JOSH GREEN, M.D.
GOVERNOR

KEITH T. HAYASHI
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
KA ʻOIHANA HOʻONAʻAUAO
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

OFFICE OF FACILITIES AND OPERATIONS

March 21, 2025

TO: Mary Alice Evans
Director, Office of Planning and Sustainable Development

FROM: Jadine Urasaki Jadine Urasaki (Mar 21, 2025 16:57 HST)
Public Works Administrator, Facilities Development Branch

SUBJECT: Draft Environmental Assessment- Anticipated Finding of No Significant Impact
Nanakuli High and Intermediate School - Performing Arts Center Auditorium
Job No.: Q83220-19
Tax Map Key No.: 8-9-007:009
Nanakuli, Oahu, Hawaii

The Hawaii State Department of Education (Department) hereby transmits the subject Draft Environmental Assessment (DEA), for which an Anticipated Finding of No Significant Impact (AFNSI) is expected. The DEA-AFNSI has been prepared in accordance with Hawaii Revised Statutes Chapter 343, and Hawaii Administrative Rules Chapter 11-200.1. Please publish notice of this DEA-AFNSI in the upcoming issue of *The Environmental Notice*.

Studies prepared in conjunction with this Environmental Assessment include a Traffic Impact Report (TIR), which has been appended to the document.

Should you have any questions, please contact William George, Project Coordinator of the Facilities Development Branch, Project Management Section, at (808) 784-5125 or via email at william.george@k12.hi.us, or contact our consultant for this project, Desiree Malabed or Keola Cheng from Wilson Okamoto Corporation, at (808) 946-2277.

JU:wg
Attachments: 1) DEA
2) TIR

c: Facilities Development Branch

#12581 Evans DEA-ANSFI Nanakuli HIS Performing Arts Q83220-19 (wg) v2

Final Audit Report 2025-03-21

Created:	2025-03-21 (Hawaii-Aleutian Standard Time)
By:	Patricia Yap (20343653@k12.hi.us)
Status:	Signed
Transaction ID:	CBJCHBCAABAAQPgHj_T5B7mpMAx2es_6Fq0Z6CetkR0S

"#12581 Evans DEA-ANSFI Nanakuli HIS Performing Arts Q832 20-19 (wg) v2" History

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Document e-signed by Jadine Urasaki (10120827@k12.hi.us)
Signature Date: 2025-03-21 - 4:57:59 PM HST - Time Source: server- IP address: 165.248.217.6

Agreement completed.
2025-03-21 - 4:57:59 PM HST

From: webmaster@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Thursday, March 27, 2025 3:13:18 PM

Action Name

Nānākuli High and Intermediate School Performing Arts Center

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

Waiʻanae, Oʻahu

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

[1] 8-8-007:009

Action type

Agency

Other required permits and approvals

See Section 4.3

Proposing/determining agency

Department of Education

Agency jurisdiction

State of Hawaiʻi

Agency contact name

William George

Agency contact email (for info about the action)

william.george@k12.hi.us

Email address for receiving comments

publiccomment@wilsonokamoto.com

Agency contact phone

(808) 784-5125

Agency address

P.O. BOX 2360
Honolulu, HI 96804
United States
Map It

Is there a consultant for this action?

Yes

Consultant

Wilson Okamoto Corporation

Consultant contact name

Keola Cheng

Consultant contact email

kcheng@wilsonokamoto.com

Consultant contact phone

(808) 946-2277

Consultant address

1907 South Beretania Street
Suite 400
Honolulu, HI 96826
United States
Map It

Action summary

The DOE is proposing the construction of the new Performing Arts Center at NHIS. It is anticipated that the Proposed Project will be built out in sequences to allow
for the continued operation of the existing Performing Arts Center (PAC) program.

Reasons supporting determination

See Chapter 6

Attached documents (signed agency letter & EA/EIS)

- 12581-Evans-DEA-ANSFI-Nanakuli-HIS-Performing-Arts-Q83220-19-wg-v2-signed.pdf
- Final-NPAC-DEA-AFNSI.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 not in an ADA-compliant format for publication. 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 (agency submitting the project and phone and/or email)."

Action location map

- Project-Area.zip

Authorized individual

Keola Cheng

Email

kcheng@wilsonokamoto.com

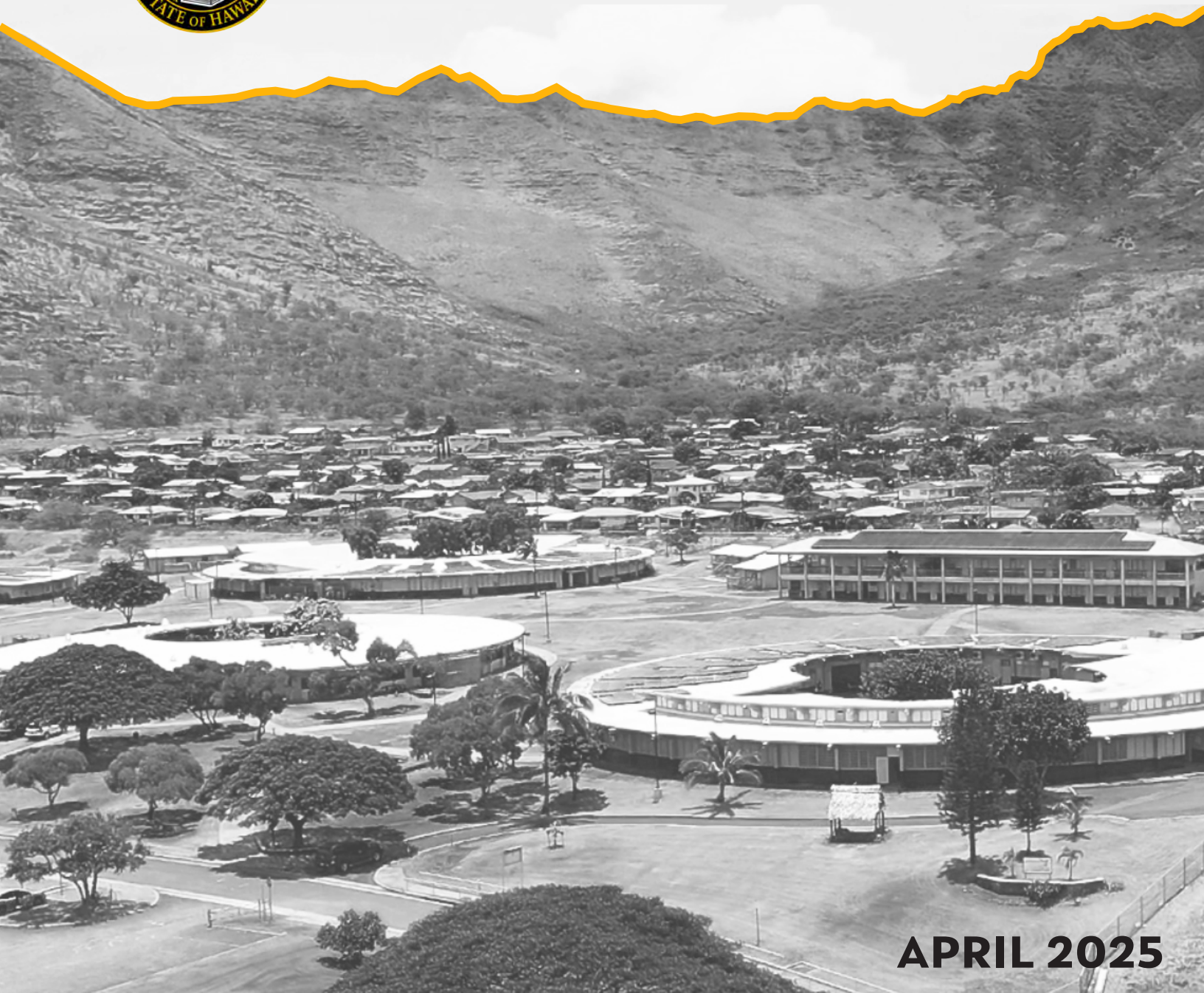
Phone
(808) 946-2277
Authorization
• The above named authorized individual hereby certifies that he/she has the authority to make this submission.

DRAFT ENVIRONMENTAL ASSESSMENT

NĀNĀKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

PREPARED FOR:
STATE OF HAWAI'I DEPARTMENT OF EDUCATION

PREPARED BY:
WILSON OKAMOTO CORPORATION



APRIL 2025

DRAFT ENVIRONMENTAL ASSESSMENT
NĀNĀKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

Prepared For:
Department of Education
1390 Miller Street
Honolulu, Hawai'i 96813

Prepared By:
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawai'i 96826

APRIL 2025

PREFACE

This Draft Environmental Assessment (EA) has been prepared in accordance with Chapter 343, Hawai'i Revised Statutes (HRS) and Title 11, Chapter 200.1 of the Hawai'i Administrative Rules (HAR), under the Department of Health, State of Hawai'i.

The State of Hawai'i Department of Education (DOE) is proposing the construction of a new Performing Arts Center at Nānākuli High and Intermediate School (NHIS) (Proposed Project) in Nānākuli, located on the island of O'ahu.

This EA is being prepared pursuant to HRS § 343-5 (1), which states that actions that involve the use of state or county lands or the use of state or county funds require an EA. This EA will evaluate the potential environmental, social, cultural, and economic impacts associated with the Proposed Action. Pursuant to HRS §343-5(b), the DOE will be responsible for determining if the Final EA can be filed as a Finding of No Significant Impact (FONSI).

Several technical studies have been prepared in conjunction with this EA, including an Archeological Literature and Field Inspection Report (LRFI), a Ka Pa'akai memo, and a Traffic Impact Assessment Report (TIAR). These studies are included as appendices to this EA.

It should be noted that on November 22, 2024, an EA Early Consultation Package for the Proposed Project was distributed to State and City and County of Honolulu agencies, as well as various community stakeholders.

Disclaimer: If you are experiencing any ADA compliance issues with this document, please contact our consultant at (808) 946-2277 or publiccomment@wilsonokamoto.com.

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SUMMARY

SUMMARY SHEET

This section provides an overview of the contents and purpose of this Environmental Assessment (EA) for the Nānākuli High and Intermediate School Performing Arts Center (the Proposed Project). It summarizes the Proposed Project, its potential impacts, and the proposed mitigation measures.

Action Name:	Nānākuli High and Intermediate School Performing Arts Center
Type of Document:	Draft Environmental Assessment – Anticipated Finding of No Significant Impact (DEA-AFNSI)
Hawaii Revises Statutes 343 Triggers:	HRS 343-5(a)(1)- Proposed the use of state of county lands or the use of state or county funds
Proposing Applicant and Determining Agency:	State of Hawai‘i Department of Education (DOE)
Agent/ Consultant:	Wilson Okamoto Corporation 1908 South Beretania Street, Suite 400 Honolulu, HI 96826 Phone: (808) 946-2277 publiccomment@wilsonokamoto.com
Location:	Nānākuli, O‘ahu, Hawai‘i
Tax Map Keys (TMK):	[1] 8-8-007:009
Record Fee Owner:	State of Hawai‘i
Project Area:	65.24 acres (approximately 2,842,116 square feet)
State Land Use Classification:	Urban
City & County Development Plan:	Waianae Sustainable Communities Plan
City & County Zoning Designation:	R-5
SMA:	Not in the SMA
Flood Zone:	Flood Zones D and X.
Existing Use:	The Project Site is currently vacant consisting of weedy gas. It is adjacent to the existing baseball field, Building

	U, Building V, and the surface parking lot for the Gymnasium.
Proposed Project:	The DOE is proposing the construction of the new Performing Arts Center at NHIS. It is anticipated that the Proposed Project will be built out in sequences to allow for the continued operation of the existing Performing Arts Center (PAC) program.
Impacts:	No significant adverse impacts are anticipated to result from the Proposed Project. It is anticipated that the best management practices and mitigation measures discussed in Chapter 3 of the EA will minimize/ reduce/ eliminate any potential impacts to the various resource categories presented.
Anticipated Determination:	Finding of No Significant Impact (FONSI)
Parties Consulted During Early Consultation:	<u>Federal Agencies</u> U.S. Environmental Protection Agency U.S. Department of the Interior, Fish and Wildlife Service <u>Federal Representatives</u> Senator Mazie Hirono Senator Brian Schatz Representative Jill Tokuda Representative Ed Case <u>State Agencies</u> Department of Accounting and General Services Department of Business, Economic Development and Tourism (DBEDT) DBEDT, Hawai‘i State Energy Office DBEDT, Land Use Commission DBEDT, Office of Planning and Sustainable Development (OPSD) OPSD, Environmental Review Program DBEDT, Business Development and Support Division Department of Defense Department of Health (DOH) DOH, Clean Water Branch DOH, Environmental Management Division DOH, Hazard Evaluation and Emergency Response Office DOH, Wastewater Branch

DOH, Safe Drinking Water Branch
Department of Land and Natural Resources (DLNR)
DLNR, Commission on Water Resource Management
DLNR, Engineering Division
DLNR, Office of Coastal and Conservation Lands
DLNR, Historic Preservation Division
Department of Hawaiian Home Lands
Department of Transportation (DOT)
DOT, Highways Division
DOT, Airports Division
Office of Hawaiian Affairs

State Representatives
Senator Maile S. L. Shimabukuro
Representative Darius K. Kila

City and County of Honolulu Agencies
Board of Water Supply
Department of Community Services
Department of Design and Construction
Department of Environmental Services
Department of Facility Maintenance
Department of Parks and Recreation
Department of Planning and Permitting
Department of Transportation Services
Honolulu Fire Department
Honolulu Police Department
Office of Climate Change, Sustainability, and Resiliency
Office of the Mayor

City Council
Councilmember Andria Tupola

Utility Companies
Hawai‘i Gas
Spectrum Hawai‘i
Hawaiian Telcom
Hawaiian Electric Company

Other Interested Parties and Individuals
Hawai‘i State Library
Nānākuli Public Library
Nānākuli-Mā‘ili Neighborhood Board No. 36

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CHAPTER 1: INTRODUCTION

1.1 Background Information

The State of Hawai‘i Department of Education (DOE) is proposing to construct a new Performing Arts center (Proposed Project) at Nānākuli High and Intermediate School (NHIS) in Nānākuli on the island of O‘ahu.

This Draft Environmental Assessment assesses the anticipated environmental effects that the Proposed Project may have on a host of environmental resources. Specifically, this effort encompasses an evaluation of primary, secondary, and cumulative effects, in alignment with Chapter 343, Hawai‘i Revised Statutes (HRS), Title 11, Chapter 200.1, Hawai‘i Administrative Rules (HAR). The EA also identifies feasible means of avoiding or substantially lessening potential significant adverse impacts and evaluates a range of reasonable alternatives to the Proposed Project, including the required No Action alternative. As noted in the Preface of this document, this EA is being prepared as an “agency action.”

In summary, this EA serves as a disclosure and informational document intended to identify the anticipated environmental effects of implementing the Proposed Project and evaluate the potential of their significance. This EA has been prepared for the Proposed Project for the following purposes:

- To inform and provide the general public, the local community, Federal, State, and City and County of Honolulu (CCH) agencies, as well as any other interested stakeholders, an opportunity to comment on the Proposed Project and its environmental effects, feasible measures to mitigate those effects, as well as the reasonable and feasible alternatives;
- To enable the DOE to consider the potential environmental consequences of implementing the Proposed Project and pursue the responsible development of the Project Site;
- To enable appropriate agencies to consider the environmental consequences of the Proposed Project for which they have a role in approving or issuing permits; and
- To satisfy Chapter 343, HRS, and Chapter 200.1, HAR, requirements.

Further, this EA serves to evaluate and discuss the Proposed Project’s conformance with relevant State and County land use plans, policies, and controls, with the intent of providing both the public and decisionmakers with comprehensive overview of the regulatory compliance associated with the Proposed Project. The following land use plans, policies, and controls are outlined and discussed in Chapter 4 of the EA:

<u>State of Hawai‘i</u>

- Hawai‘i State Plan, HRS Chapter 226
- Hawai‘i State Functional Plans
- State Land Use Law, HRS Chapter 205
- Hawai‘i Coastal Zone Management Program, HRS Chapter 205A
- Hawai‘i Environmental Policy Act, HRS Chapter 344

<u>City and County of Honolulu (CCH)</u>

- O‘ahu General Plan, Revised Charter of the CCH Section 6-1508
- Wai‘anae Sustainable Community Plan
- City and County of Honolulu Zoning

1.2 Project Location and Surrounding Uses

NHIS is located in Nānākuli, situated on the west coast of the island of Oʻahu. NHIS is located at 89-980 Nānākuli Avenue in the center of Nānākuli Valley (See Figure 1-1). The NHIS campus encompasses approximately 65 acres of former Hawaiian Home Lands and is further identified as Tax Map Key (TMK) [1] 8-9-007:009 (See Figure 1-2). The Proposed Project is anticipated to be constructed adjacent to the existing baseball field, Building U, Building V, and the surface parking lot for the gymnasium (Project Site) (See Figure 1-3). The main vehicular access to the Project Site is from Nānākuli Avenue via Farrington Highway or surrounding residential streets.

NHIS was established in 1967 due to an overcrowding issue at Nānāikapono Elementary School when the school was split into two schools: the kindergarten - 6th grade occupied the south end of the campus, while the 7th - 9th grade occupied north end of the campus. NHIS left the Nānāikapono campus by 1972 and moved to its present location. NHIS is the only school within the Leeward District that has both an intermediate and high school under one administration. The land was acquired from the Department of Hawaiian Home Lands (DHHL) through Executive Order 3462.

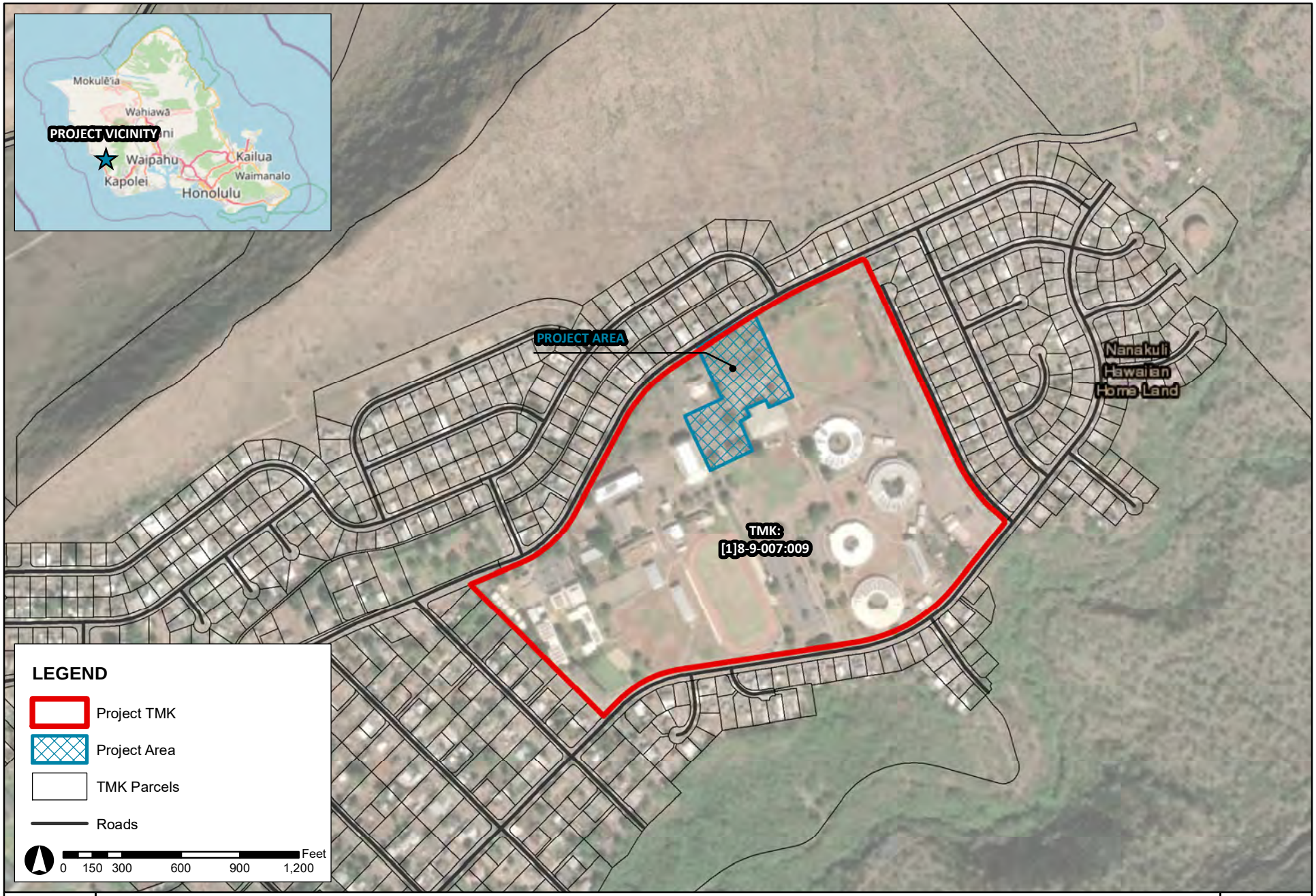
Since 1972, NHIS has slowly developed new facilities and programs for its students as well as the broader community. The newest facility additions to the campus occurred in 2016. Today, the NHIS campus' major facilities encompass four major classroom buildings that house classrooms and administrative spaces, a cafetorium, kitchen building, and other multipurpose buildings. Athletic facilities include a gymnasium, a stadium with a track and field, two baseball fields, a softball field, and locker rooms.

NHIS is a part of the DOE Nānākuli-Waiʻanae Complex Area along with Waiʻanae High School. NHIS serves those that live within Nānākuli/Lualualei Valley. The Nānākuli Complex consists of two elementary schools in addition to NHIS:

- Nānāikapono Elementary School; and,
- Nānākuli Elementary School

NHIS serves students in grades 7-12, with a total student enrollment of approximately 950 students for the 2023-2024 school year. While the school population is diverse, it is predominantly made up of Hawaiian or part Hawaiian students (approximately 70% of the student population is Native Hawaiian). Presently, DOE projections anticipate a decrease in enrollment over the coming years. The Proposed Project is not anticipated to affect the school's current or future enrollment.

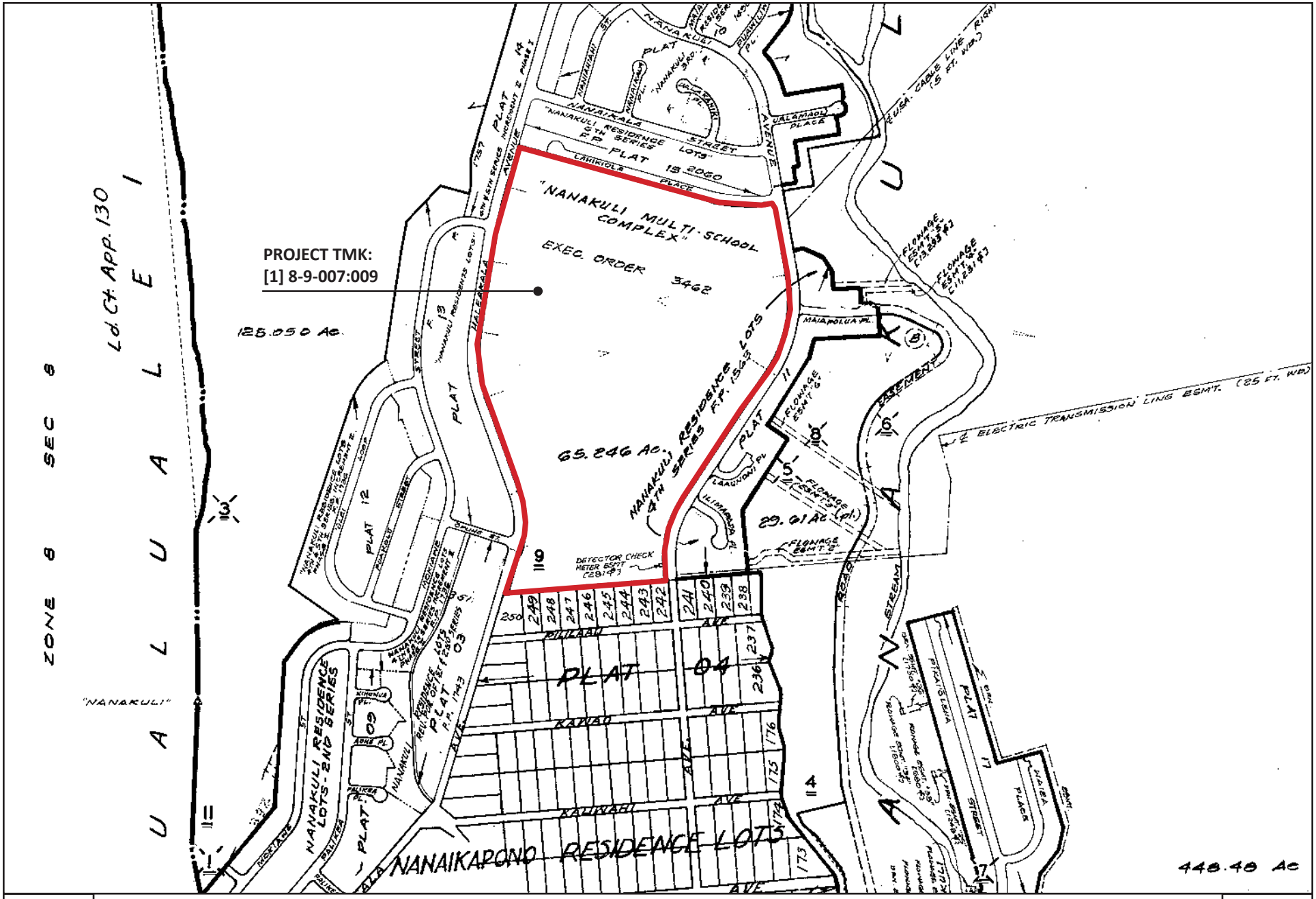
The region in which NHIS is situated is relatively rural in character with a mix of land uses including residential, commercial, industrial, public facilities, recreation, agriculture, and military. Commercial land uses are scattered along Farrington Highway, surrounded primarily by single-family home development. Land uses makai (towards the sea) of Farrington Highway are limited to recreation and preservation with the exception of Nānāikapono Elementary School and a small residential neighborhood. Mauka (towards the mountains) of the residential neighborhoods are agricultural lots with both residential and agricultural uses on two-to five-acre lots. Limited industrial uses exist along the lower portion of Lualualei Naval Road. Lualualei Naval Reservation encompasses the majority of the Nānākuli land area, extending from the agricultural lands to the ridge of the Waiʻanae Mountain Range. Most of the urban and agricultural lands are privately owned, however, a significant amount of land in Nānākuli is under the administration of the DHHL.



PROJECT LOCATION MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

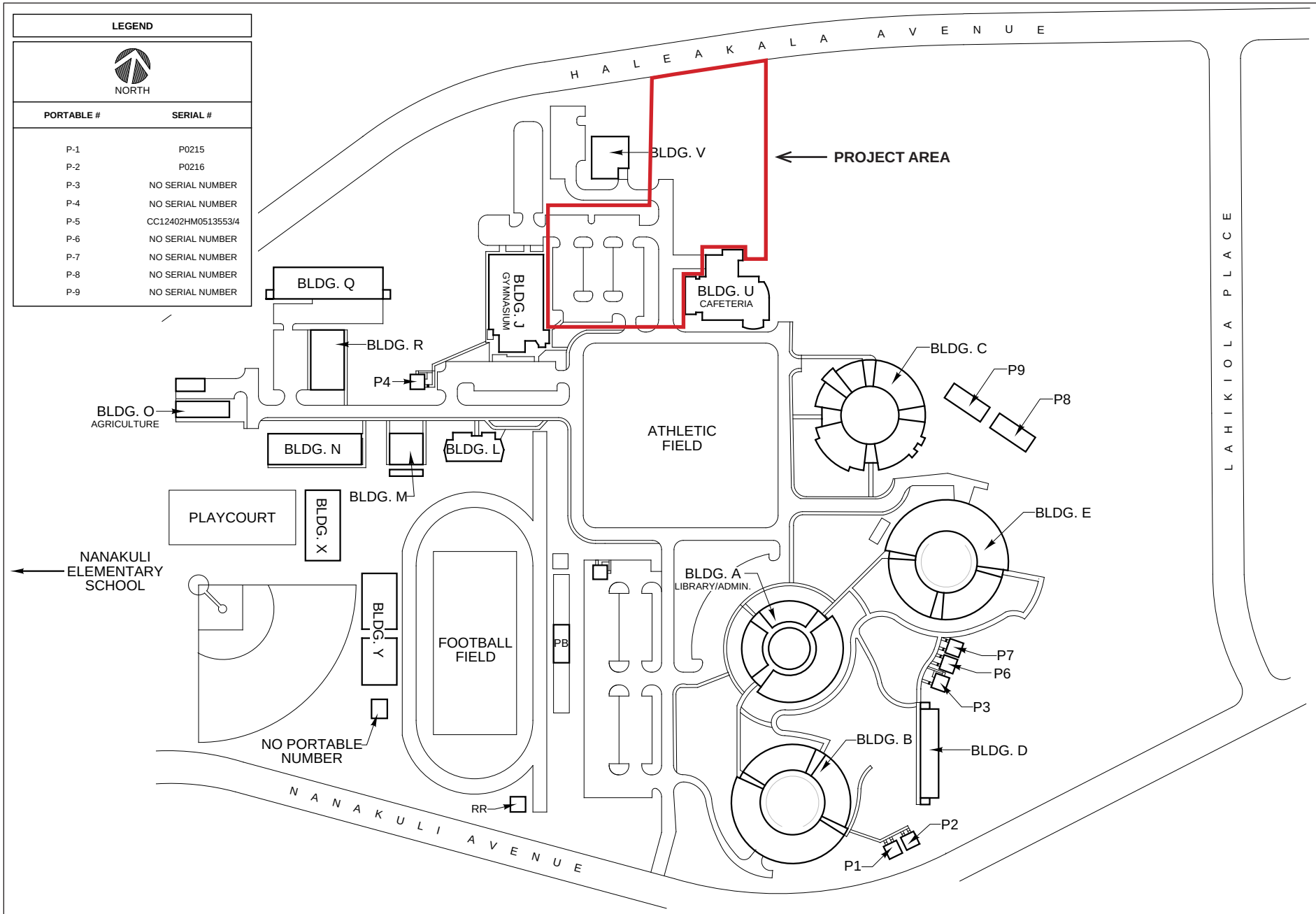
FIGURE 1-1



TMK PLAT MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 1-2



CAMPUS MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaii

FIGURE 1-3

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CHAPTER 2: PROJECT DESCRIPTION

2.1 Proposed Project

The DOE is proposing the construction of a new Performing Arts Center at NHIS (See Figure 2-1 and 2-2). It is anticipated that the Proposed Project will be built out in phases to allow for the continued operation of the existing Performing Arts Center (PAC) program.

The first phase of construction will initially serve as a flexible space, functioning as a daily use theater classroom, Theater Workshop for small performances, and as support space for Building U performances until the completion of the Performing Arts Center. To maximize support for continued PAC programming housed in Building U, this portion will be in proximity to the north of the existing Building U to minimize the travel distance for performers.

Improvements and alterations to the existing drainage swale will be included, reducing the width and facilitating easier access between buildings for the users.

The Theater Workshop of the Proposed Project is designed to function as a flexible black box theater and workshop space, supporting both rehearsals and performances in a controlled setting. The approximate 2,819-sf Workshop space will accommodate 50 audience members in addition to the production cast and crew. The space is anticipated to feature a pipe grid to accommodate flexible lighting and AV arrangements. The stage will be flat, with a control booth on one side of the space. The seating will be retractable or stackable to allow for flexible use of the space.

The Outdoor Amphitheater will serve as an additional performance, meeting, or classroom space, as well as a plaza and 'outdoor lobby' for the Proposed Project and NHIS. The performance space will be situated on the west side, with stepped seating along the east side adjacent to the Workshop.

The PAC Auditorium will serve as the centerpiece for the PAC program, with a seating capacity of approximately 500 audience members. It will accommodate both small and large-scale events, including performances, school functions, community events, and other educational activities. The auditorium will span approximately 22,827 sf incorporating a stage, control booth, catwalks for lighting rigs, and acoustic reflector panels. Additionally, the Auditorium will feature dedicated spaces such as a scene shop, green rooms, dressing rooms, and offices for PAC staff.

2.2 Purpose and Need

NHIS seeks to prepare students for college and careers through an exciting and enriching learning environment grounded on project-based learning. Students have access to a variety of programs, including:

- Arts and Communication Learning Center composed of performing arts, visual arts, multimedia and musical arts
- Robotics
- Health Occupations and Professions Exploration program
- JROTC
- Career and Technology Education programs, such as Food Service, Agriculture, Building and Construction, and Electronics.

The Proposed Project will support the existing performing arts curriculum and enable the introduction of new courses and programs. This will allow NHIS to expand its educational offerings, providing students with a more comprehensive and well-rounded education.

In 1991, NHIS established its PAC program dedicated to fostering artistic and creative expression among students. The PAC program provides an innovative afterschool program for students grades 4-12 that promotes academic achievement, college readiness and self-confidence through the performing arts. Over the years, the PAC has evolved into a vibrant hub for a wide range of performing arts disciplines such as theater, dance, music, and more. To date, the PAC has staged over 100 productions and performances, showcasing the talent and dedication of its students. The PAC, in 2018, was one of 50 high school theatre programs out of 1000 applicants from across the country to receive NBC's R.I.S.E. (Recognizing and Inspiring Student Expression) America grant. Prior to that, in 2011, the PAC was selected to perform at the American High School Theatre Festival at the Edinburgh Fringe Festival in Scotland. There were 2200 schools that were nominated to perform and only 62 schools were selected, and the PAC was one of them.

Currently, the PAC does not have a dedicated facility and utilizes public auditorium and stages outside the NHIS campus that serve as multi-purpose academic, professional, and performance venues. Moreover, the current facilities at NHIS are inadequate to meet the growing demands of the PAC, one of the most successful programs in the country. The Proposed Project would provide a dedicated facility to better accommodate the PAC as well as offering a venue for school and community events, performances, and activities. The Proposed Project will provide a new, modern, and functional space for rehearsals, performances and other activities.

The DOE seeks to provide quality educational opportunities and support the diverse needs of its students. Engaging in the performing arts has been shown to have numerous benefits for students, including improved academic performance, increased self-esteem, and enhanced social skills. The Proposed Project will provide a new and dedicated space to promote student success as well as artistic expression and collaboration. The Proposed Project aligns with the DOE's mission to provide quality educational opportunities and support the diverse needs of its students. By constructing the Proposed Project at NHIS, the DOE will enhance educational outcomes, support the performing arts, and enrich the Nānākuli community. While the school population is diverse, approximately 70% of the student population is Native Hawaiian. The Proposed Project will offer a platform for students to celebrate and express their cultural heritage through the arts, fostering a sense of pride and identity within the student body as well as for the larger community.

2.3 Hours Of Operation

Hours at the NPAC will be similar to the existing program. The program meets after school from 4 p.m. to 6 p.m. as well as some Saturdays and evenings.

2.4 Development Schedule

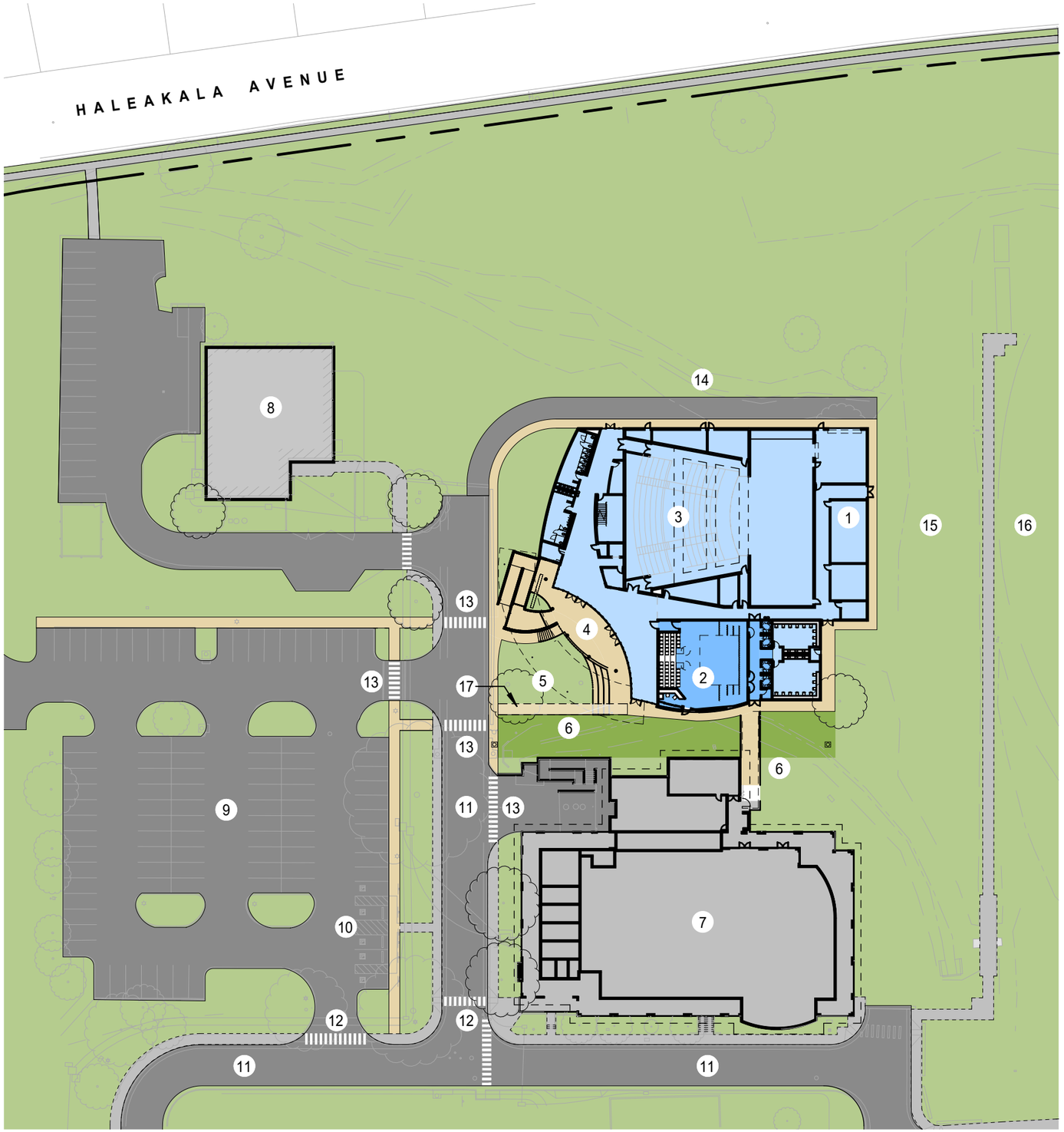
The Proposed Project will be developed and constructed in a sequential manner to minimize disruptions to ongoing activities at NHIS.

The initial stage of construction is set to begin in early 2027, following the completion of design and permitting. This phase will focus on building the Theater Workshop. This portion of the project is anticipated to be completed in 2028.

The timeline for future phase/s will be subject to available funds.

2.5 Projects Costs

The estimated construction costs associated with the Proposed Project are projected to amount to approximately $22,822,480 million.



PHASING PLAN COLOR LEGEND

- EXISTING BUILDINGS
- PHASE I
- PHASE II

PLAN LEGEND

1 Back of House
2 Theater Workshop (Black Box)
3 Performing Arts Center (main level)
4 Covered Lanai, ADA ramps, and tiered seating
5 Shaded Amphitheater with turf or pervious groundcover and new tree
6 Native landscape swale above new civil drain with new surface inlets at each end
7 Existing Building U to remain in use
8 Existing Kitchen Building*
9 Existing parking*
10 Existing ADA stalls*
11 Existing site entry roads*
12 Existing crosswalks
13 Proposed crosswalks
14 Proposed Scene Shop loading and fire lane
15 Existing steep grades
16 Existing baseball field*
17 Temporary walkway Phase I through Phase II completion

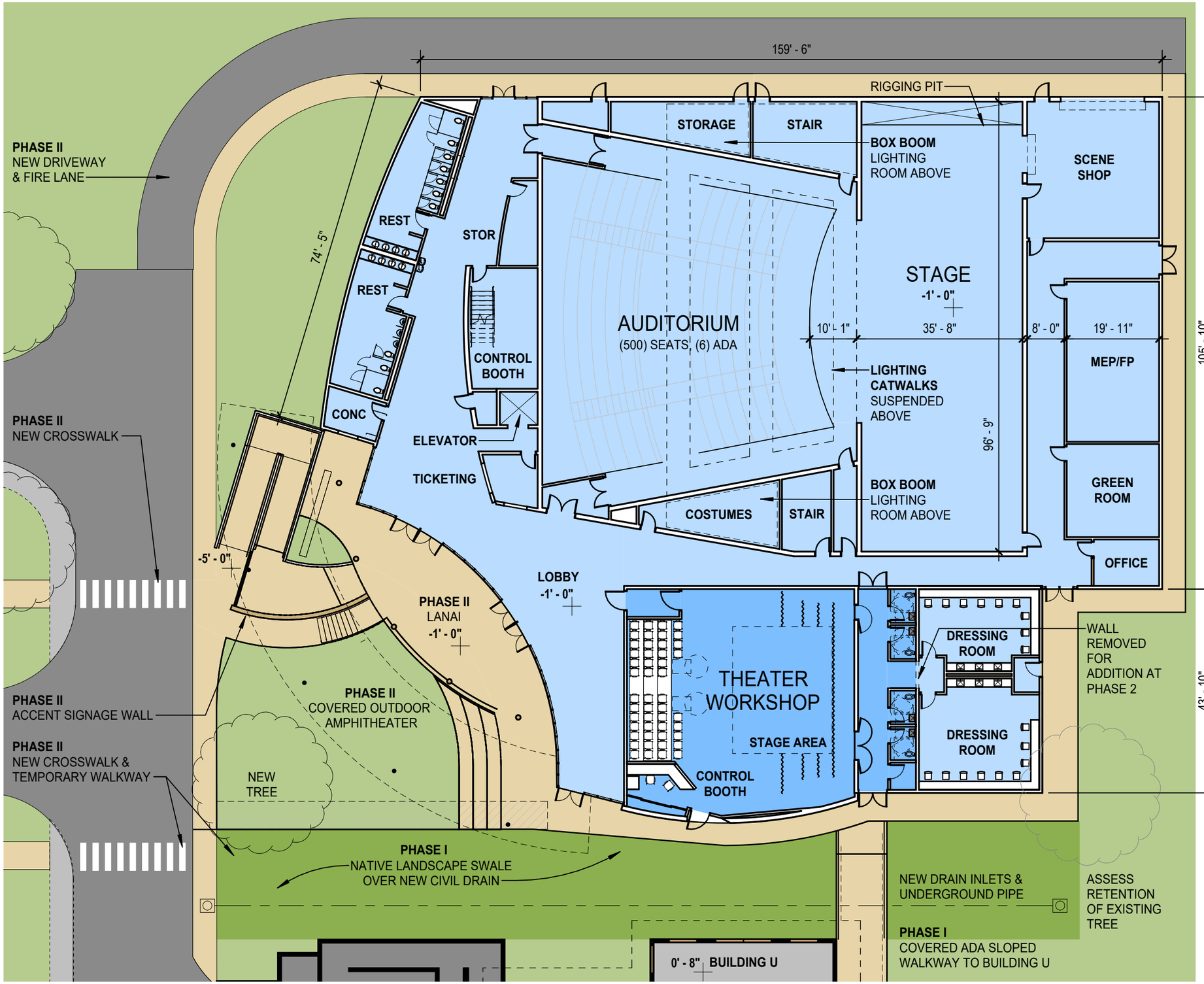
* To remain in use throughout construction

- Existing Sidewalks
- Proposed Sidewalks

ahl.

FIGURE 2-1
SITE PLAN & PHASING

A2
Nānākuli HS/IS PAC
March 6, 2025



PHASING PLAN COLOR LEGEND

- EXISTING BUILDINGS
- PHASE I
- PHASE II

SPACE SUMMARY OF FLOOR AREAS

PHASE I - THEATER WORKSHOP (BLACK BOX)	
THEATER WORKSHOP	2,260
CORRIDOR	371
ADA RESTROOMS	160
CUSTODIAL	23
VESTIBULE	77
	2,891

PHASE II - PERFORMING ARTS CENTER	
LOBBY, CONCESSIONS, TICKETING & RESTROOMS	3,886
AUDITORIUM	4,321
STAGE	3,768
CONTROL ROOM & FOLLOW SPOT (ABOVE)	764
BOX BOOMS (X2) (ABOVE)	600
STAIRS TO BOX BOOMS & CATWALKS (X2)	494
SCENE SHOP	834
DRESSING ROOM	550
DRESSING ROOM	437
GREEN ROOM	398
STORAGE	479
MEP/FP	684
OFFICE	140
COSTUMES	286
	17,162

TOTAL OVERALL FLOOR AREAS	
TOTAL NSF	**17,305 NSF**
TOTAL GSF	**22,827 GSF**
GROSSING FACTOR (CONCEPT)	1.32

Excluded from calc
SUSPENDED STEEL CATWALKS ABOVE AUDITORIUM
COVERED OUTDOOR PERFORMANCE
LANDSCAPE: NATIVE RAINGARDENS & DRAINAGE SWALE

ahl.

FIGURE 2-2
OVERALL FLOOR PLANS

A3
Nānākuli HS/IS PAC
March 6, 2024

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CHAPTER 3: DESCRIPTION OF EXISTING ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES

This chapter outlines the existing environment, potential impacts, and proposed mitigation measures within the Project Area. It identifies potential impacts to various environmental resources from the Proposed Project and offers mitigation measures to address these impacts.

3.1 Climate, Greenhouse Gas Emissions, and Climate Change

3.1.1 Current Climate Conditions

The climate of Oʻahu is generally tropical and fairly consistent throughout the year. Oʻahu experiences two main seasons: the winter season, known as Hoʻoilo, typically spanning from December to March, while the summer season, called Kau, extends from June to October (Kawarada, 2023). The winter season is characterized by high humidity and increased rainfall, along with relatively cooler temperatures, whereas the summer season features higher temperatures and less rainfall.

The Project Area is located in Nānākuli on the leeward coast of Oʻahu. Historically, the region has been known for its vulnerability to drought and famine due to limited water and land resources (Young, 2023). The average annual temperature of Nānākuli is approximately 23.9 °C (75.0 °F), with typical monthly highs around 28–31 °C (82–88 °F) and lows around 18–21 °C (64–70 °F) (Giambelluca, 2014). The area has relatively high humidity averaging approximately 70% annually, with the highest monthly averages occurring from November through January (Giambelluca, 2014). Annual rainfall in Nānākuli ranges from approximately 700 mm to 1,000 mm with precipitation peaks primarily observed during the winter season (Giambelluca, 2014). Wind speeds in Nānākuli annually ranges from approximately 0.3 meters per second (m/s) to 6.9 m/s (Giambelluca, 2014).

Impacts and Mitigation Measures

No significant adverse impacts to current climate conditions at or in the vicinity of the Project Area are anticipated to result from the construction and operation of the Proposed Project. The Proposed Project will appropriately take into consideration the surrounding environment and is not anticipated to significantly influence or affect temperatures, wind or rainfall levels.

3.1.2 Observed Climate Change

Climate change has been acknowledged as a critical threat to the State of Hawaiʻi (Gove et al., 2022). Multiple environmental stressors occur as a result of climate change including sea level rise, changes in rainfall patterns, changes in atmospheric and ocean temperatures, and extreme weather events. The rapid changes in climate have been highly attributed to the rise in greenhouse gas (GHG) emissions associated with human activities (Jay et al., 2023). Research indicates that climate change resulting from the continued increase of GHGs poses considerable impacts to ecosystem processes, socio-cultural connections, and human health in the State of Hawaiʻi (Gove et al., 2022).

Since 1950, air temperature has increased by approximately 2 °F with a sharp increase in warming over the last decade (State of Hawaiʻi Emergency Management Agency (HI-EMA), 2023). The Intergovernmental Panel on Climate Change (IPCC) stated in its Sixth Assessment Report (AR6) that 16 of the last 17 years have been the warmest ever recorded (IPCC, 2021). Five Shared Socio-economic Pathways (SSPs) of GHG and other air pollutant futures were provided by the IPCC AR6

that estimated a global mean temperature increase of 4.0 ℃ above pre-industrial (1850-1900) conditions for high future scenarios (IPCC, 2021). Increased temperatures are an environmental stressor for plants and animals and can cause heat-related illness in humans. Furthermore, over half of known infectious diseases are aggravated by climate change (HI-EMA, 2023).

There is seasonal variability in sea surface temperature with coolest temperatures typically observed in March and warmest temperatures observed in September. However, climate change has caused accentuation and shifts in this seasonal cycle. Sea surface temperatures in the State of Hawai‘i have increased approximately 0.15 to 0.25 ℃ every decade with warmest temperatures recorded in 2015 (Gove et al., 2022). Future projections indicate approximately 2 ℃ rises in sea surface temperatures by 2100 with the rate of increase becoming more rapid after 2050. Increasing sea surface temperatures can have major impacts on ocean habitats such as coral reefs.

Coral bleaching is a stress response caused by the breakdown of the relationship between coral and algae that live in its tissues. The loss of algae leaves the coral skeleton exposed producing a “bleached” appearance that will lead to mass death if ocean temperatures remain high preventing the re-establishment of the coral-algae relationship. An increase in frequency and severity of coral bleaching events is expected with the progression of climate change (Gove et al., 2022). In addition to rising sea surface temperatures, ocean acidification and associated reductions in calcium carbonate saturation will have a profound effect on the skeletons and shells of marine organisms (IPCC, 2021). Ocean acidification is expected to increase under all emissions scenarios provided by the IPCC AR6 (IPCC, 2021).

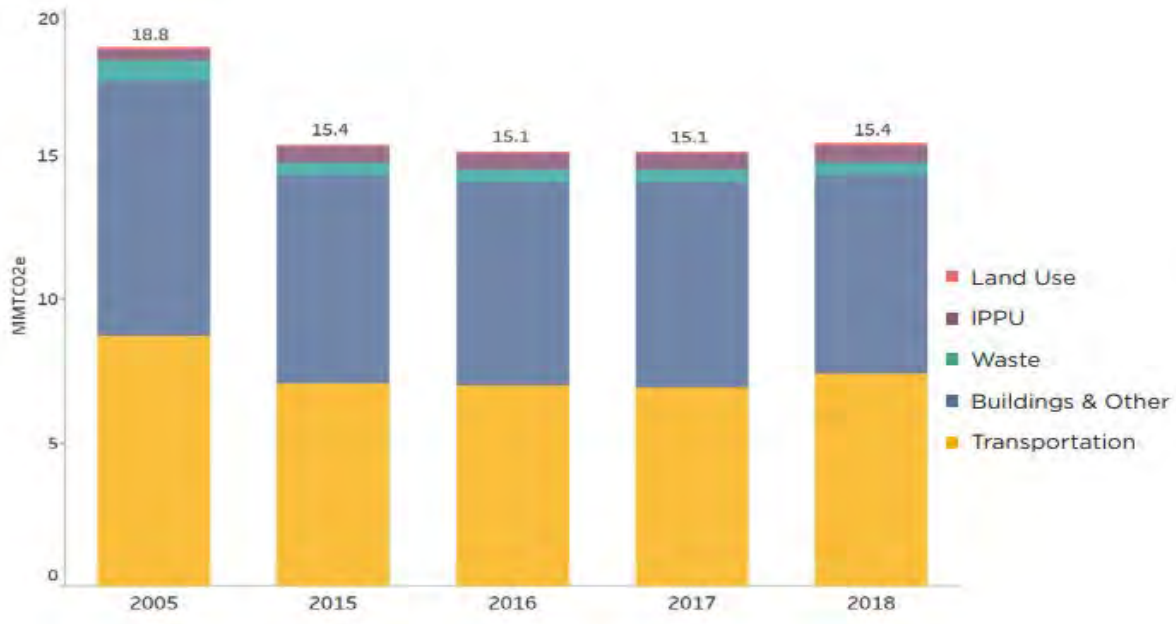
Hawai‘i has highly variable rainfall across the islands, however, climate change accentuates dynamic rainfall patterns that support healthy groundwater and surface waters (HI-EMA, 2023). The amount of rainfall is directly influenced by the northeasterly trade winds causing leeward locations to be more susceptible to a drier climate as compared to windward locations. As northeast trade wind occurrences decrease, the State of Hawai‘i is expected to experience higher frequencies and durations of droughts (HI-EMA, 2023). Additionally, reduced rainfall would decrease the rate that aquifers recharge and decrease the overall amount of water available to supply the majority of drinking water in Hawai‘i that is sourced from groundwater (HI-EMA, 2023).

From 2017 to 2021, peak rainfall events averaged between 34% and 47% of annual rainfall on O‘ahu and an approximately 80% increase in rainfall occurred from 1990 to 2021 (Gove et al., 2022). Such increases in rainfall can cause excessive runoff and discharge pollution into the ocean harming ecosystem and human health (Gove et al., 2022).

The connection between people and ecosystems is an integral aspect of communities across Hawai‘i. Local economy, culture, traditions, and social practices revolve around regular interactions with the natural environment. Conservation and management strategies aid in the long-term viability of healthy environments and communities. Ola, the 2019 O‘ahu Resilience Strategy outlines 44 actions directly addressing climate crisis challenges plaguing communities in effort to increase responsible stewardship and sustainable operations on the island. The actions are centered around climate security and community cohesion that prioritize community equity and resilience. Building on the initiatives established in Ola, the City and County of Honolulu (CCH) implemented the 2020-2025 Climate Action Plan (CAP) to combat climate change effects and to accelerate greenhouse gas emission goals to put Hawai‘i on a path to carbon neutrality by 2045. The CAP outlines programs, policies, and actions currently underway to reach a 45% reduction in targeted GHG emissions by

2025 relative to 2015. Key components of the CAP include ground transportation, electricity, waste, and wastewater reduction pathways (See Figure 3-1).

Figure 3-1: CCH's GHG Emissions by Sector for 2005, 2015-2018



**The analysis and forecasting for the CAP was done before the availability of 2018 figures and is therefore, based on 2005, 2015, 2016, and 2017 figures.*
**Source: Climate Action Plan (CAP). June 2021.*

Impacts and Mitigation Measures

The construction and operation of the Proposed Project is not anticipated to substantially impact climate change or climate change related conditions at or within the vicinity of the Project Area. Fluctuations in climate are dependent on a variety of factors associated with the elevation, distance inland, and trade wind exposure of the Project Site. The Proposed Project will be designed accordingly and will take into consideration the context of the surrounding environment. The Proposed Project is not anticipated to significantly influence or affect temperatures, wind, or rainfall levels in the Project Area or its broader region.

In the short-term, it is anticipated that construction activities may result in minimal GHG emissions. Construction related emissions may include tailpipe emissions from construction equipment, delivery trucks, earthwork, grading, excavation, concrete work, stockpiling, and transport of building materials and construction spoils and debris. The proposed improvements will not lead to a substantial increase in GHG emissions; therefore, the Proposed Project is not anticipated to have a significant adverse impact on the climate or significantly contribute to climate change.

While the exact nature of climate change in the future is unknown, new information will continually be incorporated into future assessments to identify where efforts should be

focused when developing adaptation strategies to combat changes in the climate. It is anticipated that the Proposed Project will be flexible to conform with the guidelines set by policies and research based on the most recent data available.

3.2 Physiography

3.2.1 Geology and Topography

The island of Oʻahu was formed by volcanic activity approximately 3.7 million years ago. It consists of two principal volcanoes: Waiʻanae and Koʻolau. Waiʻanae is an extinct shield volcano and wits remnants are known as the Waiʻanae range in western Oʻahu. The Koʻolau range in eastern Oʻahu is the eroded remnant of the extinct Koʻolau volcano. Nānākuli Valley is located on the southern portion of the Waiʻanae Range and was once an active center of volcanic activity.

Elevations at the Project Site range from 100 ft to 200 ft (30 m to 60 m) above msl (See Figure 3-2). Nānākuli Valley is typically characterized as dry and historically supported dryland agriculture in the upper valley. While agriculture resources may be limited, coastal areas are rich in marine resources.

Impacts and Mitigation Measures

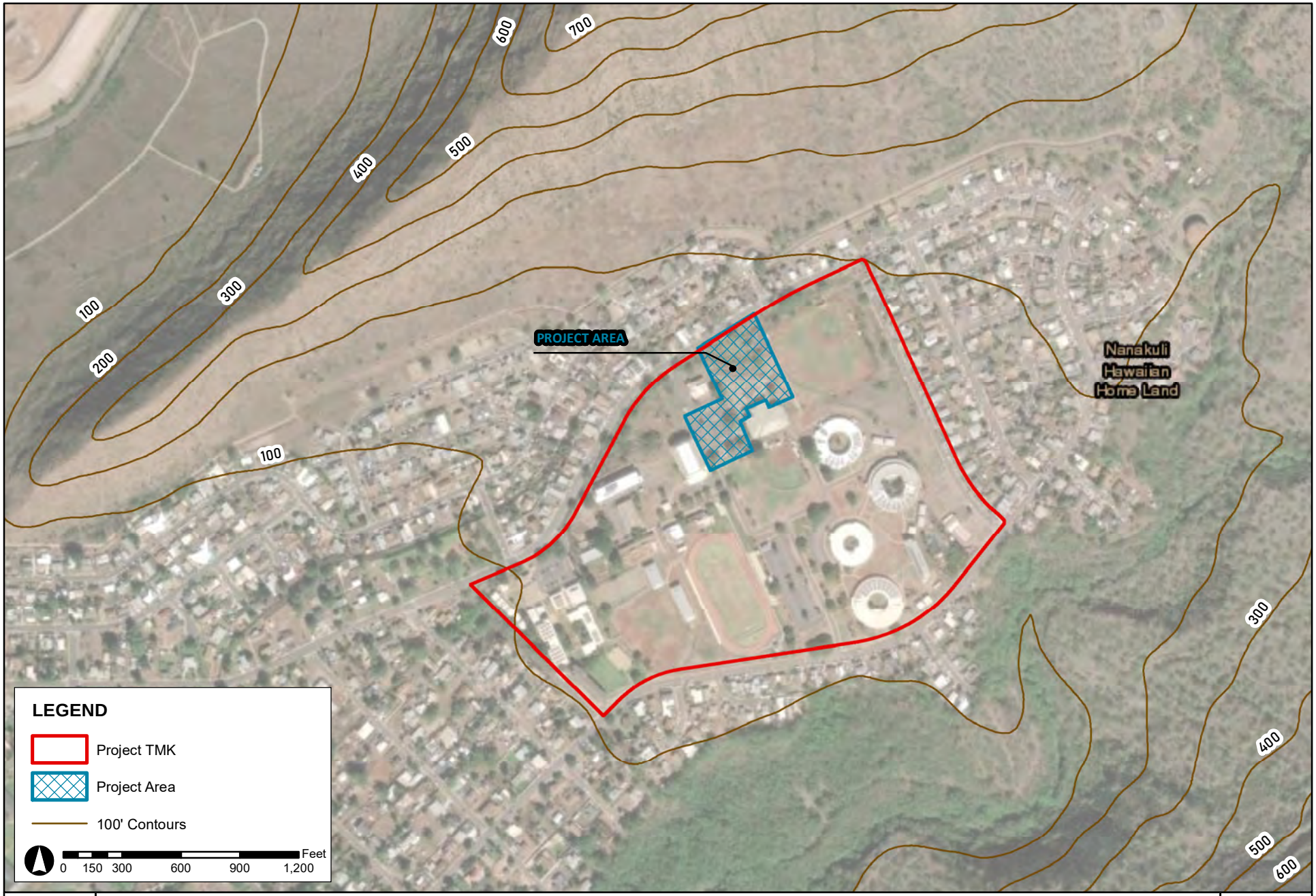
Adverse impacts to geological and topographical features or resources are not anticipated to result from the construction and operation of the Proposed Project, either the short- or long-term. The Proposed Project is to be located within a developed school campus in a rural area of the island. It is designed to integrate with the existing school campus and surrounding topography.

3.2.2 Soils

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NCRS) provides access to soil maps and data available through field studies, soil mapping projects, and other technical soil services. According to the USDA NCRS, soils within the Project Area are primarily classified as Ewa Silty Clay Loam (EaB) and Lualualei Extremely Cobbly Clay (LPE) (See Figure 3-3). A description of each classification of soil is provided below.

- ***Ewa Silty Clay Loam (EaB):*** *This soil type consists of deep, well drained soils that formed in weathered alluvium. This soil type is on alluvial fans and terraces at elevations ranging from sea level to 365 feet (111 meters). The silty clay loam has slopes of 3 to 6 percent. The non-irrigated land capability classification of 4c indicates that there are few limitations that make it unsuitable for cultivation. The major limitation is identified as the very dry climate.*

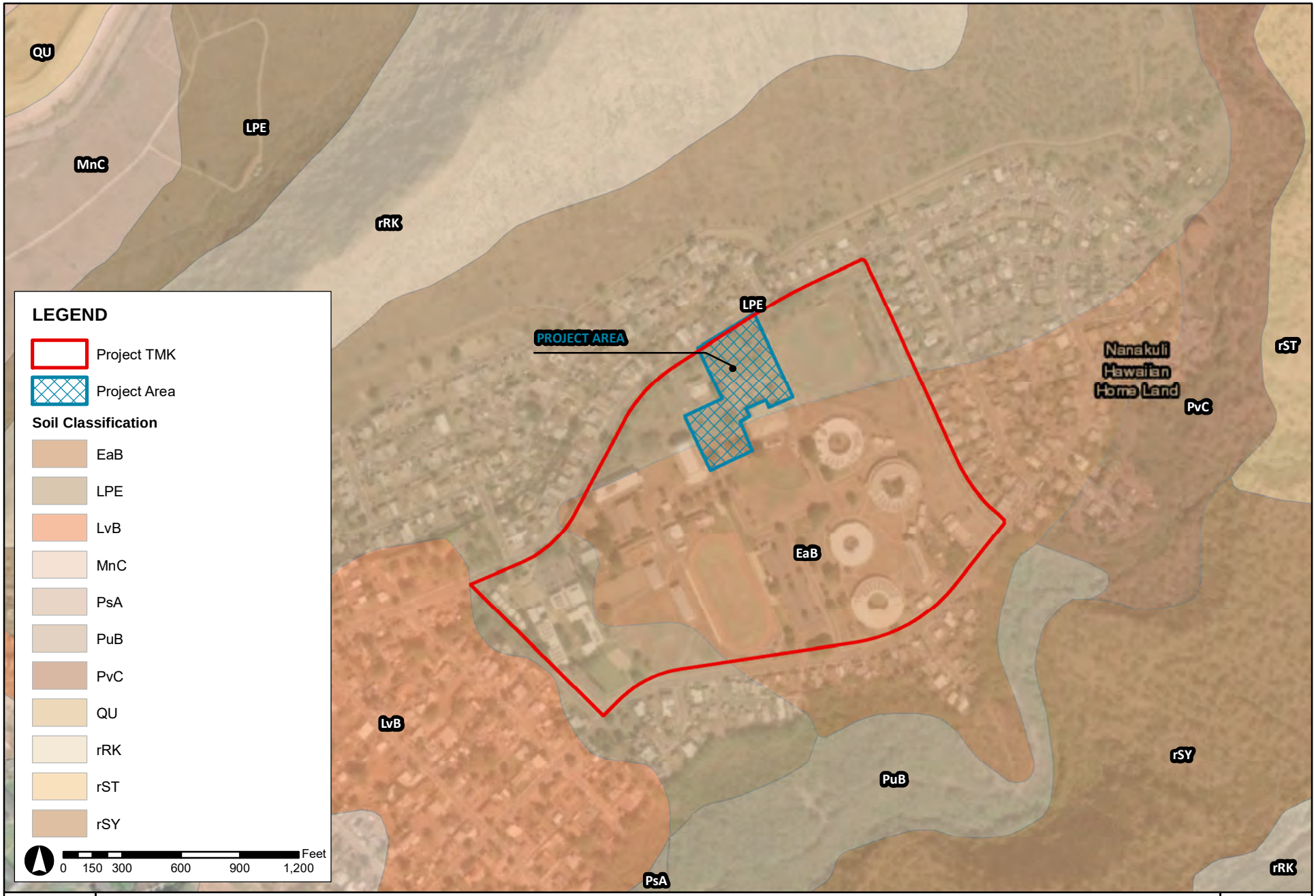
- ***Lualualei Extremely Cobbly Clay (LPE):*** *This soil type consists of deep, well drained soils formed in alluvium and colluvium from basalt and volcanic ash. These soils are on alluvial fans and talus slopes at elevations of 10 to 125 feet (3 to 38 meters). Extremely cobbly clays have slopes of 3 to 35 percent. The non-irrigated land capability classification of 7s indicates that the soil contains severe limitations making it highly unsuitable for cultivation. The major limitation is identified as shallow, drought, or stony soil type.*



ELEVATIONS MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 3-2



SOIL CLASSIFICATION MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 3-3

Impacts and Mitigation Measures

The Proposed Project is not anticipated to result in significant adverse impacts on soils in the Project Area. Construction activities will temporarily include ground disturbing activities during demolition and construction. All appropriate BMPs regarding stormwater runoff and proper maintenance of construction sites will be adhered to. Additionally, all appropriate permits and approvals such as grading and grubbing will be obtained from the issuing agencies.

3.3 Hydrology

3.3.1 Surface and Coastal Waters

The Project Site is situated within the Nānākuli watershed, approximately 0.9 miles from the nearest coastline at Nānākuli Beach Park (See Figure 3-4. According to the State of Hawai'i Department of Health (DOH) Clean Water Branch, Water Quality Standards, coastal waters in the vicinity of Nānākuli Beach Park are classified as Class A Marine Waters. Pursuant to HAR §11-54-3(C)(2), Class A Marine Waters are designated for the protection of recreational use and aesthetic enjoyment. There are three DOH Clean Water Branch marine recreational monitoring sites at Nānākuli Beach Park (ID 187), Ulehawa Beach (ID 250), and Nānāikapono (ID 233). The goal of the Beach Monitoring Program is to reduce the risk of illness due to sewage pollution by issuing public advisories as needed.

Nānākuli Stream discharges into coastal waters at Nānākuli Beach Park. The stream is situated within the DOH Clean Water Branch Class 2 Inland Water Classification. Pursuant HAR §11-54-3(b)(2), Class 2 inland waters are recognized as waters reserved for "*...recreational purposes, the support and propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigation.*"

The Wai'anae Watershed Management Plan (WWMP) was developed by the CCH Board of Water Supply (BWS) and Department of Planning and Permitting (DPP) to formulate an environmentally holistic, community-based, and economically viable watershed management plan strategy for Wai'anae watersheds. The WWMP aims to balance the preservation, restoration, and management of these watersheds by integrating land use and water resource management.

