activity and may eliminate the need for removal and labor and disposal costs.
- Perimeter control can be used on slopes to slow down runoff velocity, disperse concentrated runoff, and reduce effective slope lengths, reducing the erosive potential of stormwater runoff.
- Perimeter control is less likely to obstruct wildlife movement and migration than planar/silt fence sediment control practices.
- Perimeter control is available in 5 in. (125mm), 8 in.(200mm), 12 in. (300mm), 18 in. (450mm), 24 in. (600mm), and 32 in (800mm) diameters for customized applications and challenging situations.
- Perimeter control is available in continuous lengths to prevent weak sections and creation of concentrated flow situations typical to low points in runs of other sediment control devices. End points are sleeved together to form continuous runs of unlimited lengths without low or break points.
- Perimeter control may assist in qualification for LEED® Green Building Rating and Certification credits under LEED Building Design & Construction (BD+C), New Construction v4. Awarded credits may be possible from the categories of Sustainable Sites, Water Efficiency, Materials & Resources, and Innovation. *Note: LEED is an independent program offered through the U.S. Green Building Council. LEED credits are determined on a per project basis by an independent auditing committee. Filtrexx neither guarantees nor assures LEED credits from the use of its products. LEED is a trademark of the U.S. Green Building Council.*

ADVANTAGES			
	LOW	MED	HIGH
Installation Difficulty	✓		
Durability			✓
Sediment Control			✓
Runoff Flow Control		✓	
Life Cycle Cost	✓		
AASHTO & USEPA NPDES Phase II Approved	YES		

Disadvantages
- If filler material of perimeter control is not Filtrexx® Certified℠ FilterMedia™, performance may be diminished.
- If not installed correctly, maintained or used for a purpose or intention that does not meet specifications performance may be diminished.
- If land surface is extremely bumpy, rocky, or changes elevation abruptly ground surface contact to perimeter control may be diminished thereby adversely effecting performance.

MATERIAL SPECIFICATIONS

Perimeter control use only photodegradable or biodegradable Soxx netting materials available from Filtrexx International and are the only mesh materials accepted in creating perimeter control for any purpose. For Soxx tubular mesh material specifications see Table 1.1.

FILTERMEDIA™ CHARACTERISTICS

Specifications for perimeter control use only Filtrexx Certified FilterMedia which is a coarse composted material that is specifically designed for removal of solids from stormwater runoff. All Filtrexx Certified FilterMedia has been third party tested and certified to meet minimum performance criteria defined by Filtrexx International. Performance parameters include; hydraulic flow through rate, total solids removal efficiency, total suspended solids removal efficiency, and turbidity reduction. For information on the physical and chemical properties of Filtrexx Certified FilterMedia refer to the Filtrexx Design Manual, section 5.1. Look for the Filtrexx Certified FilterMedia Seal from our international network of Filtrexx Certified Installers and Manufacturers.

PERFORMANCE

Performance testing and research on perimeter control has been extensive. Results from testing and research programs conducted on perimeter control include: hydraulic flow through rate, ponding rate and calculation (behind perimeter control), sediment storage capacity (inside + behind tool), total solids removal efficiency, suspended solids removal efficiency, and turbidity reduction. For a summary of performance testing, research results, and design specifications see Table 1.1 and Table 1.2. For copies of full reports visit www.filtrexx.com.

Successful bidders will furnish adequate research support showing their manufactured product meets or exceeds performance and design criteria outlined in this standard specification. Research or performance testing will be accepted if it meets the following criteria: conducted by a neutral third party, utilizes standard test methods reported by ASTM or referenced in a peer reviewed scientific journal, product and control treatments are tested in triplicate, performance results are reported for product and control (control should be a bare soil under the same set of environmental and experimental conditions), results are peer reviewed, results indicate a minimum 60% TSS removal efficiency and a minimum hydraulic flow through rate of 5 gpm/ft^2. Bidders shall attach a copy of the research report indicating test methodologies utilized and results.

Note: the Contractor is responsible for establishing a working erosion and sediment control system and may, with approval of the Engineer, work outside the minimum construction requirements as needed. Where the perimeter control deteriorates or fails, it shall be repaired or replaced with an effective alternative.

DESIGN CRITERIA

The sediment removal process characteristic to perimeter control combines both filtering and deposition from settling solids. This is different than methods that rely on ponding for deposition of solids for perimeter control (i.e., silt fence). Ponding occurs when water flowing to the perimeter control accumulates faster than the hydraulic flow through rate of the perimeter control. Typically, hydraulic flow-through rates for perimeter control are 50% greater than geotextile filter fabric (silt fence). *Greater hydraulic flow-through rates reduce ponding, therefore reducing the need for taller sediment control structural design height*. Additionally, perimeter control does not blind as easily with small soil/sediment colloids, such as clay soils, as do planar geotextile sediment control barriers (such as silt fence). However, installation and maintenance is especially important for proper function and performance. For engineering design details see Figure 1.1. For a summary of specifications for product/practice use, performance and design see Table 1.1 and Table 1.2.

For most standard perimeter control applications, a 12 in (300mm) diameter perimeter control can replace a 24 to 36 in (600 to 900mm) silt fence. See Table 1.3 and 1.4 and Figure 1.2 for standard design specifications for maximum allowable slope lengths. Note: In some low flow conditions, an 8 in (200mm) perimeter control may replace a 24 in (600mm) silt fence. Design consideration should be given to the duration of the project, total area of disturbance, rainfall/runoff potential, soil erosion potential, and sediment loading.

Runoff Flow:
Sheet runoff flow and ponding depth should not exceed the height of the perimeter control. If overflow of the device is a possibility, larger diameter perimeter control should be constructed, other sediment control devices may be used, or management practices to reduce runoff should be installed. Alternatively, a second perimeter control may be constructed or used in combination with compost erosion control blankets or rolled erosion control blankets to slow runoff and reduce erosion.

Level Contour:
Perimeter control should be placed on level contours to assist in dissipating low concentrated flow into sheet flow and reducing runoff flow velocity. Do not construct perimeter control to concentrate runoff or channel water. Sheet flow of water should be perpendicular to the perimeter control at impact and relatively un-concentrated. Placing perimeter control on undisturbed soil will reduce the potential for undermining.

Runoff and Sediment Accumulation:
Where possible, perimeter control should be placed at a 5 ft (1.5m) or greater distance away from the toe of the slope to allow for proper runoff accumulation for sediment deposition and to allow for maximum sediment storage capacity behind the device. If a 5 ft (1.5m) distance is not available, due to construction restrictions, a second perimeter control may be installed to increase ponding and sediment accumulation capacity. Steeper slopes allow less sediment storage behind the perimeter control device and may require larger perimeter control or shorter slope lengths.

End Around Flow:
In order to prevent water flowing around the ends of perimeter control, the ends of the perimeter control must be constructed pointing upslope so the ends are at a higher elevation. A minimum

of 10 linear ft (3m) per end each placed at a 30 degree angle is recommended.

Vegetated Perimeter Control:
For permanent areas perimeter control can be direct-seeded to allow vegetation established directly in the device, and may be expanded to 5 ft (1.5m) upslope and downslope from the device, for added performance. Vegetation on and around the perimeter control will assist in slowing runoff velocity for increased deposition and filtration. The option of adding vegetation will be at the discretion of the Engineer. No additional soil amendments or fertilizer are required for vegetation establishment in the perimeter control.

Slope Spacing & Drainage Area:
Maximum drainage area to, and slope spacing between perimeter control is dependent on: rainfall intensity and duration used for specific design/plan, slope steepness, and width of area draining to the perimeter control. A specification for maximum slope lengths, based on a 1 in (25 mm)/24 hr rainfall event is provided in Table 1.3 and Figure 1.2; and for a 2 in (50 mm)/24 hr rainfall event is provided in Table 1.4.

INSTALLATION

1. Perimeter control used for control of sediment in storm runoff shall meet Filtrexx Soxx Mesh Material and Filtrexx Certified FilterMedia specifications.
2. Call Filtrexx at 877-542-7699 or visit www.filtrexx.com for a current list of installers and distributors of Filtrexx products.
3. Perimeter control will be placed at locations indicated on plans and in a manner as directed by the Engineer or Manufacturer.
4. Perimeter control should be installed parallel to the base of the slope or other disturbed area. In challenging conditions (i.e., 2:1 slopes), a second perimeter control shall be constructed at the top of the slope, or staking may be increased.
5. Effective Soxx height in the field should be as follows: 5" diameter Soxx = 4" high; 8" diameter Soxx = 6.5" high; 12" diameter Soxx = 9.5" high; 18" diameter Soxx = 14.5" high; 24" diameter Soxx = 19" high.
6. Stakes should be installed through the middle of the perimeter control on 10 ft (3m) centers, using nominal 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. 5" diameter Soxx may use 1" (25 mm) x 1" (25 mm) x 18 " (0.5 m) wooden stakes. In the event staking is not possible, i.e., when perimeter control is used on highly compacted soils or impervious surfaces, sand bags (or equivalent) may be used to stabilize Soxx, as long as effective height is not compromised. On impervious surfaces, concrete blocks (or equivalent) may be used behind the perimeter control to help stabilize during rainfall/runoff events.
7. Alternatively, stakes may be installed directly behind the Soxx at a 90-degree angle to level ground (regardless of slope angle), where stakes are in direct contact with the downslope side of Soxx. If high runoff or sediment accumulation is expected, staking through the Soxx may be required.
8. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.
9. Loose compost may be backfilled along the upslope side of the perimeter control, filling the seam between the soil surface and the device, improving filtration and sediment retention.
10. If the perimeter control is to be left as a permanent filter or part of the natural landscape, it may be seeded at time of installation for establishment of permanent vegetation. The Engineer will specify seed requirements.
11. Perimeter control is not to be used in perennial, ephemeral, or intermittent streams.

See design drawing schematic for correct installation (Figure 1.1).

INSPECTION

Routine inspection should be conducted within 24 hrs of a runoff event or as designated by the regulating authority. Perimeter control should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional perimeter control may be required to reduce effective slope length or sediment removal may be necessary. Perimeter control shall be inspected until area above has been permanently stabilized and construction activity has ceased.

MAINTENANCE

1. The Contractor shall maintain the perimeter control in a functional condition at all times and it shall be routinely inspected.
2. If the perimeter control has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove sediment at the base of the upslope side of the perimeter control when accumulation has reached 1/2 of the effective height of the Soxx, or as directed by the Engineer. Alternatively, a new perimeter control can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance.
4. Perimeter control shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.
5. The FilterMedia will be dispersed on site once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.
6. For long-term sediment and pollution control applications, perimeter control can be seeded at the time of installation to create a vegetative filtering system for prolonged and increased filtration of sediment (contained vegetative filter strip). The appropriate seed mix shall be determined by the Engineer.

DISPOSAL/RECYCLING

FilterMedia is a composted organic product recycled and manufactured from locally generated organic, natural, and biologically based materials. Once all soil has been stabilized and construction activity has been completed, the FilterMedia may be dispersed with a loader, rake, bulldozer or similar device and may be incorporated into the soil as an amendment or left on the soil surface to aid in permanent seeding or landscaping. Leaving the FilterMedia on site reduces removal and disposal costs compared to other sediment control devices. The mesh netting material will be extracted from the FilterMedia and disposed of properly by the Contractor. The photodegradable mesh netting material (Soxx) may degrade if left on site. Biodegradable mesh netting material is available and may eliminate the need and cost of removal and disposal.

METHOD OF MEASUREMENT

Bid items shall show measurement as 5 (125), 8 (200), 12 (300), 18 (450), 24 (600), 32 (800) inch (mm) diameter Filtrexx® Perimeter Control or Filtrexx SiltSoxx® per linear foot (or linear meter), installed. Engineer shall notify Filtrexx of location, description, and details of project prior to the bidding process so that Filtrexx can provide design aid and technical support.

FIELD APPLICATION PHOTO REFERENCES

Installation Method – Blower Truck

Perimeter Control on Pipeline Project

Installation Method – Pallets

Perimeter Control on Roadway Project

ADDITIONAL INFORMATION

For other references on this topic, including additional research reports and trade magazine and press coverage, visit the Filtrexx website at filtrexx.com

Filtrexx International, Technical Support
877-542-7699 | www.filtrexx.com | info@filtrexx.com
Call for complete list of international installers and distributors.

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REFERENCES CITED & ADDITIONAL RESOURCES

American Association of State Highway Transportation Officials. 2003. Standard Specification for Transportation Materials and Methods of Sampling and Testing, Designation M9-03, Compost for Erosion/Sediment Control. Washington, DC

Faucette, L.B., K. Kerchner, and A. Vick. 2006. Sediment Storage Capacity of Sediment control vs. Silt Fence. Filtrexx® Tech Link #3314

Faucette, L.B., H. Keener, M Klingman, and K. Kerchner. 2006. Design Capacity Prediction Tool for Sediment control and Silt Fence. Filtrexx® Tech Link #3313 (Description of Design Tool) and Filtrexx® Library #301 (Design Tool)

Faucette, L.B. 2006. Flow-Through Rate, Design Height, and Design Capacity of Sediment control and Silt Fence. Filtrexx® Tech Link #3304

Faucette, L.B. 2006. Design Height, Flow-Through Rate, and Slope Spacing of Sediment control and Silt Fence. Filtrexx® Tech Link #3311

Faucette, L.B., and R. Tyler. 2006. Organic BMPs used for Storm Water Management. Proceedings of the International Erosion Control Association Annual Conference, Long Beach, CA 2006.

Faucette, B, F. Shields, and K. Kurtz. 2006. Removing storm water pollutants and determining relations between hydraulic flow-through rates, pollutant removal efficiency, and physical characteristics of compost filter media. Second Interagency Conference on Research in Watersheds, 2006 Proceedings. Coweeta Hydrologic Research Station, NC. Filtrexx® Library #106.

Faucette, B., Sadeghi, A., and K. Sefton. 2006. USDA ARS - Evaluation of Compost Filter Socks and Silt Fence in Sediment and Nutrient Reduction from Runoff. Filtrexx® Tech Link #3308

Faucette, L.B., A. Vick. 2006. LEED Green Building Credits using Filtrexx® Organic BMPs. Filtrexx® Tech Link #3301

Faucette, L.B. A. Vick, and K. Kerchner. 2006. Filtrexx®, Compost, Low Impact Development (LID), and Design Considerations for Storm Water Management. Filtrexx® Tech Link #3306

Faucette L.B., C.F. Jordan, L.M. Risse, M. Cabrera, D.C. Coleman, and L.T. West. 2005.

Evaluation of Storm Water from Compost and Conventional Erosion Control Practices in Construction Activities. Journal of Soil and Water Conservation. 60:6: 288-297.

Faucette, L.B. 2005. Removal and Degradation of Petroleum Hydrocarbons from Storm Water with Compost. Filtrexx® Tech Link #3307

Faucette, L.B. 2005. A Comparison of Performance and Test Methods of Sediment control and Silt Fence. Filtrexx® Tech Link #3302.

Faucette, L.B., N. Strazar, A. Marks. 2006. Filtrexx® Polymer and Flocculent Guide. Filtrexx® Library #601.

Fifield, J. 2001. Designing for Effective Sediment and Erosion Control on Construction Sites. Forester Press, Santa Barbara, CA.

Keener, H., B. Faucette, and M. Klingman. 2006. Flow-through rates and evaluation of solids separation of compost filter media vs. silt fence in sediment control applications. 2006 American Society of Agricultural and Biological Engineers Annual International Conference, Portland, OR. Paper No. 062060.

Marks, A., R. Tyler, and B. Faucette. 2005. The Filtrexx® Library. Digital publication of support tools for the erosion industry. www.filtrexx.com.

Marks, A., and R. Tyler. 2003. Filtrexx International Company Website. Specifications, CAD drawings, case histories. www.filtrexx.com

Sadhegi, A., K. Sefton, and B. Faucette. 2006. Sediment and nutrient removal from storm water with compost filter socks and silt fence. 2006 American Society of Agricultural and Biological Engineers Annual International Conference, Portland, OR. Paper No. 06XXXX

Tyler, R.W., and A. Marks. 2004. Erosion Control Toolbox CD Kit. A Guide to Filtrexx® Products, Educational Supplement, and Project Videos. 3 CD set for Specifications and Design Considerations for Filtrexx® Products.

Tyler, R.W., and A. Marks. 2003. Filtrexx® Product Installation Guide. Grafton, Ohio.

Tyler, R.W., and A. Marks. 2003. A Guide to Filtrexx® Products. Product Descriptions and Specifications for Filtrexx® Products.

Tyler, R.W., J. Hoeck, and J. Giles. 2004. Keys to Understanding How to Use Compost and Organic Matter. IECA Annual Meeting Presentations published as IECA Digital Education Library, Copyright 2004 Blue Sky Broadcast.

Tyler, R.W. 2004. International PCT Patent Publication #: WO 2004/002834 A2. Containment Systems, Methods and Devices for Controlling Erosion. Patent Application Filed on January 8, 2004.

Tyler, R.W. 2003. International PCT Application #: PCTUS2003/020022. Containment Systems, Methods and Devices for Controlling Erosion. Patent Application Filed on June 25, 2003.

Tyler, R.W. 2003. US Patent Publication #: 2003/0031511 A1. Devices, Systems and Methods for Controlling Erosion. Patent Application Filed on January 13, 2003

Tyler, R.W. 2002. US Patent Application #10/208,631. Devices, Systems and Methods for Controlling Erosion. Patent Application Filed on July 31, 2001

Tyler, R.W. 2001. Provisional Patent Application #60/309,054. Devices, Systems and Methods for Controlling Erosion. Patent Application Filed on July 31, 2001

Tyler, R.W. 2001. Filtrexx® Product Manual. Specifications and Design Considerations for Filtrexx® Products, Grafton, OH.

Tyler, R.W. 1996. Winning the Organics Game – The Compost Marketers Handbook. ASHS Press, ISBN # 0-9615027-2-x..

Tyler, R.W. 2007. US Patent # 7,226,240 "Devices, Systems and Methods for Controlling Erosion" Issue date 6-5-07.

US EPA NPDES Phase II. 2006. Compost Filter Socks: Construction Site Storm Water Runoff Control. National Menu of Best Management Practices for Construction Sites. http://cfpub.epa.gov/npdes/stromwater/menuofbmps/con_site.cfm

Table 1.1. Filtrexx SiltSoxx® Mesh Material Specifications.

Material Type	NATURAL ORIGINAL (Cotton Fiber)	NATURAL PLUS (Wood Fiber)	BASIC (5 mil High Density Polyethylene HDPE)	BASIC PLUS (Multi-Filament Polypropylene MFPP)	DURABLE (Multi-Filament Polypropylene MFPP)	ORIGINAL / DURABLE PLUS / DURASOXX HD (Multi-Filament Polypropylene MFPP)	EXTREME (Multi-Filament Polypropylene MFPP)
Material Characteristic	Biodegradable	Biodegradable	Photodegradable	Photodegradable	Photodegradable	Photodegradable	Photodegradable
Design Diameters	5 in (125mm), 8 in (200mm), 12 in (300mm)	5 in (125mm), 8 in (200mm), 12 in (300mm)	8 in (200mm), 12 in (300mm), 18 in (400mm)	8 in (200mm), 12 in (300mm), 18 in (400mm), 24 in (600mm), 32 in (800mm)	5 in (125mm), 8 in (200mm), 12 in (300mm), 18 in (400mm), 24 in (600mm), 32 in (800mm)	5 in (125mm), 8 in (200mm), 12 in (300mm), 18 in (400mm), 24 in (600mm)	8 in (200mm), 12 in (300mm)
Mesh Opening	1/8 in (3mm)	1/8 in (3mm)	3/8 in (10mm)	3/8 in (10mm)	1/8 in (3mm)	1/8 in (3mm)	1/16 in (1.5mm)
Tensile Strength (ATSM D4595)[1]	MD: 193 lbs TD: 158 lbs	MD: 210 lbs TD: 289 lbs	MD: 211 lbs TD: 79 lbs	MD: 236 lbs TD: 223 lbs	MD: 545 lbs TD: 226 lbs	MD: 670 lbs TD: 423 lbs	MD: 1062 lbs TD: 797 lbs
% Original Strength from Ultraviolet Exposure (ASTM G-155)	ND	ND	23% at 1000 hr	100% at 1000 hr	100% at 1000 hr	100% at 1000 hr	100% at 1000 hr
Functional Longevity/ Project Duration[2]	up to 12 months[3]	up to 18 months[4]	up to 4 yr	up to 4 yr	up to 5 yr	up to 5 yr	up to 5 yr

[1] Tensile Strength is based on 12" diameter using ATSM D4595. See Filtrexx TechLink #3342 for full tensile strength testing.
[2] Functional longevity ranges are estimates only. Site specific environmental conditions may result in significantly shorter or longer time periods.
[3] Data based on Caltrans research and specifications
[4] See TechLink #3339 for research & testing

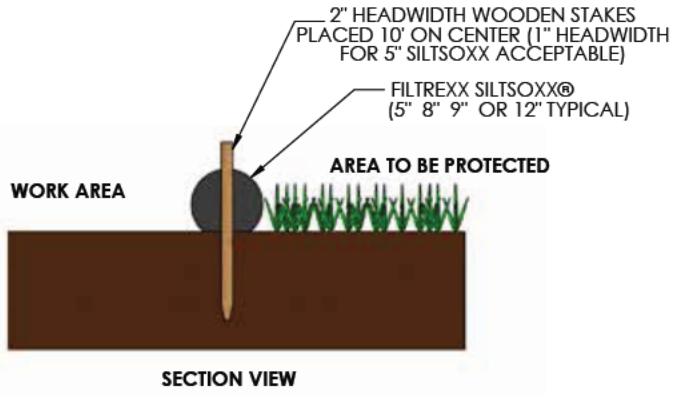
Table 1.2. Filtrexx® Sediment Control Performance and Design Specifications Summary.

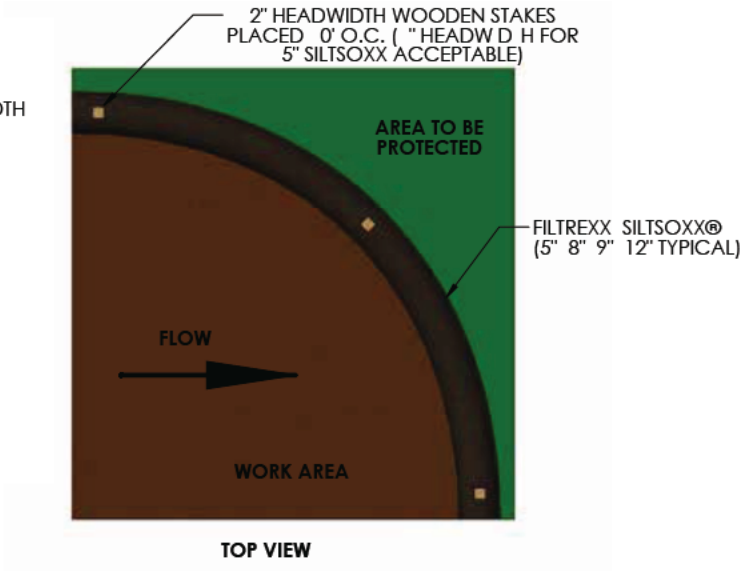
Design Diameter / Design & Performance	5 in (125mm)	8 in (200mm)	12 in (300mm)	18 in (450mm)	24 in (600mm)	32 in (800mm)	Testing Lab/ Reference	Publication(s)
Effective Height	4 in (100mm)	6.5 in (160mm)	9.5 in (240mm)	14.5 in (360mm)	19 in (480mm)	26 in (650mm)	The Ohio State University, Ohio Agricultural Research and Development Center	Transactions of the American Society of Agricultural & Biological Engineers, 2006
Effective Circumference	15 in (380mm)	25 in (630mm)	38 in (960mm)	57 in (1450mm)	75 in (1900mm)	100 in (2500mm)		
Density (when filled)	7.8 lbs (12 kg/m)	13 lbs/ft (20 kg/m)	32 lbs/ft (50 kg/m)	67 lbs/ft (100 kg/m)	133 lbs/ft (200 kg/m)	200 lbs/ft (300 kg/m)	Soil Control Lab, Inc	
Air Space	20%	20%	20%	20%	20%	20%	Soil Control Lab, Inc	
Maximum continuous length	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited		
Staking Requirement	10 ft (3m)	10 ft (3m)	10 ft (3m)	10 ft (3m)	10 ft (3m)	10 ft (3m)		
Maintenance Requirement (sediment accumulation removal at X height)	2 in (50mm)	3.25 in (80mm)	4.75 in (120mm)	7.25 in (180mm)	9.5 in (240mm)	13 in (325mm)		
Initial Maintenance Requirement based on Rainfall-Runoff*	13 in (33 cm); 665 L/linear m	22 in (55 cm); 1109 L/linear m	32 in (80 cm); 1388 L/linear m	42 in (105 cm); 1825 L/linear m	64 in (160 cm); 2776 L/linear m	86 in (215 cm); 3885 L/linear m	The University of Georgia & Auburn University	
Functional Longevity**	6 mo – 5 yr	6 mo – 5 yr	6 mo – 5 yr	6 mo – 5 yr	6 mo – 5 yr	6 mo – 5 yr		
Maximum Slope Length (<2%)	360 ft (110m)	600 ft (183m)	750 ft (229m)	1000 ft (305m)	1300 ft (396m)	1650 ft (500m)	The Ohio State University, Ohio Agricultural Research and Development Center	Filtrexx Design Tool, Filtrexx Library #301, Filtrexx Tech Link #3304 & #3311
Hydraulic Flow Through Rate	4.5 gpm/ft (56 L/min/m)	7.5 gpm/ft (94 L/min/m)	11.3 gpm/ft (141 L/min/m)	15.0 gpm/ft (188 L/min/m)	22.5 gpm/ft (281 L/min/m)	30.0 gpm/ft (374 L/min/m)	The Ohio State University, Ohio Agricultural Research and Development Center; University of Guelph, School of Engineering/ Watershed Research Group	Filtrexx Tech Link #3311 & #3313, #3308; American Society of Agricultural & Biological Engineers Meeting Proceedings, 2006, Second Interagency Conference on Research in Watersheds, 2006
P Factor (RUSLE)	0.1-0.32	0.1-0.32	0.1-0.32	0.1-0.32	0.1-0.32	0.1-0.32	USDA ARS Environmental Quality Lab/ University of Georgia	American Society of Agricultural & Biological Engineers Meeting Proceedings, 2006
Sediment Storage Capacity***	104 cu. in (1710cc)	174 cu. in (2850cc)	396 cu. in (6490cc)	857 cu. in (14040cc)	1631 cu. in (26840cc)	2647 cu. in (43377 cc)		Filtrexx Tech Link #3314
Total Solids Removal	98%	98%	98%	98%	98%	98%	Soil Control Lab, Inc	International Erosion Control Association, 2006
Total Suspended Solids Removal	78%	78%	78%	78%	78%	78%	USDA ARS Environmental Quality Lab	Filtrexx Tech Link #3308; American Society of Agricultural & Biological Engineers Meeting Proceedings, 2006
Turbidity Reduction	63%	63%	63%	63%	63%	63%	USDA ARS Environmental Quality Lab	Filtrexx Tech Link #3308; American Society of Agricultural & Biological Engineers Meeting Proceedings, 2006
Clay (<0.002mm) Removal	65%	65%	65%	65%	65%	65%	USDA ARS Environmental Quality Lab	Filtrexx Tech Link
Silt (0.002-0.05mm) Removal	64%	64%	64%	64%	64%	64%	USDA ARS Environmental Quality Lab	Filtrexx Tech Link
Other Recommended Uses	Slope Interruption	Inlet Protection, Ditch Protection, Slope Interruption	Inlet protection, Ditch Protection, Concrete Washout, Filtration System, Slope Interruption	Ditch Protection, Concrete Washout, Filtration System	Ditch Protection, Concrete Washout, Filtration System	Ditch Protection, Concrete Washout, Filtration System		

* Based on rainfall intensity of 12.5 cm (5 in)/hr applied to a bare clay loam soil at a 10% slope; runoff flow rate of 108 ml/sec/linear m (0.52 gpm/linear ft); and mean runoff volume of 230 L/m2 (6.3 g/ft2).
** Functional Longevity is dependent on mesh material type, UV exposure, freeze/thaw frequency, region of US/Canada, runoff-sediment frequency/durtion/loading, and adherence to specified maintenance requirement. Functional longevity ranges are estimates only. Site specific environmental conditions may result in significantly shorter or longer time periods.
*** Sediment Storage Capacity = sediment accumulation behind (directly upslope) + within the device.

