RICHARD T. BISSEN, JR.
Mayor

JACKY TAKAKURA
Director

ANA LILLIS
Deputy Director

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COUNTY CLERK

DEPARTMENT OF PLANNING
COUNTY OF MAUI
ONE MAIN PLAZA
2200 MAIN STREET, SUITE 315
WAILUKU, MAUI, HAWAI'I 96793

May 21, 2026

APPROVED FOR TRANSMITTAL
Mayor Date 5-26-26

Honorable Richard T. Bissen, Jr.
Mayor, County of Maui
200 South High Street
Wailuku, Hawai'i 96793

For Transmittal to:

Honorable Alice L. Lee, Chair
and Members of the Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

Dear Chair Lee and Members:

SUBJECT: IN THE MATTER OF A STATE DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT, AND CHANGE IN ZONING INITIATED BY THE DIRECTOR OF PLANNING TO ALLOW FOR THE CONSTRUCTION OF A NEW HA'IKŪ FIRE STATION WITH RELATED IMPROVEMENTS, LOCATED ON AN APPROXIMATELY 6.1-ACRE PORTION OF A 27.9-ACRE PARCEL OF LAND IDENTIFIED AS TMK (2) 2-7-007:008 (POR.), HA'IKŪ, MAUI, HAWAI'I (ZPA2025-00007)

The Department of Planning (Department) is transmitting for your review and action the proposed bills to amend the State Land Use District Classification, the Pa'ia-Ha'ikū Community Plan land use designation, and the County zoning designation for a portion of TMK (2) 2-7-007:008, summarized as follows:

PROPOSAL	
Action	1. Amend the State Land Use District Classification from the Agricultural District to the Rural District pursuant to HRS Section 205-3.1; 2. Amend the Pa'ia-Ha'ikū Community Plan land use designation from Agriculture to Public/Quasi-Public pursuant to Chapter 2.80B, Maui County Code; and 3. Amend the County zoning designation from Agricultural District to P-1 Public/Quasi-Public District pursuant to Chapter 19.510, Maui County Code.
Applicant	Director, Department of Planning (Director-initiated)

PROPOSAL	
Owner	County of Maui
Tax Map Keys	(2) 2-7-007:008 (por.)
Address	Located on the Mauka side of Hāna Highway, Ha'ikū, Maui, Hawai'i
Area	Approximately 6.1-acre portion of a 27.9-acre parcel
Current Land Use Designations	State Land Use District: Agricultural Maui Island Plan: Outside Urban Growth Boundary Pa'ia-Ha'ikū Community Plan: Agriculture County Zoning: Agricultural District
Brief Description	The purpose of the proposed land use amendments is to allow the County of Maui Department of Fire and Public Safety to construct and operate a new 10,360 square-foot fire station facility, including apparatus bays, crew quarters, training and administrative space, parking, water storage, and supporting infrastructure to serve Ha'ikū and surrounding East Maui communities.
Public Hearing	The Maui Planning Commission (Commission) held a public hearing on January 27, 2026, at which testimony was received and considered.
Testimony	Three testifiers provided testimony at the January 27, 2026 public hearing. Two testifiers expressed support for the project, and one testifier expressed concerns related to cultural resources and requested deferral. All testimony was received during the public hearing.
Recommendation	At its January 27, 2026 meeting, the Commission voted to recommend approval of the proposed District Boundary Amendment, Community Plan Amendment, and Change in Zoning to the Maui County Council. The Commission adopted the Department's Report and Recommendation as its Findings of Fact, Conclusions of Law, Decision and Order, and included in the record the Ka Pa'akai Analysis dated April 2025, as discussed.

The Commission further authorized the Planning Director to transmit the Commission's recommendation to the Maui County Council on its behalf.

As Council approval is required, the Department transmits the subject application to the Council for consideration. Accordingly, attached for your review are the following documents:

1. Proposed bill entitled, "A BILL FOR AN ORDINANCE TO AMEND THE STATE LAND USE DISTRICT CLASSIFICATION FROM THE AGRICULTURAL DISTRICT TO THE RURAL DISTRICT FOR A PORTION OF TAX MAP KEY (2) 2-7-007:008, HAMAKUALOA, MAUI, HAWAI'I";

2. Proposed bill entitled, "A BILL FOR AN ORDINANCE TO AMEND THE PA'IA-HA'IKŪ COMMUNITY PLAN LAND USE DESIGNATION FROM AGRICULTURE TO PUBLIC/QUASI-PUBLIC FOR A PORTION OF TAX MAP KEY (2) 2-7-007:008, HAMAKUALOA, MAUI, HAWAI'I";

3. Proposed bill entitled, "A BILL FOR AN ORDINANCE TO CHANGE THE COUNTY ZONING FROM AGRICULTURAL DISTRICT TO P-1

PUBLIC/QUASI-PUBLIC DISTRICT FOR A PORTION OF TAX MAP KEY (2) 2-7-007:008, HAMAKUALOA, MAUI, HAWAI'I";

4. Department's Report and Recommendation to the Maui Planning Commission, including exhibits;

5. Transcript of the January 27, 2026 Commission public hearing;

6. Ka Pa'akai Analysis; and

7. Application materials, including Vols. I and II Final Environmental Assessment (July 2024).

Thank you for your attention to this matter. Should you have any questions, please transmit them to the Department through the Office of the Mayor.

Sincerely,

JACKY TAKAKURA
Director

Attachments
cc: Maui Planning Commission Members (PDF)
Danny A. Dias, Planning Program Administrator (PDF)
Kurt Wollenhaupt, Land Use Planning Supervisor (PDF)
Wilton Leauanae, Planner (PDF)
Eugene Quemado, Secretary to Boards and Commissions (PDF)
Brian Ward, Chair, Maui Planning Commission
JMCT:WL:lp
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BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAI'I

In the Matter of the Application of KATE L.K. BLYSTONE, Director DEPARTMENT OF PLANNING To Obtain a State District Boundary Amendment, Community Plan Amendment, and Change in Zoning to allow construction of a new Ha'ikū Fire Station with Related Improvements, located on an approximately 6.1-acre portion of a 27.9-acre parcel of land, identified as TMK (2) 2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i	DOCKET NO. ZPA2025-00007 KATE L.K. BLYSTONE, Director, County of Maui, Department of Planning (W. Leauanae)

PLANNING DEPARTMENT'S REPORT AND RECOMMENDATION TO THE MAUI PLANNING COMMISSION JANUARY 27, 2026 MEETING

DEPARTMENT OF PLANNING
COUNTY OF MAUI
2200 MAIN STREET, SUITE 315
WAILUKU, MAUI, HAWAI'I 96793

BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAI'I

In the Matter of the Application of KATE L.K. BLYSTONE, Director DEPARTMENT OF PLANNING To Obtain a State District Boundary Amendment, Community Plan Amendment, and Change in Zoning to allow construction of a new Ha'ikū Fire Station with Related Improvements, located on an approximately 6.1-acre portion of a 27.9-acre parcel of land, identified as TMK (2) 2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i	DOCKET NO. ZPA2025-00007 KATE L.K. BLYSTONE, Director, County of Maui, Department of Planning (W. Leauanae)

DESCRIPTION OF THE PROJECT

This matter arises from a Director-initiated request, in accordance with Maui County Code (MCC) Section 19.510.020(B), by Kate L.K. Blystone, Planning Director (Director), for a District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change in Zoning (CIZ) to allow the County of Maui Department of Fire and Public Safety (DF&PS) to construct a new Ha'ikū Fire Station with related improvements. The project will occur on an approximately 6.1-acre portion of a 27.9-acre County-owned parcel, identified as TMK (2) 2-7-007:008 (por.), located on the mauka side of Hāna Highway in Ha'ikū, Maui (Property) (**Exhibit 1** - Location Map).

The proposed project consists of an approximately 10,360-square-foot fire station facility that includes an apparatus bay, crew quarters, administrative and training rooms, parking areas, an on-site water storage tank, drainage improvements, utilities, and a new driveway access to Hāna Highway (**Exhibit 2** - Conceptual Site Plan/ Project Layout). The station will provide fire suppression, rescue, and emergency medical response services for the Ha'ikū area and surrounding communities.

Munekiyo Hiraga is serving as the project consultant to DF&PS and provided the application documents in support of this request.

PURPOSE AND PROJECT SUMMARY

The purpose of this Director-initiated request is to obtain the land use entitlements necessary to allow for the construction and long-term operation of a new fire station on the Property. The Director is requesting review and recommendation by the Commission to ensure that the proposed land use amendments are consistent with the purposes, intent, and applicable

provisions of the MCC and the Pa'ia-Ha'iku Community Plan.1 Accordingly, the Department of Planning (Department) is requesting the following actions:

1. **DBA**: Reclassification of the Property from the State Agricultural District to the State Rural District pursuant to HRS Section 205-3.1.

2. **CPA**: Amendment to the Pa'ia-Ha'iku Community Plan land use map from Agriculture to Public/Quasi-Public, proposed pursuant to MCC Sections 2.80B.070 and 2.80B.100, which provide for non-decennial amendments initiated by the Director and require a public hearing and recommendation by the Maui Planning Commission (Commission).

3. **CIZ**: Amendment to the County Official Zoning Map from Agricultural District to P-1 Public/Quasi-Public District, processed pursuant to MCC sections 19.510.020(B) and 19.510.040 (Director-initiated zoning amendments requiring public hearing before the Commission).

This request is submitted by the Director in accordance with MCC section 19.510.020(B), which authorizes the Director to introduce proposed amendments to zoning maps and land use ordinances for public hearing before the Commission.

Environmental review for the project was completed pursuant to HRS Chapter 343. A Final Environmental Assessment (FEA) was accepted, and a Finding of No Significant Impact (FONSI) was published in the July 8, 2024 Environmental Notice.

The complete FEA is on file with the Department, available through the State of Hawai'i Office of Planning and Sustainable Development (OPSD) Environmental Review Program and posted with the Commission's agenda materials for this meeting.

DESCRIPTION OF THE PROPERTY

The 6.1-acre project site is located on a portion of TMK (2) 2-7-007:008 on the mauka side of Hāna Highway in Ha'ikū, Maui. (**Exhibit 3** – Legal Description/Maps). The project site is part of a larger County-owned parcel totaling approximately 27.9 acres in size. (**Exhibit 4** – County Ownership / Parcel Map). The parcel consists of previously disturbed agricultural lands with non-native vegetation. (**Exhibit 5** – Land Use and Designation). The Property has direct frontage to Hāna Highway, which will provide vehicular access to the new fire station. The site is located near the Hāna Highway and East Kuiaha Road intersection, and access configuration for emergency and operational purposes is evaluated in the FEA. (**Exhibit 6** – Site Plan – Access and Frontage Map).

State Land Use District	Agricultural
Maui Island Plan	Outside Urban Growth Boundary

1 Throughout this staff report, the Department refers to the place names Pā'ia and Ha'ikū, utilizing diacritical marks consistent with guidance from the Hawai'i Board of Geographic Names. For titles of documents reference in this staff report, including the community plan and the design guidelines, we have used the document names with or without diacritical marks as adopted.

Pa'ia-Ha'iku Community Plan	Agriculture
Zoning	Agricultural District

Surrounding Uses

North	Hāna Highway; rural residential and agricultural parcels
East	Rural residential/agricultural parcels
South	Undeveloped agricultural lands
West	Undeveloped agricultural lands

The existing ground surface is generally level, sloping gently toward Hāna Highway. Drainage is conveyed overland to shallow depressions within the Property. Underlying soils consist of disturbed agricultural soils typical of former cultivated lands.

The project site is located within Flood Zone X, (areas of minimal flood hazard), per the current FEMA Flood Insurance Rate Map.

The Property is located outside the County's Special Management Area (SMA); therefore, no SMA permit is required for the proposed action.

APPLICABLE REGULATIONS

DBA

District boundary amendments are governed by HRS Chapter 205. Because this application involves a parcel under fifteen acres, it is being reviewed pursuant to HRS Section 205-3.1, which authorizes the County to act on district boundary amendments for parcels of fifteen acres or less. This DBA is processed pursuant to HRS Section 205-3.1. Final action is taken at the County level in accordance with applicable State law.

CPA

A CPA is reviewed pursuant to MCC Title 2, Chapter 2.80B, including Section 2.80B.070, which requires the appropriate planning commission to hold a public hearing and transmit its findings and recommendations to the County Council. The County Council may amend a community plan by ordinance.

CIZ

In accordance with MCC Title 19, Chapter 19.510, Section 19.510.040, the appropriate planning commission shall hold a public hearing on all applications for zoning changes and make a recommendation to the County Council. The County Council may grant a CIZ if all the following criteria are met:

a. *The proposed request meets the intent of the general plan and the objectives and policies of the community plans of the county,*

b. *The proposed request is consistent with the applicable community plan land use map of the county,*

c. *The proposed request meets the intent and purpose of the district being requested,*

d. *The application, if granted, would not adversely affect or interfere with public or private schools, parks, playgrounds, water systems, sewage and solid waste disposal, drainage, roadway and transportation systems, or other public requirements, conveniences and improvements,*

e. *The application, if granted, would not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area, and*

f. *If the application change in zoning involves the establishment of an agricultural district with a minimum lot size of two acres, an agricultural feasibility study shall be required and reviewed by the department of agriculture and the United States Soil and Conservation Service.*

Additionally, MCC, Section 19.510.020(B) provides that for Director-initiated or Council-initiated zoning amendments, the Director may introduce a proposed zoning map amendment and set a public hearing before the planning commission.

PERMIT HISTORY AND PROCEDURAL MATTERS

1. This request was initiated by the Director to allow for the construction and operation of a new fire station facility in Ha'ikū.

2. Environmental review for the proposed Ha'ikū Fire Station was completed pursuant to Chapter 343, Hawai'i Revised Statutes (HRS). A Draft Environmental Assessment and FEA was prepared, and a FONSI was accepted and published by the State of Hawai'i Office of Planning and Sustainable Development (OPSD) Environmental Review Program in the July 8, 2024 Environmental Notice.

3. Agency consultation and comment occurred as part of the Chapter 343 environmental review process. Agency comments and responses are documented within the FEA, which is incorporated by reference into this staff report and available through OPSD and the Commission's agenda materials.

4. In preparation for the Commission hearing on the Director-initiated DBA, CPA, and CIZ, the Department provided reviewing agencies with access to the current land use application materials and the FEA and requested confirmation as to whether prior comments remained applicable to the current land use requests or whether additional comments were warranted.

5. In accordance with MCC Section 19.510.020(B), the Department coordinated public hearing noticing for this Director-initiated land use request, including publication of notice and posting of the item on the Commission agenda for public review and consideration.

REVIEWING AGENCIES

As previously noted, a FONSI was accepted and published in July 2024 through the OPSD Environmental Review Program (**Exhibit 7** – Environmental Notice FONSI).

During preparation of the environmental review, agencies provided comments addressing infrastructure capacity, access, environmental health, cultural and archaeological resources, and public services. For purposes of the current land use requests, those agencies were contacted to confirm whether their prior comments remained applicable or whether additional review was required. Agency responses received are summarized below:

County Agencies:	Comment
Department of Environmental Management	Confirmed prior comments remain applicable; no additional comments
Department of Public Works	Confirmed prior comments remain applicable; no additional comments
Department of Parks and Recreation	Confirmed no additional comments
Department of Human Concerns	Confirmed no additional comments
Maui Police Department	Confirmed no additional comments
Department of Fire and Public Safety	Confirmed no additional comments

State Agencies:	Comment
Office of Planning and Sustainable Development	Environmental review administering agency; environmental review completed under Chapter 343, HRS
Office of Hawaiian Affairs	Confirmed prior comments remain applicable; no additional comments
Department of Land and Natural Resources – State Historic Preservation Division	Prior determination of "No Historic Properties Affected" remains applicable
Department of Health	Confirmed prior comments remain applicable; no additional comments
Department of Transportation – Highways Division	Confirmed prior comments remain applicable; no additional comments
Department of Education	No additional comments
Department of Accounting and General Services	Confirmed no comments; project does not affect State facilities
Department of Defense	Confirmed no additional comments

ANALYSIS

LAND USE

Hawai'i State Plan

Chapter 226, HRS, establishes statewide goals and policies for physical, economic, and social development. The proposed Ha'ikū Fire Station is consistent with the Hawai'i State Plan objectives for public safety and government services by improving fire protection and emergency response for a rural community that currently lacks a local station, thereby helping to "assure public safety and adequate protection of life and property" and provide effective, responsive public facilities and services.

Countywide Policy Plan

The Countywide Policy Plan (CWPP) acts as an over-arching values statement and umbrella policy document for the Maui Island Plan (MIP) and the nine Community Plans by providing broad goals, objectives, policies, and implementing actions that portray the desired direction of the County's future. The following objectives and policies from the CWPP are for consideration during project development to support safe, resilient, and well-serviced communities:

OBJECTIVE G.1: *Improve public facility systems to support the needs of residents and visitors.*

Policy G.1.c. *Provide essential public facilities and services in a timely manner to meet community needs.*

Policy G.1.d. *Maintain and enhance emergency services and critical infrastructure to protect public health and safety.*

OBJECTIVE I.3: *Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.*

Policy I.3.a. *Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.*

Policy I.3.c. *Utilize appropriate infrastructure technologies in the appropriate locations.*

OBJECTIVE I.4: *Improve the planning and management of infrastructure systems.*

Policy I.4.f. *Discourage the development of critical infrastructure systems within hazard zones to the extent practical.*

Policy I.4.i. *Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimize delivery inefficiencies.*

OBJECTIVE J.2: *Promote sustainable land use and growth management.*

Policy J.2.c. *Direct public facilities to areas designated for future growth to support efficient service delivery.*

OBJECTIVE L.1: *Lower carbon emissions levels to mitigate climate change impacts and limit the rate of global warming.*

Policy L.1.d. *Invest in infrastructure that utilizes renewable energy.*

Policy L.1.g. *Reduce air, noise, light, land, and water pollution, and reduce Maui County's contribution to global climate change.*

These objectives support the development of the Ha'ikū Fire Station by improving emergency response capabilities for the community, utilizing existing infrastructure capacity in a Rural Growth Boundary area, avoiding known hazard areas, and incorporating sustainable design features.

Maui Island Plan

The MIP provides direction for future growth, infrastructure, and land use decisions through the year 2030. The project site is located within the Rural Growth Boundary, where essential public facilities may be located to support rural communities. The site is outside of Protected Areas identified in the MIP and does not conflict with the Directed Growth Strategy.

The following MIP goals, objectives, and policies are relevant to the proposed development:

Natural Hazards

Objective 3.1.2: Greater protection of life and property.

Policy 3.1.2.d: Encourage the use of construction techniques that reduce the potential for damage from natural hazards.

The proposed fire station will improve emergency response capabilities for Ha'ikū residents and will be constructed outside tsunami and sea-level rise hazard areas.

Infrastructure and Public Facilities

Goal 6.7: Maui will have adequate public facilities that meet the diverse needs of residents.

Policy 6.7.1.f. Adequately plan and fund public safety facilities (fire, police, ambulance, civil defense) to meet community needs.

The project will provide a new fire station in an underserved rural community improving protection of life and property.

Land Use – Rural Areas

Goal 7.2: Maui will have a rural landscape and lifestyle where natural systems, cultural resources, and farmlands are protected and development enhances and complements the viability and character of rural communities.

Policy 7.2.1.a: Focus development to areas inside urban, small town, and rural growth

boundaries to preserve natural, cultural, and agricultural resources.

The proposed fire station is located within the Rural Growth Boundary identified in the MIP.

Policy 7.2.2.c: Use infrastructure, public service, and design standards that are appropriate to rural areas.

The project incorporates rural-appropriate design features, including shielding and downcast lighting, landscaping with native and drought-tolerant species, and building design that reflects the Paia-Haiku Country Town Design Guidelines.

Based on the foregoing, the proposed action is consistent with the MIP's land use and public facility policies by providing essential emergency services within a designated Rural Growth Boundary in a manner that supports the rural character of the Ha'ikū community.

Directed Growth Strategy – Rural Growth Area

Objective 8.2: Maui will maintain opportunities for agriculture and rural communities through sound planning and clearly defined development expectations.

Policies:
8.2.b New development shall be consistent with RGB and all other applicable policies and requirements of the MIP.

8.2.c Public, quasi-public, civic, and limited commercial or industrial uses may be allowed in the RGB when the proposed uses demonstrate a public need and are consistent with the Community Plan and zoning.

8.2.e All development within rural growth areas should avoid encroachment upon prime agricultural land.

8.2.l Preserve rural landscapes in which natural systems, cultural resources, and agricultural lands are protected and development complements rural character and contributes to the viability of communities and small towns.

Locating the fire station within the Rural Growth Boundary (RGB) supports the community's directed growth strategy and provides essential services where infrastructure capacity exists.

The project site is located within the RGB where public facilities are intended to be directed. The proposed fire station fulfills a demonstrated public safety need in the Ha'ikū community, avoids prime agricultural lands, and has been designed consistent with the rural character of the area and the Paia-Haiku Country Town Design Guidelines.

Pa'ia-Ha'iku Community Plan

The Pa'ia-Ha'iku Community Plan is one of nine community plans developed to address region-specific issues in Maui County. The plan establishes goals, objectives, policies, and implementation considerations to guide land use and community development in Pā'ia and

Ha'ikū. The following goals, objectives, and policies from the Pa'ia-Ha'iku Community Plan are applicable to the proposed Ha'ikū Fire Station:

Goal:
A well-planned community that preserves the region's small town ambiance and rural character and accommodates future needs at a sustainable rate of growth.

Objectives and Policies:
a. Define urban and rural growth limits and densities for the region by... supporting needed development in these areas.

b. Ensure that adequate public services and facilities are available or can be provided at a reasonable cost.

c. Ensure that proposed land uses do not have significant adverse effects on agricultural, natural, environmental, recreational, scenic, historic, or other resources.

The project provides essential public services within an area identified for rural-scale community needs.

Goal:
The preservation and protection of the natural environment, marine resources, and scenic vistas to maintain the rural and natural ambiance and character of the region.

Objective and Policy:
Promote greater awareness and opportunities for recycling and sound conservation practices.

The project incorporates BMPs, drainage controls, and native landscaping to protect environmental resources.

Goal:
Identification, protection, preservation, enhancement, and appropriate use of cultural resources, cultural practices, and historic sites that provide a sense of history and define a sense of place.

Objective and Policy:
Prevent the desecration of ancient and historic burial sites.

An AIS was completed and accepted and reviewed by SHPD, confirming that no cultural resources will be impacted.

Goal:
Attractive rural town development consistent with the existing scale, form, and character of settlement areas in the region.

Objectives and Policies:
Incorporate rural-appropriate design standards including lighting, building, and roadway design. Limit building heights to two (2) stories or 30 feet above grade. Use "native plants" for landscape planting in all public projects to the extent practicable.

Design complies with the Paia-Haiku Country Town Design Guidelines and maintains rural scale and visual character.

Goal:
A sense of security for all residents and visitors, and aid in the protection of life and property.

Objective and Policy:
Improve fire protection capabilities in the Ha'ikū area and ensure adequate water pressure for fire protection.

The fire station directly improves emergency response times and life-safety services for the surrounding community.

Goal:
Government that is responsive to the needs of the community and provides necessary services and infrastructure efficiently.

Objectives and Policies:
Provide necessary public services and infrastructure in a more effective and timely fashion.
Require that actions taken by public officials comply with the goals, objectives and policies of the Community Plan.

The project delivers essential public safety infrastructure consistent with local community needs and plan policies.

Maui County Zoning

Title 19 of MCC regulates permitted uses, development standards, and the zoning entitlement process within Maui County.

The subject Property is currently designated as Agricultural. The Agricultural District permits agricultural uses and limited public or quasi-public uses related to agricultural activities; however, a fire station facility is not a permitted use within the Agricultural District. Therefore, a CIZ is required.

The Department is requesting that the 6.1-acre project site be rezoned to the P-1 Public/Quasi-Public District. The purpose of the P-1 District, as stated in MCC Section 19.52.010, is *"to establish areas where the principal use of the land is for public or quasi-public facilities and services."*

Public safety facilities, including fire stations, are consistent with this purpose and are allowed within the P-1 District.

Rezoning to P-1 will ensure that the fire station is developed in conformance with the appropriate zoning district and that long-term operations comply with County land use regulations.

ENVIRONMENTAL & INFRASTRUCTURE CONSIDERATIONS

The proposed Ha'ikū Fire Station will provide essential emergency services for the Ha'ikū community, which currently relies on fire protection from Pā'ia and Makawao stations located approximately six and eight miles away, respectively. Improving emergency response capability is consistent with County objectives to provide timely public safety facilities to meet community needs:

Cultural and Archaeological Resources
An Archaeological Inventory Survey was completed for the project site, and the State Historic Preservation Division (SHPD) issued a determination of "No Historic Properties Affected" (**Exhibit 8** - SHPD Determination Letter, dated April 24, 2023). Standard inadvertent discovery procedures will be implemented during ground disturbance.

Biological Resources
Vegetation within the project area consists of previously disturbed, non-native plant species. No threatened or endangered flora or fauna are known or expected to occur on the site. Landscaping will utilize native and drought-tolerant plants where practicable.

Drainage and Stormwater Management
The FEA identifies no perennial streams or wetlands within the project area. Drainage will be managed through onsite detention/retention features and best management practices to avoid adverse impacts to adjacent properties.

Water Supply and Fire Flow
Potable water service is available from County facilities along Hāna Highway. An on-site water storage tank will supplement fire protection needs and support DF&PS emergency operations.

Water service and fire flow coordination with DWS was undertaken during preparation of the FEA and is reflected in the project plans evaluated therein. The project consultant confirmed that coordination with DWS will continue during the building permit process to satisfy all applicable requirements.

Wastewater
Wastewater will be served by an individual wastewater system (septic tank and leach/drainage field) as evaluated in the FEA. System details will comply with State Department of Health requirements.

Traffic and Access
Vehicular access will be provided from Hāna Highway via an improved driveway connection near the East Kuiaha Road intersection, consistent with the access configuration evaluated in the FEA. As evaluated in the FEA and supporting traffic analysis, the proposed use is not expected to materially affect roadway capacity in the area.

Noise and Lighting
Construction activities will comply with State noise regulations. Outdoor lighting will be fully shielded and down-directed to protect nighttime visibility consistent with rural community character.

Hazards and Resilience

The project site is located outside of flood, tsunami, and sea-level rise hazard areas. Building design and construction will meet current emergency response and resiliency standards.

Electrical and Telecommunications
Electrical service is provided by HECO via an existing overhead distribution system along Hāna Highway fronting the site. Telephone and cable service are also provided via the existing overhead system along Hāna Highway by Hawaiian Telcom and Oceanic Time Warner. Utility coordination will continue to connect services to the project site. Underground duct lines will extend services to the fire station, including a new HECO pad-mounted transformer. Energy measures include roof insulation/solar tubes, tinted windows, and lighting/occupancy/daylight controls.

PUBLIC SERVICES AND COMMUNITY BENEFIT

The proposed Ha'ikū Fire Station will improve emergency response coverage and reduce travel times for fire suppression, paramedic assistance, and disaster response within the Ha'ikū region. The closest existing fire stations are located in Pā'ia (approximately 6 miles away) and Makawao (approximately 8 miles away). Locating a station in Ha'ikū will enable DF&PS to respond to emergencies more quickly, improving the protection of life and property for residents and visitors.

The Ha'ikū community has experienced significant growth over recent decades, resulting in increased demand for emergency services. The project addresses this need by providing:

- Dedicated emergency response services within the Ha'ikū rural community.
- Modernized facilities that enhance firefighting and medical response capabilities.
- Improved disaster readiness, including wildfire response and hurricane support.
- Reduced reliance on distant stations, improving system-wide service efficiency.

The project is consistent with Maui County's goals to provide timely and adequate public facilities and to ensure emergency services are in appropriate areas that support community safety and resilience.

OTHER GOVERNMENTAL APPROVALS

The following permits and approvals may be required for construction and operation of the proposed Ha'ikū Fire Station. These approvals are separate from and subsequent to the requested land use entitlements:

County of Maui

- Grading Permit – Department of Public Works, if earthwork exceeds thresholds established under MCC Chapter 20.08.

- Building Permit(s) – Department of Public Works, for vertical construction and related improvements.

- Plumbing and Electrical Permits – Department of Public Works, for utility connections and building systems.

State of Hawai'i

- National Pollutant Discharge Elimination System (NPDES) Permit –Department of Health, Clean Water Branch, if required for construction-related stormwater discharges, pursuant to HAR Chapter 11-55.

- Permit to Perform Work Within State Highway Right-of-Way – Department of Transportation, Highways Division, for driveway connections, traffic control, or improvements affecting Hāna Highway.

- Compliance with HRS Chapter 6E – Department of Land and Natural Resources, SHPD, compliance with the issued determination of "No Historic Properties Affected," including implementation of standard inadvertent discovery procedures during construction.

TESTIMONY

As of the date of writing this report, the Department has received no testimony in favor or against this project.

ALTERNATIVES

DBA

1. Deferral: The Commission may defer action to a subsequent meeting to obtain additional information that will assist in its deliberations on the request.
2. Recommend Approval: The Commission may take action to recommend approval of the DBA to the Maui County Council.
3. Recommend Denial: The Commission may take action to recommend denial of the DBA to the Maui County Council.

CPA

1. Deferral: The Commission may defer action to a subsequent meeting to obtain additional information that will assist in its deliberations on the request.
2. Recommend Approval: The Commission may take action to recommend approval of the CPA to the Maui County Council.
3. Recommend Denial: The Commission may take action to recommend denial of the CPA to the Maui County Council.

CIZ

1. Deferral: The Commission may defer action to a subsequent meeting to obtain additional information that will assist in its deliberations on the request.
2. Recommend Approval with No Conditions: The Commission may take action to recommend approval of the CIZ to the Maui County Council without imposing conditions.
3. Recommend Approval with Conditions: The Commission may take action to recommend approval of the CIZ to the Maui County Council with conditions as deemed necessary.
4. Recommend Denial: The Commission may take action to recommend denial of the CIZ to the Maui County Council.

CONCLUSIONS OF LAW

DBA

Pursuant to HRS Section 205-3.1, the proposed District Boundary Amendment from the State Agricultural District to the State Rural District for approximately 6.1 acres is consistent with the Hawai'i State Plan (HRS Chapter 226), the Countywide Policy Plan, the Maui Island Plan, and the Pa'ia-Ha'iku Community Plan. The Commission further concludes that the Property is more appropriately classified within the State Rural District to accommodate an essential public safety facility and that the amendment serves a valid public purpose.

CPA

Pursuant to MCC Chapter 2.80B, the proposed amendment to the Pa'ia-Ha'iku Community Plan land use map from Agriculture to Public/Quasi-Public is consistent with the goals, objectives, and policies of the Countywide Policy Plan and the Pa'ia-Ha'iku Community Plan. The Commission further concludes that the amendment supports the provision of essential public facilities, addresses a demonstrated public safety need, and is appropriate for the subject property.

CIZ

In accordance with MCC, Section 19.510.040, the proposed CIZ request meets the required criteria as follows:

- The proposed action meets the intent of the Countywide Policy Plan and the objectives and policies of the MIP and the Pa'ia-Ha'iku Community Plan;
- The proposed action will update the zoning map to accurately reflect a public facility use consistent with adopted planning documents;
- The proposed action meets the purpose of the P-1 Public/Quasi-Public District, which allows essential public facilities;
- The proposed action will not adversely affect or interfere with schools, parks, water systems, wastewater facilities, drainage, roadway and transportation systems, or other public requirements, conveniences, and improvements;
- The proposed action will not adversely impact the social, cultural, economic, environmental, or ecological character and quality of the surrounding area; and
- The proposed action does not involve the establishment of an agricultural district or reduced minimum lot sizes.

RECOMMENDATION

The Department recommends that the Commission recommend approval to the Maui County Council of the DBA, CPA, and CIZ, as requested, and without modification, to allow the construction and operation of the proposed Ha'ikū Fire Station and related improvements.

In consideration of the foregoing, the Department recommends the Commission adopt the Department's Report and Recommendation prepared for the January 27, 2026, meeting as its Findings of Fact, Conclusions of Law, Decision and Order and authorize the Director to transmit said Decision and Order on behalf of the Commission.

APPROVED:

KATE L. K. BLYSTONE
Planning Director

EXHIBIT 1

Location Map

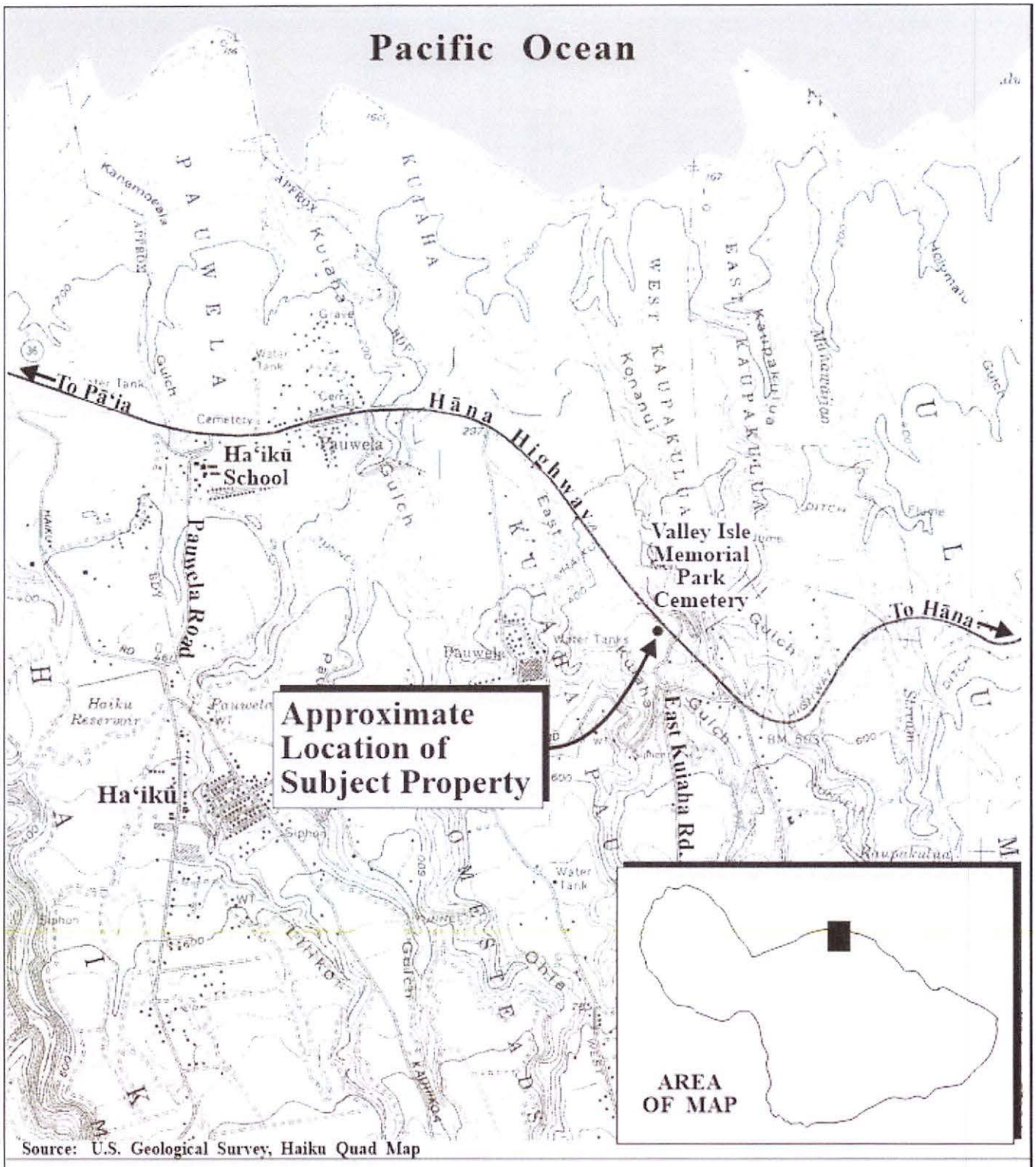


Figure 1 Proposed Hā'ikū Fire Station and Related Improvements
Regional Location Map

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures regional

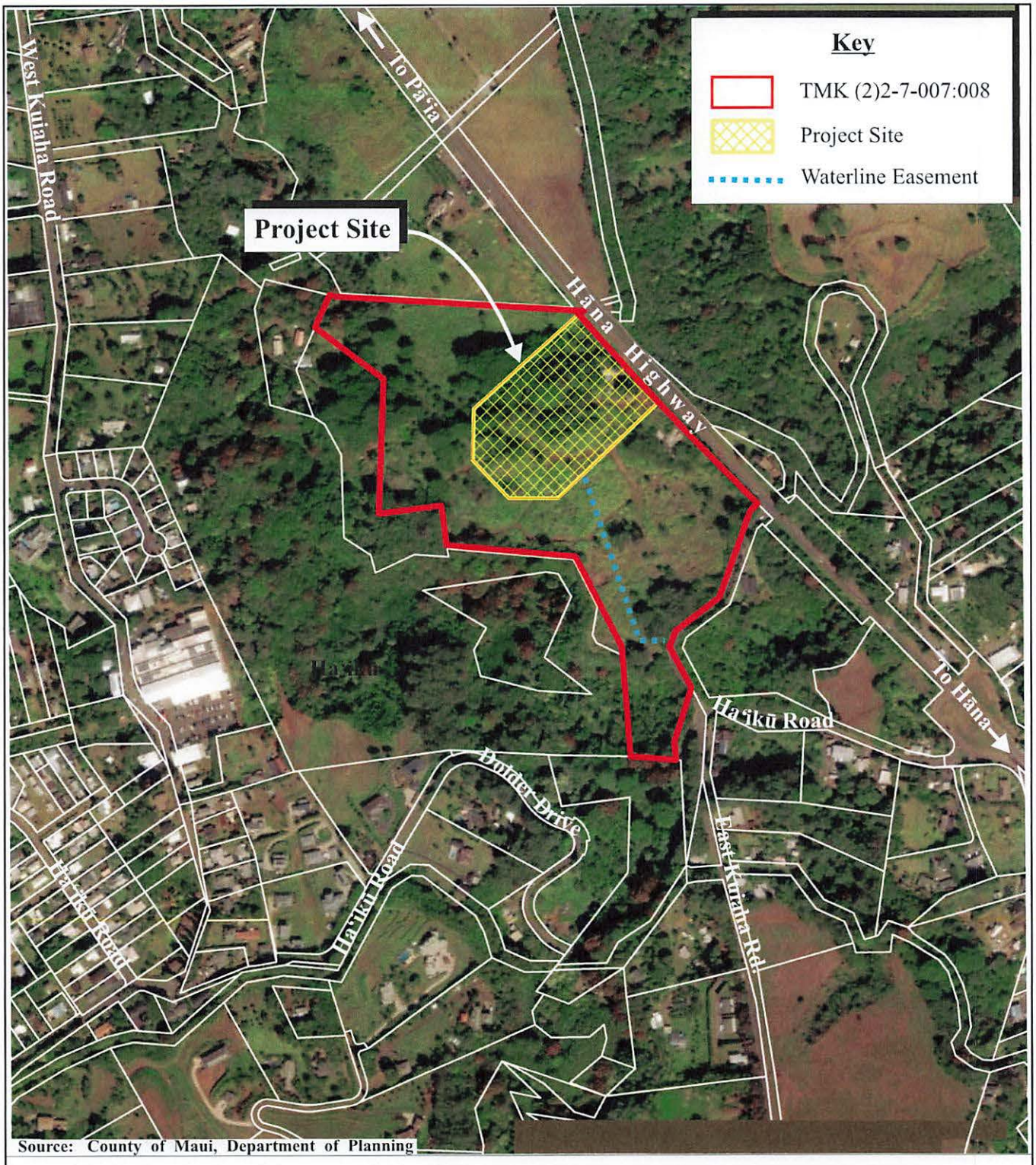


Figure 2 Proposed Ha'ikū Fire Station and Related Improvements

Property Location Map

0 250 Feet
125 500

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL\Haiku Fire Stn Update\Applications\Figures\New Property Location

EXHIBIT 2

Conceptual Plan-Layout

Source: AHL

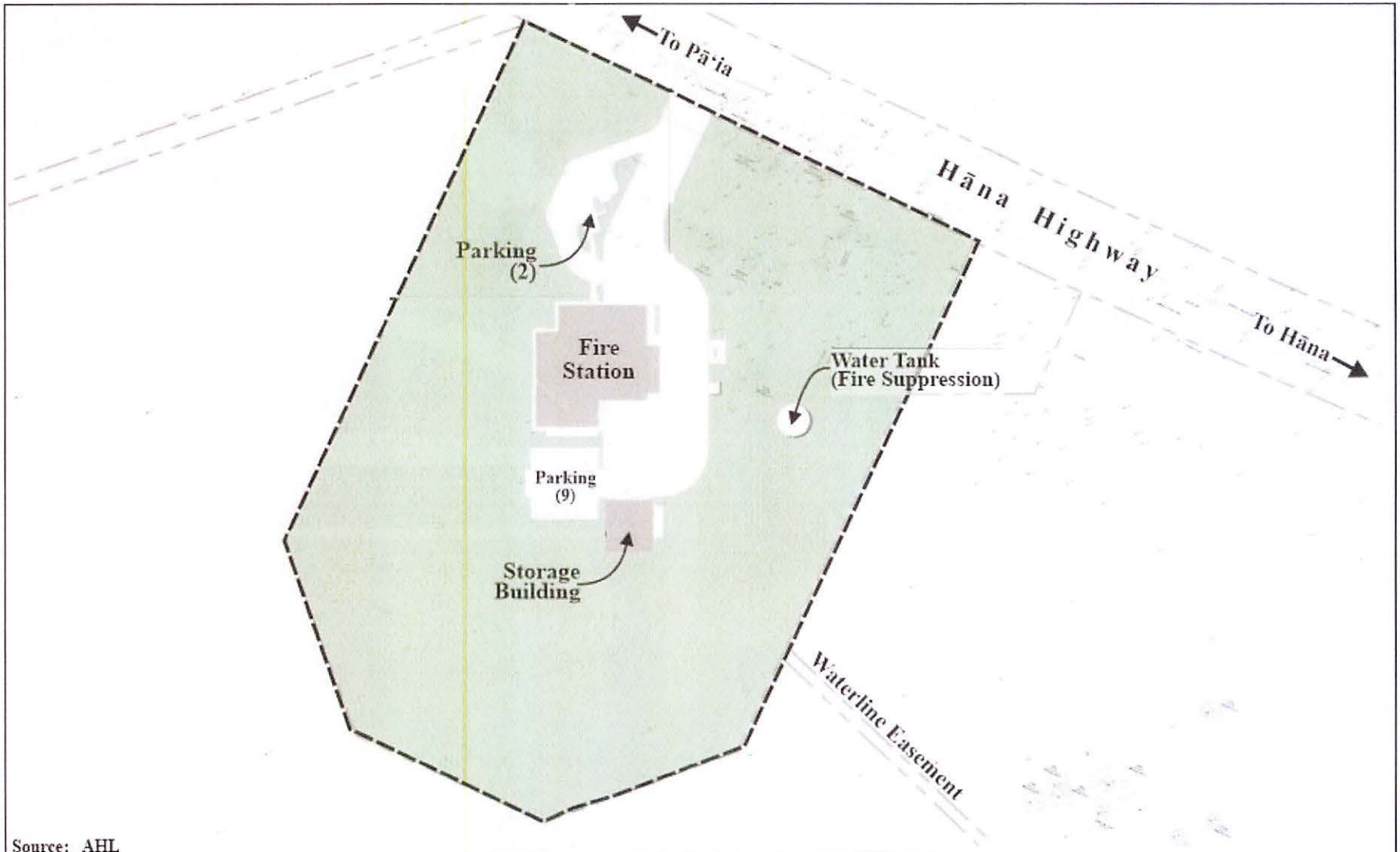
Figure 3 Proposed Ha'ikū Fire Station and Related Improvements
Architectural Rendering

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Sta Update Applications Figures Revised Rendering



Source: AHL

Figure 4

Proposed Ha'ikū Fire Station and Related Improvements

Site Plan

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures Conceptual SP 2023

EXHIBIT 3

Legal Description &

Zoning Maps

LOT 6-A-1

Being a portion of Lot 6 of Kuiaha-Pauwela Homesteads

Being also a portion of Land Patent Grant 6553 to Florence Wood

Situated at Hamakualoa, Maui, Hawaii

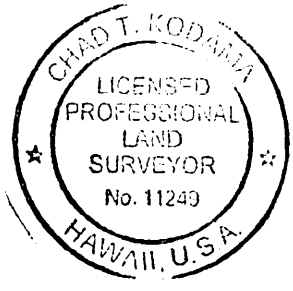
Beginning at the East corner of this lot, on the Southwesterly side of Hana Highway (F.A.P. No. F 32(3)), the coordinates of said point of beginning referred to Government Survey Triangulation Station "KAPUAI" being 6,489.17 feet North and 8,304.02 feet West and running by azimuths measured clockwise from true South:

1.	48°	10'	500.00 feet	along the remainder of Lot 6 of Kuiaha-Pauwela Homesteads, being also a portion of Land Patent Grant 6553 to Florence Wood;
2.	93°	10'	185.00 feet	along same;
3.	138°	10'	185.00 feet	along same;
4.	183°	10'	182.61 feet	along same;
5.	228°	10'	512.60 feet	along same;

6. Thence along Hana Highway (F.A.P. No. F 32(3)), on a curve to the right having a radius of 11,499.16 feet, the chord azimuth and distance being:

319° 34' 16" 445.08 feet;

to the point of beginning and containing an area of 6.097 Acres.

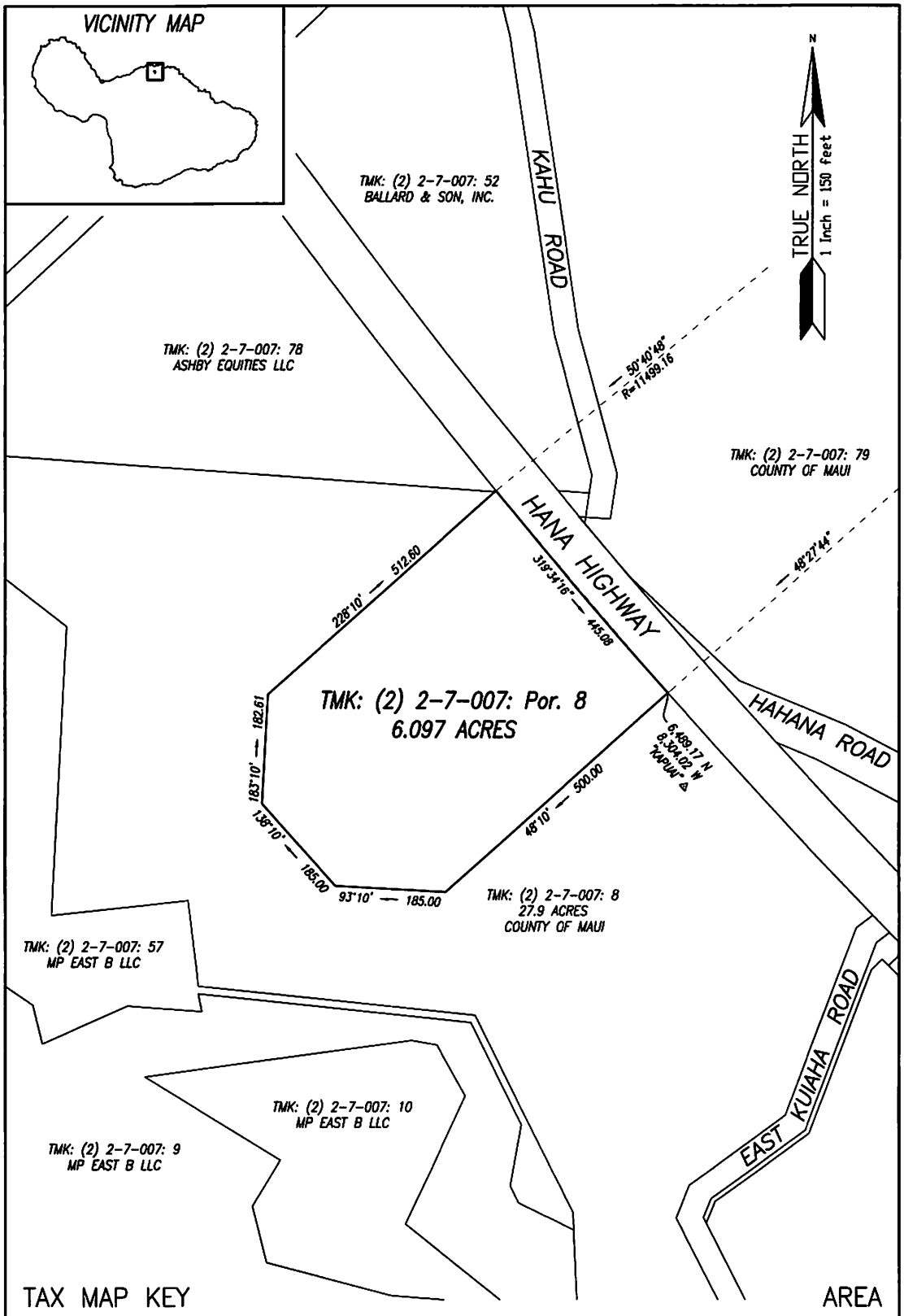


Chad T. Kodama

Chad T. Kodama
Licensed Professional Land Surveyor
Certificate Number 11249
Exp. 04/30/2024

October 26, 2023
Honolulu, Hawaii
Tax Map Key: (2) 2-7-007: Por. 8

ControlPoint Surveying, Inc.
615 Piikoi Street, Suite 700
Honolulu, Hawaii 96814

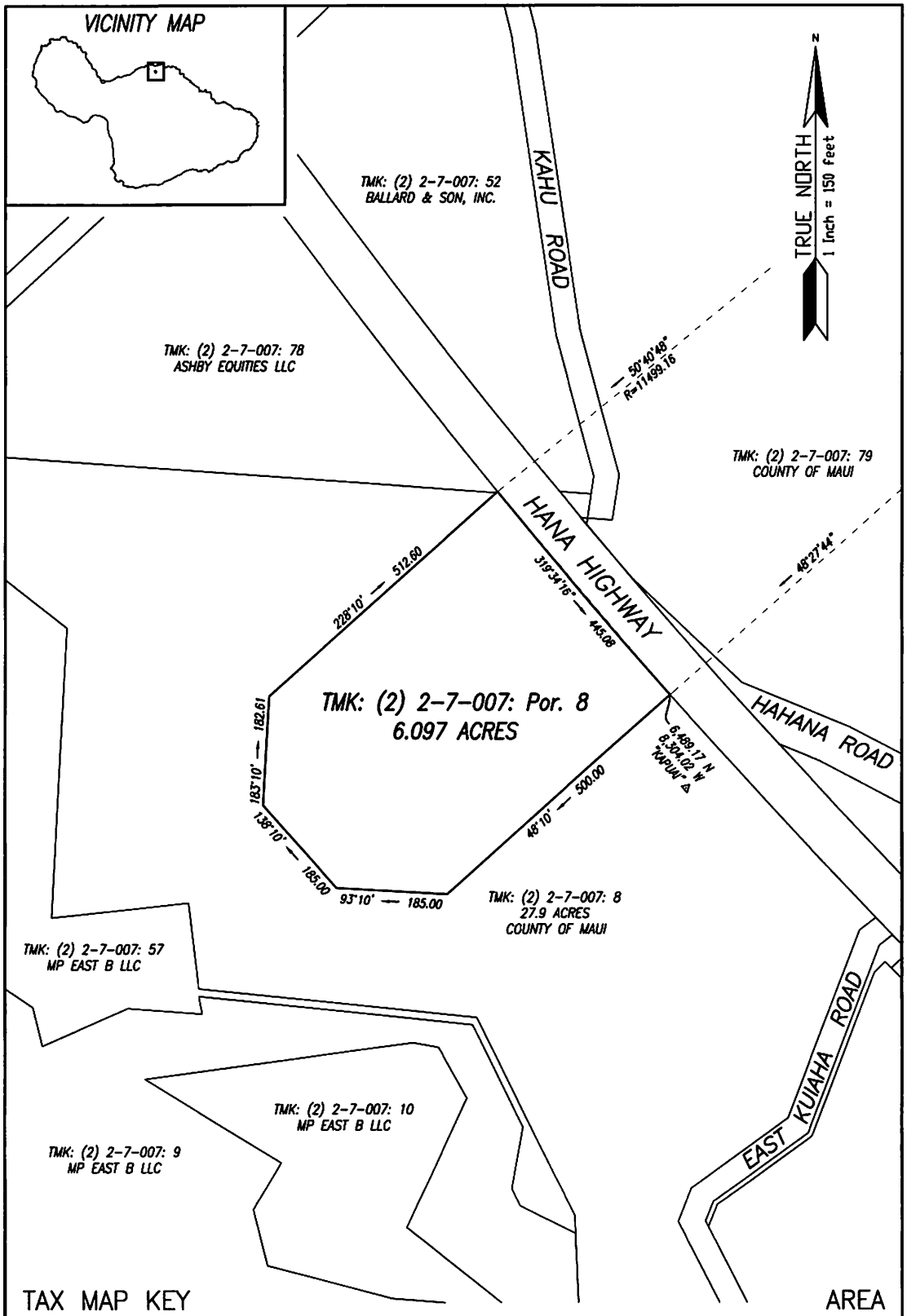


TAX MAP KEY	AREA
T.M.K.: (2) 2-7-007: Por. 8	6.097 ACRES

LAND ZONING MAP NO.

CHANGE IN ZONING - HAMAKUALOA, MAUI, HAWAII

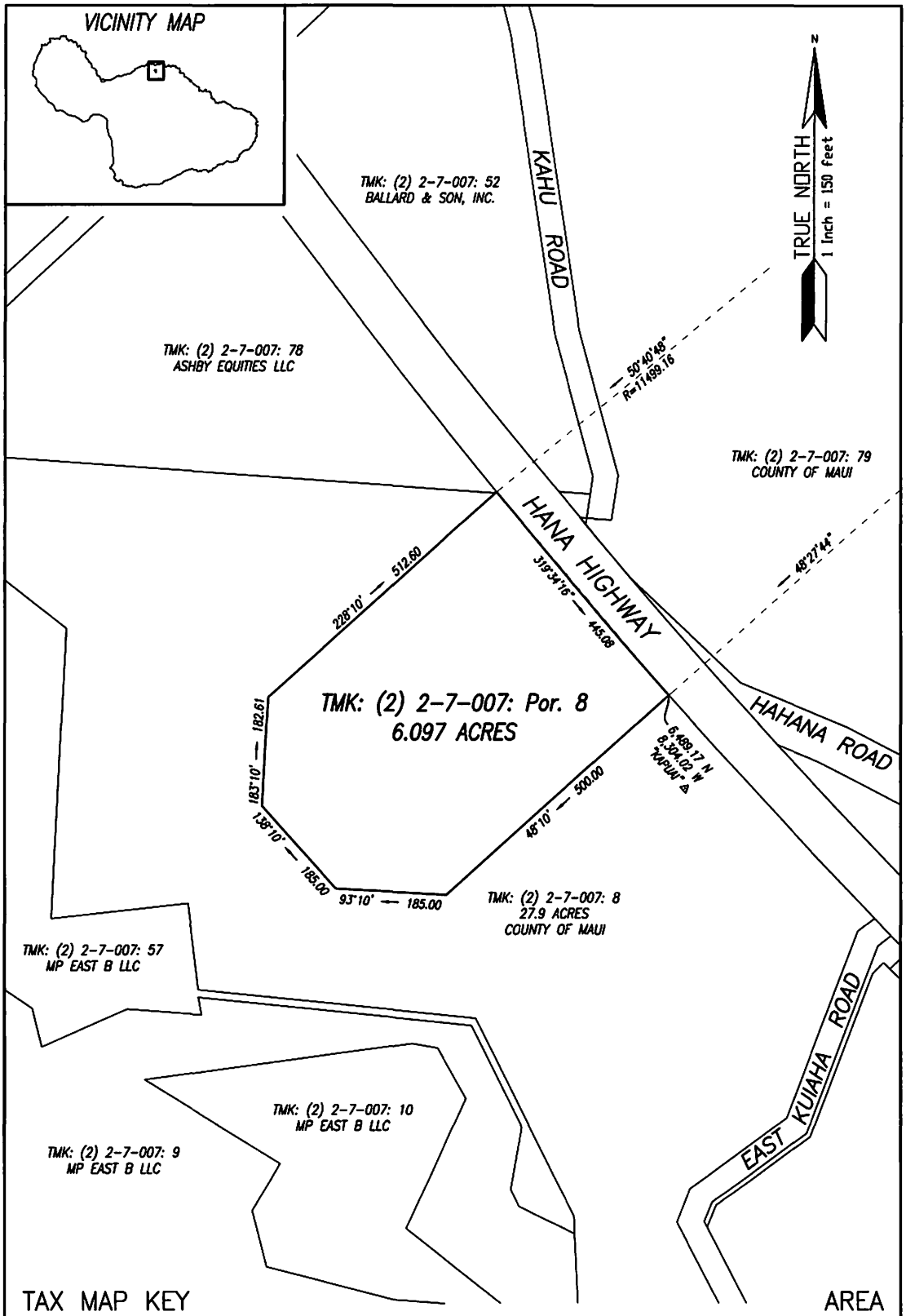
FROM AGRICULTURE TO P-1, PUBLIC/QUASI-PUBLIC



COMMUNITY PLAN MAP NO.