There are no wetlands or reservoirs in the immediate vicinity of the Project Site. The nearest reservoir is located approximately 3 miles northwest of the Project Area.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to impact surface or coastal waters in or near the vicinity of the Project Site. Construction of the Proposed Project may have the potential to contribute to sedimentation in the adjacent Nānākuli Stream, particularly during rainfall events. Best management practices (BMPs) will be utilized during construction of the Proposed Project to mitigate potential impacts to nearby surface and coastal waters related to stormwater runoff. Additionally, any discharges related to the Proposed Project will be required to comply with applicable State water quality standards as specified in HAR §11-55 "Water Pollution Control".

SURFACE WATER MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 3-4

3.3.2 Groundwater Resources

The State Department of Land and Natural Resources (DLNR), Commission on Water Resource Management (CWWRM) has established a groundwater hydrologic unit and coding system for groundwater resource management. The Project Site is located within the Waiʻanae Aquifer Sector (301) and in the Nānākuli Aquifer System (30301) (See Figure 3-5). The Nānākuli Aquifer System is estimated to have a Sustainable Yield (SY) of 1 million gallons per day (mgd) (CWRM, 2019). SY is defined as the predicted yield of an aquifer system that demonstrates minimal impact to available groundwater potential. The SY depends on the amount of groundwater that is extracted and the estimated aquifer recharge rate.

Oʻahu has a regional aquifer system mainly composed of two principal aquifers, the Waiʻanae aquifer in the Waiʻanae Volcanics and the Koolau aquifer in the Koolau Basalt, that are subdivided into well-defined areas by geohydrologic barriers (Nichols et al. 1996). The principal aquifers are separated by the Waiʻanae confining unit formed by along the Waiʻanae-Koolau unconformity (Nichols et al. 1996). The Waiʻanae Aquifer was formed from basalt lava flows producing permeable layers with freshwater floating on an underlying layer of seawater (Nichols et al. 1996). Aquifer recharge is facilitated by irrigation water flow produced by precipitation (Nichols et al. 1996).

The BWS currently services the Waiʻanae District from seven source wells in Makaha and Makaha shaft, in addition to three wells in Waiʻanae Valley, Waiʻanae Tunnel, and Plantation Tunnel. Less than half of the potable water demand is met by these wells; therefore, over 50% of the regionʻs potable water is imported from the adjacent Pearl Harbor Aquifer Sector facilitated by approximately 16 miles of transmission pipelines, booster pumps, and reservoirs maintained by the BWS.

The WWMP provides a long-range plan for the preservation, restoration, and balanced management of groundwater, surface water, and related watershed resources in the Waiʻanae District. The BWS has made extensive efforts to ensure that the WWMP is in alignment with the Policies and Guidelines of the original Waiʻanae Sustainable Communities Plan (SCP) (2000). Generally, the WWMP outlines the policies, projects, and strategies for the sustainable management and use of surface and groundwater resources in the Waiʻanae SCP.

Impacts and Mitigation Measures

The Proposed Project will not have any significant impacts to the groundwater resources in the Project Area of the region. Appropriate BMPs will be utilized during the construction work of the Proposed Project to mitigate any potential impacts to groundwater resources. Additionally, any discharges related to the construction or operation of the Proposed Project will be required to comply with applicable State water quality standards as specified in HAR, Chapter 11-54 “Water Quality Standards” and HAR, Chapter 11-55 “Water Pollution Control.” Construction material waste would need to be appropriately disposed of to prevent any leachate from contaminating groundwater. No long-term impacts to groundwater resources are anticipated.

AQUIFER MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE
3-5

3.4 Natural Hazards

The Disaster Mitigation Act is a Federal legislation passed in 2000 that requires States to implement hazard mitigation plans approved by the Federal Emergency Management Agency (FEMA) in order to receive certain types of Federal non-emergency disaster assistance. The purpose of a hazard mitigation plan is to reduce the loss of life and property by minimizing the impact of disasters, beginning with the identification of risks and vulnerabilities. The plan must be updated every five years to maintain eligibility under certain Stafford Act grant programs.

The State of Hawai'i has maintained and implemented a comprehensive, multi-hazard mitigation strategy to reduce the loss of life and property damage. The *State of Hawai'i 2023 Hazard Mitigation Plan* identifies the major natural hazards that impact the State's people, property, infrastructure, community lifelines, natural and cultural resources, and economy. Each hazard is assessed by describing the hazard locality, extent, previous occurrences and losses, and probability of future hazard events, in addition to existing populations, community lifelines, economy, environmental and cultural resources. The *Hazard Mitigation Plan* includes 84 mitigative actions to reduce or eliminate long-term vulnerabilities from hazards of concern. The following goals reflect the State's current concerns and priorities:

1. Reduce the long-term vulnerability of Hawaii's people, property, and jurisdictions, including State-owned or operated buildings, infrastructure, and critical assets. This includes High Hazard Potential Dams and high-risk properties such as repetitive loss.
2. Promote actions designed to ensure long-term resiliency to natural hazards and climate change impacts.
3. Strengthen partnerships and leverage existing resources and capabilities to identify, assess, and reduce the impact of natural hazards.
4. Utilize state-of-the-art methods and technology and local knowledge to identify and analyze natural hazards and assess State capabilities to reduce the impact of those hazards.
5. Promote public awareness of natural hazards risks and public action to reduce long-term risks.
6. Provide a framework for robust local hazard mitigation planning and mitigation strategy implementation in alignment with this plan.
7. Build capacity and capabilities to increase disaster resiliency among historically underserved populations, individuals with access and functional needs, and in communities disproportionately impacted by disasters and climate change.

The *Multi-Hazard Pre-Disaster Mitigation Plan* for the CCH is currently undergoing its 5-year update to align with the *State Hazard Mitigation Plan*. It will be expanded to include:

- Human and technological hazards,
- Hazard impacts on vulnerable populations, and cultural and natural resources, and
- Incorporate climate change impacts across all hazard types.

The updated *Local Hazard Mitigation Plan* will protect public health, safety, and welfare by identifying risks from natural hazards, developing strategies for reducing hazard-related loss, and identifying cost-effective mitigation actions to address greater risks.

The identified major natural hazards that could affect the State, as well as the CCH are climate change (including sea level rise and coastal erosion), floods, tsunamis, hurricanes and strong winds, earthquakes and other seismic hazards, wildfire, and volcanic hazards.

3.4.1 Sea Level Rise

Climate change and associated impacts are discussed in detail in Section 3.1 above. This section will discuss sea level rise (SLR) and coastal erosion impacts.

Findings by the UH Sea Level Center indicate that Hawai'i has approximately 15 years to prepare for sea level rise (SLR) impacts. Sea level data from 89 harbors, including 6 in Hawai'i, were compared to tidal and SLR projections collected by the National Oceanic and Atmospheric Administration (NOAA), which indicated that the number of flood days would rapidly increase by the mid-2030s (Thompson et al., 2021). Two to three high tide days are expected to occur in Honolulu per month by the early 2040s (Thompson et al., 2021).

Coastal erosion is a naturally occurring event; however, as sea levels continue to rise, the rate at which coastal erosion occurs is increasing. Over the next 30 to 70 years, homes and businesses located at or near the shoreline throughout the state will experience the severe impacts of SLR, including chronic flooding.

Rising sea levels and projections of stronger and increasingly frequent El Niño events and tropical cyclones in the waters surrounding Hawai'i indicate a growing vulnerability to coastal flooding and erosion. The Hawai'i Sea Level Rise Vulnerability and Adaptation Report, last updated in 2022, details the most recent projections of global and regional SLR published in an intergovernmental report led by NOAA. Models indicate that Hawai'i will experience SLR between 0.7 and 1.5 feet by 2050 (AR6; IPCC 2021). SLR is expected to range between 1.3 feet and 8 feet by the end of the century (NOAA, 2022). Compound flood sources, including rain events, overwhelmed drainage systems, and coastal groundwater emergence, will likely exacerbate flood impacts generated by SLR. The CCH Climate Commission issued SLR guidance for the county to use for areas exposed to 3.2 feet of SLR as a planning benchmark for most developments, with consideration of 6 feet of SLR as a planning benchmark for critical infrastructure with long expected lifespans and low-risk tolerance (Climate Change Commission, 2018).

The Project Area is not located within the 3.2-foot and 6-foot SLR exposure area (See Figure 3-6).

Impacts and Mitigation Measures

The Proposed Project is not anticipated to impact or exacerbate the impacts of SLR during or after the completion of construction. Elevations at the Project Site are all within 300 ft (90 m) above msl and range from 100 ft to 200 ft (30 m to 60 m) above msl; therefore, it is not anticipated to have direct impacts from SLR.

Some of the critical resources, infrastructure, and services that serve the Project Site are within the exposure areas. SLR can result in increased coastal inundation and wind hazard levels from storms and tropical cyclones which can reduce the disaster resilience of buildings and infrastructure. On a broader policy level, new information will continually need to be incorporated into future assessments to identify adaptive measures to mitigate SLR impacts. It is anticipated that the Proposed Project will be flexible in order to conform to

guidance set forth by best practices outlined by policies and research based on the best scientific data available at the time, as climate change science, technology, and policies evolve over time.

3.4.2 Flood and Tsunami Hazards

Floods are defined as the temporary inundation of land from excessive rainfall or other sources. Flood can be caused by natural events; however, most flood damage results from human occupation and development of lands susceptible to flooding without adequate protection. The CCH is vulnerable to flooding from various sources, including storms, storm surge, high surf, and on rarer occasions, tsunamis. According to the Department of Emergency Management (DEM), every year, flooding causes millions of dollars in damage. Between 1915 and 2018, floods caused by rainstorms, tsunamis, and hurricanes have claimed more than 140 lives and inflicted more than $200 million in direct and indirect damage in the CCH.

According to the Flood Insurance Rate Map (FIRM) prepared by FEMA, the Northwest portion of the Project Site is designated as Zone D with the remaining Project Site designated as Zone X. Zone D denotes an area of undetermined risk, while Zone X corresponds to areas of minimal flood risk. Zone X defines areas outside of the 1.0-percent-annual-chance flood area and includes areas in the 0.2-percent-annual-chance flood boundary and areas of minimal flood hazard (See Figure 3-7).

Tsunamis are large sea waves generated by natural disturbances that displace a large water mass of water from its equilibrium position. These disturbances can result from faulting, landslides, or volcanic activities occurring both above and below the sea surface. The impact of tsunamis is measured by run-up height and inundation limits, which help determine the extent of devastation. This devastation includes loss of property, death, and major damage to public infrastructure. Tsunamis are categorized into three common types:

1. Tsunamis induced by earthquakes (most common cause), resulting from tectonic displacement of the Earth's crust;
2. Landslides, occurring either above or below the sea surface, which can disrupt the equilibrium of the sea level;
3. and submarine volcanic explosions, which can also displace large amounts of water.

Since the early 1800's, approximately 50 tsunamis have impacted the State of Hawai'i. One of the most notable events was the 1946 tsunami, which reached wave heights of 11 meters and resulted in 6 deaths on O'ahu alone. Additional tsunamis affected O'ahu in 1952, 1957, 1960, 1964, and 2011.

The Project Site is situated within the tsunami safe zone (See Figure 3-8).

Impacts and Mitigation Measures

No significant adeverse impacts on flood hazards at the Project Site or greater region are anticipated to result from the construction and operation of the Proposed Project. IIn the short-term, applicable BMPs would be implemented including, but not limited to, temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks so that impacts of flooding are not exacerbated from construction. In the long-term, the Proposed Project will incorporate

applicable drainage improvements (discussed in further detail in Section 3.15.3) and appropriate building codes related to flooding impacts.

As it relates to tsunami impacts, the Project Site is approximately 1 mile from the nearest shoreline and is entirely within the CCH's tsunami evacuation safe zone and will not cause impacts to the tsunami evacuation areas nor exacerbate the impacts of a tsunami.

3.4.3 Hurricane and Wind Hazards

High winds, such as those from hurricanes and tropical storms can cause severe damage potential to businesses, public buildings, and infrastructure in the CCH. Windspeeds are influenced by barometric pressure at the center of hurricanes and tropical storms, with the lowest pressure and size of the storms' radius determining the area of maximum destruction. Small scale wind bursts, termed "microbursts" and "mini swirls", may reach speeds in excess of 200 miles per hour.

Hurricanes are tropical cyclones with winds of 74 miles per hour (mph) or higher. While actual hurricane strikes on the Hawaiian Islands are rare, passing storms can still cause significant wind and storm surge damage, depending on factors such as wind strength, storm radius, timing, and proximity. The most recent hurricane to cause significant damage is Hurricane Iniki in September 1992, which caused approximately $1.8 million in damages, primarily affecting the Waiʻanae Coast of Oʻahu before striking Kauai.

Hurricane intensity is categorized using the Saffir-Simpson Hurricane scale, ranging from Category 1 (low damage) to Category 5 (catastrophic damage). Strongest winds typically occur on the right side of the hurricane's eyes, decreasing with distance. Hurricanes generally affect the Hawaiian Islands from later summer to early winter months, but their impacts vary based on atmospheric conditions, location, and coastal features.

The Proposed Project is not particularly vulnerable to hurricanes or wind hazards. However, the NHIS campus has been designated as a Hurricane Refuge Shelter.

Impacts and Mitigation Measures

The potential for hurricanes, while relatively rare, is present across the State of Hawaiʻi. Construction activities from the Proposed Project could potentially exacerbate the effects of hurricanes if loose materials are not secured prior to the event of a storm and become flying debris. To minimize this hazard, construction materials and equipment will be properly stored properly when not in use, consistent with construction BMPs. Additionally, pre-storm protocols will be implemented, including securing or removing temporary structures, scaffolding, and loose materials before a hurricane warning. To safeguard against hurricane damage, the Proposed Project's improvements will be designed in compliance with American Society of Civil Engineers and International Building Code standards for wind exposure. This includes incorporating reinforced structural elements, wind-resistant materials, and fastening systems capable of withstanding high wind pressures. Emergency response plans and staff training will also be conducted to ensure preparedness for securing the site in advance of a storm event.

3.4.4 Earthquake and Seismic Hazards

Seismic hazards are risks associated with potential earthquakes including landslides, ground cracks, rock falls, and tsunamis. Most earthquakes that occur in Hawai‘i are associated with volcanic activity centered on the Island of Hawai‘i. Mechanisms that have resulted in the largest earthquakes recorded in Hawai‘i include seismotectonic mechanisms occurring at 30-to-40-kilometer (km) depths from fractures of the underlying lithosphere, and intrusions of magma leading to the release of compressive stress. The most recent earthquake in Hawai‘i occurred on February 9, 2024. The earthquake measured 5.7 on the Richter scale and struck Mauna Loa on the Island of Hawai‘i.

The National Seismic Hazard Model (NSHM) for the State of Hawai‘i defines the potential for earthquakes and ground shaking. The original model was completed in 1998 and recently updated in 2021. The NSHM incorporates data and modeling techniques to document significant potential for damaging ground motion across the Hawaiian Islands. According to the 2021 NSHM, the Project Area is within the 25 to 50% chance of slight, or greater, damaging earthquake shaking in 100 years (Petersen et al. 2021).

Impacts and Mitigation Measures

The Proposed Project is not anticipated to impact earthquakes or seismic hazards; however, the Proposed Project could be impacted by such an event. The Proposed Project would comply with geotechnical recommendations for seismic hazards and meet prevailing design standards to reduce the vulnerability to earthquakes and seismic hazards at that time.

3.4.5 Landslides and Rockfall Hazards

Landslides can be triggered by heavy rainfall, runoff, and ground saturation. Debris flows, or mudslides, are a common type, characterized by high-water content and a slurry-like movement down slopes. These flows often occur during intense rainfall (e.g., 3 inches in 6 hours) (DEM, 2020). Signs of landslide include unusual wet areas, new cracks or bulges in the ground or pavement, and soil shifting away from foundations.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to have adverse impacts that could result in landslide or rockfall events as the Project Site is relatively flat. Moreover, the Proposed Project’s construction will not involve any major land disturbing activities involving mass grading or significant revisions to site contours.

3.4.6 Wildfire Hazards

Wildfires are unplanned fires in forest, shrubs, or grasslands, often caused by human activity, though sometimes natural. Climate change has increased the frequency of wildfires in recent decades, which destroys the environment, harm natural resources, and causes fatalities. In Hawai‘i, the average annual cost to suppress wildfires exceeds $1.1 million, with about 1,000 wildfires and over 17,000 acres burning each year. The National Fire Danger Rating System (NFDRS) classifies wildfires into three types:

1. Ground fires, which burn decayed roots and organic material underground, spreading slowly with little smoke;

2. Surface fires, which burn grasses, shrubs, and small trees near the ground, growing rapidly depending on fuel, moisture, slope, and wind; and
3. Crown fires, typically ignited by surface fires and burn forest canopy, with passive crown fires affecting small groups of trees and active crown fires creating a continuous wall of flames.

One of the largest wildfires recorded on Oʻahu occurred on March 17th, 2016, in Nānākuli Valley, burning 2,500 acres, threatening residential areas, and destroying rare native plants and animals. This event prompted greater community efforts towards fire management and ecosystem preservation.

The West Oʻahu Community Wildfire Protection Plan, implemented in 2016, focuses on fire protection, hazard assessment, wildfire mitigation priorities, and community outreach and education. It identifies priority areas for hazardous fuel reduction and recommends treatment methods to protect at-risk communities and infrastructure.

The Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW), is responsible for fire response for nearly 60% of the land statewide, collaborating with local fire departments for fire prevention, pre-suppression, and suppression measures. DOFAW maintains a fire risk map, and the Project Site is in a high-risk area (See Figure 3-9).

Impacts and Mitigation Measures

The Project Area is rated to be at high risk of wildfire events. The DLNR-DOFAW specifies standards for prevention, pre-suppression, and suppression in the Fire Management Handbook. The document provides a structured approach to providing public / firefighter safety and minimizing ecological damage. The Stateʻs general fund and federal cost share programs through the U.S. Forest Service provide funding for fire management programs.

The DLNR-DOFAW is a key agency within the State which can trigger provision of the Stafford Act (Fire Suppression Assistance) that provides FEMA funding assistance in situations where forest and grass fires on public or private lands threaten a major disaster to communities and economies. For DLNR-DOFAW to meet its legal fire protection mandate for State-owned lands and honor its partnerships with other fire services, DLNR-DOFAW negotiated with local fire departments to establish cooperative mechanisms for prevention, pre-suppression, and suppression measures by way of Mutual Aid Agreements and Memoranda of Agreement or Understanding.

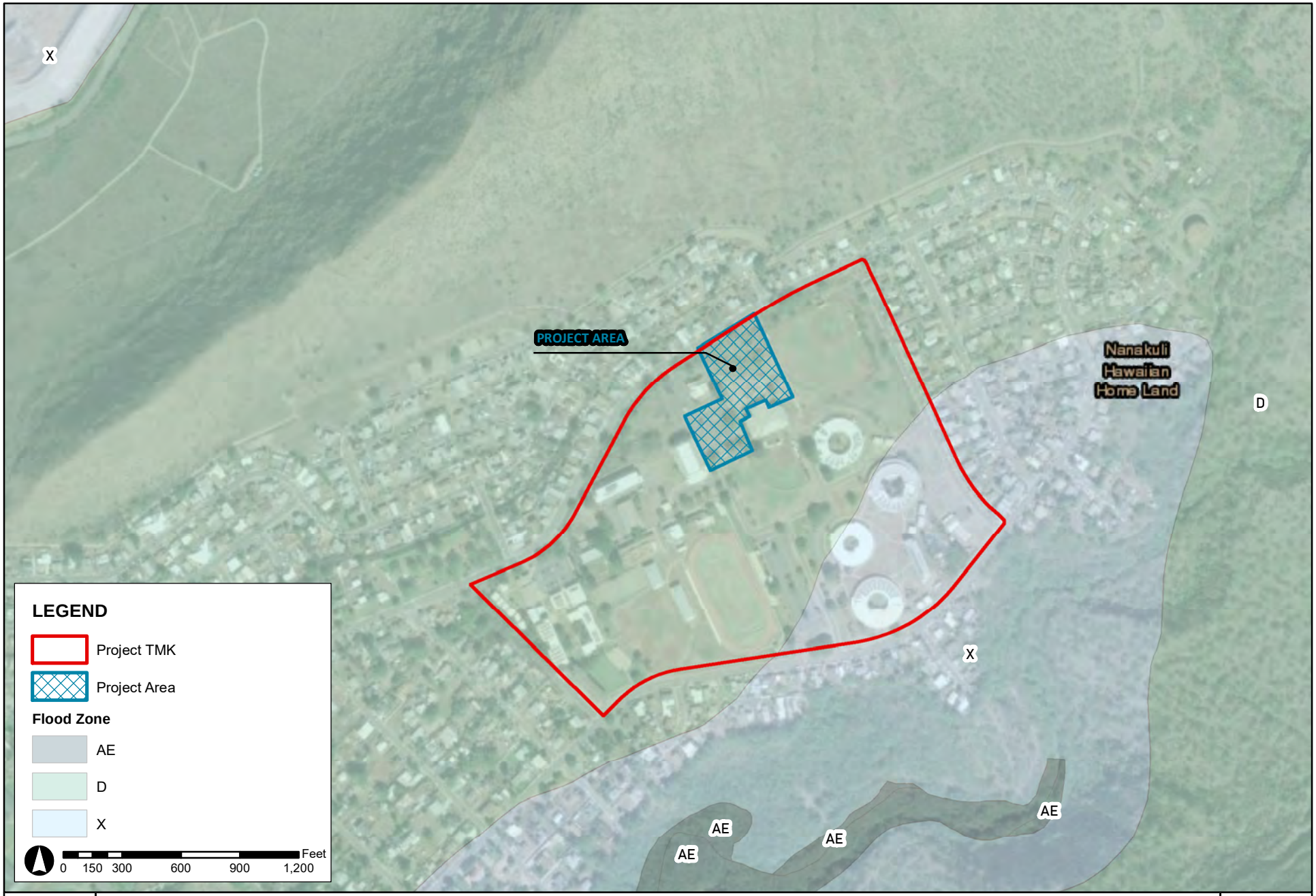
The West Oʻahu Community Wildfire Protection Plan assists the community in identifying and prioritizing areas for hazardous fuel reduction treatments. The plan ensures the well-being of residents and visitors of West Oʻahu as it relates to wildfires. In summary, the plan includes hazardous fuel reduction treatments, recommendations for types and methods of treatment on federal and non-federal lands, as well as community outreach strategies.

Although risks cannot currently be quantified in terms of financial losses or other measures, relative wildfire risks can be assessed for environmental, public health, and safety sectors. The Proposed Project is not anticipated to exacerbate fire hazards already present in the area.

SEA LEVEL RISE EXPOSURE AREA

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

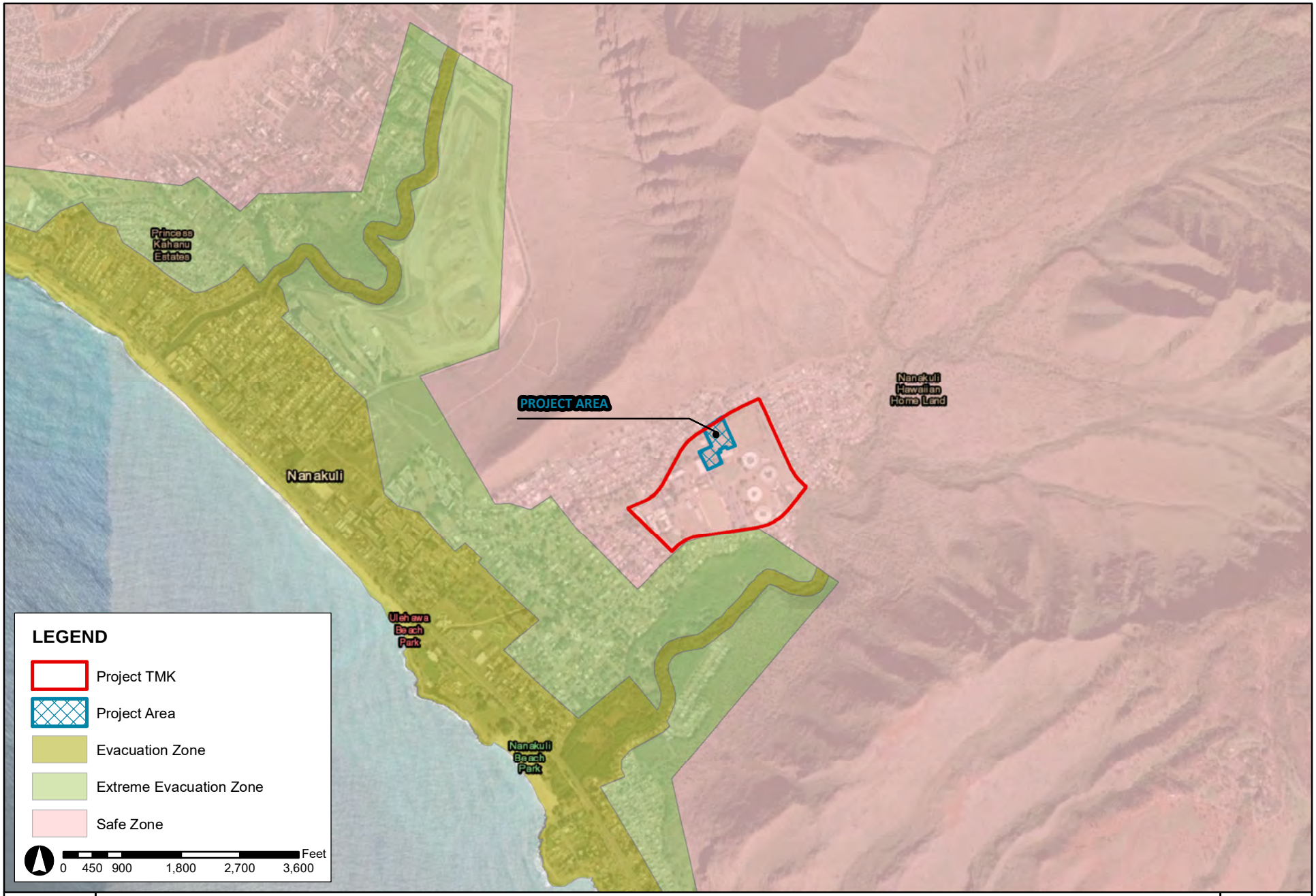
FIGURE 3-6



FLOOD INSURANCE RATE MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

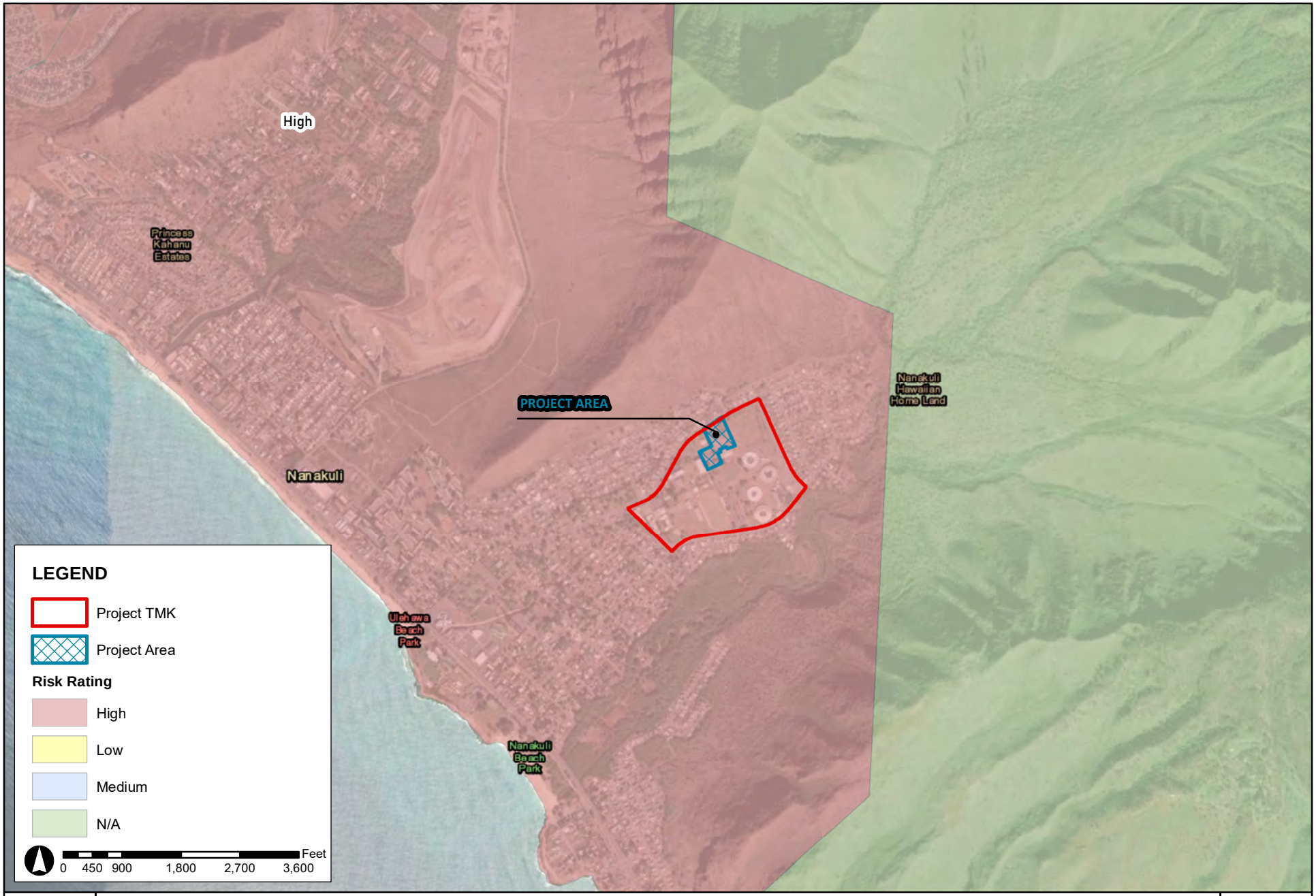
FIGURE
3-7



TSUNAMI EVACUATION MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 3-8



FIRE RISK MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 3-9

3.4.7 Volcanic Hazards

The Waiʻanae Volcano is older than the Koolau and both likely erupted concurrently during at least part of their active lifespans. The shield-building lavas emanated mainly from prominent rift zones of the two volcanoes. Near the end of the growth of the shield, the summits of the volcanoes collapsed and formed calderas. After a long period of subsidence and erosion, eruptive activity resumed at scattered vents at the southern ends of the Koolau and Waiʻanae Ranges (Nichols et al. 1996). Notable landmarks including Diamond Head, Koko Head, Punchbowl Crater, and Hanauma Bay are remnants of past volcanic activity.

The youngest and most active volcano of the Hawaiian Islands, Kilauea, is located on the Island of Hawaiʻi. Kilauea has been erupting continuously since 1983, with an active lava lake existing within the summit crater from 2008 to 2018 when the volcano experienced its largest summit collapse in 200 years. Additionally, Mauna Loa, the second most active volcano on the Island of Hawaiʻi, had a recent eruption in 2022 that lasted two weeks. Lava flows less than 4,000 years old cover 90 percent of the volcano.

The Project Area is not located near a lava flow hazard area; however, the CCH has identified vog as a minor hazard on Oʻahu. Vog describes hazy conditions produced by gaseous emissions from Kilauea volcano. Volcanic gases react with sunlight, oxygen, and moisture forming a dense white plume containing sulfur compounds that could have adverse effects on downwind communities and the environment. Effects are dependent on proximity and climatic conditions at the source; therefore, Oʻahu is not expected to experience elevated levels of the sulfur compounds.

Impacts and Mitigation Measures

The Proposed Project will not have significant adverse impacts on volcanic hazards and will not exacerbate any impacts associated with volcanic hazards. The Project Site is not located near a lava flow hazard area, however, vog has the potential to impact the Project Area.

The effects of vog are dependent on proximity and climatic conditions at the source. Normal trade-wind weather carries vog down southwest of the Kilauea vents and around the southern tip of the island where the gas gets trapped within an eddy system on the Leeward side of Hawaiʻi Island. Southerly winds can cause the entire island to be impacted by vog, however, the gas disperses as ammonium sulfate which is washed out in the atmosphere before reaching Oʻahu. High humidity can intensify vog effects making the hazard most prevalent during the winter when Kona winds are most frequent.

3.5 Natural Environment

3.5.1 Flora and Fauna

The Project Site is a highly modified environment, where natural vegetation has been cleared for residential land use. Previous biological surveys indicate that the existing vegetation is primarily composed of non-native invasive species. The most common species found on site include kiawe, koa haola, and dry, scrubland grasses and shrubs.

Faunal species in the area are typical of urbanized environments and primarily consist of commonly introduced species. The Project Site is home to birds and mammals that have adapted to urban

settings. Species found in the vicinity include rats (*Rattus sp.*), mice (*Mus domesticus*), small Indian mongoose (*Herpestes auropunctatus*), chickens (*Gallus gallus domesticus*), and cats (*Felis catus*).

Endangered species, such as the Hawaiian petrel (ʻuaʻu*, Pterodroma sandwichensis*), the endangered Hawaiʻi distinct population segment (DPS) of the band-rumped storm-petrel (ʻakēʼakē, *Hydrobates castro*), the threatened Newell's shearwater (ʻaʻo, *Puffinus newelli*), and the endangered Hawaiian hoary bat (ʻōpeʻapeʻa, *Lasiurus cinereus semotus*), may also be found residing in or passing through the Project Site and its vicinity.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to have adverse impacts on flora and fauna. Consequently, no rare, threatened or endangered flora or fauna species have been observed at the Project Site.

No listed or protected plant species are located within the Project Site; however, it is recommended that the movement of plant or soil be minimized. Soil and plant material may contain invasive fungal pathogens (e.g., Rapid ʻŌhiʻa Death), vertebrate and invertebrate pests (e.g., Little Fire Ants, Coconut Rhinoceros Beetles), or invasive plant parts that could harm native species and ecosystems. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Gear that may contain soil, such as work boots and vehicles, should be thoroughly cleaned with water and sprayed with 70% alcohol solution to prevent the spread of Rapid ʻŌhiʻa Death and other harmful fungal pathogens. It is also recommended that native plant species be used for landscaping that are appropriate for the area (i.e. climate conditions are suitable for the plants to thrive, historically occurred there, etc.).

Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or foraging purposes. Construction activities may temporarily disrupt routine behavior of common faunal species in the immediate vicinity of the Project Site, but will not result in permanent displacement, or adversely affect regional distribution of affected fauna. Once project activities are complete, faunal activity in the vicinity of the work site is expected to return to pre-existing conditions.

No adverse impacts resulting from the project are anticipated. However, measures to prevent adverse effects to protected species include the following:

- 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 be avoided for any construction because bat mortalities have been documented as a result of becoming ensnared by this type of fencing during flight.
- During construction activities, all nighttime lighting will be shielded and angled downward to reduce glare and disruption of bird flight. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take

their maiden voyage to the open sea. Following construction, permanent light sources will be shielded and angled downward to eliminate glare that could disturb or disorient birds in flight.

- If tree trimming or removal is planned, DLNR-DOFAW strongly recommends a qualified biologist survey for the presence of White Terns prior to any action that could disturb the trees.
- If any of the State-listed waterbirds are present during construction activities, then all activities within 100 ft (30 meters) shall cease, and the bird should not be approached. Construction activities may continue after the bird leaves the area of its own accord.

3.6 Historic and Archaeological Resources

Honua Consulting (Honua) prepared an Archeological Literature Review and Field Inspection (LRFI) report in October 2024 (See Appendix A). Pursuant to the HRS Chapter 6E-8 and HAR Chapter 13-275, the LRFI was designed to determine the likelihood that historic properties (any building, structure, object, district, area, or site over 50 years old) may be affected by the Proposed Project and based on findings, propose any mitigation measures. As explained in the LRFI, the purpose of the report is intended to facilitate the Proposed Action's planning and support the environmental review required for the Proposed Action. The objectives of this LRFI were:

1) Documentation and description of the parcel's land-use history in the context of its traditional Hawaiian character as well as its historic-period changes;
2) Identification of any historic properties or component features in the project area; and
3) Providing information relevant to the likelihood of encountering historically-significant cultural deposits in subsurface context during future construction.

It should be noted that this study is not an archaeological inventory survey (AIS), however the LRFI report was written using HAR §13-276 standards and is intended to assist with historic preservation efforts related to the Proposed Project.

3.6.1 Traditional Background of the Project Area

The Project Area is located within the Nānākuli Ahupuaʻa (See Figure 3-11), which is situated in the traditional moku of Waiʻanae, which has been home to Hawaiians for at least a millennium. In ancient times, Waiʻanae was a land of great spiritual and political importance, with substantial settlements of Hawaiians practicing a subsistence lifestyle in the larger valleys such as Lualualei, Waiʻanae and Mākaha, but also in smaller ahupuaʻa like Nānākuli.

Nānākuli is a relatively small ahupuaʻa, consisting of just over a thousand acres. Historical accounts refer to the area's susceptibility to drought and even famine. It seems that, even in traditional times, Nānākuli Stream may have flowed only seasonally, as opposed to year-round, which contributed to the valley's reputation as a relatively dry place.

The meaning of the ʻinoa (name), Nānākuli, appears to have many interpretations, which reflect a number of possible connections and associations to various moʻolelo (oral-historical accounts).

Mary Kawena Pukui suggested two, quite different possibilities. The first refers to on Oʻahu's most famous traditional high chiefs (Kahahana) and his primary kahuna (ritual specialist) (Kaʻōpulupulu), about which there is abundant oral-historical information relating to the invasion and defeat of Oʻahu's rulers in 1783 by Kahekili from Maui. The second translation supports a fairly widespread perception that this land was relatively poor in resources (e.g., available surface water for irrigation), is to "look deaf," in reference to the behavior of Nānākuli residents, who, embarassed about not being able to offer food or even water to passing strangers, pretended to be deaf (Pukui).

3.6.2 Current Project Area

Given its near-coastal, upland location about 0.5 miles north of the main Nānākuli Stream, the traditional Hawaiian use of the project area land was likely related to dryland (non-irrigated) subsistence agriculture focused on ʻuala (sweet potatoes) but probably not kalo (taro). Likewise, permanent habitation of the marine resources at the former location and more abundant fresh water at the latter.

The nearest heiau (traditional Hawaiian temple) to the current project area is ʻIlihune, once located near the makai end of the ridge separating Nānākuli and Lualualei. According to early twentieth century descriptions by Thrum and McAllister (1933), this heiau was destroyed long ago. It is important to note that this type of observation was routinely incorrect, particularly in Waiʻanae Moku, and that closer inspection by archaeologists in more recent times has frequently demonstrated the presence of extant heiau remains both above and below the ground surface.

3.6.3 Historic Period of the Project Area

According to data compiled by McGrath Et al. (1973:25), the introduction of western diseases, against which the indigenous Hawaiians generally lacked immunity, as well as a "tendency to move to the city where there was more excitement," resulted in a significant depopulation of the Waiʻanae Coast. In addition to "excitement," people also flocked to the city (i.e., Honolulu) in order to earn much-needed currency to pay for modern amenities and other newfound burdens (e.g., various taxes and levies). The missionaries, who famously arrived in the islands after the death of Kamehameha the Great (1819), conducted a census of the Waiʻanae Coast in 1835, resulting in a population of only 1,654 residents (Hammatt et al. 1993:10-11). In 1853, the population of Waiʻanae was further reduced by a smallpox epidemic. By 1885, tax-collector documents recorded 183 taxpayers on the Waiʻanae Coast, which may reflect a total population of about 80 people (ibid).

Beginning in the 1840s, the concept of private property was introduced to Hawaiʻi through formation of the Board of Commissioners to Quiet Land Titles, and the adoption of the Māhele (division of Hawaiian lands), or Māhele ʻĀina. In 1845, King Kamehameha III waived his right to full authority over the land, portioning out land for his personal use (crown lands) and dividing the rest into governmental land, land for the aliʻi and konohiki (land overseers usually of high rank or connection to high ranking individuals), and land for commoners (kuleana land) (Alexander 1891; Board of Commissioners 1929; Moffat and Fitzpatrick).

Following thereafter, Land Commission Awards (LCAs) were awarded to commoners as kuleana parcels for fee ownership. LCAs therefore record who resided on the land and how the land was used. For the most part, however, LCAs awarded to aliʻi did not systematically record information about traditional land use.

Nānākuli is an interesting case in which five kuleana (LCA) applications were submitted but none were awarded. Lincoln and Hammatt (2009:33-35) list the five unsuccessful claimants and provide some reported information on land use and resources described by kamaʻāina.

Following the establishment of the Waiʻanae Sugar Plantation in 1878 by H.A. Weidemann, the population of the district increased significantly. During the 1890s, the Oahu Railway and Land Co. (OR&L) railroad was constructed to bring crops and animals from the leeward coast to Pearl Harbor. This railway would eventually connect all the Waiʻanae District over across the top of the islands, via Kaʻena point, to the commercial sugar cane operations at Kahuku.

It is important to note that, although Nānākuli appears to have never been planted in commercial sugar cane – historic records indicate such fields began neighboring Lualualei and points north – it was still severely impacted by artesian-well drilling in the uplands, pioneered by the McCandless brothers; this intense search for, and capture of, traditional fresh-water sources in the mountains made a dry place even drier, thus further reducing the turn-of-the-century productivity of Nānākuli even more.

Sugar cane production and military activity dominated the first half of the twentieth centure on the leeward coast. World War II was devastating for the Waiʻanae Sugar Plantation as high paying defense jobs created a labor shortage. All sugar cane production in the Waiʻanae District was eliminated during the 1940s due to labor shortages, military procurement of land and other more productive agricultural regions taking over. The OR&L railway was officially abandoned in 1946.

During World War II, concrete bunkers, pill boxes and gun emplacements were built along the Waiʻanae Coast. Many of these concrete features are still present today. At times, thousands of troops trained in the Waiʻanae District as part of Hawaiʻi's coastal defense preparations.

3.6.4 Summary of Historic Properties

Table 3-1 below provides summary details of previously-identified historic properites in the vicinity of the current Project Area. With the exception of a heiau once located along a ridge marking the northern boundary of Nānākuli Ahupuaʻa, the other previously-identified sites are located along the coastline.

Table 3-1: Historic Properties near the Project Area	
SIHP #00147	Located approximately 0.5 miles to the west-northwest, the ʻIlihune Heiau was identified near the lower, makai end of the ridge between Nānākuli and Lualei Valleys (McAllister 1933; Sterling and Summers 1978)
SIHP #05946	Several archaeological project have identified features attributed to a U.S. military facility known as Camp Andrews once located on the mauka side of Farrington Highway across from the

	current campus of the Ka Waihona o ka Naʻauau Charter School (Hammatt et al. 1999; McDermott et al. 2001; Berdy et al. 2002; McElroy et al. 2018)
SIHP #05947	Previous archaeological in the "Camp Andrews" parcel also identified traditional Hawaiian collectively features designated SIHP #50-80-08-05947 in subsurface context, specifically in pit caves "sink holes" (Hammatt et al. 1999; McDermott et al; 2001; Berdy et al. 2002; Hazlett et al. 2008). Features included one human burial and some traditional Hawaiian artifacts.
SIHP #06824	Altizer et al. (2011) identified historic-period section of Farrington Highway in subsurface context as well as previously-recorded sursurface charcoal deposits documented by Ostroff and Desilits (2005).
SIHP #07677	McElroy et al. (2018) formally documented a pair of coral pillars at the original entrance to Camp Andrews. These were recommended for permanant preservation as a marker of the old military presence in this coastal area of Nānākuli
SIHP #09714	Rail and an elevated railway bed, part of the Oahu Railway and Land Co. This site was listed on both the Hawaii and National register of historic places in 1975 (Reference #75000621)

Impacts and Mitigation Measures

No significant impacts on historic and archaeological resources in the region are anticipated. The LRFI indicates that no archaeological historic properties, or potential archaeological historic properties, were observed in the project area, which has been mechanically grubbed and graded/bulldozed in the past. Documentation alteration to the terrain occurred in circa 1970 when the school campus was first developed; other, later episodes of ground clearing and leveling may also have taken place in and around the current project area. It is unlikely that any as-yet undiscovered historic properties or components features thereof are in the project area (i.e., beneath the existing ground surface) given the documented history of ground disturbance in the project area, and previous lack of historic-period development in the project area.

In general, open trenching has the potential to result in the greatest impact to archeological and historic resources as it involves linear areas of disturbance in the layers of soil and subsoil that typically hold cultural materials associated with subsurface archeological sites. Tunneling, microtunneling, and horizontal drilling all involve less disturbance of the soils closer to the surface that may contain cultural materials; these would primarily result in impacts from the construction of shafts, which represent a smaller footprint of ground disturbance than open trenching. In order to minimize any potential impact on these resources, construction contractors would be required to adhere to standard BMPs regarding the protection of archeological resources, including identification, stop work, and notification measures. Should archeological resources be discovered, all appropriate measures would be adhered to for their protection; and as a result, long-term impacts to archeological resources would be expected to be minor as irreversible ground disturbance has the potential to impact archeological sites permanently.

No historic or archeological sites have been previously identified within the Project Site.

It should be noted that the Proposed Project is subject to Chapter 6E, HRS, review by the State Historic Preservation Division (SHPD). Through this process, the SHPD will make a determination of the effects of the Proposed Project with regard to historic and archaeological resources. If there are potential impacts, the SHPD will require various mitigation measures to minimize any impacts.

3.7 Cultural Resources and Practices

Cultural resources are defined for the purposes of this EA as those associated with cultural practices and traditions. Cultural practices are activities imbued with cultural or spiritual meaning; they can be traditional or modern. They may include traditional Hawaiian practices, but also the cultural practices of other communities and ethnic groups. Assessment of the Proposed Project's impacts on cultural practices, per HRS 343, Hawai'i Register of Historic Places Criterion E, and Act 50, consider effects on a cultural practitioners' ability to access the locations and resources needed to undertake cultural practices. Also, considered here are the wahi pana (storied places) that are imbued with cultural significance through their appearance in mo'olelo, mele (songs), oli (chants), and other oral history traditions associated with the Project Area.

Articles IX and XII of the State Constitution, other State laws, and the courts of the State require government agencies to protect and preserve cultural beliefs, practices, and resources of Kānaka 'Ōiwi (Native Hawaiians) and other ethnic groups. To assist decision-makers in the protection of cultural resources, Chapter 343, HRS and HAR Section 11-200.1 rules for the environmental impact assessment process require project proponents to assess Proposed Projects for their potential impacts to cultural properties, practices, and beliefs.

This process was clarified by the Act 50, Session Laws of Hawai'i (SLH) 2000. Act 50 recognized the importance of protecting Native Hawaiian cultural resources and required that EAs include the disclosure of the effects of a Proposed Project on the cultural practices of the community and State and the Native Hawaiian community in particular. Specifically, the Environmental Council suggested that cultural impact assessments (CIA) should include information relating to the practices and beliefs of a particular cultural or ethnic group or groups. Such information may be obtained through public scoping, community meetings, ethnographic interviews, and oral histories.

The State and its agencies have an obligation to preserve and protect Native Hawaiians' customarily and traditionally exercised rights to the extent feasible. State law further recognizes that the cultural landscapes provide living and valuable cultural resources where Native Hawaiians have and continue to exercise traditional and customary practices, including hunting, fishing, gathering, and religious practices. In Ka Pa'akai, the Hawai'i Supreme Court provided government agencies with an analytical framework to ensure the protection and preservation of traditional and customary Native Hawaiian rights while reasonably accommodating competing private development interests. This is accomplished through:

1) The identification of valued cultural, historical, or natural resources in the Project Site, including the extent to which traditional and customary Native Hawaiian rights are exercised in the Project Site;

2) The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the Proposed Project; and

3) The feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist

The LRFI prepared by Honua, along with previous studies conducted in the surrounding area, examined various elements, including sinkholes, burial sites, Hawaiian trail access, traditional hunting and gathering practices, religious sites, and other archaeological and historical elements such as historic properties. Although no direct evidence of hunting or gathering activities was found, the presence of remains from extinct animals hints at a possible connection to past practices of hunting and gathering in the project area (DAGS, February 2001).

Impacts and Mitigation Measures

The Project Site does not contain any known sites of cultural significance or historic sites; therefore, potential adverse impacts to traditional and cultural practices in the vicinity of the Project Site are not anticipated. The Project Site is currently being used by NHIS, and no cultural sites were previously recorded.

The construction of the Proposed Project will not cause any disturbance to the traditional sacred site or the traditional cultural objects. It will also not lead to any degradation of resources that are used by Native Hawaiians for subsistence or traditional cultural practices. Moreover, the Proposed Project will not obstruct culturally significant landforms or way-finding features. Lastly, it will not result in the loss of access to the shoreline or other areas that are customarily used by Native Hawaiians or other people for source gathering or traditional practices. No mitigation measures are proposed. As noted above in Section 3.6, should any unidentified archaeological resources be encountered during construction, all work will cease, and the State Historic Preservation Office will be contacted for review and approval of mitigation measures. Although due to the lack of new subsurface activity, no such encounters are anticipated.

3.8 Air Quality

Air quality refers to the presence of chemical, physical, or biological pollutants in the atmosphere that can affect human health, safety, and the environment, including plants and animals. The concentration of these pollutants in the air is influenced by both local emission sources and the movement of pollutants from distant areas. For the proposed project, relevant sources of pollution include mobile sources, like vehicles and construction machinery, and stationary sources, such as generators at pump stations.

The State of Hawai'i Clean Air Branch (CAB) is responsible for managing air pollution control efforts across the State. Primary services are provided by its Engineering, Monitoring, and Enforcement sections. The CAB oversees a variety of activities including conducting engineering analyses, issuing permits, and enforcing both federal and state air pollution control laws and regulations.

Air quality is assessed based compliance with the National Ambient Air Quality Standards (NAAQS) and State Ambient Air Quality Standards (SAAQS). The Clean Air Act requires the EPA to set NAAQS for seven criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), ozone (O_3), and particulate matter (PM_{10} and PM_2). Furthermore, Hawai'i has established SAAQS

for hydrogen sulfide (H_2S) related to volcanic activity on Hawai'i Island. Areas where pollutant level are below the NAAQS are classified by the EPA as being in "attainment", whereas areas with pollutant concentration above the standards are designated as "nonattainment". As of March 31, 2024, Hawai'i is currently classified as in "attainment" for all Federal and State standards.

Air pollution in Hawai'i originates from both human-made and natural sources. Industrial activities, such as power generation and refining, contribute to pollution, as do mobile sources like vehicles, trucks, and buses. Additionally, agricultural practices, including burning, and natural phenomena like volcanic eruptions and windblown dust, also play significant roles in air quality. As of 2022, the State of Hawai'i's CAB operates 16 air quality monitoring stations across four islands. The U.S. Environmental Protection Agency (EPA) oversees 26 active monitoring stations on O'ahu, which collect hourly or daily pollutant data that is submitted to the EPA's Air Quality System (AQS). The closest CAB air quality monitoring station to the project area is in Kapolei, identified as Station ID: KA5.

Impacts and Mitigation Measures

In the short- and long-term, no significant impacts on air quality are anticipated as a result of the construction and operation of the Proposed Project. In the short-term, it is anticipated that the various construction activities associated with the Proposed Project will result in the irrevocable release of GHGs. Construction related emissions include tailpipe emissions from construction equipment, delivery trucks, and workers commuting to and from the construction site. The quantities of GHGs released from construction related activities will be negligible and the usage of equipment would be sporadic and not simultaneous. Moreover, the contractors for the construction of the applicable projects will be required to prepare a dust control plan compliant with the provisions of Chapter 11-60.1, HAR, Air Pollution Control.

3.9 Noise

Congress passed the Noise Control Act in 1972 to protect citizens from unregulated noise pollution. In 1978, the Quiet Communities Act was passed, allowing states and local jurisdictions to oversee noise pollution. In Hawai'i, the Department of Health (DOH) regulates noise control rules and regulations. Noise pollution can have impacts on mental and emotional health, and prolonged exposure to loud noises can cause auditory issues.

The Project Area is within a rural residential area of the island and is thus more sensitive to potential noise impacts. The existing noise environment at the Project Site is characterized by that of a typical urban setting. The primary source of ambient noise in the Project Site is predominantly attributed to vehicular traffic traveling residential roadways.

Hawai'i Revised Statues Chapter 342F and Chapter 11-46 of the Hawaii Administrative Rules describe the regulations used to ensure control of noise pollution within communities. These rules and regulations will primarily correspond to potential construction noises. Construction projects with an estimated cost over $250,000 and noises expected to exceed 78 decibels (dBA) are required to have an approved Community Noise Permit. Once operational, school activities approved by school authorities are exempt from the Hawaii Revised Statues and State DOH Rules between the hours of 7:00 am and 10:00pm.

The noise descriptor currently used by federal agencies (such as the Federal Housing Administration (FHA) or the US Department of Housing and Urban Design (HUD) to assess environmental noise is the Day-Night Average Sound Level (DNL). This descriptor incorporates a 24-hour average of instantaneous A-Weighted Sound Levels as read on a standard Sound Level Meter. The minimum average period for the DNL descriptor is 24 hours. Additionally, sound levels which occur during the nighttime hours of 10:00 PM to 7:00 AM are increased by 10 decibels (dB) prior to computing the 24-hour average by the DNL descriptor. The Project Area is a Class A zoning district, requiring adherence to 55 decibels during daytime hours of 7:00am to 10:00pm and 45 decibels for nighttime hours.

Impacts and Mitigation Measures

In the short term, noise from construction activities is unavoidable. Additionally, noise levels may increase due to the operation of heavy vehicles and equipment during construction. Noise mitigation strategies will be incorporated throughout the project design to identify and minimize sources of noise, and to use appropriate design practices and materials that reduce sound levels and prevent potential complaints. Nighttime construction is currently not anticipated, but if nighttime construction is performed, a noise variance will be required from DOH.

Construction noise impacts will be managed in accordance with the provisions of HAR, Title 11, Chapter 46, "Community Noise Control" regulations. These rules require a noise permit if the noise levels from construction activities are expected to exceed the allowable levels stated in the HDOH Administrative Rules. It shall be the contractor's responsibility to minimize noise by properly maintaining noise mufflers and other noise-attenuating equipment, and to maintain noise levels within regulatory limits. Also, the guidelines for heavy equipment operation and noise curfew times, as set forth by the HDOH noise control rules, will be adhered to; or, if necessary, a noise permit shall be obtained. In the long term, operation of the Proposed Project is not anticipated to result in adverse noise impacts.

3.10 Hazardous Materials

Hazardous materials refer to any substances, compounds, mixtures, or solutions that pose risks to human health and the environment (HI-EMA, 2023). These materials can be involved in incidents at fixed locations such as wastewater treatment plants, solid waste facilities, and nonpoint sources, as well as during transportation or improper storage. The Environmental Protection Agency (EPA) classifies over 1,300 substances as hazardous, subjecting them to stricter regulation under laws like the Emergency Planning and Community Right-to-Know Act (EPCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Clean Air Act (CAA).

In Hawai'i, hazardous materials are commonly transported via the island's highway system, but they may also be moved by ships, barges, and pipelines. If released, these materials can contaminate air, water, and soil, leading to serious health risks, including injury, illness, or even death. Depending on local weather conditions, the spread of hazardous materials can occur quickly via wind or water.

Construction activities associated with the implementation of the Proposed Project improvements may include the use of materials and processes that involve chemical agents or materials typical to construction that could be considered hazardous. These materials are primarily associated with

vehicle and/or equipment maintenance that typically include flammable and combustible liquids, acids, aerosols, batteries, corrosives, solvents, paints, and hydraulic fluids.

Impacts and Mitigation Measures

The Proposed Project will not exacerbate existing hazards related to hazardous materials. Appropriate precautionary measures will be taken to reduce the potential of material release and associated impacts.

There have been no federal declarations for hazardous material incidents in the State of Hawai‘i; however, there is a 100 percent chance of a hazardous material incident occurring in any given year in the State. The magnitude of the incident may vary from minor releases to major events in which potentially thousands of gallons may be released affecting large populations of people.

3.11 Traffic

A Traffic Impact Report (TIR) was prepared by Wilson Okamoto Corporation in November 2024 to identify and assess the traffic impacts resulting from the development of the Proposed Project. Specifically, the scope of assessment for the TIR included:

1. Evaluation of existing roadway and traffic operations in the vicinity;
2. Analysis of future roadway and traffic conditions without the Proposed Project;
3. Analysis and development of trip generation characteristics for the Proposed Project, as applicable;
4. Superimposition of site-generated traffic over future traffic conditions, as applicable;
5. The identification and analysis of traffic impacts resulting from the Proposed Project; and
6. Recommendations of improvements, if appropriate, that would mitigate the traffic impacts resulting from the Proposed Project.

The findings of this report are summarized below and included herein as Appendix B.

3.11.1 Existing Conditions

Area Roadway System

Near the Project Site, Nanakuli Avenue is a predominantly two-lane, two-way CCH- maintained roadway generally oriented in the east-west direction that starts at Farrington Highway and transitions as Haleakala Avenue. Along the south perimeter of the NHIS campus, Nanakuli Avenue intersects the primary access for the school (hereafter referred to as the “School Driveway”). At this unsignalized T-intersection, the eastbound approach of Nanakuli Avenue includes a shared left-turn and through lane, while the westbound approach includes a shared through and right turn lane. The southbound approach is comprised of the School Driveway that includes a stop-controlled lane that serves left- and right-turn movements.

West of the intersection with the School Driveway, Nanakuli Avenue intersects Pililaau Avenue. At this unsignalized intersection, the eastbound and westbound approaches along Nanakuli Avenue include a lane that serves all turning movements. Pililaau Avenue is a predominantly two-lane, two-way CCH-maintained roadway generally oriented in the north-south direction between Nanakuli Avenue and Haleakala Avenue. The southbound and northbound approaches along Pililaau Avenue include a stop-controlled lane that serves all turning movements.

North of the intersection with Nanakuli Avenue, Pililaau Avenue intersects Haleakala Avenue. At this unsignalized T-intersection, Haleakala Avenue is a predominantly two-lane, two-way City and County of Honolulu-maintained roadway generally oriented in the east-west direction that starts at Farrington Highway and transitions as Nanakuli Avenue. The westbound approach of Haleakala Avenue includes shared left-turn and through lane, while the eastbound approach includes a shared through and right-turn lane. The northbound approach of Pililaau Avenue includes a stop-controlled lane that serves left- and right-turn movements.

Existing Traffic Conditions

The subject TIR is based on the concept of Level of Service (LOS) to identify the traffic impacts associated with traffic demands during the peak periods of traffic. LOS is quantitative and qualitative assessment of traffic operations. LOS are defined by LOS "A" through "F"; LOS "A" representing ideal or free-flow traffic operating conditions and LOS "F" unacceptable of potentially congested traffic operation conditions.

"Volume-to-Capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road carrying capacity. A v/c ratio of one (1.00) indicates that the roadway is operating at or near capacity. A v/c ratio of greater than 1.00 indicates that traffic demands exceed the road's carrying capacity.

The existing traffic count data utilized for this study consisted of turning movement count surveys collected on April 16, 2024, in the vicinity of the proposed project during the morning peak hours of 6:30 AM and 9:00 AM and the afternoon school peak hours of 2:00 PM and 4:00 PM at the following intersections:

- Nanakuli Avenue and School Driveway
- Nanakuli Avenue and Pililaau Avenue
- Haleakala Avenue and Pililaau Avenue

In addition, traffic data was also collected at the midblock crosswalk located across Nanakuli Avenue west of the intersection with the School Drive. Appendix A of the TIR includes the existing traffic count data.

The morning peak hour of traffic generally occurs between 7:30 AM to 8:30 AM while the afternoon school peak hour of traffic generally occurs between 2:30 PM and 3:30 PM. The analysis is based on these peak hour time periods to identify the traffic impacts resulting from the Proposed Project.

Nanakuli Highway and Bishop Street

At the intersection with the School Driveway, Nanakuli Avenue carries 290 vehicles eastbound and 86 vehicles westbound during the AM peak hour. During the PM peak hour, traffic volumes are lower with 180 vehicles and 77 vehicles traveling eastbound and westbound, respectively. The eastbound approach along Nanakuli Avenue operates at LOS "A" during both peak hours. It should be noted that traffic queues associated with school pick-up/drop-off operations were observed during field investigations, but there is sufficient queueing space within the school to accommodate these queues without extending onto the adjacent roadway.

The southbound approach of the intersection is comprised of the School Driveway which carries 183 vehicles and 189 vehicles southbound during the AM and PM peak hours, respectively. The southbound approach operates at LOS "B" during both peak hours. Traffic queues occasionally formed along the southbound approach during both peak periods. As mentioned previously, the School Driveway is a significant distance from the pick-up/drop off area therefore, the average queue lengths of 3-4 vehicles were observed along this approach during both peak periods.

Although there are no marked crosswalks provided at this intersection, 62 pedestrians were observed crossing the School Driveway on the north side of the intersection during the AM peak hour, while 17 pedestrians were observed crossing Nanakuli Avenue on the east side of the intersection during the same peak hour. During the PM peak hour, 73 pedestrians were observed crossing on the north side of the intersection while 8 pedestrians were observed crossing Nanakuli Avenue on the east side of the intersection.

In addition, as previously discussed, a midblock crosswalk is provided across Nanakuli Avenue west of the intersection with the School Driveway. During the AM peak hour, 8 pedestrians were observed crossing at that midblock location, while 14 pedestrians were observed crossing at the same location during the PM peak hour.

Nanakuli Avenue and Pililaau Avenue

At the intersection with Pililaau Avenue, Nanakuli Avenue carries 277 vehicles eastbound and 267 vehicles westbound during the AM peak hour. During the PM peak hour, the overall traffic volume is lower with 230 vehicles and 278 vehicles traveling eastbound and westbound, respectively. Both approaches along Nanakuli Avenue operate at LOS "A" during both peak hours.

At the intersection with Nanakuli Avenue, Pililaau Avenue carries 4 vehicles northbound and 74 vehicles southbound during the AM peak hour. During the PM peak hour, the overall traffic volume is less with 4 vehicles and 29 vehicles traveling northbound and southbound, respectively. The northbound approach operates at LOS "B" during both peak hours, while the southbound approach operates at LOS "C" during both peak hours. Minimal traffic queues were observed along both approaches with average queue lengths of 1-2 vehicles observed during both peak hours.

Crosswalks are provided across Nanakuli Avenue on the east side of the intersection, as well as across Pililaau Avenue on the north and south sides of the intersection. During the AM peak hour, 14 pedestrians were observed crossing the north side of the intersection, while 2 pedestrians were observed crossing the south side of the intersection. No pedestrians were observed crossing on the east side of the intersection during this peak hour. During the PM peak hour, 50 pedestrians and 9 pedestrians were observed crossing the north and south sides of the intersection, respectively, while 6 pedestrians were observed crossing the east side of the intersection.

Pililaau Avenue and Haleakala Avenue

At the intersection with Haleakala Avenue, Pililaau Avenue carries 80 vehicles and 81 vehicles northbound during the AM and PM peak hours, respectively. The northbound approach operates at LOS "B" during both peak hours. Minimal traffic queues were observed along this approach with average queue lengths of 1-2 vehicles observed during both peak periods.

The Haleakala Avenue approaches of the intersection carry 156 vehicles eastbound and 144 vehicles westbound during the AM peak hour. During the PM peak hour, traffic volumes are less with 91 vehicles and 96 vehicles traveling eastbound and westbound, respectively. The westbound approach along Haleakala Avenue operates at LOS "A" during both peak hours.

Crosswalks are provided across Pililaau Avenue on the south side of the intersection, as well as across Haleakala Avenue on the east side of the intersection. During the AM peak hour, 6 pedestrians were observed crossing on the south side of the intersection. No pedestrians were observed crossing Haleakala Avenue during that peak hour. During the PM peak hour, 35 and 2 pedestrians were observed crossing the south and east sides of the intersection, respectively.

Transit Facilities

Transit service in the project vicinity is provided by "The Bus" which is operated by the Oahu Transit Services (OTS) for the CCH Department of Transportation Services (DTS). There are approximately 4 transit stops that are served by 2 unique bus routes in the vicinity of the project

Bike Facilities

There are bicycle facilities in the vicinity of the project, but the majority of these facilities are shared-use facilities and dedicated bicycle facilities are generally limited to climbing lanes along select segments of Nanakuli Avenue. The existing bike facilities within the study area include the following:

- Climbing lane along Nanakuli Avenue from Farrington Highway to Pililaau Avenue
- Shared roadway along Nanakuli Avenue from Pililaau Avenue to Haleakala Avenue
- Climbing lane along Haleakala Avenue from Farrington Highway to Nanakuli Avenue

The subject TIR when assessing bike facilities based on its methodology on Bicycle Level of Traffic Stress (LTS), a metric developed by the Mineta Transportation Institute used to classify a roadway segment or intersection. The LTS ranking system is based on the amount of traffic stress imposed on cyclists based on variables such as street width, prevailing vehicle speed, and average daily traffic volumes. The LTS ranges from 1 to 4 and can be assessed for a given segment or intersection via six tables provided by the Mineta Transportation Institute. The general descriptions of the LTS level are as follows:

- LTS 1: Characterized by strong separation from all except low speed, low volume traffic. Simple crossings. Suitable for children.
- LTS 2: Except in low speed / low volume traffic situations, cyclists have their own place to ride that keeps them from having to interact with traffic except at formal crossings. There is a physical separation from higher speed and multi-lane traffic. Crossings are

easy for an adult to navigate. This refers to a level of traffic stress that most adults can tolerate, particularly those sometimes classified as interested but concerned.

- LTS 3: Involves interaction with moderate speed or multilane traffic, or close proximity to higher speed traffic. Refers to a level of traffic stress acceptable to those classified as enthused and confident.
- LTS 4: Involves interaction with higher speed traffic or close proximity to high-speed traffic. Refers to a level of stress acceptable only to those classified as strong and fearless.

The roadways in the vicinity of the proposed project were assessed to determine the LTS imposed upon bicyclists based upon the prevailing speed and geometric characteristics of the roadway. Between Farrington Highway and Pililaau Avenue, Nanakuli Avenue is rated at LTS 2 due to the provision of dedicated (climbing) bike lane along that roadway that separates bicycle traffic from vehicular traffic. East of Pililaau Avenue, the bike lanes along Nanakuli Avenue terminates thereby bicyclists along this segment to share the travel way with other vehicular traffic. As such, this segment is rated at LTS 3. North of the project site, Haleakala Avenue includes bike lane and as such is rated at LTS 2. Similarly, Pililaau Avenue is also rated at LTS 2. Despite the lack of dedicated bike facilities along this roadway, there is relatively low volume of traffic and as such, conditions are still suitable for less experienced riders.