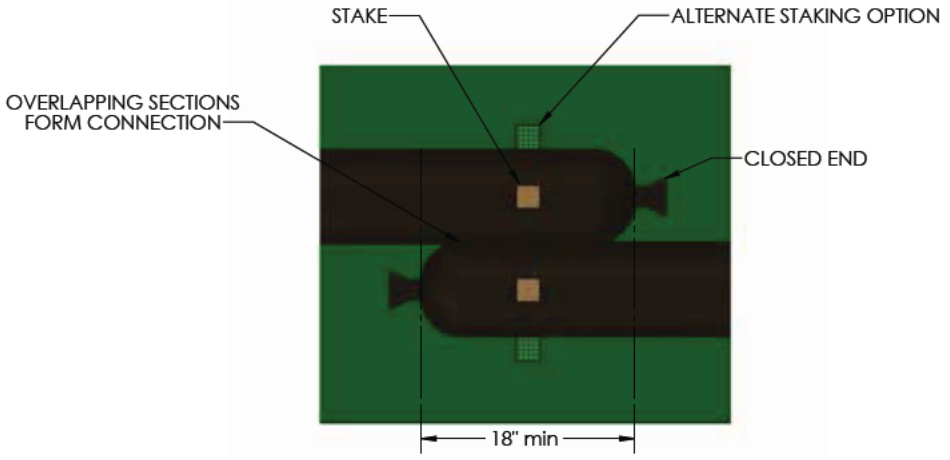
Figure 1.1. Engineering Design Drawing for Perimeter Control

FILTREXX SILTSOXX®

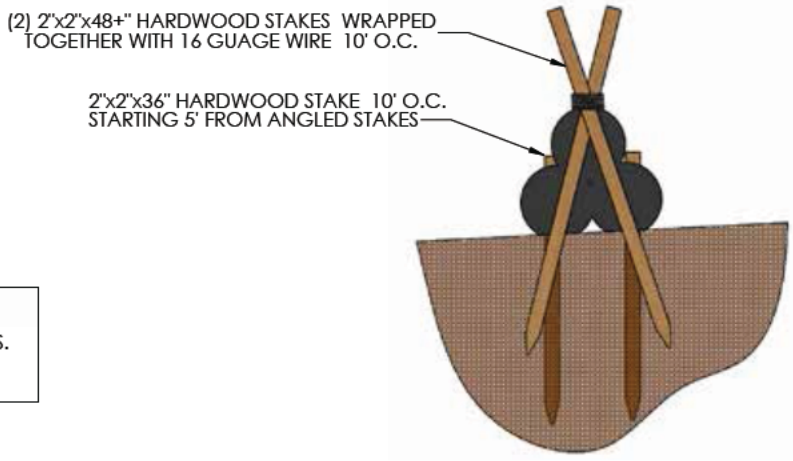




COMPOST SOCK CONNECTION/ATTACHMENT DETAIL

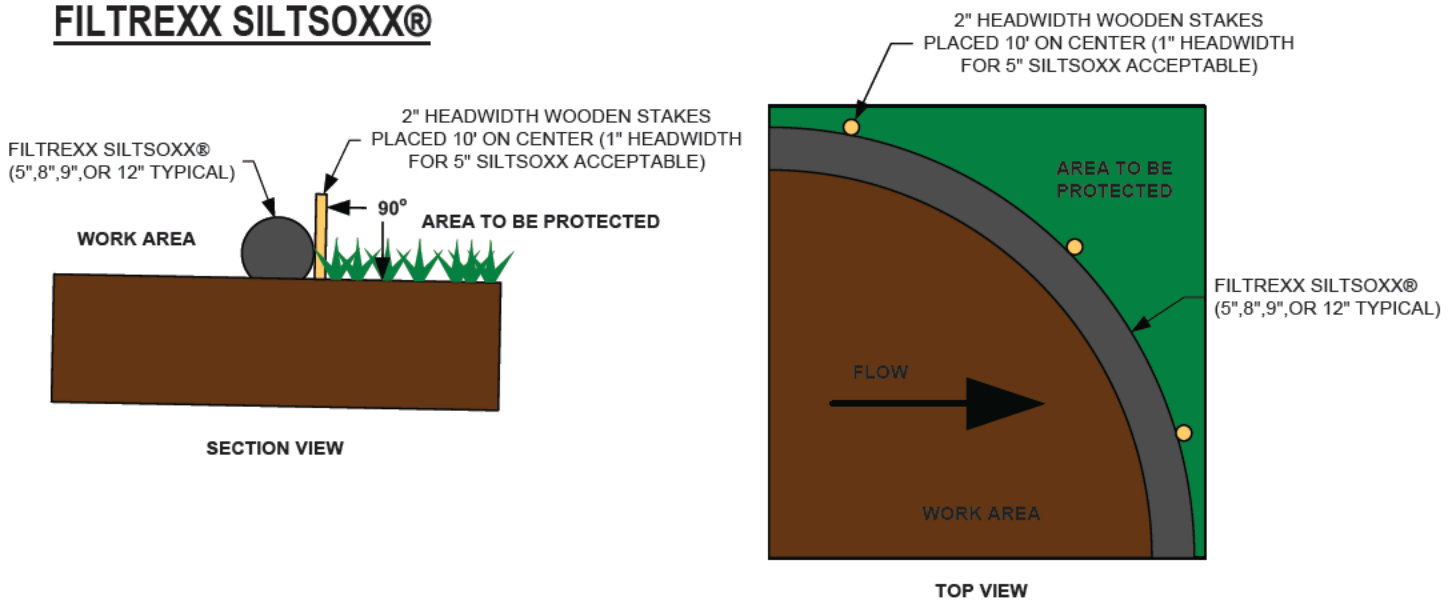


FILTREXX® PYRAMID STAKING DETAIL



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILT SOXX FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

Figure 1 1 (continued) Engineering Design Drawing for Perimeter Control - Alternative Staking



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILT SOXX FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

Figure 1.2. Maximum Slope Lengths of Filtrexx® Perimeter Control Based on a 1 in (25 mm)/24 hr Rainfall Event.

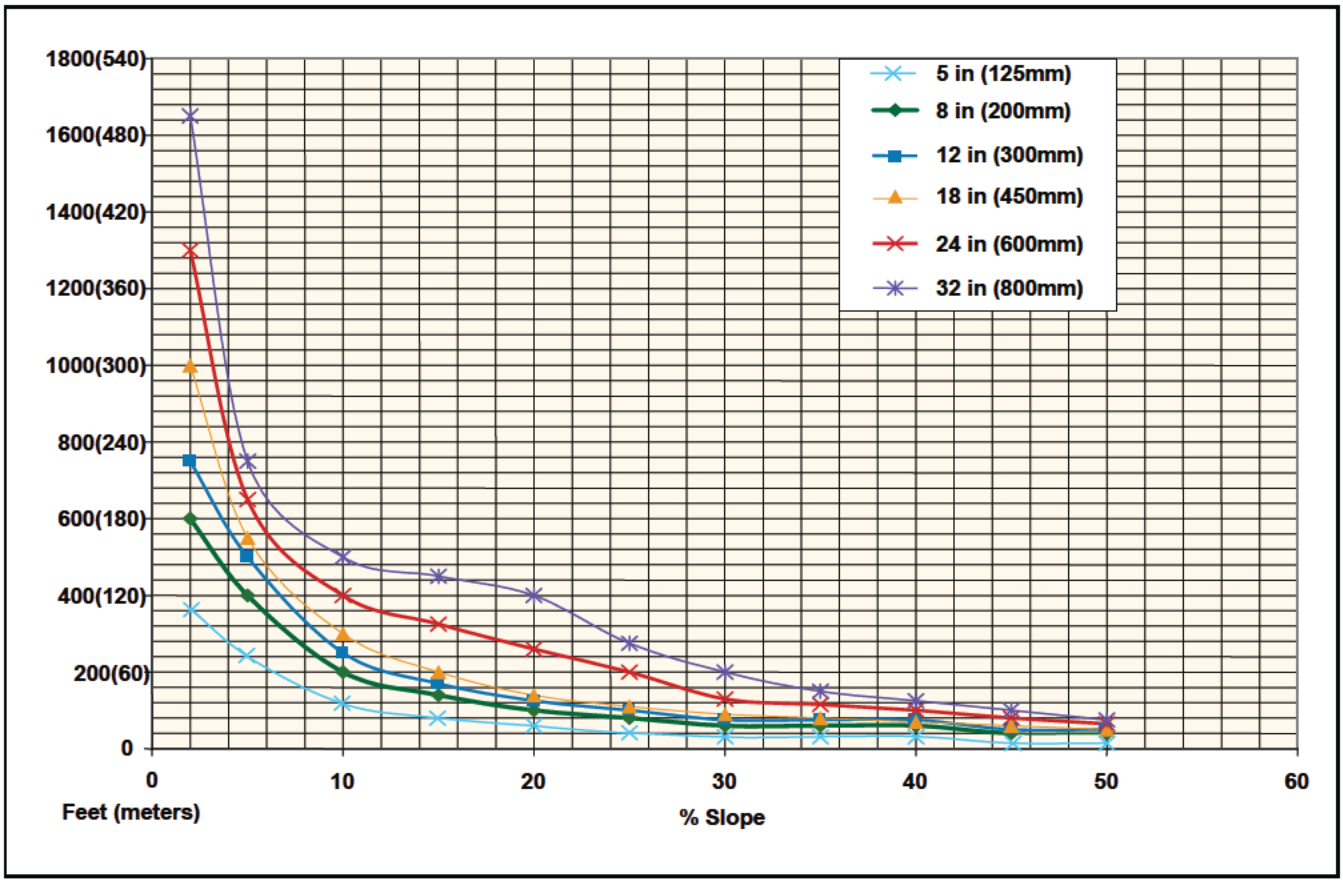


Table 1.3. Maximum Slope Lengths for Filtrexx® Perimeter Control Based on a 1 in (25 mm)/24 hr Rainfall Event.

Slope Percent	Maximum Slope Length Above Sediment Control in Feet (meters)*					
	5 in (125 mm) Sediment control	8 in (200 mm) Sediment control	12 in (300 mm) Sediment control	18 in (450 mm) Sediment control	24 in (600mm) Sediment control	32 in (800mm) Sediment control
	4 in (100 mm)**	6.5 in (160 mm)**	9.5 in (240 mm) **	14.5 in (360 mm) **	19 in (480 mm) **	26 in (650 mm) **
2 (or less)	360 (110)	600 (180)	750 (225)	1000 (300)	1300 (400)	1650 (500)
5	240 (73)	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	120 (37)	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)
15	85 (26)	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)
20	60 (18)	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)
25	48 (15)	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)
30	36 (11)	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)
35	36 (11)	60 (18)	75 (23)	80 (24)	115 (35)	150 (45)
40	36 (11)	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)
45	24 (7)	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
50	24 (7)	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)

* Based on a failure point of 36 in (0.9 m) super silt fence (wire reinforced) at 1000 ft (303 m) of slope, watershed width equivalent to receiving length of sediment control device, 1 in/ 24 hr (25 mm/24 hr) rain event.

** Effective height of Sediment control after installation and with constant head from runoff as determined by Ohio State University.

Table. 1.4. Maximum Slope Lengths for Filtrexx® Perimeter Control Based on a 2 in (50 mm)/24 hr Rainfall Event.

Slope Percent	Maximum Slope Length Above Sediment Control in Feet (meters)*					
	5 in (125 mm) Sediment control	8 in (200 mm) Sediment control	12 in (300 mm) Sediment control	18 in (450 mm) Sediment control	24 in (600mm) Sediment control	32 in (800mm) Sediment control
	4 in (100 mm)**	6.5 in (160 mm) **	9.5 in (240 mm) **	14.5 in (360 mm) **	19 in (480 mm) **	26 in (650 mm) **
2 (or less)	180 (55)	300 (90)	375 (110)	500 (150)	650 (200)	850 (260)
5	120 (37)	200 (60)	250 (75)	275 (85)	325 (100)	400 (120)
10	60 (18)	100 (30)	125 (35)	150 (45)	200 (60)	275 (85)
15	42 (13)	70 (20)	85 (25)	100 (30)	160 (50)	225 (70)
20	30 (9)	50 (15)	65 (20)	70 (20)	130 (40)	180 (55)
25	24 (7)	40 (12)	50 (15)	55 (16)	100 (30)	150 (45)
30	18 (6)	30 (9)	40 (12)	45 (13)	65 (20)	100 (30)
35	18 (6)	30 (9)	40 (12)	45 (13)	55 (18)	75 (23)
40	18 (6)	30 (9)	40 (12)	45 (13)	50 (15)	60 (38)
45	12 (4)	20 (6)	25 (8)	30 (9)	40 (12)	50 (15)
50	12 (4)	20 (6)	25 (8)	30 (9)	35 (10)	40 (12)

* Based on a failure point of 36 in (0.9 m) super silt fence (wire reinforced) at 1000 ft (303 m) of slope, watershed width equivalent to receiving length of sediment control device, 2 in/ 24 hr (50 mm/24 hr) rain event.

** Effective height of Sediment control after installation and with constant head from runoff as determined by Ohio State University.

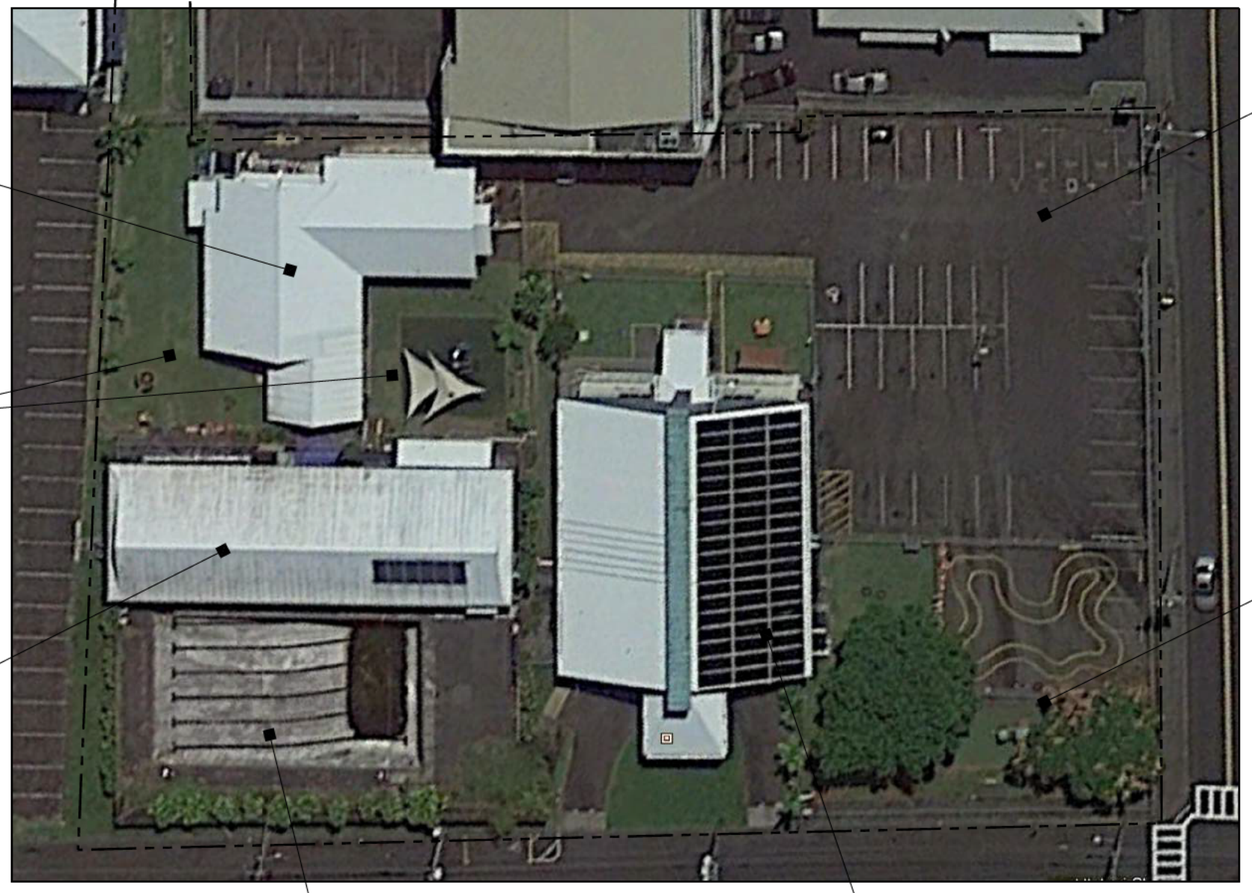
Appendix B - Soil Acceptance Agreement **(To be completed once amount of soil is known for import)**

Appendix C – Soil Tracking Log $

Source (DU) and date generated	Amount (CY)	Contaminated? If yes, provide soil chemical concentrations and landfill acceptance documentation	Soil Transporter	Receiving landfill/ area

Construction Plans !

KINOOLE STREET



EXISTING PRESHOOL TO BE REMOVED

EXISTING PLAYGROUND TO BE REMOVED

EXISTING POOL BUILDING TO BE REMOVED

EXISTING PARKING LOT TO BE MODIFIED.

HAILI STREET

EXISTING PLAYGROUND TO BE REMOVED

EXISTING POOL TO BE REMOVED

EXISTING YWCA BUILDING MULTI-PURPOSE / PRESCHOOL TO BE RENOVATED

ULULANI STREET

1 OVERALL EXISTING SITE PLAN
SCALE: 1"=20'

NORTH
0 10' 20'
SCALE IN INCH

FLEMING &
Associates, LLC
557 MANONO STREET
HILO, HAWAII

SCOTT E. FLEMING
LICENSED PROFESSIONAL ARCHITECT
No. 11441
HAWAII, U.S.A.

EXP. DATE: 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION DURING ITS PROGRESS IN ACCORDANCE WITH CHAPTER 16-115 OF THE HAWAII ADMINISTRATIVE RULES, DEPT. OF COMMERCE AND CONSUMER AFFAIRS, ENTITLED PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.

YWCA HILO
CONCEPTUAL MASTER PLAN

145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

SHEET CONTENTS:
OVERALL
EXISTING
SITE PLAN

DATE: AUGUST 2020

SHEET:
A-1

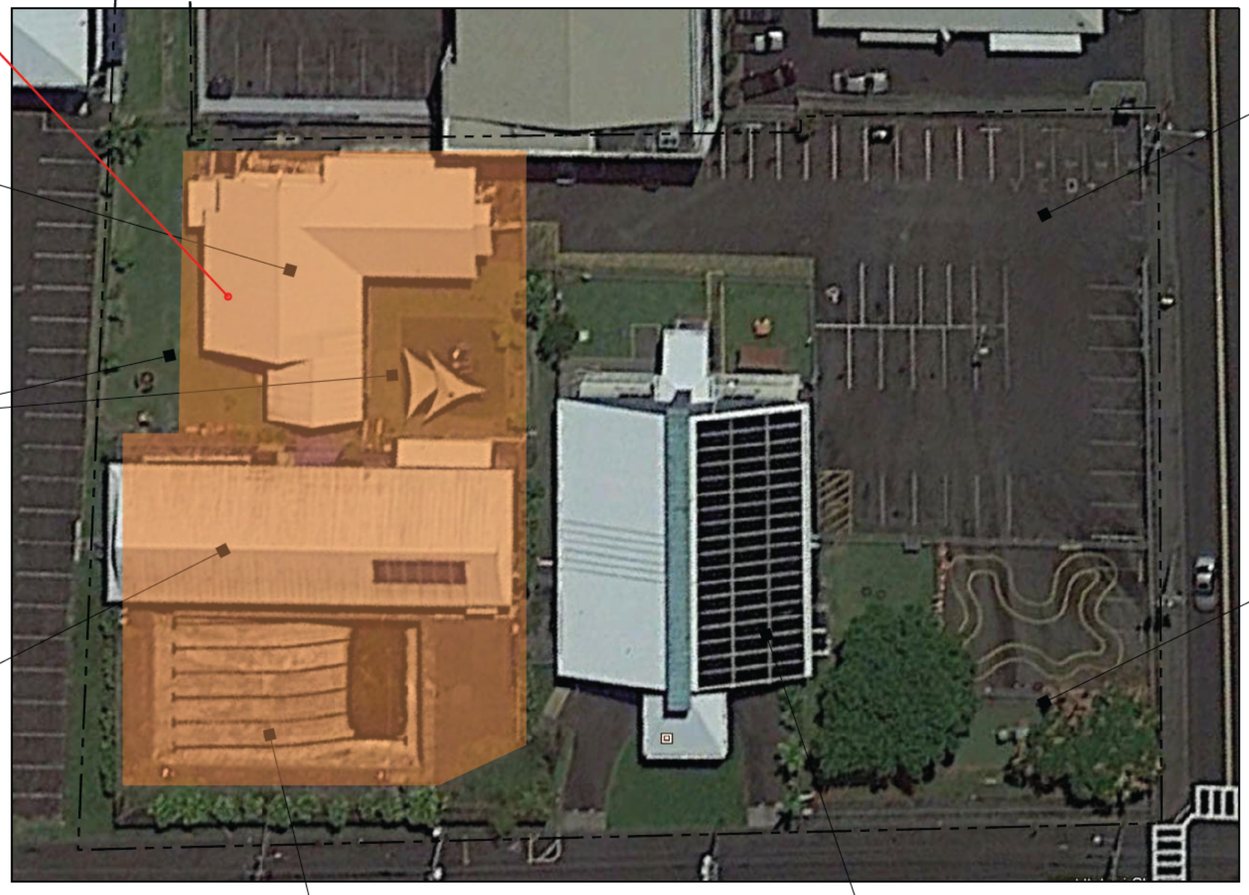
KINOOLE STREET

AREA TO BE DEMOED. LEAVE AS GRASSED AREA READY FOR CONSTRUCION PHASE.

EXISTING PRESHOOL TO BE REMOVED

EXISTING PLAYGROUND TO BE REMOVED

EXISTING POOL BUILDING TO BE REMOVED



EXISTING PARKING LOT TO BE MODIFIED.

HAILI STREET

EXISTING PLAYGROUND TO BE REMOVED

EXISTING POOL TO BE REMOVED

ULULANI STREET

EXISTING YWCA BUILDING MULTI-PURPOSE / PRESCHOOL TO BE RENOVATED

1 OVERALL EXISTING SITE PLAN
SCALE: 1"=20'

NORTH
0 10' 20'
SCALE IN INCH

FLEMING & Associates, LLC
557 MANONO STREET
HILO, HAWAII

SCOTT E. FLEMING
LICENSED PROFESSIONAL ARCHITECT
No. 11441
HAWAII, U.S.A.

EXP. DATE: 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. CHAPTER 16-115-47 HAWAII ADMINISTRATIVE RULES, DEPT. OF COMMERCE AND CONSUMER AFFAIRS, ENTITLED PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.