COMMUNITY PLAN AMENDMENT - HAMAKUALOA, MAUI, HAWAII

FROM AGRICULTURAL TO P, PUBLIC/QUASI-PUBLIC



LAND USE DISTRICT BOUNDARY AMENDMENT MAP NO.

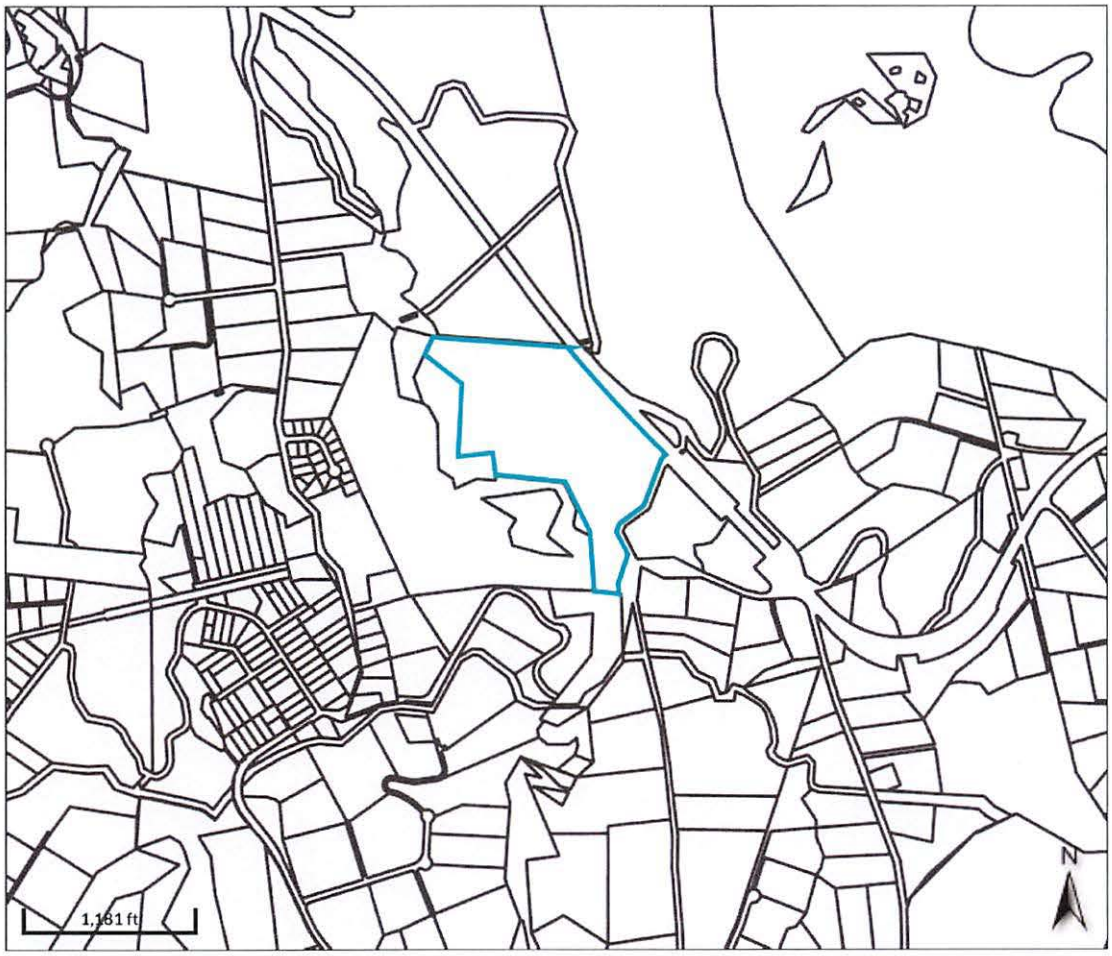
HAIKU, MAUI, HAWAII

FROM AGRICULTURAL DISTRICT TO RURAL DISTRICT

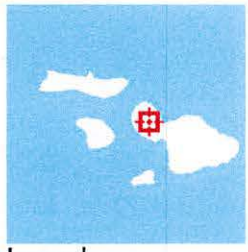
EXHIBIT 4

Ownership Document

COUNTY OF MAUI Hawaii



Overview



Legend

Parcels (2023)

Parcel ID	270070080000	**Situs/Physical Address**	3550 HANA HWY	**Assd Land Value**	$2,985,300	**Last 2 Sales**			
						Date	**Price**	**Reason**	**Qual**
Acreage	27.9	**Mailing Address**	COUNTY OF MAUI	**Assd Building Value**	$218,800	12/14/2007	$3200000	Other	U
Class	NON-OWNER-OCCUPIED/RESIDENTIAL					10/20/2005	0	n/a	U
				Total Assd Value	$3,204,100				
				Exempt Value	$3,204,100				
				Taxable Value	$0				

Brief Tax Description ALL OF LP GR 6553 POR OF LOT 6 TMK 2707-08 28.025 AC (AS GIVEN) NO DES EX & RES R-O-W FOR ROAD 85/100 AC DES SUBJ/ES
(Note: Not to be used on legal documents)

Date created: 6/20/2023
Last Data Uploaded: 6/20/2023 7:38:39 AM

Developed by Schneider GEOSPATIAL

EXHIBIT 5

Land Use Designation

COUNTY OF MAUI
DEPARTMENT OF PLANNING
One Main Plaza Building
2200 MAIN STREET, SUITE 315
WAILUKU, HAWAII 96793

Zoning Administration and
Enforcement Division (ZAED)
Telephone: (808) 270-7253

LAND USE DESIGNATION FORM

TAX MAP KEY 2270070080000 PLAN NUMBER LUD2025-00582

PROPERTY ADDRESS 3550 HANA HWY, HAIKU, HI 96708

☐ Yes ☑ No **Will this Land Use Designation Form be used with a Subdivision Application?**
IF YES, answer questions A and B below and comply with instructions 2 & 3 below:
A) ☐ Yes ☑ No **Will it be processed under a consistency exemption from** Section 18.04.030(B), MCC?
IF YES, which exemption? (No. 1, 2, 3, 4 or 5) _____
B) State the purpose of subdivision and the proposed land uses (ie 1-lot into 2-lots for all land uses allowed by law):

LAND USE DISTRICTS/DESIGNATIONS (LUD) AND OTHER INFORMATION:[1]

☐ (SMA) Special Management Area

STATE DISTRICT: ☐ Urban ☐ Rural ☑ Agriculture ☐ Conservation

MAUI ISLAND PLAN
Growth Boundary:[2] ☐ Urban ☐ Small Town ☑ Rural ☐ Planned Growth Area ☐ Outside Growth Boundaries
Protected Area:[2] ☐ Preservation ☐ Park ☐ Greenbelt ☐ Greenway ☑ Sensitive Land ☑ Outside Protected Areas

COMMUNITY PLAN:[2] AGRICULTURE

COUNTY ZONING: AGRICULTURE

OTHER/COMMENTS:

☐ (PD) Planned Development
☐ (PH) Project District
☐ See Additional Comments (Pg. 2)
☐ See Attached LUD Map

FEMA FLOOD INFORMATION: A Flood Development Permit (FDP) may be required if any portion of a parcel is designated V, VE, A, AO, AE, AH, D, or Floodway, and the project is in that portion. For more information please visit the FDP Webpage.

FLOOD HAZARD AREA ZONES[3] & BASE FLOOD ELEVATIONS: ZONE: X

☐ FEMA DESIGNATED FLOODWAY | For Flood Zone AO, FLOOD DEPTH:

☐ Wellhead Protection Overlay District — Please contact the Department of Water Supply's Water Resources and Planning Division at (808) 463-3110 to determine if a permit is necessary for work done in this area.

SUBDIVISION LAND USE CONSISTENCY: ☐ Not Consistent, (LUDs appear to have NO permitted uses in common).

_____ (Signature)

☐ Not Applicable, (Due to processing under consistency exemption No. ☐ 1, ☐ 2, ☐ 3, ☐ 4, ☐ 5).

☐ Interim Zoning, (The parcel or portion of the parcel that is zoned interim shall not be subdivided).

☐ Consistent [4], (LUDs appear to have ALL permitted uses in common).

☐ Consistent [4], upon obtaining an SMA, PD, or PH subdivision approval from Planning.

☐ Consistent [4], upon recording a permissible uses unilateral agreement processed by Public Works (See Pg. 2).

NOTES:

1) **The conditions and/or representations made in the approval of a State District Boundary Amendment, Community Plan Amendment, County Change in Zoning, SMA Permit, Planned Development, Project District and/or a previous subdivision, may affect building permits, subdivisions, and uses on the land.**
2) **Please review the Maui Island Plan and the Community Plan document for any goals, objectives, policies or actions that may affect this parcel.**
3) **Flood development permits might be required in zones X and XS for any work done in streams, gulches, low-lying areas, or any type of drainageway might require the following designations to be shown on the subdivision map: 100-year flood inundation limits; base flood elevations; drainage reserves,**
4) **Subdivisions will be further reviewed during the subdivision application process to verify consistency, unilateral agreement requirements, and the conditions associated with a unilateral agreement [Section 18.04.030.D, Maui County Code]**

REVIEWED & CONFIRMED BY:

Elycia Naki

Elycia Naki

06/25/2025

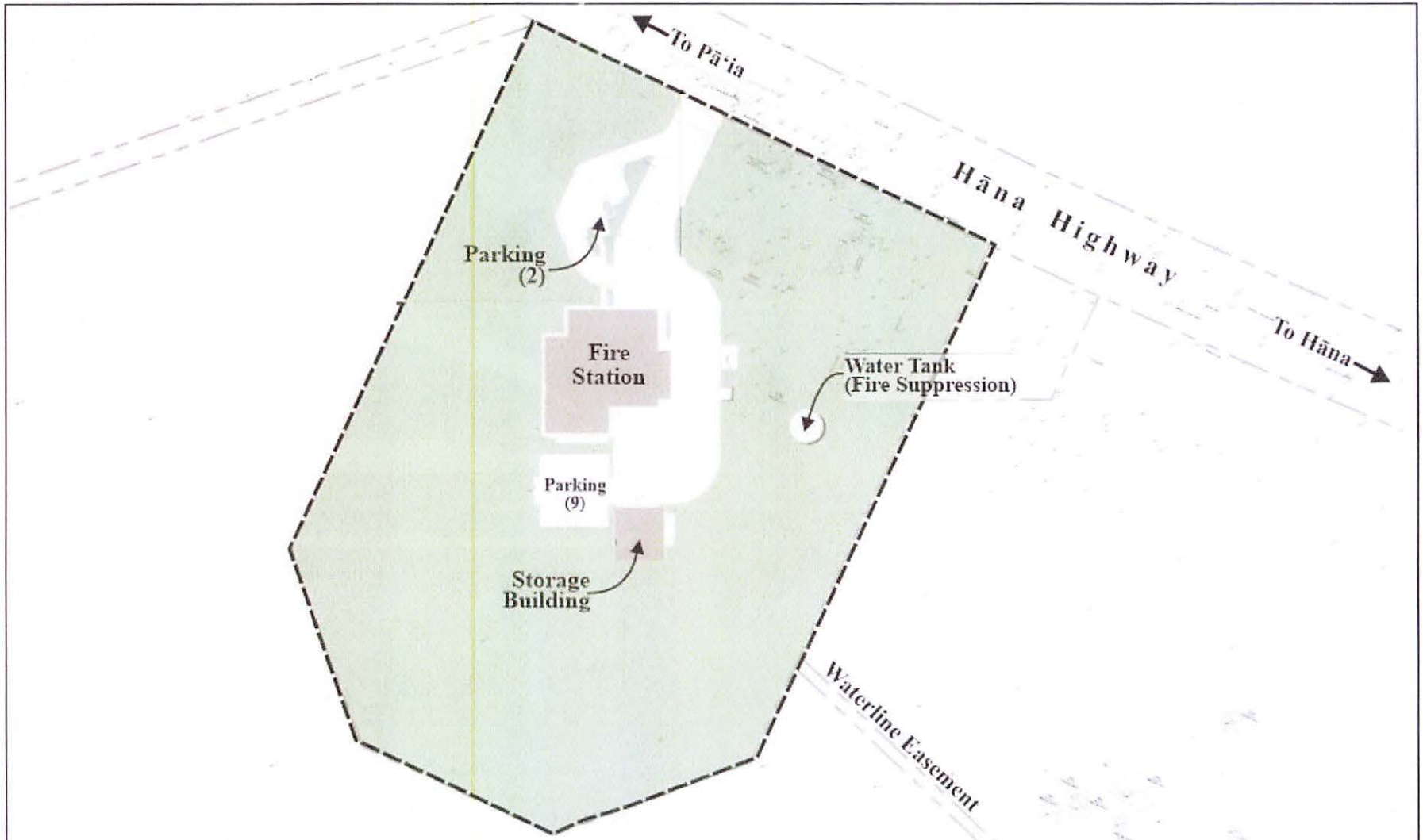
Date

For: Planning Program Administrator,

DESIGNATIONS MAY CHANGE

EXHIBIT 6

Site Access- Frontage Road



Source: AHL

Figure 4

Proposed Ha'ikū Fire Station and Related Improvements

Site Plan

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures Conceptual SP 2023

EXHIBIT 7

Environmental Notice - FONSI

OFFICE OF PLANNING AND SUSTAINABLE DEVELOPMENT

The Environmental Notice

July 8, 2024

Josh Green, M.D., Governor
Mary Alice Evans, Director

The Environmental Notice provides public notice for projects undergoing environmental review in Hawai'i as mandated under Section 343-3, Hawai'i Revised Statutes, the Environmental Impact Statement Law. Along with publishing Environmental Assessments and Environmental Impact Statements for projects in Hawai'i, The Environmental Notice also includes other items related to the shoreline, coastal zone, and federal activities.

A proposed project would repair slope and pavement edge failure along Kahekili Highway on Maui. photo from the project's Draft EA

235 South Beretania Street, Suite 702 • Honolulu, Hawai'i 96813 • (808) 586-4185 • dbedt.opsd.erp@hawaii.gov • https://planning.hawaii.gov/erp/

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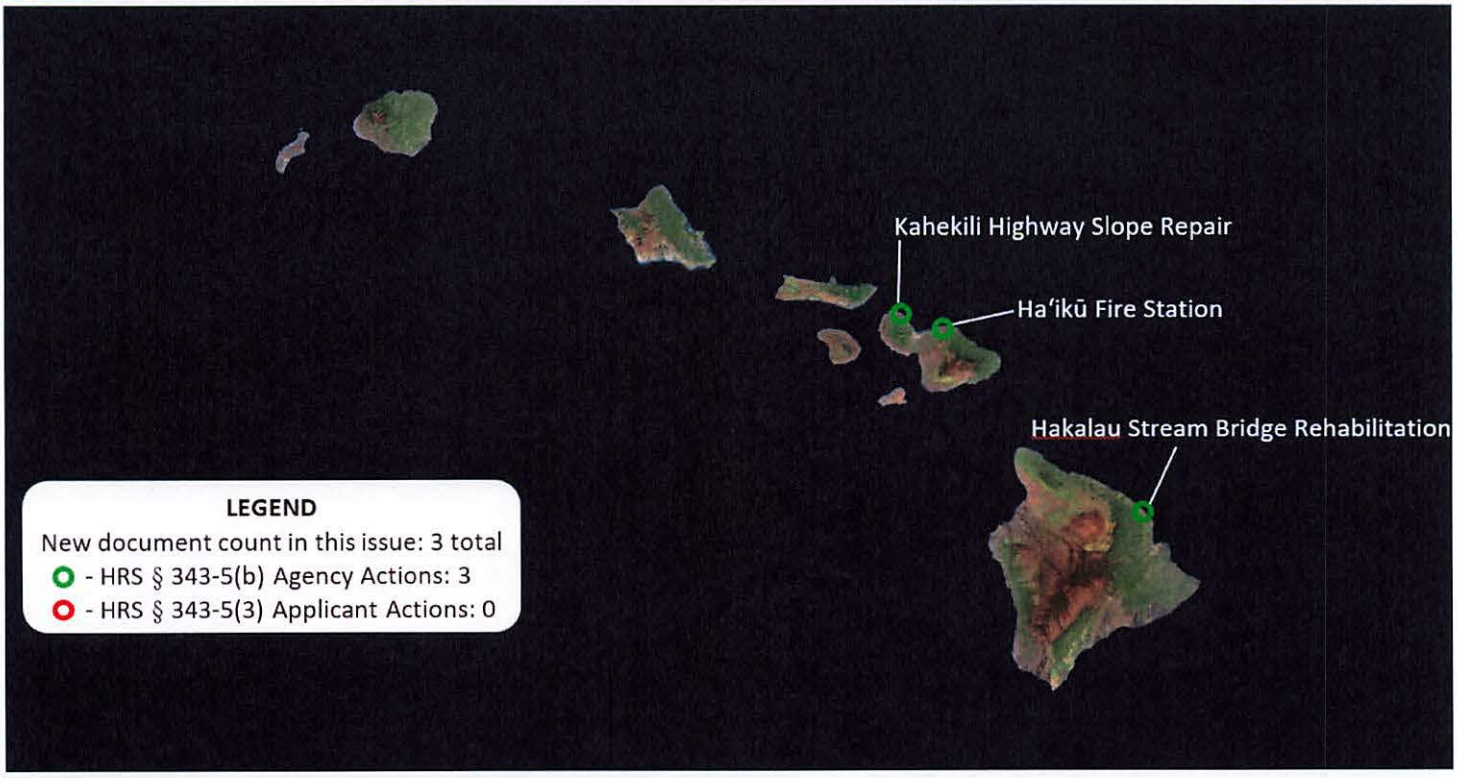
Announcements

The Environmental Advisory Council (EAC) is still seeking new members. To learn more about the work of the EAC, visit their webpage. To apply to be on the EAC, submit this online application under Department of Business, Economic Development & Tourism - Environmental Advisory Council.

Statewide Map of New EA/EIS Documents and Determinations



MAUI EAs/EISs

Ha'ikū Fire Station and Related Improvements Project – Final EA (FONSI) Vol I and Vol II

Grandfathered under old rules

HRS §343-5(a) Trigger	(1) Propose the use of state or county lands or the use of state or county funds
District(s)	Wailuku
TMK(s)	(2) 2-7-007:008 (Por.)
Permit(s)	various (see document)
Proposing/ Determining Agency	County of Maui, Department of Fire & Public Safety Bradford Ventura, (808) 270-7561, Bradford.Ventura@co.maui.hi.us 200 Dairy Road, Kahului, HI 96732
Consultant	Munekiyo Hiraga; 305 High Street, Suite 104, Wailuku, HI 96793 Cathleen Krueger, (808) 244-2015, hoku@munekiyohiraga.com
Status	Finding of No Significant Impact (FONSI) determination

The County of Maui, Department of Fire and Public Safety proposes to construct a new approximately 10,360 square-foot fire station and related improvements in Ha'ikū, Maui. The facility will be located on a 6.1-acre portion of a 27.9-acre parcel of land. The implementation of this facility will enhance the County's ability to provide fire prevention, suppression, and protection services to residents and businesses throughout the Ha'ikū area. The project site is designated for agricultural use by the State Land Use Commission, the Pa'ia-Ha'iku Community Plan, and County Zoning. A Zoning Plan Amendment (ZPA) application requesting a District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ) will be initiated and processed by the Maui Department of Planning for the 6.1-acre project site.

It is noted that this Final EA/FONSI is being published under "the old rules", pursuant to Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity.

Kahekili Highway Slope Repair at Vicinity of Milepost 15 – Draft EA (AFNSI)

HRS §343-5(a) Trigger	(1) Propose the use of state or county lands or the use of state or county funds (2) Propose any use within any land classified as a conservation district
District(s)	Wailuku, Maui
TMK(s)	[2] 3-1-002:008 & 016
Permit(s)	See DEA Section 4.3
Proposing/ Determining Agency	County of Maui Department of Public Works Charlene Shibuya, (808) 270-7845, charlene.s.shibuya@co.maui.hi.us 200 South High Street, Room No 434, Wailuku, HI 96793
Consultant	Wilson Okamoto Corporation; 1907 South Beretania Street, Suite 400, Honolulu, HI 96826 Dalton Beauprez, (808) 946-2277, dbeauprez@wilsonokamoto.com
Status	Statutory 30-day public review and comment period starts. Comments are due by August 7, 2024. Please click on title link above to read the document, then send comments to publiccomment@wilsonokamoto.com.

The DPW is proposing to repair slope and pavement edge failure in the vicinity of Mile Post 15 along Kahekili Highway. The Proposed Project includes the reconstruction of the ROW to be a 12-foot paved one-lane roadway to include one-foot shoulder lanes on both sides of the roadway. Where topographically feasible, a few pullout spots are proposed to provide opportunities for two vehicles to pass each other. This is anticipated to encompass the construction of a concrete soil nail wall along Waihali Gulch ranging from approximately three feet to 12-feet in height to stabilize the downward slope, shotcrete backfilling to expand the shoulders, curbing, and 48-inch barrier separating the roadway from the constructed wall and provide additional protection to roadway users. Additionally, there is consideration for automatically time signals to alternate traffic flow through the one-lane stretch into the roadway design as part of a pilot program.

HAWAI'I EAs/EISs

Hakalau Stream Bridge Rehabilitation – Final EA (FONSI)

HRS §343-5(a) Trigger	(1) Propose the use of state or county lands or the use of state or county funds
District(s)	South Hilo
TMK(s)	Numerous (see document)
Permit(s)	Numerous (see document)
Proposing/ Determining Agency	State of Hawai'i, Department of Transportation Holly Yuen, (808) 692-7548, holly.yuen@hawaii.gov 601 Kamokila Boulevard, Room 688, Kapolei, HI 96707
Consultant	WSP USA; 1001 Bishop Street, Suite 2400, Honolulu, HI 96813 Allen Kam, (808) 566-2230, allen.kam@wsp.com
Status	Finding of No Significant Impact (FONSI) determination

The Proposed Action has two main components: (1) soil remediation so that public use of Hakalau Beach Park and surrounding areas can be restored; and (2) bridge rehabilitation to allow continued unrestricted operation of the bridge and increase its resilience to extreme natural hazards. Because roadway pavement damage is anticipated during construction, a third project component is also proposed: (3) road resurfacing on Old Mamalahoa Highway and Old Mill Access Road, coupled with formalizing a permanent maintenance easement for Old Mill Access Road.

The project area lies within Hakalau Gulch, which is currently undeveloped, including the County's Hakalau Beach Park and private properties surrounding the state-owned Hakalau Stream Bridge. The park has been closed to the public since 2017. The area has stream and shoreline access, contains the ruins of Hakalau Sugar Mill, and is lush with vegetation.

PRIOR DETERMINATION

The Final Environmental Assessment (FEA/FONSI) for the Pāhala Large Capacity Cesspool project on Hawai'i Island was published in the March 8, 2020 issue of The Environmental Notice. The Proposed Action will involve the development of a wastewater treatment package plant and subsurface irrigated effluent disposal WWTP facility on the same 14. 9-acre project site as was previously proposed for the lagoon system in 2020. The County would also undertake development of the sewer collection system on the same County-owned streets and easements as was previously proposed and analyzed in the Final EA/ FONSI. Lastly, the County would undertake the closure of the two LCCs. The site plan for Pahala WWTP would occupy a 14.9-acre area within an existing macadamia orchard and 1,500- foot long by 25-foot wide utility easement within the 42.5-acre parcel near the intersection of Maile Street and Mamalahoa Highway. About 4.0 acres of the 14.9-acre area would require removal of the existing macadamia nut orchard to accommodate the facilities needed to construct the package plant and related facilities, leaving approximately 10 acres for subsurface disposal.

Based on these considerations, the Proposed Action is anticipated to have direct, indirect and cumulative effects similar to those set forth and analyzed in the February 2020 Final EA - FONSI.

The County of Hawai'i Department of Environmental Management has determined that the Proposed Action is consistent with the previously prepared Final EA - FONSI, and that a supplemental statement is not required.

Previously Published Documents Open for Comment

Status: The comment period for these projects began previously. Please click on the links below to read a document, then send comments to the relevant agency and copy any relevant applicant and/or consultant identified in the submission form that follows the initial agency letter.

Comments Due July 23, 2024

Kaua'i

Ching Young Village Wastewater Treatment Plant Upgrade--Draft EA (AFNSI)

O'ahu

The Cove Redevelopment--2nd Draft EIS Vol I, Vol II, and scoping meeting audio

Comments Due August 7, 2024

Hawai'i

Kamehameha Schools – Keauhou Bay Management Plan--Draft EIS

Maui

Mākena Mauka (Republished EIS Preparation Notice)

O'ahu

Army Training Land Retention on O'ahu--Draft EIS (Please send comments to https://home.army.mil/hawaii/OahuEIS)

Lists of Exemption Notices

Pursuant to HAR § 11-200.1-17, State and county agencies that have determined specific actions to be exempt from the requirement to prepare an EA are required to submit a listing of such exemptions made during the previous month. Following are Lists of Exemption Notices submitted by various agencies for June 2024, unless noted otherwise; contact the identified agency contact on each list for additional information about any specific exemption:

State of Hawai'i

Department of Land and Natural Resources
Natural Energy Laboratory of Hawai'i
University of Hawai'i, Community Colleges (FY22-23)
University of Hawai'i, Community Colleges (FY24-25)

City and County of Honolulu

Department of Design and Construction

Coastal Zone Management Notices

Special Management Area (SMA) Minor Permits

The SMA Minor permits below have been approved (HRS § 205A-30). For more information, contact the relevant county/state planning agency: Honolulu [(808) 768-8015]; Hawai'i [East (808) 961-8288], [West (808) 323-4770]; Kaua'i [(808) 241-4050]; Maui [(808) 270-7735]; Kaka'ako or Kalaeloa Community Development District [(808) 587-2846]

Location (TMK)	Description (File No.)	Applicant/Agent
Kaua'i: Koloa (2-6-022:013)	New swimming pool, outdoor showers, paving/ walkway, fire pit area, water features, and additional site improvements. (SMA(M)-2024-20)	MJ2 Construction LLC/ Christopher and Vanessa Basler
Kaua'i: Hanalei (5-5-010:067)	Site improvements-Gate, fence, trash enclosure, signage, and related site utilities. (SMA(M)-2024-21)	Belles Graham LLP/ Pacific Trade Winds Holdings LLC
Kaua'i: Hanalei (5-8-009:039)	Fence and shed to be constructed on property. (SMA(M)-2024-22)	Julianne Mai
Kaua'i: Anahola (4-9-014:008 CPR Unit 2)	New water well (SMA(M)-2024-23)	Michael Wells
Maui: Lahaina (4-6-007:028)	Slab on grade, two-story new main dwelling with 500 sq ft attached ADU with three foot retaining wall on vacant lot (SM22024-00027)	Ming Chen
Maui: Ha'ikū (2-8-003:049)	Proposed 1 bedroom, second farm dwelling with attached garages (SM22024-00032)	Amanda Blakesley

Shoreline Notices

Applications for Shoreline Certification

The shoreline certification applications below are available for review and comment at the Department of Land and Natural Resources offices on Kaua'i, Hawai'i, Maui, and Honolulu, 1151 Punchbowl Street, Room 220 (HRS § 205A-42 and HAR § 13- 222-12). **Maps and photos of each application file can be viewed here**. All comments shall be submitted in writing to the State Land Surveyor, 1151 Punchbowl Street, Room 210, Honolulu, HI 96813 and postmarked no later than 15 calendar days from the date of this public notice of the application. For more information, contact Rebecca Anderson at rebecca.l.anderson@hawaii.gov.

File No.	Location	ZIP Code	TMK	Applicant	Owner
OA-2110	59-181 G Ke Nui Road	96712	(1) 5-9-002:037	Wesley T. Tengan	Joshua & Cheryl West
OA-2111	59-181 H Ke Nui Road	96712	(1) 5-9-002:045	Wesley T. Tengan	Annie L. Guerrero Trust
OA-2112	111 Kailuana Loop	96734	(1) 4-3-083:008	Walter P. Thompson, Inc.	Beachside LLC
MA-833	5315 Lower Honoapiilani Road	96761	(2) 4-3-002:061	Loren Slentz	Norm Ronyan
HA-647	12-7207 Moana Kai Pali Place	96778	(3) 1-2-030:003	Daniel Berg c/o dlb & Associates, LLC	Dan Mardones

Proposed Shoreline Certifications and Rejections

The shoreline notices below have been proposed for certification or rejection by the Department of Land and Natural Resources (HRS § 205A-42 and HAR § 13-222-26). Any person or agency who wants to appeal shall file a notice of appeal in writing with DLNR no later than 20 calendar days from the date of this public notice. Send the appeal to the Board of Land and Natural Resources, 1151 Punchbowl Street, Room 220, Honolulu, Hawai'i 96813.

File No.	Status	Location	Zip Code	TMK	Applicant	Owner
MA-816	Proposed	594 Stable Road, Units A, B & C	96779	(2) 3-8-002:025:001, 002 & 003	Bo Kim	Kura Capital LLC
MA-820	Proposed	4640 & 4650 Makena Road	96753	(2) 2-1-012:099 & 010	Action Survey LLC	4640 Makena LLC & 4650 Makena LLC
MA-827	Proposed	100 Kaahumanu Avenue	96732	(2) 3-7-003:013	Akamai Land Surveying, Inc.	ASAP Seaside Hotels, Inc. - ASAP Maui Seaside Hotel, LLC
MA-828	Proposed	130 Kaahumanu Avenue	96732	(2) 3-7-03:007	Walter P. Thompson, Inc.	PHOTA-BR AROZ Maui Owner, LLC
MA-832	Proposed	Piilani Highway	96713	(2) 1-9-001:001 (portion) (2) 1-8-001:004 (portion)	Austin Tsutsumi & Associates, Inc.	Haleakala Ranch Company
OA-2073	Rejected	68-319 Crozier Drive	96791	(1) 6-8-005:015	Ailana Surveying & Geomatics	Robert Vavul

FEDERAL NOTICES

As a courtesy, listed below are some relevant entries from the Federal Register published since the last issue of *The Environmental Notice*. For more information, click on the title link, also available at www.federalregister.gov.

Notice: Adoption of Department of Energy Categorical Exclusion Under the National Environmental Policy Act (published by the Pipeline and Hazardous Materials Safety Administration on 07/03/2024)

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is adopting a categorical exclusion (CE) established by the Department of Energy (DOE) that covers a category of actions that PHMSA proposes to take. This notice identifies the DOE CE and PHMSA's category of proposed actions for which it intends to use DOE's CE, describes the consultation between the agencies, and how PHMSA will apply and notify the public of its use. The CE is available for PHMSA to use for its proposed actions effective 07/03/2024. For more information, click on the title link above.

Rule: International Fisheries; Pacific Tuna Fisheries; Safe Handling and Release Practices for Sharks on Longline Vessels and Revisions to Vessel Monitoring System Requirements in the Eastern Pacific Ocean (published by the National Oceanic and Atmospheric Administration on 07/02/2024)

NMFS is issuing regulations under the Tuna Conventions Act (TCA) of 1950, as amended, to implement Resolutions C-23-07 (*Conservation Measures for the Protection and Sustainable Management of Sharks*) and C-23-11 (*On the Establishment of a Vessel Monitoring System*) adopted by the Inter-American Tropical Tuna Commission (IATTC) at its meeting in August 2023 in Victoria, Canada. This final rule implements provisions of these Resolutions and requires U.S. longline vessels fishing for tuna or tuna-like species in the eastern Pacific Ocean (EPO) to release incidentally caught sharks by leaving them in the water and cutting the branchline so that less than 1 meter remains on each animal. The final rule also requires large vessels fishing for tuna or tuna-like species in the EPO to make manual reports every six hours in the event of a malfunctioning vessel monitoring system (VMS) unit. This action is necessary for the United States to satisfy its obligations as a member of the IATTC. This rule is effective 08/01/2024. Click on the title link for information.

Notice: Agency Information Collection Activities; Submission to the Office of Management and Budget (OMB) for Review and Approval; Comment Request; Evaluation of Public Visitors' Experience at the National Marine Sanctuaries Visitor Centers and Exhibits (published by the National Oceanic and Atmospheric Administration on 06/25/2024)

The Department of Commerce, in accordance with the Paperwork Reduction Act of 1995 (PRA), invites the general public and other Federal agencies to comment on proposed, and continuing information collections, which helps us assess the impact of our information collection requirements and minimize the public's reporting burden. The purpose of this notice is to allow for 60 days of public comment preceding submission of the collection to OMB. Comment period closes 08/26/2024. Click on the title link for more information and to submit comments.

Notice: Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Hawaii (published by the Small Business Administration on 06/24/2024)

This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of HAWAII (FEMA-4793—DR), dated 06/17/2024. Physical Loan Application Deadline Date: 08/16/2024. Economic Injury (EIDL) Loan Application Deadline Date: 03/17/2025. Click on the title link for information.

Glossary of Terms and Definitions

Agency Actions

Projects or programs proposed by any department, office, board, or commission of the state or county government which is part of the executive branch of that government per HRS 343-2.

Applicant Actions

Projects or programs proposed by any person who, pursuant to statute, ordinance, or rule, requests approval for a proposed action per HRS 343-2.

Draft Environmental Assessment

When an Agency or Applicant proposes an action that triggers HRS 343, an Environmental Assessment shall be prepared at the earliest practicable time to determine whether the action's environmental impact will be significant, and thus whether an environmental impact statement shall be required per HRS 343-5(b), for Agency actions and HRS 343-5(e), for Applicant actions. For actions for which the proposing or approving agency anticipates a Finding of No Significant Impact (AFNSI), a Draft EA (DEA) shall be made available for public review and comment for 30 days and public notice is published in this periodic bulletin.

Final Environmental Assessment and Finding of No Significant Impact

The action's proponent shall respond in writing to comments on a DEA received during the 30-day review period and prepare a Final EA (FEA) that includes those responses to determine whether an environmental impact statement shall be required. If there are no significant impacts, then the Agency will issue a Finding of No Significant Impact (FONSI). An Environmental Impact Statement (EIS) will not be required and the project has cleared HRS 343 requirements. The public has 30 days from the notice of a FONSI in this bulletin to challenge the FONSI in the Environmental Court and seek a ruling to require the preparation of an EIS.

Final Environmental Assessment and Environmental Impact Statement Preparation Notice

An EIS shall be required if the Agency finds that the proposed action may have a significant effect on the environment. The Agency shall file notice of such determination with OPSD called an EIS Preparation Notice (EISPN) along with the supporting Final EA. After the notice of the FEA-EISPN is published in this bulletin, the public has 30 days to request to become a consulted party and to make written comments. The public (including the Applicant) has 60 days from the notice of the EISPN in this bulletin to ask a court to not require the preparation of an EIS.

Act 172-2012, Direct-to-EIS, Environmental Impact Statement Preparation Notice (with no EA)

Act 172 in 2012 amended HRS 343 by providing for an agency to bypass the preparation of an environmental assessment for various actions that in the experience of the agency would clearly require the preparation of an EIS. The agency must submit its determination that an EIS is required for an action (Act 172-2012, EISPN) with a completed publication form detailing the specifics of the action. This starts a 30-day scoping period in which the agency or applicant must hold a public scoping meeting for the preparation of the Draft EIS. Written comments and responses on the EISPN must be incorporated into the subsequent Draft EIS and oral comments from the public scoping meeting must be recorded and submitted to OPSD with the Draft EIS.

HEPA

While technically there is no "Hawai'i Environmental Policy Act," HRS 343 is often referred to by this term.

Act 312-2012, Secondary Actions in the Highway or Public Right Of Way

Act 312-2012, amended HRS 343, by adding a new section (HRS 343-5.5, entitled "Exception to applicability of chapter"). HEPA allows for a statutory exception for "secondary actions" (those that involve infrastructure in the highway or public right-of-way) provided that the permit or approval of the related "primary action" (those outside of the highway or public-right-of-way and on private property) is not subject to discretionary consent and further provided that the applicant for the primary action submits documentation from the appropriate agency confirming that no further discretional approvals are required. An aid to understanding this is to visualize residential driveway improvements in the public right- of-way, versus, retail outlet driveway improvements in the public right-of-way.

Draft Environmental Impact Statement

After receiving the comments on the EISPN, the Agency or Applicant must prepare a Draft Environmental Impact Statement (DEIS). The content requirements of the DEIS shall contain an explanation of the environmental consequences of the proposed action including the direct, indirect and cumulative impacts and their mitigation measures. The public has 45 days from the first publication date in this bulletin to comment on a DEIS.

Final Environmental Impact Statement

After considering all public comments filed during the DEIS stage, the Agency or Applicant must prepare a Final EIS (FEIS). The FEIS must respond in a point-by-point manner to all comments from the draft and must be included in the FEIS. For Applicant projects, the Approving Agency is the Accepting Authority and must make a determination within 30 days or the FEIS is deemed accepted as a matter of law. For an Agency project, the Governor or the Mayor (or their designated representative) is the Accepting Authority, and unlike applicant actions, there is no time limit on the accepting authority reviewing the FEIS. Only after the FEIS is accepted may the project be implemented.

Acceptability

The Accepting Authority must be satisfied that the FEIS meets three criteria (process, content, response to comments) to accept it. Whether the FEIS is accepted or not accepted, notice of the Acceptance Determination is published in this bulletin. The public has 60 days from publication to legally challenge the acceptance of a FEIS. For both Applicant and Agency actions, the Applicant or the proposing Agency can prepare a Revised DEIS after a non-acceptance determination.

Maui Sunset Photo by Thomas Hawk

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires federal projects to prepare a Federal EA or EIS. In many ways it is similar to Hawai'i's law. Some projects require both a State and Federal EIS and the public comment procedure should be coordinated. Upon request by a federal agency, OPSD publishes NEPA notices in this bulletin to help keep the public informed of important federal actions.

Conservation District

Proposed uses of land in the State Conservation District require a Conservation District Use Application (CDUA). These applications are reviewed and approved/denied by the Department or Board of Land and Natural Resources. Members of the public may intervene in the permit process. This bulletin will include EAs & EISs for actions proposed within the Conservation District.

Special Management Area and Shoreline Setback Area

The Special Management Area (SMA) is along the coastline of all islands; development in this area is generally regulated by HRS 205A, and county ordinance. A portion of the SMA that is addressed by HRS 343 is the Shoreline Area, which includes land between the State-certified shoreline and the county-determined shoreline setback line. This bulletin will include EAs & EISs for actions proposed within the Shoreline Setback Area. Some projects going through the SMA permit process on O'ahu are also required to go through an environmental review process that mirrors HRS 343; these "ROH Chapter 25" EAs/EISs are included in this bulletin.

Shoreline Certifications

State law requires that Hawai'i shorelines be surveyed and certified when necessary to clearly establish the shoreline setback from the certified shoreline. The public may participate in the process to help assure accurate regulatory boundaries. Private land owners often petition to have their shoreline certified by the State surveyor prior to construction. This bulletin publishes notice from the Department of Land and Natural Resources of shore- line certification applicants and final certifications or rejections.

Environmental Advisory Council

The Environmental Advisory Council is a 15-member citizen board appointed by the Governor. They serve as a liaison between the Director of OPSD and the general public concerning ecology and environmental quality. Agendas of their regular meetings are posted on the Internet and the public is invited to attend.

Agency Exemption Lists

Government agencies may keep a list describing the minor activities they regularly perform that are exempt from the environmental review process. These lists and any amendments shall be submitted to the Council for review and concurrence (HAR 11-200.1-16). This bulletin will publish an agency's draft exemption list for public comment prior to Council decision making, as well as notice of the Council's decision on the list.

Endangered Species

This bulletin is required by HRS 343-3(c), to publish notice of public comment periods or public hearings for Habitat Conservation Plans (HCP), Safe Harbor Agreements (SHA), or Incidental Take Licenses (ITL) under the federal Endangered Species Act, as well as availability for public inspection of a proposed HCP or SHA, or a proposed ITL (as a part of an HCP or SHA).

EXHIBIT 8

SHPD Determination Letter

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N.S CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E KAAKUA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

April 24, 2023

IN REPLY REFER TO:
Project No.: 2022PR00848
Doc. No.: 2304MK12
Architecture, Archaeology

Jordan Molina, Director
County of Maui
Department of Public Works
200 S. High Street
Kalana O Maui Bldg., 4th Floor
Wailuku, HI 96793
c/o Lance Nakamura
Email: lance.nakamura@co.maui.hi.us

Bradford K. Ventura, Fire Chief
County of Maui
Department of Fire & Public Safety
Fire Prevention Bureau
313 Manea Place
Wailuku HI 96793
c/o Oliver Vaas
Email: oliver.vaas@mauicounty.gov

Dear Jordan Molina and Bradford K. Ventura:

RE: **HRS §6E-8 Historic Preservation Review –**
County of Maui Department of Public Works
County of Maui Permit Application BT2021/0567
County of Maui Department of Fire & Public Safety
Demolitions for Proposed Ha'ikū Fire Station
Request for Concurrence with No historic properties affected
Hāmākualoa Ahupua'a, Hāmākualoa District, Island of Maui
TMK: (2) 2-7-007:008 por.

Thank you for the opportunity to comment on this request from the County of Maui Department of Public Safety for concurrence with the determination of "no historic properties affected" for this project. The proposed project is subject to the Hawai'i Revised Statutes (HRS) § 6E-8 review process. The State Historic Preservation Division (SHPD) received this submittal on July 7, 2022. The submittal included the demolition permit application and plans, photographs, maps, an HRS 6E Submittal Form, and a copy of an Archaeological Inventory Survey (AIS), titled *An Archaeological Inventory Survey for the Proposed Ha'ikū Fire Station and Waterline Corridor in Pa'uwela Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK 2-7-007:008]* (Perzinski and Dega, February 2010). Subsequently, SHPD received the Agency cover letter on October 17, 2022. The project area comprises 14 acres within the overall 28-acre parcel.

The proposed scope of work includes the demolition of five buildings and the removal of large trees. All large trees will be cut at their base with their stumps and root systems left intact, and all concrete pads will be left intact. In addition, orange construction fencing will be installed around two features of SIHP 50-50-06-6678, a rock wall (Feature A) and the terraced garden (Feature B), to protect the features during the demolition work. There is no ground disturbance associated with this project.

A search of our records indicates SHPD previously reviewed and accepted an archaeological inventory survey (AIS) report for the Ha'ikū Fire Station and Waterline Corridor project (Doc. No. 1011MD25). Scientific Consultant Services, Inc. (SCS) newly identified one significant historic property SIHP 50-50-06-06678 (rock alignments; criteria d). Perzinski and Dega (February 2010) recommended no further work for the rock alignments and archaeological monitoring during work associated with a new waterline along Haiku Road Right-of-Way (ROW). The current scope of work does not include the installation of a waterline.

Additionally, Building 1 (1958) is considered a historic property per HRS §6E-2. Based on the information provided, the building lacks historic integrity or significance. Buildings 2 – 5 are not 50 years old and not subject to review under HRS § 6E-8. The proposed project will have no effect on significant historic properties.

Per HAR §13-275-7, the project will have no effect on significant historic properties and, therefore, **SHPD concurs** with the County of Maui Department of Fire & Public Safety's project effect determination of "no historic properties affected" for the current project.

Pursuant to HAR §13-275-7(e), when the SHPD agrees that the action will not affect any significant historic properties, this is the SHPD's written concurrence and historic preservation review ends. The HRS §6E historic preservation review process is ended. The permit issuance and project initiation process may proceed.

SHPD requests the opportunity to review any additional permits or projects associated with the installation of any new utilities on the subject property.

Please annotate on the construction plans: If historic properties such as lava tube openings, concentrations of artifacts, structural remains or human skeletal remains are found during construction activities please cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division at (808) 652-1510.

The County of Maui Department of Fire & Public Safety is the agency of record for this project. Please maintain a copy of this letter with your environmental review record.

Please contact Andrew McCallister, Maui Island Archaeologist IV, at andrew.mccallister@hawaii.gov for any questions or concerns regarding archaeological resources and Mary Kodama, Historic Architect, at (808) 692-8032 or by email at mary.kodama@hawaii.gov for any questions or concerns regarding architectural resources or this letter.

Aloha,

Alan Downer

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

cc: County of Maui, building.permits@co.maui.hi.us
Stanley Solamillo, County of Maui, stanley.c.solamillo@co.maui.hi.us
Janet Six, County of Maui, janet.six@co.maui.hi.us

MAUI PLANNING COMMISSION
REGULAR MEETING – PORTION A.1.
JANUARY 27, 2026

(AUDIO RECORDING PART 1)

(AUDIO RECORDING PART 2)

(AUDIO RECORDING PART 3)

(AUDIO RECORDING PART 4)

(AUDIO RECORDING PART 5)

(AUDIO RECORDING PART 6)

(TEAMS VIDEO HYPERLINK – PART 1)

(TEAMS VIDEO HYPERLINK – PART 2)

(TEAMS VIDEO HYPERLINK – PART 3)

(TEAMS VIDEO HYPERLINK – PART 4)

(TEAMS VIDEO HYPERLINK – PART 5)

(TEAMS VIDEO HYPERLINK – PART 6)

CALL TO ORDER AND ROLL CALL

The regular meeting of the Maui Planning Commission was called to order by Chair Kim Thayer at approximately 9:06 a.m., Tuesday, January 27, 2026, in the Planning Department Conference Room, Kalana Pakui Building, 250 South High Street, Wailuku, Maui Hawai'i 96793 and online via TEAMS **Meeting ID: 266 577 685 292 07 Password: D9Bc2YV7**

Roll call was taken by Planning Program Administrator Danny Dias. Chair Thayer, and Commissioner Ward, Kealoha and Circle-Woodburn were in attendance in-person. Vice-Chair Lindsey and Commissioner Deakos and Lind were in attendance via TEAMS. Commissioner Elizares was excused.

Ms. Thayer: (Inaudible) Kahahiaka kākou. Good morning, everybody. Welcome to our Maui Planning Commission meeting of Tuesday, January 27, 2026. Our second one of the year. Mr. Dias, roll call, please.

Mr. Dias: Thank you, Chair. Good morning, Maui Planning Commission. Let's start off with Commissioner Circle-Woodburn

Mr. Circle-Woodburn: Here.

Mr. Dias: Commissioner Lind.

Mr. Lind: Good morning. I'm alone in my office in Kīpahulu on teams. Thank you.

Mr. Dias: Commissioner Ward.

Mr. Ward: Present.

Mr. Dias: Commissioner Kealoha.

Ms. Kealoha: (Inaudible)

Mr. Dias: Commissioner Deakos.

Mr. Deakos: Yes, good morning, everyone. I'm alone in an office on Oahu.

Mr. Dias: Vice-Chair Lindsey.

Ms. Lindsey: Aloha, mai kākou. Can you hear me?

Mr. Dias: Yes.

Ms. Lindsey: OK. I'm in Wailuku at home alone.

Mr. Dias: Chair Thayer:

Ms. Thayer: Yes, I'm here. Present. Thank you.

Mr. Dias: And for the record, Commissioner Elizares is excused. And now if we can turn…

Ms. Thayer: (Inaudible) that, it's ex officio members…

Mr. Dias: Yes.

Ms. Thayer: Ok.

Mr. Dias: We can turn to our ex-officio members who (inaudible)… Let's start off with the Department of Public Works. Is anyone from the Department of Public Works with us?

Mr. Barany: Good morning. This is Paul Barany, Deputy Director of Public Works.

Mr. Dias: Department of ʻŌiwi Resources. Let's move on to the Department of Water Supply. And lastly, the Department of Environmental Management. So, Chair looks like we just had the Department of Public Works with us.

Ms. Thayer: Ok. Thank you for being here, Deputy Director. Appreciate it. So, going down our agenda, we have a series of public hearing items. Today, no contested cases. Let's jump into item A.1. Mr. Dias if you could read us into the record, please.

Mr. Dias: Thank you, Chair. Item A1 is Director Kate Blystone. In accordance with Maui County Code Section 19.510.020(B) requesting a District Boundary Amendment, Community Plan Amendment and Change in Zoning to allow the County of Maui, Department of Fire and Public Safety to construct a new Haʻikū Fire Station and related improvements on an approximately 6.1-acre portion of a 27.9-acre parcel. Located in Haʻikū and the staff planner assigned to this project is Wilton Leauanae.

A. PUBLIC HEARINGS

1. **KATE L.K. BLYSTONE, Planning Director, in accordance with Maui County Code, Section 19.510.020(B), requests a District Boundary Amendment, Community Plan Amendment, and Change in Zoning to allow the County of Maui, Department of Fire and Public Safety to construct a new Haʻikū Fire Station and related improvements on an approximately 6.1-acre portion of a 27.9-acre parcel of land identified as TMK (2) 2-7-007:008 (por.), Haʻikū, Maui, Hawaiʻi (ZPA 2025-00007) (W. Leauanae)**

   (Staff Report) **(Application)** **(Exhibits)**

   (Volume 1 of 2 of the Final Environmental Assessment July 2024)

   (Volume 2 of 2 of the Final Environmental Assessment July 2024)

   (Documents Received After Posting)

   (Submit Testimony) **(View Testimony Received)**

Mr. Leauanae: Thank you, Danny. Good morning, Chair, commissioners. It's good to be here with you today.

Ms. Thayer: Oh, sorry one second. We'll hear the... just for everybody's awareness. We'll have the presentation and then we'll go into public testimony and then we'll go into Commissioner questions. Sorry, please go ahead.

Mr. Leauanae: So, as mentioned, this item is Director initiated, a request for district boundary Line amendment and change in zoning to allow the construction and operation

of the New Ha'ikū Fire station related improvements. Under Hawai'i revised statutes, Chapter 205, as well as Maui County Code, which titles 219. These land use amendments require a public hearing before the... before you, Planning Commission to the recommendation from this Commission to the Maui County Council, with the Chair's permission, I will now turn the presentation over to first (inaudible) to Mark Roy. (inaudible) Munekiyo Hiraga. They are the consultants to the Department of Fire and Public Safety who provide a brief project overview behind staff and the applicant team with remain available to respond to any questions (inaudible) the presentation.

Mr. Roy: Thank you, Wilton. Morning Chair, members of the Maui Planning Commission. My name is Mark Rory. I'm the with Munekiyo Hiraga and it's also mentioned we're serving just the planning consultant for this project to the Fire Department. We're here today representing the County of Maui Department of Fire and Public Safety and this important public safety project for the Community. It's referred to as the Ha'ikū Fire Station project. This project has been over 17 years in the making and has involved both sites selection evaluation processes. Pretty extensive agency reviews, modifications to respond to public input on the way, as well as outreach with high Community Association. An environmental assessment, an EA and a finding of no significant impact has been fully completed. And accepted for this project. As such, we're excited to be here today in support of the land use amendment requests that have been initiated by the Director. I'll now, if it's ok with the Chair, hand you over to my colleague Hoku Krueger, who will be presenting a brief overview of the project to you today. It is fairly short, but we're recognizing that it's available as the agenda for today. As such, the team is here to answer any questions that you might have following the presentation. Finally, before I hand over, just wanted to say on behalf of the Fire department, thank you so much for your consideration of these requests.

Ms. Krueger: Thanks Mark. Can everyone hear me, ok?

Ms. Thayer: Yes, please go ahead.

Ms. Krueger: Ok. I'm gonna go ahead and share the presentation now. Can everyone see the presentation?

Ms. Thayer: Not yet.

Ms. Krueger: Not yet, Ok. Oh, sorry. Let's see. Ok. How about now?

Ms. Thayer: Yes.

Ms. Krueger: Ok. Thank you. So good morning, commissioners. Again, thank you for taking the time to hear about the Department of Fire and Public Safety's proposed Ha'ikū Fire Station and related improvements project and provide your recommendation on its

Planning Director initiated zoning Plan amendment application. Again, my name is Hoku Krueger and I'm with Munekiyo Hiraga, the Planning consultant... for consultant for the proposed project, and I will be leading you through today's presentation. So, as I mentioned, we are here to request your favorable recommendation on the Ha'ikū Fire Station projects zoning Plan amendment application for the 6.1-acre project site. The Planning Director on behalf of the Department of Fire and Public Safety, is asking for the following amendments for the County of Maui owned Project Area, a district Boundary amendment from agricultural to rural, a community plan amendment from agriculture to public quasi-public and a change of zoning from agricultural to public quasi-public. We have a few members of the project team here today, online and in person to answer any questions you might have, including the landowner, the County of Maui Department of Fire and Public Safety, represented by Chief Rylan Yatushiro and Michael Arisumi. We have the project architect AHL, represented by Garret Horimoto. We have AE com. The project engineer represented by Diane Kodama and Jessica Zamora. We have Mike Dega from Scientific Consultant Services. The project archaeologist, who also worked on cultural review for the project. We also have the project's cultural consultant, Keala Pono Archaeological Consulting, represented by Gina McGuire. We have Vivian Arita from Mailelani Design, the landscape architect and from Munekiyo Hiraga, the Planning consultant, we have myself and Mark Roy. Just to give you an idea of the Department of Fire and Public Safety's mission, it is to protect and preserve life, environment and property. They provide emergency and non-emergency services. For the island of Maui, Molokai, Lanai and Kaho'olawe and the surrounding waters, there are a total of 14 fire stations in Maui County, with only nine of those being on Maui Island, including one in Hana. And they have 5 divisions, administration and maintenance, Fire and Rescue operations, Fire Prevention Bureau training, health and safety and ocean safety. They provide a variety of emergency services on top of fire response to things like structure fires and vehicle fires. Brush fires. They also respond to hazardous materials incidents. Motor vehicle accidents, medical emergencies, technical rescues and natural disasters. They also provide non-emergency services, including public education, fire incident report requests, fire inspections and more. So, at this time, I would like to turn the presentation over to Chief Rylan Yatsushiro to talk a little bit about why the Ha'ikū Fire station is so sorely needed.