Pedestrian Facilities

In the vicinity of the NHIS campus, continuous sidewalks are provided along both sides of Nanakuli Avenue buffered by planning strips that provide separation from the vehicular travel way. In addition, street lighting is provided along the roadway to increase pedestrian comfort during nighttime hours. Pedestrian crossing across Nanakuli Avenue is facilitate via marked crosswalks at the intersection if Pililaau Avenue, as well as a midblock crossing provided west of the School Driveway. Enhanced crossing treatments such as the provision of vertical deflections in advance of the crossing and pedestrian crossing signage are provided for these crossings, as well as curb extensions at the intersection with Pililaau Avenue.

3.11.2 Projected Conditions

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) published in "Trip Generation, 10th Edition," 2021. The Proposed Project is expected to operate daily between 10:00 AM and 8:00 PM during non-peak months (Spring, Fall, and Winter) and 8:00 AM and 8:00 PM during peak months (Summer). For this report, the traffic assessment is based on the non-summer period since the traffic volumes along the adjacent roadways are higher when schools are in session. As such, no additional trips associated with the Proposed Project are expected to overlap with the AM peak period and the subsequent analysis focuses primarily on the PM peak period.

The Proposed Project is not expected to generate additional traffic in the vicinity of the existing school during the AM and PM school peak periods. In addition, it should also be noted that based on information provided by the State of Hawai'i DOE, enrollment at the Nanakuli High and Intermediate School is expected to decrease through Year 2029. As such, the school is also not expected to generate additional site-generated traffic as a result of enrollment.

The travel forecast is based upon historical traffic count data obtained from the State DOT, Highways Division at survey locations in the vicinity of the project site which indicates fluctuating traffic volumes along Nanakuli Avenue and Haleakala Avenue, the primary connector roadways serving the vicinity. However, although traffic along these roadways fluctuates, the overall volumes are generally stable. In addition, although school enrollment projections indicate a decrease in student enrollment at NHIS, an annual traffic growth rate of approximately 0.5% was conservatively assumed along the through movements along Nanakuli Avenue and Haleakala Avenue to account for fluctuations in traffic given the number of other educational facilities located in the project vicinity. Using 2024 as the Base Year, a growth rate factor of 1.025 was applied to the existing traffic demands along these roadways to achieve the projected Year 2029 traffic demands. Table 3-2 summarizes the Year 2029 peak hour volumes with the Proposed Project. As previously noted, the Proposed Project is not expected to result in an increase in site-generated traffic and as such, the Year 2029 conditions represent both without and with project conditions. The traffic operating conditions under existing conditions are provided for comparison purposes.

Table 3-2: Existing and Projected Year 2029 (Without and With Project) LOS Traffic Operating Conditions

Intersection	Approach/ Critical Movement	AM Peak		PM Peak	
		Exist	Year 2029 w/ Proj	Exist	Year 2029 w/ Proj
School Dwy/ Nanakuli Ave	Eastbound	A	A	A	A
	Southbound	B	B	B	B
Nanakuli Ave/ Pililaau Ave	Eastbound	A	A	A	A
	Westbound	A	A	A	A
	Northbound	B	B	B	B
	Southbound	C	C	C	C
Haleakala Ave/ Pililaau Ave	Westbound	A	A	A	A
	Northbound	B	B	B	B

Under Year 2029 with project conditions, traffic operations in the vicinity are expected to remain similar to existing conditions since the proposed project is expected to serve an existing program already housed on-campus. Along Nanakuli Avenue, traffic operations at the approaches with Pililaau Avenue are expected to continue operating at LOS "C" or better during both peak hours, while those at the School Driveway are expected to continue operating at LOS "B" or better during both peak periods. Along Haleakala Avenue, traffic operations are also expected to continue operating at LOS "B" or better during both peak hours.

Transit Facilities

Transit service within the project vicinity is expected to remain the same.

Bike Facilities

There are other planned CCH bicycle improvements in the vicinity of the project. These are shown in the Oahu Bike Plan (updated 2019) published by the CCH DTS and include the following:

- Shoulder bikeway along Farrington Highway from Ala Hema Street to Piliokahi Avenue
- Shared-use path known as the Leeward Bike Path from Lualualei Naval Road to Hawaiian Railroad Society Train station

Although the development of these additional facilities is anticipated to increase bicycle connectivity in the vicinity, the timeline for these improvements is not known at this time.

Pedestrian Facilities

With the Proposed Project, the existing pedestrian facilities in the vicinity of the project are expected to be maintained. In addition, as previously discussed, internal walkways are expected to be constructed within the school campus to provide connectivity between the new NPAC facility and the other destinations on campus.

Impacts and Mitigation Measures

Based on the analysis of the traffic data, the following are the recommendations to be incorporated in the project design.

1. Maintain adequate on-site loading and off-loading service area and prohibit off-site loading operations.
2. Maintain adequate turn-around area for service, delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.
3. Provide sufficient site distance and turning radii at all new internal connection and roadways to avoid or minimize vehicle encroachment to oncoming traffic lanes.
4. Provide adequate pedestrian connections between the existing and proposed on-site uses. All pedestrian connections should be made accessible in conformance with the American with Disabilities Act (ADA). It should be noted that the internal walkways are expected to be constructed in conjunction with the Proposed Project to provide connectivity between the new PAC and other destinations within the campus.
5. Prepare a Traffic Management Plan (TMP) to identify strategies to minimize the impact of daily traffic and special events, associated with the NPAC on the surrounding roadways.

With the implementation of the Proposed Project, traffic operations in the vicinity of NHIS are expected to remain similar to existing conditions as the Proposed Project is intended to serve an existing program that is housed in a different building within the school. Although traffic operation are expected to remain similar to existing conditions, the preparation of a Transportation Management Plan is recommended to identify different strategies to minimize the impacts of planned special events conducted after regular school hours.

Additionally, the existing adjacent parking lot is expected to adequately accommodate the Proposed Project. Parking demand for performances is not anticipated to overlap with the school's regular shcedule, ensuring sufficient availability.

With the implementation of the aforementioned recommendations, the construction of the new PAC, is not expected to have significant impact on traffic operations in the project vicinity.

3.12 Visual Resources

Hawai'i's visual resources are important to the State's tourism industry and quality of life enjoyed by its residents. These resources encompass a wide range of natural and developed areas, including diverse land uses, water bodies, and vegetation types. Visual resources also include urbanized areas, ranging from small rural towns to the metropolitan center of Honolulu.

The Project Site is located in Nānākuli Valley, at the southern end of the Waiʻanae Mountains. Nānākuli is designated as Rural Residential, reflecting the vision outlined in the Waiʻanae Sustainable Communities Plan (SCP), which aims to preserve the rural character of the area. Nānākuli Valley is framed by steep ridges and the remnants of the flanks of the Waiʻanae Volcano, which over 3 million years ago.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to have any significant adverse impact on visual resources. In the short-term, construction-related equipment, materials, and activities may impact the aesthetics of the project area. These impacts would result from the presence of construction equipment within the Project Site. In the long-term, no significant adverse impacts are anticipated from the operation of the Proposed Project, which is anticipated to be designed to be consistent with the existing visual character of the surrounding area.

3.13 Socio-Economic Characteristics

The Project Site is located within the Nānākuli community of the Waiʻanae SCP District. The Waiʻanae SCP District consists of 38,089 acres, which is less than 10% of Oʻahu. According to the 2020 Census, the population of the Nānākuli Census Designated Place (CDP) was 12,195 which is an approximately 4% decrease from the population recorded in the 2010 Census. The community has expressed concern regarding the Census population count which does not include homeless individuals that total over 6,000 in the Waiʻanae SCP District. The Department of Planning and Permitting (DPP) has projected a 0.3% annual population growth rate from 2020 to 2030 resulting in an estimated population of approximately 12,560.

Table 3-3 displays the demographic characteristics of Nānākuli CDP and Oʻahu based on the 2022 American Community Survey.

Table 3-3: Nānākuli CDP and Oʻahu Demographic Characteristics

Subject	Nānākuli CDP		City and County of Honolulu	
	Number	Percent	Number	Percent
Total Population	12,370	100	995,638	100
Age				
Under 5 years	872	7.0	56,026	5.6
5-19 years	3,092	25.0	169,513	17.0
20-64 years	6,808	55.0	574,785	57.7
65 years and over	1,598	13.0	195,314	19.6
Race				

White	438	3.5	184,765	18.6
Black or African American	92	0.7	22,194	2.2
American Indian and Alaskan Native	17	0.1	2,235	0.2
Asian	1,277	10.3	407,657	40.9
Native Hawaiian or other Pacific Islander	5,300	42.8	94,864	9.5
Two or more races	4,999	40.4	266,526	26.8
Other	72	0.6	17,397	1.7
Household				
Total Households	**3,002**	**100**	**333,700**	**100**
Married-couples	1,430	47.6	169,591	50.8
With children under 18 years	587		63,503	
Female householder, no partner present	630	21.0	41,846	12.5
With own children under 18 years	210		15,052	
Male householder, no partner present	348	11.6	18,047	5.4
With own children under 18 years	123		5,591	
Non-family household	594	19.8	104,216	31.2
Average household size	4.12		2.93	
Housing Occupancy and Tenure				
Total Housing Units				
Occupied Units	**2,952**	**100**	**369,775**	**100**
By owner	2,766	93.7	333,700	90.2
By renter	1,809	65.4	196,384	58.8
Vacant Units	957	34.6	137,316	41.1
	186	6.3	36,075	9.8

As shown in Table 3-3, the majority of Nānākuliʻs population falls within the 20 to 64 year age group (55%), similar to the CCH (57.7%). Nānākuli has disproportionately more Native Hawaiian and other Pacific Islanders (42.8%) as compared to the rest of the CCH (9.5%). The presence of the Department of Hawaiian Home Lands (DHHL) has significantly influenced the Nānākuli community which is home to one of the oldest Hawaiian Home Land Divisions. The divisions are increasingly facing challenges due to the rising property prices causing many Native Hawaiians to be priced out of their homelands. Residential homesteads, including those in Nānākuli, cost a fraction of the median home price on Oʻahu which exceeds approximately $775,000 for a single-family home.

According to the 2022 American Community Survey, the Nānākuli CDP has a slightly higher occupancy rate (93.7%) than the CCH (90.2%). Housing units in Nānākuli are largely occupied by owners of the property (65.4%), similar to the CCH (58.8%).

Impacts and Mitigation Measures

No significant adverse impacts are anticipated to result from the construction or operation of the Proposed Project. In the short- term, development of the Proposed Project may provide temporary construction jobs in addition to construction expenditures. Activities related to the development of the Proposed Project will generate positive benefits to the local economy through indirect benefits to local retail businesses resulting from construction activities.

In the long-term, the Proposed Project is not anticipated to impact population growth in Nānākuli. The Proposed Project is not anticipated to impact land and housing speculation, property values of area homes, or affordable housing in the area.

3.14 Public Services and Facilities

3.14.1 Police, Fire, and Medical Services

Police protection in the Project Area is provided by the Honolulu Police Department (HPD). The Project Site is located within District 8 of HPD's Patrol locality. District 8 has two stations serving the Kapolei/Waiʻanae region. The Kapolei District Station is located approximately 6 miles southeast of the Project Site. The Waiʻanae Substation is located approximately 5 miles northwest of the Project Site.

The Honolulu Fire Department (HFD) provides emergency services to the Project Area. The Project Site is located within Zone 5 of HFD's Fire Response Zones. The Nānākuli Station (Station #28) serves this region and is located less than a mile southwest of the Project Site.

The Waiʻanae Coast Comprehensive Health Center (WCCHC) main campus is the nearest full service medical care facility located approximately 6 miles from the Project Site. An additional school-based WCCHC is located on the NHIS campus.

Impacts and Mitigation Measures

In the short- and long-term, no significant impacts are anticipated for police, fire, and medical services in the Project Area. BMPs will be implemented to mitigate potential impacts to the public safety of the surrounding environment. BMPs may include necessary signs, lights, barricades, and other safety equipment installed and maintained by the contractor, as well as adequate notification made to residents in the project vicinity to alert them to any construction activities or safety measures in place

Regarding fire protection, construction drawings will be submitted to the Honolulu Fire Department for review, ensuring the provision of fire apparatus access per the requirements of the National Fire Protection Association (NFPA) 1, Fire Code. The Proposed Project will be designed and built-in compliance with the applicable County fire code requirements.

Adequate access for emergency medical services will also be prioritized, with clear and unobstructed pathways provided for emergency vehicles, including ambulances, throughout the project area.

In the long-term, while the Proposed Project may require occasional police, fire, and medical services protection as well as medical services, it is anticipated that there will be no significant impacts to the overall demand for these services.

3.14.2 Educational Facilities

Nānākuli is part of the State Department of Education's (DOE) Leeward District within the Nānākuli-Waiʻanae Complex Area. The Nānākuli Complex Area encompasses three schools: Nānāikapono Elementary School, Nānākuli Elementary School, and Nānākuli High and Intermediate School (NHIS). The Proposed Project will be constructed on the NHIS campus to provide a new Performing Arts Center for students.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to have significant adverse impacts on existing educational facilities at or near the Project Site. On the contrary, students participating in the NPAC program are to benefit from the construction of the new NPAC facility. The new NPAC building will be a multipurpose building offering a venue with increased capacity for academic, professional, and performance uses. The construction of the Proposed Project is not anticipated to increase enrollment at NHIS.

3.14.3 Recreational Facilities

The CCH Department of Parks and Recreation owns and operates parks, recreational facilities, and programs across the island of Oʻahu. In addition to playgrounds, campgrounds, beach parks, and botanical gardens, the department provides year-round recreation programs for all ages including concerts, fairs, competitions, and cultural exhibitions. CCH recreational facilities near the Project Site include:

- Nānākuli Beach Park
- Depot Beach Park
- Kalaniana‘ole Campsite
- Kalaniana‘ole Zablan Beach (Forac Beach Park)
- Pu‘u Heloeakala Recreation Center

Additionally, the CCH DLNR-DOFAW, Forestry Program, created the Forest Reserve System (FRS) to protect upland forests and provide necessary water requirements for the lowland agriculture demands and surrounding communities. The Nānākuli Forest Reserve is located east of the Project Site provides hunting and other recreational opportunities for the community.

Impacts and Mitigation Measures

Significant impacts to recreational facilities are not anticipated to occur as a result of the construction and operation of the Proposed Project. No mitigation measures are proposed.

3.14.4 Solid Waste Management

Solid waste collection services for the Nānākuli area are provided by the CCH Department of Environmental Services (ENV), Refuse Division. The waste is collected by CCH crews and disposed of at the Waiʻanae Refuse Collection Yard located approximately 6 miles northwest of the Project Site.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to significantly impact solid waste management services or operations in vicinity of the project. In the short-term, construction activities associated with the development of the Proposed Project will result in an increase in construction-related waste generation and consequently will require scaling solid waste disposal / management services. In response to this, to the extent practicable, construction debris generated by project construction activities will be recycled, as appropriate, and will be properly handled during transit in accordance with industry’s best practices. Project-related waste will only be a small portion of the island-wide total and is not expected to impact CCH solid waste facilities significantly.

The Proposed Project is not anticipated to have any significant long-term impact on solid waste management in the area. Operation of the new NPAC will generate additional solid waste in the long term; however, the waste will only be a small portion of the NHIS total and significant increases are not expected.

3.15 Infrastructure and Utilities

3.15.1 Water System

The CCH BWS is the municipal water service provider for the Project Area. Municipal drinking water is provided by groundwater sources, which are dependent on rainfall (See Section 3.3.2). The BWS monitors rainfall and groundwater levels to ensure that the island's drinking water is preserved.

The BWS maintains the Nānākuli Booster Station located less than one mile southwest of the Project Site. The Booster Station serves residents in the Waiʻanae and Nānākuli area.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to have any significant short- or long-term impacts on the water system. No mitigation measures are proposed.

3.15.2 Wastewater System

The CCH ENV, Division of Wastewater Treatment and Disposal is responsible for the collection and treatment of wastewater in the Project Area. The Waiʻanae Wastewater Treatment Plant (WWTP) is a secondary treatment facility serving the Waiʻanae Coast which consists of the communities of Nānākuli, Lualualei, Maili, Waiʻanae, and Makaha. The facility has been in operation since 1968 and currently operates under a National Pollutant Discharge Elimination System (NPDES) Permit expiring June 28, 2024. The NPDES Permit authorizes the CCH to discharge secondary treated wastewater through deep ocean outfall in accordance with effluent limitations, monitoring requirements and other NPDES permit conditions.

Impacts and Mitigation Measures

Significant adverse impacts are not anticipated in the short- or long-term to the wastewater system.

3.15.3 Drainage System

The DHHL is upgrading the underground sanitary sewer system in Nānākuli for compliance with CCH requirements and with the goal of providing a higher level of wastewater service to the homestead residents. The upgrade would include the replacement of existing sewer lines, manholes, and cleanouts, as well as the reconnection of sewer laterals, and pavement resurfacing. DHHL Nānākuli Sewer System Improvements are expected to be completed by the end of April 2025.

Impacts and Mitigation Measures

Improvements to the existing drainage swale will be included in the first phase to facilitate easier access between buildings, enhancing user experience and site connectivity.

Significant adverse impacts to the wastewater system are not anticipated in the short- or long term.

3.15.4 Electrical and Communications Systems

Hawaiian Electric Company (HECO) power plant is the largest provider of electricity in the State of Hawai‘i and serves 95 percent of residents. There are two power plants located in the Nānākuli area at Campbell Industrial Park and Kahe Point. The power plant at Campbell Industrial Park is the last to use coal for electricity generation in Hawai‘i as HECO transitions to cleaner energy sources.

Telephone and cable service in the area is provided by Hawaiian Telcom and Spectrum. Spectrum is the local CATV provider in the region.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to impact or increase overall demand for electrical and communication systems in the area. No mitigation measures are proposed.

3.15.5 Gas System

The natural gas system within the Project Site is serviced by Hawai‘i Gas.

Impacts and Mitigation Measures

In the short- and long-term, the Proposed Project is not anticipated to impact or increase overall demand for electrical and communication systems in the area. Coordination with Hawai‘i Gas by the mechanical engineer will be required during the design phase to confirm fuel system service connections. Fuel system demands by the operation of the Proposed Project will be assessed to determine any improvements required.

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CHAPTER 4: RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

Pursuant to HAR Section 11-200.1-24, this section describes the relationship of the Proposed Project to "*land use and natural or cultural resource plans, policies, and controls for the affected area*." Discussed is how the Proposed Project "*may conform or conflict with objectives and specific terms of approved or proposed land use and resource plans, policies, and controls, if any, for the affected area.*" Where a conflict or inconsistency exists, described is the extent to which the Proposed Project has been reconciled *"with the plan, policy, or control, and the reasons why*" the proposing agency (State of Hawai'i Department of Education) *"...has decided to proceed, notwithstanding the absence of full reconciliation."*

To facilitate describing the relationships of the Proposed Project to the numerous land use and natural or cultural resource plans, policies, and controls for the affected area, some of those plans, policies, and controls are presented in tabular form, and are described with text and/or the following letter code:

S = Supportive, NS = Not Supportive, N/A = Not Applicable

4.1. State Land Use Plans and Policies

4.1.1. Hawai'i State Plan

The Hawai'i State Plan, Chapter 226, HRS, as amended, provides goals, objectives, policies, and priorities for the State. The purpose of the Hawai'i State Plan is to set forth a plan that shall serve as a guide for the future long-range development of the State; identify the goals, allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improve coordination of Federal, State, and County plans, policies, programs, projects, and regulatory activities; and, to establish a system for plan formulation and program coordination to provide for an integration of all major State, and County activities. The State Plan is divided into three sections. Part 1 is Overall Theme, Goals, Objectives and Policies. Part 2 is Planning Coordination and Implementation. Part 3 is Priority Guidelines. The Proposed Project's consistency with applicable goals, objectives and policies of Part 1 is discussed in Table 4-1, and an assessment of conformance with Part 3 is discussed in Table 4-2. Part 2 of the State Plan, which primarily covers internal government affairs, is not related to the Proposed Project.

Table 4-1: The Hawai'i State Plan	S	NS	N/A
§226-4 State goals. In order to ensure, for present and future generations, those elements of choice and mobility that ensure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:			
(1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i's present and future generations.	**X**		
(2) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.	**X**		
(3) Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life.	**X**		

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
Discussion: The Proposed Project will support the State’s goals for present and future generations, to ensure individuals and groups may approach their desired levels of self-reliance and self-determination. The Proposed Project aims to positively contribute to the cultural education and development of future generations. By supporting the existing performing arts curriculum and introducing new courses and programs, the Proposed Project will expand educational offerings at NHIS. This will provide students with a more comprehensive education while celebrating Hawai‘i’s diverse heritage. Additionally, the Proposed Project seeks to promote unity and enhance community resilience through shared cultural experiences. The Proposed Project will also support the State of Hawai‘i’s goals for a strong and sustainable economy. It will create employment opportunities during the construction phase as well as throughout the operation and maintenance of the venue. The project aims to maximize social and economic benefits for Hawai‘i’s communities while respecting and preserving the local culture. Furthermore, the Proposed Project will include spaces that encourage social interaction, allowing community members to gather and support young adults in their academic journeys.			
§226-5 Objectives and policies for population. (a) It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter. To achieve the population objective, it shall be the policy of this State to:			
(1) Manage population growth statewide in a manner that provides increased opportunities for Hawai‘i's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.			X
(2) Encourage an increase in economic activities and employment opportunities on the Neighbor Islands consistent with community needs and desires.			X
(3) Promote increased opportunities for Hawai‘i's people to pursue their socio-economic aspirations throughout the islands.	X		
(4) Encourage research activities and public awareness programs to foster an understanding of Hawai‘i's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawai‘i's population.			X
(5) Encourage federal actions that will promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			X
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			X
(7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.	X		
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan related to population. The Proposed Project will not contribute to Hawai‘i’s residential population growth but will instead provide opportunities for youth to pursue education and development in the Performing Arts. Exposure to the arts enhances socio-economic benefits to Hawaiian residents. Additionally, the Proposed Project is designed accommodate current and anticipated future students, aligning with population growth projections. The Proposed Project will also revitalize previously developed land, ensuring that best use practices for resource management are implemented effectively.			
§226-6 Objectives and policies for the economy--in general. (a) Planning for the State's economy in general shall be directed toward achievement of the following objectives: (1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai‘i’s people. (2) A steady growing and diversified economic base that is not overly dependent on a few industries and includes the development and expansion of industries on the neighbor islands. (b) To achieve the general economic objectives, it shall be the policy of this State to:			
(1) Promote and encourage entrepreneurship within Hawai‘i by residents and nonresidents of the State.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(2) Expand Hawai‘i's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.			X
(3) Promote Hawai‘i as an attractive market for environmentally and socially sound investment activities that benefit Hawai‘i's people.			X
(4) Transform and maintain Hawai‘i as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.	X		
(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawaii.			X
(6) Seek broader outlets for new or expanded Hawai‘i business investments.			X
(7) Expand existing markets and penetrate new markets for Hawai‘i's products and services.	X		
(8) Assure that the basic economic needs of Hawai‘i's people are maintained in the event of disruptions in overseas transportation.			X
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.	X		
(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai‘i's small scale producers, manufacturers, and distributors.			X
(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.			X
(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawaii.	X		
(13) Foster greater cooperation and coordination between the public and private sectors in developing Hawai‘i's employment and economic growth opportunities.			X
(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.			X
(15) Maintain acceptable working conditions and standards for Hawai‘i's workers.	X		
(16) Provide equal employment opportunities for all segments of Hawai‘i's population through affirmative action and non-discrimination measures.			X
(17) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.			X
(18) Encourage businesses that have favorable financial multiplier effects within Hawai‘i's economy, particularly with respect to emerging industries in science and technology.			X
(19) Promote and protect intangible resources in Hawai‘i, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.	X		
(20) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new, potential growth industries in particular			X
(21) Foster a business climate in Hawai‘i- including attitudes, tax and regulatory policies, and financial and technical assistance programs-that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.			X

Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan related to the economy – in general.

In the short-term, project construction expenditures will confer positive benefits to the local economy in the form of direct wages and expenditures. These benefits would be derived from the creation of construction and construction support jobs as well as revenues generated by the procurement of building supplies and materials.

In the long-term, the Proposed Project will benefit Hawai‘i’s economy with the increase in revenue to the State’s tax base as well as the creation of new career opportunities within the service, entertainment, and management fields.

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
Furthermore, the implementation of the Proposed Project will maintain acceptable working conditions and standards by adhering to relevant labor laws, regulations, and industry best practices in terms of worker safety.			
§226-7 Objectives and policies for the economy—agriculture. (a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives: (1) Viability of Hawaii's sugar and pineapple industries. (2) Growth and development of diversified agriculture throughout the State. (3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being To achieve the agriculture objectives, it shall be the policy of this State to:			
(1) Establish a clear direction for Hawai‘i's agriculture through stakeholder commitment and advocacy.			X
(2) Encourage agriculture by making the best use of natural resources.			X
(3) Provide the governor and the legislature with information and options needed for prudent decision-making for the development of agriculture.			X
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			X
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai‘i''s economy.			X
(6) Seek the enactment and retention of federal and state legislation that benefits Hawai‘i's agricultural industries.			X
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai‘i's food producers and consumers in the State, nation, and world.			X
(8) Support research and development activities that strengthen economic productivity in agriculture, stimulate greater efficiency, and enhance the development of new products and agricultural by-products.			X
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			X
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			X
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			X
(12) In addition to the State's priority on food, expand Hawai‘i's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.			X
(13) Promote economically competitive activities that increase Hawai‘i's agricultural self-sufficiency, including the increased purchase and use of Hawaii-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.			X
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture			X
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			X
(16) Facilitate the transition of agricultural lands in economically non-feasible agricultural production to economically viable agricultural uses.			X
(17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i‘a, māla, and irrigated lo‘i, and growth of traditional Hawaiian crops, such as kalo, ‘uala, and ‘ulu.			X
(18) Increase and develop small-scale farms.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan related to the economy and agriculture.			

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
226-8 Objective and policies for the economy—-visitor industry. (a) Planning for the State’s economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawai‘i’’s economy. (b) To achieve the visitor industry objective, it shall be the policy of this State to:			
(1) Support and assist in the promotion of Hawai‘i's visitor attractions and facilities.	X		
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai‘i's people.			X
(3) Improve the quality of existing visitor destination areas by utilizing Hawai‘i's strengths in science and technology.			X
(4) Encourage cooperation between the public and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.			X
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawai‘i's people.			X
(6) Provide opportunities for Hawai‘i's people to obtain job training and education that will allow for upward mobility within the visitor industry.			X
(7) Foster a recognition of the contribution of the visitor industry to Hawai‘i's economy and the need to perpetuate the aloha spirit.			X
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai‘i's cultures and values.	X		
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan related to the economy and the visitor industry. The Proposed Project will create an event space where tourists can view local productions, featuring the talents of students and community members. These performances will reflect the aloha spirit and demonstrate the strength of the community. The Proposed Project will provide an opportunity for cultural expression and contribute to the local arts scene.			
§226 9 Objective and policies for the economy--federal expenditures. (a) Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawai‘i’s economy. (b) To achieve the federal expenditures objective, it shall be the policy of this State to:			
(1) Encourage the sustained flow of federal expenditures in Hawai‘i that generates long-term government civilian employment.			X
(2) Promote Hawaii's supportive role in national defense, in a manner consistent with Hawaii's social, environmental, and cultural goals by building upon dual-use and defense applications to develop thriving ocean engineering, aerospace research and development, and related dual-use technology sectors in Hawaii's economy.			X
(3) Promote the development of federally supported activities in Hawai‘i that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawai‘i's environment.			X
(4) Increase opportunities for entry and advancement of Hawai‘i's people into federal government service.			X
(5) Promote federal use of local commodities, services, and facilities available in Hawai‘i.			X
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawai‘i.			X
(7) Pursue the return of federally controlled lands in Hawai‘i that are not required for either the defense of the nation or for other purposes of national importance and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan related to the economy and federal expenditures.			

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
§226-10 Objective and policies for the economy--potential growth and innovative activities. (a) Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversify Hawai‘i's economic base. (b) To achieve the potential growth activity objective, it shall be the policy of this State to:			
(1) Facilitate investment and employment growth in economic activities that have the potential to expand and diversify Hawaii's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, health care, and science and technology-based sectors.			X
(2) Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawai‘i through the export of services or products or substitution of imported services or products.			X
(3) Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements.			X
(4) Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the attitude necessary to undertake innovative activity.	X		
(5) Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus.	X		
(6) Expand Hawai‘i's capacity to attract and service international programs and activities that generate employment for Hawai‘i's people.			X
(7) Enhance and promote Hawai‘i's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts.	X		
(8) Accelerate research and development of new energy-related industries based on wind, solar, ocean, and underground resources and solid waste.			X
(9) Promote Hawai‘i's geographic, environmental, social, and technological advantages to attract new economic activities into the State.			X
(10) Provide public incentives and encourage private initiative to attract new industries that best support Hawai‘i's social, economic, physical, and environmental objectives.			X
(11) Increase research and the development of ocean related economic activities such as mining, food production, and scientific research.			X
(12) Develop, promote, and support research and educational and training programs that will enhance Hawai‘i's ability to attract and develop economic activities of benefit to Hawai‘i.			X
(13) Foster a broader public recognition and understanding of the potential benefits of new, growth oriented industry in Hawai‘i.			X
(14) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaii's social, economic, physical, and environmental objectives.			X
(15) Increase research and development of businesses and services in the telecommunications and information industries.			X
(16) Foster the research and development of nonfossil fuel and energy efficient modes of transportation			X
(17) Recognize and promote health care and health care information technology as growth industries.			X
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan related to the economy, potential growth, and innovative activities.			

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
Establishing a dedicated space for the cultural pursuits of youth in a predominantly Native Hawaiian area will support personal development and create pathways to higher education and employment opportunities. The Proposed Project will allow both visitors and residents to engage with the programming associated with the project, fostering a sense of community and enriching the cultural landscape.			
226-10.5 Objectives and policies for the economy--information industry. (a) Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawai‘i as a leader in broadband and wireless communications and applications in the Pacific Region. (b) To achieve the information industry objective, it shall be the policy of this State to:			
(1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawai‘i and between Hawai‘i and the world, and make high speed communication available to all residents and businesses in Hawaii			X
(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawai‘i to accommodate future growth and innovation in Hawaii's economy.			X
(3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawaii.			X
(4) Encourage mainland- and foreign-based companies of all sizes, whether information technology-focused or not, to allow their principals, employees, or contractors to live in and work from Hawaii, using technology to communicate with their headquarters, offices, or customers located out-of-state.			X
(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry.			X
(6) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.			X
(7) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the information industry.			X
(8) Foster a recognition of the contribution of the information industry to Hawaii's economy.			X
(9) Assist in the promotion of Hawai‘i as a broker, creator, and processor of information in the Pacific.			X
Discussion The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan related to the economy and the information industry.			
§226-11 Objectives and policies for the physical environment--land-based, shoreline, and marine resources. (a) The land-based, shoreline, and marine resources objectives are: (1) Prudent use of Hawai‘i's land-based, shoreline, and marine resources. (2) Effective protection of Hawai‘i's unique and fragile environmental resources. (b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:			
(1) Exercise an overall conservation ethic in the use of Hawai‘i's natural resources.			X
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.			X
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.	X		
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.			X
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			X
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai‘i.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			X
(8) Pursue compatible relationships among activities, facilities, and natural resources.	X		
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.	X		
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan related to the physical environment, land-based, shoreline, and marine resources. The Project Site is located within an already developed education complex. No significant short- or long-term impacts to surface and/or coastal waters are anticipated to result from the construction and operation of the Proposed Project. The Proposed Project will adhere to planning benchmarks set forth by the CCH Climate Commission to mitigate impact in regard to predicted sea level rise. Additionally, applicable erosion control measures and best management practices will be implemented to mitigate any possible adverse effects relating to runoff. Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the Proposed Project will not result in any significant impacts. No listed or protected plant species are known to originate or exist within the project area. Rare, threatened, or endangered fauna are not known to utilize the project site or surrounding area for either habitat or foraging purposes. However, measures to prevent adverse effects to protected species are discussed in Section 3.5.1 of the EA.			
§226-12 Objective and policies for the physical environment--scenic, natural beauty, and historic resources. (a) Planning for the State’s physical environment shall be directed towards achievement of the objective of enhancement of Hawai‘i’s scenic assets, natural beauty, and multi-cultural/historical resources (b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:			
(1) Promote the preservation and restoration of significant natural and historic resources.			X
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.			X
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.			X
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawai‘i's ethnic and cultural heritage.	X		
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.	X		
Discussion: The Proposed Project will impact the objectives and policies outlined within the Hawai‘i State Plan related to the physical environment, scenic, natural beauty, and historic resources. The design of the Proposed Project takes into account the beauty of the surrounding area and does not impact visual sightlines of the mountains or coast. As discussed in Section 3.12 (Visual Resources) of the EA, the Proposed Project is not expected to have an impact on the recognized view planes supporting the objectives and policies for the physical environment.			
§226-13 Objectives and policies for the physical environment--land, air, and water quality. (a) Planning for the State’s physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives: (1) Maintenance and pursuit of improved quality in Hawai‘i’s land, air, and water resources. (2) Greater public awareness and appreciation of Hawai‘i’s environmental resources. (b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:			
(1) Foster educational activities that promote a better understanding of Hawai‘i's limited environmental resources.			X
(2) Promote the proper management of Hawai‘i's land and water resources.	X		
(3) Promote effective measures to achieve desired quality in Hawai‘i's surface, ground, and coastal waters.	X		
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai‘i's people.	X		

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.	X		
(6) Encourage design and construction practices that enhance the physical qualities of Hawai‘i's communities.	X		
(7) Encourage urban developments in close proximity to existing services and facilities.	X		
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawai‘i's people, their cultures and visitors.	X		
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan related to the physical environment, land, air, and water quality. As discussed in Section 3.3 (Hydrology), necessary permits will be sought and construction BMPs will be implemented to reduce runoff generated from construction related activities. Additionally, construction activities are not likely to introduce to, nor release from the soil, any materials that could adversely affect the underlying groundwater. Construction material waste will appropriately be disposed of to prevent any leachate from contaminating groundwater. As discussed in Section 3.4 (Natural Hazards) the Project Site is not prone to erosion, flooding, tsunami, hurricanes, earthquakes, volcanic eruptions, or other hazards and the Proposed Project will not exacerbate any natural hazard conditions. All structures will be designed in compliance with the City's building code. Impacts from natural hazards can be further mitigated by adherence to appropriate civil defense evacuation procedures. As discussed in Section 3.8 (Air Quality) the Proposed Project will have a short-term impact in the project region. Short-term construction-related air impacts can be mitigated; Ambient concentrations of carbon monoxide from motor vehicle traffic will remain well within State and national ambient air quality standards; and long-term impacts on air quality are likely to be negligible due to indirect emissions associated with the Proposed Project's electrical power and solid waste disposal requirements. As previously stated, the Project Site is situated within the existing urban context and has access to existing infrastructure in regard to utilities such as water, wastewater, electrical, and communication systems.			
§226-14 Objective and policies for facility systems--in general. (a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives. (b) To achieve the general facility systems objective, it shall be the policy of this State to :			
(1) Accommodate the needs of Hawai‘i's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.			X
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.			X
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.			X
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan related to facility systems in general.			
§226-15 Objectives and policies for facility systems—solid and liquid wastes. (b) Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives: (1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes. (2) Provision of adequate sewerage facilities of physical and economic activities that alleviate problems in housing, employment, mobility, and other areas. (c) To achieve solid and liquid waste objectives, it shall be the policy of this State to:			
(1) Encourage the adequate development of sewerage facilities that complement planned growth.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.			X
(3) Promote research to develop more efficient and economical treatment and disposals of solid and liquid wastes.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for facility systems related to solid and liquid wastes.			
§226-16 Objective and policies for facility systems--water. (a) Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities. (b) To achieve the facility systems water objective, it shall be the policy of the State to:			
(1) Coordinate development of land use activities with existing and potential water supply.	X		
(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.			X
(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.			X
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.			X
(5) Support water supply services to areas experiencing critical water problems.			X
(6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for facility systems related to water. Coordination with BWS will be undertaken to ensure that there is adequate water source, storage, and delivery to service the Proposed Project. Upon finalization of the design, BWS will determine if the current municipal water system is adequate to accommodate the demand generated by the Proposed Project.			
§226-17 Objectives and policies for facility systems--transportation. (a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives: (1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods. (2) A statewide transportation system consistent with planned growth objectives throughout the State (b) To achieve the transportation objectives, it shall be the policy of this State to:			
(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter.			X
(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives.			X
(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties.			X
(4) Provide for improved accessibility to shipping, docking, and storage facilities.			X
(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs.			X
(6) Encourage transportation systems that serve to accommodate present and future development needs of communities.			X
(7) Encourage a variety of carriers to offer increased opportunities and advantages to inter-island movement of people and goods.			X
(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs.			X
(9) Encourage the development of transportation, systems and programs which would assist statewide economic growth and diversification.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai‘i's natural environment.			X
(11) Encourage safe and convenient uses of low-cost, energy-efficient, non-polluting means of transportation.			X
(12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives.			X
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for facility systems related to transportation.			
§226-18 Objectives and policies for facility systems—energy. (a) Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all: (1) Dependable, efficient, and economical statewide energy and telecommunication systems capable of supporting the needs of the people. (2) Increased energy self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation; (3) Greater diversification of energy generation in the face of threats to Hawaii's energy supplies and systems; (4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and (5) Utility models that make the social and financial interests of Hawaii's utility customers a priority.. (b) To achieve the energy objectives, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable energy services to accommodate demand (c) To further achieve the energy objectives, it shall be the policy of this State to:			
(1) Support research and development as well as promote the use of renewable energy sources.			X
(2) Ensure a sufficient supply of energy to enable power systems to support the demands of growth.			X
(3) Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits.			X
(4) Promote all cost-effective conservation of power and fuel supplies through measures, including: a) Development of cost-effective demand-side management programs; b) Education; c) Adoption of energy-efficient practices and technologies; and d) Increasing energy efficiency and decreasing energy use in public infrastructure.			X
(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies.			X
(6) Support research, development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies.			X
(7) Promote alternate fuels and transportation energy efficiency.			X
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications.			X
(9) Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(10) Provide priority handling and processing for all state and county permits required for renewable energy projects.			X
(11) Ensure that liquefied natural gas is used only as a cost-effective transitional, limited-term replacement of petroleum for electricity generation and does not impede the development and use of other cost-effective renewable energy sources.			X
(12) Promote the development of indigenous geothermal energy resources that are located on public trust land as an affordable and reliable source of firm power for Hawaii.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for facility systems related to energy.			
§226-18.5 Objectives and policies for facility systems--telecommunications. (a) Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people. (b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand. (c) To further achieve the telecommunications objective, it shall be the policy of this State to:			
(1) Facilitate research and development of telecommunication systems and resources.			X
(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunication planning.			X
(3) Promote efficient management and use of existing telecommunication systems and services.			X
(4) Facilitate the development of education and training of telecommunication personnel.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for facility systems related to telecommunications.			
§226-19 Objectives and policies for socio-cultural advancement--housing. (a) Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives: (1) Greater opportunities for Hawaii's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more rental and for sale affordable housing is made available to extremely low-, very low-, lower-, moderate-, and above moderate-income segments of Hawaii's population. (2) The orderly development of residential areas sensitive to community needs and other land uses. (3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawaii's people. (b) To achieve the housing objectives, it shall be the policy of this State to:			
(1) Effectively accommodate the housing needs of Hawai‘i's people.			X
(2) Stimulate and promote feasible approaches that increase affordable rental and for sale housing choices for extremely low-, very low-, lower-, moderate-, and above moderate-income households.			X
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.			X
(4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.			X
(5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.			X
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(7) Foster a variety of lifestyles traditional to Hawai‘i through the design and maintenance of neighborhoods that reflect the cultures and values of the community.			X
(8) Promote research and development of methods to reduce the cost of housing construction in Hawai‘i.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to housing.			
§226-20 Objectives and policies for socio-cultural advancement--health. (a) Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives: (1) Fulfillment of basic individual health needs of the general public. (2) Maintenance of sanitary and environmentally healthful conditions in Hawai‘i's communities. (3) Elimination of health disparities by identifying and addressing social determinants of health. (b) To achieve the health objectives, it shall be the policy of this State to:			
(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			X
(2) Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.			X
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			X
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			X
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			X
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement			X
(7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos. The prioritization of affected demographic groups other than native Hawaiians may be reviewed every ten years and revised based on the best available epidemiological and public health data.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to health.			
§226-21 Objective and policies for socio-cultural advancement—education. (a) Planning for the State’s socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations. (b) To achieve the education objective, it shall be the policy of this State to:			
(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.	X		
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.	X		
(3) Provide appropriate educational opportunities for groups with special needs.			X
(4) Promote educational programs which enhance understanding of Hawaii’s cultural heritage.	X		
(5) Provide higher educational opportunities that enable Hawaii’s people to adapt to changing employment demands.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.			X
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			X
(8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.	X		
(9) Support research programs and activities that enhance the education programs of the State.			X
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to education. The Proposed Project seeks to establish a new PAC that will support the continuation of quality educational programs at NHIS. The Proposed Project aims to provide educational opportunities and programs that provide personal development, recreation, and cultural activities, benefitting both students and the broader community. The PAC will serve as a resource for enhancing the overall educational experience and fostering engagement among all participants.			
§226-22 Objective and policies for socio-cultural advancement—social services. (a) Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being. (b) To achieve the social services objective, it shall be the policy of this State to:			
(1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.			X
(2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.			X
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaii's communities			X
(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			X
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			X
(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to social services.			
§226-23 Objective and policies for socio-cultural advancement--leisure. (a) Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations. (b) To achieve the leisure objective, it shall be the policy of this State to:			
(1) Foster and preserve Hawai‘i's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.	X		
(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.	X		
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.	X		
(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved			X
(5) Ensure opportunities for everyone to use and enjoy Hawai‘i's recreational resources.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs			X
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawai‘i's people.			X
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.	X		
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawai‘i's population to participate in the creative arts.	X		
(10) Assure adequate access to significant natural and cultural resources in public ownership.			X
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to leisure. The Proposed Project aims to serves as a venue for artistic programs and performances that promote public participation and appreciation for Hawai‘i’s culture. Additionally, the Proposed Project is designed to complement the natural beauty of the region. It will create spaces for people to gather and engage in a variety of recreational and cultural activities unique to Hawai‘i. The enhanced facility design will improve the experience of attending of performances.			
§226-24 Objective and policies for socio-cultural advancement--individual rights and personal well-being. (a) Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations. (b) To achieve the individual rights and personal wellbeing objective, it shall be the policy of this State to:			
(1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.			X
(2) Uphold and protect the national and state constitutional rights of every individual.	X		
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			X
(4) Ensure equal opportunities for individual participation in society.	X		
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to individual rights and personal well-being. The Proposed Project will employ trained staff and security to ensure a safe and accommodating environment for all team members, guests, and local residents visiting the venue. It will provide fair access for those interested in participation.			
§226-25 Objective and policies for socio-cultural advancement--culture. (a) Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawai‘i’s people. (b) To achieve the culture objective, it shall be the policy of this State to:			
(1) Foster increased knowledge and understanding of Hawai‘i's ethnic and cultural heritages and the history of Hawai‘i.	X		
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai‘i's people and which are sensitive and responsive to family and community needs.	X		
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawai‘i.			X
(4) Encourage the essence of the aloha spirit in people's daily-activities to promote harmonious relationships among Hawai‘i's people and visitors.	X		
Discussion: The Proposed Project will support the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to culture.			

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
The Proposed Project celebrates the rich diversity of cultures and the aloha spirit that defines the islands. Its design and entertainment programs will incorporate a strong sense of place, honoring Hawai‘i’s historical legacy wile reflecting the attitudes, experiences, places, spaces, and symbols significant to the Hawaiian community. This approach will ensure that the PAC not only serves as a venue for artistic expression but also fosters a deeper appreciation for Hawai‘i’s unique cultural heritage.			
§226-26 Objectives and policies for socio-cultural advancement—public safety. (a) Planning for the State’s socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives: (1) Assurance of public safety and adequate protection of life and property for all people. (2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances. (3) Promotion of a sense of community responsibility for the welfare and safety of Hawai‘i’s (b) To achieve the public safety programs objectives, it shall be the policy of this State to:			
(1) Ensure that public safety programs are effective and responsive to community needs.			X
(2) Encourage increased community awareness and participation in public safety programs.			X
(c) To achieve the public safety programs objectives, it shall be the policy of this State to:			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			X
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			X
(3) Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.			X
(d) To further achieve public safety objectives related to emergency management, it shall be the policy of this State to:			
(1) Ensure that responsible organizations are in a proper state of readiness to respond to major war related, natural, or technological disasters and civil disturbances at all times.			X
(2) Enhance the coordination between emergency management programs throughout the State.			X
Discussion: The Proposed Project will not impact the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to public safety.			
§226-27 Objectives and policies for socio-cultural advancement--government. (a) Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives: (1) Efficient, effective, and responsive government services at all levels in the State. (2) Fiscal integrity, responsibility and efficiency in the state government and county governments. (b) To achieve the government objectives, it shall be the policy of this State to:			
(1) Provide for necessary public goods and services not assumed by the private sector.			X
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			X
(3) Minimize the size of government to that necessary to be effective.			X
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawai‘i.			X
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			X
(6) Provide for a balanced fiscal budget.			X
(7) Improve the fiscal budgeting and management system of the State.			X
(8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.			X

Table 4-1: The Hawai‘i State Plan	S	NS	N/A
Discussion: The Proposed Project will not affect the objectives and policies outlined within the Hawai‘i State Plan for socio-cultural advancement related to government.			

PART III. PRIORITY GUIDELINES

Part III of the Hawai‘i State Plan establishes the overall priority guidelines to address areas of Statewide concern. Under HRS § 226-102, "The State shall strive to improve the quality of life for Hawai‘i's present and future population through the pursuit of desirable courses of action in seven major areas of Statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.

Table 4-2: The Hawai‘i State Plan Part III	S	NS	N/A
§226-103 Economic priority guidelines. (a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai‘i’s people and achieve a stable and diversified economy:			
(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.			X
(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			X
(3) Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.			X
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			X
(5) Streamline the building and development permit and review process and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where public health, safety, and welfare would not be adversely affected.			X
(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawai‘i's small-scale producers, manufacturers, and distributors.			X
(7) Continue to seek legislation to protect Hawai‘i from transportation interruptions between Hawai‘i and the continental United States.			X
(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials, and which have the following characteristics: (a) An industry that can take advantage of Hawai‘i's unique location and available physical and human resources. (b) A clean industry that would have minimal adverse effects on Hawai‘i's environment. (c) An industry that is willing to hire and train Hawai‘i's people to meet the industry's labor needs. (d) An industry that would provide reasonable income and steady employment.			X
(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawai‘i business.			X
(10) Enhance the quality of Hawai‘i’s labor force and develop and maintain career opportunities for Hawai‘i’s people through the following actions: (a) Expand vocational training in diversified agriculture, aquaculture, and other areas where growth is desired and feasible. (b) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.			X

Table 4-2: The Hawai‘i State Plan Part III	S	NS	N/A
(c) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired. (d) Promote career opportunities in all industries for Hawai‘i's people by encouraging firms doing business in the State to hire residents. (e) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on-the-job training opportunities. (f) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.			
(b) **Priority guidelines to promote the economic health and quality of the visitor industry:**			
(1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawai‘i's residents and visitors.			X
(2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provides for adequate shoreline setbacks and beach access.			X
(3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.			X
(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawai‘i's significant natural, scenic, historic, and cultural resources.			X
(5) Develop and maintain career opportunities in the visitor industry for Hawai‘i's people, with emphasis on managerial positions.			X
(6) Support and coordinate tourism promotion abroad to enhance Hawai‘i's share of existing and potential visitor markets.			X
(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.			X
(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.			X
(c) **Priority guidelines to promote the continued viability of the sugar and pineapple industries:**			
(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.			X
(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawai‘i.			X
(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			X
(d) **Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:**			
(1) Identify, conserve, and protect agricultural and aquaculture lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquaculture uses of such lands.			X
(2) Assist in providing adequate, reasonably priced water for agricultural activities.			X
(3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.			X
(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			X
(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawai‘i’s agricultural community			X
(6) Seek favorable freight rates for Hawai‘i’s agricultural products from interisland and overseas transportation operators.			X
(7) Encourage the development and expansion of agricultural and aquaculture activities which offer long-term economic growth potential and employment opportunities.			X
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			X
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			X
(e) **Priority guidelines for water use and development:**			

Table 4-2: The Hawai‘i State Plan Part III	S	NS	N/A
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.			X
(2) Encourage the improvement of irrigation technology and promote the use of non-potable water for agricultural and landscaping purposes.			X
(3) Increase the support for research and development of economically feasible alternative water sources.			X
(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.			X
(f) **Priority guidelines for energy use and development:**			
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			X
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			X
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			X
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			X
(g) **Priority guidelines to promote the development of the information industry:**			
(1) Establish an information network, with an emphasis on broadband and wireless infrastructure and capability that will serve as the foundation of and catalyst for overall economic growth and diversification in Hawai‘i.			X
(2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing, teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.			X
(3) Encourage the development of small businesses in the information field such as software development; the development of new information systems, peripherals, and applications; data conversion and data entry services; and home or cottage services such as computer programming, secretarial, and accounting services.			X
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			X
(5) Encourage research activities, including legal research in the information and telecommunications fields.			X
(6) Support promotional activities to market Hawai‘i's information industry services.			X
(7) Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.			X
Discussion: The economic priority guidelines outlined within the Hawai‘i State Plan will not be applicable to the Proposed Project.			
§226-104 Population growth and land resources priority guidelines.			
(a) Priority guidelines to effect desired statewide growth and distribution:			
(1) Encourage planning and resource management to ensure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawai‘i's people.	X		
(2) Manage a growth rate for Hawai‘i’s economy that will parallel future employment needs for Hawai‘i’s people.			X
(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.			X
(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.			X
(5) Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.			X
(6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.			X

Table 4-2: The Hawai‘i State Plan Part III	S	NS	N/A
(7) Support the development of high technology parks on the neighbor islands.			X
(b) Priority guidelines for regional growth distribution and land resource utilization:			
(1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.	X		
(2) Make available marginal or non-essential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.			X
(3) Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.			X
(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.			X
(5) In order to preserve green belts, give priority to state capital improvement funds which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a non-contiguous new urban core.	X		
(6) Seek participation from the private sector for the cost of building infrastructure and utilities and maintaining open spaces.			X
(7) Pursue rehabilitation of appropriate urban areas.			X
(8) Support the redevelopment of Kaka‘ako into a viable residential, industrial, and commercial community.			X
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.	X		
(10) Identify critical environmental areas in Hawai‘i to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.			X
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.			X
(12) Utilize Hawai‘i’s limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.	X		
(13) Protect and enhance Hawai‘i’s shoreline, open spaces, and scenic resources.	X		
Discussion: The Proposed Project will support the population growth and land resources policy guidelines outlined within the Hawai‘i State Plan. The Proposed Project will be constructed on the NHIS campus, which contributes to the wise use of land resources in Nānākuli. This approach allows for land to be allocated effectively for supporting projected population and economic growth needs, while ensuring the protection of the environment for the benefit of future generations.			
§226-105 Crime and criminal justice Priority guidelines in the area of crime and criminal justice:			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			X
(2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.			X
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			X
(4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.			X
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			X

Table 4-2: The Hawai‘i State Plan Part III	S	NS	N/A
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			X
Discussion: The priority guidelines regarding crime and criminal justice outlined within the Hawai‘i State Plan will not be applicable to the Proposed Project.			
§226-106 Affordable housing Priority guidelines for the provision of affordable housing:			
(1) Seek to use marginal or non-essential agricultural land and public land to meet housing needs of low and moderate-income and gap-group households.			X
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.			X
(3) Improve information and analysis relative to land availability and suitability for housing.			X
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawai‘i’s low and moderate-income households, gap-group households, and residents with special needs.			X
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawai‘i’s people for the purchase of initial owner-occupied housing.			X
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.			X
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.			X
(8) Give higher priority to the provision of quality housing that is affordable for Hawaii's residents and less priority to development of housing intended primarily for individuals outside of Hawai‘i.			X
Discussion: The priority guidelines regarding affordable housing outlined within the Hawai‘i State Plan will not be applicable to the Proposed Project.			
§226-107 Quality education. Priority guidelines to promote quality education:			
(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement.	X		
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs.	X		
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force.			X
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities.	X		
(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for: (A) The electronic exchange of information; (B) Statewide electronic mail; and (C) Access to the Internet. Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives.			X
(6) Pursue the establishment of Hawai‘i’s public and private universities and colleges as research and training centers of the Pacific.			X
(7) Develop resources and programs for early childhood education.	X		
(8) Explore alternatives for funding and delivery of educational services to improve the overall quality of education.			X
(9) Strengthen and expand educational programs and services for students with special needs.			X
Discussion: The Proposed Project will support the priority guidelines regarding education outlined in the Hawai‘i State Plan. The Proposed Project seeks to establish a new PAC that will support the continuation of quality educational programs at NHIS. The Proposed Project aims to provide educational opportunities and programs that personal development,			

Table 4-2: The Hawai‘i State Plan Part III	S	NS	N/A
recreation, and cultural activities, benefitting both students and the broader community. The PAC will serve as a resource for enhancing the overall educational experience and fostering engagement among all participants.			
§226-108 Sustainability. Priority guidelines and principals to promote sustainability:			
(1) Encouraging balanced economic, social, community, and environmental priorities.	X		
(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State.	X		
(3) Promoting a diversified and dynamic economy.			X
(4) Encouraging respect for the host culture.			X
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations.	X		
(6) Considering the principles of the ahupua‘a system.			X
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawai‘i.			X
Discussion: The Proposed Project will support the priority guidelines for sustainability outlined within the Hawai‘i State Plan. The Proposed Project will maximize the use of appropriate BMPs prior to, during and after construction to ensure that resources are used in a sustainable manner.			
§226-109 Climate change adaption. Priority guidelines for climate change adaption:			
(1) Ensure that Hawaii's people are educated, informed, and aware of the impacts climate change may have on their communities.			X
(2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies.			X
(3) Invest in continued monitoring and research of Hawai‘i's climate and the impacts of climate change on the State.			X
(4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change.			X
(5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change.			X
(6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments.			X
(7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options.			X
(8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities.			X
(9) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans.			X
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.			X
Discussion: The priority guidelines regarding climate change adaptation outlined within the Hawai‘i State Plan will not be applicable to the Proposed Project.			

4.1.2. State Functional Plans

The Hawai‘i State Plan directs appropriate State agencies to prepare Functional Plans which address Statewide needs, problems, and issues, and recommend policies and actions to mitigate those problems. The Functional Plans are prepared to further define and implement statewide goals, objectives, policies, and priority guidelines contained in the Hawai‘i State Plan. The thirteen

Functional Plans outlined in Table 4-3 were prepared to implement the State Plan provisions in the areas of agriculture, conservation lands, education, employment, energy, health, higher education, historic preservation, housing, human services, recreation, tourism, and transportation.

Table 4-3: Hawai'i State Functional Plans		S	NS	N/A
1	**Agricultural State Functional Plan (1991)**			
Purpose: Continued viability of agriculture throughout the State				**X**
Discussion: The Agricultural State Functional Plan is not directly applicable to the Proposed Project. The Project Site lies within the State Land Use District classified as Urban District and does not involve the use of agricultural lands.				
2	**Conservation Lands State Functional Plan (1991)**			
Purpose: Addresses issues of population and economic growth and its strain on current natural resources; broadening public use of natural resources while protecting lands and shorelines from overuse; additionally, promotes the aquaculture industry				**X**
Discussion: The Conservation Land State Functional Plan is not directly applicable to the Proposed Project.				
3	**Education State Functional Plan (1989)**			
Purpose: Improvements to Hawai'i's educational curriculum, quality of educational staff, and access to adequate facilities		**X**		
Discussion: The Education State Functional Plan is applicable to the Proposed Project. The Proposed Project seeks to establish a new PAC that will support the continuation of quality educational programs at NHIS. The Proposed Project aims to provide educational opportunities and programs that provide personal development, recreation, and cultural activities, benefiting both students and the broader community. The PAC will serve as a resource for enhancing the overall educational experience and fostering engagement among all participants.				
4	**Employment State Functional Plan (1990)**			
Purpose: Improve the qualifications, productivity, and effectiveness of the State's workforce through better education and training of workers as well as efficient planning of economic development, employment opportunities, and training activities				**X**
Discussion: The Proposed Project will not impact the objectives and policies of the Employment State Functional Plan. However, in the short-term, project construction expenditures will confer positive benefits on the local economy. These benefits would be derived from the creation of construction and construction support jobs as well as revenues generated by the procurement of building supplies and materials. In the long-term, the Proposed Project will benefit Hawai'i's economy with the increase in revenue to the State's tax base as well as the creation of new career opportunities within service, entertainment, and management.				
5	**Energy State Functional Plan (1991)**			
Purpose: Lessen the reliance on petroleum and other fossil fuels in favor of alternative sources of energy so as to keep up with the State's increasing energy demands while also becoming a more sustainable island state; achieving dependable, efficient, and economical statewide energy systems		**X**		
Discussion: The Proposed Project will support the Energy State Functional Plan. The Proposed Project is anticipated to be built to LEED Silver standards in accordance with Chapter 196-6, HRS which outlines energy efficiency and environmental standards for the construction of State facilities.				
6	**Health State Functional Plan**			
Purpose: Improve the health care system by providing for those who do not have access to private health care providers; increasing preventative health measures; addressing 'quality of care' elements in private and public sectors to cut increasing costs				**X**
Discussion: The Health State Functional Plan is not directly applicable to the Proposed Project. Nonetheless, the development of the Proposed Project will not conflict with the policies of the State Functional Plan for Health.				
7	**Higher Education Functional Plan (1984)**			
Purpose: Prepare Hawai'i's citizens for the demands of an increasingly complex world through providing technical and intellectual tools.				**X**
Discussion: The Higher Education Functional Plan is not directly applicable to the Proposed Project.				
8	**Historic Preservation State Functional Plan (1991)**			

Purpose: Preservation of historic properties, records, artifacts and oral histories; provide public with information/education on the ethnic and cultural heritages and history of Hawai'i				X
Discussion: The Proposed Project is not directly applicable to the Historic Preservation State Functional Plan.				
9	**Housing State Functional Plan (1989)**			
Purpose: Provide affordable rental and for-sale housing; increase homeownership and amount of rental housing units; acquiring public and privately-owned lands for future residential development; maintain a statewide housing data system.				X
Discussion: The Housing State Functional Plan is not directly applicable to the Proposed Project.				
10	**Human Services State Functional Plan (1991)**			
Purpose: Refining support systems for families and individuals by improving elderly care, increasing preventative measures to combat child/spousal abuse and neglect; providing means for 'self-sufficiency.'				X
Discussion: The Human Services State Functional Plan is not directly applicable to the Proposed Project.				
11	**Recreation State Functional Plan (1991)**			
Purpose: Manage the use of recreational resources via addressing issues: (1) ocean and shoreline recreation, (2) mauka, urban, and other recreation, (3) public access to shoreline and upland recreation areas, (4) resource conservation and management, (5) management of recreation programs/facilities/areas, and (6) wetlands protection and management				X
Discussion: The Recreation State Functional Plan is not directly applicable to the Proposed Project.				
12	**Tourism State Functional Plan (1991)**			
Purpose: Balance tourism/economic growth with environmental and community concerns; development that is cognizant of the limited land and water resources of the islands; maintaining friendly relations between tourists and community members; development of a productive workforce and enhancement of career and employment opportunities in the visitor industry				X
Discussion: The Proposed Project is not directly applicable to the intent and purpose of the Tourism State Functional Plan.				
13	**Transportation State Functional Plan (1991)**			
Purpose: Development of a safer, more efficient transportation system that also is consistent with planned physical and economic growth of the state; construction of facility and infrastructure improvements; develop a transportation system balanced with new alternatives; pursue land use initiatives which help reduce travel demand				X
Discussion: The Transportation State Functional Plan is not directly applicable to the Proposed Project.				

4.1.3. State Land Use Law

The State Land Use Law, Chapter 205, HRS, is intended to preserve, protect, and encourage the development of lands in the State for uses that are best suited to the public health and welfare of Hawai'i's people. Under Chapter 205, HRS, all lands in the State of Hawai'i are classified by the State Land Use Commission (LUC) into one of four major categories of State Land Use Districts. These districts are identified as the Urban District, Agricultural District, Conservation District, and Rural District. Permitted uses within the districts are prescribed under Title 12, Chapter 205 (Land Use Commission), HRS, and the State Land Use Commission's Administrative Rules prescribed under Title 15, Subtitle 3, Chapter 15 HAR.

Discussion:

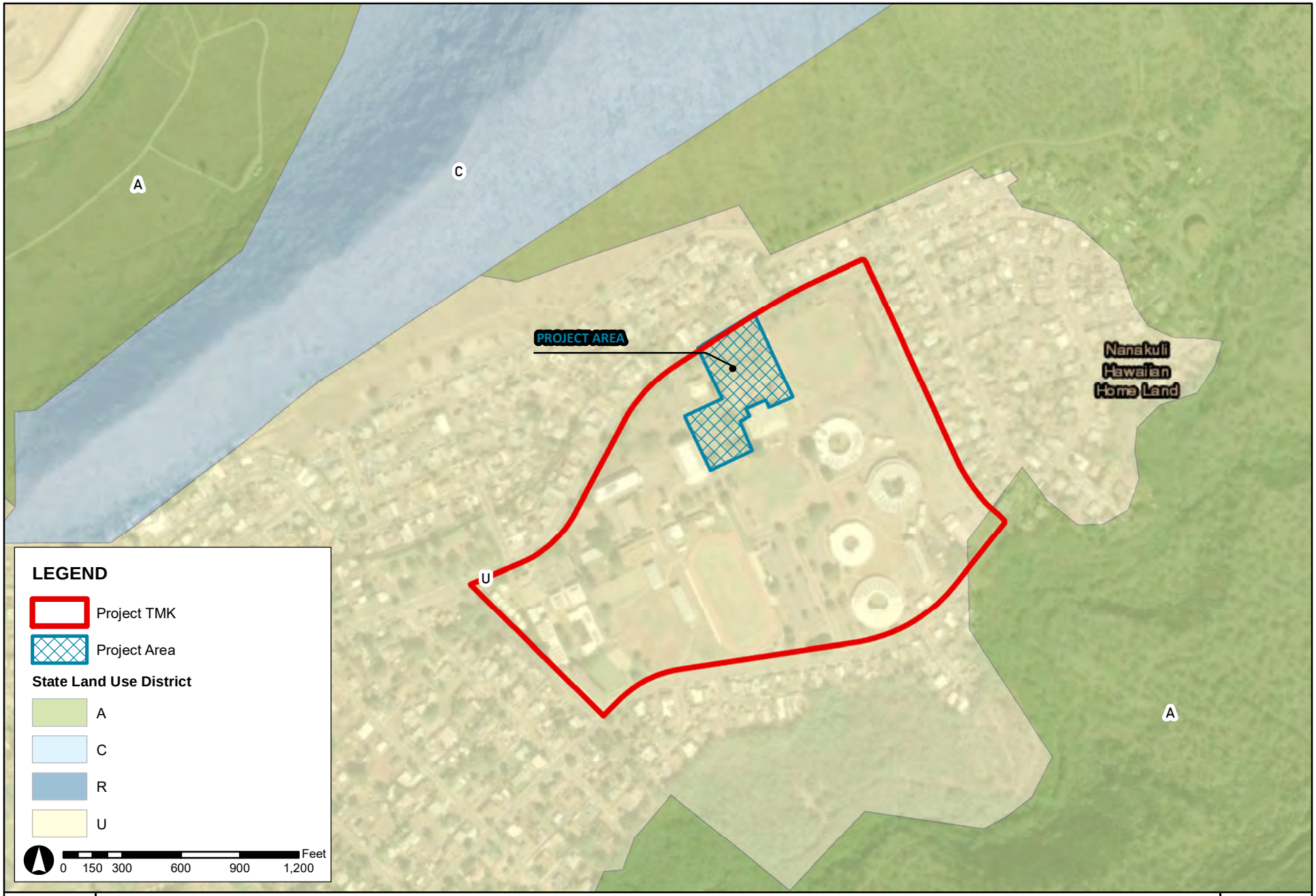
The Project Area for Proposed Project is situated entirely within an Urban District (See Figure 4-1). The Urban District is generally characterized by "city-like" concentrations of people, structures, and services. This may also include vacant land used for future development. The jurisdiction of the Urban District lies primarily with the County. In general, lot sizes and uses permitted in the district area are established by the County through ordinances or rules. The purposed and intent of the Proposed Project are consistent with the Urban State Land Use District.

4.1.4. Hawai‘i Coastal Zone Management Program

The National Coastal Zone Management (CZM) Program was created through passage of the Coastal Zone Management Act of 1972. The U.S. Congress enacted the CZM Act to assist states in better managing coastal and estuarine environments. The CZM Act provides grants to states that develop and implement federally approved CZM plans. The goal of the CZM Act is to “preserve, protect, develop, and where possible, to restore or enhance the resources of the nation’s coastal zone.” Hawai‘i’s CZM Act, adopted as Chapter 205A, HRS, provides a basis for protecting, restoring and responsibly developing coastal communities and resources.

In Hawai‘i, the "coastal zone management area" refers to all lands within the area extending seaward from the shoreline to the furthest limit of the State's police power and management authority, including the territorial sea.

The Proposed Project's conformance with the ten objectives and numerous policies of the State of Hawai‘i CZMP is set forth in Table 4-4 below. The Proposed Project is not located within the Special Management Area (SMA) as designated by the CCH (See Figure 4.2). Therefore, SMA permits are not needed to implement the Proposed Project.