YWCA HILO
CONCEPTUAL MASTER PLAN

145 ULULANI STREET
HILO, HAWAII 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

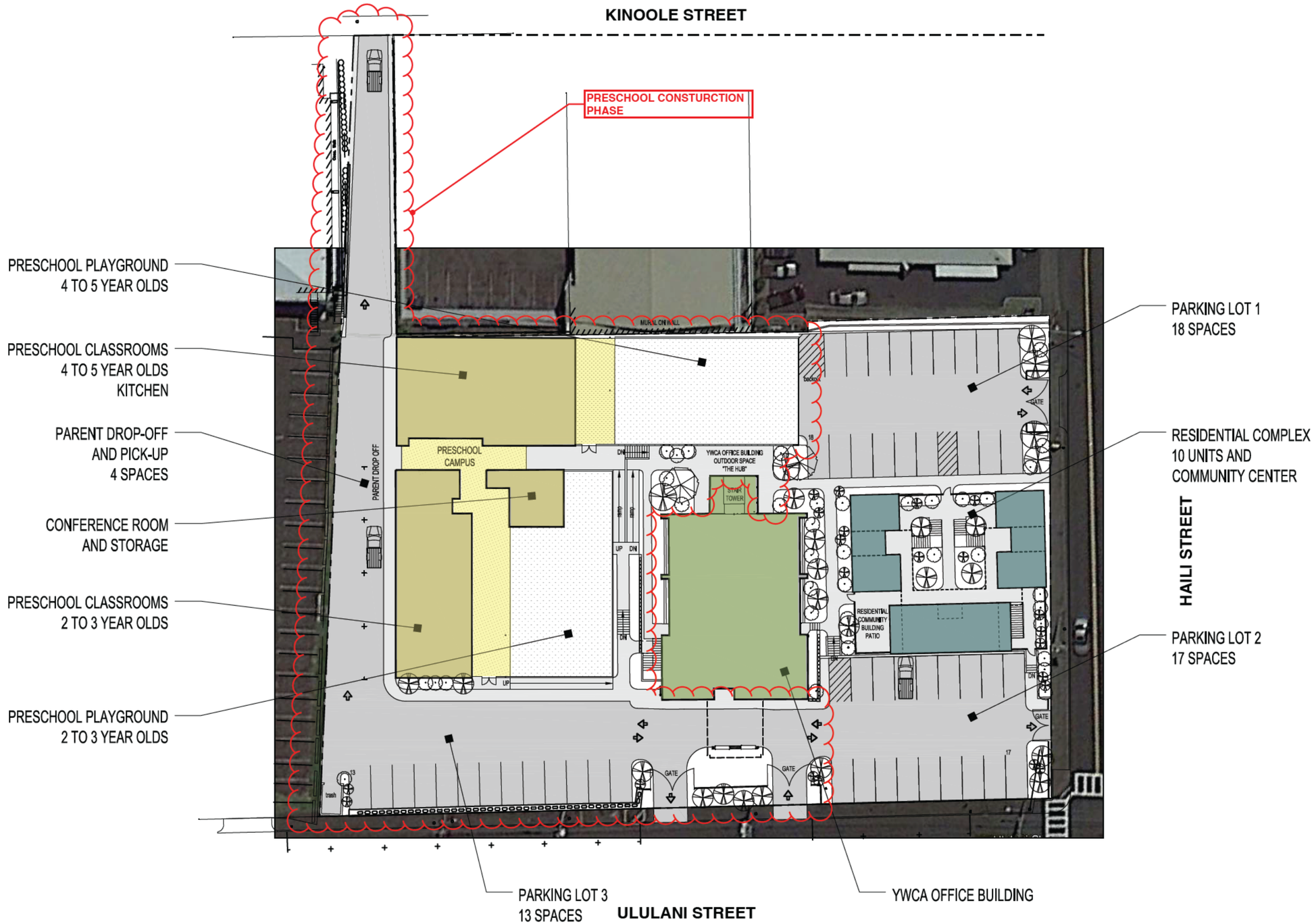
REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

SHEET CONTENTS:
OVERALL EXISTING SITE PLAN

DATE: AUGUST 2020

SHEET:
A-1



1 **OVERALL SITE PLAN**
SCALE: 1"=20'

TOTAL PARKING = 52 SPACES

NORTH
0 10' 20'
SCALE IN INCH

FLEMING &
Associates, LLC
557 MANONO STREET
HILO, HAWAII

SCOTT E. FLEMING
LICENSED PROFESSIONAL ARCHITECT
No. 11441
HAWAII, U.S.A.

EXP. DATE: 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. CHAPTER 16-115 OF THE HAWAII ADMINISTRATIVE RULES, DEPT. OF COMMERCE AND CONSUMER AFFAIRS, ENTITLED PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.

YWCA HILO
CONCEPTUAL MASTER PLAN

145 ULULANI STREET
HILO, HAWAII, 96720
TAX MAP KEY: (3) 2-3-013: 002

CONSULTANT:

REVISIONS:

PROJECT NO.: 20006.00
PROJECT ARCH.: SF
PROJECT PLANS: KH, JP

SHEET CONTENTS:
OVERALL
SITE PLAN

DATE: AUGUST 2020

SHEET:
A-2

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX D !
INTERIM ACTION MEMORANDUM !

March 22, 2024

Interim Action Memorandum for the YWCA of Hawaii Island

145 Ululani Street
Hilo, Hawaii 96720
TMK: (3) 2-3-013: 002

Prepared by:
Lehua Environmental Inc.
P.O. Box 1018
Kamuela, Hawaii 96743

Prepared for:
YWCA of Hawaii Island
145 Ululani Street
Hilo, Hawaii 96720
TMK: (3) 2-3-013: 002

This interim action memorandum was prepared by Lehua Environmental Inc. (LEI) at the request of management of the YWCA of Hawaii Island (YWCA) in order to implement interim controls to protect site users, workers, the general public, and the surrounding environment from lead-impacted soil that was identified in site soils. Lead in surface and subsurface soils have been detected at the subject site at high concentrations above both Tier 1 and Tier 2 State Department of Health (HDOH) Environmental Action Levels. These high levels of lead are an immediate concern for human health and the environment.

Human Health and Environmental Concerns from lead-Impacted Soil

The primary human health concerns are direct exposure and ingestion/inhalation of lead-impacted soil by children playing in bare soil or patchy grassed areas onsite, as well as construction or maintenance workers that need to disturb soil in order to accomplish their work (i.e., landscape or utility maintenance). Ingestion/inhalation of lead-impacted soil could occur by getting soil on one's hands or clothing, especially in the case of children playing, and incidental ingestion of soil once it is near the mouth. Dust created by normal wind/erosion may also result in inhalation of lead-impacted dust.

Acute exposure to lead can result in the following symptoms:

Pain, muscle weakness, numbness and tingling, and, rarely, symptoms associated with inflammation of the brain. Abdominal pain, nausea, vomiting, diarrhea, and constipation.

Chronic exposure to lead can result in the following symptoms:

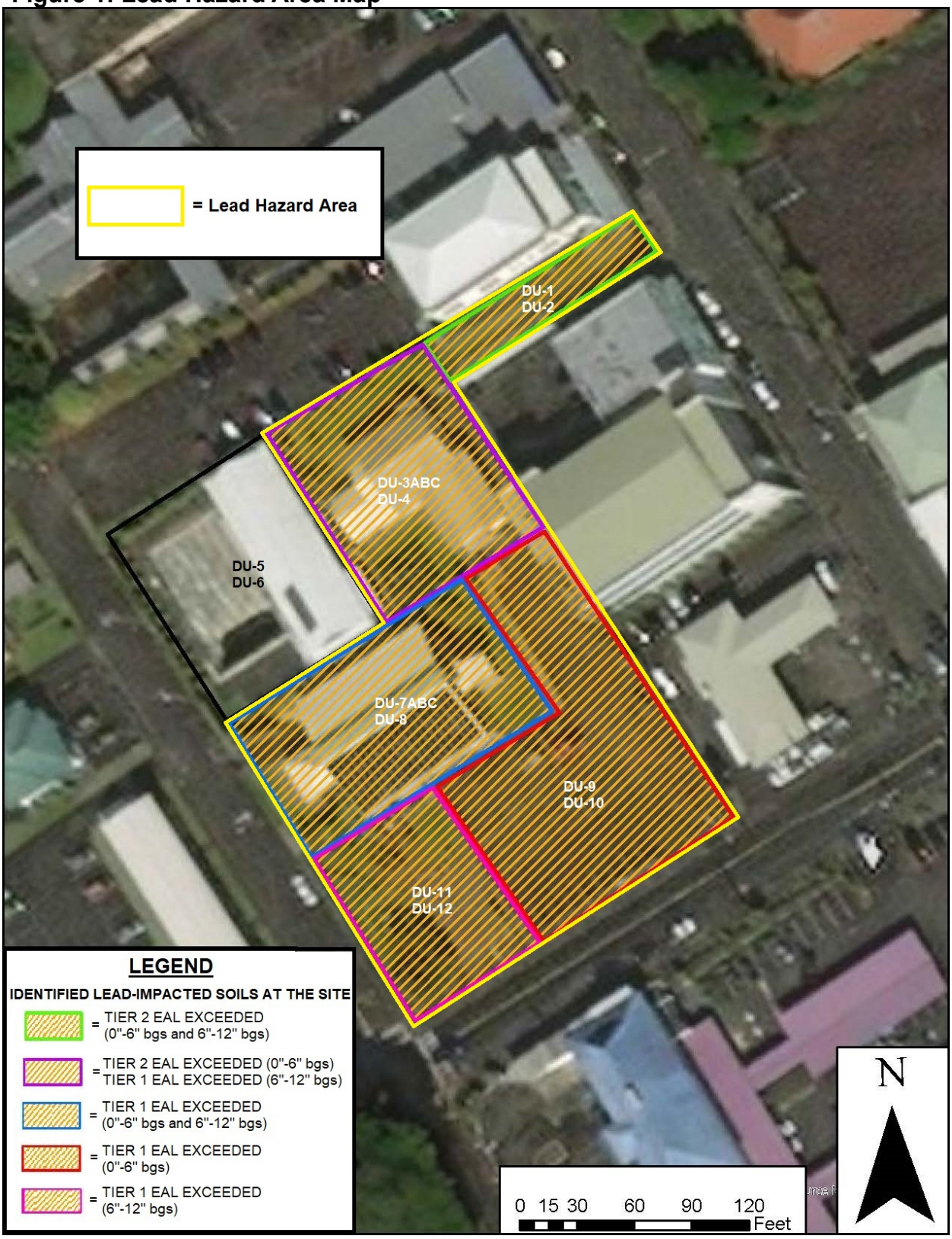
- Abdominal pain
- Constipated
- Depression
- Distracted
- Forgetful
- Irritable
- Nauseous/Sick

People with prolonged exposure to lead may also be at risk for high blood pressure, heart disease, kidney disease, and reduced fertility (CDC, 2024).

There is also a concern for the surrounding environment that the lead-impacted soil could migrate offsite to adjacent parcels/roadways via stormwater flow and/or dust migration, potentially spreading the lead contamination to offsite soil and stormwater, which in turn could impact ecological receptors.

Figure 1 below shows the areas onsite where high levels of lead were found in soil.

Figure 1: Lead Hazard Area Map



Given the high concentrations of lead in soil found onsite, the following interim remedial actions are recommended to immediately reduce the potential for human and environmental exposure within the lead impacted areas shown in Figure 1:

1. Fence or block off all bare soil or patchy grass areas so that children, site workers and the general public will not be able to access bare soil or patchy grass areas; or
2. Place 6-mil polyethylene sheeting on all bare soil or patchy grass areas. Place at least 3-6 inches of clean imported gravel (3/4 minus), clean soil fill, wood chips, mulch or any other material that will provide enough weight on top of the polyethylene sheeting in order to weigh it down and create an additional barrier to the lead-impacted soil. The favorable selection is gravel as it will allow stormwater to move through without pooling and/or transport of material. However, be careful not to damage the plastic sheeting with the gravel. Synthetic turf may also be used on top of the fill material to protect the user selected fill material from site occupants (i.e. children).
3. Surround all bare soil or patchy grass areas with filter socks in order to prevent soil or stormwater infiltration/mixing with lead-impacted soil.
4. Monitor all interim remedial action areas on a daily basis to make sure all interim remedial actions are in good working condition without damage. Constant wind, rain and sun can quickly damage or render the above interim remedial actions ineffective if not properly maintained.

The above interim remedial actions are temporary measures to quickly address the lead in soil contamination while the HDOH Hazard Evaluation and Emergency Response (HEER) Office review the reports submitted by LEI on behalf of the YWCA. The HDOH will likely recommend additional measures to be implemented until construction begins, as well as additional measures to be implemented in the final Construction Environmental Hazard Management Plan (C-EHMP). The HDOH will also likely require an Interim or Long-Term EHMP to manage the contamination in the long-term if the site owner elects to manage the contamination in place rather than removing all impacted soil.

However, if all impacted soil is removed and disposed, and confirmation soil sampling reveals safe levels of lead in soil below Unrestricted HDOH Environmental Action Levels, then an Interim or Long-Term EHMP may not be required by HDOH.

As an added note, Toxic Characteristic Leaching Procedure (TCLP) lead sampling of all soils with planned removal and disposal from the site should be conducted to determine if the West Hawaii Landfill will accept the lead-impacted soil. If TCLP lead results are higher than the State and Federal hazardous waste level of 5.0 mg/L, the lead-impacted soils cannot be disposed in the State of Hawaii and will need to be shipped to a U.S. Mainland licensed hazardous waste facility at a considerable cost to the site owner. In this case, long-term management in place may be the only feasible alternative to the site owner.

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX E

ARCHAEOLOGICAL LITERATURE REVIEW AND FIELD INSPECTION

Stantec GS, Inc.
737 Bishop Street, Suite 3050
Honolulu HI 96813
Tel: (808) 528-1445

December 12, 2023
Scott Fleming
FLEMING & Associates, LLC
557 Manono Street
Hilo, HI 96720
sfleming@fleminghawaii.com

RE: Archaeological Literature Review and Field Inspection for the YWCA HILO MASTER PLAN, 145 Ululani Street, Hilo, Punahoa 1st Ahupua'a, South Hilo District, Island of Hawai'i, TMK: (3) 2-3-013:002.

Dear Scott,

Stantec GS, Inc (Stantec) has prepared this archaeological literature review and field inspection at the request of Fleming and Associates, on behalf of the YWCA of Hawai'i Island (Landowner). The current study was conducted in support of the preparation and future implementation of a master plan for the subject parcel, which would include the demolition of certain buildings and structures on the parcel and construction of new preschool facilities, a residential complex and community center, and parking lots. This literature review was prepared to provide information intended to assist with future Hawai'i Revised Statutes (HRS) Chapter 6-E review of the proposed project. The purpose of the literature review is to determine the likelihood of previously undocumented archaeological historic properties within the subject parcel. This report provides a brief culture-historical background, a summary of relevant findings from prior archaeological studies, details the findings from the study, and provides recommendations based on those findings. The study was conducted Benjamin Barna, Ph.D. (State of Hawai'i Archaeological Permit 23-44). Much of the history of the subject parcel is drawn from newspaper articles and other documents held by the YWCA and the Lyman Museum since the Hilo YWCA's own archives were lost in 1981 when a fire destroyed the association's activities building.

SUBJECT PARCEL DESCRIPTION

The subject parcel 145 Ululani Street, Hilo, Punahoa 1st Ahupua'a, South Hilo District, Island of Hawai'i, on Tax Map Key: (3) 2-3-013:002 (Figures 1, 2, and 3). It is a flag lot that occupies 1.41 acres located at the northeast side of the intersection of Haili Street and Ululani Street in downtown Hilo. The parcel is oriented northeast-southwest, and includes a driveway extending to Kino'ole Street. The entire parcel is developed and contains three buildings: a wooden preschool building constructed in 1929 with a small playground next to it in the northeast corner; a pool building and six-lane, 25-yard swimming pool in the northwest corner; and a centrally-located multipurpose building. The southeast portion of the parcel is occupied by an asphalt parking lot, and the southwest corner is occupied by another playground. The parcel slopes downhill (makai) from Ululani Street. The southern half of the parcel was cut several feet lower than the northern half during the construction of the multipurpose building, and a retaining wall separates this half of the parcel from the swimming pool, pool building, and the small playground. The slope in the northern half is more gradual, but has been altered by the construction of the pool and pool building. Since the lot makai of the subject parcel was cut down to be even the Kino'ole St grade, there is a retaining wall along the makai subject parcel boundary. The subject parcel is connected to Kino'ole Street by a narrow drive way. The drive way slopes downward to Kino'ole Street between the retaining wall and the Elks Lodge building. The northern boundary is marked by a chain-link fence. On Ululani Street, the parcel boundary next to the swimming pool is marked with a concrete and rock wall built in 1974 for the pool, and a chain link fence surrounding the rest of the parcel. A U-shaped driveway provides access to Ululani Street. All vegetation on the parcel is part

of the designed landscape and includes mature trees, ti plants, ornamental shrubs, and grass lawns.

BRIEF CULTURE-HISTORICAL BACKGROUND FOR THE SUBJECT PARCEL

The subject parcel is located in the ahupua'a of Punahoa 2nd in the traditional Moku of Hilo (now the district of South Hilo). The ahupua'a name is translated by Pukui et al. (1974:194) as "companion spring" which likely refers to the many fresh water sources located within it. An archaeology study conducted by the Bishop Museum in the late 1970s (Sinoto 1978) identified old 'auwai (irrigation ditches), terraces, rock mounds, and modified streams within the inland portions of Punahoa, and these may be related to the place name.

Land Use before 1848

Punahoa is one of several ahupua'a in south Hilo that extend partially inland from the coastal fishing grounds, being cut off by Pi'ihonua Ahupua'a at about the 3,500-foot elevation. Terrestrial and marine resources, abundant rain, and freshwater from springs and streams provided resources that made Hilo attractive as a seat of royal power and chiefly residences as late as the 1870s (Brandt 2017; Cordy 2000; Kelly et al. 1981). The project area was located in an area of intensively cultivated land above the bay, which McEldowney (1979) describes as the region's "Upland Agricultural Zone." This was described in the early nineteenth century as an area of open expanse with widely spaced cottages or huts surrounded by neat gardens and small clusters of trees. Lieutenant C.R. Malden's chart of Hilo Bay (Figure 4), which was prepared in 1825 during the visit of HMS Blonde but published in 1841, shows a regular patchwork of agricultural fields extending makai from Pu'u Hina'i (which Malden labeled "Green Hill Extinct Volcano"). While the exact layout of the fields shown on the chart is probably schematic at best, it is clear that the subject parcel was located within agricultural fields of Punahoa.

Land Disposition during the Māhele 1848

During the Māhele of 1848, the ahupua'a of Punahoa appears to have been divided between to ali'i, with the southern division (Punahoa 1) given to Enoka Kahakamakaliua and the northern division—containing the subject parcel— awarded to Asa Kae'o. Ka'eo, who is also called Asa Ka'eo Eleele in historic documents, was a kaukau ali'i (lesser chief) of Hawai'i who held 35 'āina (i.e., ahupua'a, 'ili, and other landholdings) before the Māhele but received only four from the Mō'ī (king) Kauikeaouli (Kame'eleihiwa 1992:264). Despite receiving Punahoa 2 from the Mō'ī, Asa Ka'eo did not receive a land commission award for the ahupua'a. Instead, a substantial portion of Punahoa 2 was awarded instead to the American Board of Commissioners for Foreign Missions (ABCFM) as Land Commission Award No. 387, Part 4 (Land Commission Award 1964:Book 3, Page 137). Testimony given by Titus Coan, David B. Lyman, and Lorrin Andrews before the Land Commission in 1849 states that the land was given to Joseph Goodrich (acting for the ABCFM) by the king and Ka'ahumanu in about 1827 and that at the time some kama'āina of land still lived on it while other Hawaiians had leased or obtained permission to use lands from the mission (Foreign Testimony 1964:Vol.3 135-136). No smaller kuleana parcels were awarded within it. The ABCFM divided its land in Punahoa into lots that included houselots for several missionary families, Hawaiian tenants, and institutions such as their church and the Hilo Boarding School. The map (Figure 5) prepared in 1849 to accompany the Land Commission claim shows Coan's house just mauka of the subject parcel, and on the subject parcel, another house labeled "Paris" that was occupied by J.D. Paris.

Wetmore, 1849-1929

Charles H. Wetmore, a missionary doctor under the ABCFM, arrived in Hilo in May 1849, with his wife Lucy Sheldon Taylor (The Hawaii Herald 1898). The Wetmores appear to have moved into the Paris house, and later improved it. The Wetmore house was accessed from Pitman Street, which was renamed Kino'ole Street in 1916 (Hawaii County Code 1916). Among Wetmore's accomplishments was operating the American Hospital, which primarily served American sailors. The hospital building was later moved from the waterfront to become the first public library in Hilo. Wetmore's daughter, Fanny, also became a doctor and practiced in Hilo.

Hawai'i Registered Map Number 1602 (Figure 6) shows the layout of Wetmore's land at the corner of Church (later renamed Haili) and Pitman (later renamed Kino'ole) streets in 1881. Wetmore's land included most of the subject parcel and also extended makai of Pitman Street. This map, focused on parcels and land titles, does not include details about hos the land was used. His house can be seen, however, on Hawai'i Registered Map 1561 (Figure 7). Between 1891 and 1921, improvements were added to the lot, as seen on the 1921 Sanborn fire insurance map of Hilo (Figure 8). This map depicts the Wetmore estate, with the main house with its distinctive wings oriented northeast-southwest at the center of a trapeziodal lot fronting Pitman Street. A doctor's office is located in the northeast corner of the lot, in the current location of the Elks Building, with a smaller dwelling behind it. On a separate lot which is part of the subject parcel today, a small wood-framed stable is located near Haili Street.

YWCA, 1929-present

The Young Women's Christian Association was founded as the Ladies Christian Association in 1858 in New York City, with its goal the "improvement in the Moral, Social, and Spiritual condition of Women in the city of New York," later expanding its scope throughout the nation (Ladies' Christian Association 1859). In 1900, the Young Women's Christian Association of Honolulu was organized, and by the end of 1919 there was sufficient interest Hilo to organize a separate association for the town and island (Hawaii Tribune-Herald 1919). Like the Honolulu YWCA, it offered services that included room and board for business and professional women, exercise facilities and programs, "Americanization" programs to teach English and American customs, and clubs and classes for school-aged girls. There was no permanent home for the organization, and it leased or rented seven different locations between its founding and 1929, including: a cottage on Waiānuenue Street, F.S. Lyman home, F.S. Lyman cottage, Mrs. Reed's cottage on Waiānuenue Street, the upper story of the building formerly located makai of Hilo Drug Store, the Hapai home on Haili and Keawe streets, and, finally in 1925, the Wetmore house on Pitman (Kino'ole) Street (Hawaii Tribune-Herald 1936b).

In 1927, a hui (group) of YWCA supporters that included Frank Atherton, Richard Cooke, George Wilcox, and Eloise C. Marx provided funds for the association to purchase a portion of Wetmore's lot in order to create a permanent headquarters in Hilo (Hawaii Tribune-Herald 1929a, 1936b). That purchase was the foundation of the Hilo YWCA campus, which eventually took its current form as multiple subdivisions and consolidations created the subject parcel. In 1929, the board of directors announced their future plans for the lot, which included the remodeling of buildings for a new headquarters and gymnasium, and, it was hoped, a tennis court and a swimming pool at some point in the future (Hawaii Tribune-Herald 1929a). The next month, the Wetmore house was demolished, and construction work began on a new administration building to replace it.

The new building (Figure 9) was designed by Hilo-based architect Frank Arakawa (Hawaii Tribune-Herald 1929b), who is known for several important buildings around Hawai'i Island and in downtown Hilo (Arakawa 2014). The new building was designed to house an office, a reception !

room, a kitchenette and breakfast nook, a large screened lanai, and wing containing four bedrooms and two bathrooms for YWCA workers and transients. The contractor hired to do the construction work, K. Fujimoto, reportedly re-used some salvaged materials from the Wetmore house in the new building. The YWCA continued to provide its range of services to the women of Hilo and Hawai'i Island from their new headquarters. These included the addition of tennis lessons on a court constructed in the northwest corner of the lot (Hilo Daily Tribune 1930, 1932).

The activities of the association soon began to outgrow the administrative building. In 1936, a new activities building designed by Honolulu architect Guy N. Rothwell was completed in the current location of the multi-purpose building (Hawaii Tribune-Herald 1936b). The main floor of the building housed two offices, a board committee room, a kitchen, a stage backed by a large plate glass window, a balcony, auditorium, and gymnasium. In its basement was a craft room, club room, showers, and store rooms. It featured a fireplace on the south side, and the original stone doorstep recovered from the home of Titus Coan was installed at the front entrance on Ululani Street. The architect's drawing (Figure 10) of the building shows the building sited on a substantial cut down from the Ululani Street side. The new building was connected to the 1929 administrative building via sidewalk specially decorated with imprints of leaves of "Hawaiian plants" that included sugarcane, banana, papaya, hibiscus, koa, fern, coffee, pear, breadfruit, and others (Hawaii Tribune-Herald 1936c). In Figure 11, the layout of the buildings as of 1957 on the campus is depicted on an updated Sanborn Fire Insurance Map.

Additional improvements to the YWCA campus during the 1960s included constructing concrete steps and landings to existing buildings, the addition of a gas storage shed, and alterations to the administration building. In 1972, the association announced a series of major upgrades to the campus designed by ODA/McCarty, Architects (Hilo Tribune-Herald 1972). The upgrades (Figures 12 and 13) were intended to modernize both the "cottage" (as the 1929 administration building had come to be called) and the 1936 activities building, and to and add activity rooms and a new swimming pool. Ground was broken for the swimming pool in April of 1973 in the former location of the tennis court (Hilo Tribune-Herald 1973a). The pool complex included a six-lane, 25-yard pool swimming pool along with a wading pool, a covered lanai, and a pool building (Hilo Tribune-Herald 1973b, 1973c). The opening of the pool came 44 years after it was first discussed during the YWCA's purchase of the subject property. At the time, it was one of several pools in Hilo, which included public pools at the NAS pool and the Hoolulu Pool (now Sparky Kawamoto Pool), the pool at Hilo High School, as well as private pools at the Hilo Yacht Club in Keaukaha and other locations.