Mr. Yatsushiro: Aloha kakou. Good morning, everybody. Chief Ventura sincerely apologizes for not being able to attend today's meeting, as this project is of extreme importance. He did want to mahalo you, the Planning Commission, for self-dedication to serve our community in this most critical role. The proposed Ha'ikū Fire station has been identified as a much-needed resource for quite some time, extremely necessary for providing central emergency services. While these new fire station will provide short term response times in the quickly growing Ha'ikū community, we will also provide an additional online fire company that increases surge capacity on Maui Island when large scale

incidents or high call volume periods arise. Has occurred in August of 2023. Occurrence of these events have continued to increase over the years. This resource is poised to save lives and our community for many years to come. The Department feels that great care and aloha has been taken to collaborate with all stake... stakeholders and the project before you today is a result of a truly coupled effort to provide our team... provide for increased safety in our community. We greatly appreciate your support for this project and our team is available to answer any questions you may have. (Inaudible) And I'll hand things over back to Hoku

Ms Krueger: Thank you, Chief. Ok, to give you an idea of where the proposed Haʻikū fire station will be constructed, here is a regional location map. The Haʻikū Fire station will be located approximately 1 1/2 miles from Haʻikū Elementary School and less than two miles from the Haʻikū community center. It will also be near the Haʻikū Community's historic incident areas. Here is a closer look at the project site, the project area or the area for which the Planning Director is requesting the district boundary community plan and zoning amendments is limited to a 6.1-acre portion of a larger 27.9-acre parcel. As you can see it's located at the intersection of Hana Highway and East Kuiaha Road. and is currently overgrown with invasive species and has not been used in many years. To give you a brief overview of the project. The Department of Fire and Public Safety proposes the construction of a 10,360 square-foot administrative building to consist of offices, sleeping quarters, crew quarters, training and exercise facilities, dining and kitchen facilities and other support functions. A 1600 square foot apparatus bay addition, a parking lot and other improvements to include 40,000-gallon water storage tank for fire suppression and other utility improvements. So, here's a site plan of the project. As you can see, the driveway access for the fire station will be off of Hana Highway, which is to the top of the exhibit here. You can see also the fire station building toward the middle of the exhibit, with the apparatus bay addition behind and the water tank off to the right, as well as the water lines going to the right, toward East Kuiaha Road. Here are a few architectural renderings of the fire station. The top section is facing toward the West. You can see Hana Highway to the left of the screen with... sorry to the right of the screen with cars entering, driving to the left with the fire station building in the middle and the apparatus bay addition all the way to the left. The bottom section you are looking south... so, it says if you're standing on Hana Highway looking at the fire station directly in front of you with the water tank off to the left and the apparatus bay addition behind the fire station. And further left of the section would be East Kuiaha Road. So, here are some renderings of the fire station building itself. It has been designed to be compatible with the Pāʻia Haʻikū country town guidelines. The project's design is informed by the local history and character of the area and the traditional design elements commonly associated with Haʻikū town. Some examples of this design theme include the grey metal standing seam roof over the apparatus bay on the apparatus bay addition. And the sawtooth roofs over the living quarters. So, just to give you some background on the project, the site was purchased by

the County of Maui on December 14th, 2007, following a site selection process. Chapter 343 Hawaii revise statute draft environmental assessment has been completed and a final environmental assessment and finding of no significant impact was published on July 8, 2024. Completing Chapter 3... 343 HRS requirements for the project. The Planning Director initiated zoning amendment application was filed on July 7th, 2025. So, here's the district Boundary Amendment map prepared for the project. The 6.1-acre project site is currently located in the State agricultural district, and the Planning Director is requesting a district boundary amendment to rural as provided in Section 205-5C4 Hawaii revised statutes quote, public quasi-public and public utility facilities end quote such as fire stations. Our permitted uses within the rural district. The proposed district boundary amendment is in conformance with the standards of the rural district set forth in chapter 15-15-21, Hawaii, revised statutes. Sorry, (inaudible) administrative rules and as the project site is less than 15 acres, the district Boundary amendment will be processed by the County of Maui and acted upon by the Maui County Council. Here is the Pā'ia Ha'ikū community Plan Amendment map prepared for the project. The subject property is currently designated as agriculture in the Pā'ia Ha'ikū Community plan. The Planning Director is seeking to re-designate the 6.1-acre project site to public quasi-public. The proposed project conforms to the Maui Island plan, which was updated by the Community 17 years after they Pā'ia Ha'ikū Community plan's most recent update. To include the subject parcel within the Maui Island plans rural growth boundary. Here is the zoning plan Amendment map prepared for the project. The 6.1-acre project area is currently located in the Maui County zoning codes, agricultural district and the Planning Director is requesting a change of zoning to redesignate the 6.1-acre project site as public quasi-public and although the property meets the priority for attention in the agricultural district, based on a site selection and feasibility studies conducted by the Department of Fire Public Safety. In 2007 and 2021, the subject property was selected for a new fire station to serve Ha'ikū and the surrounding areas, and the construction of a new fire station on the subject property will provide a greater public benefit than the retention of vacant AG land. So, next steps for the project would be Maui County Council review and hopeful approval of the district Boundary Amendment Community Plan Amendment and change of zoning ordinance. Then the completion of construction, permitting and finally the construction of the Ha'ikū Fire station. And to summarize our request today, the Planning Director on behalf of the Department of Fire and Public Safety respectfully requests the Maui Planning Commission's favorable recommendation on the proposed district Boundary Amendment Community Plan Amendment and change of zoning requests for the project. Thank you.

Ms. Thayer: Thank you very much. Anything else from the Planning Department.

Mr. Leauanae: No Chair.

Ms. Thayer: Ok. Is there anybody signed up to testify?

Ms. Ramoran-Quemado: Thank you, chair. There two, we'll start with Francine Aarona, followed by Kathleen Aoki.

Ms. Aarona: (Inaudible) Commissioners, Chair, Vice-Chair and firefighters. I'm here to speak on another item, but to my surprise, I am Francine Aarona. I come from Pā'ia. I live on a shoreline. And in our day and age, we have allowed growth to come before our first responders. It is so important... that Pā'ia Fire Station has landed. Hold strong and I'm a product of that revival, mahalo (inaudible). But there's dire need. 2007, this project has been dreamed of, gone through and I think it's time that we put this up front. For our people, for our County. They service all of the east side. And I just think if we had another fire station that is there for us. So, I am in favor of moving forward with this and not moving forward, like next year, the following year. Like within this year... 2026, let's get something going for our fire department and firefighters. Mahalo so much. (Inaudible)

Ms. Thayer: Question for the testifier? None.

Ms. Ramoran-Quemado: Next testifier is Kathleen Aoki.

Ms. Aoki: Good morning, commissioner. My name is Kathleen Ross Aoki, just for reference sake, I did work with the Department for over 20 years, and I did the time, two years ago, as the Planning Director. However, I'm here today out of hiding. And here to testify in support of the Ha'ikū Fire station. As you have been informed, this fire station has been in the works for many, many years. I remember it coming up when I first started with the Planning Department. I am in full support of, I think I don't want to say it's a no brainer but it's really (inaudible). There are so many commands for calls for the fire department and being a victim of the Lahaina Fire. I think that it goes without saying that the more resources we have for fire personnel, the better. So, I hope that you will vote in favor of recommending the three-land use approval today. I.... I don't see a reason to. Thank you.

Ms. Thayer: Mahalo, for your testimony. Questions for the testifier, commissioners? Ok, seeing none, thank you again. Ok.

Ms. Ramoran-Quemado: Chair, that's it. There's no one else (inaudible).

Ms. Thayer: Ok. Would you like to testify? Sure.

Mr. Williams: (Inaudible). My name is Terrill James Kane Alii Williams, testifying on item A.1. Lawsuit (inaudible)... and recognize... I'm recognized by the Department of Land and Natural Resources State Historical Preservation Division...(inaudible) puna burials (inaudible)...East Kuiaha is the ahupua'a where this project is planned. Planning

Commission and Maui County in general is therefore required to consult myself as well as other... all the (inaudible)...However, let me be very clear that my testimony does not constitute... (inaudible)... even more clear... testify today concerns government accountability purposes. The scope of the project does not slowly concern the TMK... (inaudible)... the fire station building, but also all the attached infrastructure including gas lines, electric lines, and in particular the water line corridor plan for the hydroelectric for the November 12, 2010, letter from SHPD under Appendix C2. The environmental assessment, both archaeological monitoring, is recommended portions of the water line that are for review and approval. Pursuant to HAR section 13-279 prior to the start of the new ground, alternate construction. Today no set archeological monitoring plan has been submitted to SHPD for review, let alone approval. Nor has been made available to myself as a recognized cultural descendant of East Kuiaha, especially as one who resides within the project zone... kuleana rights that are protected by the Hawai'i State Constitution. For the comprehensive present, time will be impacted by the project. (Inaudible)... 2024 environmental assessment, including the agendas. There has been no actual archaeological inventory study conducted specifically on the Land Commission... (inaudible) parcel...the Ha'ikū corridor...(inaudible)... project. It's also shown by the 2025 Ka Pa'akai final analysis that was conducted by Keala Pono archeology. (Inaudible)...project... Planning Commission has negligently failed to hyperlink and includes part of the agenda. (Inaudible) the public... pertain government documents related to the project, (Inaudible) sunshine law violations, and two... , which would be preventing the Commission from making informed decisions and planning state regulate... regulations. In addition, there are... kuleana land properties within the Ha'ikū corridor that are in active litigation regarding ownership in which the Planning Commission and County of Maui can search into civil case number 2CCB-0000157. Final party to that litigation, by this Commission today choosing to move forward with any decisions concerning the project until... (inaudible)...Commission.... behalf of the County of Maui will be normally trying to push the project where they'll be attending to deprive my... me of my kuleana rights and which will in turn result in the Commission subjecting the County of Maui to prolong delegation and even further delays. That would be on top of the County's failure to meet the regulations. (Inaudible)... proved by archeological monitoring plan as outlined by SHPD... (inaudible) on all parcels in the scope of the project, including for the Land Commission... kuleana lands as well as the Commission's negligent failure to include the 2025 Ka Pa'akai analysis as part of the agenda. (Inaudible)... government record.

Ms. Ramoran-Quemado: Time.

Mr. Williams: I'll finish. Thus, mounting to a Sunshine Law violation. Therefore, this item should be deferred until all State regulations have been met, until the active litigation is concluded. My attorneys are well aware of this matter. (Inaudible)... any questions?

Ms. Thayer: Mahalo, for your testimony.

Mr. Williams: Mahalo.

Ms. Thayer: Commissioners. Any questions for the testifier? Oh, Commissioner Ward.

Mr. Ward: Thank you, Chair. (Inaudible)... I guess my question is that if there was a condition that the archaeological studies need to be implemented. Would you... agree the project to move forward. (Inaudible)... I'm not asking. (Inaudible)... in general, be exactly the main concern.

Mr. Williams: I would say one and not against fire stations. I'm not against fire mitigation... (inaudible) safety. However, I've seen Ka Pa'akai analysis process... I've seen through the documents. There's been this push by the County and consultants to say that there's (inaudible)... necessary, (inaudible)... letter in in the documents provided in the Planning Commission's agenda saying... (inaudible)... Needed approval. And the Ka Pa'akai analysis there's also information as far as things like (inaudible)... stated. I'm not going to say anything other than that, because again, I don't want to shoot myself up in the foot. I only want to get ahead of myself because... because of the litigation that's happening, we don't know... (inaudible). So, that's my point is to defer the item because. If, for example, the County gets under any litigation, it's going to push it back a little further.

Mr. Ward: Thank you. I guess I'll try, understand and I've seen litigation. Do you have constraints? So, I appreciate that. I'm just trying to understand and wrap my head around... like where the (inaudible)... common ground could... (inaudible). With conditions, that's the condition could approve... (inaudible)... much needed resource but respects your comments and concerns because I think those are duly noted... (inaudible) expected... (inaudible) but not... (inaudible) progress up from being able to take steps forward versus just (inaudible)... If you have insight or comments that you share on that. To help us cause...

Mr. Williams: Yeah. (Inaudible)... I said earlier, it's been 17-year... (inaudible)... right? Part of that why it's been so long is because all the... the T's have not been crossed and the I's not dotted at all... (Inaudible)... this trying to circumvent the process correctly. I would suggest wait until after the litigation to... (inaudible)... conversation.

Ms. Thayer: (Inaudible)

Mr. Ward: We cannot hold you to any specific time, right? Do you have an approximate timeline is to find you think the litigation may be resolved because I think that might help us understand. Two months out... That's different story of five years out or 20 years.

Mr. Williams: The trial is set to October so, and I believe I recall in the news, that there were statements that when County that project was started in April this year. I don't know if that's still true, but trial for the litigation...(inaudible) October.

Ms. Thayer: Follow up... Commissioners, any further questions for the testifier? Ok, seeing none. Mahalo, again.

Mr. Williams: Mahalo nui.

Ms. Thayer: Ok, this will be your last call for public testimony on this item. If you're in the gallery, you can come up to the podium. You're online. You can write to staff in the chat or raise your hand or unmute yourself. Otherwise, public testimony will close in three, two, one. Commissioners, any questions for the Department? That's fine. Commissioner Ward.

Mr. Ward: Thank you, Chair. I think that's my question would be based on the testimony you've heard. What is the Planning Department's perspective on doing a greater... archeological execution or research.

Ms. Thayer: Mr. Dias.

Mr. Dias: Chair. I'm looking at the letter from State Historic Preservation Division and we defer to them, on this note matters and essentially a letter that was provided to us states... current HAR 13275-7, the project will have no effect on significance for the properties and therefore SHPD concurs with the County...(inaudible) Department of Fire and Public Safety. Project effect determination historic properties effective for the current project. So, that's what we based (inaudible)... our recommendation on... what's actually come from the agency in charge of archeological matters... Thank you.

Ms. Thayer: Commissioner Circle-Woodburn

Mr. Circle- Woodburn: Thank you, Chair. Just a clarification question. On that testimony... (inaudible). For the... the client. Was... was the testimony on the actual parcel or off parcel related to the structure or... (inaudible)

Mr. Roy: (Inaudible)... Munekiyo Hiraga, thanks for the question. This is the first I've heard of the testimony today. With what we have, (inaudible)... and so. My... my understanding of what was said is it seemed to apply to offsite lands along the roadway corridor. Rather than project site itself, which to my understanding is owned entirely by the County of Maui. I will note, for the record, that over time this project has been 17 years in the making, so it's been quite a... quite a lot of milestones along the way in terms of planning. There was public input that was received during the EA process. The

Department of Fire and Public Safety elected in order to move the project along; they reduced the scope of the project and commissioners may have seen that in the EA. There were various items that were removed from the project scope due to concerns. There was a helipad that was removed. There was a wind turbine that was removed from project scope. There was additional consultation conducted within Department of Water Supply, very extensive coordination I would add by the civil engineer for the project and the Fire Department and that resulted in the off-site water lines scope... being significantly downsized. And so, what is being presented to you today is that... is the revised project scope, which is the downsized scope of the water line improvements. So, it's really not impacting East Kuiaha Road right of way as much as the original scope was planned to do. So, there was a water line extension quite... that extended quite some ways along East Kuiaha as part of the original scope. So, that was downsized and my understanding of the SHPD... (inaudible) was referenced during testimony because that was the original. The older AIS acceptance letter that pertained to the broader scope of improvements for the offsite water line improvements. There was a recommendation at the time for archeological monitoring for that work, since that work has been significantly downsized. My understanding is that that archaeological monitoring plan recommendation is no longer pertinent to the scope of work. However, we do have our archaeologist on the line today. I'm happy to refer Commission to Mike Dega if there are additional questions. I will note as a final comment, however, the Department of Fire and Public Safety is very mindful of archaeological and cultural considerations for this project and has elected to voluntarily conduct archaeological monitoring as part of the project. So, although it's not an SHPD requirement, there is that voluntary commitment. So, I'm just kind of note that for the record, hopefully that addresses the question.

Ms. Thayer: Go ahead.

Mr. Circle-Woodburn: Follow up.

Ms. Thayer: Yup.

Mr. Circle-Woodburn: Thank you. If... (inaudible) concern... safety... (inaudible) test... relayed more to the offsite to the previous larger roadway for the waterway improvement work, is it... (inaudible)... with the fire station's two bill. Is it possible, if there was this concern... (inaudible) for the fire station itself and that project area to be forward out...(inaudible) to ... bridge improvement. Does that have to happen? I'm just wondering. (Inaudible)

Mr. Roy: Thank you for the question. My understanding is that... that is part and parcel of the proposed action to have a fire station to have a site utility serving the... the use we do have Diane Kodama from AE com on the line today, civil engineer for the project. She can speak to some of the consultation that was conducted with the Department of Water

Supply on the requirements to serve the station, but my understanding is that we need to have that equipment to be able to develop the fire stations.

Mr. Circle: Woodburn: Thank you.

Ms. Thayer: Sure. I'm wondering if...(inaudible) archaeologist to come online. Yep, and provide more insight into this Yeah.

Mr. Roy: Sure. I'll invite Mike Dega from Scientific Consultant Services. Mike, if you're on the line, I see there. Great. Thank you.

Mr. Dega: Good morning.

Ms. Thayer: Morning. Can you...you tell us a little... little bit more and provide more insight into the previous scope of the water line, the current scope of the water line. Previous study and the (inaudible) for monitoring.

Mr. Dega: Yes, we conducted an archaeological inventory... inventory survey in 2009, quite a few years ago. We dug 11 trenches to full pedestrian survey of the entire project area as well as the water line corridor, which has since been, I guess, decreased in size. Right now, we documented one historic property. (Inaudible)... 6678, which had two features retaining wall and a garden terrace made of dry stack basalt stones. We affiliated that with a previous occupants. It is a historic property because it's over 50 years old. So, we had to get the site number documented. But we put no further work as it was completely maps recorded, SHPD agreed. They accepted the inventory survey in 2010. With no further work needed at that point. SHPD came back in 2023 and concurred again that no historic properties would be affected in the project area. They did say if the project changed, I guess in scope or any other direction that they would like to review the permits to see if monitoring would be needed or not. At this point no monitoring was required. And I believe the applicant is being proactive in having a cultural and archaeological monitor be on site for the site work as well as any water line work for monitoring.

Ms. Thayer: Thank you. Commissioners, any follow up questions? (Inaudible)...Thank you again, Mr. Dega.

Mr. Dega: Thank you.

Ms. Thayer: Any questions? Commissioner Deakos.

Mr. Deakos: Thank you, chair. I think the question is for the County, so my understanding there was a FONSI associated with this project. I'm wondering was

there a water and fire flow certification? Basically, did the Water Department of Water Supply provide certification that there's sufficient water to support the Fire Station's needs.

Mr. Leauanae: Yeah, my understanding is they review the documents that there was, there is (inaudible) water for this project. I could defer to the consultants that provide more details of that, but as far as my review of everything related to water use, it was sufficient.

Ms. Thayer: Thank you.

Mark Deakos: Ok. If... if yeah, if somebody can confirm, I don't think there was certification of the water... fire... flow. I couldn't find it. Maybe it's in there. I know Department of Water doesn't seem to be online, but if somebody knows if that information was part of the FONSI, that'd be great.

Ms. Thayer: Mr. Rory.

Mr. Rory: Thank you, Mark. Rory. Thank you, Mr. Dega. Thank you, Commissioner, for the question. We do have Diane Kodama, who is a civil engineer for the project online. Ms. Kodama participated in those extensive consultation discussions along with Fire Department, with the Department of Water Supply to ascertain and to confirm the scope of the water requirements, the water improvements for this particular project. That they were (inaudible) for consultation... DWS staff. I'm happy though to pass over to Diane, which she could come online. I believe she's in the audience to provide some additional detail to the consultation process that occurred with DWS.

Ms. Kodama: Yeah, this is Diane Kodama from AE com. Yes, we consulted with, you know, Fire Prevention Bureau and the Department of Water Supply on where we can connect to ensure that there's enough coverage for the fire station itself. There are three meters. One would be dedicated to fire water, and we... we met the minimum requirements that of... the GPM that's required to protect the fire station...to meet the require requirements. And water supply had agreed to it. We have not yet had the final approval of the ...of the plans yet, but... but we are in coordination with them, with fire as well.

(Inaudible)

Ms. Kodama: And we have the calcs in the report, in our report.

Ms. Thayer: Thank you, Commissioner Circle-Woodburn, followed by Commissioner Deakos.

Mr. Circle-Woodburn: Chair, thanks. Could you just speak to then the use and need for the 40,000-gallon water tank? That was planned for the site as well. (Inaudible)

Ms. Kodama: Thank you. So, we had discussed the possibility of because there's a lot of low flow in the area, there's the... Water Department and Fire Department agreed to have the 40,000-gallon water tank for fire prevention in addition to the water from the portable, from the connection off of East Kuiaha Street.

Mr. Circle-Woodburn: Spill from the County water. That's the thing. Not catching.

Ms. Kodama: Pardon.

Mr. Circle-Woodburn: The tank is filled from County water, not from catchment, right?

Ms. Kodama: Right.

Mr. Circle-Woodburn: Thank you.

Ms. Thayer: Commissioner Deakos.

Mr. Deakos: Yeah. Thank you, Chair. So, it sounds like the information is there, so you would be... sounds... you'd be ok with the Department of Water supplies certifying fire flow capacity. So, in other words...

Ms. Kodama: I don't.

Mr. Deakos: What it is... is there's a difference between just supplying the fire station and then there's actively fighting a fire and depleting local resource. So ,we want this to be a public benefit without impairing the local communities' water needs. So, generally you provide a fire flow capacity from the Water Department sounds like. Most of that, those discussions have happened, so you'd be ok with that... that's certification coming from the Water Department prior to occupancy. Or is it? Are you saying you don't have that... in that certification?

Ms. Kodama: I'm not sure exactly what kind of certification you need. There was a... a letter from Water Supply to Fire Prevention Bureau. That Water Supply confirms existing water system is capable of revised fire flow requirements of 500 GPM as a proposed location. And they agreed to the on-site private water tank... for the property and the... the onsite... anything after the meter would not be considered water supply, it would be Fire Prevention Bureau.

Mr. Deakos: Ok. Maybe, is there someone from the Fire Department? That... I'm not an expert on fire flow capacity, but I'm... I'm guessing the Fire Department has some information on that and can confirm that that capacity is available.

Mr. Roy: Commissioner Deakos, I'll... I'll try my best to respond to the concern initially. I'm looking at the Fire Department team. I'm not sure if we have anyone specifically that can speak to fire... Ok. Chief Yatsushiro will be able to respond to your question.

Mr. Yatsushiro: Thank you very much, Commissioner. So, my understanding in coordination are civil engineer consultative team have been in coordination and communicating with the Department of Water Supply and Fire Prevention Bureau to assure that we met minimal flow requirements for Fire Protection of this occupancy. Storage tank, that's on site is strictly to meet the GPM flow requirements for Fire Protection for the facility. It'll be... you know... you know likelihood... hopefully we don't... it never gets utilized. It is strictly for, to provide fire flow for (inaudible). So, that that coordination hasn't...

Mr. Deakos: Ok. Thank you. Thank you, Chair.

Ms. Thayer: Issues. Any additional questions? Commissioner Lind.

Mr. Lind: Good morning. This is for the... (inaudible). I was wondering, you know the State is trying to reach 100% renewable electricity goal by 2045. In this place this... this ahupua'a (inaudible). I assume it's very windy, from the trade winds. Has that been factored in into this project or is that? You know. Like how much? How often... the like does the... the wind blows and how often the Kona's come? But the point is the... the... the energy goes 100% and... that's one question and another question for the Fire Department is same case. Electricity dies down with the grid. Does the pump automatically, rely on that system, or is there a backup... generator system I... I haven't. You know, I'm just curious. Maybe you can educate me more on that.

Mr. Roy: Thank you, Commissioner...I'll answer the questions. So, to your first question on, I think with sustainability and energy in terms of wind, the... the project from the very outset of being conceived 17 plus years ago, was very mindful of trying to incorporate sustainable design measures in the design for the new fire station. There are a number of measures that are being implemented that lead to sustainable design, energy efficiency. In terms of wind, that there was a wind turbine that was originally proposed as part of the project scope. However, that has since been removed and the reason for that was... As the EA went through the process, there was public input received. As a result of reviewing, the input... there was a decision by the Fire Department to remove that wind turbine from a from a view impact consideration perspective. However, I will return to the desire from

the County's perspective to really incorporate feasible, sustainable design measures in this project. We do have the project architect with us today from Architects Hawaii. If commissioner would like additional details and some of the sustainable design measures that are still in the project scope today, I'd be happy to invite the architect to respond to... to your question.

Mr. Lind: It's Ok. Thank you for the answering my question and I understand the... the current place we're at right now. So, thank you very much. No need to though, Aloha.

Mr. Roy: Thank you. In terms of your second question on... is that a question relating to the pump for the 40,000-gallon tank?

Mr. Lind: Yeah, but yeah, I guess so. Yeah, if you can just fill... fill in the void for me a little bit. Thank you.

Mr. Roy: Ok. Thank you. Thank you for the question. Diane Kodama from AE COM, would you be able to respond to that question in terms of redundancy for the water tank?

Mr. Kodama: Ok, let me... checking... that was the calculations were done by the mechanical for the water tank, but... can you repeat the question? It's kinda little bit hard to hear, hard to understand. It's a little broken.

Mr. Lind: I... I... I think. Oh, hi. I think I was just wondering which I notified the Fire Department, they set the policy for reviewing other places with fire suppression system. So, I guess I was just curious as to know like how would... like say the electricity shut off, but there is a backup generator. You know to pump the water into the, wherever it needs to go to the fire truck. But I'm sure that's all filled out... yeah.

Ms. Kodama: Yeah.

Mr. Lind: Ok.

Ms. Kodama: Yeah, I believe so.

Mr. Lind: Ok.

Ms. Kodama: Our electricals...(inaudible).

Mr. Lind: Returning to the small scale, wind produced energy should be our future goals in our future and I understand that this project is 15 years. And... and well needed in the community. Thank you.

Mr. Kodama: Ok. Thanks.

Ms. Thayer: Commissioners, additional questions. Commissioner Ward, followed by Commissioner Deakos.

Mr. Ward: Thank you, Chair. Thank you again for your input. We have (inaudible) this project (inaudible). Could you share with us what the concerns were... Mr. (inaudible) said. I'm struggling with knowing the area, the (inaudible) capacity and energy could produce. What the concerns were that we would not want to have that in place. And (inaudible) very, very valid reasons. I can try to understand out a little bit more if you have that info.

Mr. Roy: Thank you for the question. You're right this project has been in Planning for some time. I have been involved most of the way. My memory is not best in terms of specific details, but there was a concern from residents in fairly close proximity to the site, there are a number of comments that were presented during the EA process. Some of which focused on the helipad. The potential impacts associated with the helipad, (inaudible) fire station. From my best recollection, and I can try and look into the materials as the meeting continues to come back to you on that. But I do recall some concerns being expressed with regards to the wind turbine... it was a fairly elevated structural facility. It was going to the heart of the sustainability objectives for the project, but the Fire Department as well, in order to move the project along because of the time that was taken during the early stages of the planning process. Did elect to make some scope provisions based on cost considerations as well. So, between the input that was received during the EA process from that member of the public and the need to ensure...cost responsibility and efficiency... efficiency in that regard. That was a decision that was made to... to. (inaudible) project scope.

Ms. Thayer: Go ahead.

Mr. Ward: Thanks, Chair. I'll follow up. (Inaudible)... should touch on it for me, I would just.... Helipad... knowing. What happened behind...(inaudible) having that type of service, to be able to fight fires. Is that something that? Could be revisited or centered...(inaudible). I guess, it seems to me that... (inaudible). The island is full... (inaudible)... We are going to cut off. To have that type of capability, I think... from my perspective. It is. (inaudible).

Mr. Hopper: Chair.

Ms. Thayer: Go ahead.

Mr. Hopper: I'm hearing online...(inaudible) very hard to hear some of the discussion. (Inaudible). So, I don't know if it's picked up. I heard online it's... it's kind of (inaudible)

here so (inaudible) asking them to... commissioners into the microphone. I guess the public is having trouble.

Mr. Ward: I apologize.

Ms. Thayer: Just everybody...

Mr. Ward: Should I...

Ms. Thayer: Sure, love on the microphone.

Mr. Ward: So, (inaudible)... we start with the original question or the helipad? Whole thing? I'll just ask the question.

Ms. Thayer: Sure, just to make sure.

(Inaudible)

Mr. Ward: Apologies. Understanding that the... the net gain for the community of having turbine energy capacity specifically in that region, in that area due to trade winds. I think my question was around what was the commentary or concerns around that? And is that something that could potentially be reconsidered if it was a different location? Or maybe (inaudible) configuration or placement? (Inaudible)... Second question was led by (inaudible) into the helipad. Similar type of conversation or question around. The greater need of what that can do for the community, and again slipping back into what happened to Lahaina... Haven't you had the capacity of (inaudible)... helipad. Those types of things, or from medical concern perspective. How... how is... is that? How does that play out? To your point, past 17 years different comments? Different concerns? Different? We haven't lived through some of these... lived through. Are those things potentially, maybe worth reconsidering? What we know now and what we faced.

Mr. Roy: Yeah. Thank you for the question. In regards to the helipad facility that was originally proposed as part of the project scope. As I mentioned, due to some concerns that were shared during the environmental assessment process, the Department of Fire and Public Safety elected to remove that component from the project that was going forward. The workforce consideration for came into play to be fully transparent. 17 years in the making, escalation of construction costs, it does have a factor on a project's ability to move forward. That said, I have the honor and benefit of being accompanied today by the experts when it comes to fire service and protection. In regards to helicopters and where they can operate within the context of the island of Maui County as a whole. I do believe there are fairly extensive powers that the Fire Department has to be able to land

the helicopter wherever they may need to service them. But. I can certainly refer you to one of the experts if that would help.

Ms. Thayer: I'm wondering if within this. If it would help to give an overview of how the project was initially presented and then the evolution of the project through the EA process and then why we have the scope we have today, because originally it was a much bigger project. There were more features of the site. There was, you know, the wastewater system. There was a long water line. There was a helipad there like a lot more features to the project. When the draft EA was published, there were extensive public comments and discussion about the project. And my understanding from reading through everything is that the scope had to get whittled down because of all of these concerns that were raised by the community. And yes, there were. I think at one time, two wind turbines that were proposed. Yeah, there was a hot water system to go on the roof that got switched out for PV. And so, we have through all of that... the project we have today and I think yes, you know we would have maybe some of those measures still included, but that's... that the balancing point that results from all of this public input process and I... and I want to say in the interest of maybe...time and efficiency to make sure everybody's aware that this has gone through extensive public review by virtue of the EA process and... what we have today is the result of all of that. But please go ahead.

Mr. Roy: Yeah. Thank you, chair. Happy to do so. As I mentioned, I've been on this project for the most of... most of its life, and as Chair mentioned. During the EA process, there were some fairly extensive comments shared by one party in particular, as I mentioned, the resident barely close by to the site. The Department of Fire and Public Safety during the review of those comments during, the EA process made a decision...to address the concerns as best they could by removing some of the more sensitive items from the project scope. As Chair mentioned, the helipad was, I would say, argue in the major one that was removed from project scope. There were the wind turbines that went to the heart of the sustainability strategy for the projects that was conceived at the outset. There was an ecological wastewater facility that was part of the project as well. The fire station itself didn't change too much. There was an additional storage building as was mentioned in the presentation. Added to the project scope to respond to the needs of the Fire Department that were involving as that process moved forward as well. But we... we ended up... with a refined site plan. I would say refined (inaudible), a down scope site plan... for the on-site improvements, as mentioned during testimony today, that was a fairly extensive off site water line that was proposed based on initial consultation with the Department of Water Supply... 79 years ago. There were concerns about that. The extensive of those improvements as well. That is an example also of some additional consultation that was done with the Department of Water Supply during the EA process to identify opportunities to downsize that scope of that improvement. And so, where we are today, that (inaudible) line connection on the East Kuiaha is significantly downsized

compared to the offsite water line extension that went all the way up East Kuiaha into Haiku Road intersection initially. Back to my recollection is a summary of what was changed along the way. The County did elect to publish a revised draft EA to allow for additional input on the revised project scope, and then we move forward to complete the final environmental assessment, which, as mentioned during the presentation, is accepted and published as a finding procedure. So, along with my comments earlier, there has been a very well-intentioned effort from the Fire Department's side to respond to any concerns that were raised and also allowed for re-review of the project with some fairly extensive initial consultation with key (inaudible). Hopefully that helps.

Ms. Thayer: Ok, Commissioner Kealoha.

Ms. Kealoha: She made that one of those sustainability features where everybody incorporated into design and you know, maybe as time goes on in the community. (inaudible) to fire stations. I have those (inaudible) can be revisited again. I was wondering if... (inaudible) Chief could talk a little bit about how having a (inaudible) Pāi'a fire stations on (inaudible)... ground. I'm wondering if we could talk a little bit about fire station is going to improve response times.

Mr. Rory: I'm going to introduce, (inaudible), who is out of (inaudible) section.

Mr. Fukuda: Good morning, Commission. Thanks for having us. My name is Patrick Fukuda. I'm actually not (inaudible).... I work on the West side, but the majority of my career was spent on there and I did grow up in that area. So, I have a little bit of background knowledge. (Inaudible) topic. So, I think what happened after Lahaina fire kind of exposed a lot of shortcomings in the depth of our department. (Inaudible)... triple call volume in the past couple of decades and the amount of fire stations and personnel haven't quite kept pace with that. And what's interesting is the Haiku Fire Station, Commissioner Thayer had mentioned before, it was a need that was proposed at that time, of course, over those past couple decades... (inaudible)... Moloka'i... (inaudible) as well as central Maui exploding with growth. But at the time (inaudible) fire station was propose, that was an ambitious project, was pretty large and very forward thinking at the time. So, I understand the complication of concerns for the (inaudible) wants to be a very mindful neighbor. So, it's been scaled back quite a bit, but it was very forward thinking with the environmentally conscious and the like, and that (inaudible) design actually kind of pays homage to right across the Gulch there. The (inaudible) has an exact same color. Plantation (inaudible)... pineapple cannery, but as far as your question, how would we improve response time. The attorney general's administration has hired the outside consulting firm, called Fastest, to review the standards of coverage. Look at it. It's able to position fire stations in kind of theoretical locations and see how it improves that response time. It doesn't take too much science to figure out. Now when Pā'ia gets it's a call from

Keanae. They are removed from that area of responsibility for at least two hours to and from, and the same can be said about Kula. If a call is in Kaupo and for Lahaina as well. So, what happens is Pā'ia gets a call in and it's not super often, but there is growth along the highway more and more as you go out East. Various structures of various sizes, so Pā'ia goes out... East In that direction. There's a domino effect of sorts, right? Because Makawao expands their area of responsibility... (inaudible)...Kahului. Because they're the next adjacent (inaudible). And so, everybody is, you know, need to (inaudible)... ground here... (inaudible)... So, we're always trying to manage that and with high (inaudible), not only is a domino effect of providing coverage, that area which will actually extend across the island. No matter where you put fire station, but in particular that was identified 2007 for Ha'ikū being the most. When you look at the map... heat map of the area, that's least covered at the time, it was that that stretch between. Basically, so that as you know, if you ever drove out there, which I'm sure everyone has, it's very difficult to take a large fire engine out there. Using smaller trucks, we have to make some accommodations for that. And as far as the helipad, of course, as the Fire Department, you want everything, all the bells and whistles as possible. But understand that being a good neighbor, you have to take into account the concerns of your... of your neighbors and the helicopter is able to handle pretty much anywhere. And there's 100... (inaudible)... of land that's, you know, kept recently. So, they have that capability. I agree with you. It would be amazing to have that, but it shouldn't hinder their operations (inaudible). But it takes away too much. Hope that answers your question. You got anything else?

(Inaudible)

Ms. Thayer: Sure. Corp Counsel is telling me. I'm requesting a 5-minute recess to discuss something real fast and we're a little bit over an hour into our meeting and so probably could use a 5-minute break anyway. And so, it's 10:15 right now. Let's come back at 10:20. Thank you.

Ms. Thayer: Welcome back everybody to Maui Planning Commission meeting of Tuesday, January 27th. Thank you for your patience with us. We were working on a few things or staff; and the Planning Department and Court Counsel have been working on a few things regarding the Ka Pa'akai analysis that has been mentioned in this meeting thus far. So, one update is that. This analysis has been updated and linked to the agenda. Uploaded and linked to the agenda it is... you'll probably have to refresh your agenda if you're online or access it all over again to have the link be live on there. So, on the documents received after posting link, you will find the Ka Pa'akai analysis and the guidance from Corp Counsel is that we provide our commissioners some time to review this at this juncture. The public will have a time to review this as well, so that everybody is up to speed and then we can take further action from there. Yes, please go ahead, Mr. Hopper.

Mr. Hopper: Public's awareness this document was not shared with the commissioners previously. So, this is also the first time the commissioner who's seeing it's being uploaded at the same time. It wasn't part of the board packet, so... just a note that the public is (inaudible). Upload is happening at the same time as the... as the commissioners are getting this right now, as... as additional returns, so this is the first time the commissioners have seen this.

Ms. Thayer: Commissioners, just to give you an overview, this is a fairly lengthy document. The pdf is 152 pages. However, there's a five-page cover letter from the Fire Chief Ventura that has a pretty good summary of the entire analysis. And so, oh, yes. Is there anything you would like to say?

Mr. Roy: Thank you, Chair. Mark Roy, Munekiyo Hiraga. I just wanted to note that we do have Keala Pono with us today. If the Commission would like a summary of the Ka Pa'akai analysis, we'll have to provide that.

Ms. Thayer: Ok. Thank you. Appreciate that. So, commissioners thinking about how much time you would like to review this and if you would like to hear from the consultant first or do you want to give a read through first... consulting first, ok, sure. If we could have them come up and then we'll have another recess. Thank you for your patience with us, everybody. We'll have another recess after that, so we cannot repeat.

Ms. McGuire: Hello. Hi everyone, my name is Gina McGuire... Archaeological consulting. So, I know this is a really long document and if you look at the management summary at the beginning, it'll give you a good sense for what's in there. But it does look through the whole Kuiaha ahupua'a history archival research. We went through (inaudible) place names, found that this area's contains a lot of freshwater resources, wet and dry land, kalo and (inaudible). And so, there were several Land Commission awards that are located in the surrounding area, according to the OHA Equal database at this time there are no Land Commission awards recognized on the property and that was what was being about earlier. But we did community consultation and interviewed 5 different people, each interviewing from a different perspective and background. One of the kūpuna did share that there is... he was as he (inaudible) was told that there are iwi or burials (inaudible). But we also look through archaeological inventory service that have been done in the past and that's also in the report and those results, as has already been shared given to SHPD that there's no recognized historical sites on the property. There's an agricultural terrace that was deemed no longer a historical significance. The recommendations that we took out of the interviews that we did were to be mindful and aware that there are stories of burials on the property, and so from that (inaudible) knowledge that we recommend having

archaeological and cultural monitors present during (inaudible) related activities. And they also… we… all of our recommendations come directly from the interviewees but using the fire station as like a cultural historical space or a portion of it that (inaudible) people could come and learn about the history of the area with educational facts or things like that. So, there is opportunity since it is such a large, you know, not all six acres are gonna be used by the administrative building but to add. Yeah, those educational backs and promote environmental cultural education. The Land Commission award that's being contested at the moment, we just suggest working with lineal descendants ongoing throughout the rest of the process, but the main recommendation that I'd like to add in commission take away is that importance of having archaeological enclosure monitors (inaudible). Thank you.

Ms. Thayer: Thank you, Commissioners, any questions? At this point. Ok. How long would you like to have to review the documents? 15 minutes. Yeah. It's 10:33 right now? Shall we come back at 10:45 or 10:50? 10:45? Oh, Vice-Chair, you're raising your hand?

Ms. Lindsey: Yeah, I feel like on the legal training that we did, we did go over the Ka Pa'akai analysis, the Hawaii legal training. That the entire Commission went through. Is it that not matter?

Ms. Thayer: Well, this is to review the analysis that was done for this project. Yeah. Ok. So, it is 10:34. Let us shoot for 10:45. Knowing it may be a couple minutes after that that we sign back on. Being realistic, OK, recess. Now we'll see you in about 10 minutes. Thank you.

Ms. Thayer: Wonderful. Welcome back everybody. We are resuming our Planning Commission meeting on Tuesday, January 27th. Commissioners, you've all had a chance to review the Ka Pa'akai analysis that's been uploaded. Question. See thumbs up for my Vice-Chair. It's not even the analysis itself is not all 150 pages. I saw the transcripts that make it that long. But does anybody have any additional questions for the consultant before we move on? Commissioner Deakos. You're mute.

Mr. Deakos: Thank you. Five relatively short questions. You mentioned this for the applicant. You mentioned that you did have an ecological wastewater treatment. Just curious why that got taken out, was that public? Or cost?

Mr. Roy: Thank you for the question, Commissioner. To be fully transparent, we're not exactly sure as to the precise reason, but if it wasn't because of public input, it was. It was likely because of cost considerations for the project to be able to move forward.

Mr. Deakos: Ok. Yeah. So, I know Hana is leading the charge on those types of ecological

systems. So, it would have been nice to see in there. The second question, I think. Just clarifying that, I think it was trying to be explained to me the water. For emergency purposes and the... the check is the gallons per minute and I was just curious about the time period. So, you need to have flow of certain gallons per minute, and is that across two hours or? I don't know if you have that answer just for my information, my understanding.

Mr. Roy: Thank you for the question. I think we'll have to go to the expert on... on... on... that. So, if a representative of a client is on a line, if he can join and maybe address that question, that would be great.

Ms. Kodama: I believe it's a 2-hour period, but I'm checking my calculations now. I'll get back to you.

Mr. Roy: Commission just for the record that is Diane Kodama...

Ms. Kodama: Oh, sorry, yeah.

Ms. Thayer: While she's looking for that, can you go on to your next question?

Mr. Deakos: Yeah. So. The Ka Pa'akai analysis I... there was talk about the stream access from cultural rights. I know that's off the parcel. I'm just curious if there was any measures to maintain that access or if this project impedes access in any way.

Mr. Roy: Thank you for the question. Mark Roy, Munekiyo Hiraga. So, if... if that was one of the suggestions that the team to being off site, in other words, outside of the project site for this specific project. I don't believe this project is impeding access in any way. That's my understanding. I'm looking to Keala Pono, the consultant that prepared the analysis, and they've just confirmed that.

Mr. Deakos: OK. Great. Thank you. Last questions for the County. There... I'm just wondering what we have another item right after this. I'm just curious what the future plans for this parcel are.

Ms. Thayer: Do you mean outside of the six acre?

Mr. Deakos: Yes, presumably the six acres is strictly for emergency response purposes. Maybe that could be clarified. And then, is there additional plans for the remainder of the parcel?

Mr. Roy: Commissioner Deakos, I can respond to that on behalf of the Department of Fire and Public Safety. We're not aware of these specific plans for the remainder of the parcel at this point and just to confirm the application before the Commission today is focused just on the 6.1-acre requests.

Mr. Deakos: Ok. And the and the P1 zoning use would be strictly? Emergency use response uses, right?

Mr. Roy: As... as of today, in this application, the proposal is for a fire station related uses. So that's correct for this application.

Mr. Deakos: Ok. And just related to that question, so the... the wastewater treatment system is strictly to meet the needs of the fire station. So, if there were expanded development later, there would be a new requirement for... to address wastewater needs.

Mr. Roy: Understanding is that's correct.

Mr. Deakos: Ok. Ok. Thank you, Chair. Yeah. Other than just knowing what the flow time period, I'm good with my question.

Ms. Thayer: Ok. Thank you. Commissioner Circle-Woodburn.

Mr. Circle- Woodburn: Thank you, Chair. Just a little clarifying question. Mark, the County does own entire parks. That's beyond the six eight project area...

Mr. Roy: That's correct.

Mr. Circle-Woodburn: Ok. And then in relation to analysis, we just read quickly. There's a lot of reference to LCA 3336. Is that on this parcel, or is that I... I was trying to find an exhibit where I could clarify that, but they might be here, but I didn't.

Ms. Thayer: Oh, sorry. You'll have to come up to the mic.

Ms. McGuire: This is Gina from Keala Pono. Legally, as it is now, it's on a different TMK so that... that 3336 is not on it immediately adjacent to the parcel but not on...

Mr. Circle-Woodburn: So, then for the (inaudible)... Smart but for the related proposed water line structure improvements, is that... is that on the parcel (inaudible)?

Ms. McGuire: So, we looked at that and with the revised water line. Same time. The current LCA footprint. I don't know what it would be if it changes, but as of today, no.

Mr. Circle-Woodburn: Ok, thank you.

Ms. Thayer: Commissioners, any further questions? (Inaudible)…rest of the project. Seeing none. We're gonna have the recommendation from staff.

Mr. Leauanae: Thank you, Chair. The Department recommends that Commission recommend approval to the Maui County Council of the district boundary amendment, the Community Plan amendment and the changes requested, without modifications to allow the construction operation of the Haʻikū Fire Station and related improvements.

Ms. Thayer: Ok, commissioners. Sorry, consulting with Corp Counsel, having heard the recommendation from staff and again making sure it's clear that we are not the decision-making body on this, we are providing a recommendation to County Council. So, team in motion to approve, noting that we would want to… as guided by Corp Counsel, make sure we are recognizing the inclusion of the Ka Paʻakai analysis along with the staff report and the documents that we received. Go ahead, Commissioner Kealoha.

Ms. Kealoha: So, move…

Ms. Thayer: To take the recommendation from staff with the addition…

Ms. Kealoha: Yeah. (Inaudible)… Ka Paʻakai…

Mr. Ward: Seconded.

Ms. Thayer: Ok. I think Vice-Chair might have raised her hand first without you putting your hand up to second, OK? So, motion by Commissioner Kealoha, second by Vice Chair Lindsay, would you like to speak to your motion?

(Inaudible)

Ms. Thayer: (Inaudible)… not muted… We can hear your conversation, Vice chair, as the second would you like to speak to your second?

Ms. Lindsey: We couldn't hear Commissioner Kealoha's comment if she had one.

Ms. Kealoha: I just said I... I think we really need a... a fire station in Ha'ikū and I'm excited to see this going forward after so many years. (Inaudible).

Ms. Lindsey: I (inaudible), everything she says. Ha'ikū area really needs that. They needed it since before they knew they needed it. There's so many structures and people living out there all the way out to the east side, so I'm happy it's happening now.

Ms. Thayer: Ok, commissioners... additional mana'o. Oh, Commissioner Circle-Woodburn.

Mr. Circle-Woodburn: I would just like to say that I appreciate the... the project and design I grew up in Ha'ikū, myself, but (inaudible)... smaller road back to my childhood home. It's lost to a fire, partially due to the ability to get there quickly in the small roads, so I think this (inaudible) is great. (Inaudible)... so, thank you.

Ms. Thayer: Yeah. And I would just add I am from Ha'ikū also; my whole life was a couple of miles away from this fire station. I'm probably driven by this site. Several thousand times in my life, and Ha'ikū is drier than it's ever been. My parent's yard for the last few years has been brown, which is quite shocking because we used to have problems with mold and mildew for our whole entire upbringing. And so yes, long overdue, probably to have this fire station here. Hopefully in the future there can be more sustainability features built into the site, and it would be really nice to see that historical and educational features to it. Our department is really good about being good community members and I trust that they'll make that happen. Any additional advice...(inaudible)? Seeing none, let's call for a vote.

Mr. Dias: Commissioner Circle-Woodburn.

Mr. Circle-Woodburn: Aye.

Mr. Dias: Commissioner Lind.

Mr. Lind: Yes.

Mr. Dias: Commissioner Ward.

Mr. Ward: Aye.

Mr. Dias: Commissioner Kealoha.

Ms. Kealoha: Aye.

Mr. Dias: Commissioner Deakos.

Mr. Deakos: Aye.

Mr. Dias: Commissioner Lindsey.

Ms. Lindsey: Aye.

It was moved by Ms. Kealoha., seconded by Ms. Lindsey, then

VOTED:	***To enter a motion to approve the Planning Department's recommendation with the inclusion of the Ka Pa'akai analysis, as discussed.***
(Assenting:	*J. Circle-Woodburn, C. Lind, B. Ward, A. Kealoha, M. Deakos, A. Lindsey)*
(Excused:	*C. Elizares)*

(Motion carries.)

Ms. Thayer: Ok, motion carries. Thank you everybody. Good work.

Mr. Roy: (Inaudible)… very much everybody.

NEXT REGULAR MEETING DATE: February 10, 2026

ADJOURNMENT

The meeting adjourned at 5:28 PM.

Respectfully Submitted by,

GENO QUEMADO
Secretary to Boards and Commissions II

RECORD OF ATTENDANCE

Present:
Kim Thayer, Chairperson – in person
Ashley Lindsey, Vice-Chairperson – via TEAMS

Mark Deakos, PhD. – via TEAMS
Andrea Kealoha, PhD. – in person
Brian Ward – in-person
Crichton Lind – via TEAMS
Joshua Circle-Woodburn – in person

Excused Absence:
Christopher Elizares

Others
Jacky Takakura, Interim Planning Director, via TEAMS
Danny Dias, Planning Program Administrator, Current Division, in person
Greg Pfost, Admin Planning Officer, in person
Candace Thackerson, Planner VI, Supervisor to Boards and Commission, in person
Scott Forsythe, Planning Program Manager, PID, via TEAMS
Kurt Wollenhaupt, Planner VI, via TEAMS
Wilton Leaunae, Planner V, in person
Robin Lilies, Planner IV, via TEAMS
Carly Watanabe, Planner III, TEAMS
Brailey Gonzales, Planner, via TEAMS
Elizabeth Shew, Planner I, via TEAMS
Aristotle Cortez, Planner I, via TEAS
Michael Hopper, Deputy Corporation Counsel, in person
Adrian Reifsnyder, Corporation Counsel, via TEAMS
Paul Barany, Deputy Director of Public Works, via TEAMS
Michelle McOmber, Secretary to Boards and Commission II, via TEAMS
Shantel Nomura, Secretary to Boards and Commissions II, Current Planning Division, via TEAMS
Geno Quemado, Secretary to Boards and Commissions II, Current Planning Division, in person
Leilani Ramoran-Quemado, Secretary to Boards and Commissions II, Current Planning Division, in person
Jacob Alison, Secretary to Boards and Commission I, Current Planning Division, via TEAMS

RICHARD T. BISSEN, JR.
Mayor

JOSIAH K. NISHITA
Managing Director

BRADFORD K. VENTURA
Fire Chief

GAVIN L.M. FUJIOKA
Deputy Fire Chief

DEPARTMENT OF FIRE & PUBLIC SAFETY
COUNTY OF MAUI
200 DAIRY ROAD
KAHULUI, MAUI, HAWAI'I 96732
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June 20, 2025

Ms. Kate Blystone, Director
Department of Planning
County of Maui
2200 Main St., Suite 315
Wailuku, HI 96793

Dear Director Blystone,

SUBJECT: KA PA'AKAI ANALYSIS FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS PROJECT, HAIKU, MAUI, HAWAII, TMK NO. (2) 2-7-007:008 (por.)

During the 30-day comment period following the publication of the Draft Environmental Assessment (EA) for the Ha'ikū Fire Station and Related Improvements Project, the County of Maui, Department of Fire & Public Safety (DF&PS) received a letter from the State of Hawai'i, Office of Planning and Sustainable Development (OPSD) dated March 6, 2024 that included several recommendations. One (1) such recommendation was to include a discussion on how the proposed project likely satisfies the three (3) points of analysis articulated in the Ka Pa'akai O Ka'Aina v. Land Use Commission, 94 Hawai'i 31, 7 P.3d 1068 (2000) case, as amended (Jan. 18, 2001), hereafter referred to as a Ka Pa'akai Analysis, in its Final EA, as required of projects undergoing a contested case hearing. This is true of the Ha'ikū Fire Station and Related Improvements Project, which requires a District Boundary Amendment (DBA). The DF&PS responded to the OPSD via a letter dated July 5, 2024 that a Ka Pa'akai Analysis would be undertaken as part of the DBA, Community Plan Amendment, and Change of Zoning process that would follow the completion of the environmental review process for the project.

As such, the DF&PS contracted Keala Pono Archaeological Consulting (Keala Pono) through its consultant, AHL, to assist with its Ka Pa'akai analysis, the report on which is included in the proposed project's Zoning Plan Amendment application (Keala Pono Report). For clarity, the subject property is located near the intersection of Hāna Highway and East Kuiaha Road and is 27.9 acres in total, with the project site for the Ha'ikū Fire Station consisting of 6.1 acres. The project site is where a former residence, built circa the 1950s, was located, and then it was used as a mushroom farm. The mushroom farm has not been in use for a number of years.

In its report, Keala Pono noted that this project previously had an archaeological field inspection (Rotunno-Hazuka 2002), a cultural impact assessment (CIA) (McGerty and Spear 2010), and an archaeological inventory survey (AIS) (Perzinski and Dega 2011). No traditional cultural practices or cultural resources were identified during the CIA, and the field inspection did not identify any archaeological resources within the project area. Keala Pono also interviewed community

members and cultural practitioners to obtain information about the subject property, including whether there are any places of traditional importance or where cultural practices occur.

The Keala Pono Report noted that the Ha'ikū area has a history of cultural importance, but did not identify any traditional or customary native Hawaiian rights currently being exercised in the project site. Although Keala Pono did not include any of their own recommendations, the report listed the interviewees' four (4) recommendations for the project site, and 10 suggestions pertaining mainly to areas outside the project site. In completing the DF&PS's Ka Pa'akai analysis, we offer the following information in response to the interviewees' recommendations and suggestions:

***Recommendation No. 1**: assessing any graves on the property for cultural significance;*

Response: As part of the Hawai'i Revised Statutes (HRS), Chapter 6E-8 review process for the proposed project, an AIS of the project area was completed by Scientific Consultant Services, Inc. (SCS) and included in the Final EA. The AIS project site assessment, conducted between September 21-25, 2009, included historic background research, a pedestrian survey, and a subsurface investigation of 11 backhoe trenches. The AIS of the project site revealed no intact subsurface cultural layers or historic materials. This is likely due to historic land use patterns, such as extensive mechanical grading for agricultural pursuits and for the former structures on the site. Further, subsurface observations via the 11 mechanically excavated test trenches revealed no evidence of cultural resources (i.e., charcoal, midden, artifacts, etc.) that would have indicated pre-contact or early historic use. Only one (1) historic era site (State Inventory of Historic Places (SIHP) No. 50-50-06-6678) was recorded during the pedestrian survey of the project site.

Site No. 50-50-06-6678 consists of two (2) features and is situated in the northwest portion of the project area adjacent to a vacant cottage and asphalt driveway. The site is in fair to good condition and functions as a retaining wall and garden terrace, constructed of dry-stacked basalt. The age of the site is estimated to be 50 to 60 years old. It is associated with the previous residential use of the property.

The site was determined to meet Criterion D (site has yielded or has the potential to yield information important in prehistory or history) of the Rules Governing Procedures for Historic Preservation Review. However, this site has been thoroughly documented, and it has been concluded that further research would not contribute to the interpretation of the area, region, or Hawaiian prehistory or history. Additionally, it is noted in the AIS that there are many examples of modern-historic stone walls throughout the island. Thus, the AIS concluded that no further archaeological work or archaeological monitoring is necessary within the 6.1-acre project site.

The AIS report and its recommendations were accepted by the State Historic Preservation Division (SHPD) via a letter dated November 12, 2010. In its acceptance of the AIS, the SHPD determined that monitoring should be undertaken for any offsite waterline work along the Ha'ikū Road corridor. However, since the issuance of that letter, the scope of the offsite waterline improvements has been

substantially reduced so that they are now confined to the East Kuiaha Road corridor. As such, it was anticipated that, when the DF&PS continued its consultation with the SHPD in pursuing its land use amendments and demolition permit, archaeological monitoring would no longer be required.
The DF&PS re-initiated HRS, Chapter 6E-8 consultation on July 7, 2022 when pursuing a demolition permit for the proposed project. The SHPD issued a letter on April 24, 2023 concurring with the DF&PS's "no historic properties affected" determination, thus no archaeological monitoring would be required. In the same letter, the SHPD requested the opportunity to review any additional permits or projects associated with the installation of any new utilities on the subject property. As such, the DF&PS will send updated project plans to the SHPD to review when available.

Based on the foregoing, no evidence of graves or burial sites was discovered in the 6.1-acre project site. However, in the event that a discovery of significant cultural materials and/or burials is made during construction activities for the project, all work in the immediate area of the find will cease and the SHPD will be notified to discuss mitigation measures, in accordance with Chapter 6E, HRS.

Additionally, although not required, the DF&PS has asked the Department of ʻŌiwi Resources to do on-site archaeological and cultural monitoring for this project.