STATE LAND USE DISTRICT MAP

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE
4-1

SPECIAL MANAGEMENT AREA

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 4-2

Table 4-4: Hawai'i Coastal Zone Management Act	S	NS	N/A
Recreational Resources			
Objective: Provide coastal recreational opportunities accessible to the public.			
Policies:			
(A) Improve coordination and funding of coastal recreational planning and management; and			X
(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:			X
i. Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;			X
ii. Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;			X
iii. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;			X
iv. Providing an adequate supply of shoreline parks and other recreational facilities suitable public recreation;			X
v. Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;			X
vi. Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;			X
vii. Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and			X
viii. Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.			X
Discussion: The Proposed Project is not being developed near the coastline and is not in the SMA; therefore, the objectives and policies regarding Recreation Resources will not be directly applicable to the Proposed Project. The construction of the Proposed Project is anticipated to involve major land disturbing activities and applicable BMPs will be implemented to mitigate construction impacts to protect marine quality downstream of the Project Site. Applicable erosion control measures and BMPs will be implemented in order to mitigate any possible adverse effects relating to runoff are described in detail in Section 3.3 (Hydrology). Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the Proposed Project will not result in significant impacts with regard to surface and coastal waters. Soil disturbances in excess of one acre require an NPDES Individual Permit Associated with Construction Activity, administered by the State DOH, will be required to control stormwater discharges. Any discharges related to the Proposed Project's construction or operation activities will comply with applicable State Water Quality Standards as specified in HAR, Chapter 11-54 and 11-55 Water Pollution Control, DOH. Excavation and grading activities will be regulated by applicable provisions of the County's grading ordinance.			
Historic Resources			
Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.			
Policies:			
(A) Identify and analyze significant archaeological resources;			X
(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and			X
(C) Support state goals for protection, restoration, interpretation, and display of historic resources.			X

Table 4-4: Hawai‘i Coastal Zone Management Act	S	NS	N/A
Discussion: The Proposed Project will support the objectives and policies of the Historic Resources of the Hawai‘i Coastal Zone Management Act. The Project Site consists of a developed urban environment and has been successively altered over the past century, for commercial and residential use. Throughout the property, construction contractors would be required to adhere to standards BMPs regarding the protection of archaeological resources, including identification, stop work, and notification measures. Should any archaeological resources be discovered, all appropriate measures would be adhered to for their protection; and a s a result, long-term impacts to archaeological resources would be expected to be minor as irreversible ground disturbance has the potential to impact archaeological site permanently. However, potential impacts are preventable with mitigation measures which include construction monitoring, and data recovery in compliance with all relevant regulations and BMPs regarding archaeological resources. Construction of the Proposed Project will not disturb traditional sacred sites or traditional cultural objects; will not result in the degradation of resources used by Native Hawaiians for subsistence or traditional cultural practices; will not obstruct culturally significant landforms or way-finding features; and will not result in loss of access to the shoreline or other areas customarily used by Native Hawaiians or others for resource gathering or traditional cultural practices. However, should any significant archaeological, cultural, or historic resources be found during construction activities, all work will cease and SHPD be immediately notified for appropriate response and action.			
Scenic and Open Space Resources			
Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.			
Policies:			
(A) Identify valued scenic resources in the coastal zone management area;			**X**
(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;	**X**		
(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and			**X**
(D) Encourage those developments that are not coastal dependent to locate in inland areas.	**X**		
Discussion: The Proposed Project will support the objectives and policies of the Scenic and Open Space Resources of the Hawai‘i Coastal Zone Management Act. The Proposed Project is being developed on the NHIS campus and in an urban setting that has been successively altered over the past century. Since the Project Area is being developed on a previously disturbed area, it will not impinge upon any significant public scenic view corridors and will not have an impact on coastal views. As discussed in Section 3.12 (Visual Resources) the Proposed Project is not expected to affect the objectives and policies for the physical environment- scenic, natural beauty and visual resources.			
Coastal Ecosystems			
Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.			
Policies:			
(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;			**X**
(B) Improve the technical basis for natural resource management;			**X**
(C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;			**X**
(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and			**X**
(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.	**X**		
Discussion: The Proposed Project will support the objectives and policies of the Coastal Ecosystems of the Hawai‘i Coastal Zone Management Act.			

Table 4-4: Hawai‘i Coastal Zone Management Act	S	NS	N/A
The Proposed Project is not located within the SMA or along the coastline; therefore, the policies regarding coastal ecosystems are not applicable. However, the construction of the Proposed Project is anticipated to involve major land disturbing activities and applicable BMPs will be implemented to mitigate construction impacts to protect marine quality downstream of the Project Site. Applicable erosion control measures and BMPs will be implemented in order to mitigate any possible adverse effects relating to runoff are described in detail in Section 3.3 (Hydrology).			
Economic Uses			
Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.			
Policies:			
(A) Concentrate coastal dependent development in appropriate areas;			**X**
(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and			**X**
(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:			**X**
i. Use of presently designated locations is not feasible;			**X**
ii. Adverse environmental effects are minimized; and			**X**
iii. The development is important to the State's economy;			**X**
Discussion: The Proposed Project is not directly applicable to the Economic Uses of the Hawai‘i Coastal Zone Management Act.			
Coastal Hazards			
Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.			
Policies:			
(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;			**X**
(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;			**X**
(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and	**X**		
(D) Prevent coastal flooding from inland projects.			**X**
Discussion: The Proposed Project will support the objective and policies of the Coastal Hazards of the Hawai‘i Coastal Zone Management Act. As discussed in Section 3.4 (Natural Hazards) the Project Site is not located in areas prone to erosion, flooding, tsunami, hurricanes, earthquake, volcanic eruptions, or other hazards and the Proposed Project will not exacerbate any natural hazard conditions. The Proposed Project is located within the Safe Zone of the Tsunami Evacuation map; therefore, is not likely to be damaged in the event of flooding. The Proposed Project will be designed in compliance with the City’s building code. Impacts from natural hazards can be further mitigated by adherence to appropriate civil defense evacuation procedures.			
Managing Development			
Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.			
Policies:			
(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;			**X**
(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and			**X**
(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.	**X**		
Discussion: The Proposed Project will support the objective and policies of the Managing Development of the Hawai‘i Coastal Zone Management Act.			

Table 4-4: Hawai‘i Coastal Zone Management Act	S	NS	N/A
This EA has been prepared under the procedural provisions of HRS, Chapter 343, and HAR, Title 11, Chapter 200.1, which allows for public review and participation. Accordingly, the preparation of this EA, and disclosure of anticipated effects of the Proposed Project, will comply with the policy on managing development. As part of the EA process, an Early Consultation Package was prepared to inform interested parties of the Proposed Project and seek relevant public comments on subjects of concern for EA documentation. The filing and publication of this DEA and ERP will be followed by a 30-day comment period by the public. All relevant comments received during the 30-day public comment period will receive a written response for inclusion and use in the preparation in the Proposed Project’s forthcoming FEA. Comments and responses are reproduced in Appendix C.			
Public Participation			
Objective: Stimulate public awareness, education, and participation in coastal management.			
Policies:			
(A) Promote public involvement in coastal zone management processes;	**X**		
(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and	**X**		
(C) Organize workshops, policy dialogues, and site-specific mitigation to respond to coastal issues and conflicts.			**X**
Discussion: The Proposed Project will support the objective and policies of the Public Participation of the Hawai‘i Coastal Zone Management Act. This EA has been prepared under the procedural provisions of HRS, Chapter 343, and HAR, Title 11, Chapter 200.1, which allows for public review and participation. Accordingly, the preparation of this EA, and disclosure of anticipated effects of the Proposed Project, will comply with the policy on managing development. As part of the EA process, an Early Consultation Package was prepared to inform interested parties of the Proposed Project and seek relevant public comments on subjects of concern for EA documentation. The filing and publication of this Draft EA will be followed by a 30-day comment period by the public. All relevant comments received during the 30-day public comment period will receive a written response for inclusion and use in the preparation in the Proposed Project’s forthcoming Final EA. Comments and responses are reproduced in Appendix C.			
Beach Protection			
Objective: Protect beaches for public use and recreation.			
Policies:			
(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;			**X**
(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and			**X**
(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.			**X**
(D) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and			**X**
(E) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.			**X**
Discussion: The Proposed Project will not be developed near the coast; therefore, policies and objectives of the Beach Protection of the Hawai‘i Coastal Management Act will not be directly applicable the Proposed Project.			
Marine Resources			
Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.			
Policies:			
(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;			**X**

Table 4-4: Hawai‘i Coastal Zone Management Act	S	NS	N/A
(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;			X
(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;			X
(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and			X
(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.			X
Discussion: The Proposed Project will not be developed near the coast; therefore, policies and objectives of the Beach Protection of the Hawai‘i Coastal Management Act will not be directly applicable the Proposed Project. Construction of the Proposed Project is anticipated to involve major land disturbing activities and applicable BMPs will be implemented to mitigate construction impacts to protect marine water quality downstream of the Project Site. Applicable erosion control measures and BMPs will be implemented in order to mitigate any possible adverse effects relating to runoff are described in detail in Section 3.3 (Hydrology). Coordination will be undertaken with the appropriate agencies during permitting and construction in order to ensure that the Proposed Project will not result in significant impacts with regard to surface and coastal waters. Soil disturbances in excess of one acre would require an NPDES Individual Permit for Storm Water Associated with Construction Activity, administered by the State DOH, will be required to control storm water discharges. Any discharges related to Proposed Project’s construction or operation activities will comply with applicable State Water Quality Standards as specified in Hawai‘i Administrative Rules, Chapter 11-54 and 11-55 Water Pollution Control, DOH. Excavation and grading activities will be regulated by applicable provisions of the County’s grading ordinance.			

4.1.5. Hawai‘i Environmental Policy Act

The Hawai‘i Environmental Policy Act, codified as Chapter 344, HRS, was enacted to establish a policy to encourage productive and enjoyable harmony between people and their environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, and enrich the understanding of the ecological systems and natural resources important to the people of Hawai‘i.

Table 4-5: Hawai‘i Environmental Policy Act	S	NS	N/A
§344-4 Guidelines. In pursuance of the state policy to conserve the natural resources and enhance the quality of life, all agencies, in the development of programs, shall, insofar as practicable, consider the following guidelines:			
(1) Population			
(A) Recognize population impact as a major factor in environmental degradation and adopt guidelines to alleviate this impact and minimize future degradation.			X
(B) Recognize optimum population levels for counties and districts within the State, keeping in mind that these will change with technology and circumstance, and adopt guidelines to limit population to the levels determined.			X
Discussion: The Proposed Project is not anticipated to affect the Hawai‘i Environmental Policy Act’s objectives regarding Population.			
(2) Land, water, mineral, visual, air, and other natural resources			
(A) Encourage management practices which conserve and fully utilize all-natural resources.	X		
(B) Promote irrigation and wastewater management practices which conserve and fully utilize vital water resources.	X		
(C) Promote the recycling of wastewater.			X
(D) Encourage management practices which conserve and protect watersheds and water sources, forest, and open space areas.			X

Table 4-5: Hawai‘i Environmental Policy Act	S	NS	N/A
(E) Establish and maintain natural area preserves, wildlife preserves, forest reserves, marine preserves, and unique ecological preserves.			X
(F) Maintain an integrated system of state land use planning which coordinates the state and county general plans.	X		
(G) Promote the optimal use of solid wastes through programs of waste prevention, energy resource recovery, and recycling so that all our wastes become utilized.			X
Discussion: The Proposed Project will support the Hawai‘i Environmental Policy Act’s objectives regarding Land, water, mineral, visual, air, and other natural resources. The ENV Refuse Division manages the solid and liquid waste for O‘ahu. The ENV and private haulers do not extend to construction and demolition debris. It is anticipated that construction of the Proposed Project will result in a short-term increase in the volume of construction related waste generated at the Project Site. Liquid waste generated during construction activities will be managed through services provided by the ENV. The ENV’s facilities on O‘ahu have the design capacity of 51 million gallons per day with all units in service. The need for new sewer lateral locations and sizes will not likely be applicable as the Proposed Project is being developed at the NHIS campus where exiting services can be used.			
(3) Flora and fauna			
(A) Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard.	X		
(B) Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.	X		
Discussion: The Proposed Project will support the Hawai‘i Environmental Policy Act’s objectives regarding Flora and fauna. As described in detail in Section 3.5 (Natural Environment), the flora and fauna species found in the vicinity of the Project Site is consistent with the highly altered environment; therefore, the Proposed Project is not anticipated to have adverse impacts on flora and fauna. However, measures to prevent adverse effects to protected species will be in place to ensure that construction activities will not result in the permanent displacement of flora and fauna. Additionally, trees targeted for removal or trimming should be surveyed by a qualified biologist following the State Department of Fish and Wildlife protocol.			
(4) Parks, recreation, and open space			
(A) Establish, preserve, and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses.	X		
(B) Protect the shorelines of the State from encroachment of artificial improvements, structures, and activities.			X
(C) Promote open space in view of its natural beauty not only as a natural resource but as an ennobling, living environment for its people.			X
Discussion: The Proposed Project will support the Hawai‘i Environmental Policy Act’s objectives regarding Parks, recreation, and open space.			
(5) Economic development			
(A) Encourage industries in Hawai‘i which would be in harmony with our environment.			X
(B) Promote and foster the agricultural industry of the State; and preserve and conserve productive agricultural lands.			X
(C) Encourage federal activities in Hawai‘i to protect the environment.			
(D) Encourage all industries including the fishing, aquaculture, oceanography, recreation, and forest products industries to protect the environment.			X
(E) Establish visitor destination areas with planning controls which shall include but not be limited to the number of rooms.			X
(F) Promote and foster the aquaculture industry of the State; and preserve and conserve productive aquacultural lands.			X
Discussion: The Proposed Project is not anticipated to affect the Hawai‘i Environmental Policy Act’s objectives regarding Economic development.			
(6) Transportation			
(A) Encourage transportation systems in harmony with the lifestyle of the people and environment of the State.			X

Table 4-5: Hawai'i Environmental Policy Act	S	NS	N/A
(B) Adopt guidelines to alleviate environmental degradation caused by motor vehicles.			X
(C) Encourage public and private vehicles and transportation systems to conserve energy, reduce pollution emission, including noise, and provide safe and convenient accommodations for their users.			X
Discussion: The Proposed Project will support the Hawai'i Environmental Policy Act's objectives regarding Transportation.			
(7) Energy			
(A) Encourage the efficient use of energy resources.	X		
Discussion: The Proposed Project will support the Hawai'i Environmental Policy Act's objectives regarding Energy. The Proposed Project is anticipated to be built to LEED Silver standards in accordance with Chapter 196-6, HRS which outlines energy efficiency and environmental standards for the construction of State facilities.			
(8) Community life and housing			
(A) Foster lifestyles compatible with the environment; preserve the variety of lifestyles traditional to Hawai'i through the design and maintenance of neighborhoods which reflect the culture and mores of the community.			X
(B) Develop communities which provide a sense of identity and social satisfaction in harmony with the environment and provide internal opportunities for shopping, employment, education, and recreation.			X
(C) Encourage the reduction of environmental pollution which may degrade a community.			X
(D) Foster safe, sanitary, and decent homes.			X
(E) Recognize community appearances as major economic and aesthetic assets of the counties and the State; encourage green belts, plantings, and landscape plans and designs in urban areas; and preserve and promote mountain-to-ocean vistas.			X
Discussion: The Proposed Project is not anticipated to affect the Hawai'i Environmental Policy Act's objectives regarding Community life and housing.			
(9) Education and culture			
(A) Foster culture and the arts and promote their linkage to the enhancement of the environment.	X		
(B) Encourage both formal and informal environmental education to all age groups.	X		
Discussion: The Proposed Project will support the Hawai'i Environmental Policy Act's objectives regarding Education and culture. The Proposed Project seeks to establish a new PAC that will support the continuation of quality educational programs at NHIS. The Proposed Project aims to provide educational opportunities and programs that provide personal development, recreation, and cultural activities, benefiting both students and the broader community. The PAC will serve as a resource for enhancing the overall educational experience and fostering engagement among all participants.			
(10) Citizen participation			
(A) Encourage all individuals in the State to adopt a moral ethic to respect the natural environment; to reduce waste and excessive consumption; and to fulfill the responsibility as trustees of the environment for the present and succeeding generations.			X
(B) Provide for expanding citizen participation in the decision-making process so it continually embraces more citizens and more issues.	X		
Discussion: The Proposed Project will support the Hawai'i Environmental Policy Act's objectives regarding Citizen participation. Public involvement related to the Proposed Project includes the preparation of an Early Consultation Package to inform interested parties of the Proposed Project and seek relevant public comments on subjects of concern for EA documentation. The filing and publication of this Draft EA with the Environmental Review Program will be followed by a 30-day public comment period and will receive a written response for inclusion and use in the preparation in the Proposed Project's forthcoming Final EA.			

4.2. City and County of Honolulu Land Use Plans and Policies

4.2.1. City and County of Honolulu General Plan

The CCH last updated its General Plan in January 2022. The General Plan is intended to be a dynamic document, expressing the aspirations of the residents of Oʻahu. It sets forth the long-range objectives and policies for the general welfare and, together with the regional development plans, provides a direction and framework to guide the programs and activities of the CCH. It is a written commitment by the CCH government to a future for the island of Oʻahu that it considers desirable and attainable. The General Plan is a two-fold document: First, it is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of Oʻahu. These objectives contain both statements of desirable conditions to be sought over the long run and statements of desirable conditions that can be achieved within an approximately 20-year time horizon. Second, the General Plan is a statement of broad policies that facilitate the attainment of the objectives of the General Plan.

The General Plan is a guide for all levels of government, private enterprise, neighborhood and citizen groups, organizations, and individual citizens in eleven areas of concern:

(1) Population;
(2) Economic activity;
(3) Natural environment and resource stewardship;
(4) Housing and communities;
(5) Transportation and utilities;
(6) Energy systems;
(7) Physical development and urban design;
(8) Public safety and community resilience;
(9) Health and education;
(10) Culture and recreation; and
(11) Government operations and fiscal management.

The Proposed Project is relevant and consistent with the goals, objectives, policies, and actions of the *City and County of Honolulu General Plan* as outlined in Table 4-6 below:

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
I. Population			
Objective A. To plan for anticipated population in a manner that acknowledges the limits of Oʻahu's natural resources, protects the environment, and minimizes social, cultural, and economic disruptions.			
(1) Allocate efficiently the money and resources of the City in order to meet the needs of Oʻahu's current and future population.			**X**
(2) Provide adequate support facilities to accommodate future numbers of visitors to Oʻahu while seeking to minimize disruption to residents and protect the natural environment.			**X**
(3) Seek a balanced pace of physical development in harmony with the City's environmental, social, cultural, and economic goals by effecting and enforcing City regulations.			**X**
(4) Establish geographic growth boundaries to accommodate future population growth while at the same time protecting valuable agricultural lands, environmental resources, and open space.			**X**

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(5) Support family planning and social equity.			X
Discussion: The Proposed Project will not directly affect Objective A of Section I of the City and County of Honolulu's General Plan related to population.			
Objective B. To establish a pattern of population distribution that will allow the people of O'ahu to live, work and play in harmony.			
(1) Facilitate the full development of the primary urban center through higher-density redevelopment and the provision of adequate infrastructure.			X
(2) Encourage development within the secondary urban center at Kapolei and the 'Ewa and Central O'ahu urban-fringe areas to relieve developmental pressures in the remaining urban-fringe and rural areas and to meet housing needs not readily provided in the primary urban center.			X
(3) Manage land use and development in the urban-fringe and rural areas so that: a. Development is contained within growth boundaries; and b. Population densities in all areas remain consistent with the character, culture, and environmental qualities desired for each community.			X
(4) Direct growth according to Policies 1, 2, and 3 above by providing development capacity and needed infrastructure to support a distribution of O'ahu's resident population.			X
Discussion: The Proposed Project will not directly affect Objective B of Section I of the City and County of Honolulu's General Plan related to the Population Distribution.			
II. Economic Activity			
Objective A. To promote diversified economic opportunities that enable all the people of O'ahu to attain meaningful employment and a decent standard of living.			
(1) Support a strong, diverse, and dynamic economic base that protects the natural environment and is resilient to changes in global conditions.			X
(2) Encourage the viability of businesses and industries, including support for small businesses, which contribute to the economic and social well-being of O'ahu resident			X
(3) Pursue opportunities to grow and strategically develop non-polluting industries such as healthcare, agriculture, renewable energy, and technology in appropriate locations that contribute to O'ahu's long-term environmental, economic, and social sustainability.			X
(4) Support entrepreneurship and innovation through creative efforts such as partnerships with businesses and non-profit organizations, and by encouraging complementary policies that support access to capital markets.			X
(5) Foster a healthy business climate by streamlining regulatory processes to be transparent, predictable, and efficient.			X
(6) Encourage the development of local, national, and world markets for the products of O'ahu-based industries.			X
(7) Explore and encourage alternate economic models that reflect traditional cultural values and improve economic resilience, i.e., subsistence, barter and a culture of reciprocity and sharing.			X
Discussion: The Proposed Project will not directly affect Objective A of Section II of the City and County of Honolulu's General Plan related to population.			
Objective B. To maintain a successful visitor industry that creates living wage employment, enhances quality of life, and actively supports our unique sense of place, natural beauty, Native Hawaiian culture, and multi-cultural heritage.			
(1) Encourage the visitor industry to support the quality of the visitor experience, the economic and social well-being of communities, the environment, and the quality of life of residents.			X
(2) Respect and emphasize the value that Native Hawaiian culture, its cultural practitioners, and other established ethnic traditions bring to enrich the visitor experience and appreciation for island heritage, culture, and values.	X		
(3) Guide the development and operation of visitor accommodations and attractions in a manner that avoids unsustainable increases in the cost of providing public services			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
and infrastructure, and that respects existing lifestyles, cultural practices, and natural, cultural, and historic resources.			
(4) Partner with the private sector to support the long-term viability of Waikīkī as a world-class visitor destination and as O‘ahu's primary resort area, and to support adequate adaptation strategies against climate change impacts.			X
(5) Provide related public expenditures for rural and urban-fringe areas that are highly impacted by the visitor industry.			X
(6) Provide for a high-quality, livable, and safe environment for visitors and residents in Waikīkī, and support measures to ensure visitors’ and residents’ safety in all areas of O‘ahu.			X
(7) Concentrate on the quality of the visitor experience in Waikīkī, rather than on development densities.			X
(8) Facilitate the development of the following secondary resort areas: Ko ‘Olina, Turtle Bay, Hoakalei, and Mākaha Valley in a manner that respects existing lifestyles and the natural environment			X
(9) Preserve scenic qualities of O‘ahu for residents and visitors alike.	X		
(10) Encourage physical improvements, social services, and cultural programs that contribute to a high-quality visitor experience, while seeking financial support of these improvements from the visitor industry.			X
Discussion: The Proposed Project will support Objective B of Section II related to economic activity. The Proposed Project is located within a rural residential area and will not detract from the scenic beauty of the nearby mountain and coastal views. The Proposed Project and its associated programming will reflect the values of the predominantly Native Hawaiian community it is located in.			
Objective C. To ensure the long-term viability, continued productivity, and sustainability of agriculture on O‘ahu			
(1) Foster a positive business climate for agricultural enterprises of all sizes, as well as innovative approaches to farming as a business, to ensure the continuation of agriculture as an important component of O‘ahu’s economy			X
(2) Support agricultural diversification to strengthen the agricultural industry and make more locally grown food available for local consumption.			X
(3) Foster market opportunities and increased consumer demand for safe, locally grown, fresh, processed, and value-added agricultural products.			X
(4) Streamline the implementation of regulations to enhance a producer’s ability to develop, market, and distribute locally grown food and products.			X
(5) Identify the economic benefits of local food production for local markets. Provide economic incentives to encourage local food production and sustainability and encourage agricultural and aquaculture occupations.			X
(6) Promote small-scale farming activities and other operations, such as truck farming, flower growing, aquaculture, livestock production, taro growing, subsistence farms, and community gardens.			X
(7) Encourage landowners to actively use agricultural lands for agricultural purposes, and to pursue the long-term preservation of agricultural land with high productivity potential for agricultural production.			X
(8) Encourage sustainable agricultural production to coexist on lands with renewable energy generation.			X
(9) Prohibit the urbanization of agricultural land located outside the City’s growth boundaries.			X
(10) Support and encourage technologies and agricultural practices that conserve and protect water, soil, air quality, and drainage areas, reduce carbon emissions, and promote public health and safety.			X
(11) Support and encourage the availability and use of non-potable water for irrigation, where feasible			X
(12) Provide plans, incentives, and strategies to ensure the affordability of agricultural land for farmers.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(13) Encourage both public and private investments to improve and expand agricultural infrastructure, such as irrigation systems, agricultural processing centers, and distribution networks.			X
(14) Promote farming as a desirable and fulfilling occupation by encouraging agricultural education and training programs and by raising public awareness and appreciation for agriculture.			X
(15) Protect the right to farm by enforcing right-to-farm laws, enacting policies to protect agricultural operations, and imposing meaningful buffer zones.			X
(16) Seek ways to discourage agricultural theft and vandalism.			X
(17) Recognize the scenic value of agricultural lands as an open-space resource and amenity.			X
Discussion: The Proposed Project will not impact Objective C of Section II of the City and County of Honolulu General Plan related to agricultural activity.			
Objective D. To use the economic resources of the sea in a sustainable manner.			
(1) Encourage the fishing industry to maintain its viability at a level that does not degrade or damage marine ecosystems.			X
(2) Encourage the ongoing development of aquaculture, ocean research, and other ocean-related industries.			X
(3) Encourage the expansion of ocean recreation activities for residents and visitors that are operated in a sustainable manner.			X
Discussion: The Proposed Project will not impact Objective D of Section II of the City and County of Honolulu General Plan related to economic activity.			
Objective E. To ensure meaningful employment and economic equity.			
(1) Support public and private training and employment programs to prepare residents for existing and future jobs, including those for historically marginalized communities.			X
(2) Make full use of State and Federal employment and training programs.			X
(3) Encourage the provision of retraining programs for workers in industries with planned reductions in their labor force.			X
(4) Identify emerging industries, encourage investments needed to support the industries, and develop a skilled workforce in these fields.			X
Discussion: The Proposed Project will not impact Objective E of Section II the City and County of Honolulu General Plan related to economic activity.			
Objective F. To maintain federal programs and economic activity on Oʻahu consistent with the City's infrastructure and environmental goals.			
(1) Take full advantage of Federal programs and grants which will contribute to the economic and social well-being of Oʻahu's residents.	X		
(2) Encourage the Federal government to pay for the cost of public services used by Federal agencies.			X
(3) Encourage the Federal government to lease new facilities rather than construct them on tax-exempt public land.			X
(4) Encourage the military to purchase locally all needed services and supplies which are available on Oʻahu .			X
(5) Encourage the continuation of a high level of military-related employment both on and off base in the Hickam-Pearl Harbor, Wahiawā, Kailua-Kāneʻohe, and ʻEwa areas.			X
Discussion: The Proposed Project will impact Objective F of Section II of the City and County of Honolulu General Plan related to economic activity as the Proposed Project is utilizing Department of Education funds.			
Objective G. To bring about orderly economic growth on Oʻahu.			
(1) Concentrate economic activity and government services in the primary urban center and in the secondary urban center at Kapolei.			X
(2) Advance the equitable distribution of City capital spending, employment opportunities, infrastructure investments, and other benefits throughout communities based on need and regardless of income level. Allow infrastructure and business activity in urban fringe areas appropriate to population needs	X		

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(3) Maintain sufficient land in appropriately located commercial and industrial areas to help ensure a favorable business climate on O'ahu.			X
Discussion: The Proposed Project will impact Objective G of Section II of the City and County of Honolulu General Plan related to economic activity. The Proposed Project is related to infrastructure improvements to enrich youth creatively in a majority Native Hawaiian population.			
III. Natural Environment and Resource Stewardship			
Objective A. To protect and preserve the natural environment.			
(1) Protect O'ahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.			X
(2) Seek the restoration of environmentally damaged areas and natural resources.			X
(3) Preserve, protect, and restore stream flows and stream habitats to support aquatic and environmental processes and riparian, scenic, recreational, and Native Hawaiian cultural resources.			X
(4) Require development projects to give due consideration to natural features and hazards such as slope, inland and coastal erosion, flood hazards, water-recharge areas, and existing vegetation, as well as to plan for coastal hazards that threaten life and property	X		
(5) Require sufficient setbacks from O'ahu's shorelines to protect life and property, preserve natural shoreline areas and sandy beaches, and minimize the future need for protective structures or relocation of structures.			X
(6) Design and maintain surface drainage and flood-control systems in a manner which will help preserve natural and cultural resources.			X
(7) Protect the natural environment from damaging levels of air, water, carbon, and noise pollution.	X		
(8) Protect plants, birds, and other animals that are unique to the State of Hawai'i and the Island of O'ahu.			X
(9) Increase tree canopy and ensure its integration into new developments and protect significant trees on public and private lands.			X
(10) Increase public awareness, appreciation, and protection of O'ahu's land, air, and water resources.			X
(11) Support the State and federal governments in the protection of the unique environmental, marine, cultural and wildlife assets of the Northwestern Hawaiian Islands.			X
(12) Plan, prepare for, and mitigate the impacts of climate change on the natural environment, including strategies of adaptation.			
Discussion: The Proposed Project will support the Objective A of Section III of the City and County of Honolulu General Plan related to natural environment. The Proposed Project gives due consideration to the natural features and environment of the site and surrounding area through this environmental assessment. Potential impacts to the natural setting will be mitigated through BMPs during the implementation of the Proposed Project. This will minimize any potential impacts to plants, birds, and other animals unique to the island of O'ahu and State of Hawai'i. The Proposed Project will adhere to County, State, and Federal guidelines for noise, air, and water pollution.			
Objective B. To preserve and enhance natural landmarks and scenic views of O'ahu for the benefit of both residents and visitors as well as future generations.			
(1) Protect the Island's significant natural resources: its mountains and craters; forests and watershed areas; wetlands, rivers, and streams; shorelines, fishponds, and bays; and reefs and offshore islands.			X
(2) Protect O'ahu's scenic views, especially those seen from highly developed and heavily traveled areas.			X
(3) Locate and design public facilities, infrastructure and utilities to minimize the obstruction of scenic views.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(4) Protect and expand public access to the natural and coastal environment for recreational, educational, and cultural purposes, and maintain access in a way that does not damage natural, historic, or cultural resources.			X
Discussion: The Proposed Project will not impact Objective B of Section III of the City and County of Honolulu General Plan related to the natural environment.			
IV. HOUSING AND COMMUNITIES			
Objective A. To ensure a balanced mix of housing opportunities and choices for all residents at prices they can afford.			
(1) Support programs, policies, and strategies that will provide decent and affordable homes for local residents, especially those in the lowest income brackets.			X
(2) Streamline approval and permit procedures, in a transparent manner, for housing and other development projects.			X
(3) Encourage innovative residential developments that result in lower costs, sustainable use of resources, more efficient use of land and infrastructure, greater convenience and privacy, and a distinct community identity.			X
(4) Support and encourage programs to maintain and improve the condition of existing housing.			X
(5) Make full use of government programs that provide assistance for low- and moderate-income renters and homebuyers.			X
(6) Maximize local funding programs available for affordable housing.			X
(7) Provide financial and other incentives to encourage the private sector to build homes for low- and moderate-income residents.			X
(8) Encourage and participate in joint public-private development of low- and moderate-income housing.			X
(9) Encourage the replacement of low- and moderate-income housing in areas which are being redeveloped at higher densities.			X
(10) Promote the design and construction of dwellings which take advantage of O‘ahu's yearround moderate climate and use other sustainable design techniques.			X
(11) Encourage the construction of affordable homes within established low-density and rural communities by such means as ‘ohana units, duplex dwellings, and cluster development that embraces the ‘ohana concept by maintaining multi-generational proximity for local families			X
(12) Promote higher-density, mixed-use development where appropriate, including rail transit-oriented development, to increase the supply of affordable and market housing in convenient proximity to jobs, schools, shops, and public transit.			X
(13) Encourage the production and maintenance of affordable rental housing.			X
(14) Encourage the provision of affordable housing designed for the elderly and people with disabilities in locations convenient to critical services and to public transit.			X
(15) Encourage equitable relationships between landowners and leaseholders, between landlords and tenants, and between condominium developers and owners.			X
(16) Support collaborative partnerships that work toward immediate solutions to house and service homeless populations and also toward long-term strategies to prevent and eliminate homelessness.			X
(17) Support programs to address all facets of homelessness, so that every homeless person has a place to stay, along with the infrastructure and support services that are needed.			X
Discussion: The Proposed Project will not impact Objective A of Section IV of the City and County of Honolulu General Plan related to housing.			
Objective B. To minimize speculation in land and housing.			
(1) Encourage the State government to coordinate its urban-area designations with the developmental policies of the City.			X
(2) Discourage speculation in lands outside of areas planned for urban use, reduce the prevalence of vacant dwelling units, and reduce the use of residential dwelling units for short-term vacation rentals			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(3) Seek public benefits from increases in the value of land owing to City and State developmental policies and decisions.			X
(4) Require government-assisted housing to be delivered to qualified purchasers and renters.			X
(5) Ensure that owners of housing properties, including government-subsidized housing, maintain housing affordability over the long term			X
Discussion: The Proposed Project will not impact Objective B of Section IV of the City and County of Honolulu General Plan related to housing.			
Objective C. To provide residents with a choice of living environments that are reasonably close to employment, schools, recreation, and commercial centers, and that are adequately served by transportation networks and public utilities.			
(1) Ensure that residential developments offer affordable housing to people of different income levels and to families of various sizes to alleviate the existing condition of overcrowding.			X
(2) Encourage the fair distribution of low- and moderate-income housing throughout the island.			X
(3) Encourage the co-location of residential development and employment centers with commercial, educational, social, and recreational amenities in the development of desirable communities.			X
(4) Encourage residential development in suburban areas where existing roads, utilities, and other community facilities are not being used to capacity, and in urban areas where higher densities may be readily accommodated			X
(5) Support mixed-use development and higher-density redevelopment in areas surrounding rail transit stations.			X
(6) Discourage residential development in areas where the topography makes construction difficult or hazardous, where sea level rise and flooding are a hazard, and where providing and maintaining roads, utilities, and other facilities would be extremely costly or environmentally damaging.			X
(7) Encourage public and private investments in older communities as needed to keep the communities vibrant and livable.			X
(8) Encourage the military to provide housing for active duty personnel and their families on military bases and in areas turned over to military housing contractors.			X
Discussion: The Proposed Project will not impact Objective C of Section IV of the City and County of Honolulu General Plan related to housing.			
V. Transportation & Utilities			
Objective A. To create a multi-modal transportation system that moves people and goods safely, efficiently, and at a reasonable cost and minimizes fossil fuel consumption and greenhouse gas emissions; serves all users, including limited income, elderly, and disabled populations; and is integrated with existing and planned development.			
(1) Develop a comprehensive, well-connected and integrated ground transportation system that reduces carbon emissions and enables safe, comfortable and convenient travel for all users, including motorists, pedestrians, bicyclists, and public transportation users of all ages and abilities			X
(2) Provide multi-modal transportation services to people living within the ʻEwa, Central Oʻahu, and Pearl City-Hawaiʻi Kai corridors primarily through a mass transit system including exclusive right-of-way rail transit and feeder-bus components as well as through the existing highway system.			X
(3) Provide multi-modal transportation services outside the ʻEwa, Central Oʻahu, and Pearl City-Hawaiʻi Kai corridors primarily through a system of express- and feeder-buses as well as through the highway system with limited to moderate improvements sufficient to meet the needs of the communities being served.			X
(4) Work with the State to ensure adequate and safe access for communities served by Oʻahu's coastal highway system, and to plan for the relocation of highways and roads subject to sea level rise away from coastlines			X
(5) Support the rail transit system as the transportation spine for the urban core, with links to the airport and maritime terminals, which will work together with other alternative			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
modes of transit and transit-oriented development to reduce automobile dependency and increase multi-modal travel.			
(6) Support the development of transportation plans, programs, and facilities that are based on Complete Streets features. Maintain and improve road, bicycle, pedestrian, and micromobility facilities in existing communities to eliminate unsafe conditions.			X
(7) Design street networks to incorporate greater roadway and pathway connectivity.			X
(8) Make transportation services safe and accessible to people with limited mobility: the young, elderly, disabled, and those with limited incomes			X
(9) Consider environmental, social, cultural, and climate change and natural hazard impacts, as well as construction and operating costs, as important factors in planning transportation system improvements			X
(10) Reduce traffic congestion and maximize the efficient use of transportation resources by pursuing transportation demand management strategies such as carpooling, telecommuting, flexible work schedules, and incentives to use alternative travel modes.			X
(11) Enhance pedestrian-friendly and bicycle-friendly travel via public and private programs and improvements.			X
(12) Maintain separate aviation facilities for general aviation operations to supplement the capacity of the Daniel K. Inouye International Airport.			X
(13) Support improvements to Kalaeloa Barbers Point Harbor as O'ahu's second deep-water harbor.			X
(14) Support the operation, maintenance and improvement of Honolulu Harbor as O'ahu's primary cargo and ocean transportation hub.			X
(15) Advance the transition to electric and alternative fuel infrastructure to provide adequate and accessible charging spaces and renewal fueling stations for ground transportation on O'ahu.			X
Discussion: The Proposed Project will not impact Objective A of Section V of the City and County of Honolulu General Plan related to transportation and utilities.			
Objective B. Provide an adequate supply of water and environmentally sound systems of waste disposal for O'ahu's existing population and for future generations and support a one water approach that uses and manages freshwater, wastewater, and stormwater resources in an integrated manner.			
(1) Develop and maintain an adequate, safe, and reliable supply of fresh water in a cost-effective way that supports the long-term sustainability of the resource and considers the impacts of climate change			X
(2) Help to develop and maintain an adequate, safe, and reliable supply of water for agricultural and industrial needs in a resource-integrated and cost-effective way that supports the long-term health of the resource.			X
(3) Use technologies that provide water, waste disposal, and recycling services at a reasonable cost and in a manner that addresses environmental and community impacts.			X
(4) Encourage the increased availability and use of recycled or brackish water to meet nonpotable demands.			X
(5) Pursue strategies and programs to reduce the per capita consumption of water and the per capita production of waste.			X
(6) Provide safe, reliable, efficient, and environmentally sound waste-collection, waste-disposal, and recycling services that consider the near- and long-term impacts of climate change during the siting and construction of new facilities.			X
(7) Pursue programs to expand on-island recycling and resource recovery from O'ahu's solid-waste and wastewater streams.			X
(8) Support initiatives that educate the community about the importance of conserving resources and reducing waste streams through reduction, reuse, and recycling.			X
(9) Require the safe use and disposal of hazardous materials.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
Discussion: The Proposed Project will not impact Objective B of Section V of the City and County of Honolulu General Plan related to transportation and utilities.			
Objective C. To ensure reliable, cost-effective, and responsive service for all utilities with equitable access for residents			
(1) Maintain and upgrade utility systems in order to avoid major breakdowns and service interruptions.			X
(2) Provide improvements to utilities in existing neighborhoods to reduce substandard conditions, and increase resilience to use fluctuations, natural hazards, extreme weather, and other climate impacts.			X
(3) Facilitate timely and orderly upgrades and expansions of utility systems.			X
(4) Increase the efficiency of public-serving utilities by encouraging a mixture of uses with peak periods of demand aligning with the availability of resources.			X
Discussion: The Proposed Project will not impact Objective C of Section V of the City and County of Honolulu General Plan related to transportation and utilities.			
Objective D. To maintain transportation and utility systems which support O‘ahu as a desirable place to live and visit.			
(1) Provide adequate resources to ensure the maintenance and improvement of transportation systems and utilities.			X
(2) Evaluate the social, cultural, economic, and environmental impact of additions to the transportation and utility systems before they are constructed.			X
(3) Require the installation of underground utility lines wherever feasible.			X
(4) Seek improved taxing powers for the City in order to provide a more equitable means of financing transportation and utility services.			X
(5) Evaluate impacts of sea level rise on existing public infrastructure, especially sewage treatment plants, roads, and other public and private utilities located along or near O‘ahu’s coastal areas, and avoid the placement of future public infrastructure in threatened areas.			X
Discussion: The Proposed Project will not impact Objective D of Section V of the City and County of Honolulu General Plan related to transportation and utilities.			
VI. Energy Systems			
Objective A. To increase energy self-sufficiency through renewable energy and maintain an efficient, reliable, resilient, and cost-efficient energy system.			
(1) Encourage the implementation of a comprehensive plan to guide and coordinate energy conservation and renewable energy development and utilization programs.			X
(2) Support and encourage programs and projects, including economic incentives, regulatory measures, and educational efforts, and seek to eliminate O‘ahu's dependence on fossil fuels.			X
(3) Ensure access to an adequate reserve of fuel and energy supplies to aid disaster response and recovery			X
(4) Support the increased use of solid waste energy recovery and other biomass energy conversion systems			X
(5) Support and participate in research, development, demonstration, commercialization, and optimization programs aimed at developing cost-effective and environmentally sound renewable energy supplies.			X
(6) Support State and federal initiatives to utilize renewable energy sources.			X
(7) Manage resources and development of communities in line with long-term efficiency and sustainability goals and targets in the areas of energy, carbon emissions, waste streams, all utilities, and food security			X
(8) Encourage and equitably incentivize the use of commercially available renewable energy systems in public facilities, institutions, residences, and business developments.			X
(9) Consider health, safety, environmental, cultural, and aesthetic impacts, as well as resource limitations, land use patterns, and relative costs in all major decisions on renewable energy.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(10) Work closely with the State and federal governments in the formulation and implementation of all City energy-related programs and regulations, including updating building energy codes.			X
Discussion: The Proposed Project will not impact Objective A of Section VI of the City and County of Honolulu General Plan related to energy.			
Objective B. To conserve energy through the more efficient management of its use and through more energy-efficient technologies.			
(1) Ensure that the efficient use of energy is a primary factor in the preparation and administration of land use plans and regulations.			X
(2) Provide incentives and, where appropriate, mandatory controls to achieve energy-efficient and sustainable siting and design of new developments. Support the increased use of nationally recognized energy efficiency and resource conservation rating and certification systems.			X
(3) Provide incentives and, where appropriate, mandatory controls to reduce energy consumption in existing buildings and outdoor facilities, and in design and construction practices.			X
(4) Promote the development of a multi-modal transportation system that minimizes and seeks to eliminate fossil fuel consumption and greenhouse gas emissions.			X
(5) Encourage the implementation of an adaptable and reliable electrical grid, energy transmission, energy storage, microgrids, and energy generation technologies.			X
(6) Support the availability and use of energy efficient vehicles, especially hybrid, fuel cell, and pure electrical vehicles.			X
Discussion: The Proposed Project will not impact Objective B of Section VI of the City and County of Honolulu General Plan related to energy.			
Objective C. To foster an ethic of energy conservation that inspires residents to engage in sustainable practices			
(1) Provide citizens with the information they need to fully understand severe climate change, supply chain issues, costs, security, and other issues associated with O'ahu's dependence on imported fossil fuels.			X
(2) Increase consumer awareness of available renewable energy sources and their costs and benefits			X
(3) Provide information concerning the impact of public and private decisions on future energy generation, transmission, storage, and use.			X
(4) Provide communities with timely, relevant, and accurate information concerning renewable energy facilities proposed in their area, and ensure adequate buffer zones required for health or safety.			X
Discussion: The Proposed Project will not impact Objective C of Section VI of the City and County of Honolulu General Plan related to energy.			
VII. Physical Development and Urban Design			
Objective A. To coordinate changes in the physical environment of O'ahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.			
(1) Provide infrastructure improvements to serve new growth areas, redevelopment areas, and areas with badly deteriorating infrastructure.	X		
(2) Coordinate the location and timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and other public facilities and services.	X		
(3) Require new developments to provide or pay the cost of all essential community services, including roads, utilities, schools, parks, and emergency facilities that are intended to directly serve the development.			X
(4) Facilitate and encourage compact, higher-density development in urban areas designated for such uses.			X
(5) Encourage the establishment of mixed-use town centers that are compatible with the physical and social character of their community			X
(6) Facilitate transit-oriented development in rail transit station areas to create live/work/play multi-modal communities that reduce travel and traffic congestion			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(7) Encourage the clustering of development to reduce the cost of providing utilities and other public services.			X
(8) Locate new industries and new commercial areas so that they will be well-related to their markets and suppliers, and to residential areas and transportation facilities			X
(9) Locate community facilities on sites that will be convenient to the people they are intended to serve	X		
(10) Discourage uses which are major sources of noise, air, and light pollution			X
(11) Implement siting and design solutions that seek to reduce exposure to natural hazards, including those related to climate change, flooding, and sea level rise.			X
(12) Prohibit new airfields, high-powered electromagnetic-radiation sources, and storage places for fuel and explosives from locating on sites where they will endanger or disrupt nearby communities.			X
(13) Promote opportunities for the community to participate meaningfully in planning and development processes, including new forms of communication and social media.			X
Discussion: The Proposed Project will support Objective A of Section VII of the City and County of Honolulu General Plan related to physical development and urban design. The Project Site is situated within the existing urban context and has access to existing infrastructure in regard to utilities.			
Objective B. To plan and prepare for the long-term physical impacts of climate change.			
(1) Integrate climate change adaptation into the planning, design, and construction of all significant improvements to and development of the built environment.	X		
(2) Coordinate plans in the private and public sectors that support research, monitoring, and educational programs on climate change.			X
(3) Prepare for the anticipated impacts of climate change and sea level rise on existing communities and facilities through mitigation, adaptation, managed retreat, or other measures in exposed areas			X
Discussion: The Proposed Project will support Objective B of Section VII of the City and County of Honolulu General Plan related to climate change. The Project will be thoughtfully designed to be resilient in the face of climate change, which is discussed in greater detail in Chapter 2 of the EA. Design and mitigation related to climate change to promote resiliency will be considered throughout the construction process.			
Objective C. To develop Honolulu (Waialae-Kahala to Halawa), Aiea, and Pearl City as the Island's primary urban center.			
(1) Provide downtown Honolulu and other major business centers with a well-balanced mixture of uses.			X
(2) Encourage the development of attractive residential communities in downtown and other business centers.			X
(3) Maintain and improve downtown as the financial and office center of the island, and as a major retail center			X
(4) Provide for the continued viability of the Hawai'i Capital District as a center of government activities and as an attractive park-like setting in the heart of the city.			X
(5) Foster the development of Honolulu's waterfront as the State's major port and maritime center, as a people-oriented mixed-use area, and as a major recreation area with accommodation for sea level rise.			X
Discussion: The Proposed Project will not impact Objective B of Section VII of the City and County of Honolulu General Plan related to physical development and urban design.			
Objective D. To develop a secondary urban center in ''Ewa with its nucleus in the Kapolei area.			
(1) Support public projects that are needed to facilitate development of the secondary urban center at Kapolei.			X
(2) Encourage the development of a major residential, commercial, and employment center within the secondary urban center at Kapolei.			X
(3) Encourage the continuing development of the area encompassing Campbell Industrial Park, Kalaeloa Barbers Point Harbor, and West Kapolei as a major industrial center.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(4) Coordinate plans for the development of the secondary urban center at Kapolei with the State and federal governments, major landowners and developers, and the community.			X
(5) Cooperate with the State and federal governments in the improvements to the deep-water harbor at Kalaeloa Barbers Point.			X
(6) Encourage the development of the Ocean Pointe/Hoakalei Communities as a major residential and recreation area emphasizing recreational activities and a waterfront commercial center containing light-industrial, commercial, and visitor accommodation uses.			X
Discussion: The Proposed Project will not impact Objective C of Section VII of the City and County of Honolulu General Plan related to physical development and urban design.			
Objective E. To maintain those development characteristics in the urban-fringe and rural areas which make them desirable places to live.			
(1) Develop and maintain urban-fringe areas as predominantly residential areas characterized by generally lower-rise, lower-density development which may include significant levels of retail and service commercial uses as well as satellite institutional and public uses geared to serving the needs of households.	X		
(2) Coordinate plans for developments within the ʻEwa and Central Oʻahu urban-fringe areas with the State and federal governments, major landowners and developers, agricultural industries, and the community.			X
(3) Maintain a "green belt" of open space and agricultural land around developed communities in the ʻEwa and Central Oʻahu areas of Oʻahu.			X
(4) Maintain rural areas that reflect an open and scenic setting, dominated by small to moderate size agricultural pursuits, with small towns of low-density and low-rise character, and which allows modest growth opportunities tailored to address area residents' future needs			X
(5) Encourage the development of a variety of housing choices including affordable housing in rural communities, to give people the choice to continue to live in the community that they were raised in.			X
(6) Ensure the social and economic vitality of rural communities by supporting infill development and modest increases in heights and densities around existing rural town areas where feasible to maintain an adequate supply of housing for future generations.			X
Discussion: The Proposed Project will impact Objective E of Section VII of the City and County of Honolulu General Plan related to physical development and urban design. The Proposed Project will enhance the community of Nānākuli by providing an event space where community members can gather and support local productions and talents. The PAC will serve as a resource for enhancing the overall educational experience and fostering engagement among all participants.			
Objective F. To create and maintain attractive, meaningful, and stimulating environments throughout Oʻahu.			
(1) Encourage distinctive community identities for both new and existing communities and neighborhoods.	X		
(2) Require the consideration of urban design principles in all development projects.			X
(3) Require developments in stable, established communities and rural areas to be compatible with the existing communities and areas			X
(4) Provide design guidelines and controls that will allow more compact development and intensive use of lands in the primary urban center and along the rail transit corridor.			X
(5) Seek to protect residents' quality of life and to maintain the integrity of neighborhoods by strengthening regulatory and enforcement strategies that address the presence of inappropriate non-residential activities.			X
(6) Promote public and private programs to beautify the urban and rural environments.			X
(7) Design public structures to meet high aesthetic and functional standards and to complement the physical character of the communities they will serve.	X		

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(8) Design public street networks to be safe and accessible for users of all ages and abilities, to accommodate multiple modes of travel to be visually attractive and to support sustainable ecological processes, such as stormwater infiltration.			X
(9) Recognize the importance of using Native Hawaiian plants in landscaping to further the traditional Hawaiian concept of mālama ʻāina and to create a more Hawaiian sense of place			X
Discussion: The Proposed Project will support Objective E of Section VII of the City and County of Honolulu General Plan related to physical development and urban design. The design approach of the Proposed Project will complement and align with the surrounding community of Nānākuli. The design team will need to consider how the project can complement the surrounding areas and comply with the policies and guidelines stated above.			
Objective G. To promote and enhance the social and physical character of Oʻahu's older towns and neighborhoods.			
(1) Encourage new construction in established areas to be compatible with the character and cultural values of the surrounding community.	X		
(2) Encourage, wherever desirable, the rehabilitation of existing substandard structures.			X
(3) Provide and maintain roads, public facilities, and utilities without damaging the character of older communities	X		
(4) Seek the satisfactory relocation of residents before permitting their displacement by new development, redevelopment, or neighborhood rehabilitation.			X
(5) Acknowledge the cultural and historical significance of kuleana lands, the ancestral ownership of kuleana lands, and promote policies that preserve and protect kuleana lands.			X
(6) Support and encourage cohesive neighborhoods which foster interactions among neighbors, promote vibrant community life, and enhance livability.	X		
Discussion: The Proposed Project will support Objective F of Section VII of the City and County of Honolulu General Plan related to physical development and urban design. The Proposed Project will be thoughtfully designed to interact well with the surrounding built and natural environment. The Proposed Project will promote community engagement and positively impact the neighborhood.			
VIII. Public Safety and Community Resilience			
Objective A. To prevent and control crime and maintain public order.			
(1) Provide a safe environment for residents and visitors on Oʻahu.	X		
(2) Provide adequate, safe, and secure criminal justice facilities.			X
(3) Provide adequate training, staffing, and support for City public safety agencies.			X
(4) Emphasize improvements to police and prosecution operations which will result in a higher proportion of wrongdoers who are arrested, convicted, and punished for their crimes.			X
(5) Support policies and programs that expand access to treatment, rehabilitation, and reentry programs for adult and juvenile offenders			X
(6) Keep the public informed of the nature and extent of criminal activity on Oʻahu.			X
(7) Establish and maintain programs to encourage public cooperation in the prevention and solution of crimes, and promote strong community-police relationships.			X
(8) Seek the help of State and federal law-enforcement agencies to curtail the activities of organized crime syndicates on Oʻahu.			X
(9) Conduct periodic reviews of criminal laws to ensure their relevance to the community's needs and values.			X
(10) Cooperate with other law-enforcement agencies to develop new methods of addressing crime. Support communication and coordination across federal, State and City law enforcement and corrections agencies.			X
(11) Encourage the improvement of rehabilitation programs and facilities for criminals and juvenile offenders.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
Discussion: The Proposed Project will support Objective A of Section VIII of the City and County of Honolulu General Plan related to public safety.			
Objective B. To protect residents and visitors and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions			
(1) Keep up-to-date and enforce all City and County safety regulations.	X		
(2) Require all developments in areas subject to floods and tsunamis, and coastal erosion to be located and constructed in a manner that will not create any health or safety hazards or cause harm to natural and public resources.	X		
(3) Participate with State and federal agencies in the funding and construction of flood control projects and prioritize the use of ecologically sensitive flood-control strategies whenever feasible.			X
(4) Collaborate with State and federal agencies to provide emergency warnings, protection, mitigation, response, and recovery, during and after major emergencies such as tsunamis, hurricanes, and other high-hazard events.			X
(5) Cooperate with State and federal agencies to provide protection from war, civil disruptions, pandemics, and other major disturbances.			X
(6) Reduce hazardous traffic conditions.			X
(7) Provide adequate resources to effectively prepare for and respond to natural and manmade threats to public safety, property, and the environment.			X
(8) Foster disaster-ready communities and households through implementation of resilience hubs and other resiliency strategies.			X
(9) Plan for the impacts of climate change and sea level rise on public safety, in order to minimize potential future hazards.	X		
(10) Develop emergency management plans, policies, programs, and procedures to protect and promote public health, safety, and welfare of the people.			X
(11) Provide educational materials on emergency management preparedness, fire protection, traffic hazards, and other unsafe conditions			X
Discussion: The Proposed Project will support Objective B of Section VIII of the City and County of Honolulu General Plan related to public safety. The Proposed Project will be conducted following all building codes and OSHA/HIOSH standards to ensure the security of public health and safety are protected during construction and through day-to-day operations			
IX. Health and Education			
Objective A. To protect the health and well-being of residents and visitors.			
(1) Encourage the provision of health-care facilities that are accessible to both employment and residential centers.			X
(2) Provide prompt and adequate ambulance and first-aid services in all areas of O'ahu.			X
(3) Coordinate City health codes and other regulations with State and federal health codes to facilitate the enforcement of air-, water-, and noise-pollution controls.			X
(4) Integrate public health concerns such as air and water pollution as a consideration in land use planning decisions.			X
(5) Encourage healthy lifestyles by supporting opportunities that increase access to and promote consumption of fresh, locally grown foods.			X
(6) Encourage healthy lifestyles through walkable and livable communities, safe street crossings, safe routes to schools, and parks and pathways for pedestrians and bicyclists.			X
(7) Support efforts to make healthcare accessible and affordable for everyone.			X
(8) Support efforts to improve and expand access to mental health, drug treatment, community-based programs, and other similar programs for those requiring such services.			X
(9) Support becoming an age-friendly city that provides people of all ages with user-friendly parks and other public gathering places, that offers safe streets and multi-modal transportation options, that provides an adequate supply of affordable housing,			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
that encourages growth in needed and desirable jobs, that provides quality health-care and support services, and that encourages civic participation, social inclusion, and respect between interest groups.			
(10) Plan for our aging population's growing health-care, personal service, and diverse daily activity needs, and encourage these services to be provided in a timely manner, including age-specific social activities.			X
Discussion: The Proposed Project will not impact Objective A of Section IX of the City and County of Honolulu General Plan related to health and education.			
Objective B. To provide a wide range of educational opportunities for the people of O'ahu.			
(1) Support education programs that encourage the development of employable skills.	X		
(2) Encourage the provision of informal educational programs for people of all age groups.			X
(3) Encourage the after-hours use of school buildings, grounds, and facilities.	X		
(4) Encourage the construction of school facilities that are designed for flexibility and high levels of use	X		
(5) Facilitate the appropriate location of childcare facilities as well as learning institutions from the preschool through the university levels.			X
(6) Encourage outdoor learning opportunities and venues that reflect our unique natural environment and Native Hawaiian culture.			X
Discussion: The Proposed Project will support Objective B of Section IX of the City and County General Plan related to health and education. The Proposed Project will engage youth in after-school activities regarding the Performing Arts. The Proposed Project site will be a center for practices and performances of various creative pursuits. The activities at the Proposed Project site will foster growth and shape well-rounded future generations.			
Objective C. To make Honolulu the center of higher education in the Pacific.			
(1) Encourage continuing improvement in the quality of higher education in Hawai'i, as well as ways to make higher education more affordable.			X
(2) Encourage the development of diverse opportunities in higher education.			X
(3) Encourage research institutions to establish branches on O'ahu.			X
(4) Establish Honolulu as a knowledge center and international Pacific crossroads hub.			X
Discussion: The Proposed Project will not impact Objective C of Section IX of the City and County of Honolulu General Plan related to health and education.			
X. Culture and Recreation			
Objective A. To foster the multiethnic culture of Hawai'i and respect the host culture of the Native Hawaiian people.			
(1) Recognize the Native Hawaiian host culture, including its customs, language, history, and close connection to the natural environment, as a dynamic, living culture and as an integral part of O'ahu's way of life.	X		
(2) Promote the preservation and enhancement of local cultures, values and traditions.	X		
(3) Encourage greater public awareness, understanding, and appreciation of the cultural heritage and contributions to Hawai'i made by O'ahu's various ethnic groups.	X		
(4) Foster equity and increased opportunities for positive interaction among people with different ethnic, social, and cultural backgrounds.			X
(5) Preserve the identities of the historical communities of O'ahu.			X
Discussion: The Proposed Project will support Objective A of Section X of the City and County of Honolulu General Plan related to culture and recreation. The Proposed Project will not only enrich the youth participating but provide the entire community with education and entertainment. The associated programming will foster a vibrant, rich, and culturally inclusive environment for all to enjoy.			

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
Objective B. To protect, preserve and enhance O'ahu's cultural, historic, architectural, and archaeological resources.			
(1) Promote the restoration and preservation of early Hawaiian structures, artifacts, and landmarks.			X
(2) Identify and, to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.			X
(3) Cooperate with the State and federal governments in developing and implementing a comprehensive preservation program for social, cultural, historic, architectural, and archaeological resources.			X
(4) Promote the interpretive and educational use of cultural, historic, architectural, and archaeological sites, buildings, and artifacts			X
(5) Seek public and private funds, and encourage public participation and support, to protect, preserve and enhance social, cultural, historic, architectural, and archaeological resources.			X
(6) Provide incentives for the restoration, preservation, maintenance, and enhancement of social, cultural, historic, architectural, and archaeological resources.			X
(7) Encourage the protection of areas that are historically important to Native Hawaiian cultural practices and to the cultural practices of other ethnicities, in order to further preserve and continue these practices for future generations.			X
Discussion: The Proposed Project will not impact Objective B of Section X of the City and County of Honolulu General Plan related to culture and recreation.			
Objective C. To foster the visual and performing arts.			
(1) Encourage and support programs and activities for the visual and performing arts.	X		
(2) Encourage creative expression and access to the arts by all segments of the population.	X		
(3) Provide permanent art in appropriate City public buildings and places.			X
Discussion: The Proposed Project will support Objective C of Section X of the City and County of Honolulu General Plan related to culture and recreation. The Proposed Project seeks to foster the visual and performing arts through its programming as a cultural entertainment venue. The Proposed Project and its associated programming will seek to celebrate, promote, and perpetuate Hawai'i's natural environment and host culture while fostering local collaboration and strengthening community resilience.			
Objective D. To provide a wide range of recreational facilities and services that are readily available to residents and visitors alike, and to balance access to natural areas with the protection of those areas.			
(1) Develop, maintain, and expand a community-based park system to meet the needs of the diverse communities on O'ahu.			X
(2) Develop, maintain, and expand a system of regional parks and specialized recreation facilities, based on the cumulative demand of residents and visitors.			X
(3) Develop, maintain, and improve urban parks, squares, and beautification areas in high-density urban place			X
(4) Encourage public and private natural reserves and botanical and zoological parks to foster greater awareness and appreciation of the natural environment.			X
(5) Encourage the State to develop, improve, and maintain a system of natural resource-based parks, such as beach, shoreline, and mountain parks.			X
(6) Ensure that public recreational facilities balance the demand for facilities against capital and operating cost constraints so that they are adequately sized and properly maintained.			X
(7) Ensure and maintain convenient and safe access to beaches, ocean environments and mauka recreation areas in a manner that protects natural and cultural resources.			X
(8) Encourage ocean and water-oriented recreation activities that do not adversely impact the natural environment and cultural assets, or result in overcrowding or overuse of beaches, shoreline areas and the ocean.			X
(9) Require all new developments to provide their residents with adequate recreation space.			X

Table 4-6: City and County of Honolulu: General Plan – Objectives and Policies	S	NS	N/A
(10) Utilize our unique natural environment in a responsible way to promote cultural events and activities, and maintain cultural practices.			X
(11) Encourage the after-hours, weekend, and summertime use of public school facilities for recreation			X
(12) Provide for safe and secure use of public parks, beaches, and recreation facilities.			X
(13) Create and promote recreational venues for kūpuna and keiki and for kamaʻāina and malihini.			X
(14) Encourage the State and federal governments to transfer excess and underutilized land to the City for public recreation use.			X
Discussion: The Proposed Project will not impact Objective D of Section X of the City and County General Plan related to health and education.			
XI. Government Operations and Fiscal Management			
Objective A. To promote increased efficiency, effectiveness, and responsiveness in the provision of government services by the City and County of Honolulu.			
(1) Maintain and adequately fund City government services at the level necessary to be effective.			X
(2) Promote alignment and consolidation of State and City functions whenever more efficient and effective delivery of government programs and services may be achieved			X
(3) Ensure that government attitudes, actions, and services are sensitive to community needs and concerns, and held accountable to the public trust			X
(4) Sufficiently fund and staff the timely preparation, maintenance, and update of public policies and plans to guide and coordinate City programs and regulatory responsibilities.			X
(5) Expand the adoption of technology across all City agencies to achieve greater transparency, efficiency, and accountability to the general public throughout government operations.			X
Discussion: The Proposed Project will not impact Objective A of Section XI of the City and County of Honolulu General Plan related to government operations and fiscal management.			
Objective B. To ensure fiscal integrity, responsibility, and efficiency by the City and County government in carrying out its responsibilities.			
(1) Provide for a balanced budget.			X
(2) Allocate fiscal resources of the City and County to efficiently implement the policies of the General Plan and Development Plans.			X
(3) Ensure accountability and transparency in government operations.			X
Discussion: The Proposed Project will not impact Objective B of Section XI of the City and County of Honolulu General Plan related to government operations and fiscal management.			
Objective C. To achieve equitable outcomes for City programs, policies, and allocation of resources throughout the Oʻahu community.			
(1) Promote policies that actively address and eliminate disparate outcomes for historically underserved communities.			X
(2) Seek equitable distribution of City investments towards promoting employment opportunities, infrastructure, and other community benefits appropriate to the community needs and proportionate to the population size.	X		
(3) Promote adherence to processes that advance procedural, distributional, structural, intergenerational, and cultural equity within the City.			X
(4) Provide resources for City employees to understand and actively advance equity solutions within all agencies of City government.			X
Discussion: The Proposed Project will support Objective B of Section XI of the City and County of Honolulu General Plan related to government operations and fiscal management. The Proposed Project site will enhance the infrastructure of education related buildings, providing opportunities and enrichment to youth proportionate to population size.			

4.2.2. Wai‘anae Sustainable Community Plan (2012)

The Project Site is located within the Wai‘anae Sustainable Community Plan (WSCP) area, extending from Nānākuli to Keawa‘ula along the western coast of O‘ahu. The WSCP outlines a comprehensive vision of the future development of the Wai‘anae District, focusing on various community needs including housing, education, health services, environmental conservation, and economic development. The WSCP is set to be updated by December 2024.