On November 3, 1982, the 1936 activities building was destroyed by a fire set by a burglar (Hilo Tribune-Herald 1983b; Tao 1981a, 1981b). After a fundraising drive, the destroyed building was replaced with the current multipurpose building in 1983. At about the same time, renovations were made to the 1929 administration building (the "cottage") as well. Instead of the covered walkway depicted in Figure 13, a large covered lanai was added to the Ululani Street façade of the building (Figure 15). its current configuration with a covered lanai (Hilo Tribune-Herald 1983c). Since then, no major changes to the campus have occurred.

PRIOR ARCHAEOLOGICAL SURVEYS

The subject parcel has not been included in any prior archaeological studies. In fact, few archaeological studies have investigated downtown Hilo. State Historic Preservation Division (SHPD) review of past projects in downtown Hilo has been generally limited to building demolition projects. The archaeological survey for the Alenaio Stream Flood Damage Reduction project (Kelly and Athens 1982) included a reconnaissance of a corridor mauka of Hala'i Hill, which

identified the former route of the Hilo Boarding School Ditch (State Inventory of Historic Places Site 50-10-35-14947). Subsequent archaeological studies for projects on the Hilo High School campus (Wilkinson and Hammatt 2009) and the Hilo Intermediate School campus (Barna 2017) identified the routes of several historic ditches within the two ahupua'a of Pi'ihonua and Punahoa, but none of these passed through or near the subject parcel (see also Wolforth 1999).

FIELD INSPECTION

A surface field inspection was conducted on September 20, 2023, by Benjamin Barna, Ph.D. The ground surface of the parcel was inspected for surface archaeological features and indications of potential for buried archaeological deposits. The majority of the parcel is previously developed (see Figure 3), and contains buildings, asphalt parking lots, or landscaped grass areas. The extent of prior ground alterations is evident through the many graded areas, banks and retaining walls, and landscaping. As might be expected in such an environment, no surface indications of archaeological features or deposits were observed. The extensive past ground alterations suggest that the current ground surface has been cut beneath any past ground surfaces that would have been occupied prior to the twentieth century.

RESULTS AND RECOMMENDATIONS

The current review of existing archival, historical, and archaeological literature and the current field inspection confirm that extensive alterations have been made to the terrain of the subject parcel since the early twentieth century. The alterations to the parcel began shortly after the subdivision of the original Wetmore lot and demolition of the Wetmore house in 1929. These alterations include:

- Grading of the Kino'ole Street driveway over a portion of the Wetmore house footprint,
- Site preparation for the 1929 YWCA administrative building,
- Cut, fill, and grading for the construction of the 1936 activities building,
- Excavation for the 1974 swimming pool and pool house,
- Grading for the 1983 multi-purpose building, parking lots, and play yards.

An example of these can be seen in the photograph in Figure 15. The photograph was taken from the small playground located between the pool building and the 1929 administration building ("the cottage"). At left is the multipurpose building, sitting several feet below grade. A large concrete retaining wall and a drainage swale separate the cut containing the multipurpose building from the pool building and playground. The pool building is sited on what appears to be fill supported by a rock and concrete retaining wall. The playground has been graded. Additionally, a comparison of Figures 9, 14, and 15 suggest that the playground is below the original grade of the parcel at the time that the 1929 administration building was constructed.

In summary, past land use and past construction have resulted in ground disturbance throughout the entire parcel. The extent of this ground disturbance suggests an extremely low likelihood that intact archaeological historic properties remain on the subject parcel. Given this low likelihood, development of the subject parcel could be anticipated to result in no effects to archaeological historic properties.

Sincerely,
Stantec Government Services Inc.

Benjamin Barna, Ph.D. !

REFERENCES CITED

Arakawa, M. M.
2014 ! Architect Extraordinaire Frank Futoshi Arakawa. In *Aloha ʻĀina Volume II: More Big Island* Memories, edited by Gloria Kobayashi. East Hawaiʻi Cultural Council, Hawaiʻi Museum of Contemporary Art, Hilo, HI.

Baldwin, E. D.
Hilo Town and *Vicinity*. Hawaiʻi Land Survey Division, Registered Map No. 1561. http://ags.hawaii.gov/survey/map-search, accessed March 25, 2020.

Barna, B.
2017 ! An Archaeological Inventory Survey for the Hilo Intermediate School Repair/Replace Building A (Phase 1), DOE Project No. Q11000-16, TMK: (3) 2-3-021:058 (por.), Piʻihonua Ahupuaʻa, South Hilo District, Island of Hawaiʻi. ASM Affiliates.

Brandt, L. M. P.
2017 ! Through the Lens of the ʻIli Kūpono: Re-establishing Connections to Piʻopiʻo, Waiākea, Hilo, Hawaiʻi through Ethnohistory, Archaeology, and Community. M.A. Thesis, University of Hawaiʻi at Hilo, Heritage Management, Hilo, May.

Cordy, R. !
2000 Exalted *Sits the Chief, The Ancient History of Hawai'i Island*. Mutual Publishing, Honolulu. !

Foreign Testimony
1964 ! Dept. of Land and Natural Res. Foreign Testimony Microfilmed 1964 Originals in State Archives. Vol. 3, 4, 5, 6, 7, 8, 9. *MFL* 91–2. Hawaii State Archives. https://digitalarchives.hawaii.gov:8443/documents/3910/663-2.pdf, accessed December 8, 2023.

Hawaii County Code
1916 ! An Ordinance Relating to the Naming of Public Streets, Highways and Roads in the City of Hilo, County of Hawaii Ordinance No. 47. *Hawaii County Code*. May 5.

Hawaii Tribune-Herald
1919 ! Plan New Organization. *Hawaii Tribune-Herald* (Hilo, Hawaii), December 3, p. 1.
1929a ! Permanent Site for Y.W.C.A. is Given by Friends. *Hawaii Tribune-Herald* (Hilo, Hawaii), July 7, p. 1.
1929b ! Y.W.C.A. Central Building Soon to Become Reality. *Hawaii Tribune-Herald* (Hilo, Hawaii), July 7, p. 1.
1936a ! New Building for YWCA Activities is Planned. *Hawaii Tribune-Herald* (Hilo, Hawaii), May 17, p. 1.
1936b Activities Building of YWCA is Opening Today. *Hawaii Tribune-Herald* (Hilo, Hawaii), November 9, p. 1.
1936c Unique Walk Will Connect Buildings. *Hawaii Tribune-Herald* (Hilo, Hawaii), November 9, p. 2.

Hilo Daily Tribune !
1930 Y.W.C.A. Offers Extensive Range in Its Classes. *Hilo Daily Tribune* (Hilo, HI), October 21, p. ! 2.
1932 ! Increase in Enrollment in YWCA Girl Reserve Units on Big Isle Reported at Confab. *Hilo Daily Tribune* (Hilo, HI), June 8, p. 1.

Hilo Tribune-Herald !
1972 Plans for $472,000 YWCA Campaign Told. *Hilo Tribune-Herald* (Hilo, HI), March 31, p. 1. !
1973a YWCA Groundbreaking Ceremony Held. *Hilo Tribune-Herald* (Hilo, HI), April 17, p. 5. !

1973b YWCA Pool Nearly Pau; More To Come. *Hilo Tribune-Herald* (Hilo, HI), June 24, p. 14. !
1973c Swim Pool Dedication Set. *Hilo Tribune-Herald* (Hilo, HI), August 10, p. 10. !
1983a YWCA slates cotttage reopening celebration. *Hilo Tribune-Herald* (Hilo, HI), August 30, p. ! 16.
1983b Man gets 5 years for YWCA fire. *Hilo Tribune-Herald* (Hilo, HI), March 24, p. 1.
1983c YWCA slates cottage reopening celebration. *Hilo Tribune-Herald* (Hilo, HI), August 30, p. 16.

Kame'eleihiwa, L.
1992 ! *Native Land and Foreign Desires: Ko Hawaii 'Āina a Me Nā Koi Pu'umake a Ka Po'e* Haole*, Pehea Iā e Pono ai? How Shall We Live in Harmony?* Bishop Museum Press, Honolulu.

Kelly, M., and J. S. Athens
1982 ! Archaeological and Historical Studies for the Alenaio Stream Flood Damage Reduction Study, Hilo, Hawai'i. Department of Anthropology, B.P. Bishop Museum.

Kelly, M., B. Nakamura, and D. Barrere
1981 Hilo Bay: A Chronological History, Land and Water Use In The Hilo Bay Area, Island of Hawai'i. Department of Anthropology, Bernice P. Bishop Museum. March.

Ladies' Christian Association
1859 ! *Constitution and By-Laws of the Ladies' Christian Association of New York. Organized November 24, 1848, in teh Chapel of the New York University*. The "Home" Printing Office, New York. https://digitalcollections.nyhistory.org/islandora/object/islandora%3A109496, accessed December 6, 2023.

Land Commission Award
1964 ! Dept. of Land and Natural Res. Award Books Microfilmed in 1964 Originals in State Archives. Vol. 2–3. *MFL* 88–4. Hawaii State Archives. https://digitalarchives.hawaii.gov:8443/documents/3910/658-4.pdf, accessed December 8, 2023.

Lyman, F. S.
1882 ! *Hilo Town Titles*. Hawai'i Land Survey Division, Registered Map No. 1062. http://ags.hawaii.gov/survey/map-search, accessed March 25, 2020.

Malden, C. R.
1841 ! *Sandwich Islands, Waiakia or Byron Bay on the North-East Side of Owyhee Survyed By Lieut C. R. Malden R.N. 1825*. Hydrographic Office of the Admiralty. https://uwm.edu/libraries/digital-collections/copyright-digcoll/, accessed February 22, 2021.

McEldowney, H.
1979 ! Inventory of Archaeological and Historical Resources, Lava Flow Control Study, Hilo, Hawai'i. Department of Anthropology, B.P. Bishop Museum.

Pukui, M. K., S. H. Elbert, and E. Mo'okini !
1974 *Place Names of Hawaii*. Revised and Expanded. University of Hawaii Press, Honolulu. !

Sanborn Map Company !
1921 ! *Sanborn Fire Insurance Map from Hilo, Hawaii County, Hawaii County, Hawaii*. Sanborn Map Company, New York, New York. https://www.loc.gov/item/sanborn01535_002/.
1957 ! *Sanborn Fire Insurance Map from Hilo, Hawaii County, Hawaii County, Hawaii*. Sanborn Map Company, New York, New York. https://www.loc.gov/item/sanborn01535_003/.

Tao, G. !
1981a YWCA destroyed by night blaze. *Hilo Tribune-Herald* (Hilo, HI), November 3, p. 1. !
1981b Firemen say YWCA blaze arson. *Hilo Tribune-Herald* (Hilo, HI), November 4, p. 1. !

The Hawaii Herald !
1898 Dr. C. H. Wetmore's Life. *The Hawaii Herald* (Hilo, HI), May 19, p. 1. !

Wilkinson, S., and H. H. Hammatt !
2009 ! Archaeological Field Inspection and Literature Review Report for the DOE Hilo High School Gymnasium Project Piʻihonua Ahupuaʻa, South Hilo District, Island of Hawaiʻi TMK [3] 2-3-015:001. Cultural Surveys Hawaiʻi, Inc.

Wolforth, T. R.
1999 ! Data Recovery for the Housing Facility at the Hawaiʻi Community Correctional Center: Investigation into the Network of Ditches in the Hālaʻi Region of Hilo. Land of Piʻihonua, South Hilo District, Island of Hawaiʻi (TMK:3-2-3-23:Por.5). Paul H. Rosendahl, Ph.D., Inc.

FIGURES !

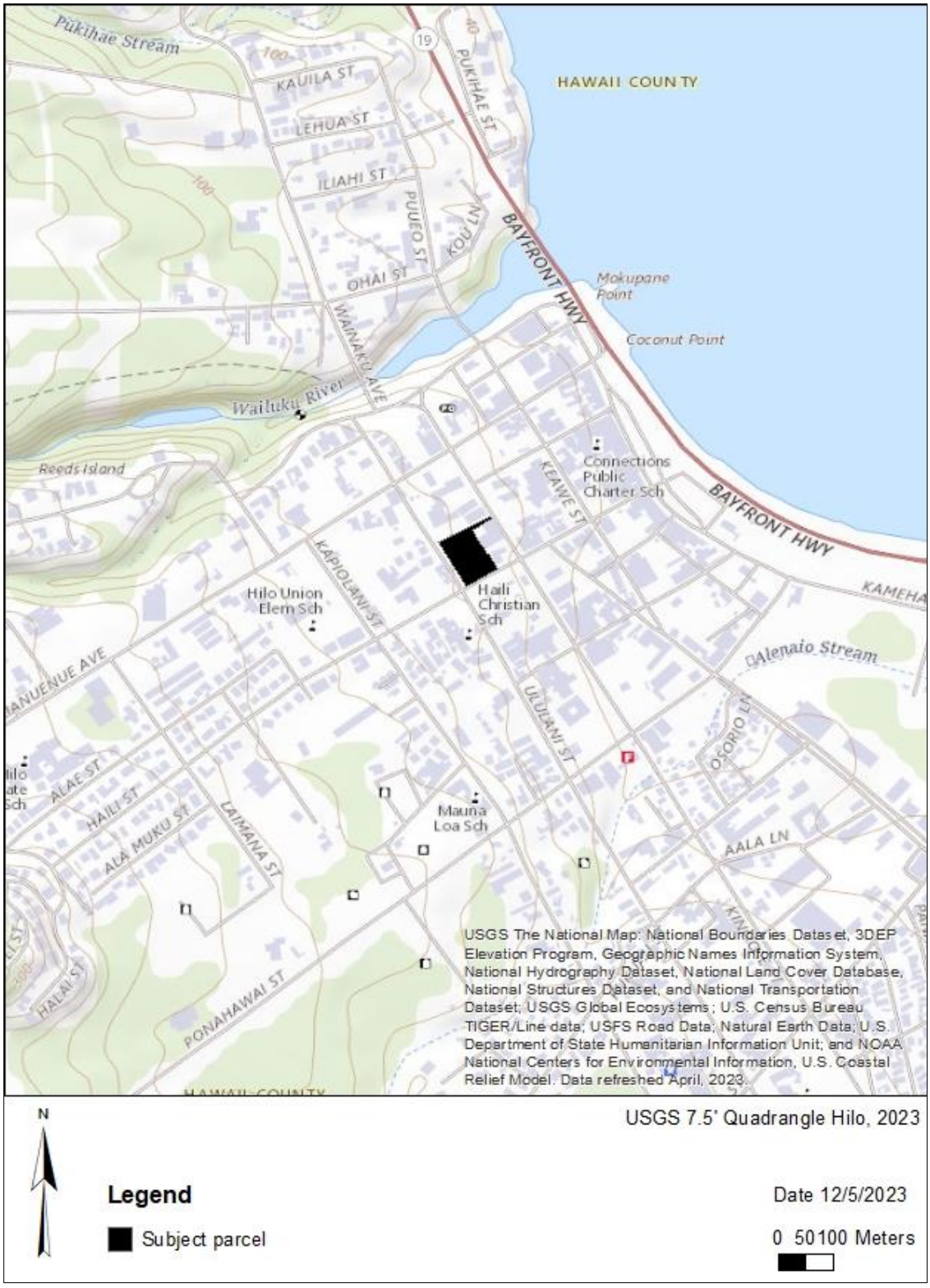


Figure 1. Subject parcel location. !

Figure 2. Tax Map Key Parcel. !

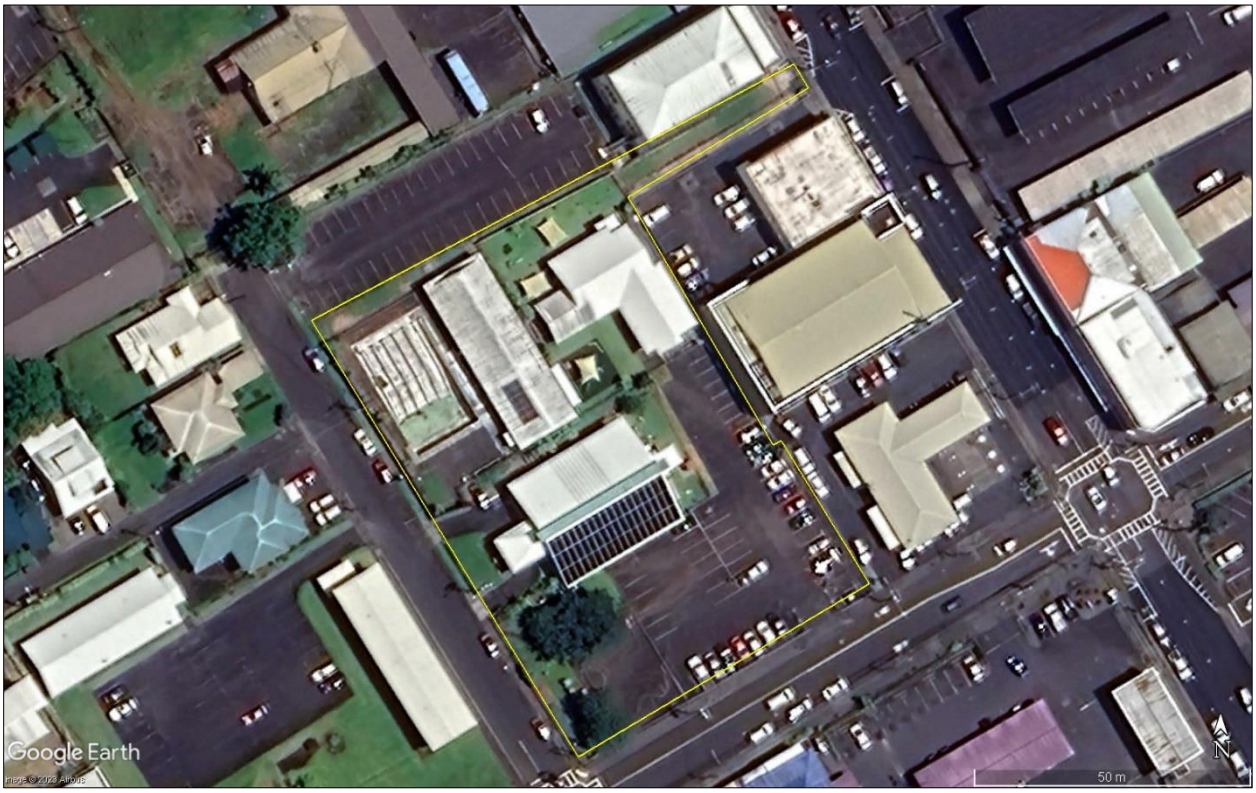


Figure 3. Recent aerial imagery of the subject parcel (outlined in yellow). !

Figure 4. Subject parcel indicated on Malden's (1841) chart, overlain on aerial imagery. !

Figure 5. Subject parcel indicated on LCAw 387:4 map, overlain on aerial imagery !

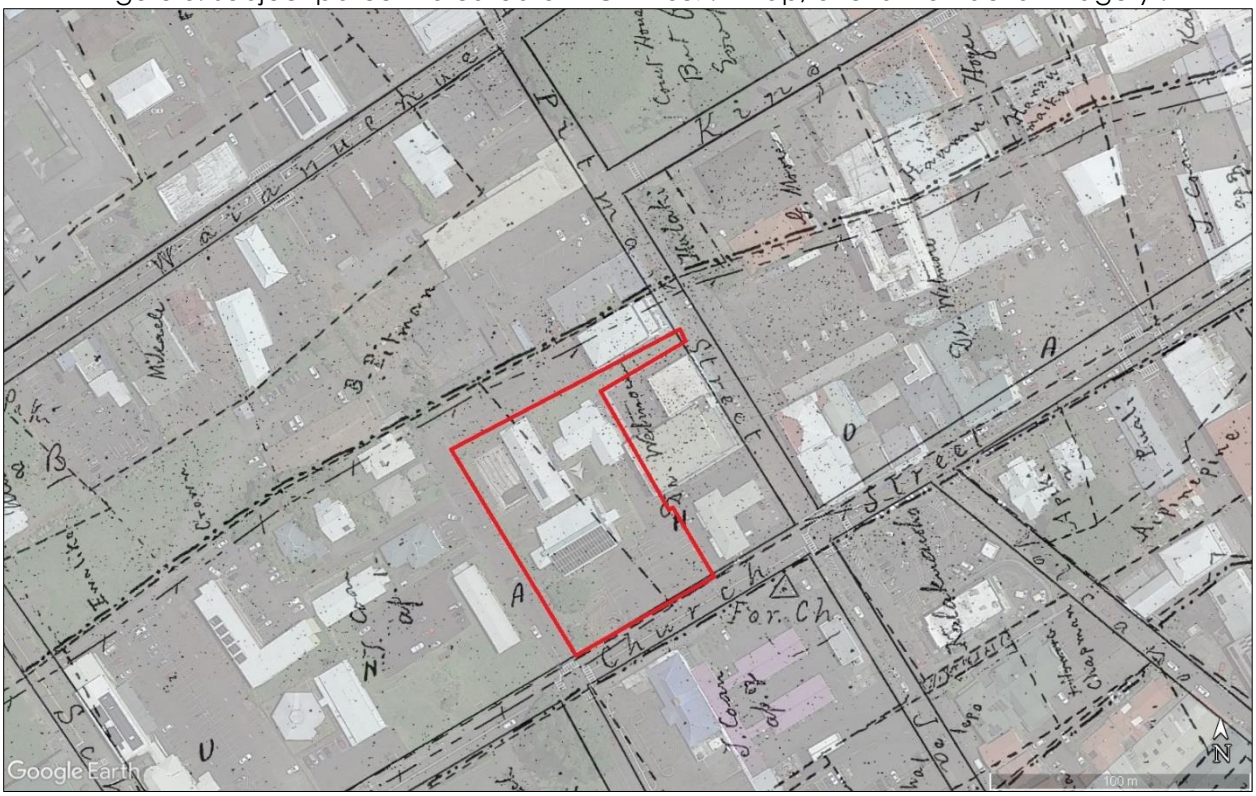


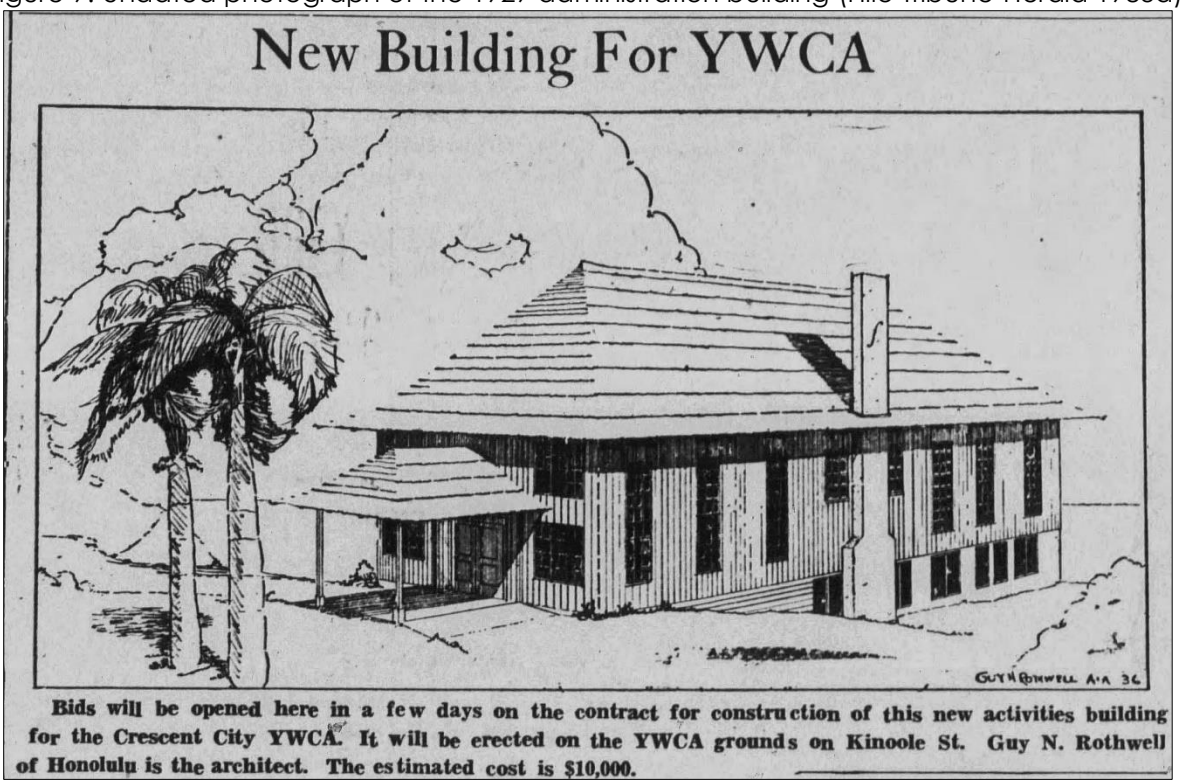
Figure 6. Subject parcel indicated on Registered Map 1602 (Lyman 1882) with aerial imagery. !

Figure 7. Subject parcel indicated on Registered Map 1561 (Baldwin 1891) with aerial imagery. !

Figure 8. Subject parcel indicated on 1921 Sanborn Fire Insurance Map (Sanborn Map Company 1921:9) with aerial imagery. !

COTTAGE IN EARLIER DAYS — The YWCA Cottage is seen in its early days when it was used as a residence. This is on a post card which was saved from the 1981 YW fire. Its corners were burned.

Figure 9. Undated photograph of the 1929 administration building (Hilo Tribune-Herald 1983a). !



Bids will be opened here in a few days on the contract for construction of this new activities building for the Crescent City YWCA. It will be erected on the YWCA grounds on Kinoole St. Guy N. Rothwell of Honolulu is the architect. The estimated cost is $10,000.

Figure 10. Architect's rendering of the 1936 activities building (Hawaii Tribune-Herald 1936a) !