***Recommendation No. 2**: having on-site archaeological and cultural monitors during construction related ground altering activities;*

Response: As discussed above, the SHPD agreed with the DF&PS's effect determination of "no historic properties affected" in its letter dated April 24, 2023. Thus, archaeological monitoring for the proposed project has not been required or recommended by the SHPD. However, the project contractors will comply with all SHPD protocols should the inadvertent discovery of significant archaeological, historic, or cultural materials or burials occur. Additionally, although not required, the DF&PS has asked the Department of ʻŌiwi Resources to do on-site archeological and cultural monitoring for this project.

Although an interviewee raised concerns about a waterline corridor crossing the adjacent property, Land Commission Award (LCA) 3336, the Keala Pono Report confirmed that the waterline corridor proposed for the project does not cross the boundaries of LCA 3336 as depicted on the Office of Hawaiian Affairs Kīpuka Database. Additionally, the current owner of record of LCA 3336 (TMK (2) 2-7-007:012), MP East B, LLC, does not have any objections to the DF&PS's plan to build the Haʻikū Fire Station.

***Recommendation No. 3**: using the land to create opportunities promoting environmental education, cultural education, and cultural use;*

Response: Though groups are encouraged to connect with the DF&PS via informational visits, the primary use of the proposed Haʻikū Fire Station will be to provide emergency response and fire prevention, protection, and suppression services to the Haʻikū

area in order to safeguard life and property. In the Final EA for the proposed project, the DF&PS states that it has no plans for any lands in parcel 008 apart from those proposed for the 6.1-acre portion described in the EA document. To remain consistent with the statements provided in the Final EA, which has received a Finding of No Significant Impact, the DF&PS will not propose further uses for the subject property as part of the current project. However, the DF&PS remains open to discussion with area residents and lineal descendants regarding potential future uses of the remainder of the subject property.

***Recommendation No. 4**: including a historical section in the new fire station and displaying educational plaques on the subject property detailing the history of the area;*

Response: The DF&PS appreciates this suggestion and will implement it, as applicable and permissible, through the installation of an outdoor informational display. The DF&PS is open to community feedback regarding the contents of the display, which could feature, for example, information regarding the history of the area or use of the subject parcel. This information could be educational not only for visitors but also for personnel at the fire station.

Interviewee Suggestions Nos. 1-10:

1. *conducting a land survey of the original boundaries of LCA 3336;*
2. *mapping and documenting all cultural and archaeological sites on LCA 3336, including a significant cave;*
3. *mapping active lo'i on LCA 3336;*
4. *paying royalties to heirs of LCA 3336 and granting a perpetual easement and unregulated, unrestricted access to using the water within the water corridor, as well as unrestricted ocean access (note that the waterline corridor proposed for this project does not cross the current boundaries of LCA 3336 as depicted on the Office of Hawaiian Affairs Kipuka Database);*
5. *obtaining and thoroughly reviewing certified copies of the County records for TMK: (2)2-7-007:012 and LCA 3336 prior to the commencement of construction activities;*
6. *preventing trespassing and development on and within LCA 3336 after the new fire station is in use;*
7. *consulting with the descendants of the nearby LCAs (including the heirs of Nalopi and U'u), community members, and the local historical societies;*
8. *continuing to create future opportunities to use the property as more than a fire station (this refers to TMK: (2)2-7-007:008 outside the project area boundaries);*
9. *constructing an interpretive/educational trail along East Kuiaha Stream; and*
10. *leasing adjacent County lands to local organic farmers.*

Response: Suggestion nos. 1-6 and 9 above pertain to areas outside of the current 6.1-acre project area that are not owned by the County of Maui (County). As such, while the County appreciates these suggestions, it is unable to accommodate them at this time. With respect to suggestion no. 7, Keala Pono contacted 18 individuals, including heirs of Nalopi and U'u, community members, and the local historical societies. Five (5) individuals participated in Keala Pono's interviews and three (3) individuals provided written comments. With respect to suggestion nos. 8 and 10, while the DF&PS has no plans at this time for the portion of the subject property

that is outside of the current project area for reasons stated above, it remains open to discussion with the community and area descendants regarding future uses.

If you have any questions regarding the responses provided, please contact our consultant Hoku Krueger via email at planning@munekiyohiraga.com or by phone at (808) 244-2015.

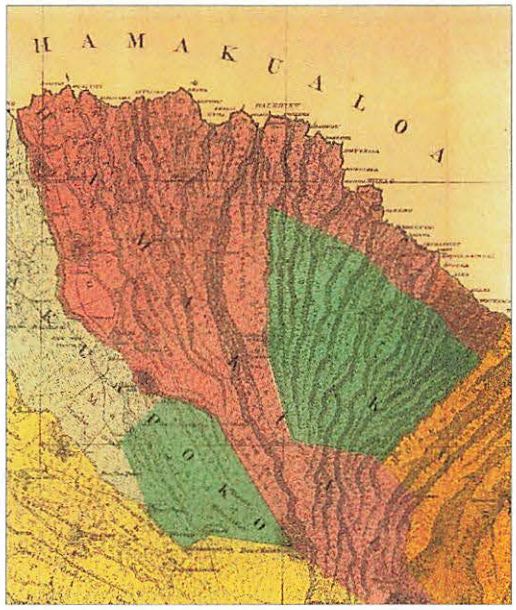
Sincerely,

BRADFORD K. VENTURA
Fire Chief

cc: Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Mark Alexander Roy, Munekiyo Hiraga
K:\DATA\AHL\Haiku Fire Stn Update\Applications\ZPA\DF&PS Letter to Planning.docx

FINAL— Ka Pa'akai Analysis for the Proposed Ha'ikū Fire Station and Related Improvements, Kuiaha Ahupua'a, Makawao District (Hāmākualoa Moku), Island of Maui, Hawai'i

TMK: (2) 2-7-007:008 (por.)



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April 2025

Keala Pono

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FINAL— Ka Pa'akai Analysis for the Proposed Ha'ikū Fire Station and Related Improvements, Kuiaha Ahupua'a, Makawao District (Hāmākualoa Moku), Island of Maui, Hawai'i

TMK: (2) 2-7-007:008 (por.)

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April 2025

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MANAGEMENT SUMMARY

Keala Pono Archaeological Consulting has prepared a Ka Pa'akai Analysis for the proposed Ha'ikū Fire Station and Related Improvements project. The newly constructed fire station will be located in Kuiaha Ahupua'a, Makawao District (Hāmākualoa Moku), on the island of Maui, Hawai'i. The project area will be within a portion of TMK: (2) 2-7-007:008, which is owned by the County of Maui. This Ka Pa'akai Analysis was designed to identify any historical, natural, and cultural resources or practices that may occur in the area, determine if the proposed project will affect the resources or practices, and offer mitigation recommendations for the project.

The background research synthesizes traditional and historic accounts and land use history for the project area and the greater Kuiaha Ahupua'a. Archival research demonstrated that this region is remembered in a multitude of 'ōlelo no'eau, mo'olelo, and place names. It was a region that contained freshwater resources, shallow gulches, wet and dryland taro, and kuleana lands. The area is also associated with the gods Kāne and Kanaloa.

Community consultation was performed to obtain information about the cultural significance of the subject property and the surrounding area, as well as to address possible concerns of community members regarding the effects of the proposed project on places of traditional importance and cultural practices. Interviews with individuals knowledgeable about the project lands produced information on its rich cultural history and helped to inform on cultural resources and practices of the project area.

The interviewees shared that the subject parcel and the greater region were used for sugarcane and pineapple cultivation, traditional agriculture, and as homestead lands for many years, and one interviewee noted the occurrence of graves on the property. It was noted that the project area is located near a gulch where kalo was and continues to be farmed along with other traditional food and medicinal plants, and where freshwater rescources are currently harvested. Access to the nearby stream and to the ocean were of paramount importance during the tradtional period and there are a number of trails in the area that the people would have used to travel from the coastal region to the uplands. Historically, the area was well-used by the military during World War II. In addition, the recently identified remnants of Waikikena Heiau (Walker Site 60) and two prominent landforms, Pu'u o 'Umi and Pu'u Kauhikoa, are in the vicinity.

Several concerns were voiced, including the possibility of impacting historic, natural, and cultural resources including iwi kūpuna, and/or impacting currently conducted traditional activities (e.g., religious activities, the cultivation of traditional food sources and medicinal plants, collecting of freshwater resources, marine and stream access, and documented and undocumented historic properties). Another concern was that the boundaries of LCA 3336 were incorrectly surveyed and that the LCA and current traditional activities may extend into the subject property.

Recommendations and mitigations from the interviewees include the following for the project area:

1. assessing any graves on the property for cultural significance;
2. having on-site archaeological and cultural monitors during construction related ground altering activities;
3. using the land to create opportunities promoting environmental education, cultural education, and cultural use; and
4. including a historical section in the new fire station and displaying educational plaques on the subject property detailing the history of the area.

The interviewees also had the following suggestions for locations outside the project area:

1. conducting a land survey of the original boundaries of LCA 3336;
2. mapping and documenting all cultural and archaeological sites on LCA 3336, including a significant cave;
3. mapping active lo'i on LCA 3336;
4. paying royalties to heirs of LCA 3336 and granting a perpetual easement and unregulated, unrestricted access to using the water within the water corridor, as well as unrestricted ocean access [note that the waterline corridor proposed for this project does not cross the current boundaries of LCA 3336 as depicted on the Office of Hawaiian Affairs Kipuka Database];
5. obtaining and thoroughly reviewing certified copies of the County records for TMK: (2) 2-7-007:012 and LCA 3336 prior to the commencement of construction activities;
6. preventing trespassing and development on and within LCA 3336 after the new fire station is in use;
7. consulting with the descendants of the nearby LCAs (including the heirs of Nalopi and U'u), community members, and the local historical societies;
8. continuing to create future opportunities to use the property as more than a fire station [this refers to TMK: (2) 2-7-007:008 outside the project area boundaries];
9. constructing an interpretive/educational trail along East Kuiaha Stream; and
10. leasing adjacent County lands to local organic farmers.

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INTRODUCTION

At the request of AHL, on behalf of the County of Maui, Department of Fire and Public Safety, Keala Pono Archaeological Consulting prepared a Ka Pa'akai Analysis in advance of the proposed Ha'ikū Fire Station and related improvements project. The proposed project will be located in the village of Ha'ikū, in Kuiaha Ahupua'a, Makawao (Hāmākualoa Moku) District, on the island of Maui, Hawai'i. The project area is situated on land owned by the County of Maui, within a portion of TMK: (2) 2-7-007:008 (Figures 1 and 2).

This study was designed to identify any valued historical, natural, and cultural resources or traditional cultural practices that may occur in the area, determine if the proposed project will affect the resources or practices, and offer mitigation recommendations for the project. This Ka Pa'akai Analysis follows an archaeological field inspection (Rotunno-Hazuka 2002), a cultural impact assessment (CIA) (McGerty and Spear 2010), and an archaological inventory survey (AIS) (Perzinski and Dega 2011) that were previoulsy prepared for the project. No traditional cultural practices or cultural resources were identified in the CIA (McGerty and Spear 2010). The Rotunno-Hazuka (2002) field inspection also did not identify any archaeological resources within the project area. The AIS resulted in the identification of basalt terraces and a retaining wall constructed ca. 1950s and designated as State Inventory of Historic Properties (SIHP) 50-50-06-6658 (Perzinski and Dega 2011). The State Historic Preservation Division (SHPD) has reviewed and accepted the AIS report (SHPD Log No: 2010:1245/Doc No: 1011MD25; Appendix A)

The report begins with a description of the study area and a historical overview of land use and archaeology in the vicinity. The next section presents methods and results of the ethnographic survey. Results of the Ka Pa'akai Analysis are summarized and recommendations are made in the final section. Hawaiian words, flora and fauna, and technical terms are defined in a glossary. Also included are appendices with documents relevant to the ethnographic survey, including full transcripts of the interviews.

Project Location and Description

The subject property is located near the intersection of Hāna Highway and East Kuiaha Road in the village of Ha'ikū, Kuiaha Ahupua'a, Makawao District (Hāmākualoa Moku), Maui Island. The proposed new fire station will be situated on a 6.1-acre (ac.) [2.47-hectare (ha)] portion of TMK: (2) 2-7-007:008, which is a 27.9-ac. (11.29ha) parcel owned by the County of Maui (see Figures 1 and 2). It is positioned on the eastern flank of Haleakalā roughly between 167.4 and 179.8 meters (m) [550 and 590 feet (ft.)] above mean sea level (amsl) and approximately 2.7 kilometers (km) [1.41 miles (mi.)] south of the coast. The Valley Isle Memorial Park cemetery which was constructed in 1968, is approximately 0.5 km (0.3 mi.) northwest of the project area.

The property is bounded on the northeast by the historic Hāna Highway (SIHP 50-50-06-4497), by agricultural land on the western and southern sides, and by a vacant lot on the eastern side that contains a large outbuilding. The project area is the site of a former residence that was subsequntly used as a mushroom farm. The mushroom farm has not been in use for a number of years. Remnants of the previous use consist of an abandoned residential building and structural remnants which have been demolished to clear the site for the current project. Foundations of these structures will remain on site. The property also contains an existing driveway that accesses Hāna Highway.

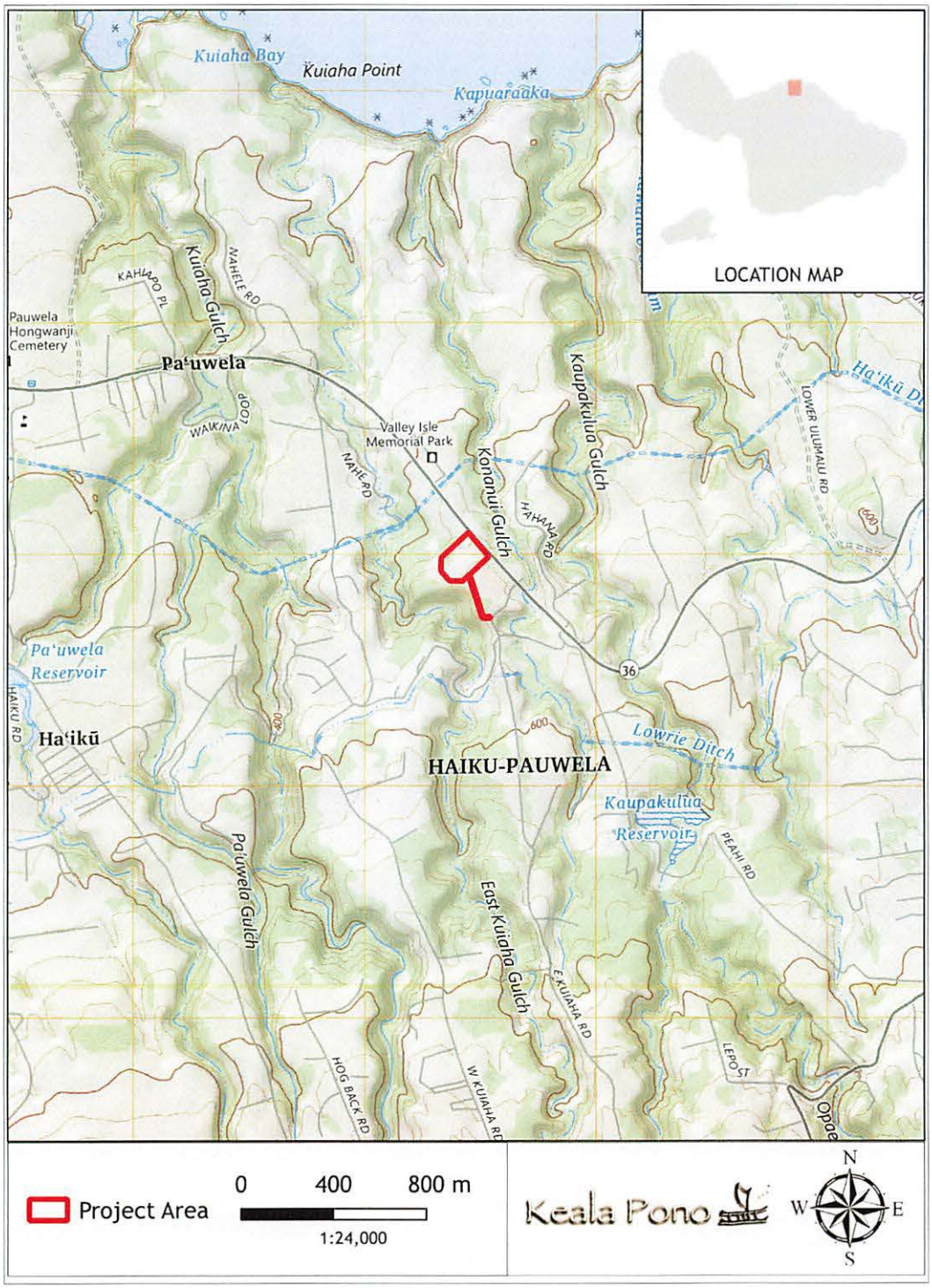

Figure 1. USGS topographic map showing project area (USGS 2024).

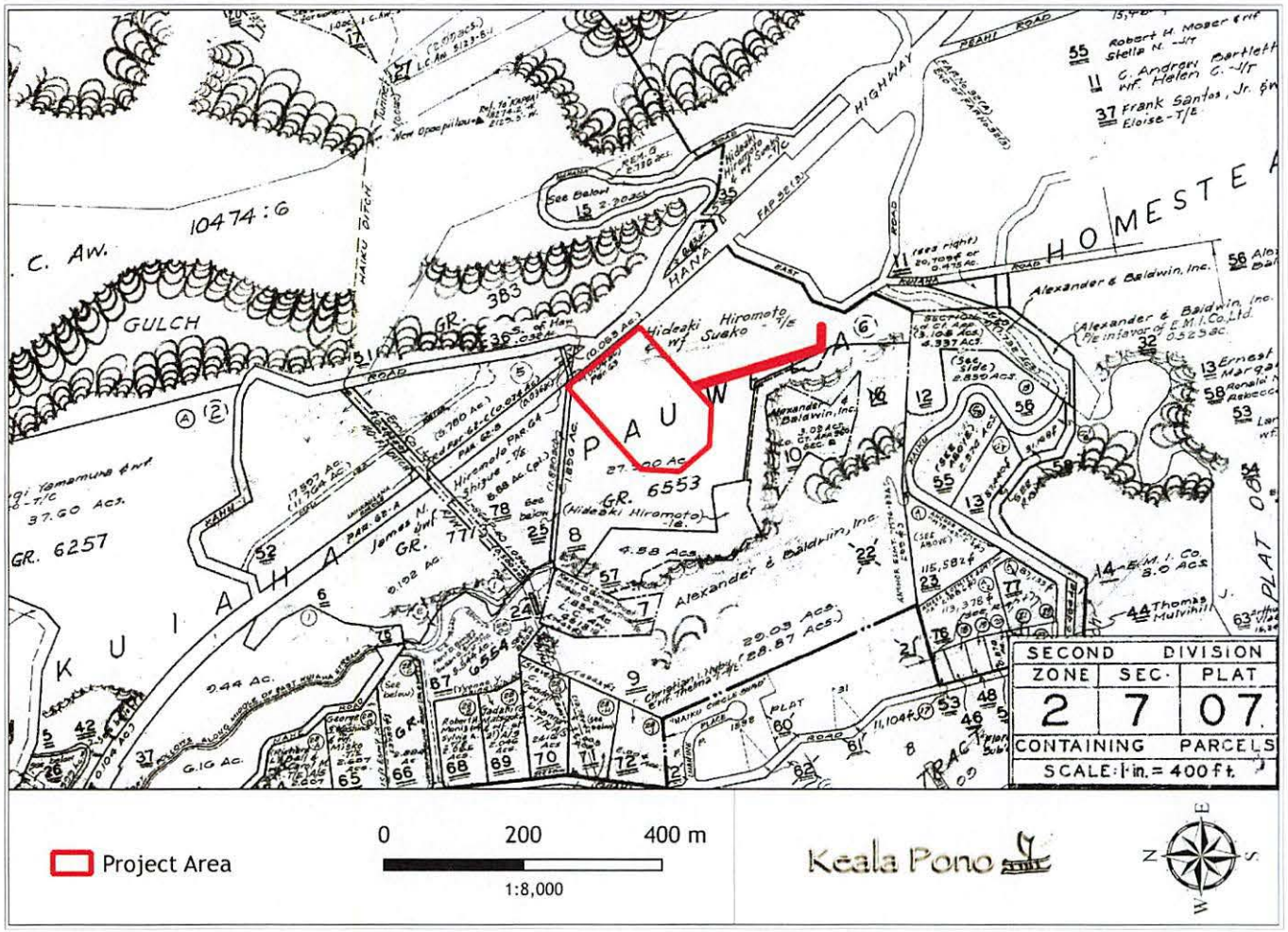

Figure 2. Portion of Tax Map Key [TMK: (2) 2-7-007] showing the project area (State of Hawai'i 1985).

The purpose of the new Ha'ikū Fire Station facility is to provide offices, crew quarters, sleeping quarters, a kitchen and dining facilities, training and excercise facilities, as well as additional support facilities for the firefighters, officers, and staff. The project will consist of the construction of new administrative, utility, and vehicle storage buildings, walkways, a parking lot, a storage building, a 40,000 gallon water tank, drainage field and drainage facilities, a septic tank, and a new driveway providing access to Hāna Highway. In addition, a new, approximately 300 foot long, 8-inch water main will be installed between the new fire station's water laterals and water meters which will be located on East Kuiaha Road and at the intersection of East Kuiaha Road and Ha'ikū Road (Figures 3 and 4).

Environmental Setting

Maui is the second largest island in the Hawaiian chain. It was created by two separate shield volcanoes, Haleakalā, 10,025 ft. amsl in the east, and Pu'u Kukui, 5,788 ft. amsl in the west. These two land masses are connected by a narrow isthmus that formed when "lavas of Haleakala banked against the already existing West Maui volcano" (Macdonald et al. 1983:380). Haleakalā, the younger of the two shield volcanoes, last erupted in 1790. Although it is currently dormant, and its time as an active volcano is coming to a close, Haleakalā still has the potential to erupt again.

According to Giambelluca et al. (1986 cited in Perzinski and Dega 2011:6), the project area receives approximately 150 to 200 centimeters (cm) [59 inches (in.)] of rainfall per year. June through September are the driest months and October to March receives the most rainfall (Giambelluca et al. 2013). The wettest month of the year is March, which has an average of 215.3 cm (8.48 in.) of rain annually. Several streams flow through East Kuiaha Gulch, which is located adjacent and west of the project area and represents the nearest sources of fresh water.

The project area is comprised of soils from the Haiku Series, specifically Haiku clay, 7 to 15 percent slopes (HbC) and Haiku clay, 3 to 7 percent slopes (HbB) (Figure 5). In general, the Haiku Series are well-drained volcanic soils that occur in the upcountry region of the island of Maui. They can be found between sea level and 1,200 ft. amsl in areas receiving 50 to 80 inches of rainfall annually. In general, HbC soils exhibit moderately rapid permeability, slow to medium runoff, and a slight to moderate erosion hazard. The HbB soils are very similar the HbC soils. However, the HbB soils exhibit slow runoff and a slight erosion hazard. Soils of the Haiku Series are most frequently used as ranchlands, residential areas, and for the cultivation of pineapple (Foote et al. 1972:31-32). Foote et al. (1972) describe the soil further:

> In a representative profile the surface layer is dark-brown clay about 14 inches thick. The subsoil, about 31 inches thick, is yellowish-red, dark reddish-brown, and dark-red clay or silty clay that has subangular and angular blocky structure. The substratum is soft, weathered, basic igneous rock. The soil is very strongly acid in the surface layer and extremely acid and very strongly acid in the subsoil and substratum. (Foote et al. 1972:32)

The lands surrounding the project area consist of HbB and HbC soils as well as rough broken land (rRR). Rough broken land is described by Foote et al. (1972:119) as "very steep land broken by numerous intermittent drainage channels." The rRR soil type can be found between sea level and 8,000 ft. amsl and is primarily used as a wildlife habitat and as watersheds.

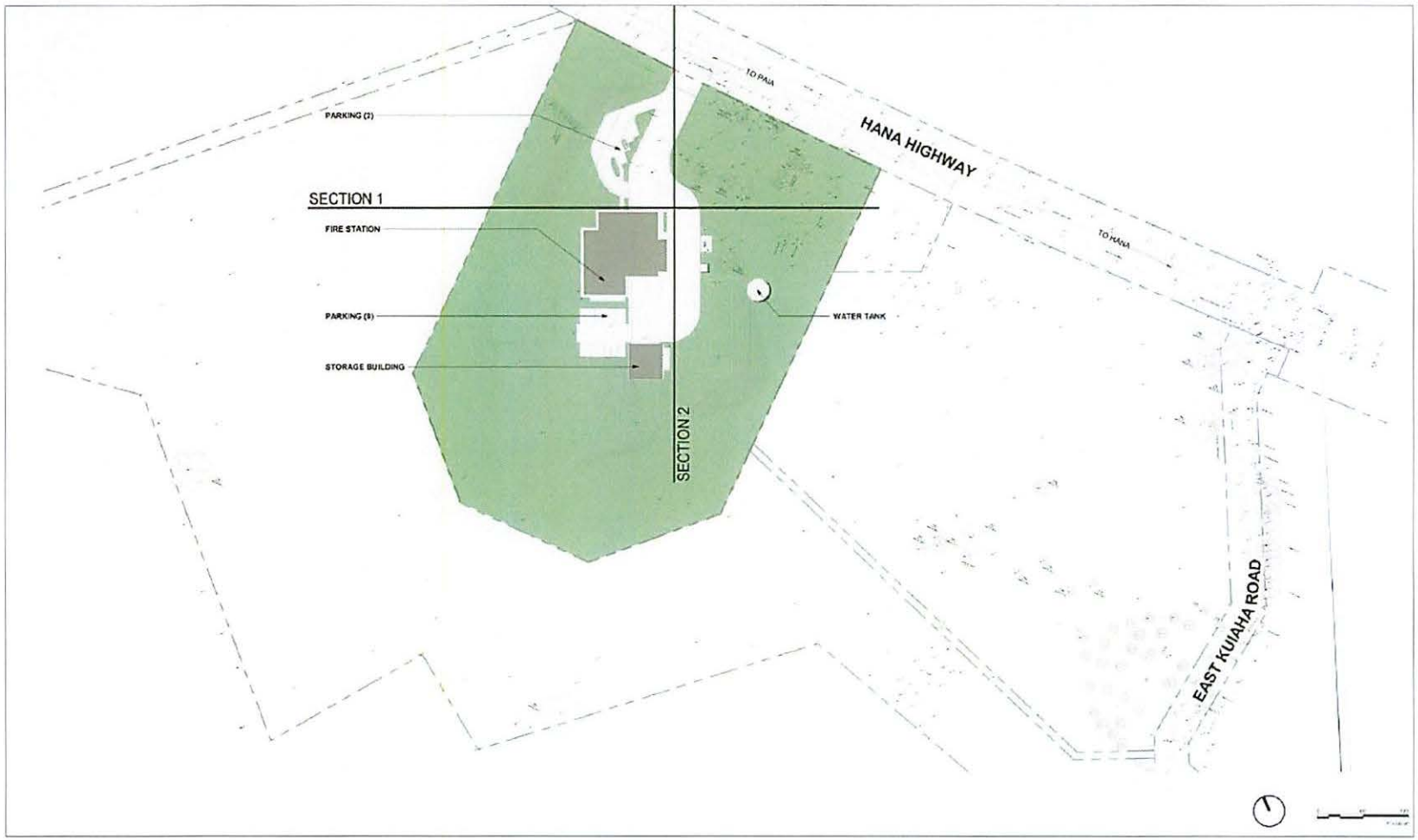

Figure 3. Plans for the proposed Haiku Fire Station facility and related improvements (Munekiyo Hiraga 2023).

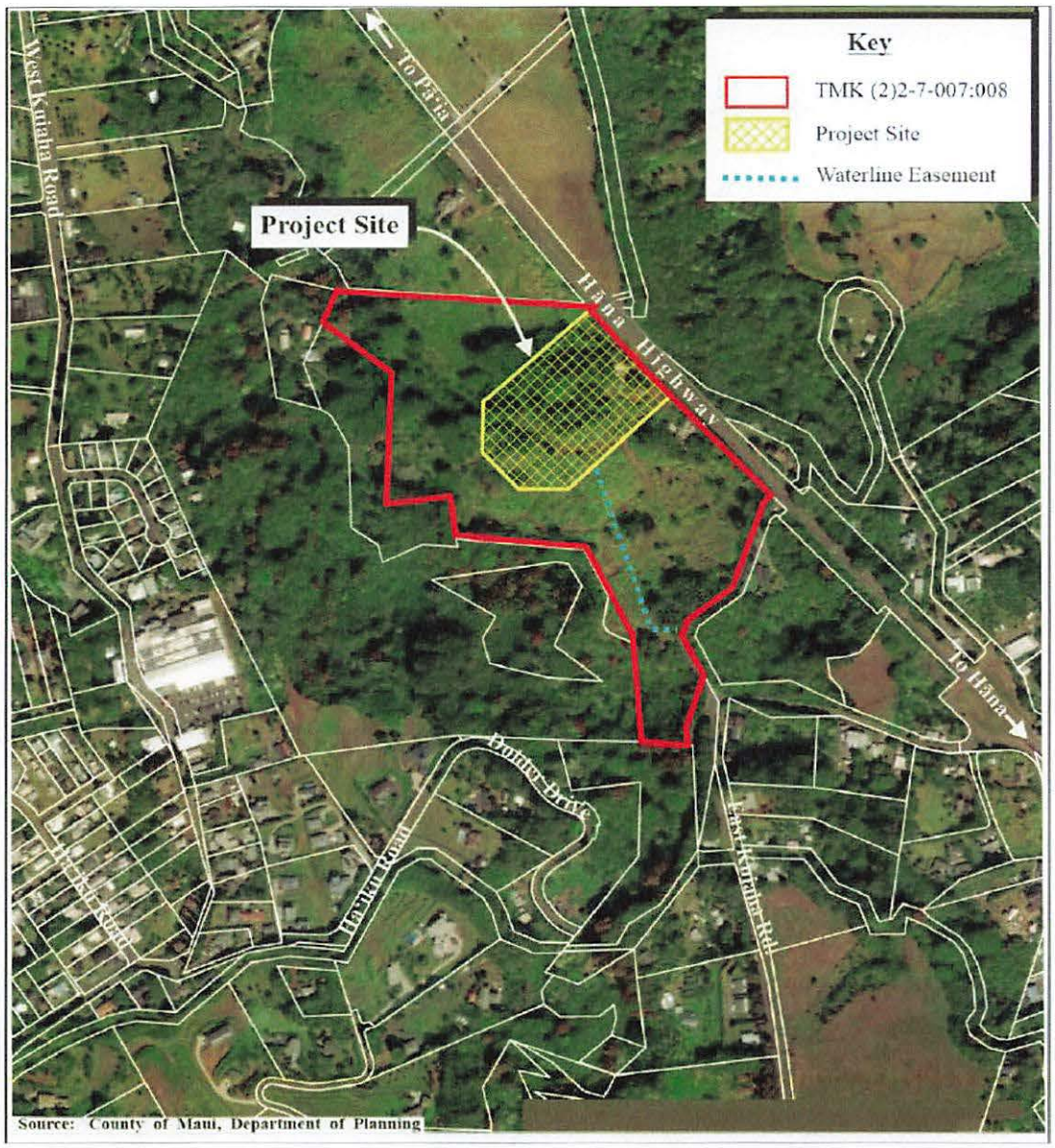

Figure 4. Map showing the project area and proposed new waterline (Munekiyo Hiraga 2023).

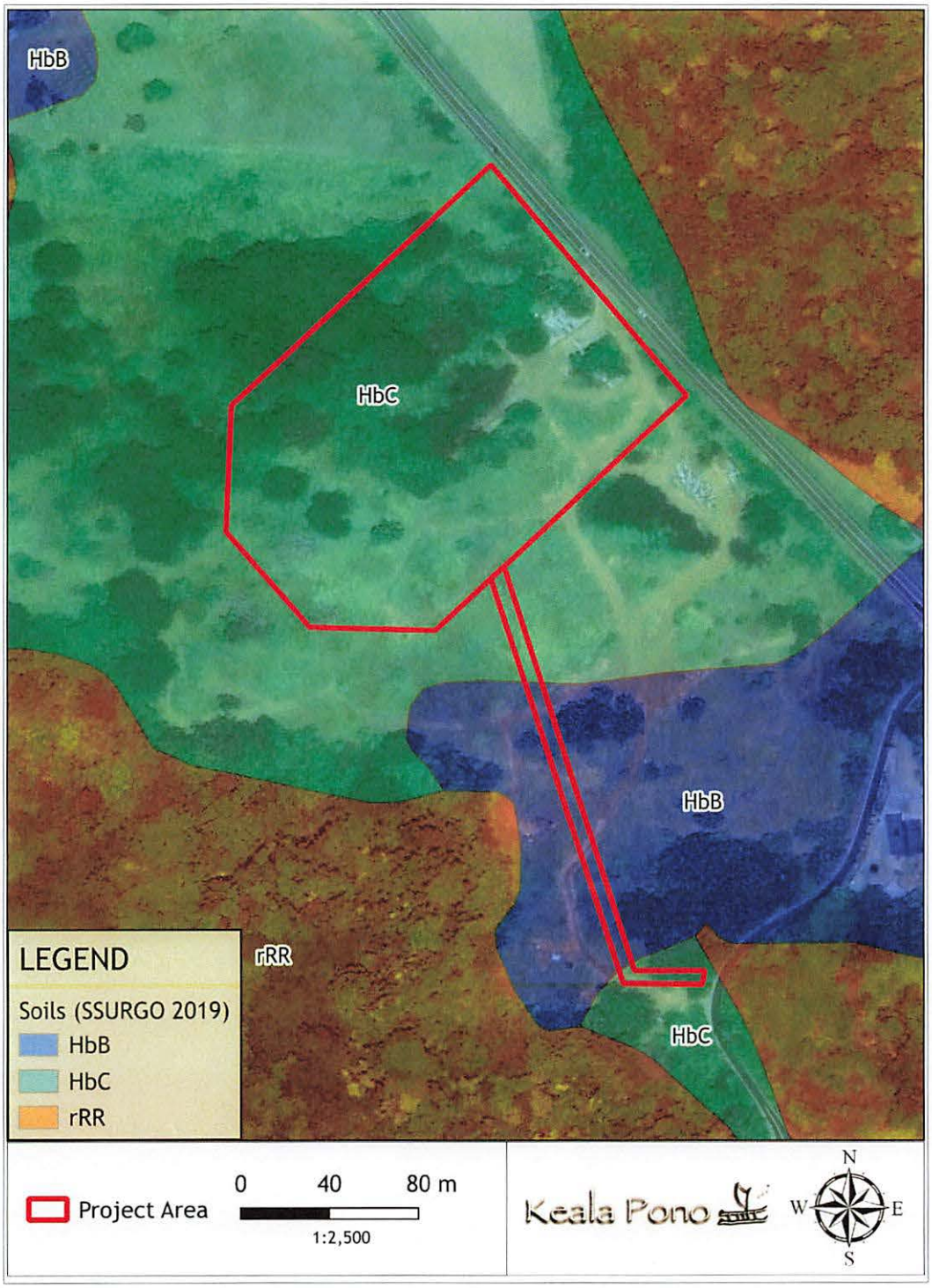

Figure 5. Soil types near the project area (Soil Survey Staff 2019).

BACKGROUND

A historic review of Kuiaha Ahupua'a and the surrounding region is provided below, to offer a holistic understanding of the use and occupation of the project area. In the attempt to record and preserve both the tangible (e.g., traditional and historic archaeological sites) and intangible (e.g., mo'olelo, 'ōlelo no'eau) culture, this research assists in the discussion of anticipated finds. Research was conducted at the Hawai'i State Library, the University of Hawai'i at Mānoa libraries, the SHPD library, and online at the Office of Hawaiian Affairs Kipuka (n.d.) database, the Waihona 'Aina (n.d.) database, and the State of Hawai'i Department of Accounting and General Services (DAGS n.d.a, n.d.b) website. Historical maps, archaeological reports, Māhele data, and historical reference books were among the materials examined.

Pre-Contact Era

Traditionally, the island of Maui was divided into twelve moku: Kā'anapali, Lāhainā, Wailuku, Kula, Hāmākualoa, Hāmākuapoko, Honua'ula, Kahikinui, Kaupō, Kīpahulu, Hāna, and Ko'olau (King 1935 cited in Sterling 1998:2; Figure 6). Beginning in 1846, when legislative government was introduced to the islands, the ancient district boundaries have been subjected to many modifications. These changes were often made for political purposes or for convenience, but the primary reason for reconfiguring the traditional district boundaries was caused by movements in population, which reflected new uses of the land. In many cases these changes also included replacing the traditional names of the districts with modern names (Sterling 1998:3).

The Civil Code of 1859 reconfigured the traditional twelve moku into four districts. As a result, the moku of Kā'anapali, Lāhainā, and the island of Kaho'olawe were grouped into one district and the moku of East Maui and central East Maui were re-formed into two separate districts (King 1935 cited in Sterling 1998:3). Subsequently, the Session Laws of 1909 re-structured the districts into their current configuration: Lahaina, Wailuku, and Hāna, with the former moku of Kula, Hāmākualoa, and Hāmākuapoko combined to create the modern district of Makawao (King 1935 cited in Sterling 1998:2). The project area is located within the traditional moku of Hāmākualoa.

Place Names

One often overlooked source of history is the information embedded in the Hawaiian landscape. Hawaiian place names "usually have understandable meanings, and the stories illustrating many of the place names are well known and appreciated...The place names provide a living and largely intelligible history" (Pukui et al. 1974:xii). Archival research indicates that Maui was called by at least two names in ancient times. According to Kamakau (1870 cited in Sterling 1998), Maui was once known as Ihikapalaumaewa. A later account in the Hawaiian newspaper, *Hawaii Holomua* (Dec. 26, 1912 cited in Sterling 1998:2) provides the possibly more ancient name of Kulua.

Several place names associated with the study area are listed in the book *Place Names of Hawaii* (Pukui et al. 1974), along with the meanings of the names and/or comments about the specific locales:

> Ha'i-kū...Quadrangle, land section, village, elementary school, park, reservoir, ditch, East Maui...*Lit.*, speak abruptly *or* sharp break. (Pukui et al. 1974:34)

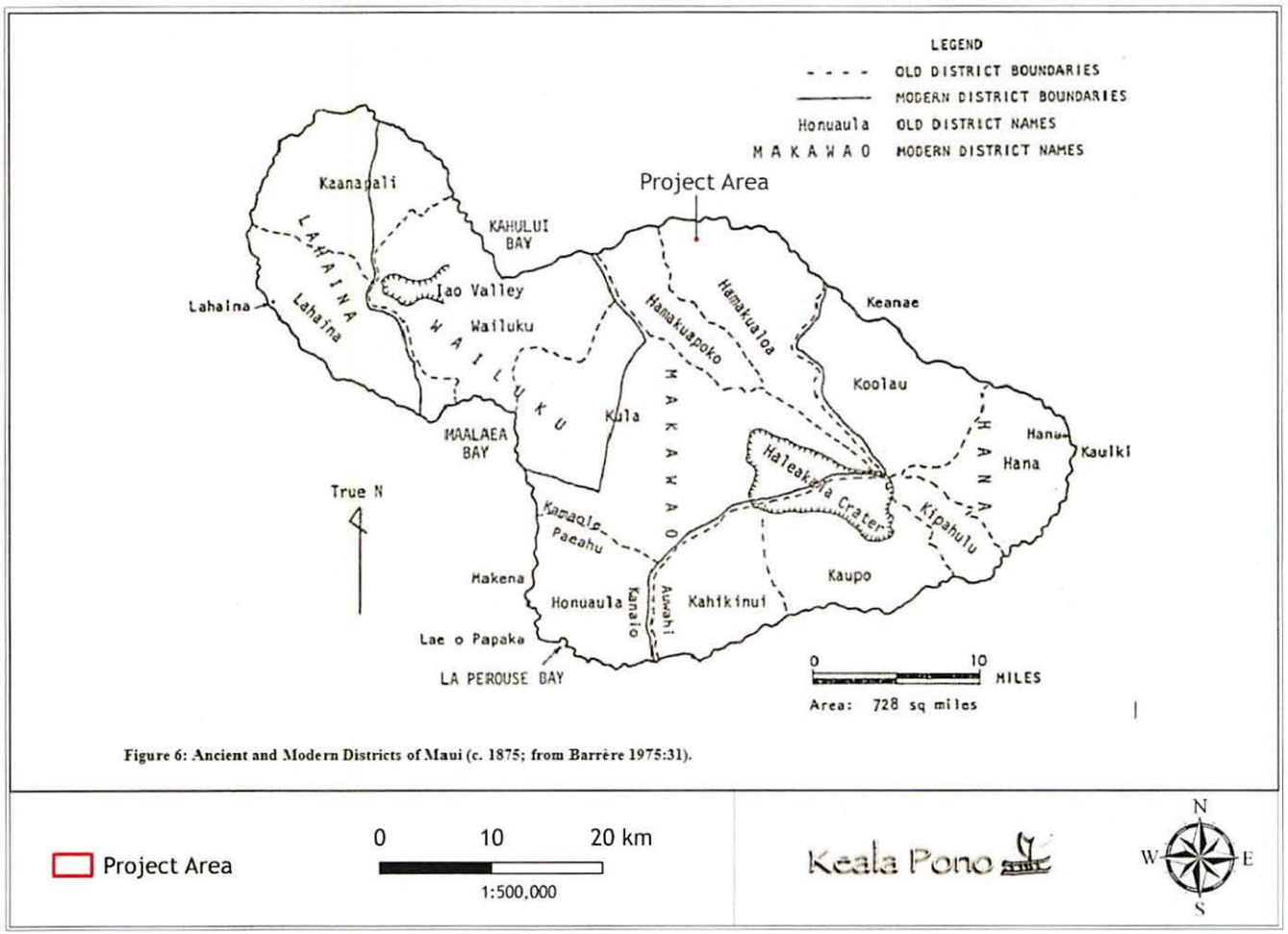

Figure 6: Ancient and Modern Districts of Maui (c. 1875; from Barrère 1975:31).

Figure 6. Map showing traditional districts of Maui (ca. 1875; Barrère 1975 cited in Sterling 1998:2).

Hale-a-ka-lā. National park (established in 1961), volcano, peak, ranch, and visitor center, East Maui; homesteads, Kahului qd., Maui. *Lit.*, house [used] by the sun (the demigod Māui was believed to have lassoed the sun here in order to lengthen the day, and permit his mother, Hina, to dry her tapa)... (Pukui et al. 1974:36)

Hāmākua....Ha'i-kū qd., East Maui Poetic (Hawai'i): *kuhi loa*, long corner... (Pukui et al. 1974:39)

Hāmākua Loa. Former district and land division, Ha'i-kū qd., Maui. *Lit.*, long Hāmākua. (Pukui et al. 1974:39)

Hāmākua Poko. Former district and land division, Ha'i-kū qd., Maui. *Lit.*, short Hāmākua. (Pukui et al. 1974:39)

Ka-uhi-koa. Mountain (1,221 feet high), and ditch, Ha'i-kū qd., Maui. *Lit.*, the *koa* tree cover. (Pukui et al. 1974:92)

Lowrie. Irrigation canal, Pā'ia qd., Maui, named for William J. Lowrie, manager of the Hawaiian Commercial and Sugar Company plantation. The canal was started in 1899 and completed in 1900. (Pukui et al. 1974:134)

Maka-wao. Land section, village, park, elementary school, district, and forest reserve, Ha'i-kū qd., Maui...*Lit.*, forest beginning. (Pukui et al. 1974:142)

Maui. Second largest island in the Hawaiian group. 48 miles long, 26 miles wide, with an area of 728 square miles and a population in 1970 of 38,691...The county includes Maui, Lā-na'i, Ka-ho'olawe, and Moloka'i islands. Epithet: *Maui o Kama*, Maui of Kama (a famous ancient chief, also called Kama-lālā-walu)... (Pukui et al. 1974:148)

Pa'u-wela. Town, lighthouse, and point, Ha'i-kū qd. Maui. *Lit.*, hot soot. (Pukui et al. 1974:182)

Subsistence and Traditional Land Use

During the traditional period, Kuiaha was known as Hāmākualoa, an ahupua'a in a traditional moku of the same name, within Maui Hikina (East Maui). This region is comprised of narrow gulches and streams that intersect gently sloping lands as they extend down the northern face of Haleakalā to the ocean. Towards the coast, the gulches widen into flat, level areas that were able to support numerous lo'i fields (Handy et al. 1991:498).

The gentle climate and geographic conditions in Hāmākualoa Moku would have made this region attractive to inhabitants. Although Handy did not visit Kuiaha Gulch during the ethnobotanical study he conducted for the Bishop Museum in the 1930s, he suggested that the streams within the gulch were likely to have supported lo'i along the flat lands near the coast (Handy 1940 cited in Sterling 1998:100):

> Kuiaha Gulch, beyond Maliko, has a good stream and there were probably a few lo'i. Two kama'aina at Ke'anae said that there were small lo'i developments watered by Ho'olawa, Waipi'o, Hanehoi, Hoalua, Kailua, and Na'ili'ilihaele Streams, all of which flow in deep gulches. (Handy et al. 1991:498)

Handy et al. (1991:498) later suggest that wetland kalo was likely to have been planted along the waterways within the gulches "well up into the higher kula land" while dryland kalo would have been planted throughout the lower forested areas. The numerous named narrow gulches within this moku that have been planted in this manner are another indication the area supported a sizeable population (Handy et al. 1991:498).

In addition to taro, the gulches of Hāmākualoa provided sufficient water and nutrient-rich soils for the cultivation of other traditional crops. The lower extent of the valleys, near the coast, were conducive for the cultivation of mai'a, 'ulu, pia, and kō, while uhi and 'awa would have been farmed further inland. The semi-dry soils that formed on the slopes between the gulches afforded a good environment for sweet potato cultivation. In addition, the small bays along the coastline presented excellent fishing conditions (Handy et al. 1991:498).

Trails extended from the coast to the mountains, as well as across the island. These trail systems provided access to subsistence, ceremonial, and medicinal resources. They also linked settlements for religious and social purposes. The Alaloa (King's Trail) completed around 1516 by the ali'i Kiha a Piilani, was a paved trail that encircled the island of Maui. This trail extended through coastal Hāmākualoa Moku connecting this district to the rest of the island. In addition to being used by travelers, the Alaloa was utilized by trained runners who procured requested foods and carried messages for the ali'i by the priests and tax collectors during the Makahiki, and was used for a variety of purposes during Maui's many wars (Handy et al. 1991:489). "Maui was the only island that had a paved way that ran all the way around both its east and west ends" (Handy et al. 1991:489).

Martha Foss Fleming (1933 cited in Handy et al. 1991:489) provides an excellent account describing how early travelers navigated their way across the East Maui:

> Much of the *Alaloa* has been covered or obliterated, mainly in the course of recent road building; but a great many miles of it can still be seen today. This road was built in about 1516 by Kihapi'ilani after his conquest and unification of the whole island. It was paved with stones along much of its extent, hence it was referred to as the "Kipapa (pavement) of Kihapi'ilani." Beaches were used as crossings where gulches came down to the shore. There were no bridges; and beaches were also used along the seashore in many localities...Travelers were sometimes ferried across streams by canoe or along shore...

Ropes were often used to cross dangerous sections of streams encountered along the trail:

> In crossing rushing torrents [on the northeast coast of East Maui] the ingenious native would swing himself over by means of ropes made from vines. It was not unusual for the native to diversify a long journey by swimming around points that jutted out into the ocean." [Fleming 1933 cited in Handy et al. 1991:489]

Later, the missionaries utilized the Alaloa as they traversed the trail when they traveled around the island:

> In 1828, missionaries noted that the trail was "paved" and extended over thirty miles. They reported that it was a great help in ascending and descending the steep mountains and cliffs in the area. The early trail switchbacks over the mountains near Honomana were still visible in the 1940s. Today, intact portions of the King's Highway remain, although most of the road has been obliterated by agriculture or paved over by modern roadways, including the Hāna Belt Road. [Duensing 2001]

The earliest documentation of archaeological sites, folklore, native customs, historical incidents, and natural history in the Hawaiian Islands was done by Thomas G. Thrum, beginning in the late 1800s. According to Thrum (1909:44), the construction of the first heiau on Maui is attributed to the ali'i Hua (also known as Hua-a-Pohukaina or Hua-a-Kapuaimanaku), whose reign occurred sometime before the 10th century (Sterling 1998:18).

Winslow W. Walker (1930), under the sponsorship of the Bernice Pauahi Bishop Museum, carried out the earliest archaeological investigation on the island. Regarding Maui heiau, Walker explains:

> The heiau or temple was the place of worship among the Hawaiians. A total of 230 of these sites have been found on Maui, 48 on the western part and 182 on the eastern part of the island. The structures on many of these sites have, however, been totally destroyed in the progress of the pineapple and sugarcane industries. So that, of the total listed, only 134 remain in a good enough state of preservation to permit being measured and studied. (Walker 1930:97–99)

A total of 22 heiau in the moku of Hāmākualoa were documented during Walker's study. However, at the time of Walker's (1930) survey, only five of the 22 remained intact, another five were partially destroyed, and 12 were completely destroyed. Said to be among the destroyed heiau was Site 60 at Waikikena. Walker described this heiau as "a large three-terraced platform walled on the sides" situated within the region of Pa'uwela at Hanapopolo (Walker 1930:154). Subsequently, Sterling (1998:102) placed the location of the heiau in Kuiaha. No additional heiau or other traditional features were documented in Kuiaha Ahupua'a during Walker's (1930) study.

Mo'olelo

As mentioned earlier, Hawaiian place names were connected to traditional stories through which the history of the places was preserved. These stories were referred to as:

> mo'olelo, a term embracing many kinds of recounted knowledge, including history, legend, and myth. It included stories of every kind, whether factual or fabulous, lyrical or prosaic. Mo'olelo were repositories of cultural insight and a foundation for understanding history and origins, often presented as allegories to interpret or illuminate contemporary life...Certainly many such [oral] accounts were lost in the sweep of time, especially with the decline of the Hawaiian population and native language. (Nogelmeier 2006:429–430).

The island of Maui is said to have been named after the legendary demigod Māui (Pukui et al. 1974:148), known for his trickiness. Legends recount how he stole fire, raised the sky and snared the sun, trapped winds, changed landscapes, as well as his biggest accomplishment of fishing the Hawaiian Islands out of the ocean. As mentioned in the Place Names discussion, earlier accounts reveal that the island was known by other names in ancient times:

> The wife La'ila'i and her husband Keli'iwahilani, the husband and his wife Papa, were not the first of our ancestors to arrive in Hawaii. They belonged rather to the middle period. The line of Wakea and his family extends back to the earliest settler of these islands. The islands were already filled with people in the days of Wakea. This is what we find in the account and the prophetic sayings of the prophets and priests.
>
> Maui also was a new name. The ancient name of the island of Maui was Ihikapalaumaewa. It was called by the new name of Maui after a famous child of Wakea and Papa who became ancestor of the people of Maui. (Kamakau 1870 cited in Sterling 1998:2)

Another source, Hainakolo, cited in an early 1900s Hawaiian newspaper, provided another ancient name for the island that was possibly assigned by early Polynesian voyagers:

> They sailed to Kulua (the ancient name of the island of Maui, perhaps called so because of the two divisions, East Maui and West Maui). (Hainakolo *Hawaii Holomua* 1912 cited in Sterling 1998:2)

In general, Hāmākualoa is known to receive only a moderate amount of precipitation as a result of being "too low to draw rain out of the trade winds flowing down from the rugged and wet northeast Ko'olau area that lies beyond (Handy et al. 1991:498). There are many regional legends

telling of the great gods Kāne and Kanaloa traveling across the islands establishing freshwater springs and ensuring that they are kept clean for drinking or other purposes of the ali'i (Beckwith 1985:64). In the mo'olelo below, the two deities find themselves in Hāmākualoa without fresh water to drink:

> Springs of Kane
>
> [*Kane and Kaneloa came from Kahiki. They first landed on Kauai and continued on to Oahu, finally landing at Kohala, Hawaii. They began a tour of Hawaii and when they stopped at a place where there was not water for their awa Kane would take their two spears and thrust them into the ground causing water to flow. This water was called "Ka wai a Kane ma laua o Kaneloa."*]
>
> Kaneloa said to Kane, "We have circled Hawaii let us go to Maui." They sailed to and landed on Maui. They toured Maui until they reached Hamakua. They drank awa but because there was no water they caused the fresh water to flow and drank all of the awa. They continued on and the water which they had caused to flow was called the water of Kaneloa. This water flows unto this day. (J. Waiamau, Ka Hoomana Kahiko 1865 cited in Sterling 1998:101)

During times of old, theft and robbery were common occurances carried out in remote areas. The Ku'ielua were a class of professional robbers often referred to as hihiu or wild men (Kamakau 1992:236). Hāmākualoa was one of the areas frequented by the robbers, in particular, during the construction of the Alaloa, in the early 1500s.

> Kaohekanu, Place of Robbers
>
> When the chief and men had finished the work there *[on Kihapiilani Road],* the paving was begun in the forest of Oopuloa in Koolau, from Kawahinepee at Kaloa to Papaaea to Kaohekanu at Hamakualoa. This was a place made famous by robbers in the olden days. This road was treacherous and difficult for the stranger, but when it was paved by Kihapiilani this road became a fine thing. (Moses Manu 1884 cited in Sterling 1998:101)

Although some sources place Pakanaloa Heiau in Ko'olau Moku (Walker 1930:167), Thrum (1909:48) cited it as located in Hāmākualoa. Pakanaloa Heiau is said to be where Kanehekili, the kahu of the god of thunder, died:

> The temple of Pakanaloa, has a tradition claiming origin in the worship of the thunder to the effect that its kahu, Kanehekili, died within its walls, and when his brother-in-law realized the fact he cut off the head and took it to Lanai. The people of Hamakualoa, wondering at his disappearance, searched till they found his body in the temple at Keanae, and when it was made known that the guardian of the god was dead, the people came and cut his body into small pieces and distributed it. As each place all over Maui received a portion of his body it became their duty to worship the thunder. (Thrum 1909:48–49)

'Ōlelo No'eau

Traditional proverbs and wise sayings, known as 'ōlelo no'eau, are another means by which the history of Hawaiian places has been recorded. In 1983, Mary Kawena Pukui published a volume of close to 3,000 'ōlelo no'eau that she collected throughout the islands. The introductory chapter of that book reminds us that if we could understand these proverbs and wise sayings well, then we would understand Hawai'i well (Pukui 1983). Two 'ōlelo no'eau are presented below. The first refers to the region of Hāmākua, likely to both Hāmākuapoko and Hāmākualoa. The second 'ōlelo no'eau specifically relates to Hāmākualoa Moku. They are listed below as recorded in Pukui's book:

Ka ua pehi hala o Hāmākua.
The rain of Hāmākua that pelts the pandanus fruit clusters.
Refers to Hāmākua, Maui. (Pukui 1983:172–173)

Pe'epe'e pū hala.
Hiders among the hala trees.
An epithet for the kauwā of Hāmākualoa, Maui. (Pukui 1983:288)

Oli of Hāmākua

The noteworthiness of specific locales in Hawaiian culture is further bolstered by their appearances in traditional chants. An oli refers to a chant that is done without any accompaniment of dance, while a mele refers to a chant that may or may not be accompanied by a dance. These expressions of folklore have not lost their merit in society today. They continue to be referred to in contemporary discussions of Hawaiian history, identity, and values.