Table 4-7: Wai‘anae Sustainable Communities Plan	S	NS	N/A
3.2. Open Space and Important Views			
(1) Do not allow significant negative impacts on large open spaces			X
(2) Address project impacts on open space			X
(3) Do not allow significant negative impacts on important public views			X
(4) Address project impacts on important public views			X
(5) Limit urban development			X
(6) Government agencies should partner with community-based organizations in order to better manage Wai‘anae’s open spaces			X
(7) Minimize outdoor lighting			X
Discussion: The Proposed Project will not impact policies relating to open space and important views.			
3.3 Coastal Lands			
(1) Do not allow new coastal development			X
(2) Incrementally acquire coastal properties			X
(3) Discourage shore armoring			X
(4) Government agencies should partner with community-based organizations in order to better manage Wai‘anae’s coastal lands			X
(5) Prohibit projects that negatively impact coastal lands			X
(6) Prevent the introduction of alien species			X
(7) Maintain beaches and sand			X
Discussion: The Proposed Project will not have an impact on coastal lands.			
3.4 Mountain Forest Lands			
(1) Protect mountain forest lands			X
(2) Develop forest restoration program			X
(3) Do not grant permits that negatively impact mountain forest lands			X
(4) Government agencies should partner with community-based organizations in order to better manage Wai‘anae’s mountain forest lands			X
(5) Protect rare and endangered species			X
(6) Prevent the introduction of alien species			X
(7) Allow public access to hiking trails			X
(8) Develop wildfire management plan			X
Discussion: The Proposed project will not have an impact on policies regarding mountain forest lands.			
3.5 Streams and Floodplains			
(1) Establish stream conservation corridors			X
(2) Restrict uses within stream conservation corridors			X
(3) Establish minimum in-stream flow standards			X
(4) Government Agencies should partner with community-based organizations in order to better manage Wai‘anae’s streams and stream corridors			X
Discussion: The Proposed Project will not have an impact on policies regarding streams and floodplains.			
3.6 Historic and Cultural Resources			
(1) Preserve major concentrations of cultural sites and allow access for cultural practices	X		
(2) Do not allow development that negatively impacts important cultural sites or access to such sites			X
(3) Government agencies should partner with community-based organizations in order to better manage Wai‘anae’s cultural sites	X		

Table 4-7: Wai'anae Sustainable Communities Plan	S	NS	N/A
(4) Create signage for cultural sites			X
(5) Protect and allow access for cultural practices at sites on City-owned land			X
(6) Protect and allow access for cultural practices at sites on Federal, State or Private lands			X
(7) Conduct a thorough cultural survey of the Wai'anae District			X
Discussion: The Proposed Project will be constructed on the previously disturbed NHIS campus; therefore, historic and cultural resources will not be impacted. As described in Sections 3.6 (Historic and Archaeological Resources) and 3.7 (Cultural Resources and Practices), there are no known or identified cultural, historic, architectural, and archaeological resources at the Project Site, which has been heavily disturbed. It is unlikely that the Proposed Project would adversely impact resources currently located on the property or in adjacent areas. Should any unidentified resources be encountered during construction, all work will cease, and the State Historic Preservation Office will be contacted for review and approval of mitigation measures.			
3.7 Agricultural Lands			
(1) Maintain the boundary for Agricultural lands			X
(2) Support agriculture through zoning regulations and tax assessments			X
(3) Limit the use of "Agriculture" land to agriculture and other compatible land uses			X
(4) Prohibit incompatible land uses of "Agricultural" land			X
(5) Coordinate Farmer's markets and other low-cost marketing outlets			X
Discussion: The Proposed Project will not have an impact on policies regarding Agricultural lands.			
3.8 Residential Land Use			
(1) Do not increase lands designated "Residential"			X
(2) Coordinate with the Department of Hawaiian Homelands (DHHL)			X
(3) Preserve Agricultural Lands			X
(4) Support Home-based businesses			X
(5) Although allowed to be exempt by State Law, 201H projects should meet Wai'anae Sustainable Community Plans Guidelines			X
(6) Follow Wai'anae Sustainable Community Plans Affordable Housing guidelines			X
(7) Limit the height of residential structures			X
(8) Encourage clustered housing in Wai'anae Country Town			X
Discussion: The Proposed Project will not have an impacts on policies regarding residential land use.			
3.9 Commercial and Industrial Uses			
(1) Encourage the continuation of existing commercial establishments			X
(2) Encourage Establishment of commercial businesses that serve the community			X
(3) Support the continued viability of Makaha Resort			X
(4) Prohibit "Big Box" stores			X
(5) Encourage light industrial businesses			X
(6) Design guidelines for neighborhood commercial establishments			X
Discussion: The proposed Project will not have an impact on commercial and industrial uses.			
3.10 Country Towns, Rural Community Commercial Centers and Gathering Places			
(1) Establish a Phased Development Program			X
(2) Small Geographic size of centers			X
(3) Commercial establishments in the centers should be low-rise, with parking lots generally located behind the buildings			X
(4) Residential Structures in the Centers should be developed incrementally and built at a higher density			X
(5) Center Amenities should be landscaped and developed			X
(6) Guidelines for Community Gathering Places connected by a walking/jogging/biking path located along the coast			X
Discussion: The Proposed Project will not have an impact on guidelines relating to country towns, rural community commercial centers and gathering places.			
3.11 Existing Parks and Recreational Areas			
(1) Develop adequate public parks			X

Table 4-7: Wai'anae Sustainable Communities Plan	S	NS	N/A
(2) Prohibit more golf-courses that compete with agriculture or open-space resources			X
(3) Plan for a system of Hawaiian Cultural and Educational parks			X
(4) Increase Neighborhood Parks based on City Park's standards			X
(5) Create flexible criteria for Recreational facilities			X
Discussion: The Proposed Project will not impact existing parks and recreational facilities.			
3.12 Military Land Use			
(1) Preserve and transition military lands to civilian use			X
(2) Organize and implement cooperative programs			X
Discussion: The Proposed Project will not have an impact on military land use.			
4. Public Facilities and Infrastructure Policies and Guidelines			
4.1 Transportation Systems			
(1) Implement Farrington Highway safety improvements for pedestrians and motorists			X
(2) Beautify Farrington Highway			X
(3) Establish an Emergency Bypass Road			X
(4) Enhance Public transportation			X
(5) Encourage other modes of transportation			X
Discussion: The Proposed Project will not impact policies regarding transportation systems.			
4.2 Potable and Nonpotable Water Systems			
(1) Implement watershed protection strategies to improve forest health and perennial stream flows			X
(2) Encourage water conservation			X
(3) Diversify water supply, matching quality with use			X
(4) Support the goals and objectives of the adopted Wai'anae Watershed Management Plan			X
Discussion: The Proposed Project will not impact potable and non-potable water systems.			
4.3 Wastewater Collection and Treatment			
(1) Continue phased program for replacement of old sewer lines			X
(2) Improve the Wai'anae Wastewater Treatment Plan			X
(3) Coordinate with DHHL regarding sewer connections			X
Discussion: The Proposed Project will not have an impact on wastewater collection and treatment.			
4.4 Electrical Power and Communications			
(1) Reduce the visual impact and improve safety of utility lines and poles and reliability of service			X
(2) Encourage development of alternative energy sources			X
(3) Require new developments to be powered by alternative energy			
Discussion: The Proposed Project will not have an impact on electrical power and communications			
4.5 Drainage Systems			
(1) Develop Wai'anae District local Drainage Improvements Plan and Program			X
(2) Establish a Sediment Control Program			X
Discussion: The Proposed Project will not impact drainage systems.			
4.6 Solid Waste Disposal			
(1) Enforce Anti-Dumping Laws			X
(2) Encourage green waste composting			X
Discussion: The Proposed Project will not impact solid waste disposal.			
4.7 Civic, Public Safety and Educational Facilities			
(1) Improve quality of facilities and adequacy of staffing	X		
(2) Selection of sites for new schools should comply with the Wai'anae Sustainable Communities Plan Criteria	X		
(3) Consider multi-purpose function of schools	X		
(4) Encourage charter schools			X
(5) Increase ambulance service			X
(6) Provide adequate emergency shelters			
(7) Design Standards should be both functionally efficient and aesthetically pleasing			X
(8) Use building forms which reflect Hawaii's diverse cultural and architectural heritage	X		

Table 4-7: Wai‘anae Sustainable Communities Plan	S	NS	N/A
(9) New public buildings such as schools and recreation centers to serve a secondary function as an emergency shelter			X
Discussion: The Proposed Project will encourage after school programs, expanding the scope of what school facilities can offer. The Proposed Project will update and improve the existing multi-purpose building.			
4.8 Health Care Facilities			
(1) Support quality, community health care facilities			X
(2) Assess the need for new health care facilities and services			X
Discussion: The proposed Project will not have an impact on policies regarding health care facilities.			

4.2.3. City and County of Honolulu Zoning

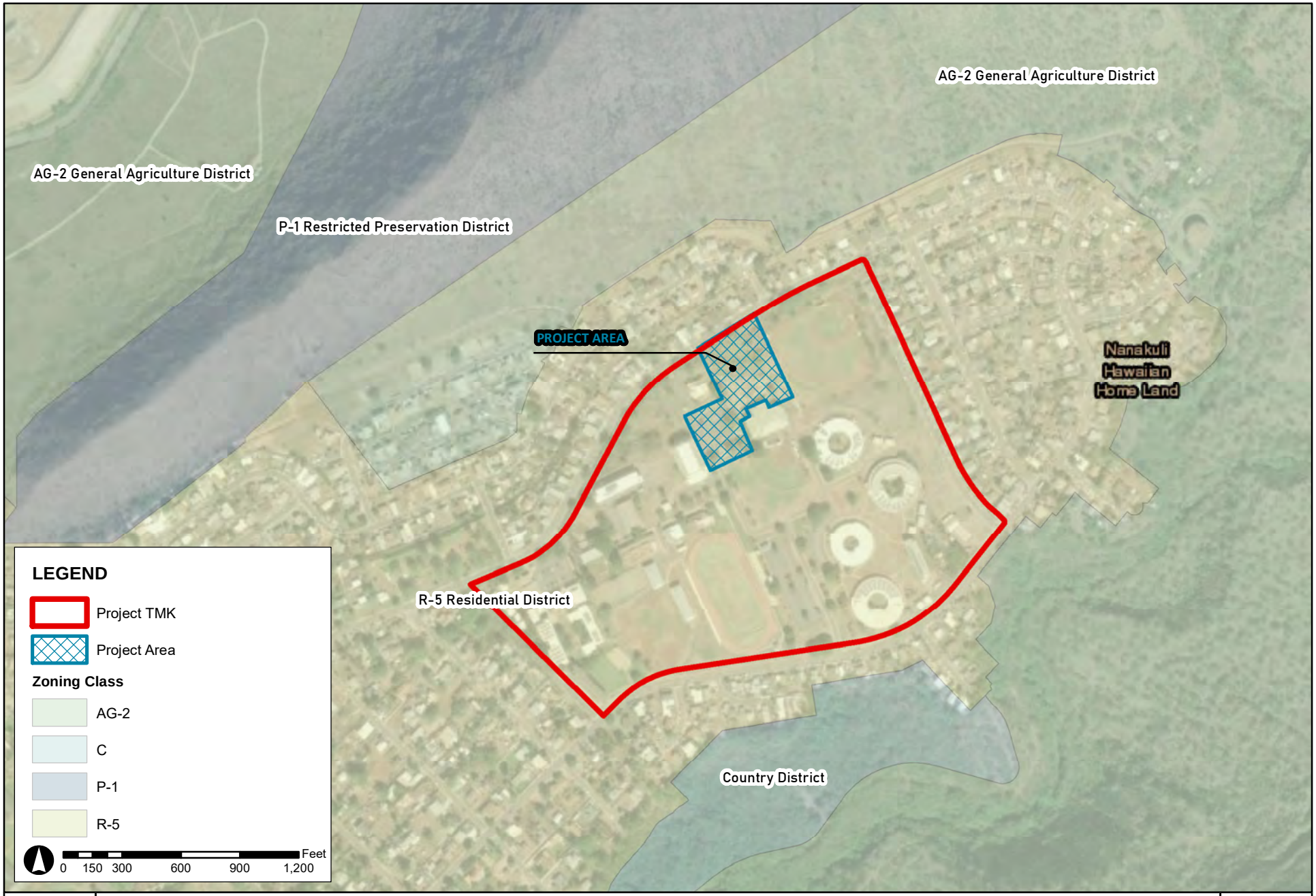
The purpose and intent of the City and County of Honolulu Land Use Ordinance (LUO) is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies, including the O‘ahu General Plan and development plans, and to promote and protect the public health, safety, and welfare. The LUO promotes and protects the public by:

- Minimizing adverse effects from the use of inappropriate location, use or design of sites and structures;
- Conserving the city’s natural, historic, and scenic resources to encourage design which enhances the physical form of the city; and
- Assisting the public in identifying and understanding regulations affecting the development and use of land.

The LUO additionally provides reasonable development and design standards that are applicable to the location, height and size of structures, yard areas, off-street parking facilities, as well as open spaces, and the use of structures and land for agricultural, industrial, residential, and other uses (ROH, Chapter 21).

Discussion:

According to the City and County of Honolulu Department of Planning and Permitting (DPP) the Project Area lies within Residential District R-5 (See Figure 4-3). The purpose of R-5 district is to provide areas for urban residential development. For the R-5 district, the maximum building is 25 to 30 feet. However, it should be noted that the proposed NPAC is classified under a “Public Uses and Structure” as defined by Section 21-2.130, ROH, which is permitted within a zoning district and may qualify for a Waiver Permit. Thus, the Proposed Project is consistent with the CCH’s LUO and will comply with the intent and use of the R-5 district.



CITY AND COUNTY OF HONOLULU ZONING

Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, Oʻahu, Hawaiʻi

FIGURE 4-3

4.3. Permits and Approvals

The following is a list of permits, approvals, and reviews that may be required prior to construction and operation of the Proposed Project.

Federal

Federal Emergency Management Agency

- Title 44 of the Code of Federal Regulations (44CFR) Compliance

Federal Aviation Administration

- FAA Form 7460-1, "Notice of Proposed Construction or Alteration"

State of Hawai'i

Department of Land and Natural Resources

- Chapter 6E, HRS, State Historic Preservation Law

Department of Health

- Community Noise Permit
- Air Pollution Control Permit
- Individual Wastewater Treatment System Review

City and County of Honolulu

Board of Water Supply

- Cross- Connection Control Requirements
- Backflow Prevention Requirements
- Water System Facilities Charges

Department of Planning and Permitting

- Building Permit
- Grading Permit/Trenching Permit
- Street Usage Permit
- Stockpiling Permit
- Sewer Permit
- Zoning Waiver

Honolulu Fire Department

- Plan Review

Department of Environmental Services

- Sewer Connection

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CHAPTER 5: ALTERNATIVES

Under §11-200.1-18, HAR, an EA is required to present a discussion of the consideration of project alternatives that could reasonably attain the goals and objectives of the Proposed Project.

As presented in Chapter 2 of this EA., the goals and objectives of the Proposed Project are to provide a space for creative expression and community gathering for school aged children.

In observance of these goals, the Proposed Project has considered a range of alternatives including: (1) the Proposed Project (a detailed description of the Proposed Project is provided in Chapter 2 and an assessment of the anticipated environmental impacts of the Proposed Project is provided in Chapter 3); (2), alternative locations to construct the Proposed Project; (3) preferred alternative, and (4) the no action alternative.

The "No Action" alternative constitutes a scenario whereby the Proposed Project as described in Chapter 2 of the EA would not be implemented. In other words, the Project Site would remain as it currently exists now. General assessment of the No Action alternative clearly underscores that maintaining the status quo would not meet the spirit and intent of the objectives of the Proposed Project.

5.1 Alternative Locations

The associated programming of the Proposed Project already utilizes various off-campus venues for performances. Past NPAC productions have been held at locations such as the Michael D. Nakasone Performing Arts Center Auditorium at Pearl City High School, NHIS Multi-Purpose building, Nānākuli Public Library, and Nānākuli Elementary School. However, some rehearsals and performances are currently hosted in the Multi-Purpose building on the NHIS campus, which is primarily used as a school cafeteria. This shared space lacks adequate restrooms, seating, and stage size to support the growth of the creative arts program. As a result, some performances have had to turn away audience members due to space limitations.

Siting options have been considered north of Building U, as this location would allow for the addition of a new back-of-house area to serve existing multi-use building. However, this site presents challenges due to the presence of a drainage ditch, which would complicate construction. Another potential option was the parking lot west of Building U. However, this option is not preferred due to concerns regarding parking capacity and traffic flow impacts.

5.2 Preferred Alternative- Demolition of Existing Multi-Purpose Building

The preferred alternative proposes comprehensive expansion and renovation of the existing facilities to create a new PAC, with the project planned in two phases. The first phase focuses on developing a flexible Theater Workshop and support spaces to accommodate the ongoing programing until the completion of the full PAC. Located just north of the existing Building U, the Theater Workshop will serve multiple functions, including daily use as a theater classroom, a venue for small performances, and a support space for performances housed in Building U. This proximity will minimize travel distance for performers and ensure continuity of PAC programming during construction.

Improvements to the existing drainage swale will be included in the first phase to facilitate easier access between buildings, enhancing user experience and site connectivity.

The PAC Auditorium, the centerpiece of the Proposed Project, will provide seating capacity for approximately 500 audience members, accommodating both small- and large-scale events, including performances, school functions, community events, and educational activities. The 17,603- square-foot auditorium will include a stage, control booth, catwalks for lighting rigs, and acoustic reflector panels to optimize sound quality. Additional dedicated spaces will include a scene shop, green grooms, dressing rooms, and staff offices, all contributing to the functional capacity of the PAC and its ability to support a wide range of performances and community events. This phased approach allows for an efficient allocation of resources, minimizes disruption to ongoing programming, and ensures that the facility will progressively meet the growing needs of the arts community and its audiences.

5.3 No Action Alternative

The "No Action" alternative constitutes a scenario in which the Proposed Project, as described, would not be implemented. A general assessment of the No Action alternative highlights that maintaining the status quo would not meet the spirit and intent of the Proposed Project.

Inclusion of a "No Action" alternative provides a baseline against which the impacts of the Proposed Project can be measured and assessed. Under the No Action alternative, improvements would not be made, and the Project Site would remain in its current configuration. The No Action alternative would preclude permit approval, as well as costs for design and construction, which would otherwise be required for the Proposed Project. Additionally, it would avoid the minor environmental impacts that would occur as a result of implementing the Proposed Project, along with appropriate mitigation measures, as discussed in Chapter 3 of this EA.

The No Action Alternative, however, does not align with the purpose and need of the Proposed Project, as outlined in Section 2.2 of this EA. The Proposed Project aims to support educational and cultural development at NHIS by constructing a dedicated PAC. This new facility would provide essential resources for students, teachers, and staff, offering a space designed specifically designed to foster creative expression, skill-building, and community engagement through the performing arts. Currently, the Nānākuli community lacks a facility tailored to support a focused performing arts program. The Proposed Project would serve as a hub for creative education, benefiting both students and the larger Nānākuli community by cultivating skills and experiences that empower youth and enrich community life.

Under the No Action Alternative, existing site conditions would remain unchanged, leaving NHIS without the necessary facilities to adequately support a dedicated performing arts program. This option would not only limit educational opportunities for students but deprive the State, County, and community of the positive social, cultural, and economic impacts that such a facility could provide.

Ultimately, the No Action Alternative does not meet the objectives of the Proposed Project and consequently, was rejected for further consideration as a feasible alternative.

CHAPTER 6: ANTICIPATED DETERMINATION OF FONSI

The potential impacts of the Proposed Project have been evaluated in accordance with the significance criteria outlined in §11-200.1-13, HAR. A discussion of the Proposed Projects' conformance to these criteria is presented below.

1) ***Irrevocably commit a natural, cultural, or historic resource;***

The Proposed Project will be developed on an existing school campus in a rural area. The footprint of the Proposed Project is slightly larger than that of the existing multipurpose building, which will remain in use by the campus. As discussed throughout Chapter 3, no natural, cultural, or historic resources of significance are known to exist within the Project Site. It is unlikely that any unknown cultural or historic properties or human skeletal remains would be discovered or disturbed during the development or operation activities of the Proposed Project. However, in the event of an unexpected discovery, SHPD will be immediately notified, and all construction work will cease. Therefore, if any significant plant or landscapes needs to be removed or altered to implement the Proposed Project, they will be restored to existing conditions to the extent feasible or enhanced.

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

The Proposed Project will not curtail the range of beneficial uses of the environment. The operations and uses associated with the Proposed Project are generally consistent with the character of the surrounding area and are anticipated to seamlessly integrate into the existing campus.

3) ***Conflicts with the State's environmental policies or long-term environmental goals established by law;***

The Proposed Project will not conflict with the long-term environmental policies, goals, and guidelines of the State of Hawai'i as noted throughout Chapter 4 of the EA. The State's environmental policies enumerated in Chapter 344, HRS, promote the conservation of natural resources, and an enhanced quality of life for all citizens. The Proposed Project does not conflict with the State's long-term environmental policies, goals, or guidelines as expressed in Chapter 344, HRS, and will not significantly impact natural resources since the Project Site is already disturbed. Moreover, since the Proposed Project is a State project, it will aim to meet LEED Silver performance requirements, as established by the US Green Building Council (USGBC) with a minimum life expectancy of 50 years. LEED buildings reduce GHG emissions through reductions in energy and water consumption, waste generation, and using more durable materials.

4) ***Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and State;***

The Proposed Project is not anticipated to have a significant adverse effect on the economic welfare, social welfare, or cultural practices of the community and State as discussed in Chapters 3 and 4 of the EA.

In the short-term, the construction of the Proposed Project will create jobs, contributing to the local economy through construction expenditures. However, these benefits are not anticipated to lead to significant population expansion. In the long term, the Proposed Project will provide a dedicated performing arts facility to support the educational and cultural functions of NHIS. This permanent space will enable the school to foster students' talents, promote creativity, and offer a variety of performing arts programs, all of which will contribute to students' personal and academic development. The Proposed Project aims to enhance educational opportunities for students, teachers, and staff, while empowering young individuals to build skills and confidence through the performing arts. Moreover, the facility will serve as a community resource, supporting the well-being of Nānākuli's residents and promoting cultural engagement, which will have a positive impact on the local economy and enrich community life.

5) ***Have a substantial adverse effect on public health;***

No identified adverse short- or long-term impacts on public health are anticipated to result from the construction and operation of the Proposed Project. Typical short-term construction-related impacts (e.g., noise and air quality) are anticipated; however, they will be temporary in nature and will comply with Federal, State, and County regulations as discussed in Chapter 3 of the EA.

6) ***Involve adverse secondary impacts, such as population changes or effects on public facilities;***

Substantial adverse impacts to public facilities are not anticipated as a result of the construction and operation of the Proposed Project. Furthermore, the Proposed Project is not anticipated to induce population changes in the area or region, nor will it increase overall tourism to the island of Oʻahu. The Proposed Project will serve as a dedicated performing arts facility for NHIS, supporting the educational and cultural initiatives within the State of Hawaiʻi.

7) ***Involve a substantial degradation of environmental quality;***

The Proposed Project is not anticipated to substantially degrade environmental quality. Long-term impacts to air and water quality, noise levels and natural resources will be minimal. Typical short-term construction- related impacts (e.g., noise and air quality) are anticipated, but will be temporary and will comply with State and County regulations as discussed in Chapter 3 of the EA. The implementation of various mitigation measures discussed in Chapter 3 will help ensure that the Proposed Project will not result in the degradation of environmental quality.

8) Be individually limited but cumulatively have substantial adverse effect upon the environment or involves a commitment for larger actions;

The Proposed Project is not anticipated to have a cumulative adverse effect upon the environment. The Proposed Project does not represent a series of actions or further commitments beyond the scope present within this EA.

9) Have a substantial adverse effect on a rare, threatened or endangered species, or its habitat;

No substantial adverse impacts on rare, threatened, or endangered species or their habitats are anticipated from the construction or operation of the Proposed Project. The existing site is rural, within an existing school campus. The demolition of the multipurpose building and the construction of the Proposed Action will follow BMPs outlined in Section 3.5.1.

10) Have substantial adverse effects on air or water quality or ambient noise levels;

No significant long-term impacts to air quality, water quality, or noise levels within the Project Site are anticipated as a result of the construction and operation of the Proposed Project. The Proposed Project will, however, have long-term beneficial impacts in regard to water quality. The Proposed Project will contribute to maintaining the CCH wastewater infrastructure, responding to force main failures and ensuring the safety and efficiency of maintenance operations, environmental protection, and public health.

Land disturbing activities include demolition, foundation work, and potential utility repairs and upgrades. Construction and operation of the Proposed Project will be performed in accordance with Federal, State and County regulations, thereby minimizing potential impacts to air and water quality. In the short term, noise from construction activities such as demolition, clearing and paving will be unavoidable. The increase in noise level will vary according to the phase of construction. Noise may also increase as a result of operating power equipment during the construction period. Construction noise impacts will be mitigated by compliance with provisions of the State DOH Administrative Rules, Title 11, Chapter 46, “Community Noise Control” regulations. These rules require a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels stated in the DOH Administrative Rules. It shall be the contractor’s responsibility to minimize noise by properly maintaining noise mufflers and other noise-attenuating equipment, and to maintain noise levels within regulatory limits. Fugitive dust will be controlled, as required, by methods such as dust fences, water spraying and sprinkling of loose or exposed soil or ground surface areas. Planting of landscaping and stabilization measures will be done as soon as possible on completed areas to help control erosion and runoff that could potentially enter the stream in the long term. Respective contractors will be responsible for minimizing air quality impacts during the various phases of construction. Exhaust emissions from construction vehicles are anticipated to have a negligible

impact on air quality in the project vicinity as the emissions would be relatively small and readily dissipated. In the long- term, some vehicular emissions related to operations at the Project are expected, however, due to the generally prevailing trade winds, the emissions would be readily dissipated.

11) Have a substantial adverse effect on or be likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water or coastal waters;

No short- nor long-term significant adverse impacts are anticipated as the Project Site is not located within an environmentally sensitive area related to coastal or flood hazard as noted in Section 3.4 of the EA.

According to the FIRM, the Project Site is situated within Zone D, where flood hazards are undetermined but possible. In the short term, applicable BMPs would be implemented including, but not limited to, temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protections, truck wash down areas, and use of compost filter socks so that impacts of flooding are not exacerbated from construction. In the long term, the Proposed Project will incorporate applicable drainage improvements and appropriate building codes related to flooding impacts.

The Proposed Project is not anticipated to have adverse effects that could result in wildfire events. However, the Proposed Project will have appropriate fire protection features as required by the Building Code to minimize fire-related impacts. The DLNR, Division of Forestry and Wildlife has adopted a Fire Management Handbook, which specifies its standards for prevention, pre-suppression, and suppression. The document provides a structured approach to providing for public / firefighter safety and minimizing damage to Hawai‘i’s environment.

12) Have a substantial adverse effect on scenic vistas and views planes, during day or night, identified in county or state plans or studies; or

The Proposed Project will not result in significant adverse impacts to view planes identified in County or State plans or studies. Moreover, the Proposed Project is not expected to adversely affect scenic and visual resources in the area as noted in Section 3.12 of the EA. The Proposed Project will not degrade lateral coastal views or mauka-makai views from the areas in the vicinity of the site. The Proposed Project is anticipated to be designed to be consistent with the visual character of Nanakuli High and Intermediate School and the surrounding neighborhood.

13) Require substantial energy consumption or emit substantial greenhouse gases.

The construction and operation of the Proposed Project will not require a significant level of energy consumption. Implementation of the Proposed Project will result in the short-term irrevocable release of GHGs from construction activities will be temporary and the quantities of GHGs released will be negligible. To reduce vehicle and equipment emissions, carpooling and ensuring that equipment is functioning properly should be included in regular construction work practices. Moreover, the contractors for the construction of the applicable projects will be required to prepare a dust control plan compliant with the provisions of Chapter 11-60.1, HAR, Air Pollution Control.

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CHAPTER 7: CONSULTATION

7.1 Early Consultation – Pre-assessment Package

The Early Consultation/Pre-Assessment process included efforts to inform the community and solicit input in scoping the EA for the Proposed Project. The Early Consultation/Pre-Assessment Package for the Proposed Project was mailed out on November 22, 2024 to the following agencies, organizations, and stakeholders listed below in preparation of the EA process. Consultation was conducted to solicit comments regarding potential concerns and requirements pursuant to refining the scope of EA documentation. Parties that formally replied during the Early Consultation/Pre-Assessment process are indicated by a "✓" below. All written comments are reproduced in Appendix C.

Federal Agencies

U.S. Environmental Protection Agency
✓ U.S. Department of the Interior, Fish and Wildlife Service

Federal Representatives

Senator Mazie Hirono
Senator Brian Schatz
Representative Jill Tokuda
Representative Ed Case

State Agencies

✓ Department of Accounting and General Services
Department of Business, Economic Development and Tourism (DBEDT)
DBEDT, Hawai'i State Energy Office
DBEDT, Land Use Commission
DBEDT, Office of Planning and Sustainable Development (OPSD)
OPSD, Environmental Review Program
DBEDT, Business Development and Support Division
Department of Defense
Department of Health (DOH)
✓ DOH, Clean Water Branch
DOH, Environmental Management Division
DOH, Hazard Evaluation and Emergency Response Office
DOH, Wastewater Branch
DOH, Safe Drinking Water Branch
✓ Department of Land and Natural Resources (DLNR)
✓ DLNR, Commission on Water Resource Management
✓ DLNR, Division of Forestry and Wildlife
✓ DLNR, Engineering Division
✓ DLNR, Land Division
DLNR, Office of Coastal and Conservation Lands
DLNR, Historic Preservation Division
✓ Department of Hawaiian Home Lands
✓ Department of Transportation (DOT)

DOT, Highways Division
DOT, Airports Division
Office of Hawaiian Affairs

State Representatives
Senator Maile S. L. Shimabukuro
Representative Darius K. Kila

City and County of Honolulu Agencies
Board of Water Supply
Department of Community Services
✓ Department of Design and Construction
✓ Department of Emergency Management
✓ Department of Emergency Services Department
Department of Environmental Services
Department of Facility Maintenance
Department of Parks and Recreation
✓ Department of Planning and Permitting
✓ Department of Transportation Services
Honolulu Fire Department
Honolulu Police Department
Office of Climate Change, Sustainability, and Resiliency
Office of the Mayor

City Council
Councilmember Andria Tupola

Utility Companies
Hawai‘i Gas
✓ Spectrum Hawai‘i
✓ Hawaiian Telcom
✓ Hawaiian Electric Company

Other Interested Parties and Individuals
✓ Hawai‘i State Library
Nānākuli Public Library
Nānākuli-Mā‘ili Neighborhood Board No. 36

CHAPTER 8: REFERENCES

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APPENDIX A

Archaeological Literature Review and Field Inspection

Nānākuli High School Performing Arts Center Project

Nānakuli Ahupuaʻa, Waiʻanae District, Oʻahu Island

TMK: [1] 8-9-007:009 (por.)

DRAFT

Archaeological Literature Review and Field Inspection Nānākuli High School Performing Arts Center Project Nānākuli Ahupuaʻa, Waiʻanae District, Oʻahu Island TMK: [1] 8-9-007:009 (por.)

Overview of project area from its east side; view west

Prepared for
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Honolulu, Hawaiʻi

Prepared by
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HŌNUA CONSULTING
Honolulu, Hawaiʻi

October 2024

Management Summary

This archaeological literature review and field inspection (ALRFI) report was completed for Wilson Okamoto as part of its due diligence assessment for the proposed Nānākuli High School Performing Arts Center project, located on the high school and intermediate school campus, in Nānākuli Ahupua‘a, Wai‘anae District, Island of O‘ahu, Hawai‘i. The project area consists of an approximately 0.74-acre portion of TMK [1] 8-9-007:009. The school campus’ address is 89-980 Nanakuli Avenue. The landowner is the State of Hawai‘i. The project area is in the upper portion of the main residential neighborhood of Nānākuli, about 1.0 miles mauka (towards the mountains) of the shoreline and Farrington Highway. Hawaiian Electric’s (HECO) power planty at Kahe Point is about 2.25 miles to the south. According to a 2007 article in the *Honolulu Advertiser* (Hoover 2007), the current location of the high school and intermediate school campus opened in 1972 (previously, it was located down along the shoreline).

The objectives of this ALRFI were: (1) documentation and description of the parcel’s land-use history in the context of its traditional Hawaiian character as well as its historic-period changes; (2) identification of any historic properties or component features in the project area; and (3) providing information relevant to the likelihood of encountering historically-significant cultural deposits in subsurface context during future construction. This ALRFI is not an archaeological inventory survey (AIS), and it is not intended for formal review by the State Historic Preservation Division (SHPD). It may be used, however, to support the project proponent’s consultation with the SHPD in compliance with Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) Chapter 13-275.

At this time, there are no specific building or construction plans for the subject parcel; if the project goes forward with new construction, however, it will certainly involve extensive ground disturbance / subsurface excavation for site work, including utilities, foundations and other structural footings, etc.

The results of this ALRFI are: (1) No archaeological historic properties, or potential archaeological historic properties, were observed in the project area, which has been mechanically grubbed and graded/bulldozed in the past; (2) Documented alteration to the terrain occurred circa 1970 when the school campus was first developed; other, later episodes of ground clearing and leveling may also have taken place in and around the current project area; and (3) It is unlikely that any as-yet undiscovered historic properties or components features thereof are located in the project area (i.e., beneath the existing ground surface) given the documented history of ground disturbance in the project area, and previous lack of historic-period development in the project area.

Based on the results of this study, our recommendations are as follows: (1) the proposed project will have “no effect” on archaeological historic properties located at the ground surface; and, most likely, will also have “no effect” on subsurface archaeological historic properties; and (2) the Archaeology Branch of the SHPD should be consulted on archaeological matters related to ground disturbance associated with any future development plans or proposed projects, since the SHPD may still request archaeological monitoring be conducted as a precautionary measure.

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Section 1 Introduction

1.1 Project Background

This archaeological literature review and field inspection (ALRFI) report was completed on behalf of Wilson Okamoto as part of its due diligence assessment for the proposed Nānākuli High School Performing Arts Center project, located on currently vacant land on the high school and intermediate school campus, in Nānākuli Ahupua‘a, Wai‘anae District, Island of O‘ahu, Hawai‘i (Figure 1 and Figure 2). The project area consists of an approximately 0.74-acre portion of TMK [1] 8-9-007:009 (Figure 3). The school campus’ address is 89-980 Nanakuli Avenue. The landowner is the State of Hawai‘i.

The project area is in the upper portion of the main residential neighborhood of Nānākuli, about 1.0 miles mauka (towards the mountains) of the shoreline and Farrington Highway. Hawaiian Electric’s (HECO) power planty at Kahe Point is about 2.25 miles to the south. The promient Pu‘u o Hulu separating neighboring Lualualei from Mā‘ili to the north is about 2.5 miles to the northwest. The project parcel is bounded by Haleakalā Avenue to the north (not to be confused with the nearby, prominent pu‘u [hill] named Heleakalā) and areas of the school campus on its other sides.

Figure 4 is a conceptual (preliminary) site plan provided by the client. According to a 2007 article in the *Honolulu Advertiser* (Hoover 2007), the current location of the high school and intermediate school campus opened in 1972 (previously, it was located down along the shoreline).

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This ALRFI is not an archaeological inventory survey (AIS), and it is not intended for formal review by the State Historic Preservation Division (SHPD). It may be used, however, to support the project proponent’s consultation with the SHPD in compliance with Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) Chapter 13-275.

Historical-architectural assessments for this project are being undertaken by another consulting firm (Mason Architects).

At this time, there are no specific building or construction plans for the subject parcel; if the project goes forward with new construction, however, it will certainly involve extensive ground disturbance / subsurface excavation for site work, including utilities, foundations and other structural footings, etc.

1.2 Environmental Setting

1.2.1 Natural Environment

The subject parcel is at an elevation of approximately 150 feet (ft.) (45.7 meters [m]) above mean sea level. Although the project-area terrain has been artificially leveled in the 1970s when

the parcel was first developed, the natural terrain in and around the project area slopes down gently to the southwest (towards the shoreline).

There are currently no natural stream drainages in the project area, but Nānākuli Stream is located about 2,000 ft. (609.6 m) to the south-southeast. Mean annual rainfall in the project area is approximately 30 inches (762 millimeters) (Giambelluca et al. 2013), which equates in Hawai‘i to a semi-arid climate. Naturally-occurring soils in the project area (Figure 5) consist of Lualualei Extremely Cobbly Clay (3-35% slope); these soils are described as “not prime farmland” (Foote et al. 1972).

There are no native or Polynesian-introduced plant varieties in the project area, which was completely cleared (grubbed and graded) in the past. In addition to grassy lawns and kiawe (*Prosopis* sp.), there are a few scattered trees (e.g., monkey pod [*Samanea saman*]) and coconut [not Polynesian-introduced variety] palms) in the parcel.

1.2.2 Built Environment

Parts of the school campus were constructed as early as 1972, but the project-area footprint is undeveloped with no above-ground structures, infrastructure or other appurtenances.

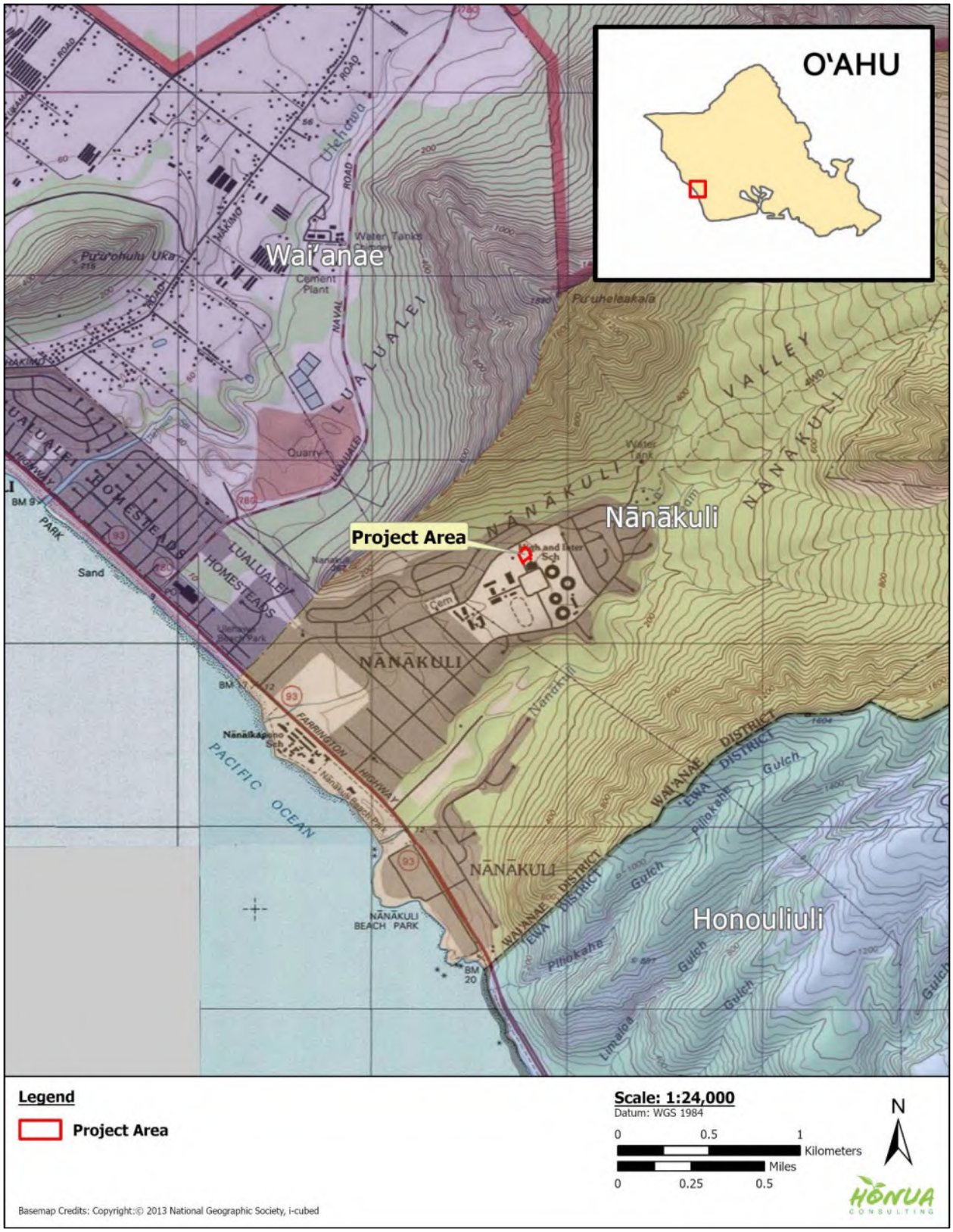

Figure 1. Portion of U.S. Geological Survey (USGS) topographic map showing project area (base map source: USGS online at http://ngmdb.usgs.gov/topoview)

Figure 2. Aerial photograph showing location of project area (base image source: ESRI's ArcMap 10.2.2)

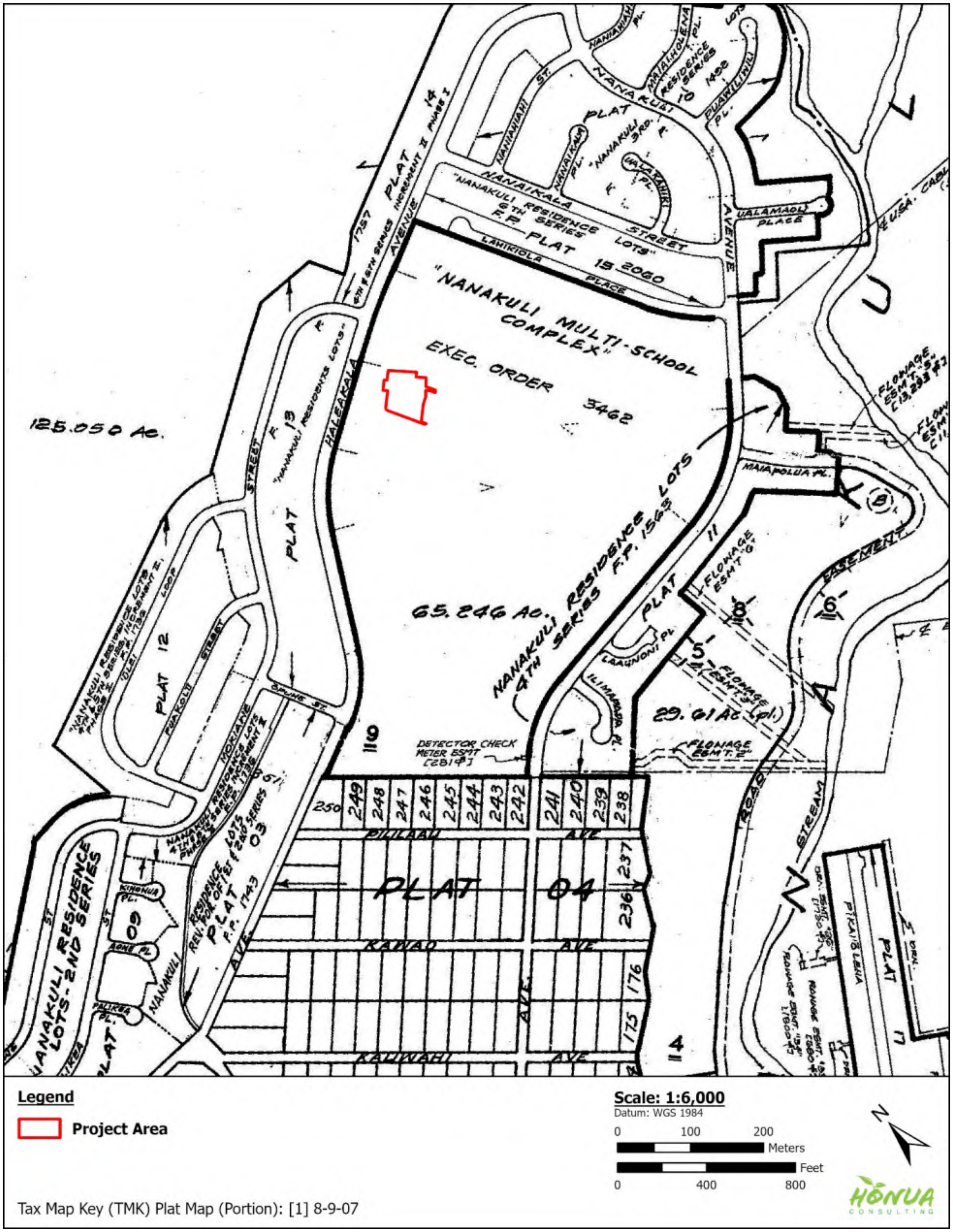

Figure 3. Tax Map Key (TMK): [1] 8-9-007 showing project area (base map source: Hawaiʻi TMK Service n.d.)

Figure 4. Conceptual site plan provided by client

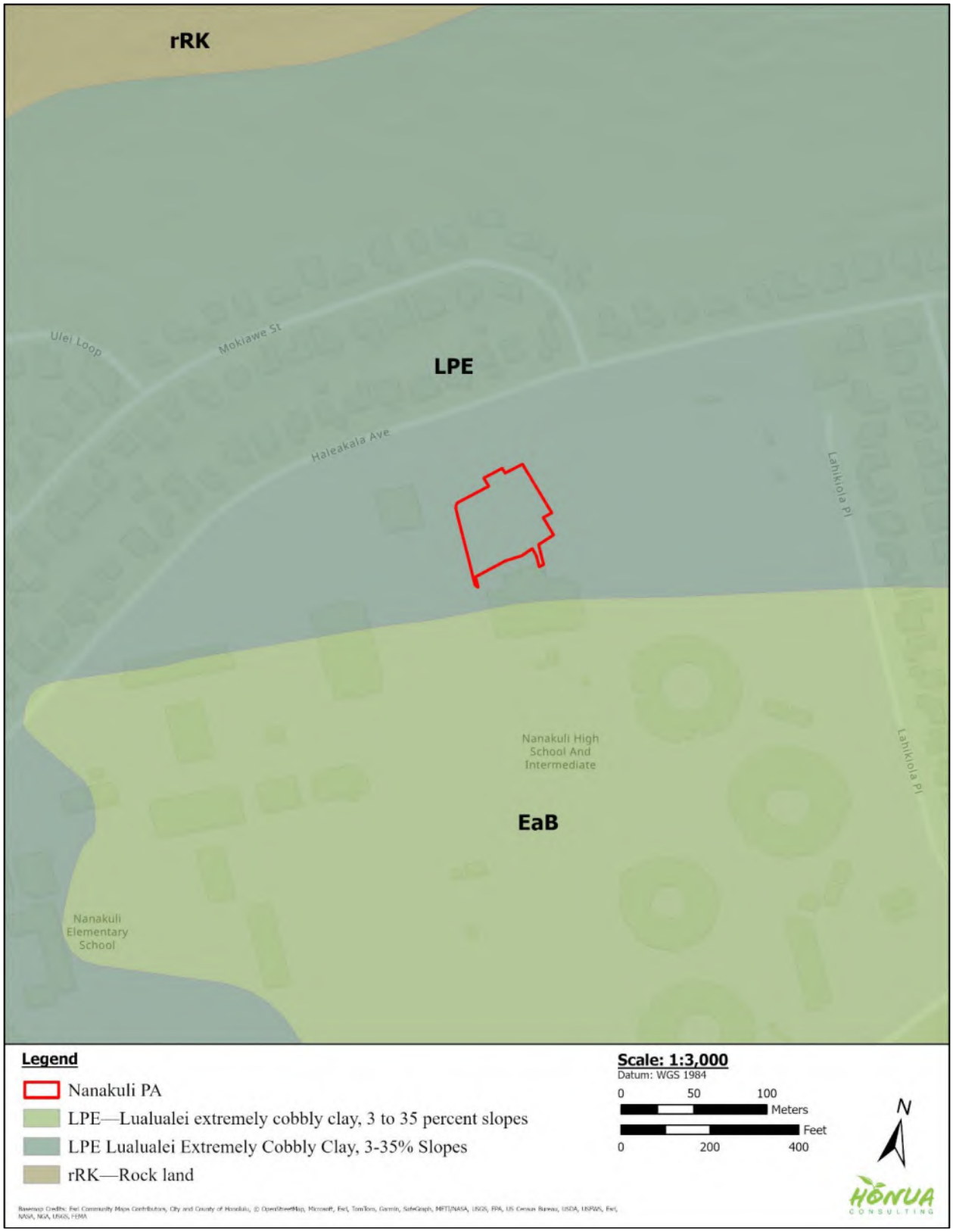

Figure 5. Soil survey data for the project area and environs (soils data from Foote et al. 1972)

Section 2 Cultural and Historical Context

This section includes a brief synthesis of relevant cultural and historical information related to the types of land uses in and around the project area from pre-Contact, traditional Hawaiian times into the historic period. Note that this section may be expanded if a formal archaeological inventory survey (AIS) or an archaeological monitoring plan (AMP) is required.

The main objective of this section, primarily through the analysis of historical documents, maps and aerial images, as well as secondary sources (i.e., other cultural resource management reports), is to provide a project area-specific picture of land use and modification over time. Some information in this section is based on other cultural, historical and archaeological studies, as referenced below.

In addition to referencing secondary sources, we also conducted a records search of the SHPD's library, as well as the on-line database of the Environmental Review Program (ERP), within the Office of Planning and Sustainable Development, which publishes EIS and EA documents; we also reviewed Honua's proprietary database of reports, and utilized the following on-line sources to obtain cultural, historical and archaeological data:

- OHA's Papakilo database (http://papakilodatabase.com/main/main.php)
- OHA's Kipuka database (http://kipukadatabase.com/kipuka/)
- Bernice P. Bishop Museum archaeological site database (http://has.bishopmuseum.org/index.asp)
- Bishop's Hawaii Ethnological Notes (http://data.bishopmuseum.org/HEN/browse.php?stype=3)
- University of Hawai'i-Mānoa's digital maps (http://magis.manoa.hawaii.edu/maps/index.html)
- DAGS' State Land Survey (http://ags.hawaii.gov/survey/map-search/)
- Waihona 'Aina website (www.waihona.com)
- Digital newspaper archive "Chronicling America, Historic American Newspapers" (http://chroniclingamerica.loc.gov/lccn/sn82014681/)
- Hawai'i State Archives digital collections (http://archives1.dags.hawaii.gov/)
- U.S. Library of Congress digital map collections (https://www.loc.gov/maps/)
- USGS Information Service, including digital map collections (https://nationalmap.gov/historical/index.html)
- AVA Konohiki's website (http://www.avakonohiki.org/)

2.1 Hawaiian Cultural Landscape

The project area, in Nānākuli Ahupua'a, is in the moku (traditional district) of Wai'anae, which has been home to Hawaiians for at least a millenium. In ancient times, Wai'anae was a land of great spiritual and political importance, with substantial settlements of Hawaiians practicing a subsistence lifestyle in the larger valleys such as Lualualei, Wai'anae and Mākaha, but also in smaller ahupua'a like Nānākuli. Starting from its southern end, bordering the moku of Honouliuli, and moving north to the famous Ka'ena Point, a noted leina-a-ka-'uhane (leaping off place for the spirits of the departed), the ahupua'a of Wai'anae Moku are Nānākuli, Lualualei, Mākaha, Kea'au, 'Ōhikilolo, Makua, Kahanakaiki and Keawa'ula.[1]

[1] Unless stated otherwise, definitions of Hawaiian words in this report are from Pukui and Elbert's (1986) *Hawaiian Dictionary*. Likewise, Hawaiian place names are from Pukui et al.'s (1974) *Place Names of Hawaii*, unless otherwise indicated.

The district, or moku, of Waiʻanae was traditionally divided into two parts: Waiʻanae Uka (upland/inland Waiʻanae) and Waiʻanae Kai (coastal Waiʻanae). Waiʻanae Uka consisted of the upland plains between the east face of Kaʻala and the Waiʻanae mountain range, and portions of the west side of the Koʻolau mountain range. Waiʻanae Kai extended from the crest of the west side of Kaʻala and the Waiʻanae Mountains to the ocean. In 1909, for reasons that have to do with the U.S. military's establishment of Schofield Barracks and other installations in central Oʻahu, ʻEwa and Waiʻanae were separated into two districts, and Waiʻanae Uka merged with the (then) new Wahiawā District (Coulter 1935:220–221). Since this time, what we now know as Waiʻanae Moku refers only to what was once known as Waiʻanae Kai.

As stated above, Nānākuli is a relatively small ahupuaʻa, consisting of just over a thousands acres or so. Historical accounts refer to the area's susceptibility to drought and even famine. It seems that, even in traditional times, Nānākuli Stream may have flowed only seasonally, as opposed to year-round, which contributed to the valley's reputation as a relatively dry place.

Regarding the meaning of Nānākuli, there appear to be many interpretations, which reflect a number of possible connections and associations to various moʻolelo (oral-historical accounts). The prolific chronicler of Hawaiian language documents and oral history, Mary Kawena Pukui, suggested two, quite different possibilities. The first refers to one of Oʻahu's most famous traditional high chiefs (Kahahana) and his primary kahuna (ritual specialist) (Kaʻōpulupulu), about which there is abundant oral-historical information relating to the invasion and defeat of Oʻahu's rulers circa 1783 by Kahekili from Maui:

> [Literally] . . . look at knee (said to be in honor of the tattooed knee of Ka-ʻ ōpulupulu, a priest whose chief, Ka-hahana, turned a deaf [*kuli*] ear to advice, and, when asked about his knee, told of his relationship with the chief, thus rebuking him) . . . (Pukui et al. 1974:162)

The second translation of this place name provided by Pukui (ibid.), which supports a fairly widespread perception that this land was relatively poor in resources (e.g., available surface water for irrigation), is "to look deaf," in reference to the behavior of Nānākuli residents, who, embarrassed about not being able to offer food or even water to passing strangers, pretended to be deaf.

A Native Hawaiian perspective on Nānākuli was collected by Mary Kawena Pukui in 1945 (archived in the Hawaiian Ethnological Notes [HEN] at the Bishop Museum, summarized in Sterling and Summers 1978:61–2):

> Simeona Nawaʻa came in to the [Bishop] Museum and sat down to talk to me. In the course of the conversation he told me these things:
>
> Nanakuli - it was Kanui, a native woman of Waiʻanae who told him why this place was so named. In the olden days, this place was sparsely inhabited because of the scarcity of water. The fishing was good but planting very poor. When it rained, some sweet potatoes would be put into the ground, but the crops were always poor and miserable.
>
> There were a few brackish pools from which they obtained their drinking water and it is only when they went to the upland of Waiʻanae that they were able to get fresh water. They carried the water home in large calabashes hung on mamaka or carrying sticks and used their water very carefully after they got it home. They

> spent most of their time fishing and most of the fish they caught were dried as gifts for friends and relatives in the upland. Sometimes they carried dried and fresh fish to these people in the upland and in exchange received poi and other vegetable foods. As often as not, it was the people of the upland who came with their products and went home with fish.
>
> Because of the great scarcity of water and vegetable food, they were ashamed to greet passing strangers. They remained out of sight as much as possible. Sometimes they met people before they were able to hide, so they just looked at strangers with expressionless faces and acted as though they were stone deaf and did not hear the greeting. This was so that the strangers would not ask for water which they did not have in that locality.
>
> The strangers would go to other places and mention the peculiar, deaf people who just stared and they would be told that the people were not deaf but ashamed of their inability to be hospitable. So the place they lived was called Nana, or look, and kuli, deaf - that is, Deaf mutes who just look.

Another old time resident of the area, William Z. H. Olepau, reported another possible meaning of Nānākuli and associated moʻolelo in 1933:

> There were two women who went up the hill of Puʻu Hakila or Puʻu Hela to dry their Kapas [tapa cloth]. While the kapas were being dried they left and went down the hill to the pool for some water. They heard dogs barking, so they stood, looking around for the barking was deafening. (Sterling and Summers 1972:62, brackets added)

Yet another interpretation of the moʻolelo associated with the name Nānākuli is from Thrum's Hawaiian Annual of 1922 (ibid.):

> The name of "Nana-kuli", a section of Waiʻanae, meaning "knee examination", is said to relate to an incident in the travels of the famous Kualiʻi, when his attendants wished to see and press his knees, to relieve the king's fatigue after the journey.

Samuel Kamakau gives an additional explanation for the origin of the name Nānākuli:

> After his return from Molokaʻi, when he had ruled six years over Oʻahu and Molokaʻi, Kahahana abandoned the advice of Kaʻopulupulu and began to lay burdens upon the country people and to dig up the bones from their burial places to make arrows for rat-shooting and hooks for fishing. The bones of chiefs were bartered for skirts for chiefesses and handles for kahili. Kaʻopulupulu came in vain to remonstrate with him, and the kahuna and all his followers, relatives, and members of his household tattooed their knees [kuli] as a sign of the chief's deafness [kuli] to his admonitions (Kamakau 1992:133).

According to an interview by McGuire and Hammatt (1999:53–4) with Fred Cachola, who worked and lived in the Waiʻanae District for many years, another possible meaning for Nānākuli is as follows:

> According to local stories, the name of Nānākuli once had a Hawaiian hidden meaning, which was "Nānā-i-ka-ʻule". It got this name from ancient times, and

> might have something to do with the shape of the mountain range. The shape of one mountain ridge is similar to an ʻule [penis] in one area and the testicles in another place. Nānāikaʻule literally means looking at a man's testicles, or looking at his penis. According to Mr. Cachola. Reverend Awai, the first principal of the elementary school to the north of the project area, was also aware of this story about the name origin of Nānākuli, and decided to name the school Nānāikapono instead, which translates as look to the way of righteousness.

Another Hawaiian, a kamaʻāina of Nānākuli, Mrs. Lehua Kapaku, revealed an entirely different story about the place, based on the legends Māui, the hero and demi-god, who had local connections to the Waiʻanae Moku (ibid.:82–83):

> Māui had several brothers and two sisters. One sister was Lualualei, which means "sacred wreath" and is the name of the ahupuaʻa north of Nānākuli. The second sister was a beloved baby, named Nānāikuʻulei, which means, "look to my pretty lei". Mrs. Lehua Kapaku suggests that this may be the original name for the Nānākuli ahupuaʻa.

There are many other moʻolelo relating to Waiʻanae Moku, in general, and adjacent ahupuaʻa (e.g., Lualualei) that are beyond the scope of this report (readers can refer to Watson et al. [2023] for details).

Handy's (1940:83) pioneering study of the traditional subsistence practices of Hawaiians, which provides a perspective on the landscape and resources that were once integral to the local way of life throughout the islands, had this to say about Nānākuli:

> On the south side of the stream, about a quarter of a mile inland from the main coastal road, there is a broken platform (Paepae) built of small rocks with apparently a small paved area below, close to the stream bed. Extending inland along the south bank of the stream bed for about 75 yards there is a rough stone facing from 1 to 2 feet high in general along the top. This might be judged to be a terrace area were it not that the ground behind the stone facing is not level; however, that might be due to washing out when the stream was in flood. According to Ernest Rankin, a rancher in this and other valleys past and now living on a homestead on the ridge north and above this site, the stonework just described was not terracing for taro patches but was built by a man named Whitney 40 years ago when he located a house and cattle shelter at that point. Behind the terraces there are sox large old monkeypod trees, indicating earlier habitation. On the north side of the stream at this point, there is a fairly recent habitation site, with several large trees, also papayas and traces of sugar cane plantings. Nearby are a tiny stone paving and the remains of an old Hawaiian house.
>
> According to Rankin there are no terrace remains anywhere in Nanakuli valley, nor any available water for irrigation, except at the very head of the valley's head, fare up in the mountains. High in the small gulches at the valley's head there are some abandoned terraces, stone platforms, and orange trees marking the sites of ancient Hawaiian habitations. But as long ago as 1890 when Rankin first frequented the valley as a cowboy, there was not one Hawaiian living there.

2.1.1 Current Project Area

Given its near-coastal, upland location about 0.5 miles north of the main Nānākuli Stream, the traditional Hawaiian use of the project-area land was likely related to dryland (non-irrigated) subsistence agriculture focused on ʻuala (sweet potatoes) but probably not kalo (taro). Likewise, permanent habitation sites were likely either closer to the shoreline or further mauka, taking advantage of the marine resources at the former location and more abundant fresh water at the latter. Handy (1940:156) talked about this general pattern:

> The eastern slopes of the southern end of the Waiʻanae Mountains below Puʻu Puna were famous for sweet potato growing. Although there was a little taro grown in the valleys of Waiʻanae-uka, sweet potatoes grown on the *kula* lands were the main food of the people here. On the other side of the Waiʻanae Mountains, sweet potatoes were planted on the dry slopes of Nanakuli, Lualualei, Waiʻanae-kai, and the other small valleys as far as Makua. With the exception of Waiʻanae-kai, the sweet potato was the staple for the inhabitants of this dry section . . .

John Papa ʻĪʻī's (1959:96) depiction of the traditional trails of some parts of Oʻahu, referring to the time around 1800 but meant to represent late pre-Contact routes of travel, shows the ala nui (main coastal trail) generally following the current Farrington Highway makai of the current project area. Traditional habitations, including fishermen's houses, were likely scattered along this trail in Nānākuli kai.

According to research by Lincoln and Hammatt (2009:30), Nānākuli Beach Park is a modern name that subsumes several place names including Pili o Kahe (southern end of Nānākuli Beach Park), which is a traditional Hawaiian reference, and Kalanianaʻole (northern end of Nānākuli Beach Park), which dates from the twentieth century. Pili o Kahe, or "clinging to Kahe," refers to a sea cliff above a cove suitable for swimming, diving or surfing but dangerous. Kalanianaʻole, named for the famous Hawaiian Jonas Kūhiō Kalanianaʻole who created the Hawaiian Homes Commission.

The nearest heiau (traditional Hawaiian temple) to the current project area is ʻIlihune, once located near the makai end of the ridge separating Nānākuli and Lualualei. According to early twentieth century descriptions by Thrum and McAllister (1933), this heiau was destroyed long ago. It is important to note that this type of observation was routinely incorrect, particularly in Waiʻanae Moku, and that closer inspection by archaeologists in more recent times has frequently demonstrated the presence of extant heiau remains both above and below the ground surface.

2.2 Historic Period

This section begins with general information about Nānakuli Ahupua‘a and the surrounding area; later, we discuss the project-area environs more specifically.

Early travelers to the Wai‘anae coast such as Captain George Vancouver in 1793 spent very little time in the area and commented only on the village of Wai‘anae proper, several miles north closer to Pōka‘ī (also known today Pokai) Bay, although he chose not to anchor there. In general, Vancouver’s comments about Wai‘anae were limited to observing its relative lack of abundance and noting “ . . . a few straggling fishermen’s huts . . .” here and there, and some coconut palms along the shoreline.

According to data compiled by McGrath et al. (1973:25), the introduction of western diseases, against which the indigenous Hawaiians generally lacked immunity, as well as a “tendency to move to the city where there was more excitement,” resulted in a significant depopulation of the Wai‘anae Coast. It is worth adding to this that, in addition to “excitement,” people also flocked to the city (i.e., Honolulu) in order to earn much-needed currency to pay for modern amenities and other newfound burdens (e.g., various taxes and levies). The missionaries, who famously arrived in the islands the year (1820) after the death of Kamehameha the Great (1819), the last strong traditionalist who unified the archipelago into the Kingdom of Hawai‘i, conducted a census of the Wai‘anae Coast in 1835, resulting in a population of only 1,654 residents (Hammatt et al. 1993:10–11). In 1853, the population of Wai‘anae was further reduced by a smallpox epidemic. By 1855, tax-collector documents recorded 183 taxpayers on the Wai‘anae Coast, which may reflect a total population of about 80 people (ibid.).

2.2.1 Māhele ‘Āina

Beginning in the 1840s, the concept of private property was introduced to Hawai‘i through formation of the Board of Commissioners to Quiet Land Titles, and the adoption of the Māhele (division of Hawaiian lands), or Māhele ‘Āina. In 1845, King Kamehameha III waived his right to full authority over the land, portioning out land for his personal use (crown lands) and dividing the rest into government land, land for the ali‘i and konohiki (land overseers usually of high rank or connection to high ranking individuals), and land for commoners (kuleana land) (Alexander 1891; Board of Commissioners 1929; Moffat and Fitzpatrick 1995).

Following thereafter, Land Commission Awards (LCAs) were awarded to commoners as kuleana parcels for fee ownership. LCAs therefore record who resided on the land and how the land was used. For the most part, however, LCAs awarded to ali‘i did not systematically record information about traditional land use.

Nānākuli is an interesting case in which five kuleana (LCA) applications were submitted but none were awarded. Lincoln and Hammatt (2009:33–35) list the five unsuccessful claimants and provide some reported information on land use and resources described by kama‘āina. These data are summarized in Table 1 below.

Lincoln and Hammatt (2009:33) provided an example of testimony provided in the “native register” of one of the unsuccessful claims by Kuluahi:

> To the Land Commissioners: ‘Ili of Hapai, Ahupuaa Nanakuli, Waianae District, Oahu. I, the one whose name is below, have a muliwai, a pond, a cultivated kula,

> and for firewood also, a valley planted in wauke mauka [and] a house lot. Kuluahi, X his mark (Native Register Vol. 5:342)

Like most of the other ahupua‘a in the moku of Wai‘anae, Nānākuli was designated Crown Lands at the time of the Māhele. The number 3431A, referring to the Crown Lands of Nānākuli is depicted on several historical maps (discussed in the next section).

It is not clear exactly where the unsuccessful kuleana claims were located, although Berdy et al. (2002:10) suggest they were situated in the upper valley where permanent habitation sites have been found by archaeologists and others. Only a small population of roughly 50 individuals lived in coastal Nānākuli during the mid-1800s (Cordy 1997). By 1881 there were just four Nānākuli residents listed in the Hawaiian Island Directory (ibid.).

Table 1. Summary of Unawarded LCA Claims in Nānākuli

Claim #	Claimant	Location	Comments
830	Mahiki	Nānākuli Ahupua‘a	3 lots and a house; rock cairn on north side, stream to east and west; other houses on north side
833	Kahananui	Nānākuli Ahupua‘a ‘Ili of Nānākuli Kaape	2 parcel claims and a house; rock cairn on north side, stream to east, wall on south side, other houses on north side
846	Awa	Nānākuli Ahupua‘a	4 scattered lands
7455	Kuluahi	Nānākuli Ahupua‘a ‘Ili of Hapai	Muliwai (estuary), pond, cultivated kula (dryland farming) and firewood; valley of house lot
8153	Haulula	Nānākuli Ahupua‘a ‘Ili of Kuamookahi	Kula of sweet potatoes, upland use of wauke & firewood

Following the establishment of the Waianae Sugar Plantation in 1878 by H.A. Wiedemann, the population of the district increased significantly. During the 1890s, the decade during which the Hawaiian Kingdom was overthrown by a group of U.S. businessmen backed by the U.S. government, the Oahu Railway and Land Co. (OR&L) railroad was constructed to bring crops and animals from the leeward coast to Pearl Harbor. This railway would eventually connect all of the Wai‘anae District over across the top of the islands, via Kaena Point, to the commercial sugar cane operations at Kahuku.

It is important to note that, although Nānākuli appears to have never been planted in commercial sugar cane—historic records indicate such fields began in neighboring Lualualei and points north—it was still severely impacted by artesian-well drilling in the uplands, pioneered by the McCandless brothers; this intense search for, and capture of, traditional fresh-water sources in the mountains made a dry place even drier, thus further reducing the turn-of-the-century productivity of Nānākuli even more.

After the 1893 coup d’etat by the U.S., Crown Lands were combined with Government Lands. In 1898, when Hawai‘i became a U.S. Territory, all lands combined were ceded to the U.S. It was not until the passage of the 1920 Hawaiian Homes Commission Act that the ceded lands (roughly 188,000 acres) were set aside to benefit Native Hawaiians (Juvik and Juvik 1998:228). Following this, Native Hawaiian homesteading in Nānākuli ensued, with 241 lots for

applicants to choose from (McElroy et al. 2016:14). The establishment of the Nānākuli Hawaiian homestead community is described below:

> Among the areas designated as Hawaiian homesteads was a hot, stickery portion of Nānākuli. By 1929 this land had been divided into house lots and plans were underway to bring in homesteaders. From the beginning, there was criticism of the project. Frederick Ohrt, manager of the Water Board in Honolulu, said there wasn't enough water in Nānākuli to supply the homesteaders (McGrath et al. 1973:111).

In the early 1900s, multiple parcels were sold in neighboring Lualualei that were classified as pastoral lands because of the general lack of water. Roughly 40 families settled on the smaller lots, while families such as the Von Holts, McCandlesses and Dowsetts laid claim to the large parcels there.

In March 1917, 31.36 acres within Nānākuli were set aside as a U.S. military reservation which was designated Camp Andrews in 1941. A 1943 article in Paradise of the Pacific explains how Camp Andrews, an overnight rest and recreation center, was the answer to relaxation for "fighting men" of the time and had cabins and picnic benches:

> The answer to this problem was construction of a camp accessible to railroad and highway transportation. Camp Andrews resulted—a peaceful haven where there is no routine, no reveille, and where a thousand men and fifty officers can rest after returning from the bloody shambles of the Southwest Pacific.
>
> Camp Andrews... is located at Nanakuli on the south-western shore of Oahu, twenty-six miles from "Pearl." It had been established early in 1941 by the Hawaiian Detachment but in December of that year it was turned over to Commander Hickey. Dances and USO shows help provide fun for the men during their "away from it all" two days at Camp Andrews. (Paradise of the Pacific 1943)

Sugar cane production and military activity dominated the first half of the twentieth century on the leeward coast. World War II was devastating for the Waianae Sugar Plantation as high paying defense jobs created a labor shortage. All sugar cane production in the Waiʻanae District was eliminated during the 1940s due to labor shortages, water shortages, military procurement of land and other more productive agricultural regions taking over. The OR&L railway was officially abandoned in 1946.