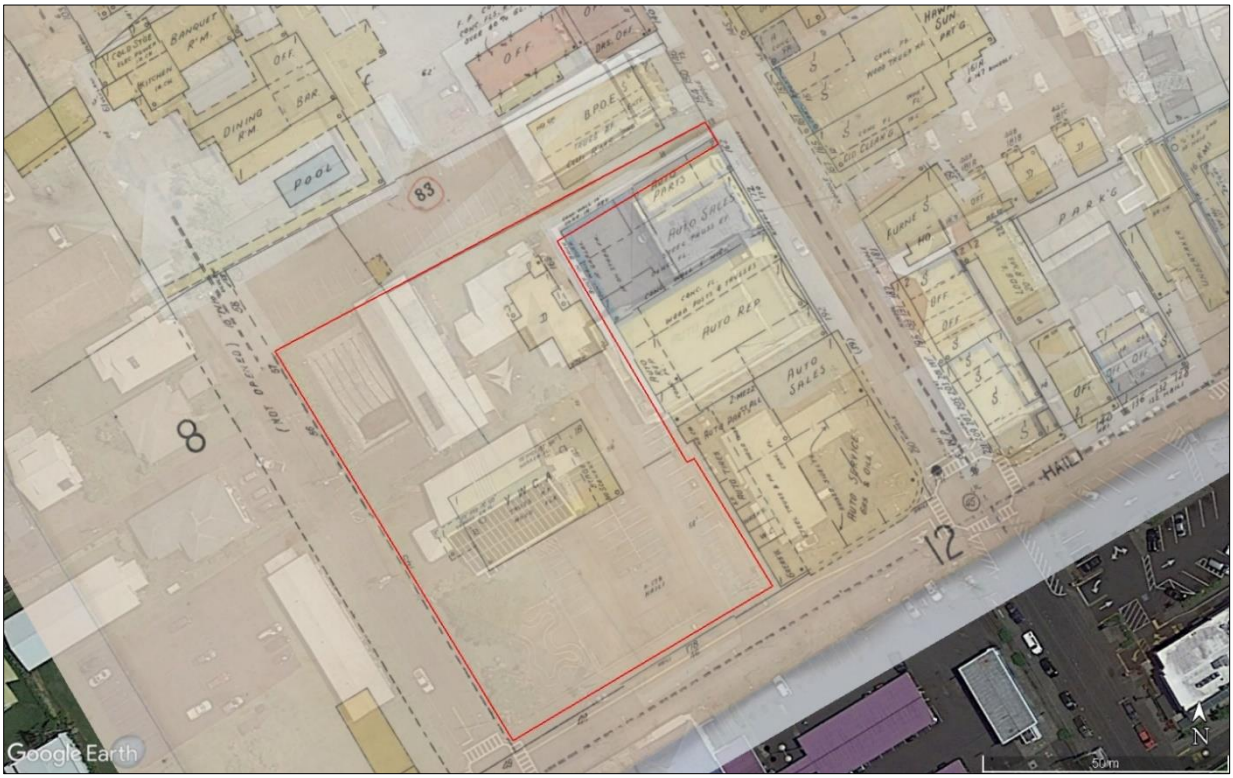


Figure 11. Subject parcel indicated on 1957 Sanborn Fire Insurance map (Sanborn Map ! Company 1957:9) with aerial imagery. !

Figure 12. Architect's drawing of the planned improvements to the YWCA campus Aerial 1977 pool (Hilo Tribune-Herald 1972).

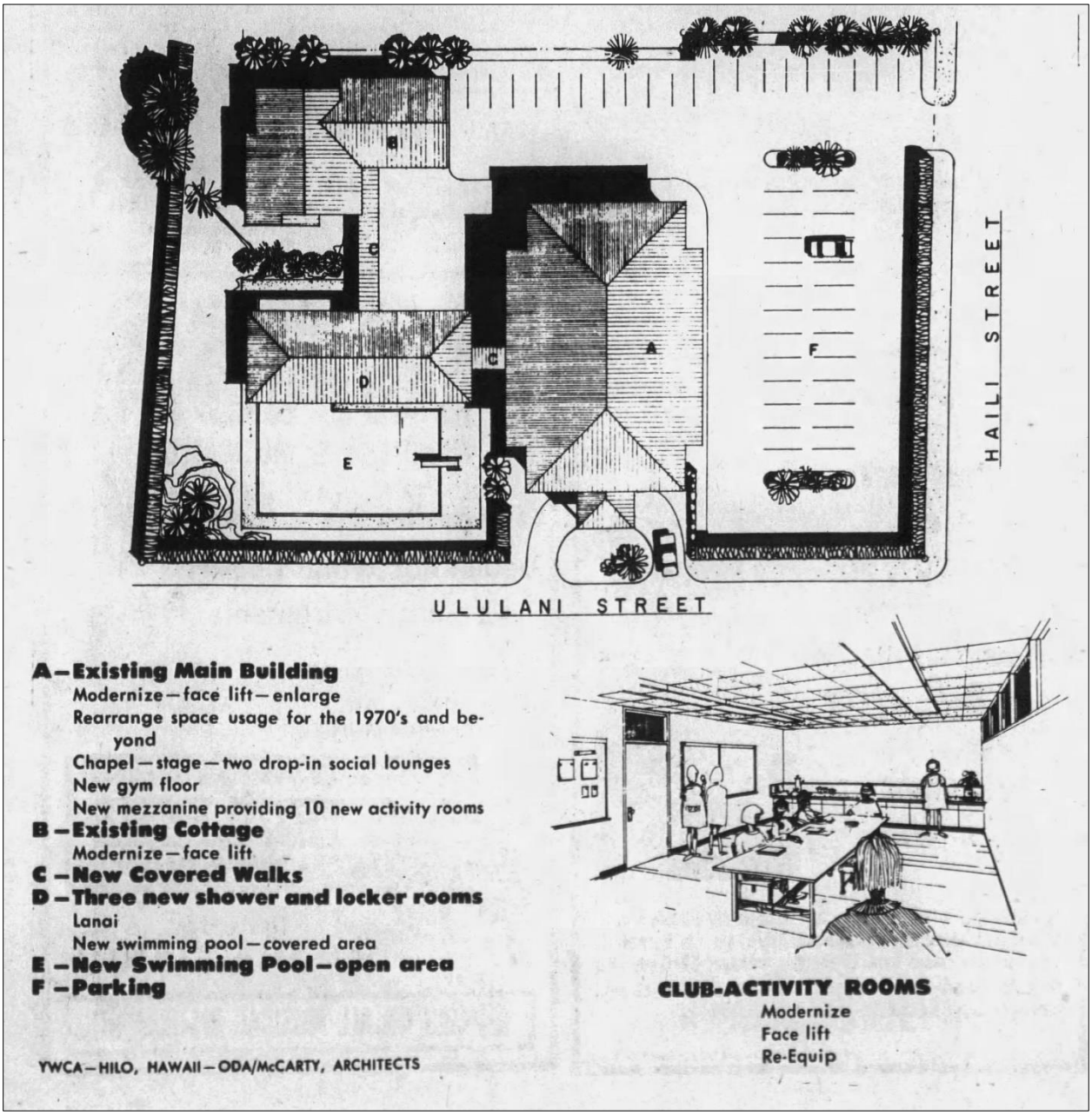


Figure 13. Architect's drawing of the planned improvements to the YWCA campus Aerial 1977 pool (Hilo Tribune-Herald 1972). !

Figure 14. The recently added lanai (at left) on the Ululani Street façade of the1929 administration building ("the cottage"), view to the north.

Figure 15. Evidence of large-scale earth moving (cuts and fills) behind the multipurpose building ! and pool building, view to the southwest. !

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX F !
RECONNAISSANCE LEVEL SURVEY !

Stantec

RECONNAISSANCE LEVEL SURVEY FOR THE HILO YWCA
145 Ululani Street, Hilo, Hawai'i !
TMK: (3) 2-3-013:002 !

February 15, 2024 !

Prepared for: !
FLEMING and Associates !

Prepared by: !
Benjamin Barna, Ph.D. and !
Alex Bethke, M.A. !

Project Number: !
093085 !

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Acronyms / Abbreviations)

HAR	Hawai'i Administrative Rules
HRS	Hawai'i Revised Statutes
YCWA	Young Women's Christian Association

Glossary

ahupua'a	Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua'a), or because a pig or other tribute was laid on the altar as tax to the chief. (Hawaiian)
hui !	A club, association, society, corporation, union, alliance, etc. (Hawaiian)
irimoya !	Japanese term for a hip-and-gable roof that slopes on four sides and integrates a gable on opposing sides. (Japanese)
lānai !	Porch, veranda (Hawaiian)
ma kai !	Toward the ocean. (Hawaiian)
ma uka !	Toward the mountains. (Hawaiian)
malihini !	Foreigners, newcomers. (Hawaiian)
nisei !	Children of Japanese immigrants. (Japanese)

1 Introduction

Stantec GS Inc. (Stantec) has prepared this Reconnaissance Level Survey for the Hilo YWCA parcel located at 145 Ululani Street, Hilo, Hawai'i, at the request of FLEMING and Associates on behalf of the Hilo Young Women's Christian Association (YWCA).

1.1 Project Objectives

Stantec prepared this RLS in support of a pending master plan for the YWCA parcel. The master plan would entail the demolition of existing buildings and subsequent construction of new preschool facilities on the parcel. This survey is intended to fulfil historic property identification and significance evaluation pursuant to Hawai'i Revised Statutes (HRS) Chapter 6E-42 and Hawai'i Administrative Rules (HAR) §13-284 review of any relevant County of Hawai'i and State of Hawai'i permit applications required by the proposed project.

1.2 Methodology

Stantec conducted archival research, site visits, and an evaluation of significance and integrity in accordance with HAR §13-284-6. Archival research included a review of County of Hawai'i permit and tax records, historic maps and photographs available from the State of Hawai'i and other sources, historic newspapers, and primary source documents provided by the YWCA. Unfortunately, the Hilo YWCA lost a large part of its archives in 1981, when a fire destroyed the association's activities building. As a result, there are limited primary source documents available regarding the buildings and YWCA itself. Stantec conducted a preliminary site visit on September 20, 2023, and a secondary site visit to photograph and document the property on December 14, 2023. Stantec prepared a historic context for the property and evaluated the property for significance under the criteria enumerated in HAR §13-284-6(b).

This report was prepared by Benjamin Barna, Ph.D. under the direction of Alex Bethke, M.A., who meets the Secretary of the Interior's Standards Professional Qualifications for architectural history established in 36 CFR §61and HAR §13-281 (see attached resume).

1.3 Project Area

The Project Area is located at 145 Ululani Street, Hilo, Hawai'i, 96270, on Tax Map Key (TMK): (3) 2-3-013:002 (Figures 1, 2, and 3), within the Ahupua'a of Punahoa 2nd in the traditional Moku of Hilo (now the district of South Hilo). The Project Area includes the entire parcel, which occupies 1.41 acres on the northeast corner of the intersection of Haili Street and Ululani Street. This project area boundary comprises the entire footprint of the proposed master plan for the Hilo YWCA parcel.

Figure 1. Project area location.)

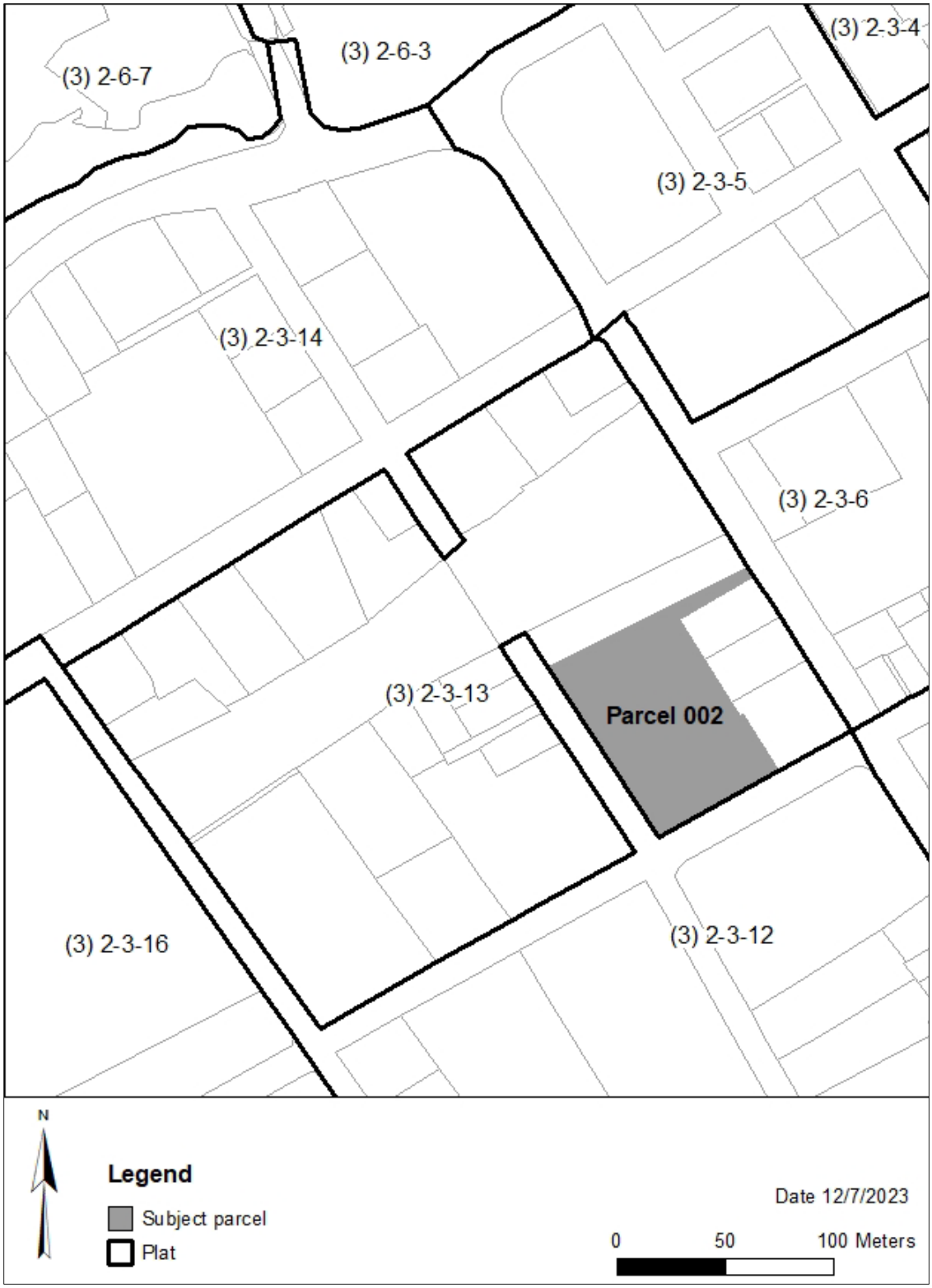


Figure 2. Tax Map Key.)

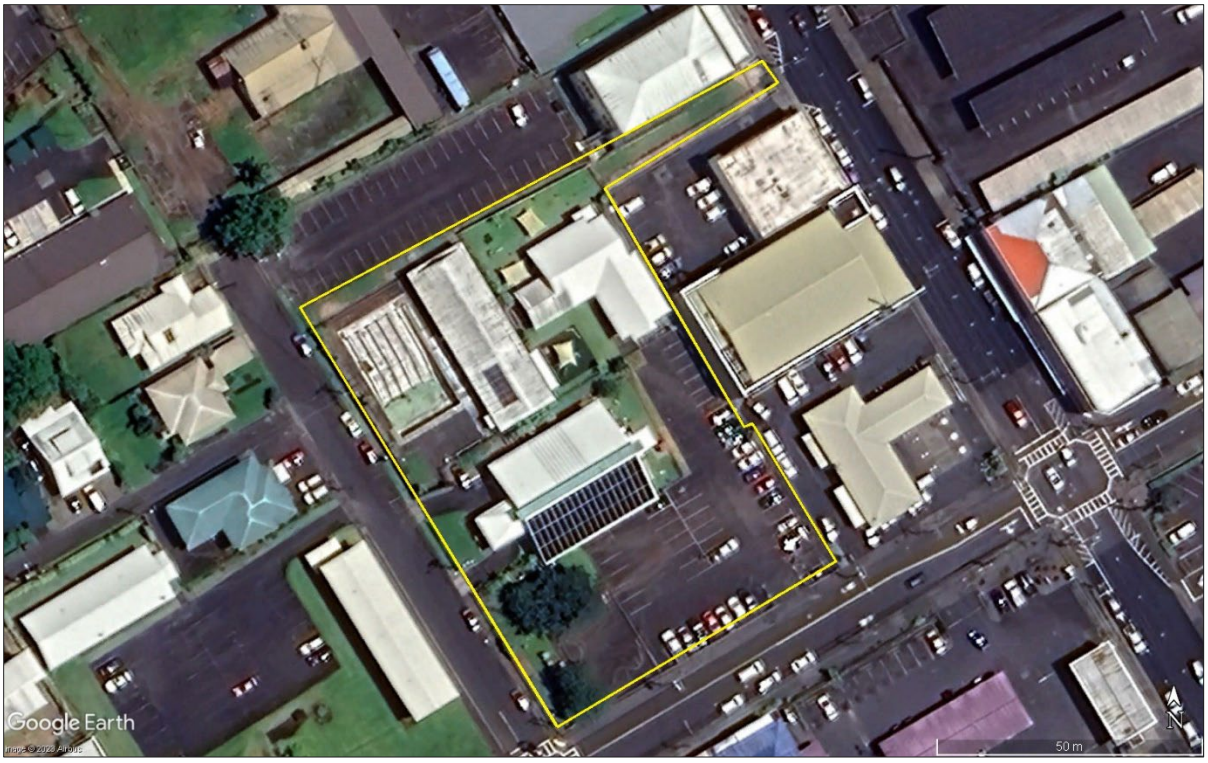


Figure 3. Recent aerial image of project area.

1.4 Setting

The Hilo YWCA parcel is located within a mixed-use commercial and residential area in the Downtown Hilo Commercial District, toward the ma uka end of downtown. Most of the parcel is located along Ululani Street, with a "flagpole" driveway extending to Kino'ole Street. On the Kino'ole side of the parcel, it is bounded by an automotive service station and a commercial building dating to the 1960s and a newer commercial building dating to the 1990s. The northern side of the parcel is bounded by the Elks Lodge, constructed in 1929, and its parking lot. Across Ululani Street are apartment buildings dating to the 1960s and 1940s. Across Haili Street is the Sack N Save supermarket built in 1971.

The entire parcel is developed and contains three buildings: a wooden preschool building constructed in 1929 with a small playground next to it in the northeast corner; a pool building and six-lane, 25-yard swimming pool in the northwest corner; and a centrally located multipurpose building. The southeast portion of the parcel is occupied by an asphalt parking lot, and the southwest corner is occupied by another playground. The parcel slopes downhill (makai) from Ululani Street. The southern half of the parcel was cut several feet lower than the northern half during the construction of the multipurpose building, and a retaining wall separates this half of the parcel from the swimming pool, pool building, and the small playground. The slope in the northern half is more gradual but has been altered by the construction of the pool

and pool building. Because the lot ma kai of the subject parcel was cut down to be even the Kino'ole Street grade, there is a retaining wall along the makai subject parcel boundary. The subject parcel is connected to Kino'ole Street by a narrow driveway. The driveway slopes downward to Kino'ole Street between the retaining wall and the Elks Lodge building. The northern boundary is marked by a chain-link fence. On Ululani Street, the parcel boundary next to the swimming pool is marked with a concrete and rock wall built in 1974 for the pool, and a chain link fence surrounding the rest of the parcel. A U-shaped driveway provides access to Ululani Street. All vegetation on the parcel is part of the designed landscape and includes mature trees, ti plants, ornamental shrubs, and grass lawns.

2 Historical Overview

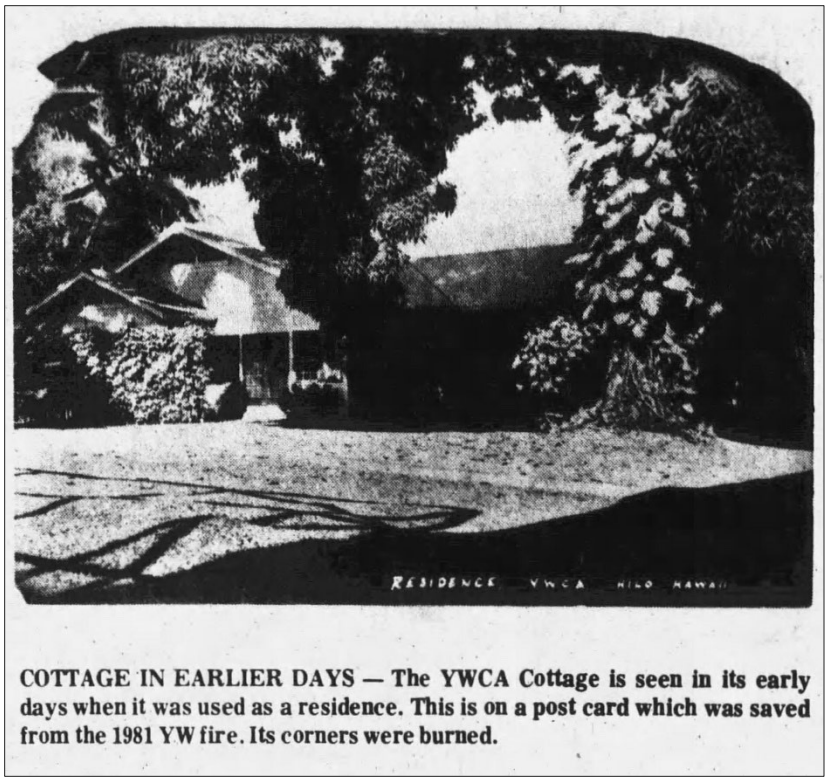
The Hilo YWCA is situated near downtown Hilo in Punahoa 2nd Ahupua'a. which was transformed over the course of the nineteenth and twentieth centuries from an area used for traditional Hawaiian agriculture to the mixed-use commercial neighborhood.

The YWCA was founded as the Ladies Christian Association in 1858 in New York City, with its goal being the "improvement in the Moral, Social, and Spiritual condition of WOMEN in the city of New York," later expanding its scope throughout the nation (Ladies' Christian Association 1859). In 1900, the Young Women's Christian Association of Honolulu was organized, and by the end of 1919 there was sufficient interest in Hilo to organize a separate association for the town and island (Hawaii Tribune-Herald 1919). Like the Honolulu YWCA, the Hilo branch offered services that included room and board for business and professional women, exercise facilities and programs, "Americanization" programs to teach English and American customs, and clubs and classes for school-aged girls. There was no permanent home for the organization as it leased or rented seven different locations between its founding and 1929, including a cottage on Waianuenue Street near Dr. Harold Baxton's office, F.S. Lyman home, F.S. Lyman cottage, Mrs. Reed's cottage on Waianuenue Street, the upper story of the building formerly located makai of Hilo Drug Store, the Hapai home on Haili and Keawe streets, and, finally in 1925, the Wetmore house on Pitman (Kino'ole) Street (Hawaii Tribune-Herald 1936b).

In 1927, a hui (group) of YWCA supporters that included Frank Atherton, Richard Cooke, George Wilcox, and Eloise C. Marx provided funds for the association to purchase a portion of Wetmore's lot in order to create a permanent headquarters in Hilo (Hawaii Tribune-Herald 1929a; 1936b). That purchase was the foundation of the Hilo YWCA parcel, which eventually took its current form as multiple subdivisions and consolidations created the subject parcel. In 1929, the board of directors announced their plans for the lot, which included the remodeling of buildings for a new headquarters and gymnasium, and, it was hoped, a tennis court and swimming pool at some point in the future (Hawaii Tribune-Herald 1929a). The next month, the Wetmore house was demolished, and construction work began on a new administration building.

The new building (Figure 9), now known as "the Cottage," was designed by Hilo-based Nisei architect Frank Arakawa (Hawaii Tribune-Herald 1929b), who is known for several important

buildings around Hawai'i Island and in downtown Hilo (Arakawa 2014). It was designed to house an office, a reception room, a kitchenette and breakfast nook, a large screened lānai, and a wing containing four bedrooms and two bathrooms for YWCA workers and transients. The contractor hired to do the construction work, K. Fujimoto, reportedly re-used some materials that were salvaged from the Wetmore house. The YWCA continued to provide its range of services to the women of Hilo and Hawai'i Island from their new headquarters, including the addtion of a tennis court in the northwest corner of the lot in 1932 (Hilo Daily Tribune 1930; 1932).