Keaulumoku was an ali'i renowned as the composer of a wide variety of oli. He lived during the early 1700s, during the time of Kalani'ōpu'u. Kamakau (1992:112–115) praises him as a celebrated "composer of war chants, chants of praise, love chants, prophetic chants, and genealogical chants." While living with Kalani'ōpu'u, on Hawai'i Island, he became homesick for the moku of Hāmākualoa and Hāmākuapoko, where he had lived with the ali'i Kahekili and Kamehamehanui. Keaulumoku expressed his love and longing for this region in this descriptive oli that provides much insight into its natural beauty:

Alo—ha, Alo—ha----	Affectionate longing, affectionate longing,
Aloha wale o 'u maku----a la-----e o 'u makua,	Affection for my (foster) parents, my parents,
Aloha wale o 'u makua	Affection for my parents
Mai na 'aina Hamakua,	Who belong to Hamakua,
He mau 'aina Hamakua elua,	The two districts of Hamakua,
No 'u mua kaikua 'ana i noho ai,	Where my elder brothers live.
He ala pali na 'u he mau ali 'i ia,	My hillside trails are theirs to rule,
O ka hanai ana komo ke aloha,	They nurtured ne until I loved them;
Lele hewa au i he mau kaikua 'ana------e	I find myself with other elder brothers
'A 'ole---he mau mea 'e wale no o laua	Who are not the same to me.
He ua i pono----e---pono ia ua.	Let the rain fall, for rain is good.
A he ua i halaka', he mahala,	It patters down, it pelts down,
Pehi hewa i ka nahele,	It crushes the forest growth.
Kua 'oa kanikani i ka pua lehua.	It sprinkles musically on the lehua.
Ua ua lehua, he lehua hala,	The lehua trees blossom, the yellow lehua,
Ua i ka lehua o Kailua.	When the rains come to the lehua of Kailua.

Lehua maka konunu i ka wai,	The lehua petals are heavy with raindrops,
Konunu konunu oha'ha'.	Heavy, heavy and full blown.
Halana makapehu wale no kie ia,	They know not the pangs of thirst
Pehu, ua mae ka maka mua o ka hinalo ho'i.	That wilt the first-blown pandanus bloom.
Ho'i ka ua ma Haneho'i,	The rain returns by way of Haneho'i,
Ma ka lae o Pu'umaile i Hoalua,	Along the brow of Pu'umaile to Hoalua,
Ma kahakua o Pu'ukoa'e,	Over the ridge of Pu'ukoa'e,
Ma ke alo pali o Huelo.	Before the face of the cliff of Huelo.
Ua poha' Kaumealani,	There it pours down on Kaumealani,
Ua ko ia e ka pua nui	The rain that brings out the full-blown flowers
Hukia aku la lilo i kai	And draws them close down to the shore.
Lilo aku la ua i ka moana,	The rain goes out to sea,
He maka o Hawini ia ua,	It falls on Hawini like teardrops.
He ua 'alo ma ka lae,	It passes along over the capes,
Nihi pali nihi lae.	It creeps by the cliffs and capes,
Nihi i ka lae o Mokupapa.	Creeps by the cape of Mokupapa.
Hele wale ka ua a kipa wale,	The rain comes uninvited,
Ka ua pe'e hala huna kai o---	The rain that hides on the hala groves below,
O---huna huna lauki.	Whose fine drops water the ti plants.
Huna ke kupa i ka hala mua a kau.	The native-born hides away the first hala fruit of summer.*
U-u e ua wahia e ka ua o ka ho'oilo.	And weeps over the stormy rains of winter.
E ke kuawa kahi o ke kau	Oh! For the light summer showers
Nana i ho'oko'o nei ka pua!	That brought forth the blossoms!
Aui ka pua noho 'ao'ao i ke ka,	The blossoms droop with stem half-broken,
Aui e noho e na pua polo pe'a;	The blossoms hang wilted and uncared for;
Pala ka'ao, ka'ao ka pola,	The fruit clusters ripened above,
Loli helele'i ahu ilalo;	Mildew and fall in heaps to the ground;
Loli ka'ao ka hala me ka hinalo.	Both fruit and flower are mildewed.
O ka hala o ka 'ohi'a lana i ka wai	The hala fruit and mountain apples drop into the stream

I ka' i ke kahawai o Kakipi,	And are washed down in the stream of Kakipi,
Ilina iluna o ka mau'u kuku',	Washed up on thorny weeds,
I ka pua po'o o ka mau'u pu'uko'a	Up on the flowers of coarse grasses,
I kahi a maua e hele ai,	Where we two have wandered,
Me ku'u wahine i ka ua hala o Kulo---li,	My wife and I, to the rain-wet hala grove of Kuloli,
A'oia loki ke ala iho ma ka lau,	Fragrant among the leaves,
Lauhala----e a ke 'o'i'o'ina 'oe i Ko'olahale,	The hala leaves over the resting place of Ko'olahale,
'Ike aku i ka mahina hiki'alo'alo	Where we watched for the belated moon
One ku a ki'i ke kaha o Malama,	To rise over the cinder cone of Malama.
Malamalama ke one kea hele ia,	The white sands are plainly to be seen if we wish to go there,
Kipa ke alanui mauka o Waiakuna,	Over the upland trail of Waiakuna,
He kuna------e.	Winding like the freshwater eel.
Me he kuna kuhe la ke oho o ke kukui,	The *kukui* leaves look dark like the gobey fish,
I ka ho'olu'u lupekolo ia e ke hau	When overshadowed by the twining *hau* trees
A lipo a 'ele'ele i ka waokoa.	Deep in the dusky *koa* forest.
He 'ele'ele ko ke kukui noho malu,	Dark are the leaves of the kukui in the shade,
He lena ho'i ka lau o kekahi kukui	The leaves are pale yellowish green
O ke kukui aku i waho i ka la,	In the full light of the sun,
I ka ua ia e ka ua 'ulalena.	Watered by the rainbow-tinted rain.

*The yellow drupe of the pandanus (hala) fruit is cut and made into a lei to wear about the neck. One such lei is usually kept dry and not allowed to mildew in order to be used to exorcise evil spirits. (Kamakau 1992:112–115)

Historic Period

It is generally accepted that Captain James Cook and the members of his expedition were the first westerners to encounter the Hawaiian Islands (Daws 1968:1). At the time of their arrival, in 1778, the islands were not yet united under one sovereign and there was much fighting among the ruling chiefs over land acquisition. It was during this period that Kalani'ōpu'u, the ruling chief of Hawai'i Island, and Kahekili, the mo'i of Maui, were battling for control of Maui.

During the early months of 1778, Kalani'ōpu'u had been at war with the ali'i of Lāna'i. Although Kalani'ōpu'u and his forces were victorious, they had depleted their food supplies in battle and were forced to subsist on the root of the kupala plant (*Sicyos pachycarpus*). The kupala root "had a loosening effect upon the bowel, when eaten in quantity. The war is therefore called The-land-of-

loose-bowels (Ka-moku-hi)..." (Kamakau 1992:91). Because of this, Kalani'ōpu'u set sail for Maui where food was more plentiful (Kamakau 1992:91).

Upon landing at Hāmākualoa Moku, Kalani'ōpu'u and his men engaged in pillaging and looting the land until Kahekili came to the aid of the people. Kahekili and his troops were so fierce in battle that Kalani'ōpu'u fled to his fleet and sailed east to Ko'olau Moku. Upon landing at Ko'olau, Kalani'ōpu'u "slew the common people and maltreated the captives by urinating into their eyes" (Kamakau 1992:91). From Ko'olau, Kalani'ōpu'u sailed on to Hāna where Mahihelelima, the chief of Hāna, joined forces with him. The war between the forces of Kalani'ōpu'u and Kahekili raged on for six months, into the year 1779. Battles were fought from Kaupō to Lahaina and across Hāmākualoa to Ko'olau. During this campaign, Kekūhaupi'o, the master warrior from Hawai'i Island, and a young Kamehameha, an ali'i from Hawai'i Island, distinguished themselves for their bravery and skill in battle (Kamakau 1992:91).

Later, around 1790, Kamehameha landed his troops at Hāna to continue his efforts to conquer Maui. At that time, Kalanikūpule and Koalaukani were the reigning ali'i of Maui, as Kahekili, their father, was engaged in war with O'ahu. Upon learning that Kamehameha had landed in Hāna and was marching his men through Ko'olau Moku, Kalanikūpule called upon his fiercest troops and sent them under his best general, Kapakahili, to Pu'ukoa'e, a fortress in Hāmākualoa which was "reinforced by Maui folk" (Desha 2000:246). Fornander recounts:

> Of the campaign in Hamakualoa some mementos are still pointed out. The fortified position at Puukoae *[Puukaae on later maps]* on Hanawana, which was attacked and taken by Kamehameha, who had brought his fleet round from Hana. The hill is known as "Kapuai-o-Kamehameha," to the west of the Halehaku stream, where he encamped for the night after taking Puukoae. Here his war-god Kukailimoku was paraded around the camp, to ascertain by the usual auguries—the more or less erect position of the feathers, &—the issue of the campaign....the Maui forces were routed and fled as far as Kokomo, where a final stand was made. Fighting desperately, and with hardly a hope of retrieving the fortune of the day, Kapakahili encountered Kamehameha on the field, and one of those single combats ensued in which the fate of an empire depends on the personal prowess of one or the other of the combatants. Kapakahili was killed, the Maui men fled and dispersed, and the road to Wailuku lay open to Kamehameha. (Fornander cited in Sterling 1998:103)

After winning the battle on Maui, Kamehameha moved on to conquer the remaining islands of Moloka'i and O'ahu, with Kaumuali'i of Kaua'i relinquishing control of the island to Kamehameha in 1810.

Early Historic Accounts

Cook's arrival was followed by a wave of foreign missionaries, explorers, traders, and travelers landing on Hawai'i's shores. The earliest historical accounts come from the journals of sea captains and missionaries that provide insightful descriptions and impressions of the islands, their inhabitants, and local traditions.

Cook and the men aboard the *Resolution* and the *Discovery* first viewed the Island of Maui on their return trip to Hawai'i, in 1778–1779:

> The 26th at day-break saw land extending from SSE to West. Made sail and stood for [it]....the nearest part 2 leagues distant. It was supposed we saw the extent of the land to the East but not to the west. In the country was an elevated saddle hill whose summit appear'd above the Clouds, from this hill the land fell in a gentle slope and terminated in

> a steep rocky coast against which the sea broke in a dreadfull surf. Finding we could not weather the island I bore up and ranged along the coast to the westward. It was not long before we saw people on several parts of the coast, some houses and plantations, and the Country seemed to be both well wooded and well Watered, the latter was seen falling into the ocean in several places. (Cook cited in Beaglehole 1967:473–474)

By noon they had anchored 3 to 4 miles offshore and the Hawaiian people came out in canoes to trade chickens and hogs for pieces of iron (Cook cited in Beaglehole 1967:474). From Cook's vantage point, the islands of Moloka'i and Lāna'i were visible to the west. However, rather than investigate the leeward islands, Cook decided to take advantage of a strong eastward current and sailed along the windward Maui coast; viewing the Hāmākualoa region along the way. By the end of the month, the expedition had traveled to the northeastern end of Maui. Here, they met the ali'i Kalani'ōpu'u, who presented Cook with a feathered cape and several small hogs (Daws 1968:9).

Following Captain Cook's death at Kealakekua Bay, Hawai'i Island, in February 1779, Captain James King, helped facilitate the completion of the expedition. During March 1779, the explorers were once again positioned off the coast of Maui:

> The island bears NW from the N point of Owhyee 8 leagues dist. A low Isthmus separates it into two circular high Peninsulas, the Eastermost being as large again as the Westermost one. Its figure is not much unlike Otaheite, nor do they differ greatly in size. The length of Mowee (being East & West) is 15 Leagues. & which is called Wha'madoa [Hāmākua or Hāmākualoa]. Its NE side being the first land we saw on coming down to these Islands has been Particularly describ'd at this time; It has a Strong resemblance to the NE side of Owhyee, & appears in no way inferior to it. (King cited in Beaglehole 1967:608–609)

Changes in Land Tenure

The change in the traditional land tenure system in Hawai'i began with the appointment of the Board of Commissioners to Quiet Land Titles by Kamehameha III in 1845. The Māhele took place during the first few months of 1848 when Kamehameha III and more than 240 of his chiefs worked out their interests in the lands of the Kingdom. This division of land was recorded in the Māhele Book. Kamehameha III retained roughly a million acres for himself and his heirs as Crown Lands, while approximately a million and a half acres were designated as Government Lands. The Konohiki Awards amounted to about a million and a half acres, however title was not awarded until the konohiki presented the claim before the Land Commission.

In 1850, the Kingdom of Hawai'i adopted two pieces of key legislation. On July 10, 1850, the Alien Land Ownership Act was established, allowing foreigners to hold title to lands within the Kingdom. Less than a month later, the Alien Land Ownership Act was followed by the Kuleana Act, on August 6, 1850. The Kuleana Act allowed citizens to present claims before the Land Commission for parcels that they were cultivating within the Crown, Government, or Konohiki lands. By 1855 the Land Commission had made visits to all of the islands and had received testimony for about 12,000 land claims. Ultimately between 9,000 and 11,000 kuleana land claims were awarded to kama'āina, totaling only about 30,000 acres, and recorded in ten large volumes. The awarded parcels were called Land Commission Awards (LCA). If occupation could be established through the testimony of witnesses, the petitioners were issued a Royal Patent number and could then take possession of the property. Commoners claiming house lots in Honolulu, Hilo, and Lāhainā were required to pay commutation to the government before obtaining a Royal Patent on their awards (Chinen 1961:16).

According to the Waihona Aina Database (cited in Perzinski and Dega 2011:10), 25 LCAs were awarded in the ahupua'a of Kuiaha. The Kipuka Database (n.d.) does not identify any LCAs within the current project area. However, awarded kuleana lands are shown to be located immediately adjacent to the study parcel and in the surrounding area (Table 1). LCA 3336/Royal Patent 2194, which was awarded to Nalopi in 1855, is immediately adjacent and southeast of the project area (Kipuka database n.d.). Immediately adjacent and west of the project area is LCA 4518, which was awarded to Kekanaka, under Royal Patent 2173, in 1855 (Kipuka Database n.d.). LCA 4959, located to the south of the project area, was awarded to Uu under Royal Patent 2169 in 1855 (Kipuka database n.d.).

Table 1. Land Commission Awards in Proximity to the Project Area

LCA/RP	Claimant	Year	Acres/'Āpana	Use	Tax Map Key
4518/2173	Kekanaka	1855	1.93 acre/1 'āpana	kalo farming and pasture	TMK: (2) 2-7-007:007
4959/2169	Uu	1855	54 acres/1 'āpana 2.6 acres/1 'āpana	unspecified	TMK: (2) 2-7-007:010
3336/2194	Nalopi	1855	5.15 acres/1 'āpana	unspecified	TMK: (2) 2-7-007:012, 011

Land Grants

The unawarded kuleana lands were sold by the Hawaiian government to create income for the Kingdom. These sold lands were denoted as Land Grants (GR). While the land grant process is on-going, the following discussion focuses on historic land grants that were issued from 1846–1922.

> At the time of the Mahele, some of the land was the King's own land which later became known as Ceded Lands. Other lands in the possession of ali'i were returned to the King in exchange for Commutation of property the ali'i kept. Some of these returned lands became Government lands and were sold by the government to generate income for the Kingdom, since the King gave up his traditional right to collect taxes and goods following the Mahele. (Waihona Aina n.d.)

The Office of Hawaiian Affairs Kipuka Database (n.d.), identifies the project area as within a portion of Land Grant 383, which consisted of 530 acres of land purchased by the missionary Richard Armstrong in 1849 (Waihona 'Aina database n.d.) or 1850 (Kipuka Database (n.d.) (Figure 7 and Appendix B). Armstrong subsequently used this land to start a sugarcane plantation and the Haiku Sugar Company (Dorrance and Morgan 2000:63).

Table 2 lists the Land Grants within and surrounding the current project (Figure 8; see Figure 2). As these Land Grants were issued in the early 1900s, following the enactment of the Land Act of 1895, it is quite likely they were associated with homesteading (see Homesteading discussion, below). Of interest is that several of these early 1900s land grants were issued to women.

Historic Land Use

Sugarcane was among the crops the early Polynesian voyagers brought with them on their journey to the Hawaiian Islands (Dorrance and Morgan 2000:1). When Captain Cook landed at Waimea, Kaua'i, in 1778, sugarcane was among the crops he observed under cultivation by the Hawaiians that were supported by extensive, sophisticated irrigation systems (Wilcox 1996:1). By the 1800s, commercial sugarcane operations played a major economic role across the Hawaiian Islands. This

Table 2. Land Grants Within and Near the Project Area

Land Grant	Grantee	Acres	Year	Notes
6257	W.R. Patterson	46.84	1914	
6500	Lester L. Saurs	32	1915	
6484	Elizabeth A Turner	30.42	1915	Wahine
6554	Mary H. Cooper	23.66	1916	Wahine
6691	William J. Cooper	40.03	1916	
6872	T.W. Ferguson	49.25	1917	GR 6872 did not include the stream, riparian rights, or LCA 3829:6
65553	Florence Wood	30.15	1916	Formerly a portion of GR 383
7713	Roby C. Blanchard	37	1921	Wahine

new era saw a decline in the cultivation of traditional crops, including kalo. Railroad tracks for transporting sugar and later, roads, were established to connect different parts of the island.

Pineapple was introduced to Hawai'i in the 1880s and small plantations were established on the island of O'ahu. The initial market was for fresh pineapple which was shipped to the west coast of the United States. The first canning endeavors began on O'ahu in 1891, but were unsuccessful and soon abandoned (Kuykendall and Day 1949:236). In 1900, a group of farmers from Southern California began cultivating pineapple on the central plateau of O'ahu in Wahiawā, and soon set up a cannery there. These efforts were successful and the commercial cultivation of pineapple spread to the other islands, including the upland region of Maui (Kuykendall and Day 1949:236).

Sugarcane

Commercial cultivation of sugarcane on Maui began in the mid-1800s when Kamehameha III proposed selling land at low prices to missionaries (Dorrance and Morgan 2000:63). This offer sparked missionary Robert Armstrong to purchase a substantial amount of land in Ha'ikū (see Land Grants discussion). The Haiku Sugar Company was formed in 1858, when Armstrong persuaded former missionaries Amos Cooke and Samuel Castle, co-founders of Castle & Cooke, to invest in a sugarcane plantation and mill in Ha'ikū. Subsequently, a steam-powered mill, considered leading edge technology at the time, was constructed to grind the sugarcane (Figures 9 and 10; see Figure 7) (Young 2021). Figure 8 also depicts the location of Reservoir 5, which was owned and used by the Haiku Sugar Company.

> The plantation was the heart and soul of the Hawaii sugar industry. These large enterprises were equipped with the most modern machinery, especially designed to minimize the costs of production. (Dorrance and Morgan 2000:6)

When the Haiku Sugar Company initiated its operations, the commercial production of sugarcane was a young industry. There were only 10 sugar companies in the islands, five of which were located on Maui: the East Maui Plantation in Kaluanui; the Brewer Plantation in Hāli'imaile; LL Torbert and Captain James Makee's plantation in 'Ulupalakua; the Hāna Plantation; and the Haiku Plantation (Young 2021).

The rich soils of the Hāmākuapoko region proved to be excellent for growing sugarcane. In 1862, the Haiku Sugar Company's initial harvest yielded 260 tons of sugar (Dorrance and Morgan

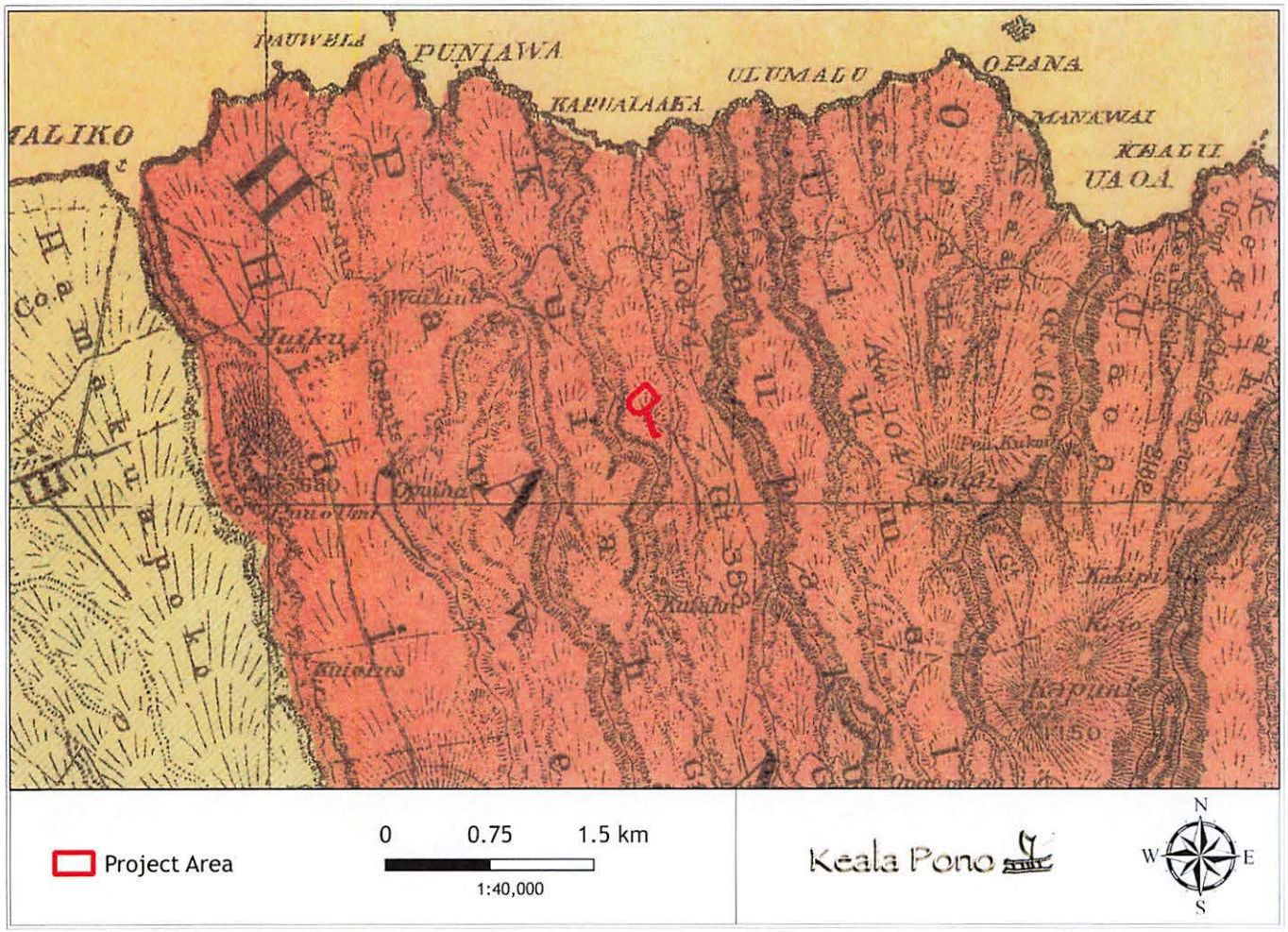

Figure 7. Portion of a Hawaiian Government Survey map of Maui (Alexander and Dodge 1885) showing the project area within Grant 383.

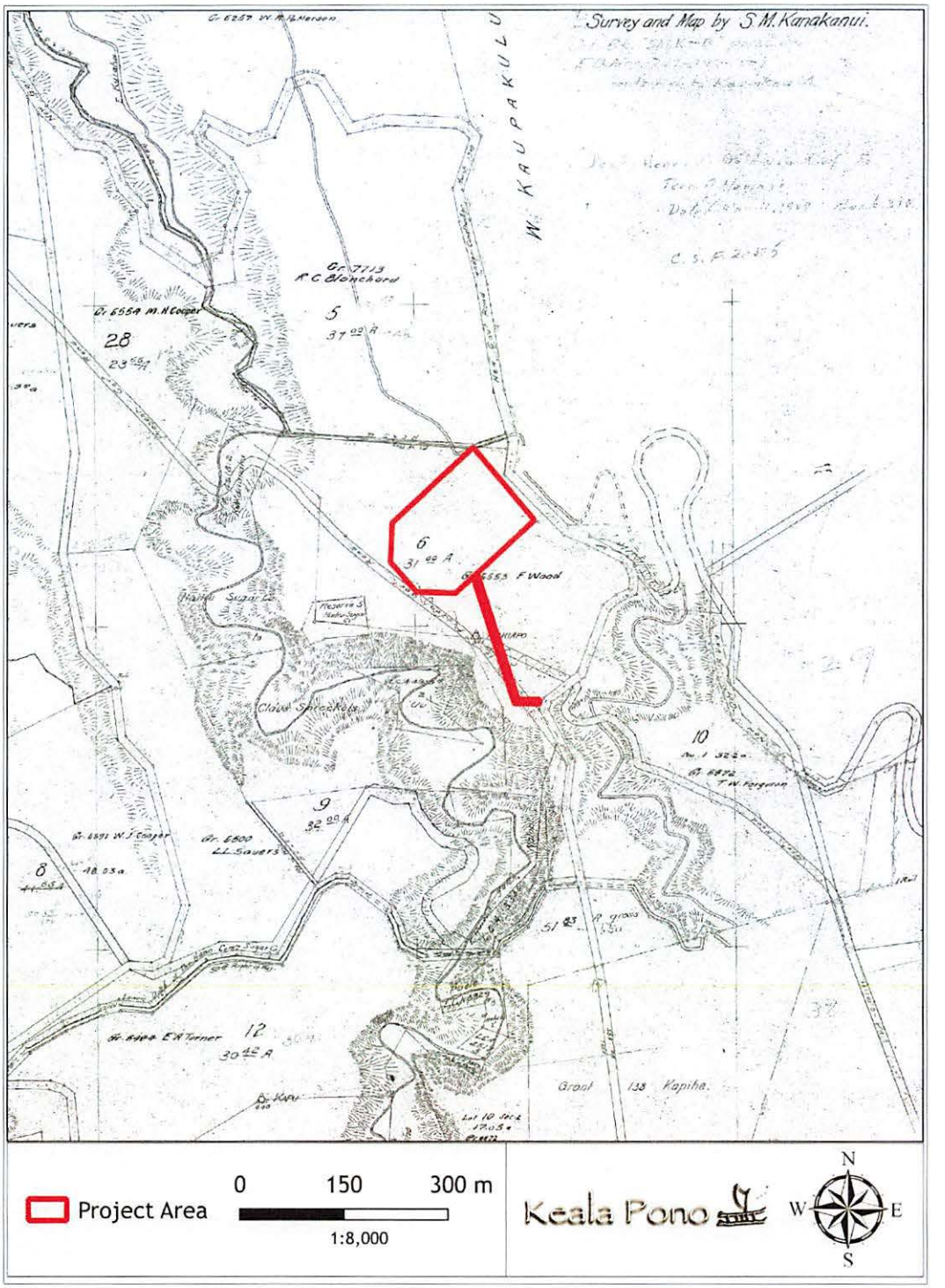

Figure 8. Historic map (Kanakanui 1909) showing Land Grants and Homesteads within and near the project area.

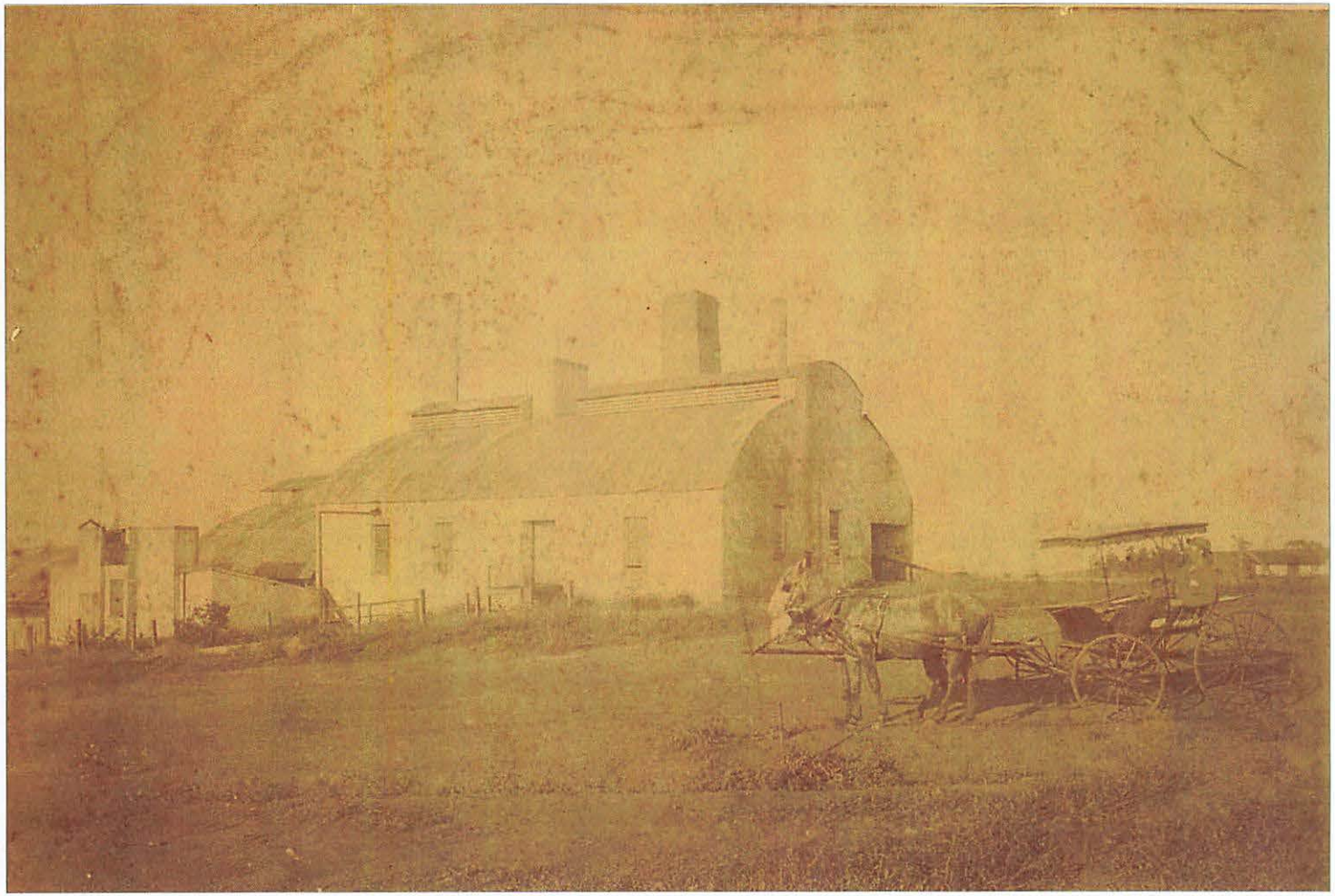

Figure 9. Photograph of "Sugar Mills - Old Mill, Haiku Maui" (DAGS n.d.c).

Figure 10. Photograph of "Sugar Plantation Laborers, Paia Plantation, Maui; Loading Cane" (DAGS n.d.d).

2000:63), as well as 32,015 gallons of molasses (Young 2021). Ten years later, in 1872, the company's production rate had increased to 650 tons of sugar. As production yields were rising, the Haiku Sugar Company increased their landholdings to 6,000 acres in 1800. Of the 6,000 acres, the 1,200 acres that were under cultivation produced 2,600 tons of sugar (Dorrance and Morgan 2000:63). In 1884, Samuel Alexander and Henry Baldwin took control of the company by purchasing the majority of the stock. Later, in 1904, they merged the Haiku Sugar Company with Maui Agricultural Company, which they also owned. At that point, the Haiku Sugar Company ceased operations (Dorrance and Morgan 2000:63). Of note is that at the time of the merger most plantations had their own private cane-haul road system and/or flumes to haul harvests from the widespread fields to the mill for processing and production, rather than transporting cane by rail (Condé and Best 1973:239).

Although the soils were conducive to sugarcane production, water was fast becoming an issue. As more lands were needed to keep up with the demands of sugar production, more water was required since sugarcane depends on large amounts of water to thrive:

> To produce 1 pound of sugar takes 4000 pounds of water, 500 gallons. One ton of sugar takes 4000 tons of water, a million gallons. One million gallons of water a day is needed to irrigate 100 acres of sugarcane. (Wilcox 1996:1)

The unpredictable East Maui rainfall proved to be another issue causing drastic fluctuations in sugar production levels (Young 2021). In addition, all of the islands were known to have been subjected to terrible droughts at one time or another (Wilcox 1996). Samual Alexander (the manager of the Haiku Sugar Company in 1871) and his friend Henry Perrine Baldwin, who later formed Alexander & Baldwin together, realized the need for a stable water supply in order for the commercial production of sugar to survive (Young 2021).

Hamakua Ditch

In 1876, Samuel Alexander secured the approval of the stockholders for the construction of a major irrigation ditch, the first large-scale water diversion project on the island (Dorrance and Morgan 2000:66). In September of that year, he acquired the right to collect water from the slopes of Haleakalā, east of Haiku Plantation, from King Kalākaua's government, in essence allowing the diversion of stream waters for the purpose of irrigating the plantation lands. The ditch had to be completed within two years' time, as the license contained the stipulation that construction of the ditch had to be completed within that period, "or all improvements would revert to the government" (Wilcox 1996:55). In 1878, Alexander and Baldwin formed the Hamakua Ditch Company in partnership with the Haiku Sugar Company and T.H. Hobron/Grove Ranch Plantation.

James Alexander, Samuel Alexander's brother, conducted a preliminary survey to determine the feasibility of constructing the ditch. H.P. Baldwin likely surveyed the route and supervised the construction (Dorrance and Morgan 2000:57). An interesting story about Baldwin and the construction project reveals the harsh terrain workers dealt with to build the ditch:

> In 1878 he supervised the digging of the ditch to bring Haleakalā runoff to his Hā'ikū sugar plantation. The ditch had to cross the deep Māliko Gulch and a large metal siphon was assembled. One side of the gulch was a near-vertical precipice and the workers refused to rappel down to assemble the siphon. Baldwin had lost an arm in a terrible sugarmill accident, but he clutched the rope with his legs and his one good arm, and worked himself down to the bottom of the gulch. The workers were impressed. Soon they followed his example and the siphon was completed. (Dorrance and Morgan 2000:59)

The construction of the Hamakua Ditch was a major and extremely dangerous endeavor. Thrum provides the following detailed account of its construction:

> The digging of the ditch was a work of no small magnitude. A large gang of men, sometimes numbering two hundred was employed in the work, and the providing of food, shelter, tools, etc., was equal to the care of a regiment of soldiers on the march. As the grade of the ditch gradually carried the line of work high up into the woods, cart-roads had to be surveyed and cut from the main road to the shifting camps. All the heavy timbers for flumes, etc., were painfully dragged up hill and down, and in and out of deep gulches, severely taxing the energies and strength of man and beast, while the ever-recurring question of a satisfactory food supply created a demand for everything eatable to be obtained from the natives within ten miles, besides large supplies drawn from Honolulu and abroad.
>
> At the head of the work many difficult ledges of rock were encountered, and blasting tunneling were resorted to, to reach the coveted water. While work on the ditch was thus progressing, pipe makers from San Fransico were busied riveting together the broad sheets of iron to make the huge lengths of tube fitted to cross the deep ravines. These lengths had each to be immersed in a bath of pitch and tar which coated them inside and out, preserving the iron from rust, and effectively stopping all minute leaks. The lengths thus prepared being placed in position in the bottom of the ravines, the upright lengths were fitted to each other (like lengths of stovepipe) with the greatest care, and clamped firmly to the rocky sides of the cliffs. Their perpendicular length varies from 90 feet to 450 feet; the greatest being the pipe that carries the water down into, across, and out of Maliko gulch to the Baldwin and Alexander, and Grove Ranch Plantations. At this point everyone engaged on the work toiled at the risk of his life; for the sides of the ravine are almost perpendicular and a "bed" had to be constructed down these sides. (Thrum 1878:40)

The ditch was completed on time and its success spurred the construction of additional irrigation ditches across the region: the Haiku (Spreckels) Ditch in 1882, the Lowrie Ditch in 1900, and the Koolau Ditch in 1905 (Wilcox 1996:62, 66). The Haiku Ditch, Lowrie Ditch, the Old Hamakua Ditch, the New Hamakua Ditches, and the Paia Sugar mill are shown in Figure 11.

The Hamakua Ditch increased sugar production for the Haiku Sugar Company to the extent that they began transporting the regional sugar to Kahului via the recently completed railroad for shipment out of Kahului Harbor (Young 2021).

Homesteading

The Land Act of 1895 was created for the specific purpose of settling and cultivating Hawaiian land through the small-scale agriculture. This act entitled qualified applicants to a 199-year lease and included a right of purchase lease which consisted of a 21-year lease that could eventually be converted into fee-simple ownership. The lessees were required to build a home, live on the property for at least two years, and cultivate a portion of the leased land (Wright 2015:23).

Two territorial tracts were opened up in Hāmākua Loa Moku. The tracts within this district were categorized as First Class agricultural land, with access to viable water resources, by the Territorial government. The Kuiaha-Pauwela Homestead land consisted of approximately 1,200 acres that had been part of the Government lands at the end of the Māhele (Wright 2015:40).

The second territorial tract was adjacent to the Kuiaha-Pauwela Homestead and was comprised of 1,000 acres that were divided into 27 lots that averaged approximately 35 acres in size. These parcels also had been designated as Government lands at the end of the Māhele (Wright 2015:40).

In 1916 Florence Wood purchased 30.15 acres of land under GR 6553, in which the current project area is located (see Appendix B). Ms. Wood's property is identified as Homestead Lot Number 6 (see Figure 8). This property formerly was within the larger GR 383 which was purchased by Reverend Richard Armstrong in the mid-1800s. Figure 8 also shows that the "New Government Road," the early name for the Hāna Highway, was constructed by March 1909, providing access to the region's growing residential areas.

Pineapple

The commercial cultivation of pineapple was introduced to the Hāmākualoa region in 1923, when Maui Agricultural Company began planting pineapple in the high elevation fields. These were fields that were "...far from the main line railroad and lacked a water supply for fluming and irrigation" (Condé and Best 1973:233). The freshly harvested pineapple was packed in crates and conveyed to the Maui Land and Pineapple cannery in Kahului, via the Kahului Railroad. The Kahului Railroad also had cars fitted with benches that were used to transport pineapple workers to and from the fields (Condé and Best 1973:233).

Beginning in the 1900s and continuing through today, the demand for fresh Hawaiian pineapple surpassed that of the processed, canned fruit. Thus, the canneries across the islands began shutting down operations and closing their doors, including the Maui Land and Pineapple Cannery in Kahului (Young 2018).

Plantation Railroads

> The plantation railways played a vital part in the life and economy of the Islands during the first half of the current century particularly in the 1920s and early 1930s. (Condé and Best 1973:233)

In addition to hauling sugarcane, railways were also used to transport refined sugar and other necessary staples to the plantation stores, sacks of seed for planting, and water to the horses and mules used in harvesting the fields. Laborers also utilized the railway to move across the plantations (Condé and Best 1973:233) and in some cases they were used to transport students to and from school (Dorrance and Morgan 2000:131–132). While many of the plantations had their own railroads, it appears that the Haiku Sugar Company did not (Condé and Best 1973:239).

> Although one has been mentioned several times for Haiku Plantation Co., no motive power assignment has been discovered for that concern, as a result it is believed the railroad at Haiku was an animal powered affair. (Condé and Best 1973:239)

The Kahului Railroad was founded in 1878 by Captain Thomas H. Hobron. Initially the railroad ran between Wailuku town and the Kahului Harbor. In 1881, the railroad was incorporated and its name changed to Kahului & Wailuku Railroad Company. By the time Hobron sold the business to Samuel G. Wilder in 1884, the tracks had been extended as far as Pā'ia. Wilder died four years later and the railroad, then called the Kahului Railroad Company, was purchased by Alexander & Baldwin, and subsequently acquired by the Hawaiian Commercial & Sugar Company. The train ran until 1966 and "enjoyed the distinction of being the last common carrier railroad to transport commercial cargo in Hawai'i" (Dorrance and Morgan 2000:166).

Initially, the plantation railroad line utilized by the Maui Agricultural Company was acquired from the Paia Plantation when they joined forces with the other sugarcane estates in 1904. Subsequently, the Maui Agriculture Company was able to extend the railroad line and by 1916, "the old 35 pound plantation rail was replaced with 60 pound rail" (Condé and Best 1973:231). Ultimately, the

"private cane-haul road system replaced the private railroad and/or flumes to haul harvests from the widespread thousands of acres to the factory" (Dorrance and Morgan 2000:6).

Hāna Highway/Hāna Belt Road (SIHP 50-50-06-4497)

Hāna Highway extends roughly 68 miles between the town of Kahului (Route 36) in central Maui, and Kalepa Gulch on Maui's southeastern side. The roadway corridor was constructed to connect central Maui with the remote region of Hāna at the east end of the island (Figure 11). The Hāna Highway roadway corridor originated as section of the Alaloa trail that was constructed in the mid-1500s, by the ali'i Kihapi'ilani.

The highway is also known as Hāna Belt Road because it encircles the island, in a fashion similar fashion to a belt. The highway was competed in 1926; however the roadway corridor was not completely paved until 1962 (Duensing 2001; Figure 12). Segments of the Hāna Belt Road are listed on the National Register of Historic Places (National Register Reference #01000615; SIHP 50-50-var-01638) under Criteria a and c. However, the section of the highway that is adjacent to the current project area has undergone modern modifications and does not meet the criteria for eligibility on the State or National Register of Historic Places (Perzinski and Dega 2011:26). The Hāna Highway segment adjacent to the project area is more than 50 years old and is considered a historic property, which has been designated SIHP 50-50-06-4497.

Modern construction of the highway began in the 1870s and was associated with the construction of the Hamakua Ditch:

> The modern history of the Hāna Belt Road began in the 1870s when fifteen miles of unpaved road was built from central Maui into East Maui's rain forest to facilitate the construction of the Hamakua Ditch, which was completed in 1878...By the early 1900s, Maui leaders began planning for an improved route to Hāna. Beginning in 1908 and reaching a peak in 1911, numerous concrete bridges were built along the Hāna Coast in anticipation of road improvements...By 1920, the belt road from central Maui to Kailua was suitable for modern automobile traffic. Parts of the road were paved with macadamia to ensure that it was passable during the rainy season. (Duensing 2001)

Contemporary History

Hawai'i has long been considered to be a strategic defense outpost by the U.S. Government. The annexation to the U.S. in 1898 dissolved any prior threat there may have been that Hawai'i would become the possession of another powerful country. Between the late 1800s and early 1900s, there was very little "threat to American security in the Pacific" and other than "acquiring land, making plans" and obtaining "the necessary authorization from Congress" very little was done in the way of establishing a military presence in the islands (Kuykendall and Day 1949:214). Prior to the commencement of World War I, harbor defenses were put in place along O'ahu's southern shores extending from 'Ewa to Diamond Head (Kuykendall and Day 1949:215).

However, this tranquil era ended in the early 1940s, with the involvement of the U.S. in World War II. Military bases on O'ahu were expanded and large quantities of military supplies and equipment were arriving on a regular basis. In addition, military facilities were being established on the outer islands, and Maui was no exception.

The Puunene Naval Air Base (PNAB), the Kahului Naval Air Station, and the Kahului section base were among the U.S. military installations established on Maui in the early 1940s. All of these naval air bases developed from humble beginnings. The PNAB started as a small base used as an

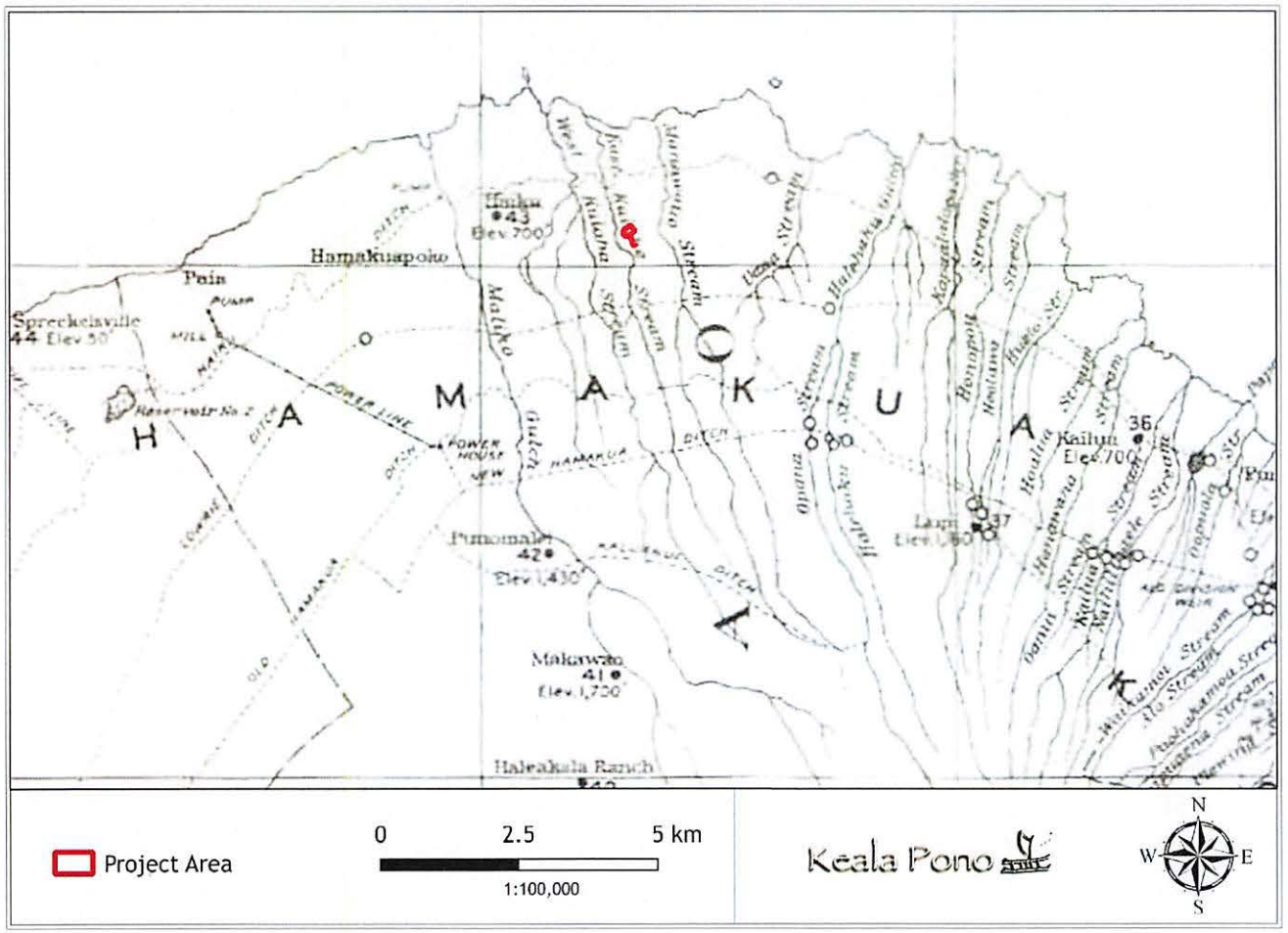

Figure 11. Drainage map, East Maui (USGS 1913).

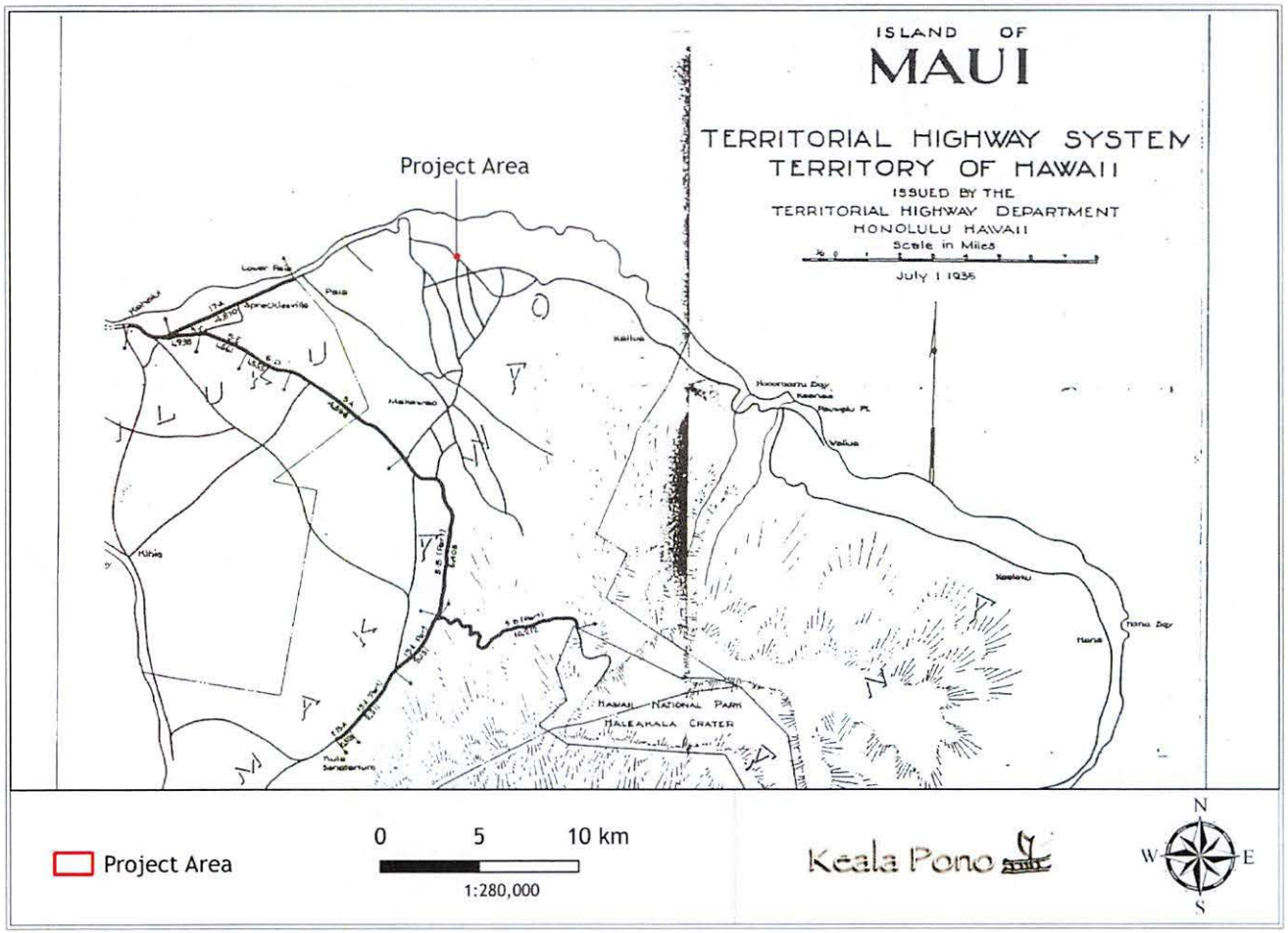

Figure 11. Portion of an Island of Maui Territorial Highway System map showing the completed and in-progress federally funded roadway projects (Territorial Highway Department 1935).

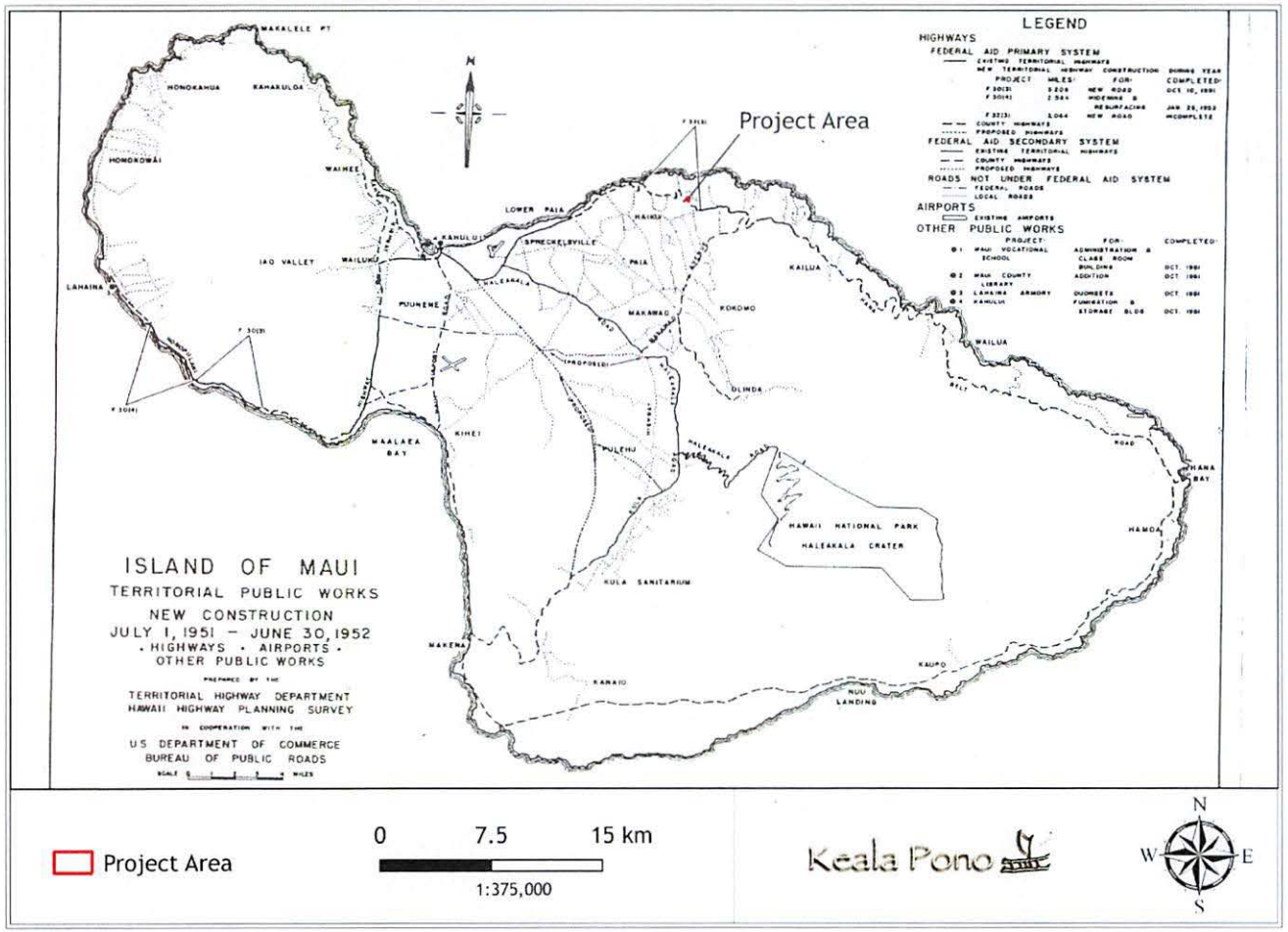

Figure 12. Island of Maui Territorial Department of Public Works New Construction map showing paved and unpaved sections of the Hana Belt Road (Territorial Highway Department 1951–1952).

experimental unit that was constructed on the site of an existing landing strip that had been built by the Territory of Hawaii. Throughout the two year construction period, the size of the base was increased to include the construction of additional facilities; for example housing, personnel and training facilities, bomb and ammunition magazines, and storage facilities for aviation fuel were increased (Bingham 1947:151).

In 1942, the Kahului Naval Air Station was located on 1,350 acres leased from one of the commercial sugarcane companies. Approximately one third of the land was under the commercial cultivation of sugarcane and the remaining acreage consisted of pasturelands containing swamps and fishponds. The Kahului section base also was on lands leased from a commercial sugarcane company and much of the infrastructure was already in place and the harbor had already been constructed. Personnel facilities including a mess hall, administration buildings, and quarters to house the men were among the newly constructed buildings (Bingham 1947:152).

The Fourth Marine Division headquarters was one of the smaller military installations established on Maui. It was located in Ha'ikū approximately 2.5 mi. (4 km) southwest of the current project area and overlooks Kahului Harbor. This facility was constructed to house the 30,000-man division when they were not engaged active combat. It consisted primarily of tents used as quarter and Quonset huts that functioned as mess halls, galleys, ordnance buildings, and shops (Bingham 1947:152). Today, the area is a public park that contains a memorial to the Fourth Marine Division and a museum dedicated to honoring these men.