During World War II, concrete bunkers, pill boxes and gun emplacements were built along the Waiʻanae Coast. Many of these concrete features are still present today. At times as many as 20,000 troops were training in the Waiʻanae District. Given the sheer number of soldiers stationed in a relatively sensitive and fragile area, McGrath et al. (1973:135–136) write, "American troops caused more destruction on the Waianae coast than the Japanese."

2.2.2 Current Project Area

As depicted in historical maps and aerial images below, the current project area was undeveloped until circa 1970, or shortly thereafter, when the high school and intermediate school grounds were cleared (grubbed and graded).

2.3 Historic Maps and Aerial Images

Figure 6, a portion of 1876 Hawaiian Kingdom map by Lyons, shows the area in and around the project area, depicted as Crown Land (#3431A) as lacking depicted features. The main coastal road, probably horse-drawn wagon tracks at this time, is shown in the approximate location of the current Farrington Highway. Other traditional places such as the summit peak of Heleakalā to the northeast and Pili o Kahe to the south are also shown.

Figure 7, a portion of 1881 Hawaiian Kingdom map by Covington, shows the same information as the preceding map.

Figure 8, a portion of 1902 U.S. Territory map of Wall, shows some development, including the OR&L railway and possibly some rock walls and enclosures down by the near-shoreline. A symbol representing what was likely the Nānākuli station stop on the OR&L is shown.

Figure 9, a portion of 1913 U.S. Army topographic map, appears to show an ephemeral (seasonal) drainage headland adjacent to the current project area—just to its south; a trail or unimproved road is also located to the south of the project area.

Figure 10, a portion of 1936 topographic map shows major development in Nānākuli including a mauka-to-makai oriented road and possible fence line passing just to the project area's south. Other roads makai of the project area and to the south and southwest appear to be Hawaiian homestead lands and infrastructure. More homesteads in Lualualei kai are depicted to the west along the shoreline.

Figure 11, a portion of 1965 aerial photograph, still shows the current project area as located in undeveloped lands, with extensive residential development downslope but none above (mauka of) the current school campus.

By 1977, as depicted in Figure 12, the school campus has finally been at least partially completed, as has additional residential housing above (mauka of) the school. It is important to note that the current project area appears to have been completed graded and leveled by this time.

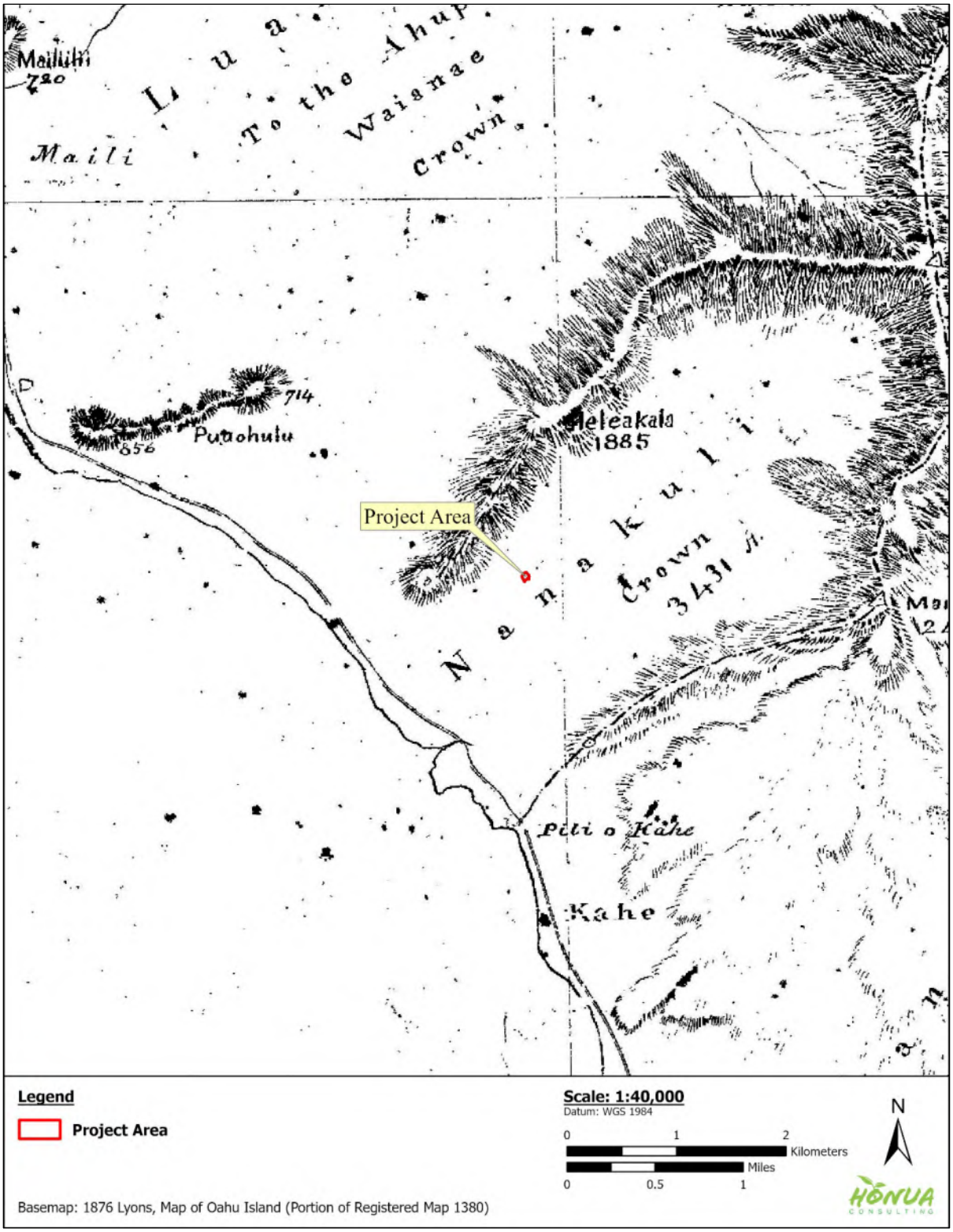

Figure 6. Portion of 1876 Lyons map showing project area location (Registered Map 16380) (base map source: DAGS Land Survey Map Search, http://ags. hawaii.gov/survey/map-search/)

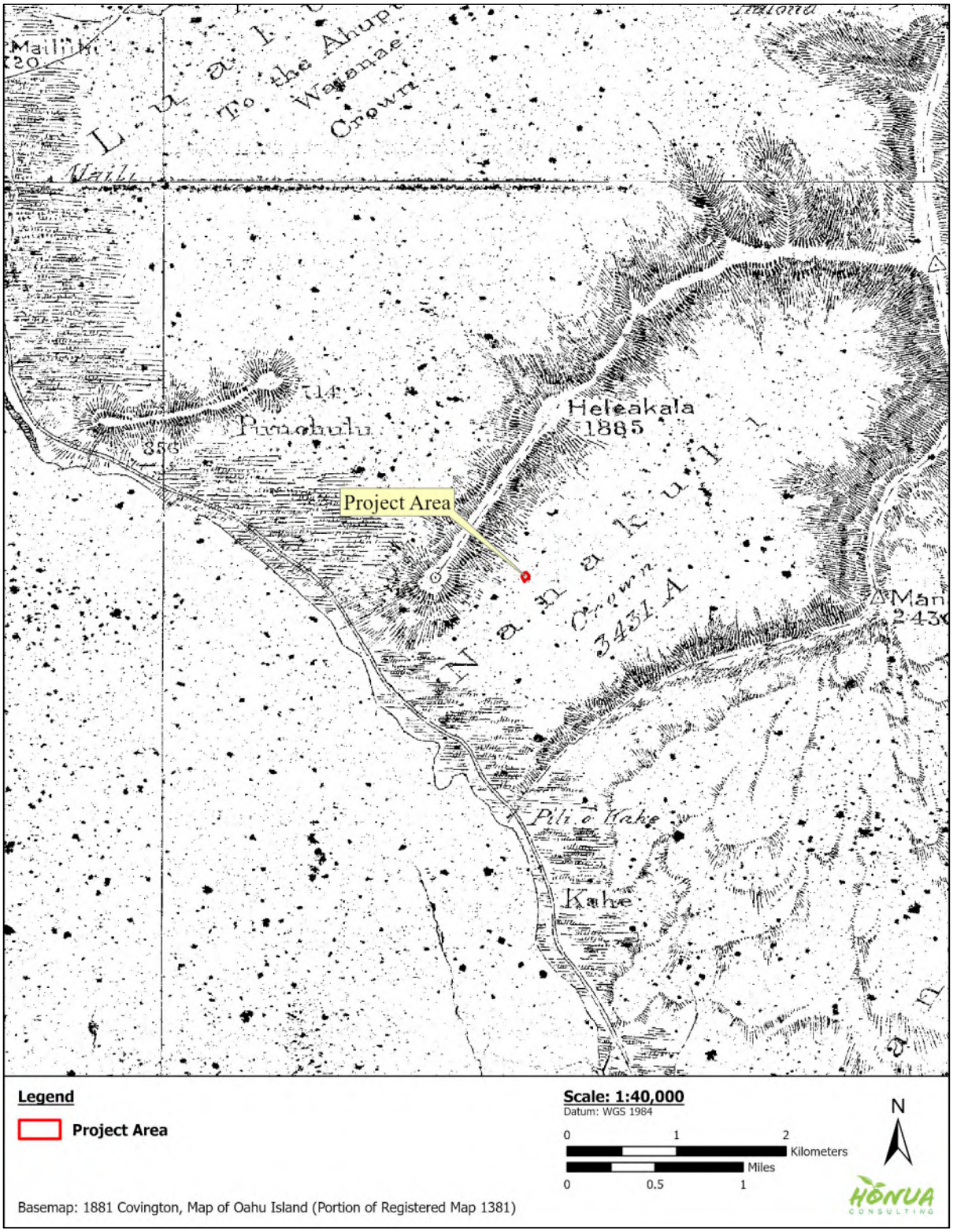

Figure 7. Portion of 1881 Covington map showing project area location (Registered Map 1381) (base map source: DAGS Land Survey Map Search, http://ags. hawaii.gov/survey/ map-search/)

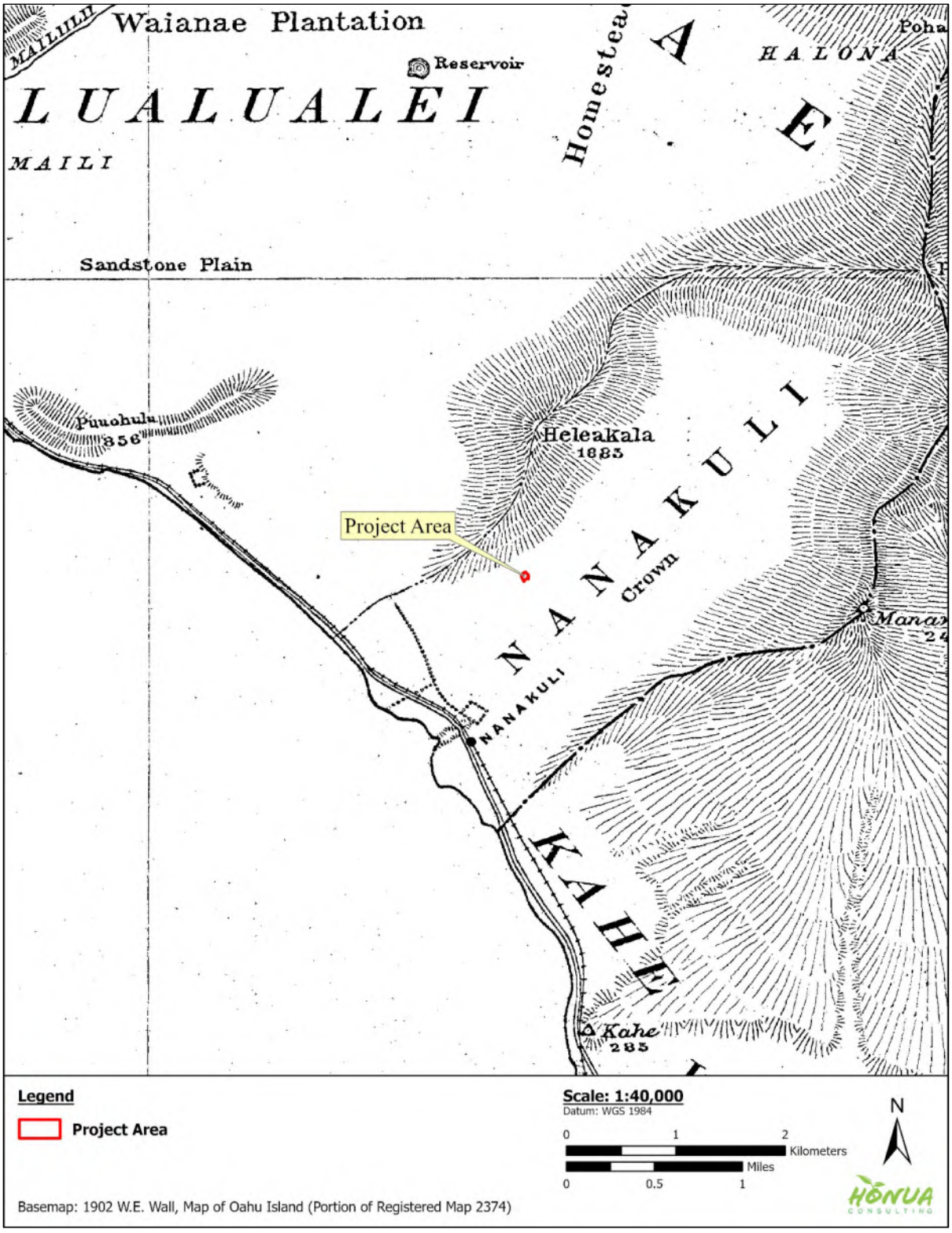

Figure 8. Portion of 1902 Wall map of O‘ahu showing project area location (Registered Map 1381) (base map source: DAGS Land Survey Map Search, http://ags. hawaii.gov/ survey/map-search/)

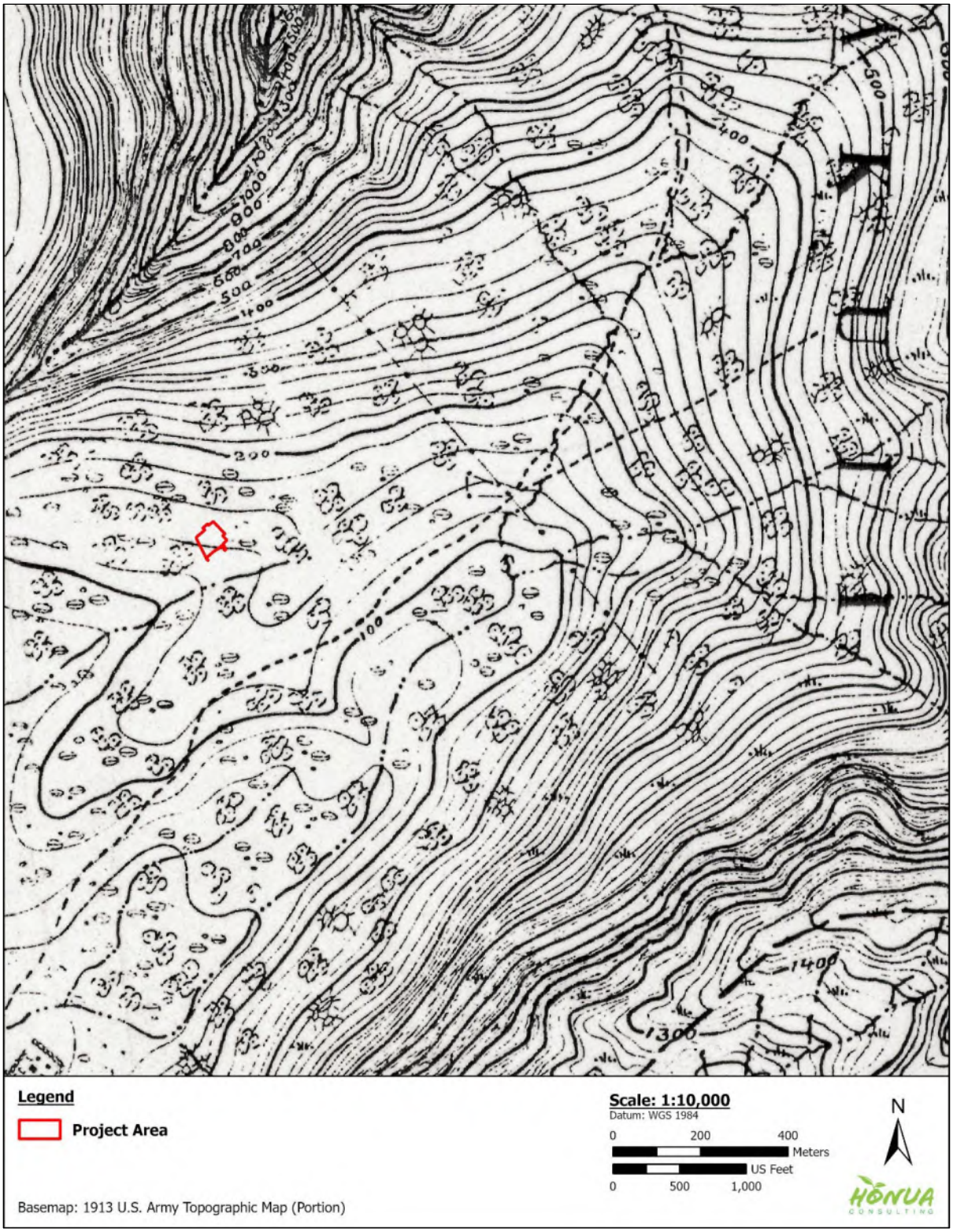

Figure 9. Portion of 1913 U.S. Army topographic map showing project area location (Registered Map 2374) (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

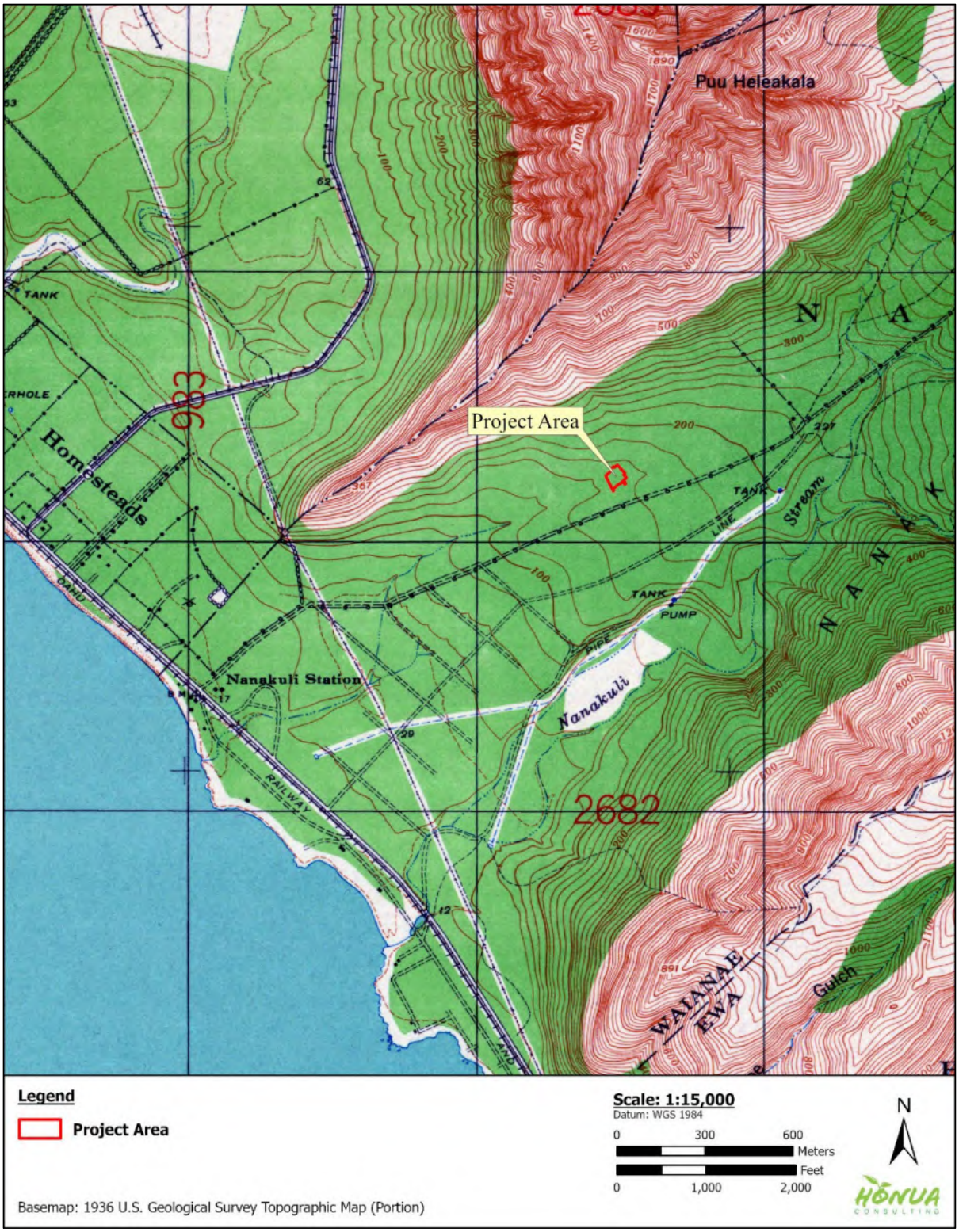

Figure 10. Portion of 1936 USGS topographic map showing project area location (Registered Map 2643) (base map source: DAGS Land Survey Map Search, http://ags.hawaii.gov/survey/map-search/)

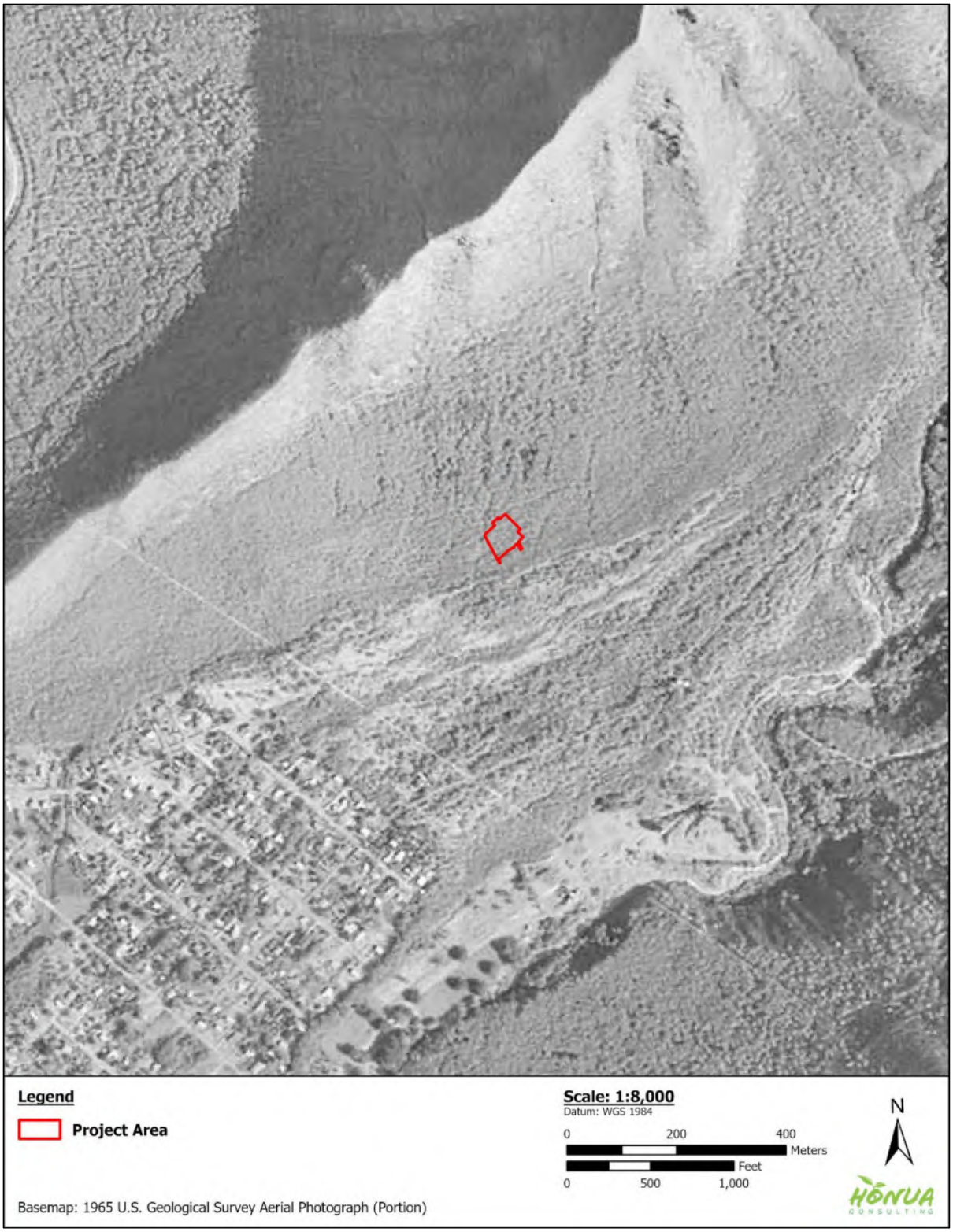

Figure 11. Portion of 1965 USGS aerial photograph showing project area location (base map source: University of Hawai‘i-Mānoa’s digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

Figure 12. Portion of 1977 USGS aerial photograph showing project area location (base map source: University of Hawai‘i-Mānoa’s digital maps, http://magis.manoa.hawaii.edu/maps/index.html)

Section 3 Previous Archaeological Studies

In this section, we summarize relevant previous archaeological studies in order to reconstruct human use and modification of the land in and near the project area. The main purpose of presenting this information is to develop predictive data about the types and distribution of historic properties and their component features we expected to encounter during the field inspection; and to assist interpretation of any new findings.

Note that this section may be expanded if a formal archaeological inventory survey (AIS) or archaeological monitoring is required in conjunction with the proposed project.

Table 2 and Figure 13 and Figure 14 summarize and depict the location and results of previous archaeological studies in and near the project area. For the purposes of this study, this discussion of previous work and results covers a radius of approximately 0.75-mile around the project area.

3.1 Overview

To the best our knowledge, no previous archaeological studies have been conducted within the current project area (see Figure 13); and no historic properties have been identified in the current project area (see Figure 14).

As described above, unlike neighboring Lualualei to the north, Nānākuli was never used for commercial sugar cane agriculture in the historical period. Such mechanized agriculture destroyed many above-ground sites in the Waiʻanae District starting the late nineteenth to early twentieth century. Historic maps and aerial photographs discussed in the previous section indicate the project area was undeveloped as late as 1965 (see Figure 11) but had been completed graded / mechanically cleared by 1977 (see Figure 12). This mechanical clearing would have removed any above-ground sites that may have once been in the current project area; this clearing also would have disturbed, to any unknown depth, any subsurface cultural deposits that may have once been present.

3.2 Summary of Historic Properties near the Project Area

This section provides summary details of previously-identified historic properties in the vicinity of the current project area. With the exception of a heiau (traditional Hawaiian temple) once located along a ridge marking the northern boundary of Nānākuli Ahupuaʻa, the other previously-identified sites are located along the coastline.

3.2.1 SIHP # 00147 (ʻIluhune Heiau)

About 0.5 miles to the west-northwest, the pioneering work of Bishop Museum archaeologist J. Gilbert McAllister in the 1930s identified ʻIlihune Heiau (SIHP 00147) near the lower, makai end of the ridge between Nānākuli and Lualualei valleys (McAllister 1933; Sterling and Summers 1978). This heiau, originally described by Thrum as a "small walled heiau of pookanaka class [i.e., a sacrificial heiau], was described as "destroyed" by the time of McAllister's work; historically, it was said to have been used as a cattle pen circa 1860 by one Frank Manini "for which natives prophesized his poverty and death) (ibid.). According to Lincoln and Hammatt (2009:31), in view of this oral-historical information, and since the word

‘ilihune translates as “to cause poverty,” this heiau name may date from the nineteenth century as opposed to being ancient.

3.2.2 SIHP # 05946

Several previous archaeological projects have identified features attributed to a U.S. military facility known as Camp Andrews (State Inventory of Historic Places [SIHP] # 50-80-08-05946) once located on the mauka side of Farrington Highway across from the current campus of the Ka Waihona o ka Na‘auau Charter School (Hammatt et al. 1999; McDermott et al. 2001; Berdy et al. 2002; McElroy et al. 2018). Identified component features of Camp Andrews included both above-ground (e.g., concrete bunker, coral columns at the original camp entrance, concrete foundations and road remnants) as well as subsurface material (e.g., trash deposits).

3.2.3 SIHP # 05947

Several previous archaeological in the “Camp Andrews” parcel also identified traditional Hawaiian collectively features designated SIHP # 50-80-08-05947 in subsurface context, specifically, in pit caves (“sinkholes”) (Hammatt et al. 1999; McDermott et al. 2001; Berdy et al. 2002; Hazlett et al. 2008). Features included one human burial and some traditional Hawaiian artifacts.

3.2.4 SIHP # 06824

Altizer et al. (2011) identified a historic-period section of Farrington Highway in subsurface context (SIHP # 06824) as well as previously-recorded subsurface charcoal deposits documented by Ostroff and Desilits (2005) but not assigned a SIHP number.

3.2.5 SIHP # 07677

McElroy et al. (2018) formally documented a pair of coral pillars at the original entrance to Camp Andrews—first identified by Hammatt et al. (1999)—as SIHP # 07677. These were recommended for permanent preservation as a marker of the old military presence in this coastal area of Nānākuli.

3.2.6 SIHP # 09714

Rails and an elevated railway bed (raised berm), part of the Oahu Railway and Land Co.’s (OR&L) SIHP # 09714, have been documented by many consultants on O‘ahu over the years. This site, which runs along the makai side of Farrington Highway in this area, was listed on both the Hawai‘i and National registers of historic places in 1975 (Reference #75000621).

Table 2. Previous Archaeological Studies and Results near the Project Area

Author(s)[1]	Type of Study	Location & Notes	Results & Comments[2]
McAllister 1933 Sterling & Summers 1978	Island-wide survey & compilation	Oʻahu – Island-wide	McAllister identified ʻIlihune Heiau (SIHP 00147) near the lower, makai (seaward) end of the ridge between Nānākuli and Lualualei valleys west of the project area
Bordner 1977	ARS	Lualualei Ahupuaʻa; base of Puʻu Heleakalā	No historic properties identified
Cordy 1990	AIS	(Then) undeveloped portions of Nānākuli Valley north and south of the current project area	These surveys, as summarized in Cordy (1997), identified agricultural areas, scattered habitation sites and possible religious structures in the upper valley; few sites were identified in the lower valley; no SIHP #s in the vicinity of the current project area
Cordy 1993	AIS		
Cordy et al. 1990	AIS		
Pak & Cordy 1990	AIS		
Cordy 1997	AIS		
Sinoto & Pantaleo 1994	ARS	Lualualei Homesteads	No findings
Ogden 1995	Subsurface testing	Small area along the south side of Nānākuli Stream just makai of Farrington Hwy.	No historic properties identified; excavations identified exclusively 20th century
Hammatt et al. 1999	AIS	Portion of former location of military Camp Andrews; and (then) proposed Nānākuli IV Elementary School	Identified remnants of Camp Andrews and numerous pit caves (“sinkholes”) which were recommended for additional work in the future
McGuire & Hammatt 2000	TCR		TCR = Native Hawaiian traditional and customary rights study; provided background cultural, historical and archaeological data
McDermott et al. 2001	AIS		Identified SIHP #s 05946 (remnants of U.S. military Camp Andrews) and 05947 (sinkholes with cultural deposits and 1 human burial)
Yorck & Hammatt 2003	AM		No historic properties identified
Hazlett et al. 2008	DR		Conducted subsurface testing (archaeological excavation) at several pit caves (“sinkholes”) at SIHP # 05947
McDermott & Hammatt 1999	AIS	Linear corridor connecting proposed reservoir site down along Nānākuli Ave. to Farrington Hwy.	No historic properties identified
McDermott & Hammatt 2000	AIS	ʻUlehawa Beach Park (~58 acres)	Not including OR&L railroad remnants (SIHP 09714), which has been identified many times by different archaeologists, 3 new sites were identified, all of which are in Lualualei (more than 0.75 miles from the current project area): SIHP #s 05671 (military structural remnants), 05672 and 05673 (both of which are subsurface cultural layers with traditional Hawaiian features)

Author(s)[1]	Type of Study	Location & Notes	Results & Comments[2]
Berdy et al. 2002	AIS	Proposed Nānākuli Kokua Ohana (also known as Village) Center	Identified additional portions of 2 previously recorded sites, SIHP #s 05946 and 05947 (see McDermott and Hammatt 2001, above); also extended the site boundaries of SIHP 05946
McElroy et al. 2020	AM		No historic properties identified
Perzinski et al. 2003	AIS	Nānākuli Beach Park	Other than the OR&L railroad (SIHP # 09714), no additional historic properties identified
Whitehead & Cleghorn 2003	AM	Nānākuli Water System Improvements along Nānākuli Ave.	No historic properties identified
Tulchin & Hammatt 2004	Field inspection	Several proposed HECO Meteorological Observation Stations	3 small stone features identified: an ahu, a stone terrace, and a small C-shape; these were not assigned SIHP #s
Cordy & Hammatt 2005	AM	Grounds of Ka Waihona o ka Naʻauau Public Charter School – fiber optic cable installation project	No historic properties identified
Jones & Hammatt 2005	AM	DHHL Subdivision in Nānākuli Ahupuaʻa	No historic properties identified
LeSuer & Cleghorn 2005	AM	Nānākuli Beach Park Parking Lot Improvements project	No historic properties identified
Ostroff & Desilets 2005	AM	Waterline project along Farrington Hwy.	Identified a charcoal-enriched sand deposit possibly associated w. previously recorded SIHP # 05763, as well as 4 other charcoal deposits; no portable artifacts were observed
Souza & Hammatt 2006	CIA		Provided background cultural, historical and archaeological data
O'Leary & McDermott 2006	AIS	SW slopes of Puʻu Heleakalā	Identified 2 sites: SIHP #s 06681 (WWII concrete bunker) and 06699 (rockshelter w. traditional Hawaiian cultural material)
Stein & Hammatt 2006	AM	Nānākuli Beach Park Sewer Connection for the Recreation Center project	No historic properties identified
Tuchin & Hammatt 2008	ALRFI	809-acre project area of Kahe Ranch Lands abutting Waiʻanae District	2 sites with temporary field #s (not SIHP #s) identified along the Waiʻanae / Honouliuli districts boundary: around 1,200 ft. elevation, CSH 2 (free-standing basalt uprights near historic road attributed to the U.S. military) and, around 800 ft. elevation, CSH 3 (historic-period rock cairn interpreted as marker near historic road)
Yucha & Hammatt 2008	AM	Nānākuli Beach Park	No historic properties identified

Author(s)[1]	Type of Study	Location & Notes	Results & Comments[2]
Lincoln & Hammatt 2009	CIA	Farrington Hwy. intersection improvements project	Provided background cultural, historical and archaeological data
Moore et al. 2009	AM	Boys & Girls Club of Hawaii, Nānākuli Youth Education Town (YET)	Identified 2 surface scatters with traditional Hawaiian materials, including basalt flakes, a coral abrader, and midden; no SIHP # assigned
Burke & Hammatt 2011	AM	Farrington Hwy.	No historic properties identified
Altizer et al. 2011	ALRFI	Farrington Hwy.	Identified 3 cultural resources: section of OR&L railroad (SIHP # 09714); an historic section of Farrington Highway (SIHP # 06824); and previously recorded subsurface charcoal deposits (see Ostroff & Desilits 2005, above)
Bellville et al. 2013	Indeterminate*	Along Farrington Hwy., Nānākuli	* This report appears in another consulting firm's graphics but there is no evidence of a reference for it
O'Hare et al. 2013	ALRFI	St. Rita's Church (TMK [1] 8-9-005:001)	Provided background cultural, historical and archaeological data
McElroy et al. 2016	AIS*		AIS* = an archaeological inventory survey with no results was written up as an archaeological assessment (AA) in accordance with the relevant HARs
McElroy et al. 2022	AM		Provided background cultural, historical and archaeological data
McElroy & Hitt 2014	AM	Hale Makana o Nānākuli (TMK [1] 8-9-002:001)	No historic properties identified
McElroy & Hitt 2016	AM		
McElroy et al. 2018	AM	Proposed Nānākuli Library	Identified additional features of Camp Andrews (SIHP # 05946) and coral pillars (SIHP # 07677) marking the original entrance to Camp Andrews

[1] Arranged chronologically but also grouped together by project area when applicable.
[2] SIHP = State Inventory of Historic Places; a complete, formal SIHP # in this table is preceded by "50-80-08."
Abbreviations: AIS = archaeological inventory survey; ALRFI = archaeological literature review and field inspection; AM = archaeological monitoring; ARS = archaeological reconnaissance survey CIA = cultural impact assessment; DR = archaeological data recovery; TCR = traditional and customary (Hawaiian) rights study (similar to a CIA).

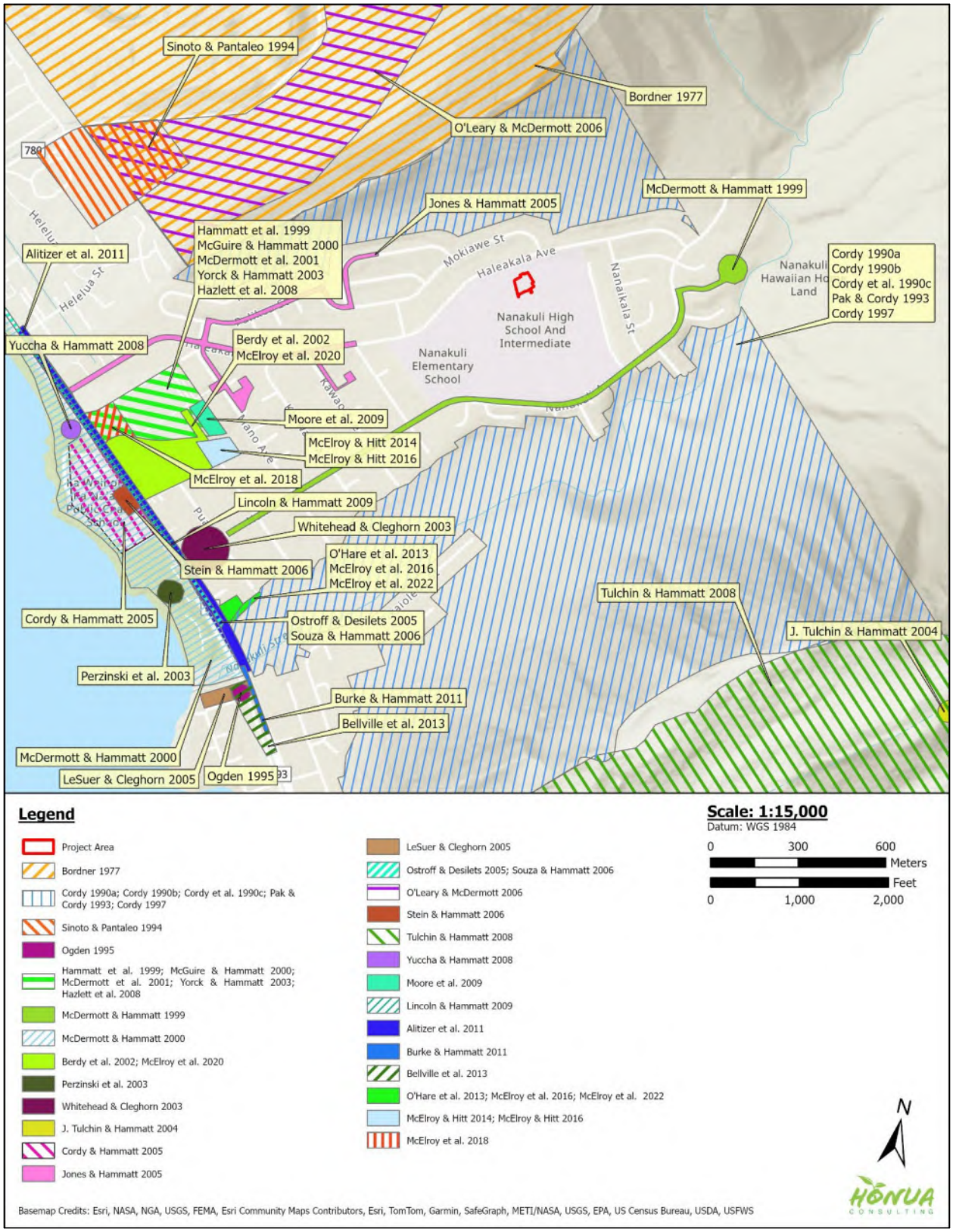

Figure 13. Previous archaeological studies near the project area (see table and text above for details)

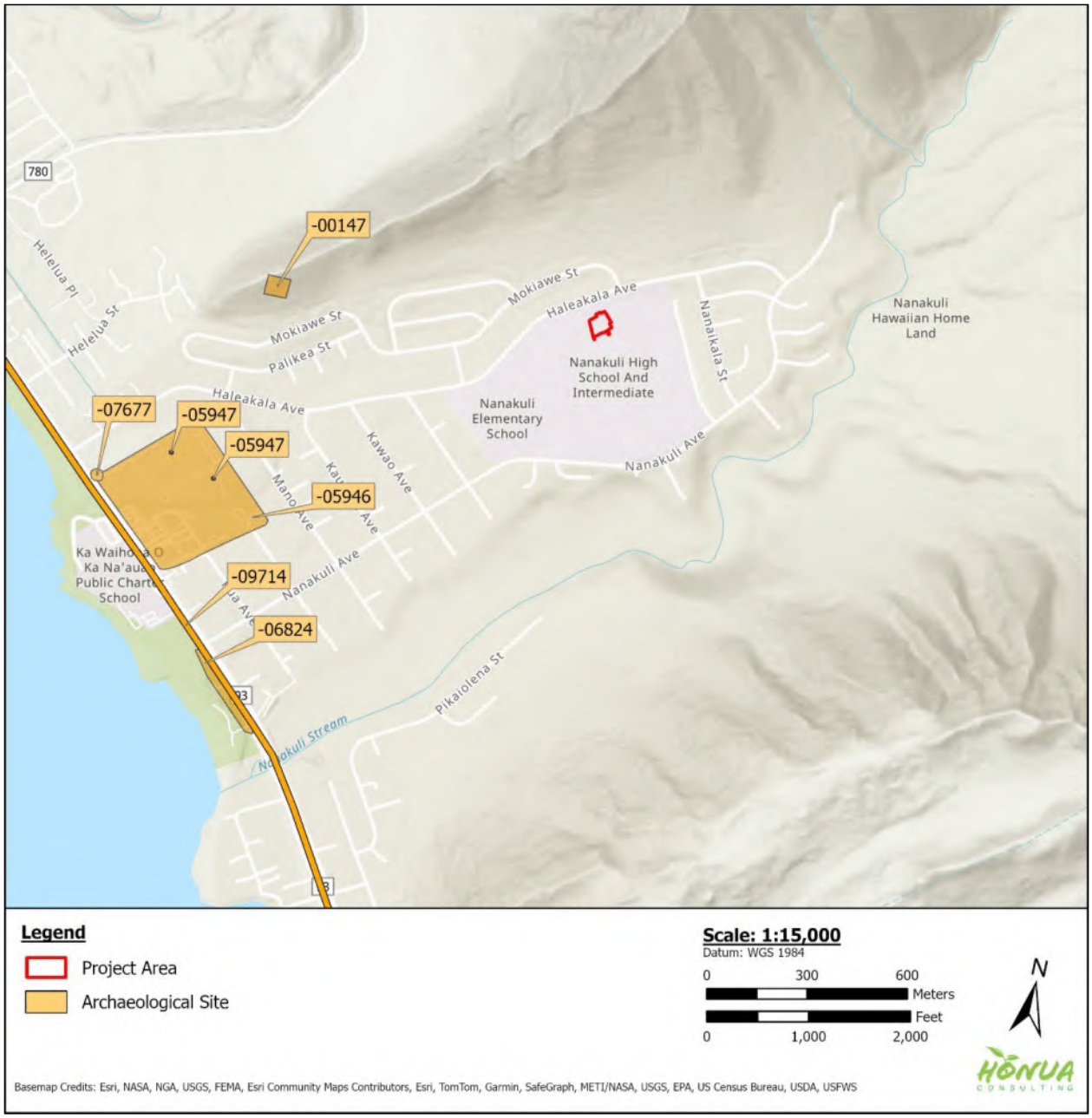

Figure 14. Documented historic properties near the project area (see table and text above for details)

Section 4 Results of Field Inspection

Fieldwork for this project was conducted on July 30, 2024, by Dodge Watson, B.A., under the supervision of Christopher M. Monahan, Ph.D. (principal investigator). Fieldwork required about 4.0 hours to complete. Fieldwork for this project was performed under the archaeological permit number 24-24 issued to Honua Consulting by the SHPD/DLNR in accordance with HAR Chapter 13-282.

4.1 Methodology

The archaeological field inspection consisted of a 100% pedestrian survey of the project area. The main objective to identify any potential historic properties or component features in the project area.

Figure 15 depicts pedestrian survey tracks recorded with a Trimble® GPS device using Terraflex™ software. The GPS unit maintained an accuracy ranging between 1–3 m (3–10 ft.) and all recorded GIS data was post-processed for sub-meter accuracy.

Field notes were recorded, approximately two dozen photographs were taken, and a detailed photo log (captions) was created. Photographs of the project area are included in Appendix A. Figure 15 also depicts the locations of the photographs.

All data are stored and backed-up in Honua's database.

4.2 Survey Results

No archaeological historic properties, or potential archaeological historic properties, were observed in the project area, which has been mechanically grubbed and graded/bulldozed in the past.

Documented alteration to the terrain occurred circa 1970 when the school campus was first developed; other, later episodes of ground clearing and leveling may also have taken place in and around the current project area.

Figure 15. Photo key showing the location of project-area photographs taken by Honua (see Appendix A for all 23 photographs)

Section 5 Conclusion

This archaeological literature review and field inspection (ALRFI) report was completed on behalf of Wilson Okamoto as part of its due diligence assessment for the proposed Nānākuli High School Performing Arts Center project, located on currently vacant land on the high school and intermediate school campus, in Nānākuli Ahupua‘a, Wai‘anae District, Island of O‘ahu, Hawai‘i. The project area consists of an approximately 0.74-acre portion of TMK [1] 8-9-007:009. The school campus’ address is 89-980 Nanakuli Avenue. The landowner is the State of Hawai‘i.

The project area is in the upper portion of the main residential neighborhood of Nānākuli, about 1.0 miles mauka (towards the mountains) of the shoreline and Farrington Highway. Hawaiian Electric’s (HECO) power planty at Kahe Point is about 2.25 miles to the south. The promient Pu‘u o Hulu separating neighboring Lualualei from Mā‘ili to the north is about 2.5 miles to the northwest. The project parcel is bounded by Haleakalā Avenue to the north (not to be confused with the nearby, prominent pu‘u [hill] named Heleakalā) and areas of the school campus on its other sides.

According to a 2007 article in the *Honolulu Advertiser* (Hoover 2007), the current location of the high school and intermediate school campus opened in 1972 (previously, it was located down along the shoreline).

The objectives of this ALRFI were: (1) documentation and description of the parcel’s land-use history in the context of its traditional Hawaiian character as well as its historic-period changes; (2) identification of any historic properties or component features in the project area; and (3) providing information relevant to the likelihood of encountering historically-significant cultural deposits in subsurface context during future construction.

This ALRFI is not an archaeological inventory survey (AIS), and it is not intended for formal review by the State Historic Preservation Division (SHPD). It may be used, however, to support the project proponent’s consultation with the SHPD in compliance with Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) Chapter 13-275.

Historical-architectural assessments for this project are being undertaken by another consulting firm (Mason Architects).

At this time, there are no specific building or construction plans for the subject parcel; if the project goes forward with new construction, however, it will certainly involve extensive ground disturbance / subsurface excavation for site work, including utilities, foundations and other structural footings, etc.

The results of this ALRFI are:

1. No archaeological historic properties, or potential archaeological historic properties, were observed in the project area, which has been mechanically grubbed and graded/bulldozed in the past;
2. Documented alteration to the terrain occurred circa 1970 when the school campus was first developed; other, later episodes of ground clearing and leveling may also have taken place in and around the current project area; and,
3. It is unlikely that any as-yet undiscovered historic properties or components features

thereof are located in the project area (i.e., beneath the existing ground surface) given the documented history of ground disturbance in the project area, and previous lack of historic-period development in the project area.

5.1 Recommendations

Based on the results of this study, our recommendations are as follows:

1. The proposed project will have “no effect” on archaeological historic properties located at the ground surface; and, most likely, will also have “no effect” on subsurface archaeological historic properties.
2. The Archaeology Branch of the SHPD should be consulted on archaeological matters related to ground disturbance associated with any future development plans or proposed projects, since the SHPD may still request archaeological monitoring be conducted as a precautionary measure.

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Appendix A – Project Area Photographs

This appendix contains twenty-three (23) project-area photographs.

Photo 1 – Performance arts building

Photo 2 – Culvert and foot bridge facing northwest

Photo 3 – Inscription on foot bridge “Pūkona & Naika 9-19-95”

Photo 4 – Concrete culvert head wall facing northeast

Photo 5 – Overview of concrete culvert head wall (see previous photograph) facing east

Photo 6 – Another view of concrete culvert head wall (see previous two photographs) facing northwest

Photo 7 – Performance arts building facing south

Photo 8 - Performance arts building from its north corner facing west

Photo 9 – North corner of subject parcel along Haleakala Ave. facing south

Photo 10 – West corner of subject parcel along Haleakala Ave. facing south

Photo 11 – Push pile of boulders in central portion of project area

Photo 12 – Kitchen building facing southwest

Photo 13 – Kitchen building facing south

Photo 14 – Kitchen building facing east

Photo 15 – West edge of project area facing east

Photo 16 – West side of project area facing west

Photo 17 - East of eastern side of project area facing west

Photo 18 – East of eastern side of project area facing south

Photo 19 – Drainage ditch with culvert in background facing east

Photo 20 – Gym building facing south

Photo 21 – Center of subject parcel facing north

Photo 22 – South corner of subject parcel facing north

Photo 23 – East corner of subject parcel facing west and Performance Arts building

APPENDIX B

Traffic Impact Report

Nānākuli High School Performing Arts Center

Traffic Impact Report

Nanakuli High School Performing Arts Center

Prepared for:
Architects Hawaii, Ltd.

Prepared by:
Wilson Okamoto Corporation

November 2024

TRAFFIC IMPACT REPORT

FOR THE

NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

Prepared for:

AHL (Architects Hawaii Ltd.)
733 Bishop Street, Makai Tower
Honolulu, HI 96813

Prepared by:

Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC Ref #10847-02

November 2024

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I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to identify and assess the potential traffic impacts resulting from the addition of a new performing arts building within the existing Nanakuli High and Intermediate School campus in Nanakuli on the island of Oahu. The proposed project entails the construction of the Nanakuli High and Intermediate School Performing Arts Center which will include an auditorium and other supporting amenities.

B. Scope of Study

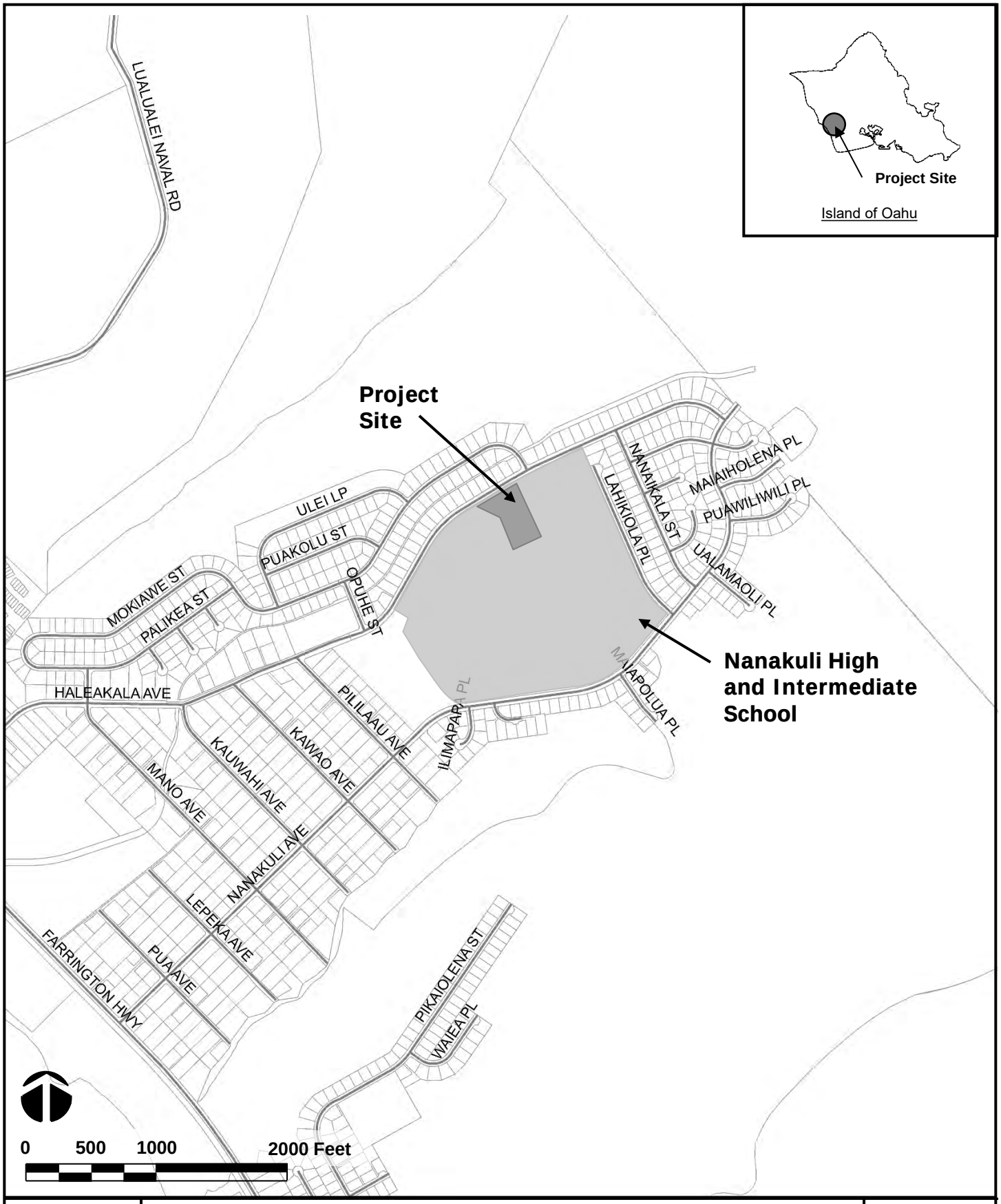
This report presents the findings and conclusions of the traffic study, the scope of which includes:

1. Description of the proposed project.
2. Evaluation of existing roadway and traffic operations in the vicinity.
3. Analysis of future roadway and traffic conditions without the proposed project.
4. Analysis and development of trip generation characteristics for the proposed project, as applicable.
5. Superimposition of site-generated traffic over future traffic conditions, as applicable.
6. The identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendations of improvements, if appropriate, that would mitigate the traffic impacts resulting from the proposed project.

II. PROJECT DESCRIPTION

A. Location

The existing Nanakuli High and Intermediate School is located adjacent to Nanakuli Avenue in Nanakuli on the island of Oahu (see Figure 1) and is further identified as Tax Map Key: (1) 8-90-07:009. The school campus is bounded by Nanakuli Avenue to the south, Nanakuli Elementary to the west, Haleakala Avenue to the north and residential uses to the east. The proposed performing arts building will be located on the northwest portion of the school campus. Access to the school will continue to be provided via three driveways off Nanakuli Avenue with the primary



WILSON OKAMOTO CORPORATION	NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER	FIGURE 1
	LOCATION MAP AND VICINITY MAP	

access provided via the center driveway (hereafter referred to as the "School Driveway") that leads to the school's parking areas. The remaining driveways provide secondary access primarily for maintenance purposes.

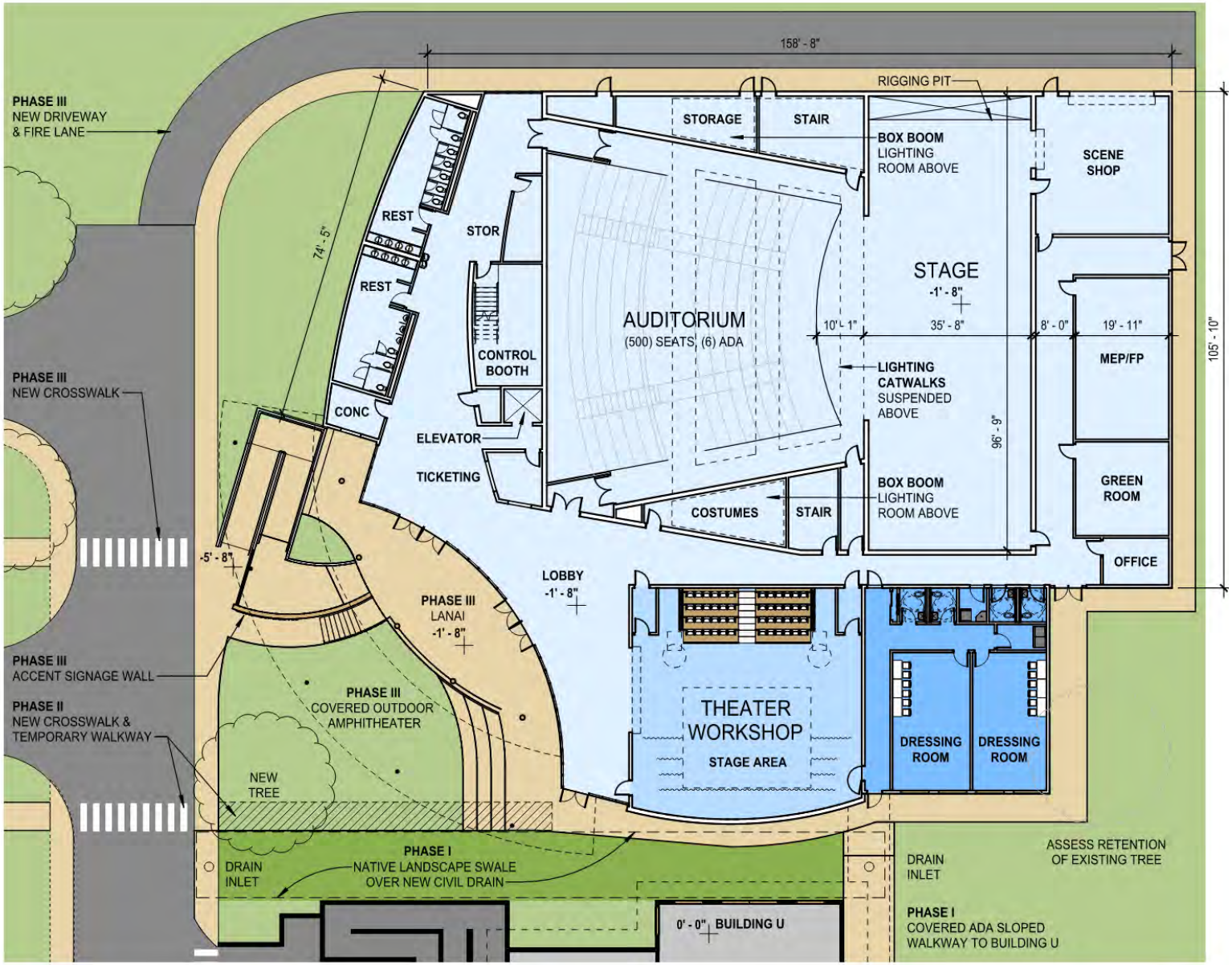
B. Project Characteristics

The proposed project entails the construction of a new Nanakuli Performing Arts Center (NPAC) within the existing Nanakuli High and Intermediate School. The new facility is intended to serve the existing performing arts program at the school which is an after school/weekend program serving students from grades 1-12. Currently, the program utilizes a multi-purpose room on-campus that also serves as the high school's cafeteria for its rehearsals, set construction, and performances. However, their current location poses a number of challenges for the program including the lack of storage space, limited restroom facilities, and conflicts with other uses in the same building. The NPAC building will include an auditorium, rehearsal and instructional spaces, backstage facilities, storage rooms, and other amenities to support the performing arts program. In conjunction with the proposed project, pedestrian facilities including a covered walkway will be constructed to connect the new performing arts building with other parts of the school campus. Access to the school will continue to be provided via the existing driveways off Nanakuli Avenue. The new facility is expected to be implemented in phases with the entire project completed in 2029. See Figure 2 for the proposed project site plan.

III. EXISTING TRAFFIC CONDITIONS

A. Area Roadway System

In the vicinity of the project site, Nanakuli Avenue is a predominantly two-lane, two-way City and County of Honolulu-maintained roadway generally oriented in the east-west direction that starts at Farrington Highway and transitions as Haleakala Avenue. Along the south perimeter of the Nanakuli High and Intermediate School campus, Nanakuli Avenue intersects the primary access for the school (hereafter referred to as the "School Driveway"). At this unsignalized T-intersection, the eastbound approach of Nanakuli Avenue includes a shared left-turn and through lane, while the westbound approach includes a shared through and right-turn lane.



WILSON OKAMOTO CORPORATION

NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

PROJECT SITE PLAN

FIGURE 2

The southbound approach is comprised of the School Driveway that includes a stop-controlled lane that serves left- and right-turn movements.

West of the intersection with the School Driveway, Nanakuli Avenue intersects Pililaau Avenue. At this unsignalized intersection, the eastbound and westbound approaches along Nanakuli Avenue include a lane that serves all turning movements. Pililaau Avenue is a predominantly two-lane, two-way City and County of Honolulu-maintained roadway generally oriented in the north-south direction between Nanakuli Avenue and Haleakala Avenue. The southbound and northbound approaches along Pililaau Avenue include a stop-controlled lane that serves all turning movements.

North of the intersection with Nanakuli Avenue, Pililaau Avenue intersects Haleakala Avenue. At this unsignalized T-intersection, Haleakala Avenue is a predominantly two-lane, two-way City and County of Honolulu-maintained roadway generally oriented in the east-west direction that starts at Farrington Highway and transitions as Nanakuli Avenue. The westbound approach of Haleakala Avenue includes shared left-turn and through lane, while the eastbound approach includes a shared through and right-turn lane. The northbound approach of Pililaau Avenue includes a stop-controlled lane that serves left- and right-turn movements.

B. Traffic Volumes and Conditions

1. General

a. Field Investigation

The existing traffic count data utilized for this study consisted of turning movement count surveys collected on April 16, 2024, in the vicinity of the proposed project during the morning peak hours of 6:30 AM and 9:00 AM and the afternoon school peak hours of 2:00 PM and 4:00 PM at the following intersections:

- Nanakuli Avenue and School Driveway
- Nanakuli Avenue and Pililaau Avenue
- Haleakala Avenue and Pililaau Avenue

In addition, traffic data was also collected at a midblock crosswalk located across Nanakuli Avenue west of the intersection with the School Driveway. Appendix A includes the existing traffic count data.

b. Capacity Analysis Methodology

The highway capacity analysis performed in this study is based upon procedures presented in the "Highway Capacity Manual," Transportation Research Board, 2016, and the "Synchro" software, developed by Trafficware. The analysis is based on the concept of Level of Service (LOS) to identify the traffic impacts associated with traffic demands during the peak periods of traffic.

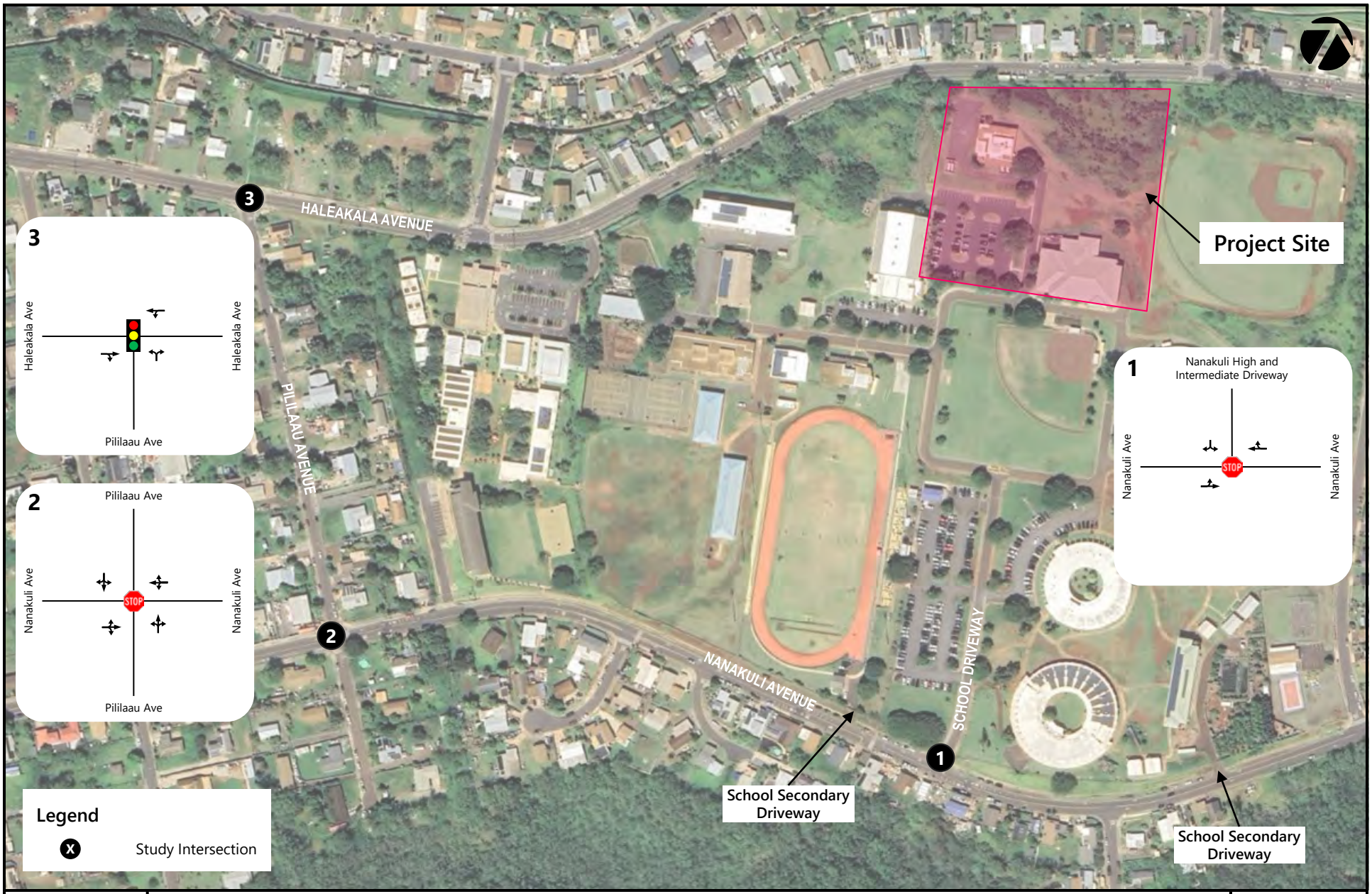
LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F"; LOS "A" representing ideal or free-flow traffic operating conditions and LOS "F" unacceptable or potentially congested traffic operating conditions.