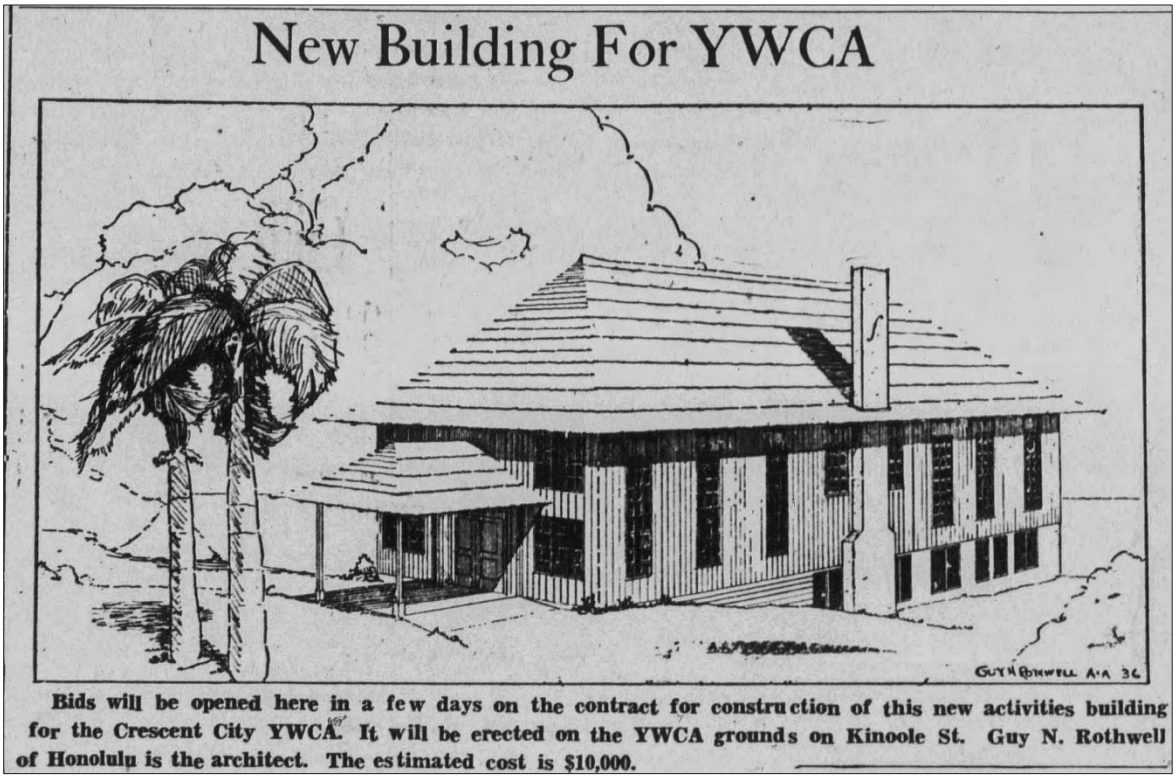


COTTAGE IN EARLIER DAYS — The YWCA Cottage is seen in its early days when it was used as a residence. This is on a post card which was saved from the 1981 YW fire. Its corners were burned.

Figure 4. Undated photograph of the 1929 administration building (Hilo Tribune-Herald 1983b).

The activities of the association soon began to outgrow the modest administrative building. The organization formed a building committee that included prominent Hilo women (Lyman Museum and Mission House 2020). After the committee raised $15,000 with the help of Frank Atherton and Mrs. Mary Frear, the association constructed a new two-story activities building fronting Ululani Street, where the current Multipurpose Building now stands (Hawaii Tribune-Herald 1936b). The building (Figure 10) was designed by Honolulu architect Guy N. Rothwell. The main floor of the building housed two offices, a board committee room, a kitchen, a stage backed by a large plate glass window, a balcony, auditorium, and gymnasium. It also featured a fireplace on the south side of the building. In its basement was a craft room, club room, showers, and storerooms. To link the new building with the history of the location, a stone doorstep from the home of Titus Coan—which had been located ma uka across Ululani Street--was placed at the front entrance. The doorstep was given to the YWCA by Wetmore's

daughters Mrs. Catharine Deacon and Mrs. Charles S. Lewis. A brass plaque reading "DOORSTONE FROM TITUS COAN HOME MOVED TO DR. C.H. WETMORE HOME 1917" was attached to the stone. This stone (Figure 11) is now located in front of the Multipurpose Building. The architect's drawing (see Figure 10) of the Multipurpose Building shows the building sited on a substantial cut down from the Ululani Street side. The 1936 Activities Building was connected to the Cottage by a sidewalk specially decorated with imprints of leaves of "Hawaiian plants" that included sugarcane, banana, papaya, hibiscus, koa, fern, coffee, pear, breadfruit, and others (Hawaii Tribune-Herald 1936c).


New Building For YWCA

Bids will be opened here in a few days on the contract for construction of this new activities building for the Crescent City YWCA. It will be erected on the YWCA grounds on Kinoole St. Guy N. Rothwell of Honolulu is the architect. The estimated cost is $10,000.

Figure 5. Architect's rendering of the 1936 activities building (Hawaii Tribune-Herald 1936a).)

Figure 6. Titus Coan house door stone located in front of multipurpose building.

In Figure 12, the layout of the YWCA buildings can be seen as they were in 1957. During this time, the YWCA offered a variety of classes and services, which included classes and clubs for adults, teenagers, and children. Classes were offered in Hawaiian language, ceramics, painting, cooking, doll-making, crafts, hula, ballroom dancing, baby care, and knitting. The Hawaiian Girls Club program was available for women of Hawaiian ancestry and promoted Hawaiian arts, crafts, and culture. For "malihinis and kamaainas," an eight-session program called "Aloha evenings" was offered for those who wanted to learn about Hawaiian history, songs, dances, food, plants, places to see, legends, and arts and crafts (Hilo Tribune-Herald 1956). Transient lodging for women and girls visiting Hilo was provided in the Cottage. Additional improvements to the YWCA parcel during the 1960s included constructing concrete steps and landings to existing buildings, the addition of a gas storage shed, and alterations to the administration building.

In 1972, the association announced a series of major upgrades to the parcel that would be designed by Hilo-based ODA/McCarty, Architects (Hilo Tribune-Herald 1972). These later upgrades (Figures 13 and 14) were intended to modernize both the Cottage and the 1936 activities building to add activity rooms and a new swimming pool. Ground was broken for the swimming pool in April of 1973 in the former location of the tennis court (Hilo Tribune-Herald 1973a). The pool complex included a 6-lane, 25-yard pool swimming pool along with a wading pool, a covered lānai, and a pool building (Hilo Tribune-Herald 1973b; 1973c). At the time, it was one of only several public or private pools in Hilo.

On November 3, 1981, a burglar broke set fire to and destroyed the 1936 activities building (Hilo Tribune-Herald 1983a; Tao 1981a; 1981b). The pool building was also badly damaged (Figure 15), but the Cottage escaped largely unharmed. After a fundraising drive, the pool building was repaired, and the destroyed building was replaced with the current Multipurpose Building in 1983. At about the same time, renovations were also made to the Cottage. In 2001, a large covered lānai was added to the Ululani Street façade of the building (Hilo Tribune-Herald 1983b). Since then, no major changes to the parcel have occurred.

Figure 7. Fire Insurance map (Sanborn Map Company 1957, 9) with subject parcel and aerial) imagery.)

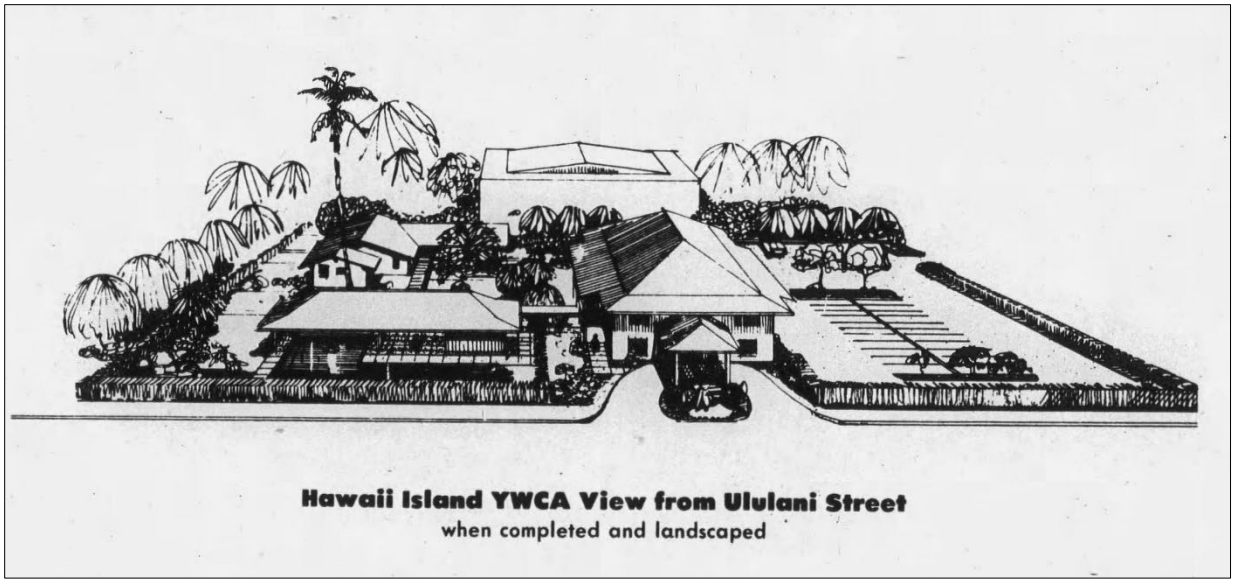


Figure 8. Architect's 1972 drawing of the planned improvements to the YWCA campus (Hilo Tribune-Herald 1972).

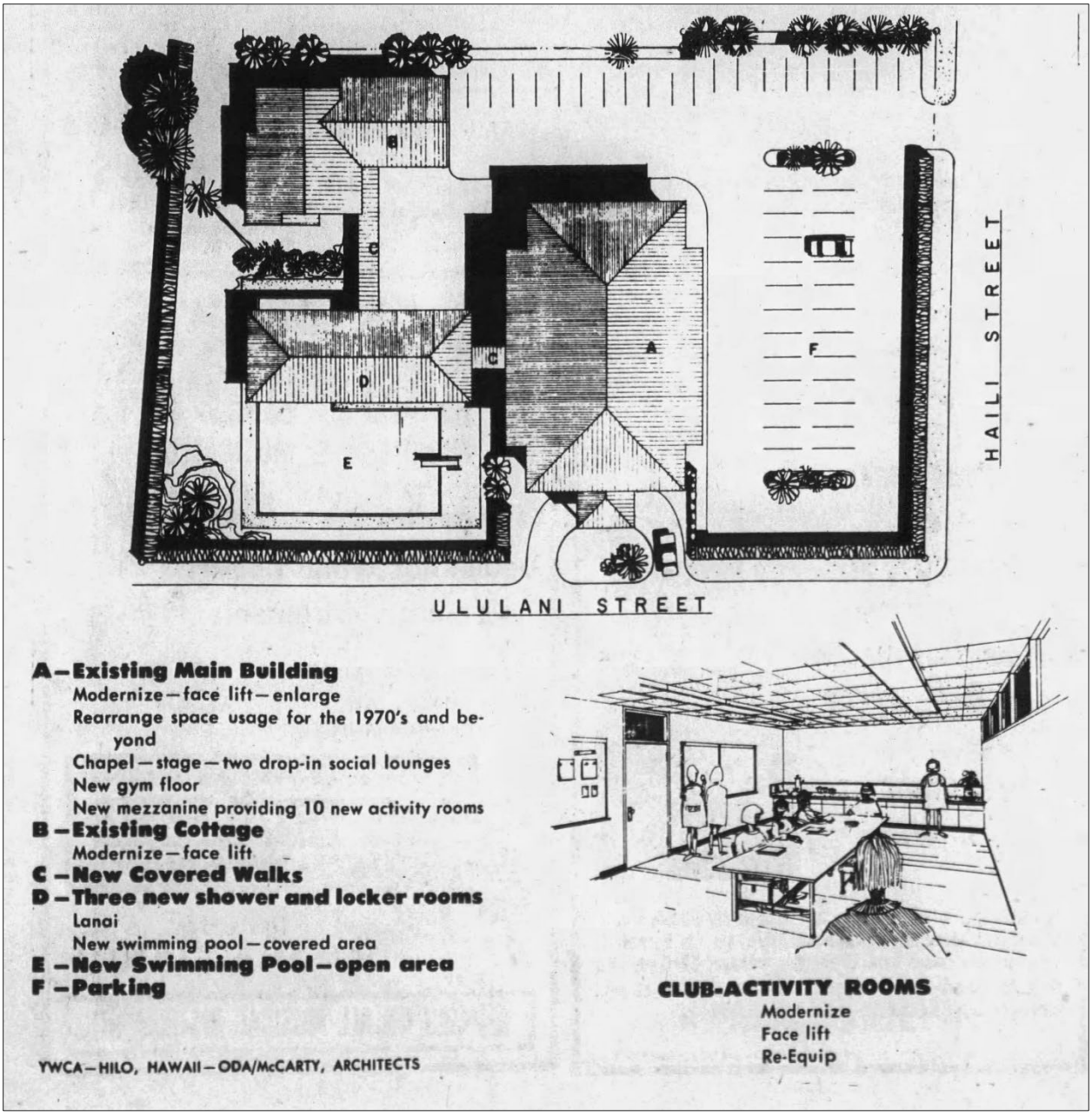


Figure 9. Architect's 1972 drawing of the planned improvements to the YWCA campus (Hilo Tribune-Herald 1972).

Figure 10. A 1981 photograph of the fire-damaged Pool Building sitting above the former location of the 1936 multipurpose building (Stapleton 1982).

3 Architectural Context

The Cottage was designed by Hilo-based Nisei architect Frank Arakawa, who is known for several important buildings in downtown Hilo and in other locations around Hawai'i Island (Arakawa 2014). Arakawa was born in Kula, Maui, in 1891, and moved with his family to Hilo when he was 5 years old. He was a member of the first graduating class of Hilo High School in 1909. He attended Stanford University where he earned a degree in civil engineering in 1914. Later that year, he returned to Hilo to establish his own practice. After joining the Hawai'i National Guard, he was inducted into active duty during World War I and was stationed at Fort Shafter on O'ahu. Almost immediately after the attack on Pearl Harbor in 1942, Arakawa was

taken to Kilauea Military Camp, and later to the Jerome Relocation Camp in Denson, Arkansas (Arakawa 2014; Henry 1943). After being released, Arakawa settled in Chicago and only occasionally designed buildings on Hawai'i Island Arakawa died in 1977 in California.

Beginning in the 1920s, Arakawa worked as an architect with the county engineering department and took private work designing residences, commercial buildings, and religious buildings. His designs exhibit a range of influences adapted to local conditions and materials. Many of these buildings are done in wood but several of his larger public buildings are reinforced concrete. During this period, he designed several notable public and private buildings, including six of the buildings included in the "Public Schools on the Island of Hawaii Multiple Property Listing" in the Hawai'i Register of Historic Places (State Inventory of Historic Places [SIHP] 50-10-35-07522). Characteristics of Arakawa's public-school architecture include arcades with arches, posts or columns, and lintels with classical elements such as columns and Roman and Gothic arches, and signature green *totan* (corrugated metal) roofs. Other public buildings he designed include the the "Hawai'i Style" District Courthouse and Police Station (SIHP 50-10-35-07497, National- and Hawai'i Register of Historic Places listed), Public Works Administration Moderne style Hilo Central Fire Station, and the Italian Villa inspired makai wing of the Hilo Memorial Hospital (SIHP 50-10-35-7450). Larger commercial buildings include the Neoclassical influenced reinforced concrete Pacific Building, St. Joseph's Parish Hall, the modest wood Gothic revival Honoka'a Union Church, Manago Hotel, traditional Japanese styled Honpa Hongwanji Hilo Betsuin, Hilo Chinese School and Community Hall blending local plantation design with traditional Chinese elements, the Moderne style Waiakea Theater (destroyed by the 1960 tsunami), and the Neoclassical inspired B.P.O.E. Lodge located next door to the YWCA property. Smaller projects by Arakawa included the "Hawai'i Style" Saiki residence in Keaukaha and the Colonial Revival style Lyman Residence on Halaulani Place. One of the few later projects in Hilo that he undertook was the 1957 Dr. T. Oto residence in Kaūmana, notable for its blending of the modern ranch-style form with traditional Japanese elements.

The swimming pool complex was designed by Hilo-based ODA/McCarty, Architects. ODA/McCarty is known for their prominent modernist late-twentieth century buildings throughout Hilo and Hawai'i Island (Hilo Tribune-Herald 1972). Their works are known for blending forward-thinking ideas with design traditions that respect local history, culture, and environment. Other ODA/McCarty works include the Wailoa Center, Volcano House Addition, Waiākea High School, Hilo Main Post Office, Panaewa Rain Forest Zoo, Hapuna Beach Facilities, Central Pacific Bank, Bank of Hawai'i Kona, Kealakehe High School, the Shinmachi Tsunami Memorial, W.M. Keck Observatory Headquarters, County of Hawaii - One Pauahi, Waikōloa Elementary School, Hale Ānuenue, Mauna Lani Golf Club House, HPM Building Supply Complex at Shipman Industrial Park, Big Island Candies, and the Hilo Judiciary Complex. The firm merged with Durrant Media Five in 2004, which closed its Hawai'i Island operations in 2008.

4 Architectural Description

The Hilo YWCA parcel includes two architectural resources that are forty-five years or older: the 1929 Administration Building (the Cottage) and the 1974 swimming pool complex. Other buildings and structures younger than 50 years include: the 1983 multipurpose building, playgrounds, and parking lots.

4.1.1 THE COTTAGE

The Cottage is a 2,468 square foot L-shaped post and pier wooden building with shiplap siding and a gabled corrugated metal roof. The windows vary in size and form but include some of the original 6-over-6 wood sash and later aluminum jalousie. The gable end of the main portion of the building is located on the north side, with a wing extending perpendicular toward the south.

4.1.1.1 West Façade.

Figure 11. West Façade of the Cottage.)

The Cottage primary entrance and view is on the west façade, facing Ululani Street (Figure 11) and the swimming pool house. This façade was heavily modified by the addition of a covered lānai (Figure 12) in 2001. It features a small front gabled wing extending from the left-hand side of the main front gabled portion. The covered concrete lānai extends from the primary portion of the façade. The lānai roof eaves have exposed purlins with no eave brackets, and this construction is duplicated in the eaves of the altered main roof above the lānai. On the small front gabled wing, two of the original triangular single eave brackets are still present, but the third was removed to accommodate the covered lānai. The exterior wall above the lānai roof has been brought forward and is now flush with the exterior of the front gabled wing. The primary entrance has two large sliding wood sash windows with nine lights per panel. These windows flank a double wood door. The façade of the small front gabled wing has one 1-over-1 wood sash window and another a square aluminum-framed jalousie window. The crawlspace venting located beneath the peak of the roof is wooden screen set in a frame that echoes the window frames and sills. A similar frame is visible to the right of the windows, where a door appears to have once been located.

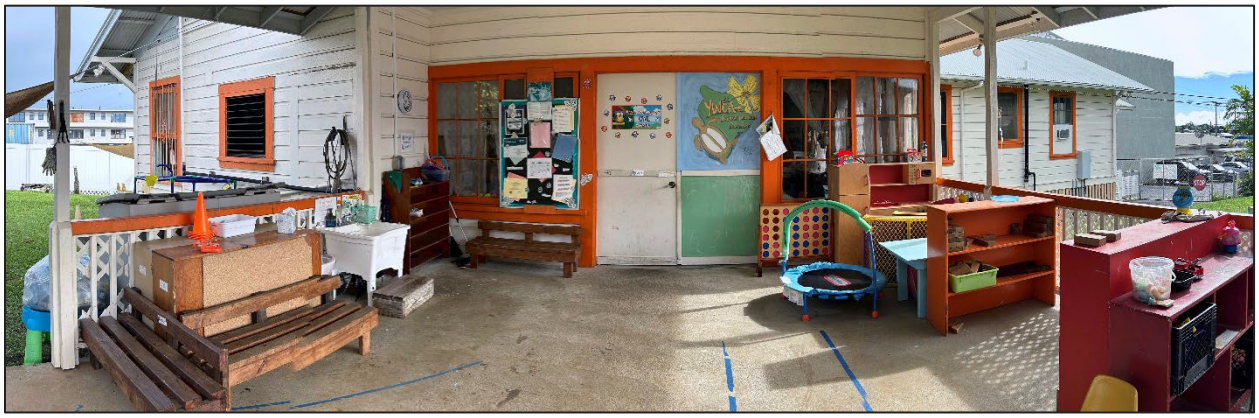


Figure 12. West Façade of the Cottage beneath the Covered Lānai.)

Figure 13. West Façade of the Cottage.

The west façade of the ell (Figure 13) is clad with shiplap siding and features four asymmetrically arranged windows. Three of these are 6-over-6 wood sash windows, and the fourth is an aluminum frame jalousie window.

4.1.1.2 North Façade.

Figure 14. North Façade of the Cottage.

The north façade (Figure 14) has wood shiplap siding, with a pair of 6-over-6 wood sash windows located toward its front (east) end and another pair located toward its rear. The northwestern corner of the façade features a covered stone and mortar lānai, adding to the Craftsman influence on the building's design. The stonework clean faced basalt cobbles with a "half-moon" arch centered toward its base. Concrete steps on the eastern side of the lānai are flanked by gracefully curving concrete capped balustrades. The corrugated shed roof is supported by wood posts and lintels that feature paired decorative lintel ends. The lānai is screened, with a modern security door added.

4.1.1.3 East Façade.)

Figure 15. East Façade of the Cottage.

The east façade includes the rear gabled end of the main portion of the building and the ell on the south side of the building (Figure 15). The main wing features shiplap siding and two bays of windows: one bay with two 6-over-6 wood sash windows toward the north and a bay of two sliding wood sash windows with nine lights per panel on the south. Corrugated and wood awnings have been added above the windows. A small entry corridor is accessed by wooden stairs at the far south end of this wing. The entry corridor has a recessed single wood and glass Dutch door. The remainder of the east façade is composed of the ell. This ell features shiplap siding with two single 2-over-2 wood sash windows arranged symmetrically, and a bay of two similar windows form centered between them. Undecorated rafter tails are exposed beneath the overhanging corrugated roof, to which a fascia and modern rain gutter are attached.

4.1.1.4 South Façade.

Figure 16. South Façade of the Cottage.

The south façade is composed of the gable end of the ell, along with the southern side of the main portion and the covered lānai (Figure 16). The gable end of the ell features shiplap siding and, like the other intact gable ends, three single triangular eave brackets and the wooden-screened crawlspace venting framed to echo the window frames and sills. Two 2-over-2 wood sash windows are symmetrically arranged around a single wood door, all of which are centered. A jalousie transom window is centered above the door. A set of wooden stairs and a small wooden porch lead to the door; these are simply constructed with undecorated wooden rails. The stairs are sheltered by an open-gabled corrugated roof. The stairs and roof were added in 1984.

The southern side of the main portion of the building features a bank of two large sliding sash windows matching those on the main entrance elevation. The windows span the entire length of this wall. Like the rest of the building, this elevation features shiplap siding. A poured concrete walkway leads from a parking lot to the south of the building along the west side of the ell and this elevation to the covered lānai.

The Cottage has been highly altered beginning in the 1960s. Notable changes include:

- Construction of concrete steps in 1966 and 1967 (County Permits 32802 and 35824).
- In-filling of a doorway—the doorway itself possibly a modification—on the secondary west façade (County Permit 37044).
- Addition of jalousie window, offset of center, on the secondary west façade (County Permit 37044).
- Interior renovations in 1982 and 1983.
- Addition of new stairs in 1982 and 1983.
- Rewiring of electrical system to three phase in 2020 (County Permit E2005-1721H_LTS).
- Addition of a covered entry on the south façade in 1984 (County Permit 841541_LTS), Figure 17.
- Replacement of original sash windows with aluminum jalousie windows.
- Addition of corrugated metal awnings over windows on east façade, date unknown, Figure 18.
- Major alteration of primary western façade in 2001 (County Permit 010658_LTS):

    1) Removal of the original open lānai and 1974 covered walkway connecting the Cottage to the Pool Building;

    2) construction of a 20 foot by 24 foot covered concrete lānai, Figure 19;

    3) alteration of the roof line above the primary entrance to create an intrusive overhanging lānai roof edge that obscures part of the secondary western façade, Figure 20;

    4) ! removal of all but two distinctive triangular eave brackets from the primary western façade;

    5) ! moving the exterior wall of the façade forward to match the secondary western façade, which obscures the spatial relationship between the small wing at the left of the façade and the main portion of this wing of the building, see Figure 20.

Figure 17. Covered entry and stairs on south façade.)

Figure 18. Awnings added to east façade windows.)

Figure 19. Covered lānai added in 2001.

Figure 20. Altered roof line and exterior wall, west façade.)

4.1.2 SWIMMING POOL COMPLEX

The YWCA swimming pool complex was constructed in 1974. It is located in the northwest corner of the parcel and includes two elements: a lap pool and a pool house that contains a therapy pool, a covered lānai, and restrooms.

4.1.2.1 Lap Pool.

Figure 21. Lap Pool.

The lap pool is set within an open space in front of the pool house, between it and Ululani Street (Figure 21). It is surrounded by stone wall along Ululani Street and chain-link fencing on its north and south sides. The pool is in-ground and lined with gunite concrete, with its deck located at about the Ululani Street grade. The rectangular pool is 25-yards long and 42 feet wide and varies between 3 and 12 feet deep. The interior of the pool is unadorned except for six lanes marked on the pool bottom and walls using black tile. It has a simple exposed stainless gutter surrounding the pool at the edge of the pool deck. There are built-in concrete steps at one corner and built-in ladders at the remaining three. The pool deck is simple, unadorned poured concrete. Depth and safety markings are painted on the concrete deck.

4.1.2.2 Pool House.)

Figure 22. The Pool House.

The pool house is located on a filled terrace behind the pool, where it extends parallel to the pool's long-side (Figure 22). The terrace retaining walls are faced with basalt cobbles and boulders set in concrete. The 1,560 square-foot pool house is rectangular, wood, open-sided, post and pier. Its roof is *irimoya*-inspired, laterally hipped-gabled corrugated metal (Figure 23), in contrast to the double-hipped "Hawaiian" roof pictured in Figure 9. The west façade was enclosed with T1-11 siding in 2001. The gable ends feature symmetrical panels of fixed wooden louvers. Wood fascia hides rain gutters. The open ceiling and exposed rafters create a sense of space within the three interior divisions of the pool house. The floor is unadorned poured concrete. Each of the three interior divisions of the pool house are described below.

Figure 23. Pool house.)

Therapy Pool)

Figure 24. Therapy Pool.

The northern third of the pool house is occupied by a therapy pool (Figure 24). The pool is concrete lined, square in plan, and measures 27 feet 6 inches by 27 feet 8 inches and varies from 3 feet to 12 feet deep. It has concrete stairs and an accessibility ramp built into the west side. The deck is an unadorned poured concrete floor. This pool is not the original wading pool constructed in 1974, which was remodeled in 1995 to its current configuration. Originally open-sided, T1-11 siding with fixed windows has been installed to partially enclose the therapy pool on its west and south sides. The open ceiling has not been modified.