Today, the Hāmākualoa region of Maui is a residential area that is becoming one of the main tourist destinations on the island, with outdoor and adventure-oriented commercial businesses, shops, vacation rentals, and other tourist-related development. Although the sugar industry in Hawai'i has closed down completely, evidence of the sugar plantation and military past is still apparent.

Previous Archaeology

Previous archaeological studies offer significant information regarding traditional and historic land use. Several archaeological projects have been conducted within the current project parcel (Figure 13 and Table 3). The following discussion summarizes the findings of archaeological studies within approximately 1 km of the subject property, based on reports available at the SHPD library in Kapolei, Hawai'i. Archaeological sites in the project vicinity with known locations are shown in Figure 14. SIHP numbers are prefixed with 50-50-06 unless otherwise specified.

The earliest archaeological study on Maui was done by Winslow W. Walker (1930), under the auspices of the Bernice Pauahi Bishop Museum. Dutring this island-wide survey, Walker interviewed residents about heiau, shrines, as well as agricultural and habitation areas. As mentioned elsewhere in this report, Walker (1930) identified a total of 22 heiau in the moku of Hāmākualoa. However, at the time of Walker's (1930) survey, only five of the 22 remained intact, another five were partially destroyed, and 12 were destroyed. Among the destroyed heiau was the Heiau at Waikikena (Walker Site 60). Site 60 was, "Said to have been a large three-terraced platform walled on the sides" situated within the region of Pa'uwela at Hanapopolo (Walker 1930:154). Sterling (1998:102) was later able to place the location of the heiau in Kuiaha. No additional heiau or other traditional features were identified in the vicinity by Walker (1930) during this survey.

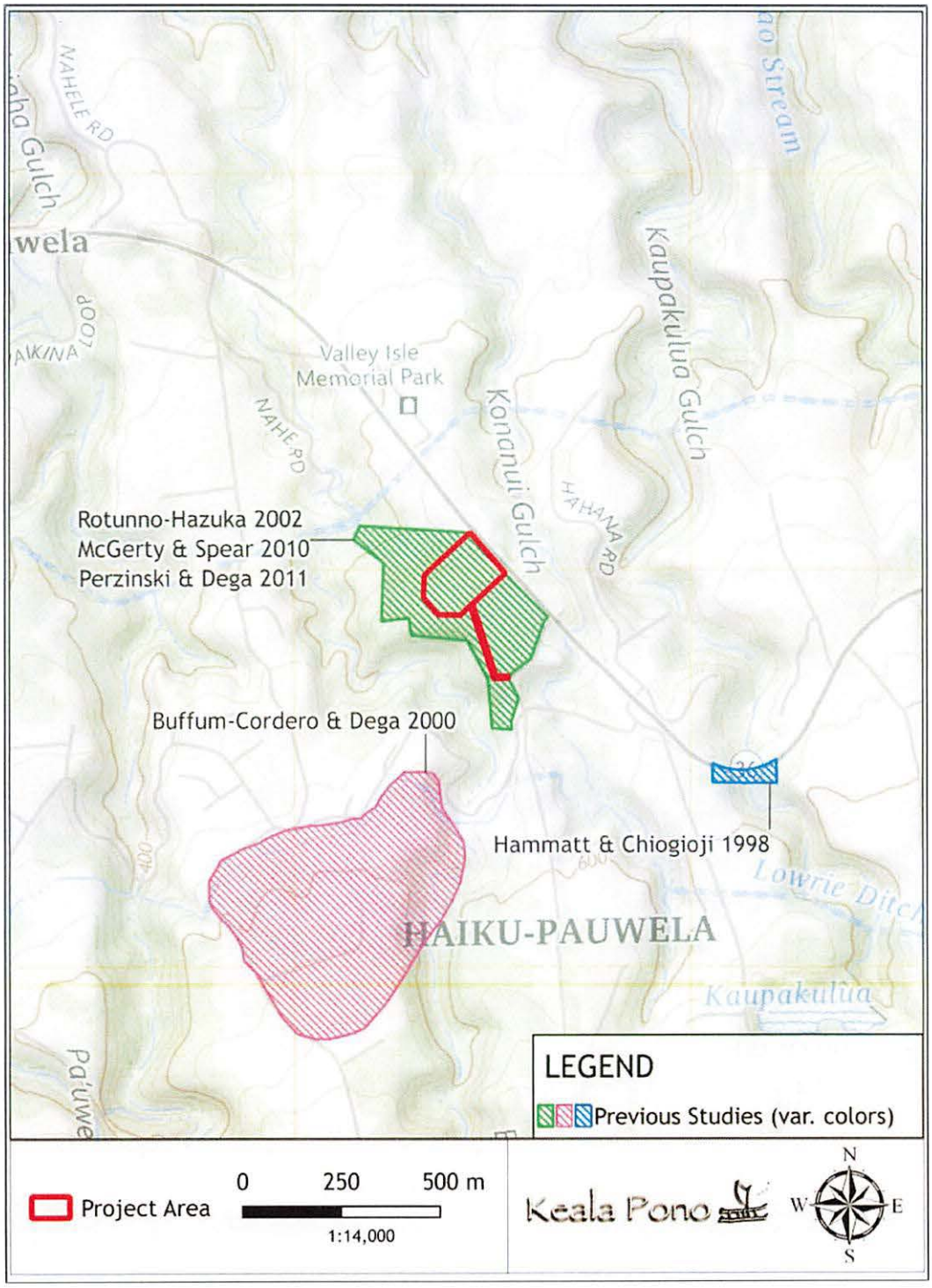

Figure 13. Previous archaeological studies within approximately 1 km of the project area.

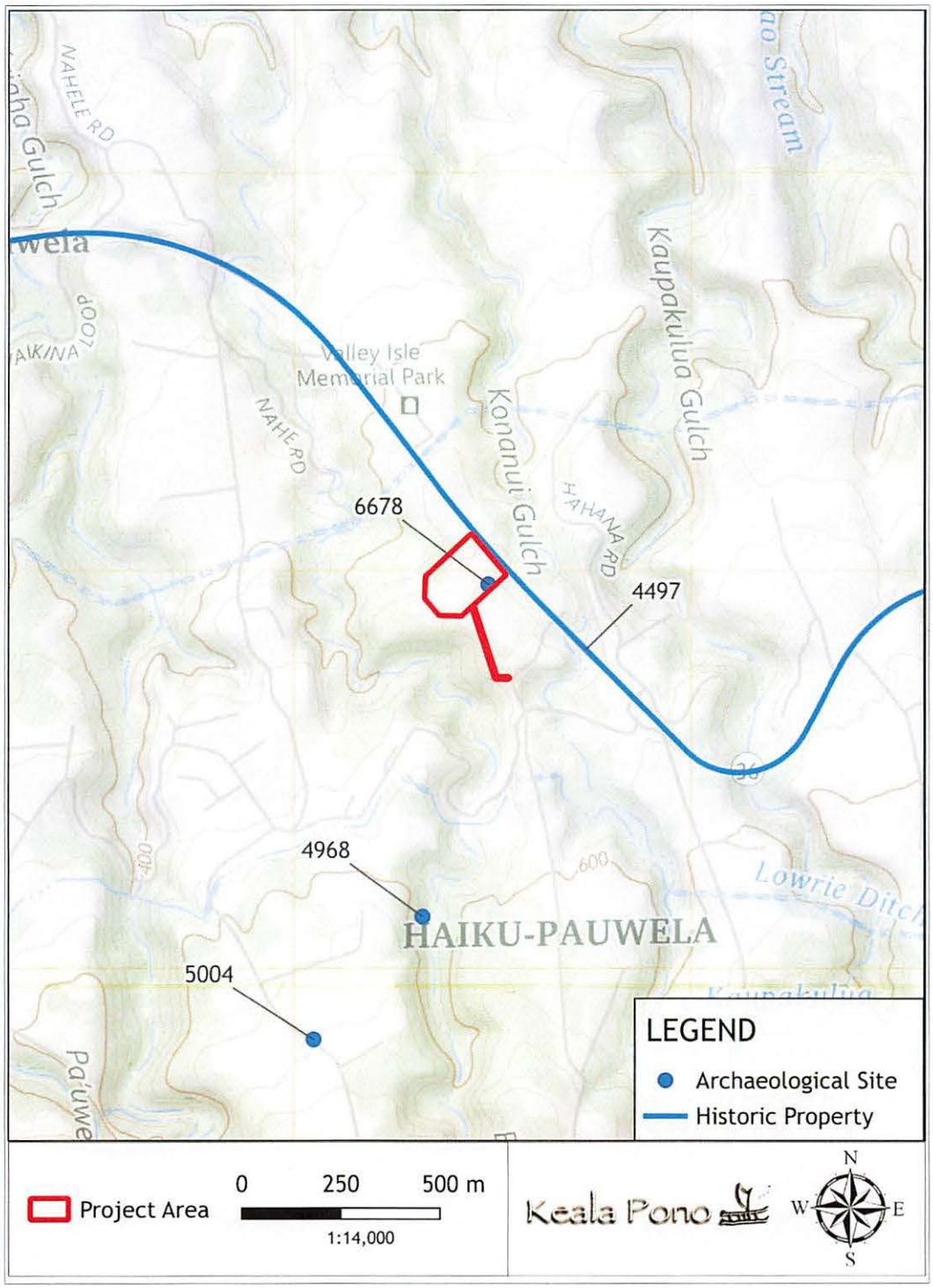

Figure 14. Previously recorded archaeological sites within a 1 km radius of the project area. SIHP numbers are prefixed with 50-50-06.

Table 3. Previous Archaeological Studies within the Project Area and the Vicinity

Author(s) and Year	Location	Type of Archaeological Coverage	Findings
Walker 1930	Island-wide	Survey	No findings near the current project area.
Hammatt and Chiogioji 1998	Kaupakalua Bridge	Reconnaissance Survey	No historic properties identified.
Buffum-Cordero and Dega 2000	TMK: (2) 2-7-008:021, 022, 129	Archaeological Inventory Survey	Recorded a historic retaining wall (SIHP 4968) and a historic house site (SIHP 5004).
Rotunno-Hazuka 2002	Current project parcel: TMK: (2) 2-2-007:008	Archaeological Field Inspection	No historic properties identified.
McGerty and Spear 2010	Current project parcel: TMK: (2) 2-2-007:008	Cultural Impact Assessment	No historic properties identified.
Perzinski and Dega 2011	Current project parcel: TMK: (2) 2-2-007:008	Archaeological Inventory Survey	Documented a retaining wall and terraces (SIHP 6678).

An archaeological reconnaissance survey and assessment for a new Kaupakalua Bridge alignment at Kaupakalua Steam, which crosses beneath Hāna Highway, was carried out by Hammatt and Chiogioji (1998). This study resulted in negative findings.

Three parcels of land, comprising approximately 62 acres, were subjected to an archaeological inventory survey (Buffum-Cordero and Dega 2000). This survey resulted in the identification of two historic properties (SIHP 4968 and 5004). SIHP 4968 consisted of a retaining wall located within Kuiaha Gulch, and SIHP 5004, located to the southwest, was comprised of remnants of a historic house site. Additional features include a second retaining wall and several small terraces associated with SIHP 4968, but were located outside of the Buffum-Cordero and Dega (2000) project area.

The earliest archaeological work completed at the current project area consists of a field inspection performed at the request of the SHPD (SHPD LOG NO: 14648/DOC NO: 9505KD36 and SHPD LOG NO:29954/DOC NO: 0205CD33) (Rotunno-Hazuka 2002). While no historic properties were identified, the findings on a nearby property indicated that cultural deposits and materials were likely to be present in subsurface contexts below the till or cultivation zone, at depths greater than 2.5 ft. below the surface. An archaeological inventory survey, to be conducted in the form of archaeological monitoring, was recommended.

A cultural impact assessment was also prepared for lands including the current project area (McGerty and Spear 2010). No traditional cultural practices or cultural resources were identified during this study. Subsequently, SHPD requested the subject property undergo an archaeological inventory survey (LOG NO: 2007.0715/ DOC NO: 0704JP09).

Most recently, an archaeological inventory survey was conducted at the subject property (Perzinski and Dega 2011). Within the current project area, terraces and a wall constructed of basalt boulders and cobbles were identified and designated as SIHP 6678. These features were interpreted to have been constructed in the 1950s by previous residents, with the terraces utilized as planting areas and a retaining wall to line the driveway. The SHPD has reviewed and accepted the AIS report (LOG NO: 2010:1245/DOC NO: 1011MD25; see Appendix A).

Summary of Background Research

The traditional moku of Hāmākualoa contains a series of narrow gulches and streams that intersect gently sloping land extending down the northern face of Haleakalā to the Pacific Ocean. Pre-contact use of the district centered around its near coastal and marine resources. Wetland taro was planted along the waterways within the gulches, and dryland taro was planted throughout the lower forested areas and near the coast. People traveled between the neighboring ahupua'a using the Alaloa coastal trail, the only path that passed through the district and connected East Maui to West Maui. There were also trail systems throughout Maui that ran between the ocean and the upland areas as well as around the island. While Wailuku, Lāhainā, and Hāna were the main political and religious centers of the island, Hāmākualoa Moku may have also served as a ceremonial center, as 22 heiau are known to have been in the area during traditional times.

The historic era saw widespread changes as early sugar plantations were established in the region. The Haiku Sugar Company, Alexander and Baldwin (A&B), and Hawaii Commercial and Sugar (HC&S/Claus Spreckels) all had interests in Kuiaha and nearby areas. Sugarcane and pineapple cultivation drastically changed the landscape and livelihood of residents, which contributed to a decline in the native population and in the cultivation of native crops. To support these operations, the plantations built miles of ditches, irrigation systems, railroads, access roads, and mills. The Haiku Plantation utilized the Kahului Railroad to ship the processed sugar out of Kahului Harbor. After the formation of the Maui Agricultural Company in 1904, the Paia Plantation's railroad line was used to haul the harvested cane from the fields to the mill. Roads were later established in place of railroad transportation to connect different parts of the island. In general, as the plantations grew in size, workers were housed in "camps." There are no known plantation camps in the project area vicinity.

Previous archaeological studies have recorded historic properties within and near the project area. Surface features interpreted to be planting areas and a wall lining a driveway (SIHP 6678), ca. 1950s, were documented within the current project area (Perzinski and Dega 2011). Nearby, historic sites such as a house site and agricultural features and the historic Hāna Highway (SIHP 4497) have been identified.

Not all information can be found in the archives, in textbooks, or at the library. Rather, it is through the stories, knowledge and experiences of our kama'āina and kūpuna, that hidden information is found. Through them we are able to better understand the past and plan for our future. With the goal to identify and understand the importance of, and potential impacts to, traditional Hawaiian and/or historic cultural resources and traditional cultural practices of the project area, ethnographic interviews were conducted with community members and cultural practitioners who are knowledgeable about the area.

History of Ka Pa'akai Analyses

The Hawai'i State Constitution (Art. XII §7) maintains that:

> The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.

Several fundamental court cases inform on the history of the Ka Pa'akai Analysis. The first of these occurred in 1982 with *Kalipi v. Hawaiian Trust Company, Ltd.* in which a Native Hawaiian landowner on Moloka'i (Kalipi) required access to undeveloped land for gathering rights. Kalipi claimed that because he owned land in the ahupua'a, he should be allowed access for gathering in that ahupua'a, as was customary in pre-contact Hawai'i. The Court determined that "lawful occupants of an ahupua'a may, for the purposes of practicing native Hawaiian customs and traditions, enter undeveloped lands within the ahupua'a to gather those items." The Court recognized that allowing access to private property for gathering purposes might conflict with the modern concept of fee simple land ownership and recommended that this issue should be determined on a case-by-case basis (Jarman and Verchick 2003:208).

A key term in *Kalipi v. Hawaiian Trust Company, Ltd.* is "undeveloped," as this prevents occupants from accessing developed property for gathering purposes. In a discussion of this and other relevant legal proceedings, Jarman and Verchick 2003:209 state that:

> In the case of "fully developed" land, the court suggested that the burden of providing cultural access might prove unreasonable. But where a project was still in the planning stage, that is, "less than fully developed," a planning commission might be required to forge a compromise in which both native Hawaiians and resort guests could happily share the land.

A decade after *Kalipi v. Hawaiian Trust Company, Ltd.*, in 1992 *Pele Defense Fund v. Paty* was initiated for entry into the Wao Kele 'O Puna Forest Reserve by tenants of the neighboring ahupua'a to "exercise traditional and customary rights" in the reserve. This tested the statement in *Kalipi v. Hawaiian Trust Company, Ltd.* that specifically limited access to "lawful occupants" of the ahupua'a. In *Pele Defense Fund v. Paty*, the Court rejected the idea that traditional gathering rights are limited to the ahupua'a by the lawful occupants of that ahupua'a and affirmed that these rights derive not solely from land ownership but also from the established customs observed by Native Hawaiians.

In 2000, *Ka Pa'akai O Ka'Aina v. Land Use Commission* laid the framework for the Ka Pa'akai Analysis by determining "what analysis state and county agencies [must] undertake to ensure they adequately balance private property rights with native Hawaiian gathering rights" (Jarman and Verchick 2003:210). This case originated over the dispute of a Land Use Commission (LUC) determination to reclassify 1,000 acres on Hawai'i Island from a Conservation District to an Urban District, in response to expansion of a resort. This expansion was in direct conflict with Native Hawaiian practices that were taking place on the land, and the LUC made a general statement that the developer should "preserve and protect any gathering and access rights of native Hawaiians." It was argued that these minimal initiatives were insufficient, resulting in the *Ka Pa'akai O Ka'Aina v. Land Use Commission* case. The Court did find that the statement made by the LUC was insufficient, and they established a standard for the LUC to adhere to when cultural land-use rights were in question. The Court delineated three points that the LUC is required to consider when formulating their findings and conclusions:

> (1) the identity and scope of "valued cultural, historical, or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area; (2) the extent to which those resources -- including traditional and customary native Hawaiian rights -- will be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist.

In other words, the Ka Pa'akai Analysis was designed to identify any cultural resources or practices that may occur in the project area, determine if the proposed project will affect the resources or practices, and offer mitigation recommendations to protect Native Hawaiian rights if the project moves forward.

Methods for the Ethnographic Survey

The ethnographic survey for this Ka Pa'akai Analysis was conducted between August and September 2024. Personnel involved with this study include Cathleen Dagher, BA, Ethnographer, and Windy Keala McElroy, PhD, Principal Investigator of Keala Pono Archaeological Consulting. Interviewees were selected because they met one or more of the following criteria: 1) was referred by Keala Pono Archaeological Consulting or AHL; 2) had/has ties to the project area or vicinity; 3) is a known Hawaiian cultural resource person; 4) is a known Hawaiian traditional practitioner; or 5) was referred by other cultural resource professionals. Five individuals participated in the current study. Mana'o and 'ike shared during these interviews are included in this report.

The interviews were completed via videoconference, telephone, and email. Oral interviews were taped using a digital recorder. Prior to the interviews, each person was provided with a map or aerial photograph of the subject property, the Agreement to Participate (Appendix C), and Consent Form (Appendix D), and briefed on the purpose of the Ka Pa'akai Analysis. Exceptions to this process were made, where the interview questions were sent by email to an interviewee who preferred to provide written answers rather than participate in an oral interview due to time constraints. Research categories were addressed in the form of open questions which allowed the interviewee to answer in the manner that he or she was most comfortable. Follow-up questions were asked based on the interviewee's responses or to clarify what was said.

Transcription was completed by listening to recordings and typing what was said. A copy of the edited transcript was sent to each interviewee for review, along with the Transcript Release Form. The Transcript Release Form provided space for clarifications, corrections, additions, or deletions to the transcript, as well as an opportunity to address any objections to the release of the document (Appendix E). When the forms were returned, transcripts were corrected to reflect any changes made by the interviewee. For those that submitted written responses instead of an oral interview, the written responses are reproduced here without editing.

A total of 18 potential interviewees were contacted, resulting in five individuals participating in the ethnographic survey (Table 4). The ethnography process consisted of examining each transcript and organizing information into research themes, or categories. Research topics include connections to the project lands, archaeological sites and cultural practices, historic land use, and concerns and recommendations for the project. Two oral interviews were completed and three participants completed the written interview questionnaire. Edited transcripts and the unedited online questionnaires are presented in Appendices F through J. Additional comments were received from Kiersten Faulkner, Charla Konohia, and Manuel Kuloloio, who presented their personal mana'o via email.

Interviewee Background

The following section presents background information for each interviewee, in their own words. This includes information on the interviewee's 'ohana and where the interviewee was born and raised. The oral interviewees are Lucienne de Naie and Dr. Scott Fisher and the written questionnaires were completed by Joyclynn Costa, Noryne Hiromoto Taylor, and Terrill James Kane Alii [Kane Alii] Williams.

Joyclynn Costa

> Joyclynn Costa, born in the '50s and raised in Haiku. I attended Haiku School through the 6th grade then attended Kamehameha until graduation.
>
> My father was raised in Haiku and attended Haiku School as well. My mom moved to Maui from Oahu. She was very close friends with both Dickie and Sue Hiromoto. She helped to service the store now known as Nuka's and Sue ran the barbershop. Dickie ran the pineapple field then later his son opened a mushroom farm.

Lucienne de Naie

> Lucienne de Naie...My whole name is Antoinette Lucienne de Naie...I was born in Los Angeles in 1947. Came to Maui first in the early 1970s. 1972. For a few months. To surf. Basically. [laughs] To go surfing...I grew up all over California. I graduated from high school in Orange County, California...I moved here in 1985. So, I've been connected to Maui for a long, long time...For almost 50 years.
>
> My mom grew up in Los Angeles at the turn of the century. My mom was born in 1909. So, she was older than my dad. My dad grew up in the Cleveland area. He was born in

1922. My mom was born in 1909. But, my mom did not...She was not truthful about her age...And she was sort of a *bon vivant*. My mom was a writer. She worked as a secretary to the President of Republic Picture Studios, which made a lot of the b-westerns in the pre-war and after the World War II years.

My dad worked for U.S. Steel and he got transferred to new plants. I guess his job was to design certain parts of their engineering department for U.S. Steel. Or maybe it was design certain parts of their manufacturing. He was a civil engineer. He got a degree when he went to the Coast Guard Academy. They sent him to Columbia University in New York and he got an engineering degree there. He was the first in his family to ever have college degree...Although, my dad being from Cleveland, left Cleveland to serve in the Coast Guard and then eventually, he went to the Coast Guard Academy. He was an officer....He eventually got assigned to be a gunnery officer on a ship that was traveling between...out in the Pacific...He actually was stationed in Hawai'i during the war...My parents met and got married in August of 1946, in San Francisco...

I lived in Costa Mesa. I went to school at U.C. Irvine. While I was going to school I supported myself making jewelry. And it ended up that my jewelry was very popular. So, I kind of put off school after my sophomore year and moved up to L.A. and started a business with my jewelry 'cause my clients were in L.A. My family lived in L.A. My grandparents' house was still there and my aunts and uncles lived there. My parents lived in San Diego County. Down in Encinitas. So, I went back and forth between L.A. and seeing my parents down in San Diego County. And I ended up having a very successful jewelry company, getting married, and eventually moving back to Orange County, and living in Laguna Beach.

I was a jewelry designer for 20 years and it was really fun and a lot of great adventures doing craft shows and going to galleries all over the country. Even went to Europe. Sold my things there. I ended up going to Maui because in the summer of 1972, I had some partners in the jewelry business in Laguna Beach. We worked very hard that summer at the traditional Sawdust Festival. It was one of the summer festivals that happened in Laguna Beach. It's like two months long and at the end of it in August, we were ready to just do something else. Everyone knew people in Maui and we decided we'd go to Maui. I traded my house and car in Laguna Beach for the ability to stay at an artists' commune and have use of their van in Maui.

We thought if we had some sort of festival we could just bring everybody together. So, I got involved with this festival planning committee. And as a result of that I got asked to be the Vice President of the Community Association...I'm President of the Community Association of Ha'ikū. Again, after getting roped in in 1995, I served on the Board for a while and then stepped off the Board for 20 years. And stepped back on the Board about 8 or 9 years ago. But, I'm currently the President of the Community Association in Ha'ikū...I'm involved with the Ha'ikū Living Legacy Project, which is our local historical society. I'm one of the founders of that, too.

Scott Fisher

Scott Fisher....I was born in 1970...in Honolulu. But, when I was about 3 or 4 days old, I moved to Maui...I always say I'm born and raised on Maui. Technically speaking, I wasn't born on Maui, but I've lived here all my life. When I was born, we were living in Sunny Side Camp off of Baldwin Avenue. In the plantation camp. I grew up in Kula. You know, Ōma'opio. And I'm the Director as you pointed out or as you asked, I'm the Director of 'Āina Stewardship with the Hawai'i Land Trust. I guess you can say that when I was born I was living in Hāli'imaile.

Elementary I went to Doris Todd. Kula School. Yeah. So, Kula, Doris Todd, and Seabury. I graduated from HPA... Hawai'i Preparatory Academy... I did my undergrad at Carver State. I did my Master's in Indiana. A PhD in Australia. And I have graduate degrees from Washington State University, University of Idaho. And I'm working on a second PhD right now at the University of Southampton, in Australia. And then, I did a postdoc at University of Leicester. In the UK.

Noryne Hiromoto Taylor

I'm Noryne Hiromoto Taylor and I was born in November, 1967. I grew up in this house at the proposed site, and went to Doris Todd, then Maui High School. I spent two years at UH Manoa and then graduated from the University of London, Goldsmiths' College.

My family all originated from Japan. My parents were born on Maui in the 1920s and met through church. I am the youngest of three siblings. Both of my parents and oldest brother are deceased.

Terrill James Kane Alii Williams

My name is Terrill James Kane Alii Williams, I was born in Portsmouth, Virginia on September 20, 1996 due to my mother's service in the US Navy. I was brought back to

Maui at the age of two months to be taken to my family and then before the age of 1 was take [sic] to San Diego, California due to my mother being restationed there.

My mother's generation were raised here on Maui. We have deep ties to the Hamakualoa district through the Papoko and Kapalehua families.

Table 4. List of Individuals and Organizations Contacted

Name	Affiliation	Result of Contact
Kia'i Collier	Po'o, Aha Moku of Hāmākuapoko, family ties to the area	No response
Joyclynn Costa	Hāmākualoa Representative, Po'o, Aha Moku o Maui, Family ties to the area	Completed the email interview questionnaire
Lucienne de Naie	Long-time resident, President of the Community Association of Ha'ikū, one of the founders of the Ha'ikū Living Legacy Project, member of Mālama Hāmākua Maui	Completed oral interview; assisted consultation process
	President, Association of Hawaiian Civic Clubs	No response
Kiersten Faulkner	Historic Hawaii Foundation	Declined interview, but identified Hāna Highway Historic District
Kamakana Ferreira	Office of Hawaiian Affairs	No response
Dr. Scott Fisher	Chair of the Maui/Lāna'i Islands Burial Council, Director of 'Āina Stewardship, Hawai'i Land Trust, and life-long Maui resident	Completed videoconference interview; assisted consultation process
Noah Gomes	SHPD Culture and History Branch, Ethnographer	No response
Norvne Hiromoto Taylor	Family formerly owned the project area parcel [TMK: (2) 2-7-007:008]; they lived on the property for many years and farmed pineapple there; sister of the late Bryan Tokuichi Hiromoto, who operated the Mushroom Farm on their for family lands, now the project site; their parents were Hideaki "Dickie" Hiromoto and Sueko Hiromoto who owned various parcels in Hā'ikū	Completed the email interview questionnaire
'Ānela Jackson	President, 'Aha Mālama, Corp.	No response
Charla Konohia	Vice President of Mālama Hāmākua Maui, Ha'ikū Community Association Board member, and lineal descendant to the area; her family, the Konohia-U'u 'Ohana, claimed LCA 4959, now Parcel 10, located across the street from the project area, on the stream; her family formerly farmed kalo there	Provided comments via an email from Lucienne de Naie (personal communication October 28, 2024)
Manuel Kuloloio	I ke Kai 'o Kuloloi'a and descendant to the area	Declined interview; provided comments via email
Kepā Maly	Ethnographer, founder of Kumu Pono Associates LLC	Declined interview
Onaona Maly	Ethnographer, founder of Kumu Pono Associates LLC; she has family ties to the 'āina	Declined interview
Dane Maxwell	Former Chair, Maui/Lāna'i Islands Burial Council, cultural advisor	Assisted consultation process
Ikaika Nakahashi	SHPD Culture and History Branch, Maui Cultural Historian	No response
Janet Six	Principal Archaeologist for the County of Maui	Assisted consultation process
Stanley Solamillo	County of Maui Long Range Planning Division Architectural Historian	Assisted consultation process
Terrill James Kane Alii (Kane Alii) Williams	Long time resident and lineal descendant of Nalopi, through his mother, who was awarded LCA 3336, now Parcel 12, located immediately adjacent and below the project area on the stream; cultural practitioner currently farming kalo on the reclaimed LCA. Aha Moku of Hāmākuapoko member	Complete the email interview questionnaire

Topical Breakouts

The following sections are extended quotations from the interviews, organized by topic. Interviewees provided information on connections to the project lands, archaeological sites and cultural practices, and historic land use. They also shared their concerns and recommendations for the project.

Connections to the Ha'ikū Area

Through my family genealogy, I am a lineal descendant Nalopi, my great-great-great-great grandfather for whom the Land Commission Award 3336 was awarded to on September 10, 1852 and the Royal Patent 2194 allodial land title was awarded to in September 1853 and whose responsibility to the subject property dates back even further to 1819, having received the land from his wife in the time of Kamehameha, as mentioned in the Native Testimony - certified copies of which I am providing [see Appendix J]; I am one of many heirs to the unbroken chain of title of my ancestor Nalopi. My family continue to reside on our Land Commission Award parcel and continue to exercise our traditional and customary practices, including the right to use water without a permit, in being the owners of the subject property. [Kane Alii Williams]

So, my tutu grew up right by where the old Maui High is...I think she was born in 1906. In Hanamā'ulu on Kaua'i. But, then her family moved to Ha'ikū, in 1909, when she was 3. And basically, she grew up in that area on Maui. Ha'ikū...Her father worked for Maui Farm...My family worked in sugar since about 1861. Or so...Well, my great-great-great-grandfather...Then my dad worked for HC&S. [Scott Fisher]

This property was purchased by my grandfather, Tokuichi Hiromoto. He had worked as a luna for the plantation and managed to save enough money to buy land in Haiku. He eventually traded his plantation horses for cattle-driving ones when he began dairy farming. This property was originally much larger, stretching from at least below the beginning of Valley Isle Memorial Park to East Kuiaha, and included the land that is now the Hana Hwy as well as some area on the other side of the highway. The land that became the highway was claimed by eminent domain. [Noryne Hiromoto Taylor]

We would visit the [Hiromoto] family and on special occasions participate in pounding mochi in the traditional way. [Joyclynn Costa]

Well, I moved to Huelo in 1985. Almost 40 years ago. I got involved with the local neighbors...I had set up my jewelry studio there in Huelo...Ha'ikū was our nearest town. Our post office was at Ha'ikū. Our town center was at Ha'ikū. There were the old cannery buildings there...Many of the shops or services that were available, were in Ha'ikū...The lumber yard...everything was in Ha'ikū. Ha'ikū was sort of the center of my life. Huelo's about 10 miles from Ha'ikū. The nearest place to go for everything...Huelo does not have its own town anymore. Although, it was a town back in the plantation era. There was a plantation in Huelo back in the 1880s. 1890s. And it had its own post office. Its own school. And everything. But when I lived in Huelo, it was a very, very small area. There were about a dozen non-Hawaiian families. Haole families that lived there. And then mostly local families. All the local families just kind of took us in....We were invited to all of their family get-togethers. Met all the kūpuna. They had the old Hawaiian church here. The Kaulanapueo Church. There was also a Hawaiian based branch of the Door of Faith church in Huelo. And so I just became sort of integrated in this community and learned a lot about its history. And a lot about the history of the general area of Ha'ikū. Just from talking...Going to church...Talk to the old timers. I've always liked to listen to what people had to say. Older people. I'm just one of those people that even when I was young I would sit with the old people and listen to what they had to say. [Lucienne de Naie]

In 1995, one of my neighbors...asked me if I would go to a Community Association meeting...So, I got involved with the Ha'ikū Community Association. And that's when I first got associated with this proposed fire station property...I mean I know the land a little bit 'cause I know Bryan Hiromoto whose family owned it. [Lucienne de Naie]

...We called ourselves the Ha'ikū Ho'olaule'a and Flower Festival...So, Bryan approached us and said, "You know, I have a mushroom growing family farm...He gave us a tour of his mushroom farm, which was in this cinder block building there...He took a couple of us on a tour. And then, we went hiking along the land, too. [Lucienne de Naie]

...A bunch of us are all involved with a non-profit called Mālama Hāmākua Maui and we care for that preserve. So we're down in those gulches down along those streams and stuff all the time now. [laughs]...Yeah. So, I've gotten to know East Kuiaha Stream very intimately. I've hiked it all the way from Hāna Highway basically to where it comes out at the ocean. [Lucienne de Naie]

I know a lot about Ha'ikū's history. Because I was a founding member of the Historical Society. [Lucienne de Naie]

Archaeological Sites

In the Native Register - a certified copy of which I am providing [see Appendix J]-- there is identification of lauhala trees as well as a house site; in a 1934 map created by East Maui Irrigation in Land Court Application 960, although the boundaries of the parcel are incredibly inaccurate, there is an old house site that is diagrammed within what are the true boundaries; the true boundaries of Land Commission Award 3336 as identified in the certified copies of the original land documents from the mid-1800s. The location of where that house site was is at a higher elevation of the subject property, away from the flood zone of the East Kuiaha Stream, and is close to areas where the water corridor is planned to go through. [Kane Alii Williams]

I think the only structures you're going to find are probably related to that. It's former use. I don't...It's possible there could be...With burials, they could be anywhere...Do I expect them to be found? Not really on a relatively small area. But should you be entirely prepared for it? Absolutely. [Scott Fisher]

So, Fredericksen did a study...He did a small study for Alex Bode. Alex Bode farmed along East Kuiaha Stream...Rediscovered Waikikena Heiau, which is above East Kuiaha Stream, makai of the highway...Alex Bode, who has passed on now, formed an organization called the Waikikena Foundation....Named after Waikikena Heiau. Which was said by Walker to be destroyed. It's one of Walker's sites. But, it was said to be destroyed. In the pineapple fields. Destroyed. Actually, there are remnants of it. And Alex Bode discovered that. He had a program...He leased hundreds of acres of land from A&B. He had...used programs where he took at-risk youths and offered them kind of an adventure camp...So, Alex leased lands and these lands have lots of archaeological sites...The kids cleaned around Waikikena Heiau. There's other related sites. There's lots of lo'i. There's house habitation sites. There's all kinds of stuff. So, they had Fredericksen come in...and I think he just did it pro bono. And he did a small survey area along the East Kuiaha Stream. But makai of the subject property across the Hāna Highway. [Lucienne de Naie]

I can only glean on the stories that kupuna would share which was not often or public. Where kanaka is known to live so are their iwi. If the maps reveal LCA/RP it is most certain iwi will be found. The location is unknown currently since time has pass and kupuna are no longer here. What I can claim to impact is our ability to remember. As layers upon layers of uses impose itself on the aina the further from our window of memory is erased. We become lacking defense of knowing for this sort of inquiry and vulnerable for exposure and destruction when found. [Joyclynn Costa]

Well, I wouldn't be surprised if some of those terraces that SCS said are from the '50s or whenever might have been traditional. Because you had three LCAs around that property, as I recall. [Lucienne de Naie]

I'm definitely not an expert on the area, but we don't come across iwi kūpuna very often. In 18 years on the Burial Council...I don't remember any Ha'ikū burials coming up, off the top of my head. Obviously there's a whole bunch down at Kaulahao and other places...To be honest with you, I can't really add a huge amount to the discussion of Ha'ikū other than to say it's not a place that comes up very often...or that the interior comes up very often with a lot of iwi kūpuna. [Scott Fisher]

I remember my father and brothers talking about Hawaiian graves on the property. It was in an area on the far side, opposite the Hana Hwy. and in an area with trees. They did not disturb them. I recall them saying that they were marked with "make." [Norvne Hiromoto Taylor]

You know the hill they call "Ha'ikū Hill." Again, somewhat far away from where we're talking about. They call "Ha'ikū Hill, but it's actually Pu'u o 'Umi and it is a burial site of...and again, this is far away from it...The burial site of Elia Helekunihi who's kind of a Maui-famous historian. Kind of the same caliber and level as Samuel Kamakau. [Scott Fisher]

...There was a heiau down there -Waikikena heiau. No. That's in Hāmākualoa. There was one on Alex Bode's property. Not too far from there...He pointed out a lot to me when I went down there...the site of a heiau...It's not on the coast. So, I don't really know the exact access point. But, it's down by Peahi... I just don't remember the name of it [Resolved: I'm fairly sure it was Waikikena heiau]. Yeah. It's been a long...It's probably been 20 years since I was down there. [Scott Fisher]

The other surveys that have been done in this general area where they've had a few carbon dates are generally 1400 to 1600. So, if you had things on this property along the stream they very likely could be buried because...Let me just say I witnessed the flood that happened here just in 2021. In March of 2021. East Kuiaha Steam flooded. And oh my god, just tons of silt came down. And the flood uncovered all kinds of stuff that was way below the surface. Rock walls and all kinds of things....Yeah. There's stuff below

the surface along this stream. I can just say from just that one experience. [Lucienne de Naie]

There is also a small cave on the property for which our ancestor Nalopi was known by the family to frequent often. [Kane Alii Williams]

There is also a small ahu (altar) located closer to the road that has a moa (a triangular shaped stone), the altars of which is named Kupouamoa in dedication to the small land division that the subject property is located within, Kupouamoa (Kuponamoa). [Kane Alii Williams]

Traditional and Cultural Practices and Beliefs

Traditional cultural practices in the Ha'ikū – East Kuiaha Highway area...would mainly be of course farming would have been taro in Kuiaha Gulch. I'm sure there was...I don't know specifically of any lo'i kalo in that area specifically, but they are very common throughout the region. Kekona Gulch and all around that area. It would not be surprising that in that area there were a number...Of course, the other main cultural resource was access to the ocean...Those are the two main...Farming and then the other one was access to the ocean. So, there would have been trails around there...Historic trails people would have used...Those are the two main cultural practices. Although, if you think about it. That I'm aware of, at least. [Scott Fisher]

In the Land Commission Award 3336 document and mapping, there is a traditional Po'alima that is identified; a Po'alima is a taro patch that was worked and cultivated collectively for the chief, normally on Friday's. [Kane Alii Williams]

There was a lot of kalo growing going on along that stream right where this property is. I'm sure there was other farming there. Other traditional farming. It's very rich land. [Lucienne de Naie]

Our family continues to exercise our kuleana rights on Land Commission Award 3336. This includes cultivation of food plants such as kalo, uala, mai'a, 'ulu, ko, niu, cultivation of medicinal plants such as mamaki, popolo, 'olena, cultivation of marine life from the stream, including 'o'opu and 'opae, the raising of pigs closer to the road, the raising of chickens, our traditional religious practices. We also grow guinea grass on our property and convert it into mulch. My family and I continue to reside on Land Commission Award 3336. [Kane Alii Williams]

As written by the well-known Hawaiian historian Samuel Kamakau, "Since the main thing was to hide the bones, they were buried, kanu me ke pao, under new houses, in roadways, in banks of taro patches, or any place they would be concealed." [Kane Alii Williams]

...It is now used as the site of a Pohaku-o-Kane (Stone-of-Kane), a shrine dedicated to our family's traditional religious worship of the Hawaiian god, Kane. [Kane Alii Williams]

And also Konanui Gulch...It comes out at the ocean separately in an area that's a traditional fishing area. East Kuiaha Stream comes out in an area that's a traditional fishing area, too. You can go down to the ocean at East Kuiaha Stream. You can pretty easily climb right down to beyond the cobble beach there. That stream also runs through this fire station property. [Lucienne de Naie]

Yes there is currently kuleana being done nearby. I have notified Terrance [Kane Alii Williams] in hopes he will also respond. [Joyclynn Costa]

My friend Kane Alii owns the property...immediately upstream from this property...He's walked all up and down trying to figure out...because sometimes he has water and sometimes he doesn't because A&B opens and shuts the gates and stuff. [Lucienne de Naie]

But, the other thing I know about it is my friend, Kane Alii, farms on a parcel that was a Land Commission Award. It belonged to someone named Nalopi...Was his ancestor. Back in the Māhele. And that parcel adjoins...I looked it up on the TMK map. I went, "Gee, this is where Kane Alii's place is, isn't it? Yeah." His parcel adjoins this parcel where the fire station is proposed. The East Kuiaha Stream goes through his parcel. His parcel is just a little bit above the intersection of the Hāna Highway and East Kuiaha Road. And it joins this parcel. He is native Hawaiian. And he is growing kalo on that parcel. Currently. [Lucienne de Naie]

He has a sign up on Hāna Highway when he has kalo available. He paints a sign saying, "Kalo. Turn here." [laughs] Now, A&B claims the land that he is living on. But he and his mom...His mom is a descendant of Nalopi. [Lucienne de Naie]

So, he lives on the adjoining parcel. The parcel that butts up to the stream end. I don't know if you ever noticed the parcel's kind of funny shaped 'cause the stream goes through it. The stream end of it. He farms along that stream...He's made a formal

complaint at the Water Commission that he deserves to have water for kalo. [Lucienne de Naie]

But I would be very surprised if he doesn't actually access this property using his PASH [Public Access Shoreline Hawai'i] rights. [Lucienne de Naie]

That area is rich culturally. You know...Pu'u o 'Umi and Pu'u Kauhikoa...But that specific site. Not really. I don't know of any specific gathering in that area. I'm familiar with the area. But not in terms of its cultural...that specific. Anyway. [Scott Fisher]

Gathering. I have no idea. I don't know...On that specific property. I've never heard...That would probably be...Joyclynn Costa would probably know that a lot better...[Scott Fisher]

It has already started. See above mana'o [under Archaeological Sites heading]. The question itself is causing harm. Our ability to not remember becomes the reason for progress and the additional harm towards erasure. [Joyclynn Costa]

Or whether he goes along the stream to observe things. Which you know kilo is cultural use, too. [Lucienne de Naie]

They just set up a tent and they just went back and homesteaded their family land...He's just trying to make the point that his family never sold that land. They have the right to be there and they have the right to farm there. [Lucienne de Naie]

There were also a number of taro patches in that region...Ha'ikū obviously taro patches and access to the shoreline. There's a number of old trails going down the cliff faces down to the ocean. So, that's definitely...understand how...appreciate how important public access was on these trails. It's not in the actual build-out area, but it's definitely in the region. [Scott Fisher]

I am not aware of any [traditional gathering practices] personally. I would suggest that you talk to Kane Alii because he is along that stream. I don't know if he gathers anything along that stream. If so, he may gather...There's a small portion of the stream that goes though the bottom of that property. [Lucienne de Naie]

My guess would be agriculture maybe in the gulch would be more common. And maybe the gathering of lā'au lapa'au and other traditional materials. That is entirely possible. [Scott Fisher]

Whether or not that was used...People would say, "Hey, I need to go gather X, Y, or Z...Oh. That's right by East Kuiaha or that address." I don't have any information about that. It does seem reasonable that there would be some gathering going on in there. [Scott Fisher]

Historic Land Use

...Ha'ikū is an old pineapple growing area. It's an old Hawaiian community. [Lucienne de Naie]

And that Parcel 10, right below there. It was claimed by U'u... The U'us. They still own a few Land Commission Awards on the other side...on the makai side of the highway along Kaupakalua Stream. They are still under family ownership and there are family graveyards there. [Lucienne clarifies that U'u is the Konohia family's ancestor and that Kane Alii's ancestor is Nalopi] [Lucienne de Naie]

And the reason all these people claimed LCAs along that stream had to be because it was productive. [Lucienne de Naie]

There's the one that's that Parcel 10. That weird shaped one. That Mahi Pono owns now. That was an LCA right along the stream. There was the other LCA. What was the name? Akanaka? These are old. I did a whole slide show on the Hawaiian side of Ha'ikū. And so I looked up a lot of the old LCAs. Kepā Maly did a great study of East Maui for A&B in 2002...the LCAs there. He just collated everything in one place. Translated 'em all. And it's searchable. So, you can just put the number of the LCA in and it will tell you all of the native testimony and everything. But, there was definitely kalo growing along that stream. As I recall, those LCAs...The Nalopi definitely had kalo. And the LCA that's on the other side...That Parcel 7 was an LCA. I think that was the Kekanaka or Kekaunoa. I'm sorry. I'm not remembering the Hawaiian name. I have all that stuff in my slide show...That had kalo growing, as well. I don't recall Parcel 10. I think that was the U'u's actually, too. That's the Konohia family. That's Charla's family. [Lucienne de Naie]

The fire station parcel. Parcel 8. I think he told me that there was an old reservoir there. From the Haiku Sugar Company days. You know there was sugar grown in Ha'ikū...But very late in the 1800s. Not like the heyday of sugar that we know about, that was in like the 20th century. But, there was the Haiku Sugar Company. There was the old Haiku Mill that is now a registered historical landmark...Anyway, the old Haiku Mill is now like a wedding location. They have it beautifully fixed up. And so that's a historic building that's there. The Kalanikahua Hou Church, which is on Hāna Highway, just a little ways down from the fire station site is a historic building. [Lucienne de Naie]

There was a historic church there, but it was destroyed by fire. And so the current building is a Quonset hut that was brought there after World War II, when a lot of surplus buildings from Camp Maui were being moved around...It's historic because the Quonset hut was part of Camp Maui. The steps leading up to today's Kalanikahua Church were part of the old church that was built more in the 1800s. It's a Hawaiian Congregational Church. United Church of Christ. And there has been continuous use of that church for 100 years or more....It's a very active church. And many prominent families are featured in the graveyard there. Cemetery there. So that's a very historically significant place in the vicinity. The Spreckels Ditch I believe runs right along one boundary -one side of the proposed firehouse property. [Lucienne de Naie]

And then of course military activity during the second world war. A lot of these gulches...Somebody told me...Military had a lot of...Somebody told me they had a bazooka range in the...in one of the gulches. I'm not sure if it was Kuiaha. But, if there's no evidence of military activity on this parcel, I wouldn't really...It doesn't really apply. But, the area does have quite a bit of history of military use...The Fourth Range Division was pretty much all over that area. [Scott Fisher]

They called his dad "Dickie." What was his Japanese name? Hideaki was his official name. Everyone called him Dickie. He was a colorful character, too. I think he was Bryan's partner. I think he helped finance the mushroom farm. He had farmed pineapple there for years. [Lucienne de Naie]

When my parents got married in 1955 my grandfather gave them the 27 acres for pineapple farming and for them to build a house on. My father farmed pineapple until the 80s, when my brother took over with his mushroom business. [Noryne Hiromoto Taylor]

The Spreckels Ditch I believe runs right along one boundary...I think there's a tunnel there or something for the Claus Spreckels Ditch...Because right across the street you can see it ran across the street...On Konanui Gulch. I've stood there...Where all that remains now are the cement brackets that used to support the pipe....It was a big iron-riveted pipe was the Spreckels Ditch in that area. And I believe it turned. I think the old maps I have show it turned and went across what is now Hāna Highway. And went along the edge of this property. I don't think it went through it, but it went along the edge of it. [Lucienne de Naie]

But, there's a lot going on in that area. I think there's a reservoir Bryan said was at the bottom of the property. I think it may show up in that 1914 map. If you look at that 1914 map. [Lucienne de Naie]

Well...these were people who were vague. They said there was a bazooka range in Kuiaha. They didn't say if was east or west or if there was another gulch. It's really hard to say. Suffice it to say there was a lot of military activity. There's a bombing range at Honopou. So, that was...that's pretty well known...In that whole area was a lot of military activity. [Scott Fisher]

Anyway, back to the whole connection with the land, I have walked on this land. I have seen what it looked like back in 1995. That was 30 years ago. I know a little bit about it...We went hiking...At the time, I remember there were a lot of avocado trees...Fruit trees...Mango trees. Maybe down there. The land slopes down into Konanui Gulch. Or maybe East Kuiaha Stream Gulch. I guess it's East Kuiaha Stream Gulch and maybe Konanui Stream kind of branches off it or something. It's like a steep gulch. Down at the bottom of the gulch they had a lot of fruit trees planted. [Lucienne de Naie]

They had a farm. They had a little fruit stand thing, as I recall, along the road. A very informal fruit stand. Up, on the higher part of the land, which is where the land joins East Kuiaha Road and Hāna Highway, that was where their house was and this cinder block garage. There were a bunch of little buildings, too. That I recall. Byran told me his family lived there in the 1950s. [Lucienne de Naie]

In the past it was a really nice farm. And I guess they farmed pineapple on part of it. The steeper part as I recall had fruit trees on it. It had avocado. Maybe mango, too. I just remember seeing these shiny green avocados there. [Lucienne de Naie]

At that point, my father used the area below the greenhouses to grow poha berries, various vegetables and ginger flowers, and raise bees. [Noryne Hiromoto Taylor]

In the general area there of Ha'ikū...Yeah. There are some very significant buildings. If you go up the different the streets very prominent people lived on different streets. Martha Beckwith, the famous historian, lived right on Pauwela Road. Her family house is still there. The Lindsay family, who were a prominent local family, lived right at the corner of Ha'iku Road and Kauhikoa Road. And that was said to be a makahiki grounds there. Mr. Lindsay had all kinds of artifacts and stuff that he found. Mr. Lindsay was the State Forester. What was his name? James? He still had relatives who...When I first moved to Ha'iku he still had relatives who lived in Ha'iku. There was the Lindsay Nursery that was up on Ha'iku Road. Up past the cannery. And in fact, they were the ones who inadvertently introduced coqui frogs into the area. They had some plants from the Big Island tree ferns or something that had coqui frogs. They escaped into the Māliko

Gulch, which runs behind those lands. And got established. That's another little bit of history. But the Lindsay family owned land in that area...Owned land not by the project, but in the vicinity. And their historic house is now a bed and breakfast. [Lucienne de Naie]

There were a lot of Japanese American folks that came over to work in the pineapple fields. Or the sugarcane fields. And then, they were smart people and they started their own pineapple farms. And they sold to the big canneries. Ha'ikū had the Libby-McNeill pineapple cannery over on West Kuiaha and then they also had the cannery there in the middle of Ha'iku town...It was a company affiliated with A&B. They called it Maui Fruit and Packing or something, which is on Ha'ikū Road. And so, we had two canneries. There was another small cannery up off of Kaupakulua. And then, there was a cannery actually across the street from the Community Center. The Haserot Cannery. I think it was called. We have pictures of it...It was owned by a Japanese company. It was in West Kuiaha Gulch. Across from the Community Center. And there was a whole cannery down there. [Lucienne de Naie]

That's another part of the history. I didn't mention that...An obscure part of our history. Alexander and Baldwin just scooped up a lot of land that had LCAs and stuff in it around the turn of the century...After the overthrow there was a lot of land exchanging hands. So, they ended up with a whole bunch of land in Ha'ikū. Originally they tried farming sugar on it. But the weather was too unpredictable in Ha'ikū for farming sugar. It would either be too dry or too wet. But, you know this was the 1860s. 1870s. When they bought the original mill in Ha'ikū. They didn't build the original mill in Ha'ikū. They bought it from a small enterprise that did build it. And they came up with this scheme around the turn of the century that, "We will advertise these lands as homestead lots in mainland papers." [Lucienne de Naie]

They wanted a bunch of people to come here and homestead...Well, I researched a book about the history of a completely different area of Maui. Mā'alaea. I authored and published a book in 2023. I worked on it for a couple of years. And in doing so...Well, I researched it during Covid. So, I got special permission to go to the library at UH Maui here and just sit with the archival *Maui News* newspaper records for 100 years. You know, go through the microfiche. It was me the only person in the library in the microfiche room. I spent hours and hours doing this. So, as I was looking up things on Mā'alaea, anything I saw on Ha'ikū I also pulled up and made copies of. I had all these newspaper references from 1916. 1918. 1920. Maybe even into the '30s. About the homestead lands in Pauwela, Kuiaha, and Ha'ikū. All of these poor people come out from the Midwest. Some of them had farmed before. And they tried to farm these really slopey [laughs] overgrown...And they weren't too successful. But, this lot was Lot 6, according to this plat map of the Pauwela-Kuiaha Homesteads. So, that's another part of its history. [Lucienne de Naie]

Yeah. So, this map I'm sending you which is the 1914 map is entitled "Kuiaha-Pauwela Homesteads and Kuiaha-Kaupakalua Homesteads Makawao Maui." Done in 1914 by Wall. He was the surveyor for the Territory at that time. "...Homesteads. Oh. What? This is government land and there's homesteads?" No. It was A&B offering people land...They divided up several hundred acres into homesteads. Probably some of which they didn't even own. [laughs] Because they had stolen it...From Hawaiians who couldn't push back. And that's what Kane Alii's allegation is. He says, "My ancestors never sold this land to A&B. They just claimed it because people had given up. The streams had been diverted for 50 years. There wasn't water for farming. They didn't have money to go to court. They just gave up. And so A&B just took over these lands. But they still really belonged to our family." So, that's kind of part of his story...So, I'm sending you his complaint and this map. Right now. [Lucienne de Naie]

And this lot is one of those homestead lots. I think it's Lot Number 6... And so, it was owned by some nice person who decided to move here and try their hand at farming. The thing was, by this time A&B wasn't in the sugarcane business anymore. They were Maui Packers. And they were growing pineapple. So, they contracted with some of these people, according to the articles I read in the *Maui News*. They contracted with some of these people and said, "Hey...We'll buy your pineapple. If you grow pineapple on this land, we'll buy your pineapple." The people thought, "Oh. Great. We already have our market all set and everything. Yeah. What's not to like?" [laughs] But, it turned out to be a lot harder than they thought. [Lucienne de Naie]

Thoughts and Concerns for the Proposed Project

What I can claim to impact is our ability to remember. As layers upon layers of uses impose itself on the aina the further from our window of memory is erased. We become lacking defense of knowing for this sort of inquiry and vulnerable for exposure and destruction when found. [Joyclynn Costa]

East Kuiaha Stream does run along East Kuiaha [laughs] a little bit. That stream is very meandering. It has a lot of twists and turns and whatever. As long as they are not building in the stream or bulldozing materials into the stream I don't think it will impact the

cultural use. They should be aware that areas that border streams often have old habitations. And they would not be on the surface. Because they're old. They're 500, 600 years old. [Lucienne de Naie]

Additionally, the installation of the water corridor would also damage our existing tarped, gravel driveway easement from the Haiku Road that leads into the rest of our property. At no point can our access to our kuleana parcel be obstructed. [Kane Alii Williams]

I testified on behalf of the Ha'ikū Community Association when this fire station was being proposed in the budget of the County Council. Back in 2009. In support of acquiring the land for a fire station, which in Ha'ikū we desperately need. [Lucienne de Naie]

I don't have any real concerns and I think the benefit it brings to the community is significant. So. Taking reasonable precautions is important. [Scott Fisher]

And I don't want to do anything to stop the building of the fire station. We need our fire station. [Lucienne de Naie]

Well, I hope not. I hope that the fire station is in an area...The area where they were going to originally build it was kind of in the footprint of the existing buildings. So, I don't know if that's still the case or not. [Lucienne de Naie]