"Volume-to-Capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road carrying capacity. A v/c ratio of one (1.00) indicates that the roadway is operating at or near capacity. A v/c ratio of greater than 1.00 indicates that the traffic demand exceeds the road's carrying capacity. The LOS definitions are included in Appendix B.

2. Existing Peak Hour Traffic

a. General

Figures 3 and 4 show the existing lane configurations and peak hour traffic volumes at the study intersections. The morning peak hour of traffic generally occurs between 7:30 AM to 8:30 AM while the afternoon school peak hour of traffic generally occurs between 2:30 PM and 3:30 PM. The analysis is based on these peak hour time periods to identify the traffic impacts resulting from the proposed project. LOS calculations for the core intersections are included in Appendix C.

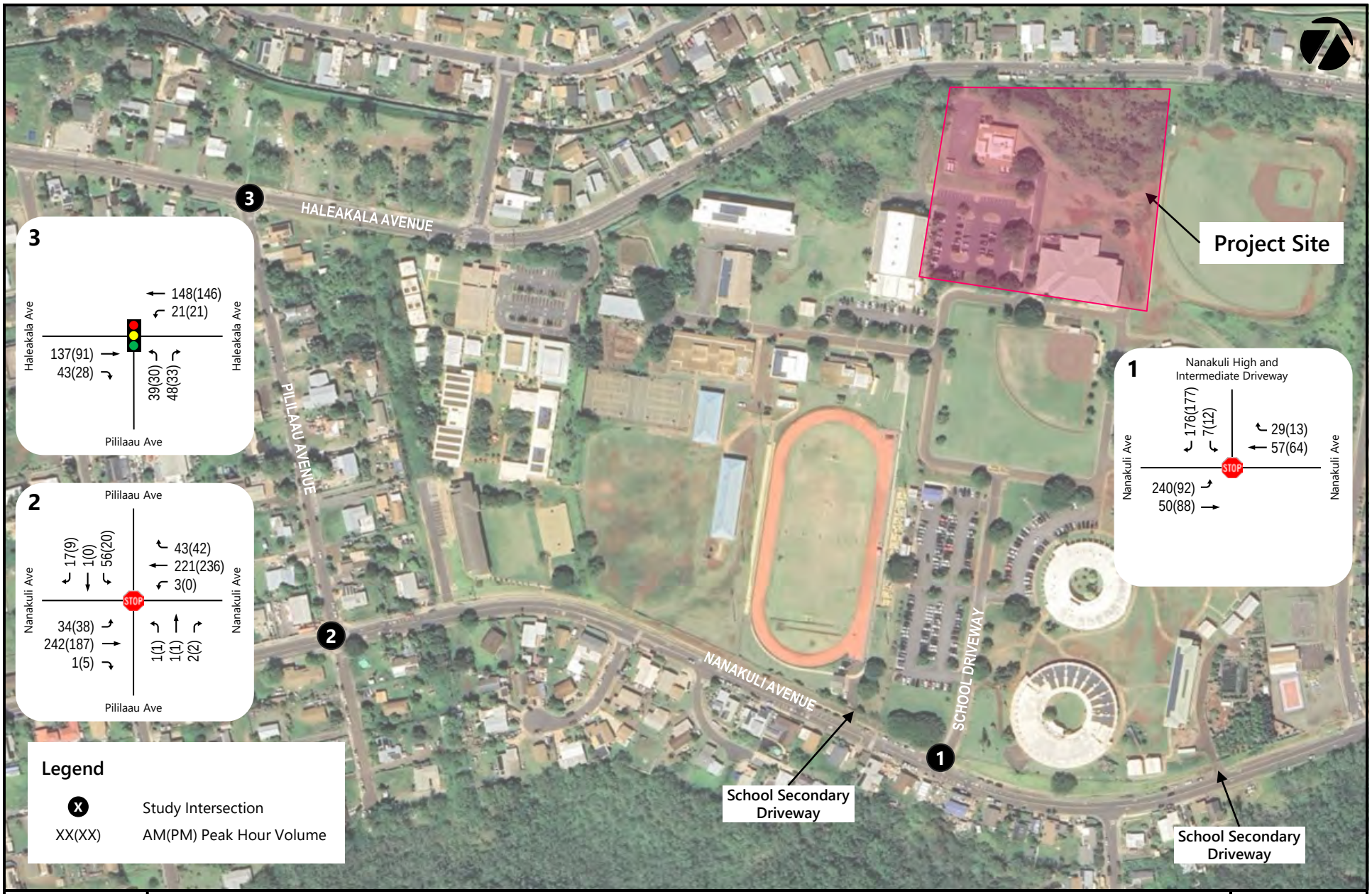


WILSON OKAMOTO CORPORATION

NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

EXISTING LANE CONFIGURATION

FIGURE 3



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NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

EXISTING PEAK HOURS OF TRAFFIC

FIGURE 4

a. Nanakuli Avenue and the School Driveway

At the intersection with the School Driveway, Nanakuli Avenue carries 290 vehicles eastbound and 86 vehicles westbound during the AM peak hour. During the PM peak hour, traffic volumes are lower with 180 vehicles and 77 vehicles traveling eastbound and westbound, respectively. The eastbound approach along Nanakuli Avenue operates at LOS "A" during both peak hours. It should be noted that traffic queues associated with school pick-up/drop-off operations were observed during field investigations, but there is sufficient queueing space within the school to accommodate these queues without extending onto the adjacent roadway.

The southbound approach of the intersection is comprised of the School Driveway which carries 183 vehicles and 189 vehicles southbound during the AM and PM peak hours, respectively. The southbound approach operates at LOS "B" during both peak hours. Traffic queues occasionally formed along the southbound approach during both peak periods. As mentioned previously, the School Driveway is a significant distance from the pick-up/drop-off area therefore, the average queue lengths of 3-4 vehicles were observed along this approach during both peak periods.

Although there are no marked crosswalks provided at this intersection, 62 pedestrians were observed crossing the School Driveway on the north side of the intersection during the AM peak hour, while 17 pedestrians were observed crossing Nanakuli Avenue on the east side of the intersection during the same peak hour. During the PM peak hour, 73 pedestrians were observed crossing on the north side of the intersection while 8 pedestrians were observed crossing Nanakuli Avenue on the east side of the intersection.

In addition, as previously discussed, a midblock crosswalk is provided across Nanakuli Avenue west of the intersection with the School Driveway. During the AM peak hour, 8 pedestrians were

observed crossing at that midblock location, while 14 pedestrians were observed crossing at the same location during the PM peak hour.

b. Nanakuli Avenue and Pililaau Avenue

At the intersection with Pililaau Avenue, Nanakuli Avenue carries 277 vehicles eastbound and 267 vehicles westbound during the AM peak hour. During the PM peak hour, the overall traffic volume is lower with 230 vehicles and 278 vehicles traveling eastbound and westbound, respectively. Both approaches along Nanakuli Avenue operate at LOS "A" during both peak hours.

At the intersection with Nanakuli Avenue, Pililaau Avenue carries 4 vehicles northbound and 74 vehicles southbound during the AM peak hour. During the PM peak hour, the overall traffic volume is less with 4 vehicles and 29 vehicles traveling northbound and southbound, respectively. The northbound approach operates at LOS "B" during both peak hours, while the southbound approach operates at LOS "C" during both peak hours. Minimal traffic queues were observed along both approaches with average queue lengths of 1-2 vehicles observed during both peak hours.

Crosswalks are provided across Nanakuli Avenue on the east side of the intersection, as well as across Pililaau Avenue on the north and south sides of the intersection. During the AM peak hour, 14 pedestrians were observed crossing the north side of the intersection, while 2 pedestrians were observed crossing the south side of the intersection. No pedestrians were observed crossing on the east side of the intersection during this peak hour. During the PM peak hour, 50 pedestrians and 9 pedestrians were observed crossing the north and south sides of the intersection, respectively, while 6 pedestrians were observed crossing the east side of the intersection

c. Pililaau Avenue and Haleakala Avenue

At the intersection with Haleakala Avenue, Pililaau Avenue carries 80 vehicles and 81 vehicles northbound during the AM and PM

peak hours, respectively. The northbound approach operates at LOS "B" during both peak hours. Minimal traffic queues were observed along this approach with average queue lengths of 1-2 vehicles observed during both peak periods.

The Haleakala Avenue approaches of the intersection carry 156 vehicles eastbound and 144 vehicles westbound during the AM peak hour. During the PM peak hour, traffic volumes are less with 91 vehicles and 96 vehicles traveling eastbound and westbound, respectively. The westbound approach along Haleakala Avenue operates at LOS "A" during both peak hours.

Crosswalks are provided across Pililaau Avenue on the south side of the intersection, as well as across Haleakala Avenue on the east side of the intersection. During the AM peak hour, 6 pedestrians were observed crossing on the south side of the intersection. No pedestrians were observed crossing on Haleakala Avenue during that peak hour. During the PM peak hour, 35 and 2 pedestrians were observed crossing the south and east sides of the intersection, respectively.

IV. PROJECTED TRAFFIC CONDITIONS

A. Site-Generated Traffic

The proposed NPAC building is intended to serve the existing performing arts program that is currently being housed on campus in another building. The new facility is expected to address existing inadequacies of their current space. As such, the proposed project is not expected to generate additional traffic in the vicinity of the existing school during the AM and PM school peak periods. In addition, it should also be noted that based on information provided by the State of Hawaii Department of Education, enrollment at the Nanakuli High and Intermediate School is expected to decrease through Year 2029. As such, the school is also not expected to generate additional site-generated traffic as a result of enrollment.

B. Through Traffic Forecasting Methodology

The travel forecast is based upon historical traffic count data obtained from the State DOT, Highways Division at survey locations in the vicinity of the project

site which indicates fluctuating traffic volumes along Nanakuli Avenue and Haleakala Avenue, the primary connector roadways serving the vicinity. However, although traffic along these roadways are fluctuating, the overall volumes are generally stable. In addition, although school enrollment projections indicate a decrease in student enrollment at the Nanakuli High and Intermediate School, an annual traffic growth rate of approximately 0.5% was conservatively assumed along the through movements along Nanakuli Avenue and Haleakala Avenue to account for fluctuations in traffic given the number of other educational facilities located in the project vicinity. Using 2024 as the Base Year, a growth rate factor of 1.025 was applied to the existing traffic demands along these roadways to achieve the projected Year 2029 traffic demands.

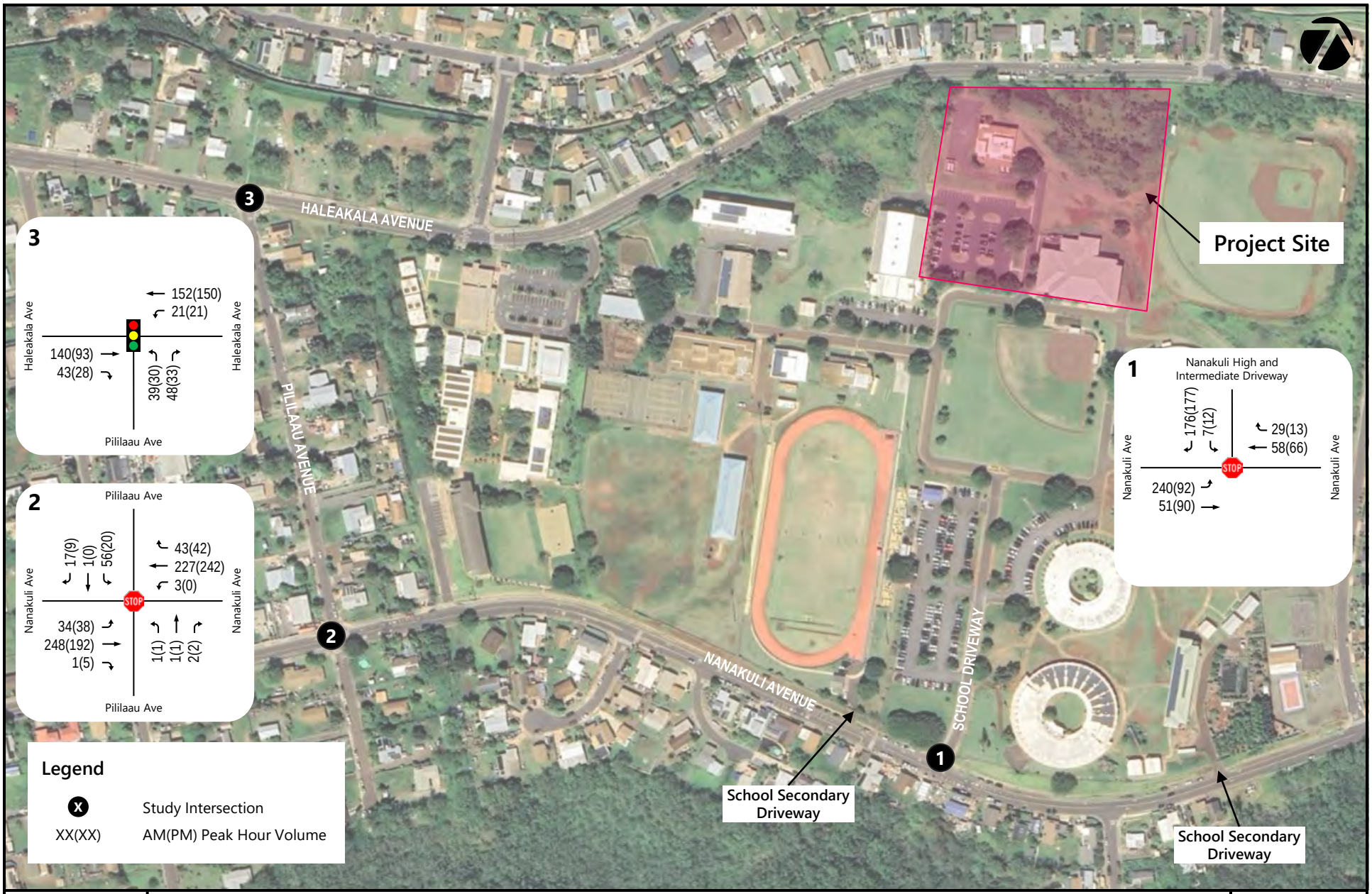
C. Year 2029 Total Traffic Volumes

The Year 2029 peak hour volumes with the proposed project are shown in Figure 5 and summarized in Table 1 below. As previously noted, the proposed project is not expected to result in an increase in site-generated traffic and as such, the Year 2029 conditions represent both without and with project conditions. The traffic operating conditions under existing conditions are provided for comparison purposes.

Table 1: Existing and Projected Year 2029 (Without and With Project) LOS Traffic Operating Conditions

Intersection	Approach/ Critical Movement	AM Peak		PM Peak	
		Exist	Year 2029 w/ Proj	Exist	Year 2029 w/ Proj
School Dwy/ Nanakuli Ave	Eastbound	A	A	A	A
	Southbound	B	B	B	B
Nanakuli Ave/ Pililaau Ave	Eastbound	A	A	A	A
	Westbound	A	A	A	A
	Northbound	B	B	B	B
	Southbound	C	C	C	C
Haleakala Ave/ Pililaau Ave	Westbound	A	A	A	A
	Northbound	B	B	B	B

Under Year 2029 with project conditions, traffic operations in the vicinity are expected to remain similar to existing conditions since the proposed project is expected to serve an existing program already housed on-campus. Along Nanakuli



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NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

YEAR 2029 PEAK HOURS OF TRAFFIC FUTURE PROJECT

FIGURE 5

Avenue, traffic operations at the approaches with Pililaau Avenue are expected to continue operating at LOS "C" or better during both peak hours, while those at the School Driveway are expected to continue operating at LOS "B" or better during both peak periods. Along Haleakala Avenue, traffic operations are also expected to continue operating at LOS "B" or better during both peak hours.

VI. MULTIMODAL FACILITIES

A. Pedestrian Facilities

In the vicinity of Nanakuli High and Intermediate School, continuous sidewalks are provided along both sides of Nanakuli Avenue buffered by planting strips that provide separation from the vehicular travel way. In addition, street lighting is also provided along the roadway to increase pedestrian comfort during nighttime hours. Pedestrian crossings across Nanakuli Avenue are facilitated via marked crosswalks at the intersection with Pililaau Avenue, as well as a midblock crosswalk provided west of the School Driveway. Enhanced crossing treatments such as the provision of vertical deflections in advance of the crossing and pedestrian crossing signage are provided for these crossings, as well as curb extensions at the intersection with Pililaau Avenue. With the proposed project, the existing pedestrian facilities in the vicinity of the project are expected to be maintained. In addition, as previously discussed, internal walkways are expected to be constructed within the school campus to provide connectivity between the new NPAC facility and the other destinations on campus.

B. Bicycle Facilities

1. Methodology

Bicycle Level of Traffic Stress (LTS) is a metric developed by the Mineta Transportation Institute used to classify a roadway segment or intersection. The LTS ranking system is based on the amount of traffic stress imposed on cyclists based on variables such as street width, prevailing vehicle speed, and average daily traffic volumes. The Level of Traffic Stress ranges from 1 to 4 and can be assessed for a given segment or intersection via six tables provided by the Mineta Transportation Institute. The general descriptions of the LTS levels are as follows:

- LTS 1: Characterized by strong separation from all except low speed, low volume traffic. Simple crossings. Suitable for children.
- LTS 2: Except in low speed/low volume traffic situations, cyclists have their own place to ride that keeps them from having to interact with traffic except at formal crossings. There is a physical separation from higher speed and multilane traffic. Crossings are easy for an adult to navigate. This refers to a level of traffic stress that most adults can tolerate, particularly those sometimes classified as interested but concerned.
- LTS 3: Involves interaction with moderate speed or multilane traffic, or close proximity to higher speed traffic. Refers to a level of traffic stress acceptable to those classified as enthused and confident.
- LTS 4: Involves interaction with higher speed traffic or close proximity to high-speed traffic. Refers to a level of stress acceptable only to those classified as strong and fearless.

It should be noted that current LTS methodology assumes no traffic stress is imposed on cyclists at signalized intersections. Guidance provided by the Mineta Transportation Institute includes categorizing signalized intersections as a LTS 2.

2. Existing Conditions and Bicycle Level of Traffic Stress

There are bicycle facilities in the vicinity of the project, but the majority of these facilities are shared-use facilities and dedicated bicycle facilities are generally limited to climbing lanes along select segments of Nanakuli Avenue. The existing bike facilities within the study area include the following (see Figure 6):

- Climbing lane along Nanakuli Avenue from Farrington Highway to Pililaau Avenue
- Shared roadway along Nanakuli Avenue from Pililaau Avenue to Haleakala Avenue
- Climbing lane along Haleakala Avenue from Farrington Highway to Nanakuli Avenue

The roadways in the vicinity of the proposed project were assessed to determine the level of traffic stress (LTS) imposed upon bicyclists based upon the prevailing speed and geometric characteristics of the roadway. Between Farrington Highway and Pililaau Avenue, Nanakuli Avenue is rated at LTS 2 due to the provision of dedicated (climbing) bike lane along that roadway that separates bicycle traffic from vehicular traffic. East of Pililaau Avenue, the

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NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

EXISITING AND PROPOSED BICYCLE FACILITIES

FIGURE 6

bike lanes along Nanakuli Avenue terminates thereby bicyclists along this segment to share the travel way with other vehicular traffic. As such, this segment is rated at LTS 3. North of the project site, Haleakala Avenue includes bike lane and as such is rated at LTS 2. Similarly, Pililaau Avenue is also rated at LTS 2. Despite the lack of dedicated bike facilities along this roadway, there is relatively low volume of traffic and as such, conditions are still suitable for less experienced riders. Figure 7 depicts the existing LTS along the roadways in the vicinity of the project.

3. With Project Conditions

There are other planned City and County of Honolulu (CCH) bicycle improvements in the vicinity of the project. These are shown in the Oahu Bike Plan (updated 2019) published by the CCH Department of Transportation Services and include the following:

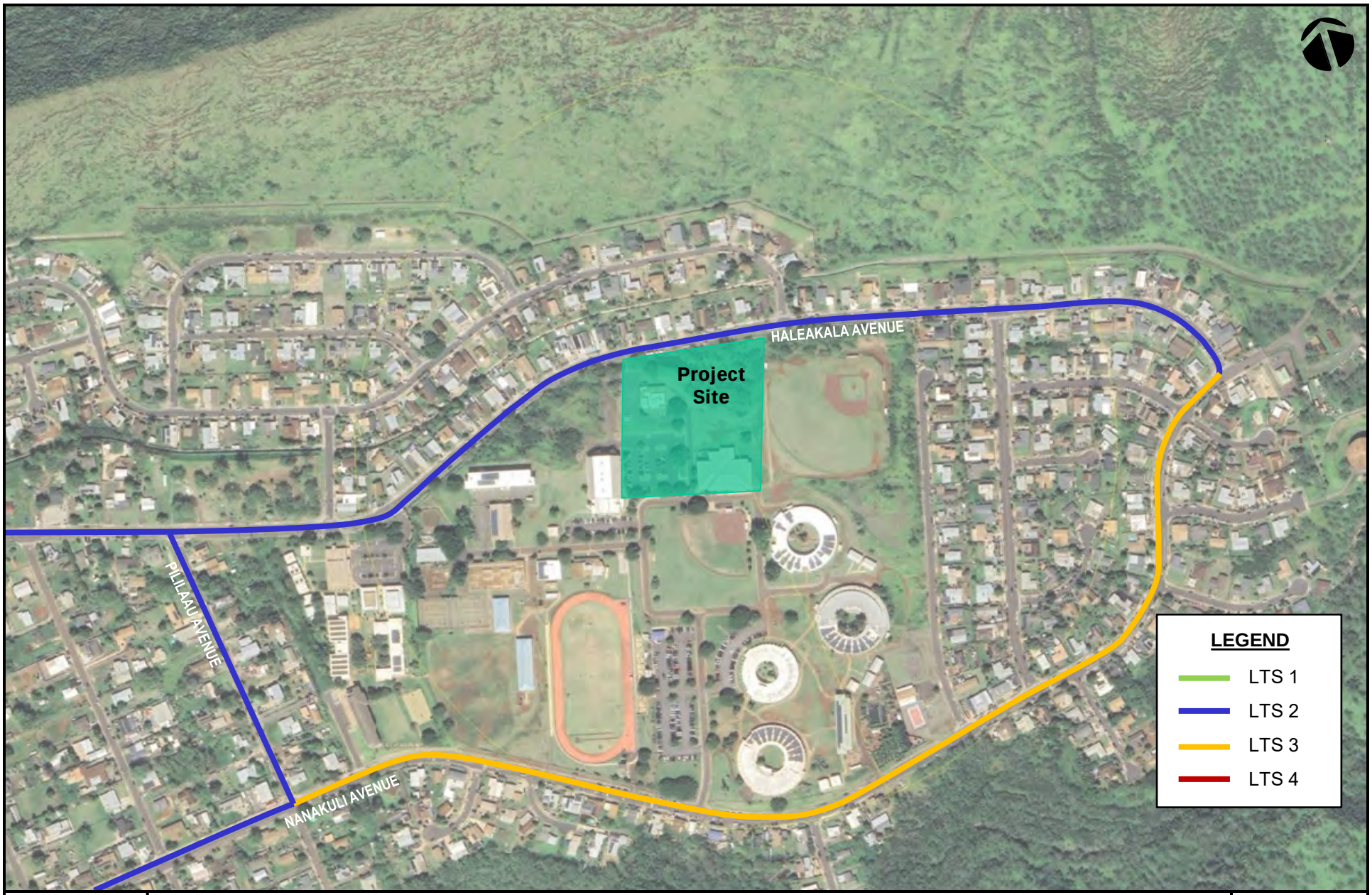
- Shoulder bikeway along Farrington Highway from Ala Hema Street to Piliokahi Avenue
- Shared-use path known as the Leeward Bike Path from Lualualei Naval Road to Hawaiian Railroad Society Train station

Although the development of these additional facilities is anticipated to increase bicycle connectivity in the vicinity, the timelines for these improvements are not known at this time.

C. Transit Facilities

1. Methodology

Transit Capacity and Quality of Service is a metric used to measure transit availability, comfort, and convenience from both the passenger and transit service provider's points of view. The framework for this metric is outlined in the Transit Cooperative Research Program (TCRP) Report 165: Transit Capacity and Quality of Service Manual (TCQSM), 3rd Edition published in 2013 which provides research-based guidance on public transit capacity and quality of service. The quality of service concepts and methods contained in the TCQSM address real-world transit operations, comprehensive planning, and design needs. The research for and development of the TCQSM has also directly supported the development of the Multimodal Level of



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NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

BICYCLE LEVEL OF TRAFFIC STRESS

FIGURE 7

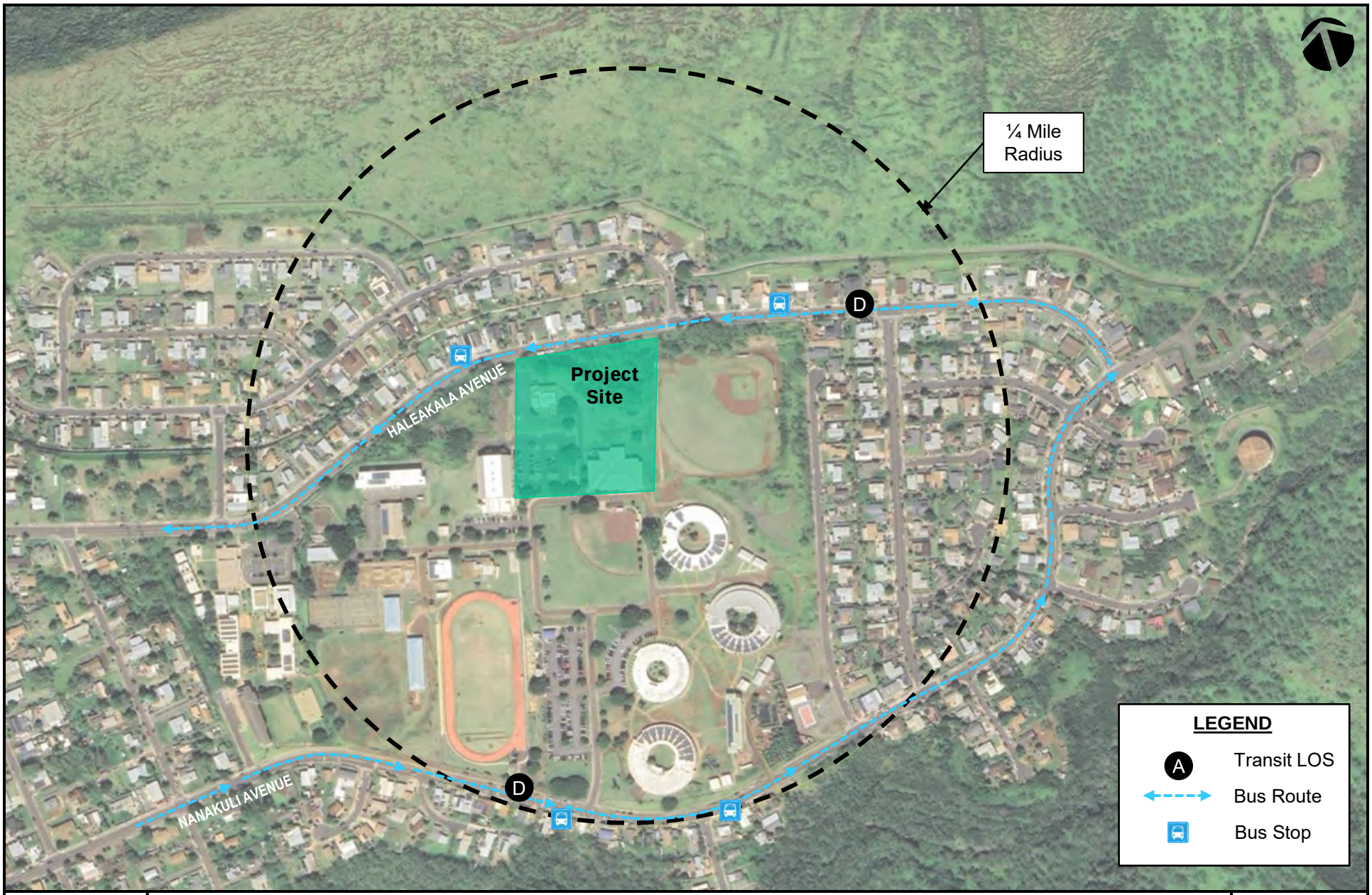
Service (LOS) analysis methodologies introduced in the Highway Capacity Manual (HCM) 2010 and subsequently refined in HCM 6. Multimodal LOS analyzes a roadway corridor comprised of street segments which are defined as a length of street between intersections where traffic may have to stop due to traffic control. Transit LOS can be directly compared to other transportation modes with LOS "A" representing the best quality of service and the letter "F" used to represent the worst quality of service. The assessment evaluates the quality of transit operations incorporating factors that bear all aspect of a transit trip including the pedestrian environment along the street, service frequency and reliability, and the availability of transit amenities at those stop locations.

2. Transit LOS

Transit service in the project vicinity is provided by "TheBus" which is operated by the Oahu Transit Services (OTS) for the City and County of Honolulu Department of Transportation Services. Based on the Transit Capacity and Quality of Service Manual (TCQSM), a quarter mile represents the maximum distance that people will walk to a transit stop which is equivalent to approximately 5 minutes of walking time. There are approximately 4 transit stops that are served by 2 unique bus routes in the vicinity of the project (see Figure 8). To verify the existing quality of service for the transit facilities in the project vicinity, an assessment of the facilities located within a quarter-mile radius of the project site was conducted based on the methodology outlined by the TCQSM. Transit service along Nanakuli Avenue and Haleakala Avenue are rated at LOS "D" since these stops are only served by two bus routes with headways of 1 hour or less and minimal amenities are provided at these stops. With the proposed project conditions, transit service is generally expected to remain similar to existing conditions. Transit LOS calculations are included in Appendix E.

VII. RECOMMENDATIONS

Based on the analysis of the traffic data, the following are the recommendations of this study to be incorporated in the project design.



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NANAKULI HIGH AND INTERMEDIATE SCHOOL PERFORMING ARTS CENTER

TRANSIT FACILITIES AND LEVELS OF SERVICE

FIGURE 8

1. Maintain adequate on-site loading and off-loading service areas and prohibit off-site loading operations.

2. Maintain adequate turn-around area for service, delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.

3. Provide sufficient site distance and turning radii at all new internal connections and roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

4. Provide adequate pedestrian connections between the existing and proposed on-site uses. All pedestrian connections should be made accessible in conformance with the American with Disabilities Act (ADA). It should be noted that internal walkways are expected to be constructed in conjunction with the proposed project to provide connectivity between the new NPAC and other destinations within the campus.

5. Prepare a Traffic Management Plan (TMP) to identify strategies to minimize the impact of daily traffic and special events, associated with the NPAC on the surrounding roadways.

VIII. CONCLUSION

The proposed project entails the construction of the Nanakuli Performing Arts Center at the existing Nanakuli High and Intermediate School. With the implementation of the proposed project, traffic operations in the vicinity of the Nanakuli High and Intermediate School are expected to remain similar to existing conditions as the proposed project is intended to serve an existing program that is housed in a different building within the school. Although traffic operations are expected to remain similar to existing conditions, the preparation of a Transportation Management Plan is recommended to identify strategies to minimize the impact of planned special events conducted after regular school hours. As such, with the implementation of the aforementioned recommendations, the new Nanakuli Performing Arts Center is not expected to have a significant impact on traffic operations in the project vicinity.

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APPENDIX A

EXISTING TRAFFIC COUNT DATA

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: MAL
Counters: TU-3264
Weather: Clear/Dry

File Name : NanDri AM
Site Code : 00000001
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Nanakuli High and Intermediate Driveway Southbound				Nanakuli Avenue Westbound				Nanakuli Avenue Eastbound			
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	App. Total	Int. Total
06:30 AM	1	0	1	2	0	11	0	11	3	8	11	24
06:45 AM	7	0	2	9	1	15	0	16	5	20	25	50
Total	8	0	3	11	1	26	0	27	8	28	36	74
07:00 AM	12	0	5	17	2	13	0	15	6	27	33	65
07:15 AM	24	4	6	34	3	9	14	26	8	53	61	121
07:30 AM	34	3	14	51	11	15	0	26	11	59	70	147
07:45 AM	54	0	34	88	8	16	0	24	8	69	77	189
Total	124	7	59	190	24	53	14	91	33	208	241	522
08:00 AM	46	1	13	60	4	12	0	16	10	53	63	139
08:15 AM	42	3	1	46	6	14	17	37	21	59	80	163
08:30 AM	41	5	2	48	4	20	0	24	13	26	39	111
08:45 AM	8	0	2	10	0	15	0	15	3	11	14	39
Total	137	9	18	164	14	61	17	92	47	149	196	452
Grand Total	269	16	80	365	39	140	31	210	88	385	473	1048
Apprch %	73.7	4.4	21.9		18.6	66.7	14.8		18.6	81.4		
Total %	25.7	1.5	7.6	34.8	3.7	13.4	3	20	8.4	36.7	45.1	

	Nanakuli High and Intermediate Driveway Southbound			Nanakuli Avenue Westbound			Nanakuli Avenue Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	34	3	37	11	15	26	11	59	70	133
07:45 AM	54	0	54	8	16	24	8	69	77	155
08:00 AM	46	1	47	4	12	16	10	53	63	126
08:15 AM	42	3	45	6	14	20	21	59	80	145
Total Volume	176	7	183	29	57	86	50	240	290	559
% App. Total	96.2	3.8		33.7	66.3		17.2	82.8		
PHF	.815	.583	.847	.659	.891	.827	.595	.870	.906	.902

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: MAL
Counters: TU-3264
Weather: Clear/Dry

File Name : NanDri PM
Site Code : 00000001
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Nanakuli High and Intermediate Driveway Southbound				Nanakuli Avenue Westbound				Nanakuli Avenue Eastbound			
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	App. Total	Int. Total
02:00 PM	14	0	16	30	4	10	0	14	19	21	40	84
02:15 PM	9	0	0	9	5	9	0	14	24	19	43	66
02:30 PM	18	0	6	24	4	8	3	15	25	33	58	97
02:45 PM	92	8	49	149	5	31	5	41	27	21	48	238
Total	133	8	71	212	18	58	8	84	95	94	189	485
03:00 PM	33	2	11	46	4	15	0	19	20	17	37	102
03:15 PM	34	2	7	43	0	10	0	10	16	21	37	90
03:30 PM	22	4	1	27	2	12	0	14	19	5	24	65
03:45 PM	14	3	0	17	0	9	4	13	17	14	31	61
Total	103	11	19	133	6	46	4	56	72	57	129	318
Grand Total	236	19	90	345	24	104	12	140	167	151	318	803
Apprch %	68.4	5.5	26.1		17.1	74.3	8.6		52.5	47.5		
Total %	29.4	2.4	11.2	43	3	13	1.5	17.4	20.8	18.8	39.6	

	Nanakuli High and Intermediate Driveway Southbound			Nanakuli Avenue Westbound			Nanakuli Avenue Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:30 PM										
02:30 PM	18	0	18	4	8	12	25	33	58	88
02:45 PM	92	8	100	5	31	36	27	21	48	184
03:00 PM	33	2	35	4	15	19	20	17	37	91
03:15 PM	34	2	36	0	10	10	16	21	37	83
Total Volume	177	12	189	13	64	77	88	92	180	446
% App. Total	93.7	6.3		16.9	83.1		48.9	51.1		
PHF	.481	.375	.473	.650	.516	.535	.815	.697	.776	.606

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: MAL
Counters: TU-3264
Weather: Clear/Dry

File Name : NanMid AM
Site Code : 00000001
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Nanakuli Avenue Midblock Crosswalk		
Start Time	Peds	App. Total	Int. Total
06:30 AM	0	0	0
06:45 AM	0	0	0
Total	0	0	0
07:00 AM	0	0	0
07:15 AM	0	0	0
07:30 AM	0	0	0
07:45 AM	2	2	2
Total	2	2	2
08:00 AM	2	2	2
08:15 AM	4	4	4
08:30 AM	2	2	2
08:45 AM	0	0	0
Total	8	8	8
Grand Total	10	10	10
Apprch %	100		
Total %	100	100	

	Nanakuli Avenue Midblock Crosswalk		
Start Time	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1			
Peak Hour for Entire Intersection Begins at 07:45 AM			
07:45 AM	2	2	2
08:00 AM	2	2	2
08:15 AM	4	4	4
08:30 AM	2	2	2
Total Volume	10	10	10
% App. Total	100		
PHF	.625	.625	.625

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: MAL
Counters: TU-3264
Weather: Clear/Dry

File Name : NanMid PM
Site Code : 00000001
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Nanakuli Avenue Midblock Crosswalk		
Start Time	Peds	App. Total	Int. Total
02:00 PM	0	0	0
02:15 PM	0	0	0
02:30 PM	0	0	0
02:45 PM	11	11	11
Total	11	11	11
03:00 PM	3	3	3
03:15 PM	0	0	0
03:30 PM	10	10	10
03:45 PM	0	0	0
Total	13	13	13
Grand Total	24	24	24
Apprch %	100		
Total %	100	100	

	Nanakuli Avenue Midblock Crosswalk		
Start Time	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1			
Peak Hour for Entire Intersection Begins at 02:45 PM			
02:45 PM	11	11	11
03:00 PM	3	3	3
03:15 PM	0	0	0
03:30 PM	10	10	10
Total Volume	24	24	24
% App. Total	100		
PHF	.545	.545	.545

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: CD
Counters: TU-2606
Weather: Clear/Dry

File Name : NanPil AM
Site Code : 00000002
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Pililaau Avenue Southbound					Nanakuli Avenue Westbound					Pililaau Avenue Northbound					Nanakuli Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	5	0	0	0	5	1	16	0	0	17	0	1	1	0	2	0	15	1	0	16	40
06:45 AM	3	0	7	4	14	2	24	0	1	27	0	1	1	0	2	1	28	3	0	32	75
Total	8	0	7	4	19	3	40	0	1	44	0	2	2	0	4	1	43	4	0	48	115
07:00 AM	10	0	6	0	16	3	30	0	1	34	0	0	1	1	2	0	35	4	0	39	91
07:15 AM	3	0	9	8	20	7	28	0	0	35	0	0	0	0	0	0	66	11	0	77	132
07:30 AM	3	0	10	5	18	11	39	0	0	50	0	0	1	0	1	1	60	13	0	74	143
07:45 AM	7	0	14	5	26	11	71	1	0	83	1	1	0	0	2	0	77	10	0	87	198
Total	23	0	39	18	80	32	168	1	1	202	1	1	2	1	5	1	238	38	0	277	564
08:00 AM	4	1	13	0	18	14	55	0	0	69	0	0	0	0	0	0	51	10	0	61	148
08:15 AM	3	0	19	4	26	7	56	2	0	65	1	0	0	2	3	0	54	1	0	55	149
08:30 AM	6	0	9	1	16	4	55	0	0	59	1	1	1	0	3	0	28	7	0	35	113
08:45 AM	1	0	4	1	6	4	19	0	2	25	0	0	0	2	2	1	9	3	0	13	46
Total	14	1	45	6	66	29	185	2	2	218	2	1	1	4	8	1	142	21	0	164	456
Grand Total	45	1	91	28	165	64	393	3	4	464	3	4	5	5	17	3	423	63	0	489	1135
Apprch %	27.3	0.6	55.2	17		13.8	84.7	0.6	0.9		17.6	23.5	29.4	29.4		0.6	86.5	12.9	0		
Total %	4	0.1	8	2.5	14.5	5.6	34.6	0.3	0.4	40.9	0.3	0.4	0.4	0.4	1.5	0.3	37.3	5.6	0	43.1	

	Pililaau Avenue Southbound				Nanakuli Avenue Westbound				Pililaau Avenue Northbound				Nanakuli Avenue Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	3	0	10	13	11	39	0	50	0	0	1	1	1	60	13	74	138
07:45 AM	7	0	14	21	11	71	1	83	1	1	0	2	0	77	10	87	193
08:00 AM	4	1	13	18	14	55	0	69	0	0	0	0	0	51	10	61	148
08:15 AM	3	0	19	22	7	56	2	65	1	0	0	1	0	54	1	55	143
Total Volume	17	1	56	74	43	221	3	267	2	1	1	4	1	242	34	277	622
% App. Total	23	1.4	75.7		16.1	82.8	1.1		50	25	25		0.4	87.4	12.3		
PHF	.607	.250	.737	.841	.768	.778	.375	.804	.500	.250	.250	.500	.250	.786	.654	.796	.806

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: CD
Counters: TU-2606
Weather: Clear/Dry

File Name : NanPil PM
Site Code : 00000002
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Pililaau Avenue Southbound					Nanakuli Avenue Westbound					Pililaau Avenue Northbound					Nanakuli Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	6	0	9	2	17	7	48	0	1	56	0	0	1	0	1	0	46	11	0	57	131
02:15 PM	3	1	8	0	12	0	26	0	0	26	0	1	0	0	1	0	29	5	0	34	73
02:30 PM	2	0	10	0	12	5	28	0	1	34	1	1	1	0	3	1	59	7	0	67	116
02:45 PM	2	0	6	30	38	18	111	0	2	131	0	0	0	0	0	1	53	12	0	66	235
Total	13	1	33	32	79	30	213	0	4	247	1	2	2	0	5	2	187	35	0	224	555
03:00 PM	4	0	3	19	26	9	55	0	2	66	1	0	0	9	10	1	37	10	0	48	150
03:15 PM	1	0	1	1	3	10	42	0	1	53	0	0	0	0	0	2	38	9	0	49	105
03:30 PM	3	0	2	0	5	3	31	0	0	34	0	0	1	0	1	0	29	14	0	43	83
03:45 PM	2	0	2	0	4	2	22	0	0	24	0	1	0	0	1	0	33	7	0	40	69
Total	10	0	8	20	38	24	150	0	3	177	1	1	1	9	12	3	137	40	0	180	407
Grand Total	23	1	41	52	117	54	363	0	7	424	2	3	3	9	17	5	324	75	0	404	962
Apprch %	19.7	0.9	35	44.4		12.7	85.6	0	1.7		11.8	17.6	17.6	52.9		1.2	80.2	18.6	0		
Total %	2.4	0.1	4.3	5.4	12.2	5.6	37.7	0	0.7	44.1	0.2	0.3	0.3	0.9	1.8	0.5	33.7	7.8	0	42	

	Pililaau Avenue Southbound				Nanakuli Avenue Westbound				Pililaau Avenue Northbound				Nanakuli Avenue Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	2	0	10	12	5	28	0	33	1	1	1	3	1	59	7	67	115
02:45 PM	2	0	6	8	18	111	0	129	0	0	0	0	1	53	12	66	203
03:00 PM	4	0	3	7	9	55	0	64	1	0	0	1	1	37	10	48	120
03:15 PM	1	0	1	2	10	42	0	52	0	0	0	0	2	38	9	49	103
Total Volume	9	0	20	29	42	236	0	278	2	1	1	4	5	187	38	230	541
% App. Total	31	0	69		15.1	84.9	0		50	25	25		2.2	81.3	16.5		
PHF	.563	.000	.500	.604	.583	.532	.000	.539	.500	.250	.250	.333	.625	.792	.792	.858	.666

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: CD
Counters: TU-2606
Weather: Clear/Dry

File Name : NanPil AM_Bikes
Site Code : 00000002
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Pililaau Avenue Southbound					Nanakuli Avenue Westbound					Pililaau Avenue Northbound					Nanakuli Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Pililaau Avenue Southbound					Nanakuli Avenue Westbound					Pililaau Avenue Northbound					Nanakuli Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.500

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: CD
Counters: TU-2606
Weather: Clear/Dry

File Name : NanPil PM_Bikes
Site Code : 00000002
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Pililaau Avenue Southbound					Nanakuli Avenue Westbound					Pililaau Avenue Northbound					Nanakuli Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	9
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	9
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	9
Apprch %	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	

	Pililaau Avenue Southbound					Nanakuli Avenue Westbound					Pililaau Avenue Northbound					Nanakuli Avenue Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:15 PM																					
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	9
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	9
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: GC
Counters: TU-0653
Weather: Clear/Dry

File Name : HalPii AM
Site Code : 00000003
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Haleakala Avenue Westbound				Piilaau Avenue Northbound				Haleakala Avenue Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
06:30 AM	16	3	1	20	1	2	0	3	1	7	0	8	31
06:45 AM	18	1	0	19	5	1	5	11	7	15	0	22	52
Total	34	4	1	39	6	3	5	14	8	22	0	30	83
07:00 AM	20	11	1	32	5	1	2	8	2	25	0	27	67
07:15 AM	45	5	0	50	12	5	2	19	7	44	0	51	120
07:30 AM	43	3	0	46	16	11	0	27	10	48	0	58	131
07:45 AM	35	7	0	42	9	9	0	18	9	24	0	33	93
Total	143	26	1	170	42	26	4	72	28	141	0	169	411
08:00 AM	25	6	0	31	11	14	1	26	17	21	0	38	95
08:15 AM	19	6	0	25	2	8	5	15	14	13	0	27	67
08:30 AM	19	7	0	26	5	6	3	14	8	22	0	30	70
08:45 AM	18	2	0	20	5	3	0	8	6	11	0	17	45
Total	81	21	0	102	23	31	9	63	45	67	0	112	277
Grand Total	258	51	2	311	71	60	18	149	81	230	0	311	771
Apprch %	83	16.4	0.6		47.7	40.3	12.1		26	74	0		
Total %	33.5	6.6	0.3	40.3	9.2	7.8	2.3	19.3	10.5	29.8	0	40.3	

	Haleakala Avenue Westbound			Piilaau Avenue Northbound			Haleakala Avenue Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	45	5	50	12	5	17	7	44	51	118
07:30 AM	43	3	46	16	11	27	10	48	58	131
07:45 AM	35	7	42	9	9	18	9	24	33	93
08:00 AM	25	6	31	11	14	25	17	21	38	94
Total Volume	148	21	169	48	39	87	43	137	180	436
% App. Total	87.6	12.4		55.2	44.8		23.9	76.1		
PHF	.822	.750	.845	.750	.696	.806	.632	.714	.776	.832

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: GC
Counters: TU-0653
Weather: Clear/Dry

File Name : HalPii PM
Site Code : 00000003
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Haleakala Avenue Westbound				Pililaau Avenue Northbound				Haleakala Avenue Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:00 PM	63	8	2	73	12	5	17	34	6	29	0	35	142
02:15 PM	27	7	0	34	4	3	1	8	9	16	0	25	67
02:30 PM	21	3	0	24	7	6	0	13	7	26	0	33	70
02:45 PM	35	3	1	39	10	16	18	44	6	20	0	26	109
Total	146	21	3	170	33	30	36	99	28	91	0	119	388
03:00 PM	17	3	0	20	9	10	14	33	5	13	0	18	71
03:15 PM	12	2	1	15	13	10	3	26	3	11	0	14	55
03:30 PM	17	0	0	17	10	5	5	20	2	10	0	12	49
03:45 PM	26	2	0	28	7	2	1	10	1	16	0	17	55
Total	72	7	1	80	39	27	23	89	11	50	0	61	230
Grand Total	218	28	4	250	72	57	59	188	39	141	0	180	618
Apprch %	87.2	11.2	1.6		38.3	30.3	31.4		21.7	78.3	0		
Total %	35.3	4.5	0.6	40.5	11.7	9.2	9.5	30.4	6.3	22.8	0	29.1	

	Haleakala Avenue Westbound			Pililaau Avenue Northbound			Haleakala Avenue Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	63	8	71	12	5	17	6	29	35	123
02:15 PM	27	7	34	4	3	7	9	16	25	66
02:30 PM	21	3	24	7	6	13	7	26	33	70
02:45 PM	35	3	38	10	16	26	6	20	26	90
Total Volume	146	21	167	33	30	63	28	91	119	349
% App. Total	87.4	12.6		52.4	47.6		23.5	76.5		
PHF	.579	.656	.588	.688	.469	.606	.778	.784	.850	.709

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: GC
Counters: TU-0653
Weather: Clear/Dry

File Name : HalPii AM_Bikes
Site Code : 00000003
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Haleakala Avenue Westbound				Pililaau Avenue Northbound				Haleakala Avenue Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	0	0	0	2
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	3	0	0	0	0	0	0	0	0	3
Apprch %	100	0	0		0	0	0		0	0	0		
Total %	100	0	0	100	0	0	0	0	0	0	0	0	

	Haleakala Avenue Westbound				Pililaau Avenue Northbound				Haleakala Avenue Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:30 AM													
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	2
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted By: GC
Counters: TU-0653
Weather: Clear/Dry

File Name : HalPii PM_Bikes
Site Code : 00000003
Start Date : 4/16/2024
Page No : 1

Groups Printed- Unshifted

	Haleakala Avenue Westbound				Pililaau Avenue Northbound				Haleakala Avenue Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		
Total %													

	Haleakala Avenue Westbound				Pililaau Avenue Northbound				Haleakala Avenue Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:00 PM													
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

APPENDIX B

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE (LOS) CRITERIA FOR AUTOMOBILES AT A TWO-WAY STOP CONTROLLED (TWSC) INTERSECTIONS

LOS for a TWSC intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns by using criteria shown below. Major-street through vehicles are assumed to experience zero delay. LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The following lists the LOS criteria for a TWSC intersection:

LOS A describes operations with a control delay of 10s/veh or less and a volume-to-capacity ratio no greater than 1.0.

LOS B describes operations with a control delay between 10s/veh and 15s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS C describes operations with a control delay between 15s/veh and 25s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS D describes operations with a control delay between 25s/veh and 35s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS E describes operations with a control delay between 35s/veh and 50s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS F describes operations with a control exceeding 50s/veh and a volume-to-capacity ratio no greater than 1.0 or when the volume-to-capacity ratio exceeds 1.0, regardless of the measurement of the control delay.

"Highway Capacity Manual," Transportation Research Board, 2016.

APPENDIX C

CAPACITY ANALYSIS CALCULATIONS
EXISTING PEAK PERIOD TRAFFIC ANALYSIS

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	34	242	1	3	221	43	1	1	2	56	1	17
Future Vol, veh/h	34	242	1	3	221	43	1	1	2	56	1	17
Conflicting Peds, #/hr	14	0	2	2	0	14	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	299	1	4	273	53	1	1	2	69	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	340	0	0	302	0	0	705	734	302	707	708	314
Stage 1	-	-	-	-	-	-	386	386	-	322	322	-
Stage 2	-	-	-	-	-	-	319	348	-	385	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1219	-	-	1259	-	-	351	347	738	350	360	726
Stage 1	-	-	-	-	-	-	637	610	-	690	651	-
Stage 2	-	-	-	-	-	-	693	634	-	638	610	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1203	-	-	1257	-	-	327	326	737	331	338	716
Mov Cap-2 Maneuver	-	-	-	-	-	-	327	326	-	331	338	-
Stage 1	-	-	-	-	-	-	609	583	-	652	640	-
Stage 2	-	-	-	-	-	-	669	623	-	608	583	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.1	13	17.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	453	1203	-	-	1257	-	-	378
HCM Lane V/C Ratio	0.011	0.035	-	-	0.003	-	-	0.242
HCM Control Delay (s)	13	8.1	0	-	7.9	0	-	17.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	187	5	0	236	42	1	1	2	20	0	9
Future Vol, veh/h	38	187	5	0	236	42	1	1	2	20	0	9
Conflicting Peds, #/hr	50	0	9	9	0	50	0	0	6	6	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	279	7	0	352	63	1	1	3	30	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	465	0	0	295	0	0	796	871	298	839	843	434
Stage 1	-	-	-	-	-	-	406	406	-	434	434	-
Stage 2	-	-	-	-	-	-	390	465	-	405	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1096	-	-	1266	-	-	305	289	741	285	300	622
Stage 1	-	-	-	-	-	-	622	598	-	600	581	-
Stage 2	-	-	-	-	-	-	634	563	-	622	596	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1044	-	-	1255	-	-	281	255	730	254	265	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	281	255	-	254	265	-
Stage 1	-	-	-	-	-	-	577	554	-	534	553	-
Stage 2	-	-	-	-	-	-	620	536	-	574	552	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0	14.4	18.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	391	1044	-	-	1255	-	-	309
HCM Lane V/C Ratio	0.015	0.054	-	-	-	-	-	0.14
HCM Control Delay (s)	14.4	8.6	0	-	0	-	-	18.5
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	137	43	21	148	39	48
Future Vol, veh/h	137	43	21	148	39	48
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	185	58	28	200	53	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	476	220
Stage 1	-	-	-	-	220	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1317	-	548	820
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	787	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1309	-	532	815
Mov Cap-2 Maneuver	-	-	-	-	532	-
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	1309	-
HCM Lane V/C Ratio	0.179	-	-	0.022	-
HCM Control Delay (s)	11.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	91	28	21	146	30	33
Future Vol, veh/h	91	28	21	146	30	33
Conflicting Peds, #/hr	0	35	35	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	40	30	209	43	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	205	0	454	187
Stage 1	-	-	-	-	185	-
Stage 2	-	-	-	-	269	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1366	-	564	855
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	776	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1320	-	531	825
Mov Cap-2 Maneuver	-	-	-	-	531	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	756	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	653	-	-	1320	-
HCM Lane V/C Ratio	0.138	-	-	0.023	-
HCM Control Delay (s)	11.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	240	50	57	29	7	176
Future Vol, veh/h	240	50	57	29	7	176
Conflicting Peds, #/hr	62	0	0	62	17	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	267	56	63	32	8	196

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	157	0	-	0	748	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1423	-	-	-	380	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1339	-	-	-	267	853
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	512	-

Approach	EB	WB	SB
HCM Control Delay, s	6.9	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1339	-	-	-	787
HCM Lane V/C Ratio	0.199	-	-	-	0.258
HCM Control Delay (s)	8.4	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.7	-	-	-	1

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	88	64	13	12	177
Future Vol, veh/h	92	88	64	13	12	177
Conflicting Peds, #/hr	73	0	0	73	14	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	147	107	22	20	295

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	202	0	-	0	658	191
Stage 1	-	-	-	-	191	-
Stage 2	-	-	-	-	467	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1370	-	-	-	429	851
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	631	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	323	792
Mov Cap-2 Maneuver	-	-	-	-	323	-
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	587	-

Approach	EB	WB	SB
HCM Control Delay, s	4.2	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	725
HCM Lane V/C Ratio	0.12	-	-	-	0.434
HCM Control Delay (s)	8.2	0	-	-	13.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	2.2

APPENDIX D

CAPACITY ANALYSIS CALCULATIONS
PROJECTED YEAR 2029 PEAK PERIOD TRAFFIC ANALYSIS

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	34	248	1	3	227	43	1	1	2	56	1	17
Future Vol, veh/h	34	248	1	3	227	43	1	1	2	56	1	17
Conflicting Peds, #/hr	14	0	2	2	0	14	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	306	1	4	280	53	1	1	2	69	1	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	347	0	0	309	0	0	719	748	309	721	722	321
Stage 1	-	-	-	-	-	-	393	393	-	329	329	-
Stage 2	-	-	-	-	-	-	326	355	-	392	393	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1212	-	-	1252	-	-	344	341	731	343	353	720
Stage 1	-	-	-	-	-	-	632	606	-	684	646	-
Stage 2	-	-	-	-	-	-	687	630	-	633	606	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1196	-	-	1250	-	-	321	321	730	324	332	710
Mov Cap-2 Maneuver	-	-	-	-	-	-	321	321	-	324	332	-
Stage 1	-	-	-	-	-	-	604	579	-	646	635	-
Stage 2	-	-	-	-	-	-	663	619	-	603	579	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.1	13.2	17.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	446	1196	-	-	1250	-	-	370
HCM Lane V/C Ratio	0.011	0.035	-	-	0.003	-	-	0.247
HCM Control Delay (s)	13.2	8.1	0	-	7.9	0	-	17.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	38	192	5	0	242	42	1	1	2	20	0	9
Future Vol, veh/h	38	192	5	0	242	42	1	1	2	20	0	9
Conflicting Peds, #/hr	50	0	9	9	0	50	0	0	6	6	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	287	7	0	361	63	1	1	3	30	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	474	0	0	303	0	0	813	888	306	856	860	443
Stage 1	-	-	-	-	-	-	414	414	-	443	443	-
Stage 2	-	-	-	-	-	-	399	474	-	413	417	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1088	-	-	1258	-	-	297	283	734	278	294	615
Stage 1	-	-	-	-	-	-	616	593	-	594	576	-
Stage 2	-	-	-	-	-	-	627	558	-	616	591	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1036	-	-	1247	-	-	273	249	724	248	259	586
Mov Cap-2 Maneuver	-	-	-	-	-	-	273	249	-	248	259	-
Stage 1	-	-	-	-	-	-	570	549	-	529	548	-
Stage 2	-	-	-	-	-	-	613	531	-	568	547	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0	14.5	18.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	383	1036	-	-	1247	-	-	302
HCM Lane V/C Ratio	0.016	0.055	-	-	-	-	-	0.143
HCM Control Delay (s)	14.5	8.7	0	-	0	-	-	18.9
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	140	43	21	152	39	48
Future Vol, veh/h	140	43	21	152	39	48
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	189	58	28	205	53	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	253	0	485	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1312	-	541	815
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1305	-	525	810
Mov Cap-2 Maneuver	-	-	-	-	525	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	651	-	-	1305	-
HCM Lane V/C Ratio	0.181	-	-	0.022	-
HCM Control Delay (s)	11.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	93	28	21	150	30	33
Future Vol, veh/h	93	28	21	150	30	33
Conflicting Peds, #/hr	0	35	35	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	40	30	214	43	47

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	208	0	462	190
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	274	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1363	-	558	852
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1318	-	526	822
Mov Cap-2 Maneuver	-	-	-	-	526	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	648	-	-	1318	-
HCM Lane V/C Ratio	0.139	-	-	0.023	-
HCM Control Delay (s)	11.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	240	51	58	29	7	176
Future Vol, veh/h	240	51	58	29	7	176
Conflicting Peds, #/hr	62	0	0	62	17	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	267	57	64	32	8	196

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	158	0	-	0	750	142
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	608	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1422	-	-	-	379	906
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	543	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1338	-	-	-	266	853
Mov Cap-2 Maneuver	-	-	-	-	266	-
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	511	-

Approach	EB	WB	SB
HCM Control Delay, s	6.9	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1338	-	-	-	787
HCM Lane V/C Ratio	0.199	-	-	-	0.258
HCM Control Delay (s)	8.4	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.7	-	-	-	1

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	90	66	13	12	177
Future Vol, veh/h	92	90	66	13	12	177
Conflicting Peds, #/hr	73	0	0	73	14	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	150	110	22	20	295

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	205	0	-	0	664	194
Stage 1	-	-	-	-	194	-
Stage 2	-	-	-	-	470	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1366	-	-	-	426	847
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	629	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1271	-	-	-	320	788
Mov Cap-2 Maneuver	-	-	-	-	320	-
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	585	-

Approach	EB	WB	SB
HCM Control Delay, s	4.2	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1271	-	-	-	721
HCM Lane V/C Ratio	0.121	-	-	-	0.437
HCM Control Delay (s)	8.2	0	-	-	13.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	2.2

APPENDIX E

TRANSIT LOS CALCULATIONS

Multimodal Transit LOS Calculation

		Nanakuli Avenue WB	Haleakala Avenue EB
Inputs		**1**	**2**
	TRANSIT OPERATIONS INFORMATION		
	Number of local buses on street segment per hour (bus/h)	2	2
	Number of express buses stopping in segment per hour (bus/h)	0	0
t_{ex}	Average excess wait time (min)	5.6	5.5
L_f	Average passenger load factor (p/seat)	0.1	0.1
S	Average transit travel speed (mi/h)	14.4	24.4
l_{pt}	Average passenger trip length (mi)	2.8	2.8
	Is the segment in the CBD of a metro area of 5 million or more?	No	No
	TRANSIT AMENITY DATA		
p_{sh}	Percent stops in segment with a shelter	0%	0%
p_{be}	Percent stops in segment with a bench	0%	0%
	PEDESTRIAN ENVIRONMENT DATA		
W_A	Sidewalk width (ft) (Enter 0 if no sidewalk)	5.0	5.0
W_{buf}	Buffer width from sidewalk to street (ft)	4.0	4.0
	Does a continuous barrier exist between the street and sidewalk?	No	No
	Is the street divided?	No	No
	Are parking spaces striped?	No	No
p_{pk}	Proportion of on-street parking occupied	75%	10%
W_{bl}	Bicycle lane width (ft)	0.0	0.0
W_{os}	Shoulder/parking lane width (ft)	0.0	0.0
W_{ol}	Outside travel lane (closest to sidewalk) width (ft)	15.0	15.0
v_m	Outside lane demand flow rate at midsegment (veh/h)	180	167
S_R	Average vehicle running speed, including intersection delay (mi/h)	25.0	25.0
Calculations			
f	Transit frequency (bus/h)	2	2
f_h	Headway factor	1.95	1.95
f_{pl}	Passenger load weighting factor	1.00	1.00
T_{at}	Perceived amenity time rate (min/mi)	0.0	0.0
T_{ex}	Excess wait time rate due to late arrivals (min/mi)	2.0	2.0
T_{ptt}	Perceived travel time rate (min/mi)	8.2	6.4
T_{btt}	Base travel time rate (min/mi)	4.0	4.0
f_{tt}	Perceived travel time factor	0.76	0.83
$s_{w\text{-}r}$	Transit wait-ride score	1.48	1.62
f_s	Motorized vehicle speed adjustment factor	0.25	0.25
f_v	Motorized vehicle volume adjustment factor	0.41	0.38
W_{aA}	Adjusted available sidewalk width (ft)	5.0	5.0
f_{sw}	Sidewalk width coefficient	4.50	4.50
f_b	Buffer area coefficient	1.00	1.00
W_t	Total width of outside lane, bike lane, and parking lane/shoulder (ft)	15.0	15.0
W_v	Effective total width as a function of traffic volume (ft)	15.0	15.0
W_1	Effective width of combined bike lane and shoulder (ft)	10.0	0.0
f_w	Cross-section adjustment factor	-5.44	-4.71
I_p	Pedestrian environment score	1.27	1.96
	Pedestrian LOS	A	A
I_t	Transit LOS score	3.97	3.86
Output			
	Transit LOS	***D***	***D***

APPENDIX C

EA Early Consultation Package

Comment and Response Letters

From:	Public Comment
To:	Hugh Brady; Rachel Lavatai
Cc:	Harlee Meyers; Keola Cheng
Subject:	FW: Nānākuli High and Intermediate School Performing Arts Center
Date:	Tuesday, December 10, 2024 8:41:56 AM
Attachments:	image001.png image002.png

FYI

From: Browning, Joy <joy_browning@fws.gov>
Sent: Thursday, December 5, 2024 4:12 PM
To: Public Comment <publiccomment@wilsonokamoto.com>
Subject: Nānākuli High and Intermediate School Performing Arts Center

Dear Mr. Cheng,

Our office received your letter requesting the U.S. Fish and Wildlife Service's input on the proposed Nānākuli High and Intermediate School Performing Arts Center on O‘ahu. Below are instructions for the IPAC online portal to obtain a list of species that may be affected in the project location and conservation measures which should be included in the EA.

The Pacific Island Fish and Wildlife Office (PIFWO) is transitioning to the use of the Information for Planning and Consultation (IPaC) online portal, https://ipac.ecosphere.fws.gov/, for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species and designated critical habitat in your project area. Using IPaC expedites the process for species list distribution and takes minimal time. Therefore, the IPaC list would fulfill your request for a species list. Since we have already written a response, you can use the response provided for this project and disregard the IPaC species list. Please find step by step instructions attached to use IPaC for future projects, and feel free to share with additional project partners.

For recommended avoidance and minimization measures, you can visit the following webpage https://www.fws.gov/office/pacific-islands-fish-and-wildlife/library

Aloha,

Joy Hiromasa Browning

Fish and Wildlife Biologist
Pacific Islands Fish and Wildlife Office
U.S. Fish and Wildlife Service
300 Ala Moana Blvd., Rm 3-122
Honolulu, Hawaii 96850

Telephone: (808) 210-6137
Email: joy_browning@fws.gov

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Ms. Joy Hiromasa Browning
U.S. Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Blvd. Rm 3-122
Honolulu, Hawai‘i 96850

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Ms. Hiromasa Browning:

Thank you for your e-mail dated December 5, 2024, regarding the subject Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu. We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

We acknowledge that the Pacific Islands Fish and Wildlife Office (PIFWO) is transitioning to the Information for Planning and Consultation (IPaC) online portal for federal action agencies and non-federal agencies or individuals to obtain official species lists, including threatened and endangered species, designated critical habitat, and avoidance and minimization measures to consider in the general project design. Please note that this has been incorporated into Section 3.5 of the EA.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

KEITH A. REGAN
COMPTROLLER
KA LUNA HO'OMALU HANA LAULĀ

MEOH-LENG SILLIMAN
DEPUTY COMPTROLLER
KA HOPE LUNA HO'OMALU HANA LAULĀ

STATE OF HAWAI'I | KA MOKU'ĀINA O HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWE LAULĀ
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)24.246

DEC 13 2024

Keola Cheng, Director-Planning
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Keola Cheng:

Subject: Environmental Assessment Early Consultation Package
Nanakuli High and Intermediate School Performing Arts Center
Nanakuli, Oahu, Hawaii
T.M.K. No. (1) 8-9-007-009

Thank you for the opportunity to comment on the subject project. We have no comments to offer at this time as the proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities.

If you have any questions, your staff may call Dora Choy-Johnson of the Planning Branch at (808) 586-0488.