Covered lānai

Figure 25. Covered Lānai, with Restrooms and Chemical Shed.

The middle third of the pool house is occupied by a covered lānai (Figure 25). It has an unadorned concrete floor. The west side of the lānai was enclosed with T1-11 siding with fixed windows in 2001 (see section 3.2.2. below). The open ceiling is unmodified.

Restrooms and Equipment Rooms.)

Figure 26. Equipment rooms.

The restrooms (see Figure 25) and equipment rooms occupy the southern third of the pool house. This 900 square foot space is the only originally enclosed portion of the pool house. It is clad with T1-11 paneling. The separate women's and men's restrooms are arranged symmetrically along the long axis of the pool house. Both are accessed from the lānai via single wood doors shielded by T1-11 panel screens. Each restroom has a single bank of five fixed wooden louver windows. The south elevation of the building are four sets of double-hung doors that access equipment and storage rooms (Figure 26).

The swimming pool complex experienced substantial alterations beginning in 1981. These include:

- Repairs and refurbishment of pool building after the 1981 fire.
- Replastering of pool in 1985.

- Demolition of original wading pool and replacement with the current therapy pool in 1995.
- Addition of T1-11 partition wall to segregate the therapy pool from the lānai (County Permit 950704_LTS).
- Addition of T1-11 partition wall to segregate the lap pool from the pool house in 1995 County Permit 951040_LTS).
- Addition of chemical storage closets behind pool house restrooms (County Permit 951676_LTS), Figure 27.

Figure 27. Chemical shed (at left) added to east side of restrooms.)

5 Evaluation of Significance and Integrity

Hawai'i Administrative Rules §13-284-6 state that to be significant, a historic property shall possess integrity of location, design, setting, materials, workmanship, feeling, and association and shall meet one or more of the following criteria:

> Criterion "a". Be associated with events that have made an important contribution to the broad patterns of our history;
>
> Criterion "b". Be associated with the lives of persons important in our past;
>
> Criterion "c". Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;
>
> Criterion "d". Have yielded, or is likely to yield, information important for research on prehistory of history; or
>
> Criterion "e". Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices one carried out, or still carried out, at the property or due to associations with traditional beliefs, event or oral accounts—these associations being important to the group's history and cultural identity.

HAR §13-284-6(c) adds, "Prior to submission of significance evaluations for properties *other than architectural properties*, the agency shall consult with ethnic organizations or members of the ethnic group for whom some of the historic properties may have significance under criterion "e", to seek their views on the significance evaluations" (emphasis added). Per this rule, criterion "e" significance evaluations have not been made.

The Cottage and the YWCA Pool Complex are evaluated for significance below.

5.1 "The Cottage"

The Cottage is evaluated for significance under the themes of social history and architecture. Despite its association with the contributions that the YWCA has made to local history and its association with notable Hilo-based architect Frank Arakawa, recent alterations to the building have compromised important character-defining qualities of the building that express its associations with local history and with architect Frank Arakawa's original design. The loss of loss of integrity makes the Cottage not significant under any criterion.

Criterion "a". The Hilo YWCA has contributed to the welfare of generations of women and their families in Hilo since its founding in 1919 through its programs to meet the health, education, social, and spiritual needs of women and girls in the community. The Cottage became the association's first permanent home in Hilo in 1929. The building's classroom, gymnasium space, lodging, and offices provided a place where much of the Hilo YWCA's programs during the first

seven years of its existence. With the construction of the Activities Building in 1936, many of the organization's programs and functions were moved from the Cottage into the new larger space while others such as transient lodging and classrooms, remained at the Cottage. As the first permanent home of the YWCA in Hilo, the Cottage was both the site of many of the association's contributions as well as the hub from which its work radiated into the broader community of Hilo and Hawai'i Island. Although the Cottage meets Criterion "a" through its association with the social contributions of the Hilo YCWA, the many alterations to the building have resulted in a loss of loss of integrity that significantly impairs the building's ability to convey the history of that association. Thus, the Cottage is not recommended significant under Criterion "a'.

Criterion "b". Although several prominent citizens of Hilo and Hawai'i were involved in the purchase and construction of the Cottage, and others were involved in programs and operation of the YWCA, the Cottage cannot be said to be signfiicantly associated with the lives of people important in our past. Thus, the Cottage does not meet Criterion "b."

Criterion "c". The Cottage was designed by Frank Futoshi Arakawa, who was deputy engineer and architect for the County of Hawai'i between the 1920s and World War II, and also took on private design work (Arakawa 2014). Arakawa's designs ranged from prominent public and institutional buildings to single family homes, and included several bridges on Hawai'i Island as well. While the Cottage was built for an institution, its scale and design is more modest and similar to residences he designed. Unlike his more ambitious residences—for example, his 1922 Colonial Revival Lyman house, his 1934 "Hawaiian style" Saiki residence, or his 1957 ranch-style Oto house—the Cottage is a fairly straight-forward expression of local Craftsman- and plantation-inspired design. This character is expressed through the clean and elegant stonework of the original lānai and horizontal banks of windows in the main entrance. Thus, the Cottage meets Criterion "farc."

Criterion "d". The property has not yielded information important for research on history that would not be available through other sources, nor is it likely to yield such information. Thus, the Cottage does not meet Criterion "d."

Integrity Assesement. Significant alterations to the primary façade, especially the addition of the large covered lānai and reconfiguration of the roof line and exterior wall, plus alterations on other façades and extensive interior renovations. These alterations have compromised its integrity of design, materials, workmanship, and feeling.

Location. The Cottage is in its original location, thus retaining integrity of location.

Design. Alteration of main facade severely affects the style and form of the building. In particualr, the covered lānai has altered the roof line, spatial arrangement of the exterior walls of the main facade, and the building's overall appearance, obscuring Arakawa's original expression. Addition and covering of doorway, addition of window also detract from Arakawa's intentions. Replacement of several windows with aluminum frame jalousie windows is incongruous with the original windows. The extensive interior renovations have also substantially

changed the building's layout and design, making it unrecognizable during the potential period of signficance. Thus, the Cottage does not retain integrity of design.

Setting. The setting of the Cottage has been altered since it was constructed. Although the other buildings and structures on the lot are architecturally distinct from the Cottage and have encroached on the formerly open space that surrounded the cottage, they are historically and functionally related. With the exception of the 1983 Multipurpose building, the other structures also date to the period of signficance. Beyond the lot boundaries, the setting has been altered by sporadic replacment of older buildings. In particular, the alteration of the slope ma kai of the cottage for the former automotive center, which was demolished and replaced by a service station (1969, renovated 1984), office buidling (1967), and newer office building (1993). The BPOE Hall on the north side of the building and apartments on ululani street are better. The Sak 'N' Save supermarket and former McDonald's restaurant (1971), built toward the end of the period of signficance, is out of character with the Cottage's historical setting in tems of size and design. Thus, the Cottage does not retain integrity of setting.

Materials. Overall, much of the original materials are still present in the exterior and interior walls; however, the introduction of inauthentic materials such as aluminum jalousie windows, a modern security door, concrete slab lānai, and modern doors detract from the building. Thus, the Cottage does not retain integrity of materials.

Workmanship. The more recent alterations, including the covered lānai, corrugated metal awnings over the rear windows, and the covered stairs beneath the southern entrance, do not appear to have been built with the same attention to detail and craftsmanship as the original elements in Arakawa's design. Thus, the Cottage does not retain integrity of workmanship.

Feeling. Although the Cottage has been subtantially altered over time, and several of the surrounding buildings have been replaced or renovated during and after the period of signficance. While it still functions as the YWCA's "home" in Hilo, the alterations to the front of the building, especially the addtion of the large covered lānai, have altered the feeling of the property such that it no longer expresses its domestic character and instead conveys a more institutional feeling. Thus, the Cottage does not retain integrity of feeling.

Association. Although the Cottage has been substantially altered over time, it remains recognizable as the original home of the Hilo YWCA and is sufficiently intact to be recognized as such. It retains integrity of association.

5.2 Swimming Pool Complex

The Swimming Pool Complex is evaluated for significance under the themes of history of sports and architecture. It is not recommended significant under any criterion.

Criterion "a". Although it was contemplated as early as 1929, the swimming pool at the Hilo YWCA was not constructed until 1974. At that time, several swimming pools, both public and

private, were available in Hilo for exercise, training, and instruction. The property does not meet Criterion "a."

Criterion "b". A search of the records of the Hawai'i Swimming Hall of Fame ("Inductees" 2022) did not identify any assocation between the Swimming Pool Complex and important athletes, coaches, or contributors involved in swimming, diving, or water polo in Hilo or the State of Hawai'i. The Swimming Pool Complex does not meet Criterion "b."

Criterion "c". The Swimming Pool Complex is a smaller-scale example of ODA/McCarty's locally inspired works, with a clean, modern application of traditional form. In its original unaltered state, the Pool House's open sides created a seamless flow from swimming pool to lānai beneath the *irimoya* styled roof. Alterations to the pool house made during the 1990s, however, have modified key elements of the Swimming Pool Complex and substantially diminished its integrity of design, materials, workmanship, and feeling. Due to the severe impact of these alterations on the Swimming Pool Complex, does not meet Criterion "c".

Criterion "d". The property has not yielded information important for research on history that would not be available through other sources, nor is it likely to yield such information. The property recommended not significant under Criterion "d."

Integrity assessment. Without any identified significance, an assessment of integrity is not necessary.

6 References Cited

Arakawa, Marion M. 2014. "Architect Extraordinaire Frank Futoshi Arakawa." In *Aloha 'Āina Volume II: More Big Island Memories*, edited by Gloria Kobayashi. Hilo, HI: East Hawai'i Cultural Council, Hawai'i Museum of Contemporary Art.

Baldwin, E. D. 1891. "Hilo Town and Vicinity." Hawai'i Land Survey Division, Registered Map No. 1561. http://ags.hawaii.gov/survey/map-search.

Brandt, Lokelani M. P. 2017. "Through the Lens of the 'Ili Kūpono: Re-Establishing Connections to Pi'opi'o, Waiākea, Hilo, Hawai'i through Ethnohistory, Archaeology, and Community." M.A. Thesis, Hilo: University of Hawai'i at Hilo, Heritage Management.

Cordy, Ross. 2000. *Exalted Sits the Chief, The Ancient History of Hawai'i Island*. Honolulu: Mutual Publishing.

Foreign Testimony. 1964. *Dept. of Land and Natural Res. Foreign Testimony Microfilmed 1964 Originals in State Archives*. Vol. 3, 4, 5, 6, 7, 8, 9. MFL 91–2. Hawaii State Archives. https://digitalarchives.hawaii.gov:8443/documents/3910/663-2.pdf.

Hawaii County Code. 1916. *An Ordinance Relating to the Naming of Public Streets, Highways and Roads in the City of Hilo, County of Hawaii*. *Hawaii County Code*.

Hawaii Tribune-Herald. 1919. "Plan New Organization." *Hawaii Tribune-Herald*, December 3, 1919.

———. 1929a. "Permanent Site for Y.W.C.A. Is Given by Friends." *Hawaii Tribune-Herald*, July 7, 1929.

———. 1929b. "Y.W.C.A. Central Building Soon to Become Reality." *Hawaii Tribune-Herald*, July 7, 1929.
———. 1936a. "New Building for YWCA Activities Is Planned." *Hawaii Tribune-Herald*, May 17, 1936.
———. 1936b. "Activities Building of YWCA Is Opening Today." *Hawaii Tribune-Herald*, November 9, 1936.
———. 1936c. "Unique Walk Will Connect Buildings." *Hawaii Tribune-Herald*, November 9, 1936.
Henry, Betty W. 1943. "Travel News." *Hilo Tribune-Herald*, August 1, 1943.
Hilo Daily Tribune. 1930. "Y.W.C.A. Offers Extensive Range in Its Classes." *Hilo Daily Tribune*, October 21, 1930.
———. 1932. "Increase in Enrollment in YWCA Girl Reserve Units on Big Isle Reported at Confab." *Hilo Daily Tribune*, June 8, 1932.
Hilo Tribune-Herald. 1956. "YWCA Fall Classes, To Begin Next Week, Offer Opportunity For Learning Skills." *Hilo Tribune-Herald*, September 14, 1956.
———. 1972. "Plans for $472,000 YWCA Campaign Told." *Hilo Tribune-Herald*, March 31, 1972.
———. 1973a. "YWCA Groundbreaking Ceremony Held." *Hilo Tribune-Herald*, April 17, 1973.
———. 1973b. "YWCA Pool Nearly Pau; More To Come." *Hilo Tribune-Herald*, June 24, 1973.
———. 1973c. "Swim Pool Dedication Set." *Hilo Tribune-Herald*, August 10, 1973.
———. 1983a. "Man Gets 5 Years for YWCA Fire." *Hilo Tribune-Herald*, March 24, 1983.
———. 1983b. "YWCA Slates Cottage Reopening Celebration." *Hilo Tribune-Herald*, August 30, 1983.
"Inductees." 2022. Hawai'i Swimming Hall of Fame. 2022. https://www.hshof.net/.
Kame'eleihiwa, Lilikalā. 1992. *Native Land and Foreign Desires: Ko Hawaii 'Āina a Me Nā Koi Pu'umake a Ka Po'e Haole, Pehea Lā e Pono Ai? How Shall We Live in Harmony?* Honolulu: Bishop Museum Press.
Kelly, Marion, Barry Nakamura, and Dorothy Barrere. 1981. "Hilo Bay: A Chronological History, Land and Water Use In The Hilo Bay Area, Island of Hawai'i." Department of Anthropology, Bernice P. Bishop Museum. U.S. Army Engineer District, Honolulu.
Ladies' Christian Association. 1859. *Constitution and By-Laws of the Ladies' Christian Association of New York. Organized November 24, 1848, in the Chapel of the New York University*. New York: The "Home" Printing Office. https://digitalcollections.nyhistory.org/islandora/object/islandora%3A109496.
Land Commission Award. 1964. *Dept. of Land and Natural Res. Award Books Microfilmed in 1964 Originals in State Archives*. Vol. 2–3. MFL 88–4. Hawaii State Archives. https://digitalarchives.hawaii.gov:8443/documents/3910/658-4.pdf.
Lyman, F. S. 1882. "Hilo Town Titles." Hawai'i Land Survey Division, Registered Map No. 1062. http://ags.hawaii.gov/survey/map-search.
Lyman Museum and Mission House. 2020. "History of Hilo YWCA." Unpublished manuscript. Lyman Museum and Mission House, Hilo. Hilo YWCA Archives.
Malden, C. R. 1841. "Sandwich Islands, Waiakia or Byron Bay on the North-East Side of Owyhee Survyed By Lieut C. R. Malden R.N. 1825." Hydrographic Office of the Admiralty. https://uwm.edu/libraries/digital-collections/copyright-digcoll/.
McEldowney, Holly. 1979. "Inventory of Archaeological and Historical Resources, Lava Flow Control Study, Hilo, Hawai'i." Department of Anthropology, B.P. Bishop Museum. U.S. Army Engineer Division, Pacific Ocean Honolulu.
Pukui, Mary Kawena, Samuel H. Elbert, and Edwin Mo'okini. 1974. *Place Names of Hawaii*. Revised and Expanded. Honolulu: University of Hawaii Press.

Sanborn Map Company. 1921. "Sanborn Fire Insurance Map from Hilo, Hawaii County, Hawaii County, Hawaii." New York, New York: Sanborn Map Company. https://www.loc.gov/item/sanborn01535_002/.

———. 1957. "Sanborn Fire Insurance Map from Hilo, Hawaii County, Hawaii County, Hawaii." New York, New York: Sanborn Map Company. https://www.loc.gov/item/sanborn01535_003/.

Stapleton, Frankie. 1982. "Police See Two Men in YWCA Arson." *Hilo Tribune-Herald*, January 5, 1982.

Tao, Gene. 1981a. "YWCA Destroyed by Night Blaze." *Hilo Tribune-Herald*, November 3, 1981.

———. 1981b. "Firemen Say YWCA Blaze Arson." *Hilo Tribune-Herald*, November 4, 1981.

The Hawaii Herald. 1898. "Dr. C. H. Wetmore's Life." *The Hawaii Herald*, May 19, 1898.

Alex Bethke

Current Position
Sr. Cultural Resources Project Manager

Discipline Area

- Cultural Resources
- NEPA
- Project Management

Years' Experience:
17

Joined Cardno
2022

Education
2007 / MA / History (Public History) / Arizona State University

2004 / BA / History and Political Science / University of San Diego

Affiliations
SAME – San Diego Post

Languages/Skills
English, Native Language

Summary of Experience

Mr. Bethke has more than 16 years of professional historical, cultural resources management, and program management experience. Mr. Bethke served with NAVFAC for fifteen years (2008-2022) in various capacities - first as a historian/cultural resources manager and project manager (COR), then as the NAVFAC Southwest and Navy Region Southwest regional Cultural Resources Program Manager (CRM) to support Navy and Marine Corps warfighters for more than a decade before moving to the BRAC PMO West as a Deputy Base Closure Manager. During his tenure at NAVFAC Southwest, Mr. Bethke was responsible for overseeing installation management throughout the region – identifying and ensuring regulatory compliance of both historic and archaeological properties. This position afforded him the opportunity to lead complex NHPA and NAGPRA consultations as well as direct unique historical, archaeological, and special initiative best management practices projects while having management experience with Navy real estate, restoration (namely CERCLA), and general environmental programs and requirements. Mr. Bethke exceeds the Secretary of the Interior's Professional Standards for History and Architectural History.

Significant Projects

Environmental Planning and Analysis Support of a Revised Draft and Final EIS/OEIS for the Proposed CJMT on the Island of Tinian
Senior Cultural Resources Project Manager responsible for overall cultural resources NEPA and Section 106 strategy. With cultural resources surveys included in the scope of work, this has including overseeing the cultural resources subcontractor, tracking the resource-specific schedule, and attending consultation meetings as well as facilitating consultation material preparation and follow-up. In addition to these specific cultural resources responsibilities, Mr. Bethke is also serving as a Discipline Lead for social sciences resources, a position that involves second-line QA/QC and tracking of these resource sections.

Project Total Value: $5,097,710 Year Completed: 2025

Environmental Impact Statement for Pacific Missile Range Facility (PMRF) Succeeding Leases and Easements
Sr. Cultural Resources Project Manager and NEPA Support responsible for overall cultural resources NEPA and Section 106 strategy. Related to NEPA support, Mr. Bethke was responsible for assisting the Project Manager complete portions of the DOPAA and related land use regulations associated with the proposed action on Kaua'i.

Project Total Value: $4,297,030 Year Completed: 2026

Navy BRAC Hunters Point Naval Shipyard (NPNS) NEPA Memorandum for Record (MFR)
Deputy Project Manager responsible for overall schedule development and

tracking as well as assisting BRAC with upfront project description development with the JV Project Manager. Serving as initial QA/QC for Stantec-completed resource sections evaluating whether the 2012 SEIS remains valid after currently proposed changes to the NEPA action from the 2023 NDAA.

Project Total Value: $78,916 Year Completed: 2024

Property Disposal Section 106 Consultation, Former NAS Barbers Point, HI
DoN (BRAC) Consultation Lead responsible for resolving a floundering consultation to dispose of federal property that included numerous historic and archaeological properties. Consultation included regular interaction with ACHP, SHPO, and Assistant Secretary of the Navy.

Project Total Value: N/A Year Completed: 2019

Integrated Cultural Resources Plan, PMRF Barking Sands, HI
DoN Principal Investigator and Primary Author responsible for overhauling and re-writing the ICRMP and developing new archaeological sensitivity zones based on a comprehensive and programmatic approach to a resource-rich (including human remains) environment.

Project Total Value: N/A Year Completed: 2020

JBM-HH Building 251 Rehabilitation
Stantec GS Project Manager and Senior Cultural Resources Specialist responsible for overseeing overall products to the client, which include architectural photogrammetry and drone survey in addition to facilitating the cultural resources Section 106 consultation for Joint Base Myer-Henderson Hall and interface with designers throughout the MILCON process to ensure a finding of No Adverse Effect.

Project Total Value: $150,443 Year Completed: 2025

EA West Coast Homeporting and at-Sea Testing and Training XLUUV and MUSV
Deputy Project Manager responsible for assisting with overall document production and QA/QC as well as interacting with and facilitating discussions with the client and action proponent.

Project Total Value: $437,722 Year Completed: 2023

Environmental Impact Statement (EIS) for Bremerton Waterfront Infrastructure Improvements
Discipline Lead for social sciences resources responsible for second-line QA/QC and front-line management of resource sections.

Project Total Value: $2,770,850 Year Completed: 2025

Renovation of Building 61 and 61A, Ft McNair, VA
Senior Cultural Resources Specialist responsible for facilitating the cultural resources Section 106 consultation for Joint Base Myer-Henderson Hall and interface with designers throughout the MILCON process to ensure a finding of No Adverse Effect.

Project Total Value: $266,150 Year Completed: 2025

Awards

SECNAV Environmental Award – Cultural Resources Management, Small Installation: Naval Weapons Station Seal Beach, 2019

SECNAV Environmental Award – Cultural Resources Management, Large Installation: NAS Fallon, 2016

City of San Diego Historical Resources Board – Award of Excellence for Historic Preservation, 2014

CNO Environmental Award - Cultural Resources Management Team: Former Naval Weapons Station Concord, 2012

CNO Environmental Award – Cultural Resources Management Team: Naval Support Activity Monterey, 2012

CNO Environmental Award – Cultural Resources Management, Installation: NAS Fallon, 2012

Employment History

Stantec, San Diego, CA 2022 - present
PaleoWest, San Diego, CA 2022 - 2022
Navy Base Realignment and Closure (BRAC), San Diego, CA 2020 – 2022
NAVFAC Southwest, San Diego, CA 2008 - 2020
Delaware County Planning Department, Media, PA 2007 - 2008
City of Phoenix Historic Preservation Office, Phoenix, AZ 2006 -2007
Architect Milford Wayne Donaldson, San Diego, CA 2004 – 2004

Benjamin Barna, PhD, RPA

Senior Archaeologist
18 total years of experience - Honolulu, HI

EDUCATION
BA in Archaeology and United States History from Boston University earned 1999

MA in Anthropology from University of Nevada earned 2008

PhD in Anthropology from University of Nevada earned 2013

LICENSE AND REGISTRATIONS
Register of Professional Archaeologists|

AFFILIATIONS
Society of Hawaiian Archaeology, Society for Historical Archaeology

CONTINUING EDUCATION AND TRAINING
Section 106 Essentials, Advisory Council on Historic Preservation, 2012

OTHER SKILLS AND LANGUAGES
English
Spanish

SUMMARY OF EXPERIENCE

Benjamin T. Barna, Ph.D. is a Senior Archaeologist with Stantec attached to Stantec's Honolulu office. Dr. Barna has worked on over 250 projects in Hawai'i as a Principal Investigator and supervisor on a range of projects conducted for compliance with NHPA Section 106, Hawai'i Revised Statutes Chapters 6E-8 and 6E-42, and Hawai'i Revised Statutes Chapter 343 (HEPA). Projects have included Archaeological Assessments, Archaeological Inventory Surveys, Reconnaissance Surveys, Field Inspections, Data Recovery, Preservation Planning, and Archaeological Monitoring, Cultural Impact Assessments, and Ka Pa'akai O Ka 'Āina v. LUC analyses of impacts to Native Hawaiian rights. His professional duties require supervising and conducting fieldwork including, but not limited to, inventory surveys, excavation, site recordation, and construction monitoring; literature searches and historical research; artifact identification, analysis, and cataloguing; and technical report writing. Prior to joining Stantec in June 2023, he worked for nine years as a Senior Archaeologist and Project Manager with ASM Affiliates in their Hilo, Hawai'i office, and cultural resource management firms in Reno, Nevada. Dr. Barna has over 18 years of professional archaeological experience and has worked on projects in Hawai'i, Nevada, California, and Arizona for private landowners and developers, and county, state, and federal agencies. Dr. Barna earned his Ph.D. in Anthropology from the University of Nevada in 2013, where his research focused on the cultural evolution of Hawai'i's ranching community in the 19th and 20th centuries. His M.A. research was conducted at a Great Depression-era gold mining camp near Nevada's Black Rock Desert. Dr. Barna served as a Surface Warfare Officer in the U.S. Navy, and is a past president of the Society for Hawaiian Archaeology.

RECENT PROJECT EXPERIENCE (*PROJECTS WITH OTHER FIRMS)

NEPA Pre-Planning for Pacific Missile Range Facility (PMRF) Succeeding Leases and Easements, Kaua'i
Senior Archaeologist. Provided senior review and coordination for integrating Hawaii Revised Statutes Chapter 343 (HEPA) cultural impact assessment requirements into NEPA environmental planning requirements. Provided review and comments on subcontractor archaeological survey plan.
Year Completed: 2023 (anticipated).

Ke Ala Kahawai O Waimea, Waimea, Hawai'i County, Hawaii.
Principal Investigator for HRS Chapter 6E-8 AIS and NHPA Section 106 archaeological survey.* # Coordinated cultural resource management requirements for HRS Chapter 343 (HEPA) CATEX prepared # by Stantec. Client: Okahara and Associates, Honolulu, HI #
Year Completed: 2023 (anticipated). #

EA for Ground-Based Forces Modernization at MCB Hawaii Kaneohe Bay, Oahu, HI
Senior Archaeologist. Author of cultural resources section of NEPA EA. Senior review of subcontractor # archaeological testing plan. Coordinated with client and subcontractor for review of SHPO. Client: # Department of the Navy, Navy Facilities Engineering Command Pacific, HI. #
Year Completed: 2023 (anticipated) #

Archaeological Data Recovery and Monitoring in Support of HI1704M Repair C-130 Aircraft Parking * Apron, Squadron Marine Corps Base Hawaii, Kaneohe* *
Co-Principal Investigator for archaeological monitoring and data recovery in support of construction to repair aircraft parking apron at Marine Corps Base Hawaii, Kaneohe. Prepared work plan and directed # archaeological monitoring and data recovery fieldwork. Assisted MCBH Cultural Resources Managers # during post-review discovery of human skeletal remains. Client: Department of the Navy, Navy Facilities # Engineering Command Pacific, HI. #
Year Completed: 2021 #

*Denotes work conducted with another firm.