The TMK numbers that encompass Land Commission Award 3336 include, but are not limited to, 270070120000, 270070560000, 270070580000. I am very aware the map being utilized so far in the planning is very inaccurate to the true boundaries of the Land Commission Award 3336 - which are identified in the Land Commission Award 3336, Royal Patent 2194 (certified copies of which are being provided) and in the Survey Boundaries for the parcel (a copy of which is provided to assist in reading the script within the previous documents -- and the history behind said mapping; I believe that in order to move forward with the project, it is the responsibility of the client to hire a land surveyor to map the accurate boundaries as outlined in the copies of the original documents concerning Land Commission Award 3336 as we are concerned about trespassing and development through our allodial title property without our previous consent, being compensated, or having a direct benefit due to the late- 1800s to early-1900s history of Alexander & Baldwin and East Maui Irrigation creating fraudulent deeds through Land Court Application 960 in order for the Territory of Hawaii to construct what is now the Haiku Road through our family property and East Maui Irrigation constructing the Lowrie Ditch through our family property without our family's consent, being compensated, or direct benefit to our family; for example, the installation of Haiku Road and the bridge through our property not only resulted in constant car traffic, noise, and disturbance coming through our property, but also impacted the lo'i kalo through building a mound and concrete frame that now blocks the flow of water that would come from a higher elevation relative to the location of the lo'i kalo and traditionally would have ensured our lo'i kalo were full of water even during lower stream flow seasons. [Kane Alii Williams]

Recommendations and Mitigation

This presents a concern as traditionally, it was common for Native Hawaiians with kuleana land parcels to bury the dead right near house sites; as such this project would require a cultural monitor present at all times from beginning to end if it were to proceed despite the plan mentioning there is no need for a monitor (I have previously worked as a hired cultural monitor under Na Aikane o Maui, Inc. for both the Lahaina and Kula wildfires.) [Kane Alii Williams]

I would think those graves should be looked at for cultural significance. I'm not aware of anything else on the property. [Noryne Hiromoto Taylor]

I always put it, in any 10,000 sq. ft. area, just picking a number, the odds of actually finding a burial, unless you're down by the coast or something like that. Or an area where they frequently wash out is fairly small. Especially the further inland you go it gets...it tends to drop off. But, you should always be prepared because they can happen in any environment. Any environment at all. So. I would say definitely...My recommendation would be monitoring. Archaeological monitoring. [Scott Fisher]

Well, I think it's acknowledging its overall history. I would really like to see a display at the fire station. If they would make space. We do have information about the Ha'ikū area, in general, as part of our Ha'ikū Living Legacy Project. So we could provide possibly useful photographs and a little write-up about the general area. I think it would be very helpful to have something about the Hawaiian history. The Kuiaha Stream had many claims during the Māhele for kalo growing. So, it was likely a center. So that's not forgotten. [Lucienne de Naie]

I think identify community members who may have more familiarity with that area. Which is exactly what you are doing right now. When they do any ground disturbance or any ground altering activity should be monitored by an archaeologist. [Scott Fisher]

There needs to be further discussion regarding what our family as heirs, and thus owners of the subject property, will directly get out of our property being dug through or any other form of installation, along with future maintenance that would inevitably occur, from the water corridor being put into our property if an alternative route or access point for the water corridor is not planned or implemented; one potential solution could be a certified document in writing giving the heirs of Land Commission Award 3336 monthly payment of royalties and a perpetual easement and unregulated, unrestricted access to using the water that would be inside the water corridor from any point within the areas of our allodial title property, being part of our kuleana rights to access water without a permit which is protected and outlined in HRS 174- 101. [Kane Alii Williams]

Alright. If you can call Kane Alii and Noryne you might get first-hand accounts...I mainly know what I've read and what people have told me. But, I didn't live there first-hand as those two people grew up there. In the case of Noryne or in the case of Kane Alii are living immediately adjacent...[Lucienne de Naie]

My uncle would probably have more information. He's my father's younger brother, and he was given the piece of land that abutted this property, as well as the original dairy land. His name is James Nadao Hiromoto. [Noryne Hiromoto Taylor]

We had this local resident, Bill Knowlton, who was not Hawaiian, but had grown up here in Hawai'i. Lived in the Peahi area of Ha'ikū for many, many years and taught 4th grade at the school in Ha'ikū. And he was an amateur historian and people really respected his research. He would dig into the archives, etc. When he passed on, he left his papers to two people. To me, because of the Historical Society, and to Haouli Konohia, to Charla Konohia's brother. Because he respected the research work that Haouli did. So, I think it would be very worthwhile to talk to members of the Konohia family. Joyclynn Costa and her 'ohana. If possible. And certainly Kane Alii. Since he is living next door. Basically. [Lucienne de Naie]

There needs to be further discussion with my family, the heirs of Nalopi, as we will not accept a forceful installation of the water corridor through our Royal Patent 2194 allodial title kuleana property without our consent, being compensated, and us having a direct benefit and use of the water corridor without our property. A land surveyor must be hired by the client to survey the original boundaries of Land Commission Award 3336 as provided in the certified copies of the original land documents for the clients own liability purposes. All of the cultural and archeological sites as mentioned previously need to be mapped and documented. There would also need to be a hired cultural monitor present from beginning to end of the project. [Kane Alii Williams]

This cave would need to be documented... There are many prominent stones throughout the property along with many traditional stone retaining walls along the river as well as stone foundations for various mounds. If the project proceeds, these will need to be documented and mapped to preserve the archeological history of the property, especially considering the major flood that occurred in March 2021 in Haiku and came through our property, resulting in mass amounts of causing damage to our property and the flow exiting at water onto Hana Highway. [Kane Alii Williams]

The heirs of Land Commission Award 4959 Band Royal Patent 2169 to Uu also need to be contacted; they are lineal descendants that are also knowledgeable regarding the East Kuiaha ahupua'a and their kuleana parcel is located makai of Land Commission Award 3336 in sharing the same small land division, or ili aina, of Kupouamoa (Kuponamoa) in East Kuiaha. Their kuleana parcel is closer to the planned site of the Fire Station itself and input from representatives of their family is also necessary. [Kane Alii Williams]

In the County records for TMK 270070120000 and outlined under "Legal Information" refer to LCA 960 Map 2 SEC C (Land Court Application Map 2 Section C) that, although not fully accurate, shows the partial of Land Commission Award 3336 as belonging to my ancestor Nalopi in 1934 and inherited by his lineal heirs through an unbroken chain of title; the client the [sic] would also have to obtain certified copies of those records as part of further understanding the history of not only Land Commission Award 3336, but all the kuleana land parcels in both East and West Kuiaha [see Appendix J]. [Kane Alii Williams]

In fact, when the County bought that land people suggested that the unused portion for the fire station...It was suggested by many people who testified over the years that the remaining portion be leased out by the County to organic farmers. And be the County's organic ag park. [Lucienne de Naie]

And there also has been discussion this would be a wonderful place for the County to lease land to local organic farmers. Maybe even have a farmer's market on the highway section. [Lucienne de Naie]

They might find cultural material and they might find even some old house platforms and things like that because this was a desirable place to live. Near the ocean. Good views of the ocean and along the stream. I think they should monitor because Ha'ikū has had a long and rich history. And much of it was altered when the plantations moved in. The surface was altered. The things that are below the surface...They didn't plow up these

lands. Especially land like that wasn't ploughed up much. For sugarcane raising. I don't know what the homestead farmers did. But, ploughing doesn't go very deep. [Lucienne de Naie]

I think it would be worthwhile to monitor...The County has their own archaeologist, so they don't even have to pay for monitoring... That's right. Janet Six. She could write a monitoring plan, you know, for free... [Lucienne de Naie]

The majority of East Kuiaha Stream...the whole East Kuiaha Stream which passes through this property makai of the fire station is also likely to have been a mauka-makai pathway...So, I think there's opportunities to perhaps do a trail through the bottom part of the property where the stream is. Some sort of interpretive trail and then eventually tie it to a trail that's along East Kuiaha Stream on the other side. There's opportunities for the future to use this as more than a fire station. I'd like to get that on the record. [Lucienne de Naie]

...The part of the land...that has the stream...The land slants down towards the stream. Towards East Kuiaha Stream. So, the part of that land that goes along the stream might be an appropriate place to have a public trail that's an educational trail about this stream. Maybe like a little loop trail that you can hike up one way and hike back another way. I mean, there just could be some opportunity for that. [Lucienne de Naie]

And because the land along the stream immediately across the street and all the way to the ocean is public land. So that just creates opportunities for environmental education, cultural education, as well as cultural use. [Lucienne de Naie]

The Native Register also identifies that the lands under Land Commission Award 3336 also had loʻi kalo [see Appendix J]. As a result of the March 2021 flood waters, my family and I also had to restore the stone foundations for the loʻi kalo located closer to the road; these loʻi kalo are in active use and also need to be mapped in the event of another major flood occurring. [Kane Alii Williams]

Short of not building, nothing [could be done to lessen the adverse effects of the project on cultural resources or practices]. Much has already been destroyed and would have to be allowed to be brought back into being that which once was there. [Joyclynn Costa]

Additional Comments Received

In addition to the interviewee manaʻo shared above, comments were received from Kiersten Faulkner, Charla Konohia, and Manuel Kuloloio. These comments are reproduced, unedited, below.

I don't have any additional information on this site other than the Hāna Highway historic district. Mahalo for checking....[Kiersten Faulkner]

She said that she totally agreed that the lower part of the property where the stream comes through definitely has cultural use and has had and does have. Her family the Konohia-Uʻu ʻohana had claimed what is now parcel 10 along the stream immediately below parcel eight where the fire station is going to be built. That was a kalo growing area for her ʻohana. She also said that her recollection was the reason that the Hiromoto family had that particular piece of land for their farm (parcel 8) was that one of the family members had married into the Uʻu family. She also agreed that suggested mitigation for any impact to cultural use that might be posed by the coming of the fire station should be a historical section within the fire station or informational plaques included among its landscaping describing the Hawaiian history of the area. She said that members of the community would be happy to help provide research on that Hawaiian history, and of course some of it may be in your analysis. She also mentioned that her first job was working at the mushroom farm for Brian Hiromoto. [Charla Konohia as conveyed to Lucienne de Naie, personal communication 28 September 2024]

My traditional and customary Hawaiian practices will not be compromised by the construction of the New Haiku Fire Station, and I am unaware of any traditional resources that will be irreparably harmed by this critical undertaking, graciously supported by Federal funds. Thank you for reaching out to me... [Manuel Kuloloio]

Summary of Ethnographic Survey

The five interviewees have connections to and knowledge of the Kuiaha project area, the lands in the immediate vicinity, and the surrounding area. Three of the participants in the consultation process are life-long residents of Maui. The family of one of the participants once owned the property on which the proposed fire station will be located. The property was initially purchased by her grandfather, who gifted her parents with this land when they married in the late 1950s. During her childhood, this person lived with her family on the subject property, where her father had an apiary and grew pineapple and other crops. One interviewee grew up in nearby Haʻikū and has family ties to Kuiaha. Another grew up in Kula and has long been involved with a land

conservation agency that actively strives to protect and steward Hawaiian lands and to connect people to the land in an effort to preserve and protect Hawaiian values.

A long-time resident has reclaimed his family's kuleana land located immediately adjacent and abutting the project area. This individual currently lives with his family on their LCA where he farms kalo and other traditional food and medicinal plants and cultivates freshwater resources in East Kuiaha Stream, which runs through his property. A second individual has been associated with the island for almost 50 years and has been a full-time resident for the past four decades. This person has extensive knowledge of the history of the region. Currently serving President of the Community Association of Ha'ikū, this individual continues to be actively involved with a number of projects that promote researching and preserving the history of the area.

These interviewees shared that the region was used for traditional farming, historic sugarcane and pineapple cultivation, homesteading, and military use for many years. Hawaiian graves are known to be located on the far side of the property, opposite Hana Highway in an area with trees. It was mentioned that the study parcel was homesteaded in the early 1900s and pineapple was grown there during the 1950s, It was suggested that SIHP 6658, the basalt terraces and rock wall identified during the Perzinski and Dega (2011) archaeological inventory survey may be of traditional origin. It was noted that a plantation-era reservoir once was on the subject property and that the historic Hāna Highway is nearby. A frequently mentioned topic throughout the interviews is that the project parcel is located in proximity to a stream once surrounded by LCAs. Several interviewees stated traditional cultural practices are currently being conducted at one of the properties adjacent to the project area. The currently conducted cultural practices include religious activities, farming a variety of traditional subsistence and medicinal plants and the cultivation of freshwater resources in the stream. Historic properties were also mentioned to be on this adjacent property, including a traditional Po'alima, a cave, a historic house site, rock retaining walls along the river, as well as, an ahu, stone foundations, mounds, and the the Lowrie Ditch. Regionally, two prominent landforms, Pu'u o 'Umi and Pu'u Kauhikoa, are in the vicinity, as are recently identified remnants of Waikikena Heiau (Walker Site 60). One interviewee noted lauhala trees and a house site were shown within LCA 3336 on a 1934 map prepared by the East Maui Irrigation Company. Another interviewee recalled seeing fruit trees and avocado trees in the mid-1990s in the gulch below the subject property. Several of the interviewees mentioned historic properties and historic use in the vicinity such as World War II military use and a nearby historic church currently housed in a historic Quonset hut that came from Camp Maui.

Interviewees voiced their concerns for the project. Concerns were expressed that buried traditional and historic cultural deposits and cultural materials, including iwi kūpuna, may be impacted during earth-moving activities on the subject property. Earth moving machines pushing project-related debris and demolition materials into the stream at the bottom of the property was also mentioned as a concern. In addition, concerns were voiced that the proposed project may impact currently practiced traditional cultural activities conducted on an adjacent property abutting the project area and may damage their driveway and affect access to their kuleana parcel. This property is an LCA where a lineal descendant to the original awardee is currently conducting a number of cultural practices. These activities include religious practices, cultivating traditional subsistence resources and medicinal plants, as well as gathering resources in and along the stream running through the LCA. It was noted that the boundaries of LCA 3336 are incorrect and these ongoing cultural practices may fall within the boundaries of the study area. Concerns were also expressed pertaining to gathering rights, as well as access to the ocean, kuleana land, and the stream.

Three community members directly provided their mana'o about the subject property and adjacent lands but did not participate in an ethnographic interview. One person noted that the Hāna Highway has been designated a Historic District, while another indicated no traditional and customary Hawaiian practices would be affected by the construction of the new fire station. An individual with lineal ties to kuleana land across the street from the project area, where she grew up and her family once farmed kalo, confirmed that the lower part of the subject property, near the stream, continues to be used for traditional practices. This individual suggested, as a mitigation measure, that the new fire station include a historical section or display informational plaques in the landscaping detailing the Hawaiian history of the area.

Recommendations and mitigations from the interviewees include the following for the project area: 1) assessing any graves on the property for cultural significance; 2) having on-site archaeological and cultural monitors during construction related ground altering activities; 3) using the land to create opportunities promoting environmental education, cultural education, and cultural use; and 4) including a historical section in the new fire station and displaying educational plaques on the subject property detailing the history of the area.

The interviewees also had the following suggestions for locations outside the project area: 1) conducting a land survey of the original boundaries of LCA 3336; 2) mapping and documenting all cultural and archaeological sites on LCA 3336, including a significant cave; 3) mapping active lo'i

on LCA 3336;4) paying royalties to heirs of LCA 3336 and granting a perpetual easement and unregulated, unrestricted access to using the water within the water corridor, as well as unrestricted ocean access [note that the waterline corridor proposed for this project does not cross the current boundaries of LCA 3336 as depicted on the Office of Hawaiian Affairs Kipuka Database]; 5) obtaining and thoroughly reviewing certified copies of the County records for TMK: (2) 2-7-007:012 and LCA 3336 prior to the commencement of construction activities; 6) preventing trespassing and development on and within LCA 3336 after the new fire station is in use;7) consulting with the descendants of the nearby LCAs (including the heirs of Nalopi and U'u), community members, and the local historical societies; 8) continuing to create future opportunities to use the property as more than a fire station [this refers to TMK: (2) 2-7-007:008 outside the project area boundaries]; 9) constructing an interpretive/educational trail along East Kuiaha Stream; and 10) leasing adjacent County lands to local organic farmers.

KA PA'AKAI ANALYSIS

The objectives of this Ka Pa'akai analysis are to identify any cultural resources or practices that may occur in the project area, determine if the proposed project will affect the resources or practices, and offer mitigation recommendations for the project. Archival research and ethnographic interviews on the project were analyzed for this effort.

An examination of traditional and historic land use for Hāmākualoa as demonstrated in mo'olelo, historic literature, and archaeological investigations shows that this area contained sufficient resources to sustain a large population. The rich, fertile soils allowed an extensive variety of subsistence resources to be cultivated and gathered. Dryland taro was farmed in the forested lowlands and near the coast, while wetland taro patches extended along the gulch stream banks into the upper reaches. In addition, an abundance of marine and freshwater resources were also available.

A coastal trail facilitated travel between Kuiaha, nearby ahupua'a, and other moku. An extensive inland trail system allowed people to travel mauka and makai. While positioned between the political and religious centers of Hāna and Wailuku, Hāmākualoa was known to be an area associated with the ali'i and to have contained numerous heiau in traditional times. Mo'olelo, 'ōlelo no'eau, and oli praise the natural beauty of the region and convey the area's connection to ali'i, supernatural beings, and the gods Kāne and Kanaloa.

In the historic era, Māhele documents record 25 kuleana lots in Kuiaha Ahupua'a. No LCAs were identified within the current study area on the maps and documents that were examined. However, two LCAs were shown to abut the project area and kuleana lands were noted in the surrounding area. Note however, that one of the interviewees called attention to inaccuracies in the LCA boundaries shown on historic maps.

In the mid- to late-1800s, Hāmākualoa was a draw for those with interests in the sugar industry. The Haiku Sugar Company, A&B, and HC&S based their operations in nearby Ha'ikū and planted fields in Kuiaha and the wider region. Sugarcane cultivation drastically changed the landscape. The natural flow of the numerous streams were diverted to supply the plantations with sufficient water for sugarcane production. Ditches, irrigation systems, railroads, bridges, access roads, and mills were built to support these endeavors. Ultimately, these events caused the relocation of the native population and a decline in the cultivation of native crops. In the early 1900s, the commercial cultivation of pineapple replaced sugarcane. However, the unpredictable weather proved to be too challenging for a successful commercial enterprise. A&B subsequently divided hundreds of acres of former sugarcane/pineapple fields in Kuiaha into homestead lots.

Previously conducted archaeological studies have been conducted within the project area and in the vicinity. Basalt planting terraces and a retaining wall used to line a driveway (SIHP 6678) were documented within the current project area. The historic Hāna Highway (SIHP 4497) runs along the northern side of the project area. Additional historic sites including a house site and agricultural features have also been recorded nearby.

Cultural Resources, Practices, and Beliefs Identified

Archival research and ethnographic interviews compiled for the current study reveal that the region and the project area have a rich and diverse history associated with various resources, along with a number of traditional and historic activities. Kuiaha Ahupua'a was an area with marine and freshwater resources, and supported traditional subsistence activities such as fishing, gathering, and the cultivation of crops such as kalo, mai'a, and 'ulu. Once thought to have been completely destroyed by the early 1930s, remnants of Waikikena Heiau (Walker Site 60) have recently been identified in the region. There also were two prominent nearby landforms: Pu'u Kauhikoa and Pu'u o 'Umi, which is also called Ha'ikū Hill, is the burial place of Elia Helekunihi, a well-known Maui historian.

The interviewees shared that the subject parcel and greater region was used for traditional farming, historic sugarcane and pineapple cultivation, homesteading, and military use. An archaeological inventory survey was conducted on a portion of the subject property, which resulted in the identification of two terraces and a wall (SIHP 6678) constructed of basalt boulders and cobbles, interpreted to have been built in the 1950s (Perzinski and Dega). However, one of the interviewees stated that these features might be of older origin. One interiewee who grew up on the property in the 1950s confirmed that her father had gardens and an apiary on the property during that time and she knows of graves on the property. Other interviewees noted it is possible for iwi kūpuna to be present and several thought it likely that historic properties may be present below the ground surface. Historic properties were also mentioned to be on an adjacent property, including a traditional Po'alima, a cave, a historic house site, rock retaining walls along the river, as well as, an ahu, stone foundations, mounds, and the Lowrie Ditch. Regionally, two prominent landforms, Pu'u

o 'Umi and Pu'u Kauhikoa, are in the vicinity, as are recently identified remnants of Waikikena Heiau (Walker Site 60). One interview noted lauhala trees and a house site were shown to be within LCA 3336 on a 1934 map prepared by the East Maui Irrigation Company. Another interviewee recalled seeing fruit trees and avocado trees in the mid-1990s, in the gulch below the subject property. Several of the interviewees mentioned historic properties and historic use in the vicinity such as World War II military use, a nearby historic church currently housed in a historic Quonset hut that came from Camp Maui.

With regard to traditional Hawaiian cultural practices and beliefs, the gathering of resources in the gulch, stream, and coastline were important in the past, with many of these activities continuing today. Access to the ocean, gulch, and stream are critical to continue resource gathering. Several of the interviewees and a community member mentioned that cultural practices were taking place on a parcel of land immediately adjacent to the subject property. This was confirmed by the individual who is an heir of Nalopi, the original owner of LCA 3336, and a participant of this study. At present, this person is living with his family on LCA 3336, farming a variety of traditional plants used for subsistence and medicinal purposes; cultivating and gathering freshwater resources in East Kuiaha Stream, which runs through the LCA; and conducting religious practices.

Potential Effects of the Proposed Project

The proposed project has the potential to affect historic resources located within the study area, natural resources of the vicinity such as the nearby stream, and traditional cultural activities currently being conducted on an immediately adjacent parcel located along the stream below the study area, as well ass access to natural and cultural resources. Awareness of this should be at the forefront of the project to prevent any adverse effects from occurring. An interviewee mentioned the possibility of contaminating freshwater resources with construction related debris being pushed into the stream and recommended protecting the stream. Encountering iwi kūpuna was also mentioned by several of the interviewees, including a former resident of the property who was told as a child that there were graves on the property.

Recommendations/Mitigations

Several concerns were voiced, including the possibility of impacting historic, natural, and cultural resources including iwi kūpuna, and/or impacting currently conducted traditional activities (e.g., religious activities, the cultivation of traditional food sources and medicinal plants, collecting of freshwater resources, marine and stream access, and documented and undocumented historic properties). Another concern was that the boundaries of LCA 3336 were incorrectly surveyed and that the LCA and current traditional activities may extend into the subject property.

Recommendations and mitigations from the interviewees include the following for the project area:

5. assessing any graves on the property for cultural significance;
6. having on-site archaeological and cultural monitors during construction related ground altering activities;
7. using the land to create opportunities promoting environmental education, cultural education, and cultural use; and
8. including a historical section in the new fire station and displaying educational plaques on the subject property detailing the history of the area.

The interviewees also had the following suggestions for locations outside the project area:

11. conducting a land survey of the original boundaries of LCA 3336;
12. mapping and documenting all cultural and archaeological sites on LCA 3336, including a significant cave;
13. mapping active lo'i on LCA 3336;
14. paying royalties to heirs of LCA 3336 and granting a perpetual easement and unregulated, unrestricted access to using the water within the water corridor, as well as unrestricted ocean access [note that the waterline corridor proposed for this project does not cross the current boundaries of LCA 3336 as depicted on the Office of Hawaiian Affairs Kipuka Database];
15. obtaining and thoroughly reviewing certified copies of the County records for TMK: (2) 2-7-007:012 and LCA 3336 prior to the commencement of construction activities;
16. preventing trespassing and development on and within LCA 3336 after the new fire station is in use;
17. consulting with the descendants of the nearby LCAs (including the heirs of Nalopi and U'u), community members, and the local historical societies;

18. continuing to create future opportunities to use the property as more than a fire station [this refers to TMK: (2) 2-7-007:008 outside the project area boundaries];
19. constructing an interpretive/educational trail along East Kuiaha Stream; and
20. leasing adjacent County lands to local organic farmers.

Summary and Conclusion

In sum, background research and ethnographic interviews identified archaeological resources within the project area, on an adjacent property, and in the nearby region. The project lands are clearly significant in both the past and present, and the community should be kept informed on the construction plans, and their concerns and recommendations should be considered during all phases of the proposed work.

GLOSSARY

ahu A shrine or altar.

ahupua'a Traditional Hawaiian land division usually extending from the uplands to the sea.

Ala loa Highway, main road, belt road around an island, a long road.

Ali'i Chief, chiefess, monarch.

'āpana Piece, slice, section, part, land segment, lot, district.

arrowroot The Polynesian arrowroot *Tacca leontopetaloides* was known as pia and traditionally cultivated for food and medicine.

'awa The shrub *Piper methysticum*, or kava, the root of which was used as a ceremonial drink throughout the Pacific.

banana The mai'a, or *Musa* sp., whose fruit was eaten and leaves used traditionally as a wrapping for cooking food in earth ovens.

breadfruit The Polynesian-introduced tree *Artocarpus altilis*, or 'ulu.

Guinea grass The invasive *Megathyrsus maximus*, also known as green panic grass.

hala The indigenous pandanus tree, or *Pandanus odoratissimus*, which had many uses in traditional Hawai'i. Leaves were used in mats, house thatch, and basketry; flowers were used for their perfume; keys were utilized in lei and as brushes; roots and leaf buds were used medicinally; and wood was fashioned into bowls and other items.

hau The indigenous tree *Hibiscus tiliaceous*, which had many uses in traditional Hawai'i. Sandals were fashioned from the bark and cordage was made from fibers. Wood was shaped into net floats, canoe booms, and various sports equipment and flowers were used medicinally.

heiau Place of worship and ritual in traditional Hawai'i.

hikina East.

ho'olaule'a Celebration.

'ike To see, know, feel; knowledge, awareness, understanding.

'ili 'āina Land area; a land section, next in importance to ahupua'a and usually a subdivision of an ahupua'a.

iwi Bone.

kahu Honored attendant, guardian, nurse, keeper, administrator, pastor.

kalo The Polynesian-introduced *Colocasia esculenta*, or taro, the staple of the traditional Hawaiian diet.

kama'āina Native-born.

kauwā Outcast or slave caste within the traditional Hawaiian social hierarchy.

kilo Stargazer, seer, reader of omens.

kō The Polynesian introduced *Saccharum officinarum*, or sugarcane, a large grass traditionally used as a sweetener and for black dye.

koa *Acacia koa*, the largest of the native forest trees, prized for its wood, traditionally fashioned into canoes, surfboards, and calabashes.

konohiki The overseer of an ahupua'a ranked below a chief; land or fishing rights under control of the konohiki; such rights are sometimes called konohiki rights.

ko'olau Windward sides of the Hawaiian Islands.

kukui The candlenut tree, or *Aleurites moluccana*, the nuts of which were eaten as a relish and used for lamp fuel in traditional times.

kula Plain, field, open country, pasture, land with no water rights.

kuleana Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.

kupuna Grandparent, ancestor; kūpuna is the plural form.

lā'au Medicine, medical, trees, plants.

lā'au lapa'au Medicine.

lauhala	Leaf of the hala, or pandanus tree (*Pandanus odoratissimus*), used for matting and basketry.
lehua	The native tree *Metrosideros polymorpha*, the wood of which was utilized for carving images, as temple posts and palisades, for canoe spreaders and gunwales, and in musical instruments; a taro variety that makes red poi.
lei	Garland, wreath; necklace of flowers.
lo'i, lo'i kalo	An irrigated terrace or set of terraces for the cultivation of taro.
luna	Overseer, headman, commissioner.
Māhele	The 1848 division of land.
mai'a	The banana, or *Musa* sp., whose fruit was eaten and leaves used traditionally as a wrapping for cooking food in earth ovens.
makahiki	A traditional Hawaiian festival starting in mid-October. The festival lasted for approximately four months, during which time there was a kapu on war.
mālama	To care for, preserve, or protect.
māmaki	*Piptarus* spp., a small native tree. Fiber from its bark was used to make a kind of coarse tapa. Sometimes spelled mamake in old texts.
mana'o	Thoughts, opinions, ideas.
mō'ī	King.
moku	District, island.
mo'olelo	A story, myth, history, tradition, legend, or record.
'ohana	Family.
'ōlelo no'eau	Proverb, wise saying, traditional saying.
'ōlena	The turmeric plant, *Curcuma domestica*, traditionally used as medicine and for spices and dyes.
oli	Chant.
'o'opu	Fish of the families *Eleotridae*, *Gobiidae*, and *Bleniidae*.
'ōpae	Shrimp.
pa'akai	Salt.
pia	The Polynesian arrowroot *Tacca leontopetaloides*, traditionally cultivated for food and medicine.
pandanus	The indigenous hala tree, or *Pandanus odoratissimus*, which had many uses in traditional Hawai'i. Leaves were used in mats, house thatch, and basketry; flowers were used for their perfume; keys were utilized in lei and as brushes; roots and leaf buds were used medicinally; and wood was fashioned into bowls and other items.
Pō'alima	Friday; also used to refer to work on the chief's plantations, a task that was done on Fridays.
pōpolo	The herb black nightshade (*Solanum nigrum*), traditionally used for medicine and in ceremony.
post-contact	After A.D. 1778 and the first written records of the Hawaiian Islands made by Captain James Cook and his crew.
pre-contact	Prior to AD 1778 and the first written records of the Hawaiian Islands made by Captain James Cook and his crew.
sugarcane	The Polynesian-introduced *Saccharum officinarum*, or kō, a large grass traditionally used as a sweetener and for black dye.
sweet potato	The perennial tuber crop with wide-spreading vines, *Ipomoea batatas*, also known as 'uala, originating in South America.
ti (kī)	The plant *Cordyline terminalis*, whose leaves were traditionally used in house thatching, raincoats, sandals, whistles, and as a wrapping for food.
uhi	The yam *Dioscorea alata*, commonly grown for food.
'ulu	The Polynesian-introduced tree *Artocarpus altilis*, or breadfruit.
wahine	Woman, wife; femininity. Wāhine is the plural.
yam	*Dioscorea alata*, known as uhi in Hawaiian, commonly grown for food.

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APPENDIX A: STATE HISTORIC PRESERVATION DIVISION REVIEW LETTER (SHPD LOG NO: 2010:1245/DOC NO: 1011MD25)

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
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COMMISSION ON WATER RESOURCE MANAGEMENT

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November 12, 2010

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
711 Kapiolani Blvd., Suite 975
Honolulu, Hawaii 96813

LOG NO: 2010.1245
DOC NO: 1011MD25
Archaeology

Dear Dr. Dega:

SUBJECT: **Chapter 6E-8 Historic Preservation Review –**
Revised Archaeological Inventory Survey of 6.1 Acres with One New Site
Pa'uwela Ahupua'a, Makawao District, Island of Maui
TMK: (2) 2-7-007:008

This letter summarizes our review of the aforementioned revised report (Perzinski and Dega August 2010; *An Archaeological inventory Survey for the Proposed Ha'ikū Fire Station and Waterline Corridor in Pa'uwela Ahupua'a, Makawao District, Island of Maui, Hawaii [TMK 2-7-007:008];SCS Project Number 1012-ISR-2*), which we received on September 9, 2010. We apologize for the delay in our reply. We previously reviewed a draft of this report (Perzinski and Dega June 2010) and requested changes/clarifications (*Log No. 2010.2365, Doc No. 1007MD36*).

This report documents an archaeological inventory survey conducted for the new Ha'ikū fire station, including driveways, a helipad and a waterline extending 1280 meters along Haiku, East Kuiaha and West Kuiaha Roads. One new site was documented, SIHP 50-50-06-6678, rock alignments built by previous residents of the existing vacant house which were used to line the driveway and create a planting area in the 1950s. SIHP 6678 was recommended as significant under criterion "d" and we concur with that recommendation. We also agree that no further work is required at this site.

Archaeological monitoring is recommended for portions of the waterline that are within the Haiku Road corridor, but not along the cut slope. We agree with this recommendation. Please submit an archaeological monitoring plan to SHPD for review and approval pursuant to HAR § 13-279 prior to the start of any ground-altering construction.

Our requested changes have been addressed and this revised report is accepted as final pursuant to HAR §13-276. Upon receipt of this letter please submit one paper copy of your report marked "Final" to our Kapolei office along with a CD containing a searchable pdf version of the final report and a copy of this approval letter, marked to the attention of the "**Kapolei Library**." If you have questions about this letter please contact Morgan Davis at (808) 243-5169 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

Theresa K. Donham
Acting Archaeology Branch Chief
State Historic Preservation Division

APPENDIX B: LAND GRANTS

221
439

No 332

ROYAL PATENT.

KAMEHAMEHA III., By the grace of God, King of the Hawaiian Islands, by this His Royal Patent, makes known unto all men, that he has for himself and his successors in office, this day granted and given, absolutely, in Fee Simple unto Richard Armstrong, his faithful and loyally disposed subject for the consideration of One Dollar, paid into the Royal Exchequer, all that certain piece of Land, situated at Kuiaha East Hamakua loa, in the Island of Maui, and described as follows: Beginning at Kapuaiaaka on the Sea Shore, along Kaupakuloa & Kuiaha west, & running along the boundary of Kaupakuloa owned by Wm L. Lee Esqr South 24.05 Chains, S. 25° E. 12 ch: S. 21° E. 35,12 ch. to near main road; S. 69° E. 11.78 ch: S. 39° E. 2.00; S. 32½° E. 23.75; S. 27½ E. 14.12 to Hala Tree marked E. S. 25° E. 15.54; S. 19° E. 55.04; S. 1° E. 20.21 ch. S. 3½ W. 8.82 ch: S. 7½ E. 15.44 ch. S. 11½ E. 19.14 ch; S. 21° E. 14.32 to N.E. Corner of Kaupakuloa mauka, owned by Wm L. Lee & marked A. on map S. 85° W. 4.73 along line of Kaupakuloa of Wm L. Lee S. 31½ W. 8.35 ch. to Pukala at S.E. Corner of Kuiaha west;

Beginning again at Kapuaiaaka on Sea Shore & running along the Shore to Corner of Kuiaha Hikina, thence South 88° East 14.04 ch: S. 86° 30' W. 15.40; S. 84° E. 11 ch. along West bank of ravine the Bottom being the boundary; S. 30° 45' W. 8.50; S. 18° E. 10 ch. S. 10° 45' W. 9 ch. S. 45° 30' E. 12.62; S. 10° E. 22.50 S. 20° 30' E. 12,85 Ch. S. 38° 30' E. 5.20 to head of Ohia ravine; thence N. 75° E. 9.00, S. 30° E. 7.00; S. 25° W. 2 ch. S. 30° 30' E. 4.70; S. 31° 45' W. 5.32 Ch. S. 1° 45' E. 6.17 S. 14° E. 19.81; S. 31° 30' W. 5.05 S. 40° 45' E. 5; S. 83° E. 3.75; S. 20° E. 12 Ch; S. 62° 30' E. 8.90 S. 7.45° W. 10.50 Ch; S. 34° 30' E. 20.93; Offset E. 3 Chains; S. 45° E. 7.70 Ch. S 26° E. 6.30 Ch. S. 51° 30' E. 6.00; S. 8° W. 9.07 Ch. East 3.10; S. 23° E. 2.42; S. 71° 30' E. 2.98 Ch. S. 6.51 - South 37° E. 8.52 to Kukui forest; S. 34½° E. 12.43 to Pukala before mentioned, where Kuiaha East & Kuiaha West Corner on the line of Kaupakuloa mauka.

Rights of Commoners &c. in the above land reserved,

Land Grants: 6553

Grant Number(LG)6553		Source Book:	32
Grantee:	Wood, Florence	Acreage::	30.15 Acs
Ahupua`a	Kuiaha-Pauwela	Year	1916
District:	Makawao	Cancelled	
Island	Maui	TMK	
Miscellaneous			

APPENDIX C: AGREEMENT TO PARTICIPATE

Ha'ikū Fire Station Project
Cathleen Dagher, Ethnographer, Keala Pono Archaeological Consulting

You are invited to participate in a Ka Pa'akai analysis (Analysis) for the new Ha'ikū Fire Station and related improvements project (herein referred to as "the Project"). The project will be located in the village of Ha'ikū, on the Island of Maui. The Assessment is being conducted by Keala Pono Archaeological Consulting (Keala Pono), a cultural resource management firm, at the request of AHL, a design firm. The ethnographer will explain the purpose of the Assessment, the procedures that will be followed, and the potential benefits and risks of participating. A brief description of the Assessment is written below. Feel free to ask the ethnographer questions if the procedures need further clarification. If you decide to participate, please sign the attached Consent Form. A copy of this form will be provided for you to keep.

Description of the Project

This Ka Pa'akai analysis is being conducted to collect information about the Project in Kuiaha Ahupua'a, through interviews with individuals who are knowledgeable about this area, and/or about information including (but not limited to) cultural practices and beliefs, mo'olelo, mele, or oli associated with this area. The goal of this Analysis is to identify and understand the importance of any traditional Hawaiian and/or historic cultural resources, or traditional cultural practices within the Project. This Analysis will also attempt to identify any effects that the proposed development may have on cultural resources present, or once present within the Project area.

Procedures

After agreeing to participate in the Analysis and signing the Consent Form, the ethnographer will digitally record your interview and it may be transcribed in part or in full. The transcript may be sent to you for editing and final approval. Data from the interview will be used as part of the ethno-historical report for this project and transcripts may be included in part or in full as an appendix to the report. The ethnographer may take notes and photographs and ask you to spell out names or unfamiliar words.

Discomforts and Risks

Possible risks and/or discomforts resulting from participation in this Analysis may include, but are not limited to the following: being interviewed and recorded; having to speak loudly for the recorder; providing information for reports which may be used in the future as a public reference; your uncompensated dedication of time; possible misunderstanding in the transcribing of information; loss of privacy; and worry that your comments may not be understood in the same way you understand them. It is not possible to identify all potential risks, although reasonable safeguards have been taken to minimize them.

Benefits

This Analysis will give you the opportunity to express your thoughts and opinions and share your knowledge, which will be considered, shared, and documented for future generations. Your sharing of knowledge may be instrumental in the preservation of cultural resources, practices, and information.

Confidentiality

Your rights of privacy, confidentiality and/or anonymity will be protected upon request. You may request, for example, that your name and/or sex not be mentioned in the Analysis material, such as in written

notes, on tape, and in reports; or you may request that some of the information you provide remain off-the-record and not be recorded in any way. To ensure protection of your privacy, confidentiality and/or anonymity, you should immediately inform the ethnographer of your requests. The ethnographer will ask you to specify the method of protection and note it on the attached Consent Form.

Refusal/Withdrawal

At any time during the interview process, you may choose to not participate any further and ask ethnographer for the tape and/or notes. If the transcription of your interview is to be included in the report, you will be given an opportunity to review your transcript, and to revise or delete any part of the interview.

APPENDIX D: CONSENT FORM

Consent Form

I, _____, am a participant in the Ka Pa'akai analysis (Analysis) for the Ha'ikū Fire Station project (herein referred to as "the Project"). I understand that the purpose of the Analysis is to conduct oral history interviews with individuals knowledgeable about the Project and the surrounding ahupua'a in an effort to identify and protect traditional cultural practices and cultural resources.

_____ I understand that Keala Pono Archaeological Consulting (Keala Pono) and/or AHL (the client) will retain the product of my participation (digital recording, transcripts of interviews, etc.) as part of their permanent collection and that these materials will only be used for scholarly, educational, and/or land management purposes.

_____ I hereby grant to Keala Pono and the client the right to use the property that is the product of my participation (e.g., my interview, written materials, and any other materials I provide) for the Analysis as stated above. By giving permission, I understand that I do not give up any copyright or performance rights that I may hold.

_____ I also grant to Keala Pono and the client my consent for any photographs provided by me or taken of me in the course of my participation in the Analysis to be used, published, and copied by Keala Pono and/or the client and its assignees in any medium for purposes of the Analysis.

_____ I agree that Keala Pono and the client may use my name, photographic image, biographical information, statements, and voice reproduction for this Analysis without further approval on my part.

_____ If transcriptions are to be included in the report, I understand that I will have the opportunity to review and edit my transcripts to ensure that they accurately depict what I meant to convey. I understand I have the power to delete any information I deem too sensitive and/or too personal for publication from the transcript. I also understand that if I do not return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the draft Analysis, although I will still have the opportunity to make revisions during the draft review process.

_____ I further understand that not giving my consent to any portion of the above listed items will not prevent my mana'o being included in the Analysis. For example, I may decline Keala Pono or their client permission to use my photographic image or biographical information but by signing this Consent Form, still grant my permission for my mana'o to be included in the text of the Analysis.

By signing this consent form, I am acknowledging that I have been informed about the purpose of this Analysis, the procedure, how the data will be gathered, and how the data will be used. I understand that my participation is strictly voluntary, and that I may withdraw from participation at any time without consequence.

Consultant Signature **Date**

Print Name **Phone**

Address

Thank you for participating in this valuable study.

APPENDIX E: TRANSCRIPT RELEASE FORM

Transcript Release

I, _____, am a participant in the Ka Pa'akai analysis for the Ha'ikū Fire Station project (herein referred to as "the Project") and was interviewed for the Assessment. I have reviewed the transcripts of the interview and agree that the transcript is complete and accurate except for those matters delineated below under the heading "CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS."

I agree that Keala Pono Archaeological Consulting and/or AHL, may use and release my identity, biographical information, and other interview information, for the purpose of including such information in a report to be made public, subject to my specific objections, to release as set forth below under the heading "OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS."

CLARIFICATION, CORRECTIONS, ADDITIONS, DELETIONS:

OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS:

_____

Participant Signature **Date**

_____

Print Name **Phone**

_____

Address

APPENDIX F: INTERVIEW WITH JOYCLYNN COSTA

1) To start please tell us about yourself…Name? Where/When you were born? Where you grew up? Where you went to school?
Joyclynn Costa , born in the 50's and raised in Haiku. I attended Haiku School through the 6th grade then attended Kamehameha until graduation.

2) Could you tell us about your 'ohana/family background?
My father was raised in Haiku and attended Haiku School as well. My mom moved to Maui from Oahu. She was very close friends with both Dickie and Sue Hiromoto. She helped to service the store now known as Nuka's and Sue ran the barbershop. Dickie ran the pineapple field then later his son opened a mushroom farm.

3) What is your association to the subject property (family land, work place, etc.)?
We would visit the family and on special occasions participate in pounding mochi in the traditional way.

4) Do you know of any traditional sites or historically significant buildings which are or were located on the Property site--for example: cultural sites, archaeological sites, historic structures and/or burials? Please elaborate. I can only glean on the stories that kupuna would share which was not often or public. Where kanaka is known to live so are their iwi. If the maps reveal LCA/RP it is most certain iwi will be found. The location is unknown currently since time has pass and kupuna are no longer here. What I can claim to impact is our ability to remember. As layers upon layers of uses impose itself on the aina the further from our window of memory is erased. We become lacking defense of knowing for this sort of inquiry and vulnerable for exposure and destruction when found.

5) Do you think the proposed development would affect any place of cultural significance or access to a place of cultural significance? Please elaborate.
It has already started. See above manao. The question itself is causing harm. Our ability to not remember becomes the reason for progress and the additional harm towards erasure.

5) Are you aware of any traditional gathering practices at the Property area and/or within the surrounding areas both past and ongoing?
Yes there is currently kuleana being done nearby. I have notified Terrance in hopes he will also respond.

7) What could be done to lessen the adverse effects of the project on any cultural resources or practices in the area?
Short of not building, nothing. Much has already been destroyed and would have to be allowed to be brought back into being that which once was there.

8) Do you know of any other kūpuna, kama'āina, cultural/lineal descendants, or other knowledgeable people who might be willing to share their mana'o of the Moanalua or the surrounding area?
I have forwarded this questionnaire as I have noted. Mahalo

APPENDIX G: INTERVIEW WITH LUCIENNE DE NAIE

TALKING STORY WITH LUCIENNE DE NAIE (LDN)
Ethnographer: Cathleen Dagher (CD)
Date: 9/26/2024

LDN: Good morning.

CD: Good morning. How are you?

[CD explains the interview process and the focus of the Ka Pa'akai Analysis to LDN. CD and LDN discuss whether a Cultural Impact Assessment (CIA) and/or an Archaeological Inventory Survey were conducted for this project and a bit about the history of this project]

CD: Yes. Scientific Consultant Services [SCS] did do a CIA in 2009.

LDN: Mmhm.

CD: And let me see what the findings were. They didn't get any response. Nobody responded to their query.

LDN: Yeah. The usual.

CD: Yeah. So, that's what happened. But they did do one. It was back in 2009. It was McGerty and Spear.

LDN: Okay.

CD: Okay?

LDN: Okay. Yeah.

CD: And an inventory survey was done around the same time...The Hāna Highway is adjacent to the subject property. It's not the section that is really pristine and on the National Register [of Historic Places], but it is over 50 years old and it does have a State [Inventory of Historic Places] Site Number.

LDN: So, the Hāna Highway itself has a State Site Number?

CD: The Hāna Highway itself has a State Site Number because it was constructed over 50 years ago. Portions of it are really pristine and then those have a separate site number and...are on the National Register.

LDN: Yeah. Well, you know, this section labeled "New Government Road" is on the 1914 Territorial map. I don't know if you know that or not.

CD: Yes, I think I do know that.

LDN: Yeah.

CD: [laughs] Okay. So, you know when SCS did their survey they found remnants of historic ag [agriculture]. That means like from around... the 1950s. I'm sorry. 50 years ago. I don't think they got a...solid date, but they were not traditional features. But they were agricultural. There were terraces and a garden enclosure.

LDN: Uh huh.

CD: Okay.

LDN: Well, I have some updated information.

CD: Okay.

LDN: I mean I know the land a little bit 'cause I know Bryan Hiromoto whose family owned it.

CD: Oh. Okay.

LDN: So. Let's start with the questions.

CD: Can you please state your full name?

LDN: Lucienne de Naie.

CD: And then, where and when were you born?

LDN: I was born in Los Angeles in 1947.

CD: Okay.

LDN: Came to Maui the first in the early 1970s. 1972. For a few months. To surf. Basically. [laughs] To go surfing.

CD: [laughs] Oh. Is that right?

LDN: I had friends here. I lived in Laguna Beach at the time. I came to Maui with three other friends and we all had friends here. We stayed at each...of the traveling group, we traded off and stayed with friends of different members of the traveling group. I got a chance to see Maui for I think I was here for about three months. August to maybe October. So, got a chance to see Maui sort of pre the big development boom. And then I moved here. I came back pretty much on a regular basis between 1972 and 1985, when I moved here permanently.

CD: Okay. So, you grew up in L.A. and then you went to school in L.A.?

LDN: I was born in L.A. I grew up all over California. I graduated from high school in Orange County, California.

CD: Okay.

LDN: I lived in Costa Mesa. I went to school at U.C. Irvine. While I was going to school I supported myself making jewelry. And it ended up that my jewelry was very popular. So, I kind of put off school after my sophomore year and moved up to L.A. and started a business with my jewelry 'cause my clients were in L.A. My family lived in L.A. My grandparents' house was still there and my aunts and uncles lived there. My parents lived in San Diego County. Down in Encinitas. So, I went back and forth between L.A. and seeing my parents down in San Diego County. And I ended up having a very successful jewelry company, getting married, and eventually moving back to Orange County, and living in Laguna Beach.

CD: Oh. That's really interesting. I've known you all these years and never knew that.

LDN: Yeah. I was a jewelry designer for 20 years and it was really fun and a lot of great adventures doing craft shows and going to galleries all over the country. Even went to Europe. Sold my things there. I ended up going to Maui because in the summer of 1972, I had some partners in the jewelry business in Laguna Beach. We worked very hard that summer at the traditional Sawdust Festival. It was one of the summer festivals that happened in Laguna Beach. It's like two months long and at the end of it in August, we were ready to just do something else. Everyone knew people in Maui and we decided we'd go to Maui. I traded my house and car in Laguna Beach for the ability to stay at an artists' commune and have use of their van in Maui.

CD: [laughs] Wow.

LDN: So, the four of us went over to Maui and stayed in this artists' commune. The Aquarian Age Production. They were a silk screen and...silk screen artists basically. They silk screened t-shirts and things like that. One of my friends that I traveled with was an airbrush artist and I, too, knew how to airbrush. So, we brought equipment and we taught them how to airbrush. Several of them...one of them became a very famous artist. Richard Fields. He was living in the commune at the time.

CD: Wow.

LDN: So, we had fun. But we stayed for months because we were just staying with friends all over. We stayed out in Hāna. We stayed on Mākena. We stayed at Palauea Beach, you know. [laughs] At the Von Tempsky place....Each of the four ladies traveling knew various people on Maui and so we just got to really have a wonderful experience. We hiked through Haleakalā Crater with some of our friends for a week. We just had great experiences. And it really made an impression on me. And I made connections and so I came back again a few years later and brought my jewelry with me and established some accounts at a few of the local...There were starting to be a few little local stores. The Hare Krishnas ran a gas station and book store in Wailuku at that time. Which eventually became "Down To Earth." It became the Maui branch of Down To Earth health food store. I brought my jewelry there. You know, I just made contacts, so I went back and forth to Maui and by that time I lived in San Diego County. I had moved down there to help take care of my mom when she was terminally ill. I just ended up staying in San Diego County in the '70s. So,

I lived in Encinitas from about 1976 'til I moved here in 1985. So, I've been connected to Maui for a long, long time...For almost 50 years. Yeah.

CD: Wow. Do you want to tell me a little about your family background, too?

LDN: Well, my parents...My mom grew up in Los Angeles at the turn of the century. My mom was born in 1909. So, she was older than my dad. My dad grew up in the Cleveland area. He was born in 1922. My mom was born in 1909. But, my mom did not...She was not truthful about her age. [CD and LDN laugh] And she was sort of a *bon vivant*. My mom was a writer. She worked as a secretary to the President of Republic Picture Studios, which made a lot of the b-westerns in the pre-war and after the World War II years. Gene Autry and Hopalong Cassidy. The Cisco Kid.

CD: Oh. Wow.

LDN: You know, all the westerns we watched as kids. She knew all the stars of the westerns. She was a very friendly, bubbly, enterprising, creative type of person. She shared a lot of stories about growing up in Los Angeles in the years around the World War I. My mom's family was rooted in Los Angeles and that's why I was born in Los Angeles. Although, my dad being from Cleveland, left Cleveland to serve in the Coast Guard and then eventually, he went to the Coast Guard Academy. He was an officer. The Coast Guard became a part of the Navy during World War II. He was just trying to keep out of World War II, basically, according to his stories, as long as possible. So, he didn't graduate from the Coast Guard Academy until, I think, the beginning of 1944. He eventually got assigned to be a gunnery officer on a ship that was traveling between...out in the Pacific. Some place between a military base in Hawai'i. He actually was stationed in Hawai'i during the war. And was shipped out to go to the Philippines or something. And his boat was attacked by the Japanese.

CD: Wow.

LDN: And was sunk. He and a small group of his fellow sailors launched out in a life boat and floated for a while and finally got to some remote island where there was not much to eat. So, they were really kind of compromised and scrambling to survive. But, the Japanese controlled that island and eventually picked them up as prisoners of war.

CD: Oh.

LDN: So, he spent, I don't know how...He would never talk about it. His family informed me that they were informed that he was missing in action. And then one of his co-service members...his comrades contacted them and said, "You know, I was in this prisoner of war camp with Gus. Did he ever make it back?" This was before...The war was just ending and he hadn't contacted them. He ended up in San Francisco in the hospital. My mom was living in San Francisco at that time working for some sort of publication that was under the Defense Department. It was some sort of small newsletter that gave military news or something. Those were the kinds of jobs you got during the war. She tried to be a Rosie the Riveter, but she just didn't have that spunk [CD and LDN laugh] But, she was a writer so she ended up meeting my dad. Their dream was to homestead some place. So, they homesteaded in Taos, New Mexico. And they got 10 acres of free government land just outside the Taos Indian pueblo. That's where I was conceived - as they were building a house in Taos, New Mexico.

CD: Oh. What do you know.

LDN: But my mom was exhorted by her family, who did know her true age. She was 38 when I was born. So, they knew her true age. Also, she had gotten tested as part of her pregnancy checkup and found out she was Rh-negative. And so her family just urged her. They said, "Bess, don't put yourself at risk. You're 40 miles on a bumpy road from the nearest hospital." Which was true. Taos didn't really have a hospital at that time. You had to go to I guess it was Santa Fe was the nearest...

CD: Wow.

LDN: So, in August...I was due to be born in August of 1947. My parents met and got married in August of 1946, in San Francisco. And homesteaded in Taos in the winter of '46.

CD: Wow.

LDN: That's when I was conceived...Kind of like in January or February. I guess January. And then she came back to L.A. in August of 1947. I was supposed to be born in August, but I was born in early September of 1947. And that's how I got to be born in Los Angeles instead of Taos, New Mexico. [laughs]

CD: Wow. That's a very interesting story.

LDN: My parents were both real characters. They were both the black sheep...Each was the black sheep of their family. [laughs] And after I was born...my dad then reconnected with his parents. They didn't really know what happened to him...He wanted another life. He wanted to be another person. And actually, my name de Naie is a made up name. It's not my dad's family name. He came from a very hardworking Italian immigrant family. My grandparents immigrated here from Italy around the early part of the century. He just didn't want to be identified with that. My mom's family came from the Ukraine, in 1905. And were Jewish and were driven out by pogroms and whatever. From what was happening around. There was famine. There was pogroms. But they lived in a little village kind of in the middle of the Ukraine that's Elisabethgrad, but it now has a different Russian name. They made their way to the U.S. and then they had some relatives, I guess, in New York. They ended up in Connecticut. Then they came out to L.A. when my mom was a small child. She went to elementary school in Los Angeles. So, it must have been around when she was 6 or 7 or something. So, 1914. 1915. Around the time of the 1st World War.

So. Anyway. That's my parents. They met and they had me. And they lived in L.A. at first. And then they moved all the time. My dad worked for U.S. Steel and he got transferred to new plants. I guess his job was to design certain parts of their engineering department for U.S. Steel. Or maybe it was design certain parts of their manufacturing. He was a civil engineer. He got a degree when he went to the Coast Guard Academy. They sent him to Columbia University in New York and he got an engineering degree there. He was the first in his family to ever have college degree. In fact, I think he's the only one in his family to get a college degree [laughs] at that time. And my mom's family were enterprising in that she has one brother who's a lawyer and one who's a doctor. You know, typical hard working Jewish immigrant sort of story. They very much identified with Los Angeles. They...all of them grew up there. They got involved with the film industry 'cause my grandfather had a secondhand clothing store. And so the kids would be on the streets of L.A. and say, "Mister! Mister! You need a bowler hat? I can get one..."

[CD and LDN laugh]

LDN: They all worked in the film industry as kids, you know, just hustling money on the side. [laughs]

CD: That's funny.

LDN: Yeah. They're interesting people. Mom was the most unique of them all. She left home at 18 and just went on adventures. Was determined to be a writer. She moved to Taos in the 1930s to try to write the great American novel. She was really interested in Taos...That's why my parents homesteaded...'cause my mom had already been there and really loved it. Anyway. That's how I got to be here and my dad made up a name when he met my mom. He told her that his name was Jacques de Naie and that his parents were French Jews who had escaped from the Nazis in the 1930s and come to California and bought a little ranch. And none of that was true, you know.

CD: [laughs]

LDN: That is why I have this name on my birth certificate, which is not my father's family name. But it' s on my birth certificate. It's very difficult to change anything that's on your birth certificate. I thought, "It's a beautiful name." My mom thinking my dad was French, which he's not. He's Italian and Greek. He's Mediterranean. But, he's not actually French. But he told her that. She gave me an entirely French name. My whole name is Antoinette Lucienne de Naie. It's an entirely French name.

CD: That's a beautiful name. Yeah.

LDN: I thought, "Well, gee, it's a beautiful name. Why make any problems? Just use this name."

CD: Yeah.

LDN: Just get papers to match. So, there it is.

[CD shares a little of her background with LDN. LDN elaborates on her family's moving all the time, the various places they had lived and traveled to in the U.S., and her parents' love of travel]

CD: Okay. And then tell me what is your association with the project area?