Sincerely,

GORDON S. WOOD
Public Works Administrator

DC:sn

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. Gordon S. Wood
Department of Accounting and General Services
State of Hawai‘i
P.O. Box 119
Honolulu, Hawai‘i 96810

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Wood:

Thank you for your letter, dated December 13, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.
We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

From: DHHL.Planning <dhhl.planning@hawaii.gov>
Sent: Wednesday, November 27, 2024 9:28 AM
To: Public Comment
Subject: Early Consultation EA Nanakuli High/Intermediate School Performing Arts Center

Aloha~

We are in receipt of the EA for early consultation in regards to the above-subject matter.

As noted in your reference, the Department of Hawaiian Home Lands (DHHL) is a major land owner in the Nanakuli region. Thus, the DHHL offer the following comments:

- Consultation of other Native Hawaiian agencies and stakeholders within the area (civic clubs, etc.)
- Proper signage and notice be given in a timely manner to the public, in regards to any traffic calming measures that will affect the immediate surrounding neighborhood area;
  that borders / surround the school.
- Public notice to be issued in the local newspaper as well ensuring notice is placed in the Nanakuli High/Intermediate School newsletter at least 2-3-weeks prior to start of construction.
- Proper dust barriers are placed to minimize any dust impacts to general area of school and neighborhoods.
- Minimize construction noise as to not impact school class activities as well as surrounding neighborhoods.

Mahalo for the opportunity to provide comment. We are happy to hear of this well-deserved project to upgrade and beautify Nanakuli High & Intermediate School.

Mahalo,
Department of Hawaiian Home Lands
Planning Office

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Department of Hawaiian Home Lands
Planning Office
91-5420 Kapolei Parkway
Kapolei, Oʻahu, Hawaiʻi, 96707

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, Oʻahu, Hawaiʻi

Dear DHHL Planning Office:

Thank you for your email dated November 27, 2024, regarding the Early Consultation Environmental Assessment for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of Oʻahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawaiʻi Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawaiʻi's Environmental Review Program's (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

From: Vierra, Dayna K <Dayna.K.Vierra@hawaii.gov>
Sent: Friday, December 20, 2024 12:46 PM
To: Public Comment <publiccomment@wilsonokamoto.com>
Cc: Moore, Kevin E <kevin.e.moore@hawaii.gov>; Yasaka, Lauren E <lauren.e.yasaka@hawaii.gov>
Subject: Request for Comments: Draft EA Early Consultation for the proposed Nanakuli High and Intermediate School (NHIS) Performing Arts Center

Aloha,

Attached are comments from the Hawaii Department of Land and Natural Resources (DLNR) to the above entitled subject project.

Please note that future requests for the DLNR's review and comments may be emailed to both of the following email addresses:

dlnr@hawaii.gov and dlnr.land@hawaii.gov

Thank you,

Dayna Vierra, Planner

Department of Land and Natural Resources, Land Division

1151 Punchbowl Street, Room 220

Honolulu, HI 96813

Tel: (808) 587-0423

Fax: (808) 312-6357

Email: dayna.k.vierra@hawaii.gov

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 20, 2024

Wilson Okamoto Corporation
1907 South Beratania Street. Suite 400
Honolulu, HI 96826
Attention: Keola Cheng, Planning Director *via email: publiccomment@wilsonokamoto.com*

SUBJECT: **Draft Environmental Assessment (EA) Early Consultation for the proposed Nānākuli High and Intermediate School (NHIS) Performing Arts Center.** 89-980 Nānākuli Ave, Nānākuli, O'ahu; TMK: (1) 8-9-007-009

Dear Mr. Cheng,

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.

Enclosed are comments from the Engineering (ENG) Division and the Commission on Water Resource Management (CWRM) on the subject matter. Should you have any questions, please feel free to contact Dayna Vierra (808) 587-0423 or email: dayna.k.vierra@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures

WILSON OKAMOTO CORPORATION
INNOVATORS · PLANNERS · ENGINEERS

10847-01
April 8, 2025

Ms. Dayna Vierra
DLNR, Land Division
P.O. Box 621
Honolulu, HI 96809

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, Oʻahu, Hawaiʻi

Dear Ms. Vierra

Thank you for your e-mail dated December 20, 2024, regarding the subject Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of Oʻahu. We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawaiʻi Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawaiʻi's Environmental Review Program's (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

Dec 12, 2024

REF: RFD.6355.3

TO: Mr. Russell Tsuji, Administrator
Land Division

FROM: Ciara W.K. Kahahane, Deputy Director
Commission on Water Resource Management

SUBJECT: Nanakuli High and Intermediate School Performing Arts Center

FILE NO.: RFD.6355.3
TMK NO.: (1) 8-9-007:009

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://dlnr.hawaii.gov/cwrm.

Our comments related to water resources are checked off below.

☐ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EAP as having high water efficiency can be found at http://www.epa.gov/watersense.

☐ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://planning.hawaii.gov/czm/initiatives/low-impact-development/

☐ 6. We recommend the use of alternative water sources, wherever practicable.

☐ 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/green-business-program.

☒ 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.

- ☐ 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- ☐ 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
- ☐ 11. The Hawaii Water Plan is directed toward the achievement of the utilization of reclaimed water for uses other than drinking and for potable water needs in one hundred per cent of State and County facilities by December 31, 2045 (§174C-31(g)(6), Hawaii Revised Statutes). We strongly recommend that this project consider using reclaimed water for its non-potable water needs, such as irrigation. Reclaimed water may include, but is not limited to, recycled wastewater, gray water, and captured rainwater/stormwater. Please contact the Hawai'i Department of Health, Wastewater Branch, for more information on their reuse guidelines and the availability of reclaimed water in the project area.
- ☐ 12. A Well Construction Permit(s) is (are) are required before the commencement of any well construction work.
- ☐ 13. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- ☐ 14. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- ☐ 15. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- ☐ 16. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a steam channel.
- ☐ 17. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- ☐ 18. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- ☐ 19. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☐ OTHER:

If you have any questions, please contact Ryan Imata of the Groundwater Regulation Branch at (808) 587-0225 or Katie Roth of the Planning Branch (808) 587-0216.

WILSON OKAMOTO CORPORATION
INNOVATORS · PLANNERS · ENGINEERS

10847-01
April 8, 2025

Ms. Ciara W.K. Kahahane
DLNR, Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawai‘i 96809

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Ms. Kahahane

Thank you for your letter dated December 12, 2024 regarding the subject Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu. We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

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 6, 2024

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 – O'ahu District (barry.w.cheung@hawaii.gov)
_X_ Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: ~~FROM:~~ Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Draft Environmental Assessment (EA) Early Consultation for the proposed **Nānākuli High and Intermediate School (NHIS) Performing Arts Center**
LOCATION: 89-980 Nānākuli Ave, Nānākuli, Island of O'ahu; TMK: (1) 8-9-007-009
APPLICANT: Wilson Okamoto Corporation on behalf of the State of Hawai'i Department of Education (DOE)

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **December 19, 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 Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(✓) Comments are included/attached.

Signed: *Carty S. Chang*
Print Name: Carty S. Chang, Chief Engineer
Division: Engineering Division
Date: Dec 19, 2024

Attachments

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji

Ref: Draft Environmental Assessment (EA) Early Consultation for the proposed Nānākuli High and Intermediate School (NHIS) Performing Arts Center
Location: 89-980 Nānākuli Ave, Nānākuli, Island of Oʻahu
TMK(s): (1) 8-9-007-009
Applicant: Wilson Okamoto Corporation on behalf of the State of Hawaiʻi Department of Education (DOE)

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). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. 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 Hazard Zones are designated 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) 241-4896.

The applicant should include water demands and infrastructure required to meet project needs. Please note that all State projects requiring water service from their local Department/Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

The applicant is required to provide water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update projections.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: Dec 19, 2024

WILSON OKAMOTO CORPORATION
INNOVATORS · PLANNERS · ENGINEERS

10847-01
April 8, 2025

Mr. Carty Chang
DLNR, Engineering Division
P.O. Box 621
Honolulu, HI 96809

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, Oʻahu, Hawaiʻi

Dear Mr. Chang

Thank you for your letter dated December 6, 2024 regarding the subject Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of Oʻahu. We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawaiʻi Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawaiʻi's Environmental Review Program's (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

JOSH GREEN, M.D.
GOVERNOR | KE KIAʻĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIAʻĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAIʻI | KA MOKUʻĀINA ʻO HAWAIʻI
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA ʻOIHANA KUMUWAIWAI ʻĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

December 6, 2024

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 – Oʻahu District (barry.w.cheung@hawaii.gov)
_X_ Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Draft Environmental Assessment (EA) Early Consultation for the proposed **Nānākuli High and Intermediate School (NHIS) Performing Arts Center**
LOCATION: 89-980 Nānākuli Ave, Nānākuli, Island of Oʻahu; TMK: (1) 8-9-007-009
APPLICANT: Wilson Okamoto Corporation on behalf of the State of Hawaiʻi Department of Education (DOE)

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments by **December 19, 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 Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☐) Comments are included/attached.

Signed: *JDM*
Print Name: JASON D. OMICK, Wildlife Prog. Mgr.
Division: Forestry and Wildlife
Date: Dec 30, 2024

Attachments

JOSH GREEN, M.D.
GOVERNOR | KE KIAʻĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIAʻĀINA

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

December 30,2024

Log no. 4849

MEMORANDUM

TO: RUSSELL Y. TSUJI, Administrator
Land Division

FROM: JASON D. OMICK, Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: Request for Draft Environmental Assessment (EA) Early Consultation for the Proposed Nānākuli High and Intermediate School (NHIS) Performing Arts Center.

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your request for consultation regarding a request for early consultation on a draft environmental assessment (EA) for the proposed Nānākuli High and Intermediate School (NHIS) Performing Arts Center. The location of the proposed project is at 89-980 Nānākuli Ave.; TMK (1) 8-9-007-009. The proposed project consists of the construction of a new Performing Arts Center at Nānākuli High and Intermediate School (NHIS).

The project worksite is not located near any protected Federal lands; however, it is at the urban-wildland interface (where most ignitions occur) and within less than two miles of the Nānākuli Forest Reserve. This forest reserve preserves and protects unique botanical assets that provide habitat for a variety of native wildlife species. Therefore, DOFAW requests that special attention is paid to the recommendations made at the end of this letter regarding fire prevention, forest pathogens, and invasive species.

DOFAW has determined that several State listed species occur within the project area. These include: **1)** ʻōpeʻapeʻa, or Hawaiian Hoary Bat (*Lasiurus semotus*) and **2)** several species of seabirds. Additionally, we have provided guidance to reduce fire risk and the spread of invasive 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 in any construction as 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 around 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/

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.

Due to the arid climate, high fine fuel load (grasses) surrounding the worksite, and risks of wildfire to listed species and native habitats, we reccomend coordinating with the **Hawai‘i Wildfire Management Organization at (808)-850-0900 or admin@hawaiiwildfire.org**, on how wildfire prevention can be addressed in the project area. When engaging in activities that have a high risk of starting a wildfire (i.e. welding in grass), it is recommended that you: **1)** wet down the area before starting your task, **2)** continuously wet down the area as needed, **3)** have a fire extinguisher on hand, and **4)** in the event that your vision is impaired, (i.e. welding goggles) have a spotter to watch for fire ignitions.

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, Coconut Rhinoceros Beetles, etc.), or invasive plant parts (e.g., Miconia, Pampas Grass, etc.) that could harm our native species and ecosystems. We recommend consulting the **O‘ahu Invasive Species Committee (OISC) at (808) 266-7994** 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 (*Oryctes rhinoceros)* or CRB is widespread on the island of Oʻahu. CRB have been detected on other islands with moderate infestation on Kauaʻi, one incipint site on Hawaiʻi Island, and only one positive site on Maui in 2023. Hawaii Department of Agriculture interim rule 24-1 restricts the movement of CRB-host material from the island of Oʻahu, 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: **1)** entire dead trees, **2)** mulch, compost, trimmings, fruit and vegetative scraps, and **3)** decaying stumps. CRB host plants include the live palm plants in the following genera: *Washingtonia*, *Livistona*, *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. Inspection and/or treatment approved by HDOA is mandatory before inter-island transport. For more information regarding CRB, please visit https://dlnr.hawaii.gov/hisc/info/invasive-species-profiles/coconut-rhinoceros-beetle/.

To prevent the spread of Rapid ʻŌhiʻa Death (ROD), DOFAW requests that removal, pruning/trimming, and potentially injury to ʻōhiʻa trees be avoided as much as possible. Wounds serve as entry points for ROD fungus and increase the odds that the tree will be infected and die. Also, clean gear/tools, clothes, footwear, and vehicles before and after use. Make sure to removal all loose soil from the aforementioned items, spray gear/tools with 70% rubbing alcohol, and wash clothes with hot water and soap. Wash tires and undercarriages of all vehicles/machinery with a high-pressure water source. If ʻōhiʻa trees must be removed or pruned/trimmed, please conduct these activities on a still day to minimize blown sawdust and use a sharp saw to create chips rather than dust. Seal all wounds to these trees with a stump seal product (e.g. Spectracide Pruning Seal, etc.). For more information, please consult https://cms.ctahr.hawaii.edu/rod.

Mahalo for contacting our office to receive guidance regarding 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 Jesse W. Adams, Protected Species Habitat Conservation Planning Associate, at jesse.w.adams.researcher@hawaii.gov or call (808) 265-3276.

Sincerely,

JASON D. OMICK
Wildlife Program Manager

WILSON OKAMOTO CORPORATION
INNOVATORS · PLANNERS · ENGINEERS

10847-01
April 8, 2025

Mr. Jason D. Omick
DLNR, Division of Forestry and Wildlife
P.O. Box 621
Honolulu, Hawai‘i 96809

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Omick

Thank you for your letter dated December 30, 2024, regarding the subject Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu. We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

JOSH GREEN, M.D.
GOVERNOR OF HAWAI'I
KE KIA'ĀINA O KA MOKU'ĀINA 'O HAWAI'I

KENNETH S. FINK, MD, MGA, MPH
DIRECTOR OF HEALTH
KA LUNA HO'OKELE

STATE OF HAWAI'I
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

07016CMHK.23

July 28, 2023

MEMORANDUM

SUBJECT: Clean Water Branch Standard Project Comments

TO: Agencies and Project Owners

FROM: DARRYL LUM, P.E., CHIEF
Clean Water Branch

This memo is provided for your information and sharing. You are encouraged to share this memo with your project partners, team members, and appropriate personnel.

The Department of Health (DOH), Clean Water Branch (CWB) will no longer be responding directly to requests for comments on the following documents (Pre-consultation, Early Consultation, Preparation Notice, Draft, Final, Addendums, and/or Supplements):

- Environmental Impact Statements (EIS)
- Environmental Assessments (EA)
- Stream Channel Alteration Permits (SCAP)
- Stream Diversion Works Permits (SDWP)
- Well Construction/Pump Installation Permits
- Conservation District Use Applications (CDUA)
- Special Management Area Permits (SMAP)
- Shoreline Setback Areas (SSA)

For agencies or project owners requiring DOH-CWB comments for one or more of these documents, please utilize the DOH-CWB Standard Comments below regarding your project's responsibilities to maintain water quality and any necessary permitting. DOH-CWB Standard Comments are also available on the DOH-CWB website located at: http://health.hawaii.gov/cwb/.

DOH-CWB Standard Comments

The following information is for agencies and/or project owners who are seeking comments regarding environmental compliance for their projects with the Hawaii Administrative Rules (HAR), Chapters 11-53, 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for point source water pollutant discharges into State surface waters (HAR, Chapter 11-55). Point source means any discernible, confined, and discrete conveyance from which pollutants are or may be discharged.

   For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee ($1,000 for an individual NPDES permit or $500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

   The DOH, Environmental Health Administration (EHA) e-Permitting Portal received Cross-Media Electronic Reporting Rule (CROMERR) certification by the Environmental Protection Agency (EPA) for electronic signature. Currently, Applicants and Permittees may now certify and submit EHA Electronic Signature Forms electronically through the EHA e-Permitting Portal without the need to physically send in an ink signature and CD/DVD/flash drive.

Beginning January 31, 2023, the DOH-CWB will only utilize electronic signature e-Permitting forms and discontinue the hard-copy signature forms. All hard-copy signature certification e-Permitting forms, including compliance forms, will be inactivated.

The electronic signature forms will require electronic signature approval to submit a form to the CWB. For details on how to obtain the electronic signature approval please visit CWB website located at: https://health.hawaii.gov/cwb/announcements/cwb-announces-new-requirement-for-electronic-signature-approval-for-all-submissions-beginning-january-31-2023/.

The NPDES NOI or application will be processed after the filing fees submitted and payable to the "State of Hawaii" in the form of a pre-printed check, cashier's check, money order, or as otherwise specified by the director is received by the CWB.

Some of the activities requiring NPDES permit coverage include, but, are not limited to:

a. Discharges of Storm Water.

   i. For Construction Activities Disturbing One (1) or More Acres of Total Land Area.

      By HAR Chapter 11-55, an NPDES permit is required before the start of the construction activities that result in the disturbance of one (1) or more acres of total land area, including clearing, grading, and excavation. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale.

   ii. For Industrial Activities for facilities with primary Standard Industrial Classification (SIC) Codes regulated in the Code of Federal Regulations (CFR) at 40 CFR 122.26(b)(14)(i) through (ix) and (xi). If a facility has more than one SIC code, the activity that generates the greatest revenue is the primary SIC code. If revenue information is unavailable, use the SIC code for the activity with the most employees. If employee information is also unavailable, use the SIC code for the activity with the greatest production.

   iii. From a small Municipal Separate Storm Sewer System (along with certain non-storm water discharges).

b. Discharges to State surface waters from construction activity hydrotesting or dewatering.

c. Discharges to State surface waters from cooling water applications.

d. Discharges to State surface waters from the application of pesticides (including insecticides, herbicides, fungicides, rodenticides, and various other substances to control pest) to State waters.

e. Well-Drilling Activities.

Any discharge to State surface waters of treated process wastewater effluent associated with well drilling activities is regulated by HAR Chapter 11-55. Discharges of treated process wastewater effluent (including well drilling slurries, lubricating fluids wastewater, and well purge wastewater) to State surface waters requires NPDES permit coverage.

NPDES permit coverage is not required for well pump testing. For well pump testing, the discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices (BMPs) shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of the storm drain prior to discharge. Furthermore, BMPs shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

3. A Section 401 Water Quality Certification (WQC) may be required if your project/activity:

a. Requires a federal license or permit; and

b. May result in a discharge into waters of the United States (WOTUS).

"License or permit" means any permit, certificate, approval, registration, charter, membership, statutory exemption, or other form of permission granted by an agency of the federal government to conduct any activity which may result in any discharge.

The term “discharge” is defined in Clean Water Act, Subsections 502(16), 502(12), and 502(6).

Examples of “discharge” include, but are not limited to, allowing the following pollutants to enter WOTUS from the surface, or in-water: solid waste, rock/sand/dirt, heat, sewage, construction debris, any underwater work, chemicals, fugitive dust/spray paint, agricultural wastes, biological materials, industrial wastes, concrete/sealant/epoxy, and washing/cleaning effluent.

Determine if your project/activity requires a federal permit, license, certificate, approval, registration, or statutory exemption by contacting the appropriate federal agencies (e.g. Department of the Army (DA), U.S. Army Corps of Engineers (COE), Pacific Ocean Division Honolulu District Office (POH) Tel: (808) 835-4303; U.S. Environmental Protection Agency, Region 9 Tel: (415) 947-8021; Federal Energy Regulatory Commission Tel: (866) 208-3372; U.S. Coast Guard Office of Bridge Programs Tel: (202) 372-1511). If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the COE-POH regarding their DA permitting requirements.

To request an individual Section 401 WQC, you must complete and submit the Section 401 WQC application together with $1,000 filing fee made payable to the "State of Hawaii" in the form of a check or other method specified by the department. This application is available on the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/.

The processing of a Section 401 WQC application will begin after the CWB has received filing fee. The processing of a Section 401 WQC application is also subject to the compliance with 40 CFR §121 requirements.

Beginning January 31, 2023, the DOH-CWB will only utilize electronic signature e-Permitting forms and discontinue the hard-copy signature forms. All hard-copy signature certification e-Permitting forms, including compliance forms, will be inactivated.

The electronic signature forms will require electronic signature approval to submit a form to the CWB. For details on how to obtain the electronic signature approval please visit CWB website located at: https://health.hawaii.gov/cwb/announcements/cwb-announces-new-requirement-for-electronic-signature-approval-for-all-submissions-beginning-january-31-2023/.

Please see HAR, Chapters 11-53 and 11-54 for the State's Water Quality Standards and for more information on the Section 401 WQC. HAR, Chapters 11-53 and 11-54 are available on the CWB website at: http://health.hawaii.gov/cwb/.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapters 11-53 and 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation and up to two (2) years in jail.

5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:

   a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

   b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.

   c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.

d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.

e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

WILSON OKAMOTO CORPORATION
INNOVATORS · PLANNERS · ENGINEERS

10847-01
April 8, 2025

Mr. Mike Kaneshiro
State of Hawai‘i Department of Health
Clean Water Branch
2827 Waimano Road #225
Pearl city, Hawai‘i 96782

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Kaneshiro:

Thank you for your e-mail dated November 27, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) The Environmental Notice.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

EDWIN H. SNIFFEN
DIRECTOR
KA LUNA HO'OKELE

Deputy Directors
Nā Hope Luna Ho'okele
DREANALEE K. KALILI
TAMMY L. LEE
CURT T. OTAGURO
ROBIN K. SHISHIDO

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:

DIR0001131
STP 8.3870

December 17, 2024

VIA EMAIL: publiccomment@wilsonokamoto.com

Mr. Keola Cheng, Planning Director
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Cheng:

Subject: Environmental Assessment Early Consultation Package
Nanakuli High and Intermediate School (NHIS) Performing Arts Center
Nanakuli, Oahu, Hawaii
Tax Map Key: (1) 8-9-007: 009

Thank you for your letter, dated November 22, 2024, requesting the Hawaii Department of Transportation's (HDOT) review and comments on the subject project. HDOT understands that the State of Hawaii Department of Education is proposing to construct a new Performing Arts Center at NHIS, which is located off Nanakuli Avenue.

HDOT has reviewed the early consultation package, and based on the project location and description, it appears that the project would have no significant impacts to HDOT facilities. Therefore, we have no comments.

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

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. Edwin Sniffen
Department of Transportation
State of Hawai‘i
200 Rodgers Boulevard
Honolulu, Hawai‘i 96819

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Sniffen:

Thank you for your letter dated December 17, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

DEPARTMENT OF DESIGN AND CONSTRUCTION
KA 'OIHANA HAKULAU A ME KE KĀPILI
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAI'I 96813
PHONE: (808) 768-8480 • FAX: (808) 768-4567 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA

HAKU MILLES, P.E.
DIRECTOR
PO'O

MARK YONAMINE, P.E.
DEPUTY DIRECTOR
HOPE PO'O

December 6, 2024

SENT VIA EMAIL

Mr. Keola Cheng
publiccomment@wilsonokamoto.com

Dear Mr. Cheng:

Subject: Environmental Assessment (EA) Early Consultation for
Nānākuli High and Intermediate School Performing Arts Center Tax
Map Key: [1] 8-9-007-009
Nānākuli, O'ahu, Hawai'i

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

Should you have any questions, please contact me at (808) 768-8480.

Sincerely,

Haku Milles, P.E., LEED AP
Director

HM:krn (931403)

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. Haku Milles
Department of Design and Construction
City and County of Honolulu
650 South King Street 11th Floor
Honolulu, Hawai‘i 96850

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Milles:

Thank you for your letter dated December 13, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

DEPARTMENT OF EMERGENCY MANAGEMENT
KA ʻOIHANA HOʻOKELE ULIA PŌPILIKIA
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, BASEMENT • HONOLULU, HAWAIʻI 96813
PHONE: (808) 723-8960 • FAX: (808) 768-1492 • WEBSITE: honolulu.gov/dem

RICK BLANGIARDI
MAYOR
MEIA

JENNIFER M. WALTER
ACTING DIRECTOR
PO'O KUIKAWA

January 3, 2025

Mr. Keola Cheng
Planning Director
1907 South Beretania Street
Suite 400
Honolulu, Hawaiʻi 96826

Dear Mr. Cheng:

For inclusion in the Environmental Assessment (EA), The City and County of Honolulu's Department of Emergency Management (DEM) is requesting the new Performing Arts Center (Proposed Project) would be constructed to hurricane standards. The reasoning for this is threefold:

1) In the Waiʻanae area, Nānakuli High and Intermediate School is one of only three Hurricane Refuge shelters (out of twenty (20) that are identified for use during an emergency). In an area of the island that is already limited for sheltering operations, having the Proposed Project would appear to be an ideal opportunity to provide the community with an expanded capacity for a refuge area during an event, such as a hurricane.

2) For the purposes of providing a destination for emergency evacuations and/or post-impact sheltering during an event, Nānakuli High and Intermediate School has the largest capacity (by ***six times*** - 1,973: 327) in contrast to the second largest refuge areas for the same purpose. For emergency evacuations and post-impact sheltering, having this Proposed Project potentially added to event operations would provide added security to the Waiʻanae region.

3) Studies in 2005 and 2019 indicated that for the every $1 spent on proactive mitigation efforts would save $4 and $11, respectively, for the costs spent on response and recovery after an event, such as a hurricane. In all, attempting to retrofit the Proposed Project to hurricane standards years after completing construction would be far more costly than including these costs up front as part of the initial construction design.

Should there be any questions, please contact Ian Keogh, Infrastructure, Mitigation & Recovery Officer, at 808-723-8954 or via email at ian.keogh@honolulu.gov.

Sincerely,

Jennifer M. Walter
Acting Director

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Ms. Jennifer M. Walter
Department of Emergency Management
City and County of Honolulu
650 South King Street, Basement
Honolulu, Hawai‘i 96813

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Ms. Walter:

Thank you for your letter dated January 3, 2024 regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

DEPARTMENT OF PLANNING AND PERMITTING
KA ʻOIHANA HOʻOLĀLĀ A ME NĀ PALAPALA ʻAE
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAIʻI 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041 • WEBSITE: honolulu.gov/dpp

RICK BLANGIARDI
MAYOR
MEIA

DAWN TAKEUCHI APUNA
DIRECTOR
PO'O

BRYAN GALLAGHER, P.E.
DEPUTY DIRECTOR
HOPE PO'O

REGINA MALEPEAI
2ND DEPUTY DIRECTOR
HOPE PO'O KUALUA

December 10, 2024 2024/ELOG-2366 (DC)

Mr. Keola Cheng
Wilson Okamoto Coporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaiʻi 96826

Dear Mr. Cheng:

SUBJECT: Pre-Assessment Consultation
Environmental Assessment (EA)
Nānākuli High and Intermediate School Performing Arts Center
980 Nānākuli Avenue – Nānākuli
Tax Map Key: 8-9-007:009

This is in response to your letter, received November 27, 2024, requesting the Department of Planning and Permitting (DPP) provide comments on the upcoming Draft EA, as required under Chapter 343, Hawaiʻi Revised Statutes (HRS) for the construction of a new Performing Arts Center at Nānākuli High and Intermediate School. The subject parcel is 65.246 acres and located in the R-5 Residential District. The proposed work at the subject property inlcudes new sidewalks and driveways, and a new structure, built in two phases, that includes a theater workshop space, covered outdoor amphitheater, auditorium, stage, green room, office space, dressing rooms, and lanai (Project). The DPP has the following comments that should be included in the EA:

1. Consistency with Long-Range Plans: The EA should address the proposed Projectʻs consistency with the Oʻahu General Plan and Waiʻanae Sustainable Communities Plan. The Draft EA should address how the proposed Project is consistent, inconsistent, or implements each of the relevent statements from the respective plans.

2. Compliance with the Land Use Ordinance (LUO): The EA should ensure compliance with Revised Ordinances of Honolulu Chapter 21, the LUO:

www.honolulu.gov/dpp/resources/ordinances.html

The EA should identify the Project's consistency with the development standards of the R-5 Residential District development standards and other applicable LUO regulations, including but not limitied to the following:

- Maximum allowable heights and building area;
- Required yard and height setbacks;
- Parking, loading, and vehicular circulation and maneuvering areas;
- Impervious surface coverage; and
- Street trees, parking lot landscaping, and landscape screening.

The Nānākuli High and Intermediate School is considered a public use and structure. The Project qualifies for a Zoning Waiver under ROH Section 21-2.130. In the case that any of the above-mentioned development standards are not met, a Zoning Waiver may be required. The EA should state whether the Project will likely require a Zoning Waiver Permit.

3. Flood Zone: The EA should identify the subject property's Flood Zone as mapped by the Federal Emergency Management Agency and evaluate the proposed Project's compliance with the City's Flood Hazard Areas Ordinance (ROH Chapter 21A).

The DPP has no further comments at this time. We may have comments regarding the Draft EA when more detailed plans are provided. Should you have any other questions, please contact David Cholak, of the Zoning Regulations and Permits Branch, at (808) 768-8026 or via email at david.cholak@honolulu.gov.

Very truly yours,

FOR Dawn Takeuchi Apuna
Director

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Ms. Dawn Takeuchi-Apuna
Department of Planning and Permitting
City and County of Honolulu
650 South King Street – 7th Floor
Honolulu, Hawai‘i 96813

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Ms. Takeuchi-Apuna:

Thank you for your letter dated December 16, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

DEPARTMENT OF TRANSPORTATION SERVICES
KA 'OIHANA LAWELAWE 'ŌHUA
CITY AND COUNTY OF HONOLULU

711 KAPI'OLANI BOULEVARD, SUITE 1600
HONOLULU, HAWAI'I 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Website: honolulu.gov/transportation

RICK BLANGIARDI
MAYOR
MEIA

J. ROGER MORTON
DIRECTOR
PO'O

JON Y. NOUCHI
DEPUTY DIRECTOR
HOPE PO'O

TP12/24-931904

December 30, 2024

Keola Cheng, Director - Planning
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawai'i 96826

Attn: Harlee Meyers, Project Manager

Dear Mr. Cheng:

SUBJECT: Environmental Assessment (EA) Early Consultation Package for Nānākuli High and Intermediate School Performing Arts Center
Tax Map Key: [1] 8-9-007-009
Nānākuli, O'ahu, Hawai'i

Thank you for the opportunity to provide written comments regarding the Environmental Assessment (EA) Early Consultation Package for Nānākuli High and Intermediate School Performing Arts Center; Tax Map Key: [1] 8-9-007-009; Nānākuli, O'ahu, Hawai'i. We have the following comments.

1. Transportation Impact Assessment (TIA). The Applicant should perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit safety, stress, and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate these impacts by applying Complete Streets principles. The Applicant shall discuss the future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.

   The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts (in the format specified at https://geocounts.com/api/format/ and the example file at https://bit.ly/DTS-count-sample) and accompanying analyses to the Department of Transportation Services Regional Planning Branch (RPB) at dtsplanningdiv@honolulu.gov. Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal assessment tools

and recommended analyses. The TIA Guide can be found at http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723.

2. Parking. A discussion regarding off-street parking and site generated parking demand should be added to this report. Include a discussion about planned shared-parking strategies.

3. Street Usage Permit. A street usage permit from the DTS should be obtained for any construction-related work that may require the temporary closure of any traffic lane, sidewalk, bicycle lane, or pedestrian mall on a City street.

4. Neighborhood Impacts. The area representatives, neighborhood board, as well as the area guests, businesses, emergency personnel (fire, ambulance, and police), O'ahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.

5. Disability and Communication Access Board (DCAB). Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with Americans with Disabilities Act requirements.

Should you have any questions, please contact Bart Mikitowicz, of my staff, at (808) 768-6681.

Very truly yours,

J. Roger Morton
Director

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. J. Roger Morton
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd, Suite 1600
Honolulu, Hawai‘i 96813

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Morton:

Thank you for your letter dated December 30, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

HONOLULU EMERGENCY SERVICES DEPARTMENT
KA 'OIHANA LAWELAWE ULIA PŌPILIKIA O HONOLULU
CITY AND COUNTY OF HONOLULU

3375 KOAPAKA STREET, SUITE H450 • HONOLULU, HAWAI'I 96819
PHONE: (808) 723-7800 • FAX: (808) 833-3934 • WEB: https://emergencyservices.honolulu.gov/

RICK BLANGIARDI
MAYOR
MEIA

JAMES H.E. IRELAND, M.D.
DIRECTOR
PO'O

IAN T. T. SANTEE, MPA
DEPUTY DIRECTOR
HOPE PO'O

December 2, 2024

SENT VIA EMAIL

Mr. Keola Cheng
Director of Planning & Project Manager
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawai'i 96826
publiccomment@wilsonokamoto.com

Dear Mr. Cheng:

I have received your Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center. I am in strong support.

Performing arts offers students tremendous opportunities to express themselves through their shows. It is a healthy outlet for both in school and after school activities that help boost confidence, teamwork and leadership. A Performing Arts Center gives the students and faculty the tools they need to have first class practices and shows. Furthermore, it gives the audience a place to enjoy the show that is comfortable and close to home.

My only input, as I am the Director of the Honolulu Emergency Services Department, is that you ensure adequate access in your design for EMS personnel in the event of an emergency in the complex. This includes access for an ambulance gurney and consideration for nearby parking for the ambulance.

Best wishes on the project. I look forward to attending a program there in the future.

Sincerely,

James H.E. Ireland, M.D.
Director

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. James Ireland
Honolulu Emergency Services Department
City and County of Honolulu
3375 Koapaka Street, Suite H450
Honolulu, Hawai‘i 96819

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Ireland:

Thank you for your letter dated December 2, 2024 regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

From: ohsdoc <ohsdoc@librarieshawaii.org>
Sent: Monday, December 9, 2024 2:15 PM
To: Public Comment <publiccomment@wilsonokamoto.com>
Subject: Early Consultation/Nanakuli High and Intermediate School Performing Arts Center.

Dear Wilson Okamoto Corporation,

Thank you for providing a copy of the Early Consultation Package for the Nanakuli High and Intermediate School Performing Arts Center, as this allows us to comment in regard to the requirements outlined in the Hawaii Administrative Rules (HAR) §11-200.1-5 - Filing Requirements for Publication and Withdrawal.

This is merely a reminder that the HAR directs that a paper copy of the draft environmental assessment be deposited with both the library nearest the project location and the Hawaii Documents Center, concurrent with filing the document with the Office of Environmental Quality Control for publication in The Environmental Notice.

A list of library locations can be found at the Hawaii State Public Library System website:
https://www.librarieshawaii.org/visit/branches/all-branches
The mailing/delivery address for the Hawaii Documents Center: 478 S. King Street, Honolulu, HI 96813.

Thank you for your time.

Best regards,
Kristin Laitila
Library Technician

Hawaii Documents Center

Hawaii State Library - Hawaii & Pacific Section

Hawaii State Public Library System

478 South King Street, Honolulu, HI 96813 | (808) 586-3544

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WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Ms. Kristin Laitila
Hawaii State Public Library System
478 South King Street
Honolulu, Hawai‘i 96813

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Ms. Laitila:

Thank you for your letter dated December 10, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

From: Justin Medeiros <justin.medeiros@hawaiiantel.com>
Sent: Thursday, December 12, 2024 11:20 AM
To: Greg Kawachi <Greg.Kawachi@hawaiiantel.com>; Public Comment <publiccomment@wilsonokamoto.com>
Cc: HT-Plan Reviews <HT-PlanReviews@hawaiiantel.com>; Sean Cross <Sean.Cross@hawaiiantel.com>; Naomi Pacheco <naomi.pacheco@hawaiiantel.com>
Subject: RE: EA Early Consultation Package for Nanakuli High and Intermediate School Performing Arts Center

Hi Wilson Okamoto Corporation,

Thank you for sending the Environmental Assessment for Nanakuli High and Intermediate. I have attached a map of our underground facilities in the project area, please have them located before construction begins. Please send the construction plans to our HT- Plan Reviews email when they are available.

Thank you,

Justin Medeiros
OSP Engineer I
Hawaiian Telcom
C: 808.888.1509
Email: justin.medeiros@hawaiiantel.com

From: Greg Kawachi <Greg.Kawachi@hawaiiantel.com>
Sent: Wednesday, December 11, 2024 11:06 AM
To: publiccomment@wilsonokamoto.com
Cc: HT-Plan Reviews <HT-PlanReviews@hawaiiantel.com>; Justin Medeiros <justin.medeiros@hawaiiantel.com>; Sean Cross <Sean.Cross@hawaiiantel.com>
Subject: EA Early Consultation Package for Nanakuli High and Intermediate School Performing Arts Center

Aloha,

HT confirming receipt of the letter re: EA Early Consultation Package for Nanakuli High and Intermediate. This has been assigned for review. Please let us know if there are any updates of if you have any questions. Thank you!

Greg Kawachi
Manager II – Network OSP
O: 808.546.7666
C: 808.779.8324

N

HALEAKALA AVE

BLDG. V

ATHLETIC FIELD

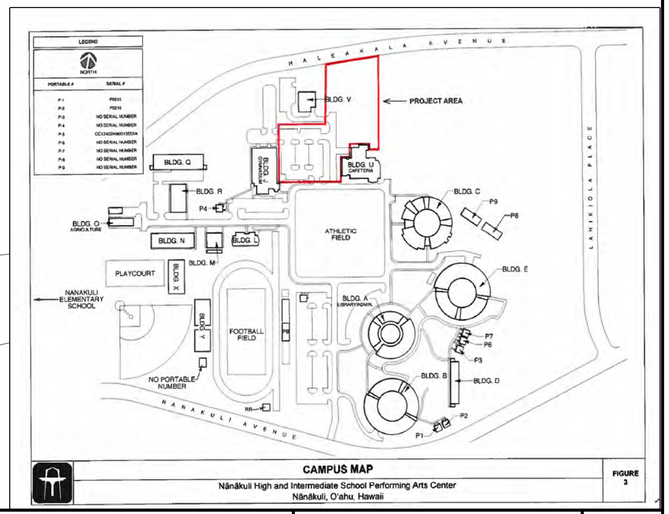
BASEBALL FIELD

HALEAKALA AVE

BLDG. J

BLDG. U

ATHLETIC FIELD



CAMPUS MAP
Nānākuli High and Intermediate School Performing Arts Center
Nānākuli, O'ahu, Hawaii

FIGURE 3

NOTE AREA——

UNDERGROUND CONDUIT: ----------

PULL BOX/ HANDHOLE: ☐

SPECIAL CIRCUITS

ASGNMT REC'S DATE_____
DESIGN REVIEW REQ'D ☐ YES ☐ NO
IF YES, ATTACH COMPLETED
SPECIAL SERVICES CHANGE NOTICE

☐ T1
☐ DATA
☐ TRUNK
☐ SELEX
☐ OTHER
☐ NONE

TRANSMISSION CRITERIA

BRIDGE TAP(S) FOOTAGE_____
END SECTION FOOTAGE_____
LOOP ELR_____ OHMS LOOP EML _____dB
OFFICE LOOP LIMIT_____ OHMS

WORK SAFELY HIGH VOLTAGE

POWER CO_____
_____KV_____PHASE
CONNECTED_____
GROUNDED_____
COMMENTS_____

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ENG_____ TEL_____
DRAWN BY JUSTIN MEDEIROS DATE 12/12/2024
APP'D _____ SHT 1 OF 1

Hawaiian Telcom

TITLE: EA Early Consultation Package for Nanakuli High and Intermediate School Performing Arts Center - HT MAP

W.C.: WO NO.: CTRL:

ISSUE
☑ ORIGINAL
☐ REV NO._____
DATE:_____

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. Justin Medeiros
Hawaiian Telecom
Justin.medeiros@hawaiiantel.com

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, Oʻahu, Hawaiʻi

Dear Mr. Medeiros:

Thank you for your letter dated December 12, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of Oʻahu.

We acknowledge your comments and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawaiʻi Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawaiʻi's Environmental Review Program's (ERP) *The Environmental Notice.*

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

From: Liu, Rouen <rouen.liu@hawaiianelectric.com>
Sent: Friday, December 6, 2024 10:18 AM
To: Public Comment
Cc: Castillo, Carlos; Kuwaye, Kristen
Subject: NHIS Performing Arts Center Project - Early Consultation Response

Dear Mr. Cheng,

Thank you for the opportunity to review and comment on the subject project. Hawaiian Electric Company has no objections to the proposed project. However, please note that if Hawaiian Electric has existing easements or facilities on the subject property, continued access will be necessary for the maintenance of our facilities.

We greatly appreciate your efforts to keep us informed throughout the planning process and ask that you continue to provide updates as the proposed DOE project progresses.

Should you have any questions or require further clarification, please do not hesitate to contact me at (808) 772-2135.

Sincerely,
Rouen Liu (WA3 – PTA)
Permits Engineer
Hawaiian Electric Company
PO Box 2750
Honolulu, HI 96840-0001

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

10847-01
April 8, 2025

Mr. Rouen Liu
Hawaiian Electric Company
P.O. Box 2750
Honolulu, Hawai‘i 96840

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Liu:

Thank you for your letter dated December 6, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice.*

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

HAWAI'I GAS
THE CLEAN ENERGY COMPANY

January 17, 2025

Mr. Keola Cheng
Planning Director
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Cheng:

Subject: Environmental Assessment Early Consultation Package for
Nanakuli High and Intermediate School Performing Arts Center
Tax Map Key (TMK): [1] 8-9-007-009
Plan Review and Comment

In response to your letter dated November 22, 2024, it has been determined that the area is currently clear of utility gas facilities.

Thank you for the opportunity to comment on the Environmental Assessment for Nanakuli High and Intermediate School Performing Arts Center. Should there be any questions, or if additional information is desired, please call Christian Feria at (808) 596-1269.

Sincerely,

Hawaii Gas

for Keith K. Yamamoto
Manager, Engineering

KKY:krs

WILSON OKAMOTO CORPORATION
INNOVATORS · PLANNERS · ENGINEERS

10847-01
April 8, 2025

Mr. Keith Yamamoto
Hawai‘i Gas
kkyamamo@hawaiigas.com

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Yamamoto:

Thank you for your letter dated January 17, 2025, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comment that it has been determined that the project area is currently clear of utility gas facilities and have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice.*

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL

December 13, 2024

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Attn: Keola Cheng, Planning Director

Subject: Environmental Assessment (EA) Early Consultation Package for
Nanakuli High and Intermediate School Performing Arts Center
Tax Map Key (TMK): [1] 8-9-007-009
Nanakuli, Oahu, Hawaii

Dear Keola,

The locations of existing routes and crossings are shown on the provided plans. The exact locations, and routing of all CATV facilities must be verified in the field due to construction variances. The location of the proposed project may have an effect on Spectrum's existing CATV plant in your work area.

However, if the work or repairs being performed requires special machinery, with a specific height requirement, the contractor performing the work, will be required to notify our office prior to performing any work. Spectrum may need to reattach or move our plant system, if we have to relocate our existing plant system, charges may apply.

Currently, Spectrum utilizes Hawaiian Telcom's underground infrastructures to provide our CATV services in the area that passes near your project location. Before any digging, toning may be required. Call "One Call Center" at (866)423-7287 to set up toning.

This information has been provided to help minimize delays and prevent damage to existing CATV structures within the project area. Should you have any questions or concerns, please feel free to contact me at (808)853-0352, (808)625-9745, or email me via kolin.chang@charter.com .

Sincerely,

Kolin Chang
Construction Coordinator

GENERAL CONTRACTOR'S NOTES:

1. ***THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENT TO THE DUE AND LAWFULL PROSECUTION OF THE WORK.***

2. ***THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF THEIR OPERATIONS. ADJUSTMENTS TO THE NEW DUCTLINE ALIGNMENT, IF REQUIRED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.***

3. ***THE CONTRACTOR SHALL BRACE ALL POLES OR LIGHT STANDARDS NEAR THE NEW DUCTLINE, MANHOLE OR HANDHOLE DURING ITS OPERATIONS.***

4. ***THE CONTRACTOR SHALL SAW-CUT A.C. PAVEMENT, CONCRETE GUTTER, AND CONCRETE SIDEWALK WHEREVER NEW MANHOLES, HANDHOLES, PULLBOXES OR DUCTLINES ARE TO BE PLACED AND SHALL RESTORE TO EXISTING CONDITION OR BETTER.***

5. ***THE UNDERGROUND PIPES, CABLES, OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM THEIR SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREAS. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.***

6. ***THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE COST FOR SUPLEMENTARY MEASURES, WHICH WILL BE REQUIRED BY THE CITY AND COUNTY, SHALL BE BORNE BY THE CONTRACTOR.***

7. ***THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL KEEP THE PROJECT AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE OF HAWAII, DEPARTMENT OF HEALTH.***

8. ***PRIOR TO THE EXCAVATION OF THE DUCTLINE, THE CONTRACTOR SHALL REQUEST THAT SPECTRUM OCEANIC CABLE COMPANY TO LOCATE EXISTING DUCTLINE WHEREVER REQUIRED.***

9. ***THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. ANY WORK INVOLVING EXISTING CABLES OR DUCTS SHALL BE DONE IN THE PRESENCE OF THE SPECTRUM OCEANIC INSPECTOR OR THEIR REPRESENTATIVE. TEMPORARY CABLE AND DUCT SUPPORT SHALL BE PROVIDED WHEREVER NECESSARY.***

10. ***THE CONTRACTOR SHALL NOTIFY THE SPECTRUM OCEANIC INSPECTOR 72 HOURS PRIOR TO THE START OF WORK ON CATV INFRASTRUCTURE, POURING CONCRETE, OR BACKFILLING. SPECTRUM OCEANIC'S INSPECTOR(S): PERRY SAMUELU AT 387-2496 OR PAUL CASPILLO AT 479-1637.***

11. ***WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES PRIOR TO EXCAVATION OF THE MAIN TRENCHES TO VERIFY THEIR LOCATIONS AND DEPTHS.***

12. ***CONTRACTOR SHALL PROVIDE ALL MATERIALS AND FURNISH ALL LABOR AND EQUIPMENT NECESSARY TO INSTALL THE DUCTLINE IN PLACE COMPLETE.***

13. ***THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT ALL REQUIRED LINES AND GRADES AND SHALL PRESERVE ALL BENCH MARKS AND WORKING POINTS NECESSARY TO LAY OUT THE WORK CORRECTLY. THE NEW DUCTLINE SHALL BE ADJUSTED BY THE CONTRACTOR TO SUIT THE EXISTING CONDITIONS AND THE DETAILS AS DESCRIBED IN THE PLANS.***

14. ***THE LOCATION OF CATV FACILITIES SHOWN ON PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AS TO ITS ACTUAL FIXED LOCATION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN CLOSE PROXIMITY OF CATV FACILITIES.***

15. ***THE CONTRACTOR SHALL OBTAIN EXCAVATION PERMIT CLEARANCE FROM SPECTRUM OCEANIC'S ENGINEERING SECTION LOCATED AT 200 AKAMAINUI ST., MILILANI TECH PARK.***

16. ***FOR ANY FIELD ASSISTANCE OR VERIFICATION OF CATV FACILITIES, THE CONTRACTOR SHALL EMAIL SPECTRUM ENGINEERING & CONSTRUCTION AT HAW.ENGINEERING.RESEARCH@CHARTER.COM***

17. ***ANY WORK REQUIRED TO RELOCATE CATV FACILITIES SHALL BE DONE BY SPECTRUM OCEANIC CABLE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIREMENTS AND ASSOCIATED COSTS.***

18. ***ANY DAMAGE TO SPECTRUM OCEANIC'S FACILITIES SHALL BE REPORTED TO SPECTRUM OCEANIC'S TOC DEPARTMENT AT 625-8169.***

19. ***THE CONTRACTOR SHALL TUNNEL UNDER EXISTING CONCRETE CURB AND GUTTER AS NECESSARY TO EXTEND CONDUIT INTO EXISTING CATV PULLBOX AND INTO THE PROPOSED POWER SUPPLY PULLBOX.***

20. ***ALL EXISTING IMPROVEMENTS THAT ARE DISTURBED DURING THE CONSTRUCTION PHASE SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION AT NO COST TO THE CITY IN ACCORDANCE WITH CITY'S STANDARDS.***

21. *AT LOCATIONS WHERE EXISTING CATV PULLBOX REPLACEMENT IS PROPOSED, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION NOT TO DAMAGE THE EXISTING CABLES IN THE PULLBOX. ALL DAMAGES TO EXISTING CABLES SHALL BE REPAIRED BY SPECTRUM OCEANIC CABLE AND PAID FOR BY THE CONTRACTOR.*

22. *COORDINATE ALL PENETRATION OF TELEPHONE PULLBOXES WITH HAWAIIAN TEL INSPECTOR.*

23. *SMOOTH FINISH INSIDE WALL OF EXISTING PULLBOXES AND HAND-HOLES TO ITS ORIGINAL CONDITION OR BETTER.*

24. *ALL NEW CONCRETE ENCASED CONDUIT SHALL BE PVC PIPE-SCHEDULE 40. ALL NEW DIRECT-BUIRED CONDUIT SHALL BE PVC PIPE-SCHEDULE 80. USE OF ANY OTHER MATERIAL TYPE (GTS, ETC.) SHALL BE LIMITED TO MATCHING EXISTING FACILITES. CONNECTION OF DISSIMILAR MATERIALS TO REQUIRE APPROVAL FROM SPECTRUM OCEANIC INSPECTOR AND ENGINEERING DEPT.*

25. *THE CONTRACTOR SHALL PLACE POLY CORD THROUGH OUT PROJECT, AND SECURE IN MANHOLES, HANDHOLES, AND PULLBOXES.*

26. *FOR 3" CONDUITS OR LARGER, THE CONTRACTOR SHALL INSTALL NEPTCO WP1800 MULETAPE OR APPROVED EQUAL IN ALL DUCTLINES, LEAVE MULETAPE IN PLACE FOR FUTURE USE AS A PULL OR FISH LINE, UNLESS OTHERWISE NOTED. REFERENCE GTE MATERIAL CODE NO. 571154. ALL DUCTS SHALL BE CAPPED TO PREVENT ENTRY OF FOREIGN MATERIAL DURING CONSTRUCTION AND AT COMPLETION OF INSTALLATION. ENDBELLS ARE REQUIRED FOR CONDUITS 2" AND LARGER.*

27. *PENETRATION INTO PULLBOXES IF NECESSARY TO BE FROM FACTORY INSTALLED OPENING OR FROM BRICKS POSITION. PENETRATION FROM PULLBOX WALLS IS NOT ACCEPTABLE.*

28. *BENDS IN THE DUCT ALIGNMENT, DUE TO CHANGES IN GRADE SHALL HAVE A MINIMUM RADIUS OF 20-FEET. ALL 90-DEGREE C-BENDS AT A POLE OR AT THE BUILDING FLOOR SLAB PENETRATION, SHALL HAVE A BEND RADIUS OF 10 TIMES THE DIAMETER OF THE DUCT OR GREATER.*

29. *MINIMUM LENGTH OF CONDUIT USED SHALL NOT BE LESS THAN 5-FEET IN LENGTH. USE OF PARTIAL CONDUIT SECTIONS ALLOWABLE IS AT SPECTRUM OCEANIC INSPECTOR(S) DISCRETION.*

30. *ALL CONDUITS SHALL ENTER THROUGHT THE END "SHORT WALL" OF THE PULL-BOX. ENTRY SHALL BE AT 90 DEGRESS (PERPENDICULAR) TO WALL FACE WITH BENDS NO LESS THAN 12" FROM EXTERIOR WALL.*

31. *A MINIMUM OF (2) PRECAST SECTIONS MUST BE USED ON ALL 2X4 OR 2X6 PULLBOXES.*

32. *ALL NEW CONSTRUCTION SHALL UTILIZE CONCRETE PRECAST BASE UNLESS OTHERWISE APPROVED OR SPECIFIED BY SPECTRUM OCEANIC INSPECTOR(S).*

33. *FOR PULL-BOX LOCATIONS WHERE VEHICULAR INTRUSION POSSIBLE, CONCRETE COLLAR REQUIRED PER SPECTRUM OCEANIC STANDARDS AND SPECIFICATIONS MANUAL. EXAMPLES INCLUDE, BUT NOT LIMITED TO, ROLLED/RIBBON CURBS, CURB / HEADERS LESS THAN 5" IN HEIGHT, VEHICLE TRAVELWAYS WITH NO DEFINED CURB / HEADER, ETC.*

    A. *NON SIDEWALK AREAS, SEE CHAPTER 2, FIGURE 18.1c, 19.1c AND 20.1b IN THE SPECTRUM SPECIFICATIONS MANUAL.*

34. *WHEN THREE (3) OR MORE 4" CONDUITS ENTER ONE END WALL OF ANY PULLBOX, ONLY BRICK BASES WILL BE ALLOWED UNLESS OTHERWISE INSTRUCTED/APPROVED BY SPECTRUM OCEANIC INSPECTOR(S).*

35. *TWO MINIMUM LAYERS OF BRICKS TO BE USED LOWER THAN THE LOWEST DUCT ENTERING THE PULLBOX. TOP LAYER OF BRICK TO BE FLUSH WITH TOP OF CONDUIT OR HIGHER.*

36. *FOR UPGRADE/REPAIRS TO EXISTING PULL-BOXES, BRICKS MAY BE USED AND SHALL ALWAYS BE AT LEAST TWO LAYERS LOWER THAN THE LOWEST DUCT ENTERING THE PULLBOX.*

37. *AT NO TIME SHALL CEMENT MORTAR, WOOD, OR ANY OTHER MATERIAL BE USED BETWEEN PRECAST SECTIONS.*

38. *LEVELING OR RAISING OF BOXES TO GRADE MUST BE DONE:*

    A. *PRE-CAST BASE(S – USING GRAVEL LAYER UNDER BASE (TYPE 3B OR EQUIVALENT APPROVED BY SPECTRUM OCEANIC INSPECTOR)*
    B. *BRICK BASE(S) – ADJUSTMENTS TO BRICKWORK SECTION. THE PERMANENT INSTALLATION OF WOODEN WEDGES TO ACCOMPLISH THIS PURPOSE WILL NOT BE ACCEPTED.*

39. *5/8" x 8' COPPER GROUND RODS SHALL BE PLACED IN ALL PULLBOXES UNLESS OTHERWISE DIRECTED BY SPECTRUM OCEANIC CABLE. GROUND RODS WILL BE PLACED IN THE CORNER 3" TO 4" FROM THE WALL AND AWAY FROM ANY CONDUIT WITH NO MORE THAN 8" STICKING UP ABOVE GROUND.*

40. *TRENCHING TO BE CONDUCTED BY HAND DIGGING NEAR AND ACROSS EXISTING UTILITY LINES.*

41. *MINIMUM CLEARANCE BETWEEN STREET LIGHT STAND AND FIRE HYDRANTS SHALL BE THREE FEET.*

42. *UNDERGROUND UTILITIES SHOWN HEREON IS FOR INFORMATION ONLY. NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INSTALLATION.*

43. ***FOR UNDERGROUND CABLE LOCATING AND MARKING, FIVE WORKING DAYS ADVANCE NOTICE IS REQUIRED. THREE WORKING DAYS ADVANCE NOTICE IS REQUIRED FOR ANY INSPECTION BY A DESIGNATED REPRESENTATIVE. CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE ANY EXISTING CABLES OR DUCTS. SPECTRUM OCEANIC'S INSPECTOR OR DESIGNATED REPRESENTATIVE IS REQUIRED TO BE AT ANY JOB SITE WHENEVER THERE WILL BE A BREAKAGE INTO OR ENTRY INTO ANY STRUCTURE THAT CONTAIN SPECTRUM OCEANIC'S FACILITIES.***

44. ***CONCRETE STRENGTH SHALL BE 3000 PSI IN 28 DAYS.***

45. ***CURING AND BACKFILLING. MAINTAIN CONCRETE IN A MOIST CONDITION FOR 24 HOURS MINIMUM FOR 3,000 PSI AND 48 HOURS MINIMUM FOR 2,500 PSI BEFORE COMPACTED.***
    BACKFILLING: 72 HOURS MINIMUM BEFORE PERMITTING MOTOR TRAFFIC LOAD ON DUCTLINE. CURING METHOD SHALL MEET SPECTRUM OCEANIC INSPECTOR'S APPROVAL.

46. ***INSTALL 4-MIL. THICK ORANGE COLOR WARNING TAPE 4-INCH WIDE ENTIRE LENGTH OF TRENCH WHEN PLACING CATV CONDUITS. TAPE SHOULD READ "CAUTION BURIED CABLE LINE BELOW". MANUFACTURED BY HARRIS INDUSTRIES, INC. CATALOG NUMBER UT-43 OR EQUIVALENT TAPE. TAPE TO BE INSTALLED 12-INCHES ABOVE CONDUIT OR IF CONCRETE JACKET INVOLVED THEN 12-INCHES ABOVE JACKET.***

47. ***AFTER DUCTLINE HAS BEEN COMPLETED, A MANDREL WITH A SQUARE FRONT NOT LESS THAN 12-INCH LONG AND HAVING A DIAMETER OF ¼-INCH LESS THAN THE INSIDE DIAMETER OF DUCT, SHALL BE PULLED THROUGH EACH DUCT AFTER WHICH A BRUSH WITH STIFF BRISTLES SHALL BE PULLED THROUGH TO MAKE CERTAIN THAT NO PARTICLES OF EARTH, SAND, OR GRAVEL HAVE BEEN LEFT INSIDE. DUCTS SHALL BE COMPLETELY DRY AND CLEAN.***

48. ***METALLIC ENTRANCE CONDUITS SHALL BE GROUNDED.***

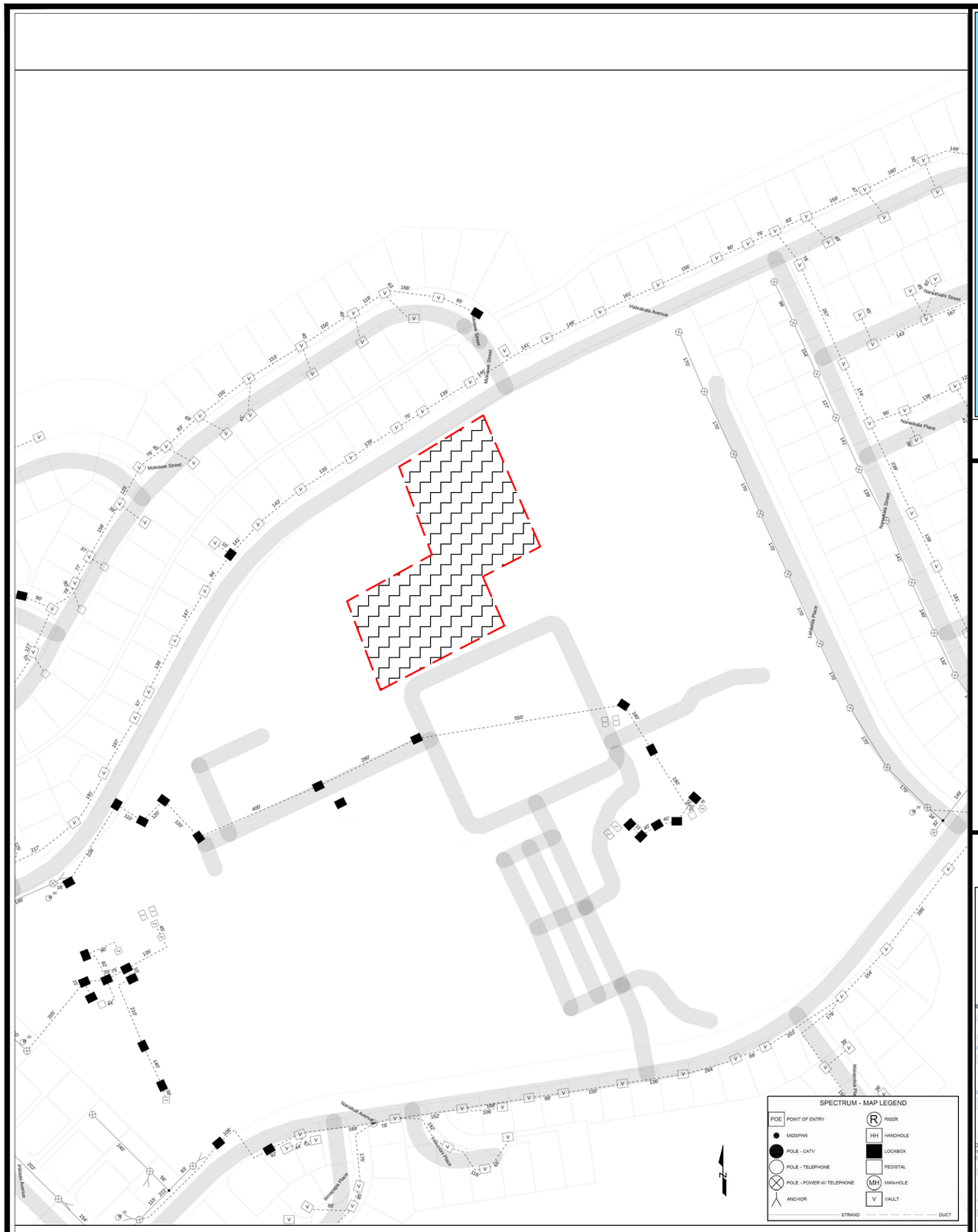
49. ***ALL CONDUITS WITHIN A BUILDING SHALL:***

A) ***BE INSTALLED IN THE SHORTEST AND STRAIGHTEST POSSIBLE RUN.***
B) ***HAVE NO SECTION LONGER THAN 100-FEET NOR CONTAIN MORE THAN TWO 90-DEGREE BENDS. AN APPROVED SIZED JUNCTION BOX OR GUTTER BOX SHALL BE PLACED IF THIS IS EXCEEDED.***
C) ***ALL BENDS SHALL BE LONG SWEEP-RADIUS BENDS BUT THE INSIDE RADIUS OF THE BEND MUST NEVER BE LESS THAN TEN TIMES THE DIAMETER OF THE CONDUIT.***

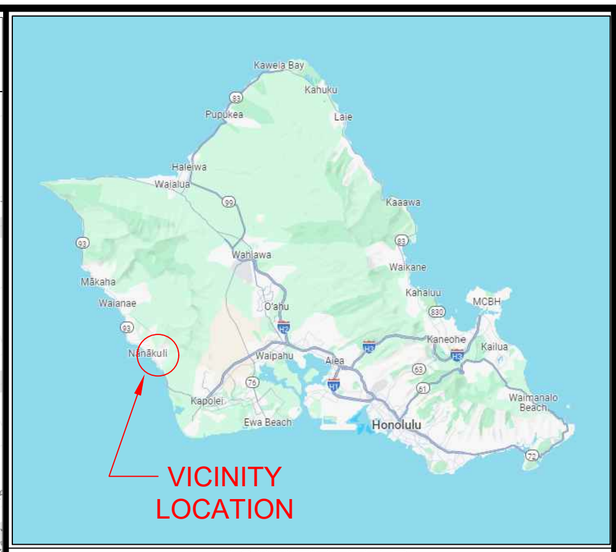
50. ***ALL CONSTRUCTION MUST BE INSPECTED AND APPROVED BY SPECTRUM OCEANIC PRIOR TO THE INSTALLATION OF ANY OF ITS FACILITIES AND THE ENERGIZING OF ITS SYSTEM.***

51. ***CONTRACTOR AND/OR CUSTOMER SHALL PROVIDE SPECTRUM OCEANIC WITH SUFFICIENT INSTALLATION TIME IN THEIR OCCUPANCY TIME TABLE.***

FILE:ContraNotes.doc



CATV SYSTEM MAP
SCALE: NTS

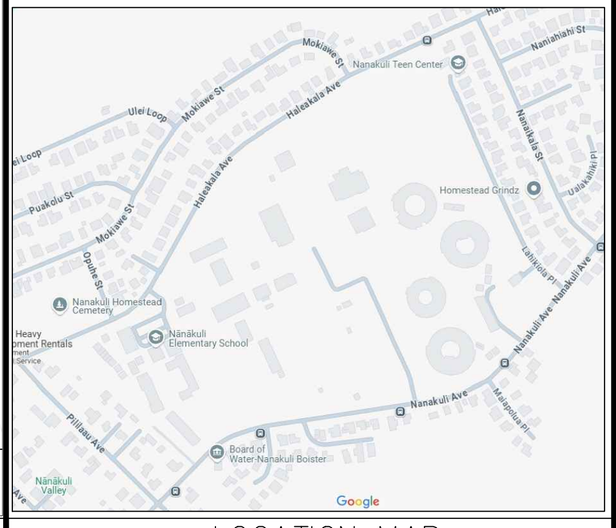


VICINITY MAP
BRYAN'S MAP XX, XX

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Attn: Keola Cheng, Planning Director

Environmental Assessment (EA) Early Consultation Package for Nanakuli High and Intermediate School Performing Arts Center
Tax Map Key (TMK): [1] 8-9-007-009
Nanakuli, Oahu, Hawaii

Currently, Spectrum utilizes Hawaiian Telcom's underground infrastructures to provide our CATV services in the area that passes near your project location. Before any digging, toning may be required. Call "One Call Center" at (866)423-7287 to set up toning.
This information has been provided to help minimize delays and prevent damage to existing CATV structures within the project area. Should you have any questions or concerns, please feel free to contact me at (808)853-0352, (808)625-9745, or email me via kolin.chang@charter.com .



LOCATION MAP

Spectrum
200 AKAMAINUI STREET
MILILANI, HI 96789-3999
PHONE # (808) 625-2100

NANAKULI SCHOOLS ARTS CENTER
89-980 NANAKULI AVENUE
WAIANAE, HI 96792

R&C

TITLE:
LOCATION MAP
CATV SYSTEM MAP
NOTES

DATE:
12/13/2024

SCALE:
NTS

DES. BY	DR. BY	CHK. BY
KC	KC	KC

PROJECT NO:
NA

SHEET NO:
1
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10847-01
April 8, 2025

Mr. Kolin Chang
Spectrum
200 Akamainui Street
Mililani, Hawai‘i 96789

Subject: Environmental Assessment Early Consultation for the
Nānākuli High and Intermediate Performing Arts Center (NPAC)
Nānākuli, O‘ahu, Hawai‘i

Dear Mr. Chang:

Thank you for your letter dated December 13, 2024, regarding the Environmental Assessment Early Consultation Package for the Nānākuli High and Intermediate School Performing Arts Center Project on the Island of O‘ahu.

We acknowledge your comments, and they have been considered in the preparation of the Draft Environmental Assessment (EA) with regard to meeting content requirements prescribed in Hawai‘i Administrative Rules, Title 11, Chapter 200.1, Section 18. A record of your comments, along with this response, have been produced and are appended to the Draft EA in Appendix C.

Thank you for providing notice and information regarding the existing Spectrum facilities within the vicinity of the Project Site.

Please note that the Draft EA has been published and made available for review, and comment in the current issue of the State of Hawai‘i’s Environmental Review Program’s (ERP) *The Environmental Notice*.

We appreciate your participation in the EA review process.

Sincerely,

Keola Cheng

Keola Cheng
Director - Planning

cc: Mr. Kevin Raley, AHL