Archaeological Data Recovery and Monitoring in Support of the MILCON P-907 and P-908 Relocation/Construction of Facilities, Second MV-22 Squadron Marine Corps Base Hawaii, Kaneohe*
Field Director and Primary Report Author for archaeological monitoring and data recovery in support of # construction of infrastructure improvements for the relocation of the 2nd MV-22 squadron at Marine Corps # Base Hawaii, Kaneohe. Directed archaeological excavations and monitoring fieldwork, analyzed data, and # prepared combined report. Client: Department of the Navy, Navy Facilities Engineering Command Pacific, # HI. #
Year Completed: 2017. #

Reconnaissance Level Architectural Survey of the Hamakua Infirmary, 45-549 Lehua Street, Honoka'a, Hawai'i County, HI*
Field Director and Primary Report Author of standard Reconnaisance Level Survey to document a health clinic building constructed in 1966 and to assess its integrity and significance per Hawai'i Administrative Rules §13-284-6. Client: SSFM International for Hamakua Health Center. Year Completed: 2019

Cultural Resources Survey in Support of the PUHO Maintenance Buildings, National Park Service, Hawai'i County, HI*
Principal Investigator. Directed archaeological survey of 5.3 acres within Pu'uhonua o Hōnaunau National Historic Park in support of relocating park maintenance facilities. During the survey, 168 archaeological features and 93 ki'i pohaku were documented. Analyzed data and prepared final report. Client: Hennebery Eddy Architects, Inc, Portland, Oregon.
Year Completed: 2021

Archaeological and Architectural Inventory in Accordance with HRS 6E-8 for the Hawai'i State Department of Defense Diamond Head Fiber Optics Cable Project (DAGS Job No. 12-14-7666), Honolulu, HI*
Principal Investigator of hsitoric properties inventory study for fiber optic corridor within Diamond Head State Park and NRHP-listed Fort Ruger Historic District. Documented architectural infrastructure elements of Fort Ruger and assessedd integrity and significance per Hawai'i Administrative Rules §13-284-6. Client: PBR Hawaii. Year Completed: 2019

Archaeological Inventory Survey for the Kamehameha Schools Makalawena Integrated Resource Management Plan, Hawai'i County, HI*
Field Director and Primary Report Author. Directed archaeological survey of 100-acre makai portion of Kamehameha Schools land in support of Integrated Resource Management Plan. Survey including documentation of Opae'ula Pond and former coastal village at Makalawena. Client: Kamehameha Schools. Year Completed: 2022.

*Denotes work conducted with another firm.

DRAFT ENVIRONMENTAL ASSESSMENT &

YWCA !
DEMOLITION AND CONSTRUCTION !
OF NEW CAMPUS !

APPENDIX G !
AGENCY CONSULT COMMENTS !

Mitchell D. Roth
Mayor

Deanna S. Sako
Managing Director

West Hawai'i Office
74-5044 Ane Keohokālole Hwy
Kailua-Kona, Hawai'i 96740
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County of Hawai'i
PLANNING DEPARTMENT

Zendo Kern
Director

Jeffrey W. Darrow
Deputy Director

East Hawai'i Office
101 Pauahi Street, Suite 3
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February 6, 2024

Land Planning Hawai'i LLC
Attn: John Pipan
194 Wiwo'ole Street
Hilo, Hawai'i 96720

Dear Mr. Pipan:

SUBJECT: Early Request for Comment for a National Environmental Policy Act (NEPA) Environmental Assessment (EA)
Project: Demolition and New Construction of the YWCA Campus
Applicant: Young Women's Christian Association (YWCA) and Hawai'i County Office of Housing and Community Development (OHCD)
TMK: (3) 2-3-013:002, Hilo, Hawai'i

Thank you for your letter dated December 14, 2023, requesting comments from this office regarding the preparation of a Draft Environmental Assessment (DEA) for the subject project.

The applicant is proposing the project to occur in two (2) phases. Phase 1 includes the demolition of an existing pool house, swimming pool, playground, and approximately 100-year-old building. Phase 1 also includes the construction of a new preschool with classrooms, a kitchen, conference room, vehicle drop-ff area, two (2) new playgrounds, and modifications to an existing parking lot. An existing two-story multi-use building abutting Ululani Street will be renovated into office space for administrative needs. Phase 2 includes the construction of a new two-story, 10-unit transitional housing facility/community center and additional parking.

The subject parcel consists of 1.41 acres. The entire parcel is zoned Downtown Hilo Commercial District (CDH) and is situated within the State Land Use Urban District. In addition, according to the County of Hawai'i General Plan 2005 (amended December 2006), the subject property is designated as High Density Urban by the Land Use Pattern.

Allocation Guide (LUPAG). The subject area is not within the Special Management Area (SMA).

Hawai‘i County Code, Chapter 25 (Zoning Code), Section 25-7-27(a) notes *plan approval is required for all new structures and additions to existing structures in the CDH district, except for construction of one single-family dwelling and any accessory buildings per lot.* Therefore, the new preschool facility, two (2) new playgrounds, and new two-story transitional housing facility/community center will require plan approval.

We have no further comments to offer, at this time. However, please keep us informed and provide our department with a copy of the Draft Environmental Assessment for our review and comment.

If you have any questions or need further assistance, please feel free to contact Janice Hata of this office at (808) 961-8854.

Sincerely,

Jeffrey W. Darrow
Jeffrey W. Darrow (Feb 6, 2024 13:43 HST)

February 06, 2024, 01:43 PM

JEFFREY W. DARROW
Deputy Director

JH:tc
\\coh01\planning\public\wpwin60\Janice\Preconsult Draft EA-Demolition and New Construction YWCA Campus.docx

Preconsult Draft EA-Demolition and New Construction YWCA Campus

Final Audit Report 2024-02-06

Created:	2024-02-06
By:	Tiara Cobile (tiara.cobile@hawaiicounty.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAANOikhbkEGkZITsZREE6aWlx1Qdsew-bE

"Preconsult Draft EA-Demolition and New Construction YWCA Campus" History

Document created by Tiara Cobile (tiara.cobile@hawaiicounty.gov)
2024-02-06 - 11:37:34 PM GMT

Document emailed to Jeff Darrow (jeff.darrow@hawaiicounty.gov) for signature
2024-02-06 - 11:39:38 PM GMT

Email viewed by Jeff Darrow (jeff.darrow@hawaiicounty.gov)
2024-02-06 - 11:42:20 PM GMT

Signer Jeff Darrow (jeff.darrow@hawaiicounty.gov) entered name at signing as Jeffrey W. Darrow
2024-02-06 - 11:43:20 PM GMT

Document e-signed by Jeffrey W. Darrow (jeff.darrow@hawaiicounty.gov)
Signature Date: 2024-02-06 - 11:43:22 PM GMT - Time Source: server

Agreement completed.
2024-02-06 - 11:43:22 PM GMT

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

January 17, 2024

Land Planning Hawaii
Attention: Mr. John Pipan
Planning Administrator
194 Wiwoole Street
Hilo, Hawaii 96720

via email: info@landplanninghawaii.com

Dear Mr. Pipan:

SUBJECT: Early Request for Comments for a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the **YWCA** Campus located at 145 Ululani Street, Hilo, Island of Hawaii; TMK: (3) 2-3-013:002 on behalf of YWCA and Hawaii County Office of Housing and Community Development

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

At this time, enclosed are comments from the (a) Engineering Division and (b) Land Division-Hawaii District on the subject matter. Should you have any questions, please feel free to contact Darlene Nakamura at (808) 587-0417 or email: darlene.k.nakamura@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures
cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

December 19, 2023

MEMORANDUM

FROM: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_Engineering Division (DLNR.ENGR@hawaii.gov)
_X_Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___Div. of State Parks
_X_Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
___Office of Conservation & Coastal Lands
_X_Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
_X_Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Early Request for Comments for a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the **YWCA** Campus
LOCATION: 145 Ululani Street, Hilo, Island of Hawaii; TMK: (3) 2-3-013:002
APPLICANT: Land Planning Hawaii LLC on behalf of YWCA and Hawaii County Office of Housing and Community Development

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **January 12, 2024.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed: *Afsheen Siddiqi*
Print Name: AFSHEEN A. SIDDIQI, Acting Wildlife Prog. Mgr.
Division: Forestry and Wildlife
Date: Jan 16, 2024

Attachments

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E. KAAKUA
FIRST DEPUTY

DEAN D. UYENO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES '
BOATING AND OCEAN RECREATION '
BUREAU OF CONVEYANCES '
COMMISSION ON WATER RESOURCE MANAGEMENT '
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAIʻI | KA MOKUʻĀINA ʻO HAWAIʻI
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA ʻOIHANA KUMUWAIWAI ʻĀINA

DIVISION OF FORESTRY AND WILDLIFE '
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

January 12, 2024

Log no. 4377

MEMORANDUM

TO: ! RUSSELL Y. TSUJI, Administrator
Land Division

FROM: AFSHEEN A. SIDDIQI, Acting Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: Early Request for Comments for a National Environmental Policy (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the Young Women's Christian Association (YWCA) Campus in Hilo, Hawaiʻi

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your request for comments on a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the YWCA Campus located in Hilo on the island of Hawaiʻi; TMK: (3) 2-3-013:002. The proposed project will occur in two phases. Phase one will include the demolition of an existing pool house, swimming pool, playground, and a nearly 100-year-old-building; this is followed by the construction of a new preschool facility with classrooms, a kitchen, a conference room, a vehicle drop-off area, and modifications to an existing parking lot. The renovation of a two-story building into office space for administrative needs will also occur. Phase two will consist of the construction of a new two-story, 10-unit transitional housing facility/community center and additional parking. There will be a total of three buildings with 48 parking spaces and four drop off/pick up spaces.

DOFAW recommends the following measures be included in the project design to avoid construction and operational impacts to State-listed species.

The State listed ʻōpeʻapeʻa or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or

trimmed. Barbed wire should also be avoided for any construction because bats can become ensnared and killed by such fencing material during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds. For nighttime work that might be required, DOFAW recommends that all lights used be fully shielded to minimize the attraction of seabirds. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15, when young seabirds make their maiden voyage to sea.

If nighttime construction is required during the seabird fledgling season (September 15 to December 15), we recommend that a qualified biologist be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling the area, lights should then be turned off. If a downed seabird is detected, please follow DOFAW's recommended response protocol by visiting https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/#response.

Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai'i please visit https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf.

The State listed 'io or Hawaiian Hawk (*Buteo solitarius*) may occur in the project vicinity. Prior to undertaking vegetation clearing, DOFAW recommends that pre-construction surveys of the area be conducted by a qualified biologist following appropriate survey methods[1] (Gorressen et al., 2008) to ensure no Hawaiian Hawk nests are present, which may occur during the breeding season from March to September. The survey should be conducted at least 10 days prior to the start of construction. If an 'io nest is detected, a buffer zone of 100 meters (330 feet) should be established around it where no construction shall occur until the chick or chicks have fledged, or the nest is abandoned and. DOFAW staff should be immediately notified. If adult individuals are detected in the area during construction, all activities within 30 meters (100 feet) of the bird should cease. Work may continue when the bird has left the area on its own.

DOFAW recommends using native plant species for landscaping that are appropriate for the area; i.e., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

DOFAW recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain detrimental fungal pathogens (e.g., Rapid 'Ōhi'a Death), vertebrate and invertebrate pests (e.g., Little Fire Ants, Coqui Frogs, etc.), or invasive plant parts (e.g., African Tulip, Octopus Tree, Trumpet Tree, etc.) that could harm our native species and ecosystems. We recommend consulting the Big Island Invasive Species Committee (BIISC) at (808) 933-3340 to help plan,

design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. The invasive Coconut Rhinoceros Beetle (CRB) or *Oryctes rhinoceros* is found on the islands of O'ahu, Hawai'i Island, Maui and Kaua'i. On July 1, 2022, the Hawai'i Department of Agriculture (HDOA) approved Plant Quarantine Interim Rule 22-1. This rule restricts the movement of CRB-host material within or to and from the island of O'ahu, which is defined as the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes a) entire dead trees, b) mulch, compost, trimmings, fruit and vegetative scraps, and c) decaying stumps. CRB host plants include the live palm plants in the following genera: Washingtonia, Livistona, and Pritchardia (all commonly known as fan palms), Cocos (coconut palms), Phoenix (date palms), and Roystonea (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage. For more information regarding CRB, please visit https://dlnr.hawaii.gov/hisc/info/invasive-species-profiles/coconut-rhinoceros-beetle/.

Cats prey on native birds, including State-listed endangered waterbirds, seabirds, and forest birds. Predation is instinctive and means that even well-fed cats will hunt and kill wildlife. Therefore, DOFAW recommends that homeowner associations request that residents with pet cats be kept indoors or safely contained. In addition, no feeding of feral cats should occur on the premises.

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Myrna N. Girald Pérez, Protected Species Habitat Conservation Planning Coordinator at (808) 265-3276 or myrna.girald-perez@hawaii.gov.

Sincerely,

Afaheen Siddiqi

AFHSEEN A. SIDDIQI
Acting Wildlife Program Manager

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

December 19, 2023

MEMORANDUM

FROM: ~~TO:~~

DLNR Agencies:
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_ Engineering Division (DLNR.ENGR@hawaii.gov)
_X_ Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___Div. of State Parks
_X_ Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
___Office of Conservation & Coastal Lands
_X_ Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
_X_ Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: ~~FROM:~~ Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT: Early Request for Comments for a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the **YWCA** Campus

LOCATION: 145 Ululani Street, Hilo, Island of Hawaii; TMK: (3) 2-3-013:002

APPLICANT: Land Planning Hawaii LLC on behalf of YWCA and Hawaii County Office of Housing and Community Development

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **January 12, 2024.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: *CSC*
Print Name: Carty S. Chang, Chief Engineer
Division: Engineering Division
Date: Dec 28, 2023

Attachments

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji

Ref: Early Request for Comments for a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the YWCA Campus
Location: 145 Ululani Street, Hilo, Island of Hawaii
TMK(s): (3) 2-3-013:002
Applicant: Land Planning Hawaii LLC on behalf of YWCA and Hawaii County Office of Housing and Community Development

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). Be advised that 44CFR, Chapter 1, Subchapter B, Part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood zones subject to NFIP requirements are identified on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (fhat.hawaii.gov) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4849.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: Dec 28, 2023

1/05/24

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

December 19, 2023

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_Engineering Division (DLNR.ENGR@hawaii.gov)
_X_Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
___Div. of State Parks
_X_Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
___Office of Conservation & Coastal Lands
_X_Land Division – Hawaii District (gordon.c.heit@hawaii.gov)
_X_Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator Russell Tsuji
SUBJECT: Early Request for Comments for a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Proposed Demolition and New Construction of the **YWCA** Campus
LOCATION: 145 Ululani Street, Hilo, Island of Hawaii; TMK: (3) 2-3-013:002
APPLICANT: Land Planning Hawaii LLC on behalf of YWCA and Hawaii County Office of Housing and Community Development

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **January 12, 2024.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
(✓) We have no comments.
( ) We have no additional comments.
( ) Comments are included/attached.

Signed: _____
Print Name: GORDON C. HEIT
Division: Land Division
Date: 1/05/24

Attachments

Mitchell D. Roth
Mayor

Benjamin T. Moszkowicz
Police Chief

Reed K. Mahuna
Acting Deputy Police Chief

County of Hawai`i

POLICE DEPARTMENT
349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

January 2, 2024

Mr. John Pipan
Planning Administrator
Land Planning Hawaii LLC
194 Wiwo'ole Street
Hilo, Hawaii 96720

Dear Mr. Pipan:

SUBJECT: EARLY REQUEST FOR COMMENT FOR A NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) ENVIORNMENTAL ASSESSMENT (EA); RE: DEMOLITION AND NEW CONSTRUCTION OF THE YWCA CAMPUS; APPLICANT: YOUNG WOMEN'S CHRISTIAN ASSOCIATION (YWCA) AND HAWAII COUNTY OFFICE OF HOUSING AND COMMUNITY DEVELOPMENT (OHCD); LOCATION: HILO, HAWAII TMK (3) 2-3-013:002

Staff, upon reviewing the documents available, does not anticipate any significant impact to traffic and/or public safety concerns.

Thank you for allowing us the opportunity to comment.

If you have any questions, please contact our South Hilo District Commander, Captain Brian Prudencio, at (808) 961-2316 or via email at Brian.Prudencio@hawaiicounty.gov.

Sincerely,

SCOTT P. AMARAL
ACTING ASSISTANT POLICE CHIEF

BP:ws/23HQ1547

JOSH GREEN, M.D.
GOVERNOR
KE KIA'Ā NA

EDWIN H. SNIFFEN
D RECTOR
KA LUNA HO'OKELE

Deputy Directors
Nā Hope Luna Ho'okele
DREANALEE K. KALILI
TAMMY L. LEE
ROBIN K. SHISH DO

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF TRANSPORTATION | KA 'OIHANA ALAKAU
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

DIR 0891
STP 8.3700

January 8, 2024

VIA EMAIL: info@landplanninghawaii.com

Mr. John Pipan
Planning Administrator
Land Planning Hawaii LLC
194 Wiwoole Street
Hilo, Hawaii 96720

Dear Mr. Pipan:

Subject: Early Request for Comment for a National Environmental Policy Act Environmental Assessment
Demolition and New Construction of the Young Women's Christian Association (YWCA) Campus
Hilo, Hawaii
Tax Map Key: (3) 2-3-013: 002

Thank you for your letter dated December 14, 2023, requesting the Hawaii Department of Transportation's (HDOT) early review and comments on the proposed demolition and new construction of the YWCA Campus in Hilo. HDOT understands that the proposed project will consist of 2 phases. Phase 1 will include the demolition of various existing structures, and construction of a new preschool facility, 2 new playgrounds, modifications to the existing parking lot, and the renovation of an existing two-story multi-use building into office spaces for administrative purposes. Phase 2 will consist of a new two-story, ten-unit transitional housing/community center with additional parking.

HDOT has the following comments:

1. The proposed project is approximately 1.59 miles from the property boundary of Hilo International Airport (ITO). All projects within 5 miles from Hawaii State airports are advised to read the Technical Assistance Memorandum (TAM) for guidance with development and activities that may require further review and permits. The TAM can be viewed at this link: http://files.hawaii.gov/dbedt/op/docs/TAM-FAA-DOTAirports_08-01-2016.pdf.

2. The project site is approximately 10,545 feet from the end of Runway 8 at ITO. Federal Aviation Administration (FAA) regulation requires the submittal of FAA Form 7460-1 Notice of Proposed Construction or Alteration pursuant to the Code of Federal

Regulations, Title 14, Part 77.9, if the construction or alteration is within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet. Construction equipment and staging area heights, including heights of temporary construction cranes, shall be included in the submittal. The form and criteria for submittal can be found at the following website: https://oeaaa.faa.gov/oeaaa/external/portal.jsp. Please provide a copy of the FAA response to the Part 77 analysis to the HDOT Airport Planning Section.

3. Due to the project's proximity to ITO, the applicant and future users and residents should be aware of potential single-event noise from aircraft operations. There is also a potential for fumes, smoke, vibrations, odors, etc., resulting from occasional aircraft flight operations over or near the project. These incidences may increase or decrease over time and are dependent on airport operations.

4. The proposed project shall not provide landscape and vegetation that will create a wildlife attractant, which can potentially become a hazard to aircraft operations. Please review the FAA Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants On Or Near Airports for guidance. If the project's landscaping creates a wildlife attractant, the developer shall immediately mitigate the hazard upon notification by the HDOT and/or FAA.

5. If a solar energy photovoltaic (PV) system is going to be installed, be aware that PV systems located in or near the approach path of aircrafts can create hazardous conditions for pilots due to possible glint and glare reflected from the PV panel array. If glint or glare from the PV array creates a hazardous condition for pilots, the owner of the PV system shall be prepared to immediately mitigate the hazard upon notification by the HDOT and/or FAA.

   The FAA requires a glint and glare analysis for all solar energy PV systems near airports. The www.sandia.gov/glare website has information and guidance with the preparation of a glint and glare analysis. A separate FAA Form 7460-1 will be necessary for the solar energy PV system. After the FAA determination of the Form 7460-1 glint and glare analysis, a copy shall be provided to the HDOT Airport Planning Section by the owner of the solar energy PV system.

   Solar energy PV systems have also been known to emit radio frequency interference (RFI) to aviation-dedicated radio signals, thereby disrupting the reliability of air-to-ground communications. Again, the owner of the solar energy PV system shall be prepared to immediately mitigate the RFI hazard upon notification by the HDOT and/or FAA.

Please submit any subsequent land use entitlement-related requests for review or correspondence to the HDOT Land Use Intake email address at DOT.LandUse@hawaii.gov.

If there are any questions, please contact Mr. Blayne Nikaido, Planner, Land Use Section of the HDOT Statewide Transportation Planning Office at (808) 831-7979 or via email at blayne.h.nikaido@hawaii.gov.

Sincerely,

EDWIN H. SNIFFEN
Director of Transportation

Mitchell D. Roth
Mayor

Lee Lord
Managing Director

Ramzi I. Mansour
Director

Brenda Iokepa-Moses
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

345 Kekūanāo'a Street, Suite 41 · Hilo, Hawai'i 96720 · cohdem@hawaiicounty.gov
Ph: (808) 961-8083 · Fax: (808) 961-8086

MEMORANDUM

TO: Land Planning Hawaii LLC
c/o John Pipan, Planning Administrator
via email: info@landplanninghawaii.com

FROM: Ramzi I. Mansour, Director Brenda D. Iokepa Moses
Department of Environmental Management

DATE: December 19, 2023

SUBJECT: Early Request for Comment on a NEPA EA – Demolition and New Construction of the YWCA Campus

The Solid Waste Division has reviewed the subject application and provides the following comments (contact the Solid Waste Division for details):

- Commercial operations, State and Federal agencies, religious entities and non-profit organizations may not use transfer stations for disposal.
- Aggregates and any other construction/demolition waste should be responsibly reused to its fullest extent.
- Ample room should be provided for rubbish and recycling.
- Green waste may be transported to the green waste sites located at the West Hawai'i Organics Facility and East Hawai'i Organics Facility, or other suitable diversion programs.
- Construction and demolition waste is prohibited at all County Transfer Stations.
- Submit Solid Waste Management Plan in accordance with attached guidelines.
- All construction and demolition waste shall be transported to the West Hawai'i Sanitary Landfill for disposal.

The Wastewater Division has reviewed the subject application and provides the following comments (contact the Wastewater Division for details):

- Require connections of proposed structures to the public sewer in accordance with Section 21-5 of the Hawai'i County Code.

- Need to submit permit to perform work on public sewer system for sewer disconnection for demolition, and then submit permit to perform work on public sewer system for reconnection.

Mitchell D. Roth
Mayor

Lee Lord
Managing Director

Ramzi I. Mansour
Director

Brenda Iokepa-Moses
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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May 5, 2023

SOLID WASTE MANAGEMENT PLAN

Guidelines

INTENT AND PURPOSE

This is to establish guidelines for reviewing Solid Waste Management Plans, for which special conditions are placed on developments. The Solid Waste Management Plan will be used to (1) promote and implement recycling and recycling programs; (2) predict the waste generated by the proposed development to anticipate the impacts on County Solid Waste Management Facilities; and (3) predict the additional vehicular traffic being generated because of waste and recycling transfers. A State of Hawai'i licensed engineer or architect shall prepare a suitable Solid Waste Management Plan for review by the Department of Environmental Management.

REPORT

The Solid Waste Management Plan will contain the following:

1. Description of the project and the potential waste that may be generated: e.g., analysis of anticipated waste volume and composition. This includes waste generated during the construction and operation or maintenance phases. Waste types shall include (but not be limited to):
   A. Organics (including food waste and green wastes);
   B. Construction and Demolition materials;
   C. Paper (including cardboard);
   D. Metal (including ferrous and non-ferrous metals);
   E. Plastic;
   F. Special (including ash, sludge, treated medical waste, bulky items, tires);
   G. Hazardous (including paint, vehicle fluids, oil, batteries); and
   H. Glass.

2. Indicate onsite source separation by waste type, e.g., source separation bins for glass, metal, plastic, cardboard, aluminum, et cetera. Provide ample space for rubbish and recycling.

3. Identification and location of the proposed waste reduction, waste re-use, recycling facility or disposal site and associated transportation methods for the various components of the development's waste management system, including the number of vehicle

movements and associated routes that will be used to transport the waste and recycled materials.

4. The report will include identification of any impacts to County-operated waste management facilities, and the appropriate mitigation measures that will be implemented by the development to minimize these impacts.

5. Analysis will be based on the highest potential use or zoning of the development.

REQUIREMENTS AND CONDITIONS

1. A Solid Waste Management Plan will be prepared for all developments including but not limited to projects that are required to perform an EA, EIS, or Special Use Permit, as defined under the policies of the Department of Environmental Management.

2. The Department of Environmental Management will require the developer to provide or resolve all recommendations and mitigation measures as outlined in the solid waste management plan, besides any conditions placed on the applicant herein.

3. A State of Hawai'i licensed engineer or architect will draft and certify in writing the Solid Waste Management Plan as complying with applicable Federal, State, and County of Hawai'i Solid Waste laws, regulations, and administrative rules.

Should you require additional information, please contact the Solid Waste Division at swd@hawaiicounty.gov or at (808) 961-8270.

CONCUR:

Brenda Iokepa-Moses
DEPUTY DIRECTOR

(For Ramzi I. Mansour, DIRECTOR)