LDN: Well, I moved to Huelo in 1985. Almost 40 years ago. I got involved with the local neighbors...I had set up my jewelry studio there in Huelo...Ha'ikū was our nearest town. Our post office was at Ha'ikū. Our town center was at Ha'ikū. There were the old cannery buildings

there...Many of the shops or services that were available, were in Ha'ikū...The lumber yard...everything was in Ha'ikū. Ha'ikū was sort of the center of my life. Huelo's about 10 miles from Ha'ikū. The nearest place to go for everything...Huelo does not have its own town anymore. Although, it was a town back in the plantation era. There was a plantation in Huelo back in the 1880s. 1890s. And it had its own post office. Its own school. And everything. But when I lived in Huelo, it was a very, very small area. There were about a dozen non-Hawaiian families. Haole families that lived there. And then mostly local families. All the local families just kind of took us in. All the non-Hawaiian families. We were invited to all of their family get-togethers. Met all the kūpuna. They had the old Hawaiian church here. The Kaulanapueo Church. There was also a Hawaiian based branch of the Door of Faith church in Huelo. And so I just became sort of integrated in this community and learned a lot about its history. And a lot about the history of the general area of Ha'ikū. Just from talking...Going to church...Talk to the old timers. I've always liked to listen to what people had to say. Older people. I'm just one of those people that even when I was young I would sit with the old people and listen to what they had to say. Nothing has changed....I was always interested in history in school.

In 1995, one of my neighbors, Mike Gagne, asked me if I would go to a Community Association meeting. He said, "I know you have a background in organizing festivals back in California." We had chatted about that at one of our community meetings. And I did. When I lived in Encinitas, my friend and artistic partner, Joel Heathcote, and I helped organize a community festival that lasted about 10 years. It took place every year called the Encinitas Flower Festival. It was the Encinitas Flower Festival. It was a huge success and a lot of fun. It was a flower growing area. I had mentioned that to Mike and Mike said, "We're thinking of organizing a festival to try to bring our community together. 'Cause we have so many new people who have moved here." And then, Ha'ikū is an old pineapple growing area. It's an old Hawaiian community. We thought if we had some sort of festival we could just bring everybody together. So, I got involved with this festival planning committee. And as a result of that I got asked to be the Vice President of the Community Association.

So, I got involved with the Ha'ikū Community Association. And that's when I first got associated with the proposed fire station property. Because of Bryan Hiromoto whose family was owning the property where the fire station is now proposed. That 29 acres. They had farmed pineapple there, I think, when he was a kid. But he approached the festival committee...We called ourselves the Ha'ikū Ho'olaule'a and Flower Festival. 'Cause ho'olaule'a is a Hawaiian word that means celebration. Which we still have, you know, a very robust Hawaiian community, in Ha'ikū. As well as, a lot of Japanese Americans. Filipino Americans. Who had all been involved in the pineapple industry. And so we had events...Anyone who came up with some creative event could include it in the festival. So, Bryan approached us and said, "You know, I have a mushroom growing family farm and I would like to sponsor a cooking contest involving mushrooms. I'll donate the mushrooms. So, anyone who wants to bring a dish...It can be a mushroom cookoff. I'll round up some judges. Could you include that in your events?" And we said, "Oh. Yeah. That sounds great." Anything creative. We had a lawnmower race. We had very creative events. [CD and LDN laugh] We had the Pineapple Scramble. We got permission to use the pineapple fields across from the Ha'ikū Community Center that were being leased to Maui Land and Pine. They were owned by A&B [Alexander and Baldwin], but they were leased to Maui Land and Pine. They hadn't planted all of them and they were like scraggly pineapple fields. So, we had the Pineapple Scramble, which was a bike...Maybe a two-mile run and a two-mile bike race. Lots of kids participated in that with their dirt bikes and stuff. And it was a lot of fun.

CD: That does sound like a lot of fun.

LDN: I mean the whole festival was a lot of fun. We did it by the seat of our pants. We did it through the Ha'ikū Community Association. We reserved the Community Center and then, we had other related venues like the pineapple fields across the street. We ended up having just a wonderful event and I met Bryan through that. He gave us a tour of his mushroom farm, which was in this cinder block building there. That, I guess, had been a garage. I don't think anyone was still living in the house on the property. I think he used the house kind of as a lab. 'Cause Bryan was a very, very interesting guy. He had worked in the agricultural field. He'd gone to U.H. His family had farmed that land. And his dad was a character. They called his dad "Dickie." What was his Japanese name? Hideaki was his official name. Everyone called him Dickie. He was a colorful character, too. I think he was Bryan's partner. I think he helped finance the mushroom farm. He had farmed pineapple there for years. He'd owned a lot of land in the area. He'd owned other land in the area. The family had...His dad had a couple of brothers. They owned...They had pineapple...One brother he told me he owned the land next door – the land where the Santos's eventually bought. On Hāna Highway.

Anyway, Bryan had this mushroom farm. He took us on a tour of the mushroom growing area, which was all these trays with mushrooms growing in them. The guy knew what he was doing. He had worked as like kind of an experimental agronomist type of thing. He was just a boy scientist.

He was having so much fun learning about the mushrooms. He was showing us all of the things he was learning. He took a couple of us on a tour. And then, we went hiking along the land, too. We went hiking...At the time, I remember there were a lot of avocado trees...Fruit trees...Mango trees. Maybe down there. The land slopes down into Konanui Gulch. Or maybe East Kuiaha Stream Gulch. I guess it's East Kuiaha Stream Gulch and maybe Konanui Stream kind of branches off it or something. It's like a steep gulch. Down at the bottom of the gulch they had a lot of fruit trees planted. As you walked kind of along the stream, it got kind of jungle-y and overgrown. There were big huge Java plum trees. All the kinds of things you see growing along the streams here in the Ha'ikū area. It was really cool down there. We didn't get into depth about what was along the streams or anything. But the family did farm more in bottom lands there. They had a farm. They had a little fruit stand thing, as I recall, along the road. A very informal fruit stand. Up, on the higher part of the land, which is where the land joins East Kuiaha Road and Hāna Highway, that was where their house was and this cinder block garage. There were a bunch of little buildings, too. That I recall. Byran told me his family lived there in the 1950s. He unfortunately died kind of young. He died about 10 years ago. It was just very sad 'cause he was such a full of life type of guy. He just was a memorable person...I knew about the place. I knew about the family growing up there. Have you interviewed any of the family members at all? Did you...

CD: No. I did not.

[LDN mentions Byran has a sister, Noryne Hiromoto Taylor. CD and LDN discuss how LDN came to know her, and goes on to discuss what she remembers about Dickie. LDN offers to send CD Noryne's contact information]

LDN: There were a lot of Japanese American folks that came over to work in the pineapple fields. Or the sugarcane fields. And then, they were smart people and they started their own pineapple farms. And they sold to the big canneries. Ha'ikū had the Libby-McNeill pineapple cannery over on West Kuiaha and then they also had the cannery there in the middle of Ha'iku town...it was a company affiliated with A&B. They called it Maui Fruit and Packing or something, which is on Ha'ikū Road. And so, we had two canneries. There was another small cannery up off of Kaupakulua. And then, there was a cannery actually across the street from the Community Center. The Haserot Cannery. I think it was called. We have pictures of it.

CD: How do you spell that?

LDN: H-A-S-E-R-O-T. It was owned by a Japanese company. It was in West Kuiaha Gulch. Across from the Community Center. And there was a whole cannery down there. We have pictures. I'm involved with the Ha'ikū Living Legacy Project, which is our local historical society. I'm one of the founders of that, too. Sorry my bio is getting a little fragmented here.

CD: [laughs]

LDN: I know a lot about Ha'ikū's history. Because I was a founding member of the Historical Society. We had a 100-year reunion in 2005...of Ha'ikū School. Eight hundred people came to it and shared their stories and we collected all kinds of photographs and everything...

CD: Oh. Wow.

LDN: ...of the area. So, we have all kinds of displays and things. We have them in the school library in Ha'ikū School. We did interviews with people. Led tours. We had old timers lead tours. And made videos of what was where, when. You know, when they were growing up in the 1930s and 1940s. So, that land, I don't think the Hiromoto family owned that land in the 1940s. Maybe they did. Maybe they did already. The stories kind of all run together. We actually have a map of who owned what and where everything was from around the time of World War II. One of our contributors made a map and donated it to the Historical Society. So, we have all kinds of information.

[LDN mentions that if a Cultural Resource Management (CRM) firm wants to do a CIA, they should reach out to a local community association. LDN and CD discuss the difficulties in reaching community members willing to share their mana'o with the ethnographers during the CIA consultation process. LDN lists one particular agency that is not very helpful in suggesting potential interviewees. She also points out that the potential interviewees do not always trust the CRM firm conducting the study and are not willing to share their information with the ethnographer. She identifies one CRM firm whose work she finds wanting. LDN states that ethnographers do not always make a strong enough effort to reach the appropriate community members. She goes on to suggest ethnographers obtain the minutes from the County Council meetings and reach out to the individuals who provide testimonies]

LDN: I testified on behalf of the Ha'ikū Community Association when this fire station was being proposed in the budget of the County Council. Back in 2009. In support of acquiring the land for a fire station, which in Ha'ikū we desperately need. Anyway, back to the whole connection with the land, I have walked on this land. I have seen what it looked like back in 1995. That was 30 years ago. I know a little bit about it. But, the other thing I know about it is my friend, Kane Alii, farms on a parcel that was a Land Commission Award. It belonged to someone named Nalopi. N-A-L-O-P-I. Was his ancestor. Back in the Māhele. And that parcel adjoins...I looked it up on the TMK map. I went, "Gee, this is where Kane Alii's place is, isn't it? Yeah." His parcel adjoins this parcel where the fire station is proposed. The East Kuiaha Stream goes through his parcel. His parcel is just a little bit above the intersection of the Hāna Highway and East Kuiaha Road. And it joins this parcel. He is native Hawaiian. And he is growing kalo on that parcel.

CD: Currently?

LDN: Currently.

CD: Awesome.

LDN: Yes.

CD: Okay.

LDN: He has a sign up on Hāna Highway when he has kalo available. He paints a sign saying, "Kalo. Turn here." [laughs] Now, A&B claims the land that he is living on. But he and his mom...His mom is a descendant of Nalopi. His mom, like many people in Ha'ikū moved to the mainland. Got married on the mainland...[LDN provided some information on Kane Alii's family background. He is of native Hawaiian ancestry, is a lineal descendant of Nalopi through his mother, and is a very intelligent man who knows a lot about Hawaiian culture] He has been totally embraced by the local Hawaiian community. Joyclynn Costa invited him to be part of the Aha Moku Council. He's included in all the Hawaiian gatherings here. He's very knowledgeable about this area because he and his mom moved back here back I would say maybe eight or nine years ago. They just reclaimed their family land. They said, "Their family never sold it to A&B." Which, you know, a lot of families claim that about their land. I think some of it is absolutely true. I haven't seen his paperwork, but he's a very sincere, hardworking young man. He's made a nice little farm down there. I wouldn't be surprised if he has walked on the portion of this property that adjoins it. He's told me he's walked all up and down this stream...East Kuiaha Stream also continues across the highway. And then, it goes into the County land that is now the Hāmākualoa Open Space Preserve. I and several other of my fellow Ha'ikū Community Association Board Members...I'm President of the Community Association of Ha'ikū. Again, after getting roped in in 1995, I served on the Board for a while and then stepped off the Board for 20 years. And stepped back on the Board about 8 or 9 years ago. But, I'm currently the President of the Community Association in Ha'ikū.

CD: Oh. Okay.

LDN: My fellow Board Member, Charla Konohia, her family...were owners of the land across the street from this property. Across the street from the fire station site. They used to play along Konanui Gulch. Along East Kuiaha Stream. They were among those who urged the County to buy that land when A&B was selling it. So A&B sold about 300 acres of those former sugarcane and pineapple fields...They were pineapple fields when my friend Charla was a kid. When her family was growing up there. That is now a County preserve. And Charla and myself and Charla's cousin Lezley Jacintho and Malie Davis and a bunch of us are all involved with a non-profit called Mālama Hāmākua Maui and we care for that preserve. So we're down in those gulches down along those streams and stuff all the time now. [laughs]

CD: Wow.

LDN: Yeah. So, I've gotten to know East Kuiaha Stream very intimately. I've hiked it all the way from Hāna Highway basically to where it comes out at the ocean.

CD: Oh. Wow.

LDN: And also Konanui Gulch, which is kind of a...It comes out at the ocean separately in an area that's a traditional fishing area. East Kuiaha Stream comes out in an area that's a traditional fishing area, too. You can go down to the ocean at East Kuiaha Stream. You can pretty easily climb right down to beyond the cobble beach there. That stream also runs through this fire station property. My friend Kane Alii owns the property just...I can give you the TMK and stuff. I'm not on the computer...That owns the property immediately upstream from this property...He's walked all up

and down trying to figure out...because sometimes he has water and sometimes he doesn't because A&B opens and shuts the gates and stuff.

CD: Oh. Yeah.

LDN: He's made a formal complaint at the Water Commission that he deserves to have water for kalo. It's been all very intertwined. But I would be very surprised if he doesn't actually access this property using his PASH [Public Access Shoreline Hawai'i] rights.

CD: You're talking about the project area when you say " access this property"?

LDN: Yes. TMK: 2-7-007 Parcel 8.

CD: Yeah. That's it. That's the project area parcel.

LDN: Yeah. So, he lives on the adjoining parcel. The parcel that butts up to the stream end. I don't know if you ever noticed the parcel's kind of funny shaped 'cause the stream goes through it. The stream end of it. He farms along that stream.

CD: Okay.

LDN: So this is something people who don't live here don't know about that. Those of us who are active in Ha'ikū...Like if you interviewed Charla or Joyclynn they probably would tell you that Kane Alii farms along East Kuiaha Stream and then if you showed them the parcel they'd go, "Oh. Wow. His farm's right next door to that."

CD: How do you spell his name? K-A-N-E...

LDN: Kane Alii

CD: Alii.

LDN: I-I. And his last name is Williams. His Christian name is Terrill. Kane Alii is his middle name. It's Terrill Kane Alii Williams. I'll send you over the thing that he filed...with the Water Commission. He regards me as an aunty. He sends me everything he files. I've given him a lot of old maps and stuff. I just try to help him 'cause he's so sincere. And then Williams is his last name. He's testified at the County Council. He goes into his lo'i with his cell phone and he's on Zoom with his cell phone. [LDN laughs] And he's on Zoom with the County Council. "Here's what my kalo looked like last week. Now here's what it looks like today." [laughs] "The mud drying around the kalo plants. This is because we don't have control of our waters and this foreign company has control of our waters." He was testifying in support of water authority being established so we could have more local control of our stream waters. He's in his 30s. He's very tech savvy and everything. He and his mom live down there off the grid. They just set up a tent and they just went back and homesteaded their family land.

CD: Wow.

LDN: I don't know if his mom is still living there. She did at first. But, he's there. He's just trying to make the point that his family never sold that land. They have the right to be there and they have the right to farm there.

CD: So, their property is kind of to the west. Is that where it is? West of the project area?

LDN: Well, it adjoins on one little edge of the project area.

[CD takes a moment to locate Kane Alii's parcel on the TMK map with LDN's assistance]

LDN: [Parcel] 57 runs along that stream. Bryan's family used to lease 57. He told me his family used to lease Parcel 57 on the other side of the stream. Back in the...when he was growing up. Ten is an LCA, too. But, da kine A&B claimed that. They claimed everything along the stream.

CD: Yeah.

[LDN and CD continue their conversation about LCAs along the stream]

LDN: ...What has told me he said, "I've hiked this stream in both directions trying to find out what's going on with it." Trying to familiarize himself with the dynamics of where the water comes from. Where the water goes. This and that. He's hiked downstream. He said he hiked down there on the Hāmākua Open Space Preserve section of East Kuiaha. And I have, too. You can kind

of bushwack your way down to East Kuiaha Stream. He has also hiked above where his land is, too. Yeah.

CD: Okay. Well. Alright. You've kind of just answered this, but I need to ask...

LDN: So maybe what I think is maybe you probably should talk to him. There may be some cultural use there. I have no idea whether he's extended his kalo beyond the confines of his property. Or whether he goes along the stream to observe things. Which you know kilo is cultural use, too. I know they're not going to develop that part. And I don't want to do anything to stop the building of the fire station. We need our fire station. I know the County wants to do a good job. Chief Ventura is a great guy. He lives in Ha'iku. He's been a real supporter of us getting a fire station. But, the record should be a truthful record. That's just what I feel.

CD: Okay. So, do you know of any traditional sites or historically significant buildings which are located in the project area or on that property?

LDN: Well, in the project area...In the general area there of Ha'ikū...Yeah. There are some very significant buildings. If you go up the different the streets very prominent people lived on different streets. Martha Beckwith, the famous historian, lived right on Pauwela Road. Her family house is still there. The Lindsay family, who were a prominent local family, lived right at the corner of Ha'iku Road and Kauhikoa Road. And that was said to be a makahiki grounds there. Mr. Lindsay had all kinds of artifacts and stuff that he found. Mr. Lindsay was the State Forester. What was his name? James? He still had relatives who...When I first moved to Ha'iku he still had relatives who lived in Ha'iku. There was the Lindsay Nursery that was up on Ha'iku Road. Up past the cannery. And in fact, they were the ones who inadvertently introduced coqui frogs into the area. They had some plants from the Big Island tree ferns or something that had coqui frogs. They escaped into the Māliko Gulch, which runs behind those lands. And got established. That's another little bit of history. But the Lindsay family owned land in that area...Owned land not by the project, but in the vicinity. And their historic house is now a bed and breakfast.

CD: Oh. Okay.

LDN: It's right on a prominent corner where Ha'iku Road...Pauwela Road becomes Ha'iku Road and joins Kauhikoa Road. I think Bryan told me actually that this property...I'm jumping around. I'm sorry. The fire station parcel. Parcel 8. I think he told me that there was an old reservoir there. From the Haiku Sugar Company days. You know there was sugar grown in Ha'ikū.

CD: Yeah.

LDN: But very late in the 1800s. Not like the heyday of sugar that we know about, that was in like the 20th century. But, there was the Haiku Sugar Company. There was the old Haiku Mill that is now a registered historical landmark...Anyway, the old Haiku Mill is now like a wedding location. They have it beautifully fixed up. And so that's a historic building that's there. The Kalanikahua Hou Church, which is on Hāna Highway, just a little ways down from the fire station site is a historic building. It was...There was a historic church there, but it was destroyed by fire. And so the current building is a Quonset hut that was brought there after World War II, when a lot of surplus buildings from Camp Maui were being moved around.

CD: Okay.

LDN: It's historic because the Quonset hut was part of Camp Maui. The steps leading up to today's Kalanikahua Church were part of the old church that was built more in the 1800s. It's a Hawaiian Congregational Church. United Church of Christ. And there has been continuous use of that church for 100 years or more.

CD: Okay.

LDN: It's a very active church. And many prominent families are featured in the graveyard there. Cemetery there. So that's a very historically significant place in the vicinity. The Spreckels Ditch I believe runs right along one boundary - one side of the proposed firehouse property.

CD: Which side?

LDN: The Spreckels Ditch. I think there's a tunnel there or something for the Claus Spreckels Ditch.

CD: Hmm.

LDN: Because right across the street you can see it ran across the street...On Konanui Gulch. I've stood there...Where all that remains now are the cement brackets that used to support the pipe....It

was a big iron-riveted pipe was the Spreckels Ditch in that area. And I believe it turned. I think the old maps I have show it turned and went across what is now Hāna Highway. And went along the edge of this property. I don't think it went through it, but it went along the edge of it. I'd have to look at that. I'd have to look at that gulch. We did a mapping project for the Community Association. So, we got a whole bunch of historic era Ha'iku maps. And a couple of them show the pathway of the Spreckels Ditch very clearly in Ha'ikū. I'll have to look at that again. But, there's a lot going on in that area. I think there's a reservoir Bryan said was at the bottom of the property. I think it may show up in that 1914 map. If you look at that 1914 map.

CD: I'll see if I can find that.

LDN: Yeah. I think it shows up on that.

CD: Okay.

LDN: We had a couple of meetings at the Community Association. We started our mapping project during Covid, unfortunately. So, we sort of had to cut it short. We haven't revived it. We had about 30 people putting little post-its on the maps. You know, "Here's what I found. I know about this. Here's what I know about that." And shoots. I should look at that. We have some...notes from that. Maile Davis, who's our project manager for the Community Association, typed up a sheet with everybody's comments. I think there was something about that area with the mushroom farm. Everyone calls it the mushroom farm 'cause that's what it was from the '90s.

CD: Oh. Okay. In the '90s...

LDN: 1990s. Yeah.

CD: Okay.

LDN: But Bryan he already had it going in 1995. So, he must have started it sometime...1994. Or 1993. Or something.

CD: Okay. So, on the actual property where they're going to put the fire station...Do you know of any historical or traditional sites on that property?

LDN: Well, I wouldn't be surprised if some of those terraces that SCS said are from the '50s or whenever might have been traditional. Because you had three LCAs around that property, as I recall. There's the one that's that Parcel 10. That weird shaped one. That Mahi Pono owns now. That was an LCA right along the stream. There was the other LCA. What was the name? Akanaka? These are old. I did a whole slide show on the Hawaiian side of Ha'ikū. And so I looked up a lot of the old LCAs. Kepā Maly did a great study of East Maui for A&B in 2002...the LCAs there. He just collated everything in one place. Translated 'em all. And it's searchable. So, you can just put the number of the LCA in and it will tell you all of the native testimony and everything. But, there was definitely kalo growing along that stream. As I recall, those LCAs...The Nalopi definitely had kalo. And the LCA that's on the other side...That Parcel 7 was an LCA. I think that was the Kekanaka or Kekaunoa. I'm sorry. I'm not remembering the Hawaiian name. I have all that stuff in my slide show over at the [inaudible]. That had kalo growing, as well. I don't recall Parcel 10. I think that was the U'u's actually, too. That's the Konohia family. That's Charla's family.

CD: Okay.

LDN: Yeah. Charla Konohia who's on the Ha'ikū Community Association Board. And who's the Vice President of the Mālama Hāmākua Maui group that takes care of the County land across the street from this. So. Anyway. There was a lot of kalo growing going on along that stream right where this property is. I'm sure there was other farming there. Other traditional farming. It's very rich land. As I recall walking there with Bryan that time. Oh man...Avocados...It was sheltered 'cause it was down in the gulch. So, those avocado trees were heavy with fruit. Everything looked like it did very well down there.

CD: Yeah.

LDN: In fact, when the County bought that land people suggested that the unused portion for the fire station...It was suggested by many people who testified over the years that the remaining portion be leased out by the County to organic farmers. And be the County's organic ag park.

CD: Wow. Because it's so rich.

LDN: Yeah. Well, it's what they call alluvial soil. The stream went through there years depositing soil. But, in the past it was a really nice farm. And I guess they farmed pineapple on part of it. The

steeper part as I recall had fruit trees on it. It had avocado. Maybe mango, too. I just remember seeing these shiny green avocados there. Bryan was so excited about them and everything. He just loved farming. You know.

CD: Do you remember seeing any 'ulu down there?

LDN: I can't...Kane Alii would be the one to ask. He is so observant. [LDN mentions another long-time Ha'ikū resident who is also very observant, an amateur historian, grows kalo, and is also on the Aha Moku Advisory Council. LDN goes on to apologize to CD for taking so long to get back to her. LDN had responded initially and agreed to participate in the consultation process and offered to suggest others. But, she just got so busy...She said there are so many people in the Ha'ikū who are very knowledgeable about the history and cultural resources. She refers back to the previously conducted CIA where no one came forward to provide their mana'o. LDN says that it is really sad that the opportunity to talk with community members for the initial CIA was missed because so much of the information about the history of the area that is not shared ends up being lost. CD adds that as the kūpuna pass on, their stories are forgotten. LDN stated the stories have to continue. CD and LDN continue to chat a little more and LDN offers to send contact information for Bryan Hiromoto's sister]

CD: Do you think the proposed development of the fire station will affect any place of cultural significance or access to a places of cultural significance? So, this is kind of what you just were saying.

LDN: Well, I hope not. I hope that the fire station is in an area...The area where they were going to originally build it was kind of in the footprint of the existing buildings. So, I don't know if that's still the case or not. [LDN asks if CD sent her information about the project. CD indicates she did. LDN has been busy and hadn't had a chance to check]

LDN: East Kuiaha Stream does run along East Kuiaha [laughs] a little bit. That stream is very meandering. It has a lot of twists and turns and whatever. As long as they are not building in the stream or bulldozing materials into the stream I don't think it will impact the cultural use. They should be aware that areas that border streams often have old habitations. And they would not be on the surface. Because they're old. They're 500, 600 years old. [LDN mentions a CRM firm carried out an archaeological inventory survey, between 2012 and 2014, for the lands that A&B sold across the street from the project area. She explains the project was not done well and that at least two descendants to the area challenged it and she doesn't think the report was ever accepted by the SHPD]

CD: Also, I wanted to tell you that they're going to put a pipeline that's going to go to East Kuiaha.

LDN: Yeah. Because they need to improve the water source to have a fire station there. Are they putting it along the road itself?

CD: Hold on one second. Let me see what I have....This says, "A new waterline will be installed within the Kuiaha Road corridor as part of this project. The... waterline will extend from the new fire station to an existing County of Maui waterline at the intersection of Ha'ikū and East Kuiaha Road."

LDN: Yeah...The roads all wind around and there's a point where West Kuiaha and Ha'ikū Road....You have to choose to go...In one direction is West Kuiaha. The other direction is...You know, they all run into each other. [LDN takes a moment to pull up contact information for some of the people she's suggested CD contact and to share other project-related information and documents, including the historic map: *Kuiaha-Pauwela Homesteads and Kuiaha-Kaupakulua Homesteads Makawao Maui* (Wall 1914). LDN and CD continue to discuss some of the other archaeological work that was conducted in the area] You know what that map was for? That's another part of the history. I didn't mention that...An obscure part of our history. Alexander and Baldwin just scooped up a lot of land that had LCAs and stuff in it around the turn of the century.

CD: From people who didn't pay their taxes?

LDN: All kinds of things...They...After the overthrow there was a lot of land exchanging hands. So, they ended up with a whole bunch of land in Ha'ikū. Originally they tried farming sugar on it. But the weather was too unpredictable in Ha'ikū for farming sugar. It would either be too dry or too wet. But, you know this was the 1860s. 1870s. When they bought the original mill in Ha'ikū. They didn't build the original mill in Ha'ikū. They bought it from a small enterprise that did build it. And they came up with this scheme around the turn of the century that, "We will advertise these lands as homestead lots in mainland papers."

CD: Oh.

LDN: They wanted a bunch of people to come here and homestead. And so when I was researching the old *Maui News* file...[call fades out momentarily] Well, I researched a book about the history of a completely different area of Maui. Mā'alaea. I authored and published a book in 2023. I worked on it for a couple of years. And in doing so...Well, I researched it during Covid. So, I got special permission to go to the library at UH Maui here and just sit with the archival *Maui News* newspaper records for 100 years. You know, go through the microfiche. It was me the only person in the library in the microfiche room. I spent hours and hours doing this. So, as I was looking up things on Mā'alaea, anything I saw on Ha'ikū I also pulled up and made copies of. I had all these newspaper references from 1916. 1918. 1920. Maybe even into the '30s. About the homestead lands in Pauwela, Kuiaha, and Ha'ikū. All of these poor people come out from the Midwest. Some of them had farmed before. And they tried to farm these really slope-y [laughs] overgrown...And they weren't too successful. But, this lot was Lot 6, according to this plat map of the Pauwela-Kuiaha Homesteads. So, that's another part of its history.

CD: That is interesting.

LDN: Yeah. So, this map I'm sending you which is the 1914 map is entitled "Kuiaha-Pauwela Homesteads and Kuiaha-Kaupakulua Homesteads Makawao Maui." Done in 1914 by Wall. He was the surveyor for the Territory at that time.

CD: Yeah. Okay. Thank you.

LDN: "...Homesteads. Oh. What? This is government land and there's homesteads?" No. It was A&B offering people land...They divided up several hundred acres into homesteads. Probably some of which they didn't even own. [laughs] Because they had stolen it...

CD: Oh.

LD.:. From Hawaiians who couldn't push back. And that's what Kane Alii's allegation is. He says, "My ancestors never sold this land to A&B. They just claimed it because people had given up. The streams had been diverted for 50 years. There wasn't water for farming. They didn't have money to go to court. They just gave up. And so A&B just took over these lands. But they still really belonged to our family." So, that's kind of part of his story. So, I'm sending you his complaint and this map. Right now.

CD: Okay.

LDN: And this lot is one of those homestead lots. I think it's Lot Number 6.

CD: Okay.

LDN: And so, it was owned by some nice person who decided to move here and try their hand at farming. The thing was, by this time A&B wasn't in the sugarcane business anymore. They were Maui Packers. And they were growing pineapple. So, they contracted with some of these people, according to the articles I read in the *Maui News*. They contracted with some of these people and said, "Hey...We'll buy your pineapple. If you grow pineapple on this land, we'll buy your pineapple." The people thought, "Oh. Great. We already have our market all set and everything. Yeah. What's not to like?" [laughs] But, it turned out to be a lot harder than they thought.

CD: Yeah. So, was it too dry or what?

LDN: Well, the conditions...There would be drought. There was no source of water during the drought. Although pineapple doesn't need a lot of water. But, it was hard conditions. Some of the land was rocky. It was steep. It was really overgrown, so...If you don't do anything in Ha'ikū in the rainy years, it just becomes a jungle.

CD: I see. You really need to keep up the land.

LDN: Yeah. It wasn't like the Midwest land...There were just so many references to the hard times people were having trying to farm this land. They had all kinds of complaints. They weren't used to the insects...Anything that you could think of [laughs] they faced as problems.

CD: I have a few more questions. Are you aware of any traditional gathering practices on the fire station property?

LDN: I am not aware of any personally. I would suggest that you talk to Kane Alii because he is along that stream. I don't know if he gathers anything along that stream. If so, he may gather...There's a small portion of the stream that goes though the bottom of that property.

CD: Okay.

LDN: Yeah.

CD: What can be done to lessen the adverse effects of the proposed project on any cultural resources or practices in the area?

LDN: Well, I think it's acknowledging its overall history. I would really like to see a display at the fire station. If they would make space. We do have information about the Ha'ikū area, in general, as part of our Ha'ikū Living Legacy Project. So we could provide possibly useful photographs and a little write-up about the general area. I think it would be very helpful to have something about the Hawaiian history. The Kuiaha Stream had many claims during the Māhele for kalo growing. So, it was likely a center. So that's not forgotten.

CD: Okay. So then you know you've said many names, but I want to ask you one more time. Do you know of any other kūpuna, kama'āina, cultural or lineal descendants, or other knowledgeable people who might be willing to share their thoughts about this area?

LDN: Well, I think that the Konohia family…I do know Charla. Her brother, Hauoli, is a historian, He's extremely knowledgeable. He really doesn't like archaeologists a lot. [laughs]

CD: Yeah.

LDN: We had this local resident, Bill Knowlton, who was not Hawaiian, but had grown up here in Hawai'i. Lived in the Peahi area of Ha'ikū for many, many years and taught 4th grade at the school in Ha'ikū. And he was an amateur historian and people really respected his research. He would dig into the archives, etc. When he passed on, he left his papers to two people. To me, because of the Historical Society, and to Haouli Konohia, to Charla Konohia's brother. Because he respected the research work that Haouli did. So, I think it would be very worthwhile to talk to members of the Konohia family. Joyclynn Costa and her 'ohana. If possible. And certainly Kane Alii. Since he is living next door. Basically. [laughs]

CD: Yeah. [CD asks if LDN had been able to talk to Joyclynn Costa at the County Council meeting they both attended the previous evening. In an earlier conversation LDN had offered to speak with Joyclynn to see if she had any information or concerns about the project she would like included in this report. Joyclynn did not attend the meeting]

LDN: And that Parcel 10, right below there. It was claimed by U'u.

CD: Yeah. I just saw that.

LDN: The U'us. They still own a few Land Commission Awards on the other side…on the makai side of the highway along Kaupakulua Stream. They are still under family ownership and there are family graveyards there. [LDN clarifies that U'u is the Konohia family's ancestor and that Kane Alii's ancestor is Nalopi]

LDN: Let me do two more things. Let me look for this inventory that was done across the street because it included East Kuiaha.

CD: Okay.

LDN: So, Fredericksen did a study.

CD: Oh. The Fredericksens did.

LDN: Yeah. He did a small study for Alex Bode. Alex Bode farmed along East Kuiaha Stream…Rediscovered Waikikena Heiau, which is above East Kuiaha Stream, makai of the highway…Alex Bode, who has passed on now, formed an organization called the Waikikena Foundation. W-A-I-K-I-K-E-N-A. Waikikena. Named after Waikikena Heiau. Which was said by Walker to be destroyed. It's one of Walker's sites. But, it was said to be destroyed. In the pineapple fields. Destroyed. Actually, there are remnants of it. And Alex Bode discovered that. He had a program…He leased hundreds of acres of land from A&B. He had…used programs where he took at-risk youths and offered them kind of an adventure camp. There was a bunkhouse. There were horses. And they had helped clear archaeological sites and plant native trees. So, there's a lot of native trees planted on the lands that the County bought. Those are the same lands that Alex had originally leased on a month-to-month lease. After pineapple went out. So, Alex leased lands and these lands have lots of archaeological sites…The kids cleaned around Waikikena Heiau. There's other related sites. There's lots of lo'i. There's house habitation sites. There's all kinds of stuff. So, they had Fredericksen come in…and I think he just did it pro bono. And he did a small survey area along the East Kuiaha Stream. But makai of the subject property across the Hāna Highway.

CD: Okay.

LDN: And then the survey that A&B did was the same area plus a larger area that included Konanui Stream and East Kaupakulua Stream. So, it included an area that was additional acreage. I have a map that shows the area that Fredericksen did. It was from Fredericksen's cultural survey. [LDN searches her files for the Fredericksen report. LDN goes on to explain that Tanya Lee-Greig is updating that study. LDN also finds additional copies of AIS reports for the area. She is sharing these materials with CD via email. CD and LDN go on to chat about the extent of the historical research the Ha'ikū community has conducted and other archaeologists they know]

LDN: Do you have more questions?

CD: No. I'm finished with my questions.

[LDN and CD chat more about previously conducted archaeological studies in the area that she is emailing to CD]

LDN: The other surveys that have been done in this general area where they've had a few carbon dates are generally 1400 to 1600. So, if you had things on this property along the stream they very likely could be buried because...Let me just say I witnessed the flood that happened here just in 2021. In March of 2021. East Kuiaha Steam flooded. And oh my god, just tons of silt came down. And the flood uncovered all kinds of stuff that was way below the surface. Rock walls and all kinds of things.

CD: Oh. Is that right?

LDN: Yeah. There's stuff below the surface along this stream. I can just say from just that one experience. [laughs]

CD: I was going to ask if you thought it was likely that when they did the excavations for the ground altering work for the fire station if there might be cultural materials?

LDN: They might find cultural material and they might find even some old house platforms and things like that because this was a desirable place to live. Near the ocean. Good views of the ocean and along the stream.

CD: Okay.

LDN: And the reason all these people claimed LCAs along that stream had to be because it was productive.

CD: Yeah.

[LDN shares that she has a number of friends who farm right along East Kuiaha Stream. One of them lives right up the street from the fire station on East Kuiaha Road. He has a fruit tree farm there and has lived there for years and years. She's not sure whether or not it's family land. But he doesn't have a guaranteed water supply, as there are times when there's no water because East Kuiaha Stream doesn't always run since it's so diverted. This is the same complaint Kane Alii has. Another friend lives a little bit up the street, who had a 10-acre farm that was permaculture-designed. The property is similar to the project area in that the upper portion is relatively level, but then slopes down to the stream. The Lowrie Ditch and maybe the old Hamakua Ditch went through the property. Very rich land. But, you had to adapt to the slope. So, permaculture does that. It adapts to the terrain, rather than changes the terrain. Further along, two more friends have little farms along the stream. Another person's farm was completely wiped out by the 2021 flood. She knows a lot about East Kuiaha Stream because she's spent so much time in the area]

CD: So, you think that they should monitor?

LDN: I think they should monitor because Ha'ikū has had a long and rich history. And much of it was altered when the plantations moved in. The surface was altered. The things that are below the surface...They didn't plow up these lands. Especially land like that wasn't ploughed up much. For sugarcane raising. I don't know what the homestead farmers did. But, ploughing doesn't go very deep.

CD: Yeah.

LDN: I think it would be worthwhile to monitor...The County has their own archaeologist, so they don't even have to pay for monitoring.

CD: Oh. Is that right? That's Janet Six.

LDN: That's right. Janet Six. She could write a monitoring plan, you know, for free...

CD: I see.

[LDN enquires if CD has had the chance to interview anyone else for this study. LDN and CD discuss potential interviewees. LDN stresses the importance of reaching out to people who are familiar and connected with a particular project site and the overall area].

CD: I can't thank you enough, Lucienne...It's been amazing talking with you. Thank you.

LDN: Well, if it's anything in Ha'ikū, we have a whole historical society here...There's just two of us that didn't grow up in Ha'ikū. All the rest are from old plantation families. Mostly retired school teachers. Hawaiians. Japanese. Filipino. American. Families. Just a wealth of knowledge about all kinds of things.

[LDN and CD continue to chat about the Ha'ikū Living Legacy Project and all they have to offer. The Ha'ikū Living Legacy Project information is available to the public and can be accessed by making an appointment with the library at Ha'ikū School]

CD: Anything else you would like to add?

LDN: The majority of East Kuiaha Stream...the whole East Kuiaha Stream which passes through this property makai of the fire station is also likely to have been a mauka-makai pathway...[call dropped] So, I think there's opportunities to perhaps do a trail through the bottom part of the property where the stream is. Some sort of interpretive trail and then eventually tie it to a trail that's along East Kuiaha Stream on the other side. There's opportunities for the future to use this as more than a fire station. I'd like to get that on the record.

CD: Okay.

LDN: And there also has been discussion this would be a wonderful place for the County to lease land to local organic farmers. Maybe even have a farmer's market on the highway section.

CD: Okay.

LDN: Those are all things that I've heard as part of the Ha'ikū Community Association.

CD: Okay. [CD asks LDN to repeat some of her mana'o that was cut off]

LDN: Yeah. The part of the land that goes...that has the stream...The land slants down towards the stream. Towards East Kuiaha Stream. So, the part of that land that goes along the stream might be an appropriate place to have a public trail that's an educational trail about this stream. Maybe like a little loop trail that you can hike up one way and hike back another way. I mean, there just could be some opportunity for that.

CD: Okay. Those are all really good ideas.

LDN: Since it's public land.

CD: Yeah.

LDN: And because the land along the stream immediately across the street and all the way to the ocean is public land. So that just creates opportunities for environmental education, cultural education, as well as cultural use.

CD: Yeah.

[LDN mentions that the County is now in discussions about restoring stream flow to Kuiaha Stream. They've commissioned a study of the Ha'ikū's streams and they are willing to put in a petition to amend streamflow standards for Ha'ikū Streams so that there can be some guaranteed flow in some of the streams]

LDN: Alright. If you can call Kane Alii and Noryne you might get first-hand accounts. You know, I mainly I know what I've read and what people have told me. But, I didn't live there first-hand as those two people grew up there. In the case of Noryne or in the case of Kane Alii are living immediately adjacent...

[CD mentions she hasn't received all of the emails LDN has sent during the course of their conversation]

LDN: Great talking with you. Any Maui projects you have, call me. I do know a lot about different parts of Maui.

CD: Okay. I will call you. Thanks.

LDN: A hui hou.

CD: A hui hou. Thanks again.

APPENDIX H: INTERVIEW WITH DR. SCOTT FISHER

TALKING STORY WITH DR. SCOTT FISHER (SF)
Ethnographer: Cathleen Dagher (CD)
Date: 9/13/2024

SF: So, you mentioned traditional cultural practices in the area?

CD: Yeah. Traditional cultural practices and cultural resources.

SF: Okay. Traditional cultural practices in the Ha'ikū – East Kuiaha Highway area...would mainly be of course farming would have been taro in Kuiaha Gulch. I'm sure there was...I don't know specifically of any lo'i kalo in that area specifically, but they are very common throughout the region. Kekona Gulch and all around that area. It would not be surprising that in that area there were a number...Of course, the other main cultural resource was access to the ocean...Those are the two main...Farming and then the other one was access to the ocean. So, there would have been trails around there probably that people would have...Historic trails people would have used. I don't know the amount of...the quantity of time people are using that area for...accessing through that property...You know who might actually be a good person to talk to would be Joyclynn Costa.

CD: Oh. Joyclynn. Joyclynn Costa.

SF: Yeah. Joyclynn Costa. She's really good in that area. You know another person who's really knowledgeable about that area is Lucienne de Naie.

CD: Oh. Yeah. They're on my list. I've contacted both of them.

SF: Oh. Good. Good.

[CD and SF talk briefly about reaching out to Jocelynn Costa and Lucienne de Naie].

SF: Okay. Those are the two main cultural practices. Although, if you think about it. That I'm aware of, at least. I'm sure there would have been other like...there was a heiau down there - Waikikena heiau. No. That's in Hāmākualoa. There was one on Alex Bode's property. Not too far from there.

CD: Oh. Do you remember the name?

SF: No. I'd have to look in *Sites of Maui*. But, he took me there once.

CD: I didn't know he was still around. Is he still growing taro over there?

SF: No. No. No. He passed away years ago.

[CD and SF briefly reminisce about Alex Bode, his contribution to the community, and his passing]

SF: He pointed out a lot to me when I went down there...the site of a heiau...It's not on the coast. So, I don't really know the exact access point. But, it's down by Peahi.

CD: Okay.

SF: I just don't remember the name of it [Resolved: I'm fairly sure it was Waikikena heiau]. Yeah. It's been a long...It's probably been 20 years since I was down there. So, I'm not sure if I ever really knew for very long. There were also a number of taro patches in that region. There's also...Yeah. I mean...There's been a number of...Ha'ikū obviously taro patches and access to the shoreline. There's a number of old trails going down the cliff faces down to the ocean. So, that's definitely...understand how...appreciate how important public access was on these trails. It's not in the actual build-out area, but it's definitely in the region. And then of course military activity during the second world war. A lot of these gulches...Somebody told me...[SF asks if CD can hear him because there is yard maintenance going on right outside his office window]...Military had a lot of...Somebody told me they had a bazooka range in the...in one of the gulches. I'm not sure if it was Kuiaha. But, if there's no evidence of military activity on this parcel, I wouldn't really...It doesn't really apply. But, the area does have quite a bit of history of military use.

CD: Okay.

SF: The Fourth Range Division was pretty much all over that area.

CD: In East Kuiaha?

SF: Well...these were people who were vague. They said there was a bazooka range in Kuiaha. They didn't say if was east or west or if there was another gulch. It's really hard to say. Suffice it to say there was a lot of military activity. There's a bombing range at Honopou. So, that was...that's pretty well known...In that whole area was a lot of military activity. That's about it. I'm definitely not an expert on the area, but we don't come across iwi kūpuna very often. In 18 years on the Burial Council...I don't remember any Ha'ikū burials coming up, off the top of my head. Obviously there's a whole bunch down at Kaulahao and other places...To be honest with you, I can't really add a huge amount to the discussion of Ha'ikū other than to say it's not a place that comes up very often...or that the interior comes up very often with a lot of iwi kūpuna. Yeah.

CD: Okay.

SF: Joyclynn and Lucienne would definitely know quite a bit more.

CD: Okay...Alright. Let me back up a little bit.

SF: Sure.

CD: Can you say your whole name please?

SF: Yeah. Yeah. It's Scott Fisher. F-I-S-H-E-R.

CD: Can you tell me where and when you were born?

SF: Yeah. I was born in 1970. I was born in Honolulu. But, when I was about 3 or 4 days old, I moved to Maui...I always say I'm born and raised on Maui. Technically speaking, I wasn't born on Maui, but I've lived here all my life. When I was born, we were living in Sunny Side Camp off of Baldwin Avenue. In the plantation camp. I grew up in Kula. You know, Ōma'opio. And I'm the Director as you pointed out or as you asked, I'm the Director of 'Āina Stewardship with the Hawai'i Land Trust. I guess you can say that when I was born I was living in Hāli'imaile.

CD: Okay. Alright. Where did you go to school?

SF: Elementary I went to Doris Todd. Kula School. Yeah. So, Kula, Doris Todd, and Seabury. I graduated from HPA.

CD: What is HPA?

SF: Hawai'i Preparatory Academy.

CD: Oh. Hawai'i Preparatory Academy.

SF: And then I have...Do you want to know college degrees?

CD: Sure. Well, if you want to. I know you have a lot.

SF: Yeah. I did my undergrad at Carver State. I did my Master's in Indiana. A PhD in Australia. And I have graduate degrees from Washington State University, University of Idaho. And I'm working on a second PhD right now at the University of Southampton, in Australia. And then, I did a postdoc at University of Leicester. In the UK.

CD: Wow. What about Oxford?

SF: No. I never...They don't have the programs I wanted...The reason I chose Southampton is because they have the National Oceanography Center.

CD: Oh. Okay.

SF: Yeah. That's what I really need for my research. So. Anyway.

CD: Okay. Can you tell me about your family background?

SF: Sure. So, my tutu grew up right by where the old Maui High is. She was born in 1909. No. 1906...I think she was born in 1906. In Hanamā'ulu on Kaua'i. But, then her family moved to Ha'ikū, in 1909, when she was 3. And basically, she grew up in that area on Maui. Ha'ikū. Let me think. Yeah. Her father worked for Maui Farm. But, then she moved to O'ahu. That's where my dad was born...[SF explains that he was born on O'ahu because his mother had health issues during her pregnancy. She had traveled to O'ahu to be tended by a specific doctor] My brother was born on O'ahu. My other brother was born on Kaua'i. Anyway. Yeah. So. That's plantation life, you know. You get a different job with the plantation and you move to a different island. Yeah.

CD: Yeah.

SF: Other than that...Let's see. That's the highlights, I suppose. My family worked in sugar since about 1861. Or so.

CD: Can you say that again, please.

SF: My family worked in sugar since 1861.

CD: Oh. Is that right? So, that was who? Your great-grandfather?

SF: Yeah. Well, my great-great-great-grandfather. I think. Yeah...

CD: So, for Claus Spreckels?

SF: On Kaua'i.

CD: Okay.

SF: Grove Farm. And then my dad worked for Lihue Sugar and then he also transferred...My grandfather worked at Kahuku Sugar. Not for long. But, he worked for Kahuku Sugar. Then my dad worked for HC&S. Or Lihue Sugar. Oahu Sugar. Then...Yeah. All over the place on the sugar plantations.

CD: Wow. Well, that's awesome...We already kind of covered...Just let me ask you specifically, do you think there's going to be any traditional sites or historically significant buildings in the area? On the subject property or in the surrounding area?

SF: Okay. How big of an area is it?

CD: It is...

SF: More than 5 acres?

CD: The whole property is 6.2 [acres].

SF: Okay.

CD: But, they're not going to use the whole thing.

SF: Okay. But, they already did the AIS. Right?

CD: They did the AIS probably for the whole property.

SF: Yeah. So, now they just need to do a supplemental AIS on the...

CD: You know, I'm not sure about the archaeology part. We're just doing the Ka Pa'akai.

SF: Okay.

CD: Yeah. [CD briefly describes the remaining features on the property]

SF: Okay.

CD: It was a nursery for a while.

SF: Ah. I see.

CD: A commercial nursery.

SF: I think the only structures you're going to find are probably related to that. It's former use. I don't...It's possible there could be...With burials, they could be anywhere.

CD: They could be anywhere.

SF: Yeah. Do I expect them to be found? Not really on a relatively small area. But should you be entirely prepared for it? Absolutely. Yeah.

CD: Yeah. Okay.

SF: I always put it, in any 10,000 sq. ft. area, just picking a number, the odds of actually finding a burial, unless you're down by the coast or something like that. Or an area where they frequently wash out is fairly small. Especially the further inland you go it gets...it tends to drop off. But, you should always be prepared because they can happen in any environment. Any environment at all. So. I would say definitely...My recommendation would be monitoring. Archaeological monitoring.

CD: Okay. Just in case.

SF: Yeah. Subsurface movement. That's my recommendation.

CD: Okay...Do you think there was any gathering in that area? Specifically on that property or in the surrounding area? Traditional gathering practices?

SF: Yeah. Gathering. I have no idea. I don't know.

CD: Yeah.

SF: On that specific property. I've never heard...That would probably be...Joyclynn Costa would probably know that a lot better.

CD: Or in the gulch? The gulch is right by there...The gulch is just to the west of it.

SF: Yeah. My guess would be agriculture maybe in the gulch would be more common. And maybe the gathering of lā'au lapa'au and other traditional materials. That is entirely possible.

CD: Okay.

SF: Whether or not that was used...People would say, "Hey, I need to go gather X, Y, or Z...Oh. That's right by East Kuiaha or that address." I don't have any information about that. It does seem reasonable that there would be some gathering going on in there.

CD: Okay. Do you think it's still going on?

SF: Yeah. Probably. I mean I'm always surprised. If there's an 'ulu tree, for example. I know a lot of these gulches in Ha'ikū have 'ulu trees. And people always tell me, "Oh yeah. There's a great 'ulu tree that I am familiar with and we go gather 'ulu there. It's on private property, but nobody gathers them and otherwise they rot." And stuff like that. I've heard of things like that. But, not specific to that particular property.

CD: Okay.

SF: But, many gulches in Ha'ikū have them.

CD: Okay. What can be done to lessen adverse effects of the project on cultural resources or practices in that area? Like say they were gathering from that gulch...

SF: Yeah. I think identify community members who may have more familiarity with that area. Which is exactly what you are doing right now. When they do any ground disturbance or any ground altering activity should be monitored by an archaeologist.

CD: Okay.

SF: ...That's the main ones I can think of. The main activities I would say.

CD: Okay. And then, you've answered this a couple of times already. Do you know of any kūpuna, kama'āina, cultural/lineal descendants, or other knowledgeable folks that we should talk to? How about any lineal or cultural descendants?

SF: I'm trying to think if anybody has actually approached us [the Maui Island Burial Council]. Seems like there has been. I just can't think of who it was. But, Joyclynn Costa has...She has applied for a descendancy claim in that area. I think.

CD: Oh. She has?

SF: I think so. She's done other descendancy claim applications. I'm pretty sure. And I can't remember if that... Yeah.

CD: Okay.

[CD mentions who she has contacted]

SF: I don't have any real concerns and I think the benefit it brings to the community is significant. So. Taking reasonable precautions is important. You know the hill they call "Ha'ikū Hill." Again, somewhat far away from where we're talking about. They call "Ha'ikū Hill, but it's actually Pu'u o 'Umi and it is a burial site of...and again, this is far away from it...The burial site of Elia Helekunihi who's kind of a Maui-famous historian. Kind of the same caliber and level as Samuel Kamakau.

CD: Awesome. Okay.

SF: Yeah. Yeah.

CD: Okay. Anything else you'd like to add?

SF: That's about it. That area is rich culturally. You know...Pu'u o 'Umi and Pu'u Kauhikoa...But that specific site. Not really. I don't know of any specific gathering in that area. I'm familiar with the area. But not in terms of its cultural...that specific. Anyway.

CD: Okay. Alright.

SF: Awesome.

[CD and SF thank each other and say good bye]

APPENDIX I: INTERVIEW WITH NORYNE HIROMOTO TAYLOR

1) To start please tell us about yourself...Name? Where/When you were born? Where you grew up? Where you went to school?

I'm Noryne Hiromoto Taylor and I was born in November, 1967. I grew up in this house at the proposed site, and went to Doris Todd, then Maui High School. I spent two years at UH Manoa and then graduated from the University of London, Goldsmiths' College.

2) Could you tell us about your 'ohana/family background?

My family all originated from Japan. My parents were born on Maui in the 1920s and met through church. I am the youngest of three siblings. Both of my parents and oldest brother are deceased.

3) What is your association to the subject property (family land, work place, etc.)?

This property was purchased by my grandfather, Tokuichi Hiromoto. He had worked as a luna for the plantation and managed to save enough money to buy land in Haiku. He eventually traded his plantation horses for cattle-driving ones when he began dairy farming. This property was originally much larger, stretching from at least below the beginning of Valley Isle Memorial Park to East Kuiaha, and included the land that is now the Hana Hwy as well as some area on the other side of the highway. The land that became the highway was claimed by eminent domain.
When my parents got married in 1955 my grandfather gave them the 27 acres for pineapple farming and for them to build a house on. My father farmed pineapple until the 80s, when my brother took over with his mushroom business. At that point, my father used the area below the greenhouses to grow poha berries, various vegetables and ginger flowers, and raise bees.

4) Do you know of any traditional sites or historically significant buildings which are or were located on the Property site--for example: cultural sites, archaeological sites, historic structures and/or burials? Please elaborate.

I remember my father and brothers talking about Hawaiian graves on the property. It was in an area on the far side, opposite the Hana Hwy. and in an area with trees. They did not disturb them. I recall them saying that they were marked with "make".

5) Do you think the proposed development would affect any place of cultural significance or access to a place of cultural significance? Please elaborate.

I would think those graves should be looked at for cultural significance. I'm not aware of anything else on the property.

6) Are you aware of any traditional gathering practices at the Property area and/or within the surrounding areas both past and ongoing?

I am not aware of any traditional practices at the property.

7) What could be done to lessen the adverse effects of the project on any cultural resources or practices in the area?

I'm not sure I have any suggestions here.

8) Do you know of any other kūpuna, kama'āina, cultural/lineal descendants, or other knowledgeable people who might be willing to share their mana'o of Kuiaha Ahupua'a or the surrounding area?

My uncle would probably have more information. He's my father's younger brother, and he was given the piece of land that abutted this property, as well as the original dairy land. His name is James Nadao Hiromoto.

APPENDIX J: INTERVIEW WITH TERRILL JAMES KANE ALII WILLIAMS

1) To start please tell us about yourself...Name? Where/When you were born? Where you grew up? Where you went to school?

My name is Terrill James Kane Alii Williams, I was born in Portsmouth, Virginia on September 20, 1996 due to my mother's service in the US Navy. I was brought back to Maui at the age of two months to be taken to my family and then before the age of 1 was take to San Diego, California due to my mother being restationed there.

2) Could you tell us about your 'ohana/family background?

My mother's generation were raised here on Maui. We have deep ties to the Hamakualoa district through the Papoko and Kapalehua families.

3) What is your association to the subject property (family land, work place, etc.)?

Through my family genealogy, I am a lineal descendant of Nalopi, my great-great-great-great-great grandfather for whom the Land Commission Award 3336 was awarded to on September 10, 1852 and the Royal Patent 2194 allodial land title was awarded to in September 1853 and whose responsibility to the subject property dates back even further to 1819, having received the land from his wife in the time of Kamehameha, as mentioned in the Native Testimony — certified copies of which I am providing; I am one of many heirs to the unbroken chain of title of my ancestor Nalopi. My family continue to reside on our Land Commission Award parcel and continue to exercise our traditional and customary practices, including the right to use water without a permit, in being the owners of the subject property

4) Do you know of any traditional sites or historically significant buildings which are or were located on the Property site--for example: cultural sites, archaeological sites, historic structures and/or burials? Please elaborate.

In the Land Commission Award 3336 document and mapping, there is a traditional Po'alima that is identified; a Po'alima is a taro patch that was worked and cultivated collectively for the chief, normally on Friday's.

As written by the well-known Hawaiian historian Samuel Kamakau, "Since the main thing was to hide the bones, they were buried, kanu me ke pao, under new houses, in roadways, in banks of taro patches, or any place they would be concealed." In the Native Register — a certified copy of which I am providing —- there is identification of lauhala trees as well as a house site; in a 1934 map created by East Maui Irrigation in Land Court Application 960, although the boundaries of the parcel are incredibly inaccurate, there is an old house site that is diagrammed within what are the true boundaries; the true boundaries of Land Commission Award 3336 as identified in the certified copies of the original land documents from the mid-1800s. The location of where that house site was is at a higher elevation of the subject property, away from the flood zone of the East Kuialua Stream, and is close to areas where the water corridor is planned to go through. This presents a concern as traditionally, it was common for Native Hawaiians with kuleana land parcels to bury the dead right near house sites; as such this project would require a cultural monitor present at all times from beginning to end if it were to proceed despite the plan mentioning there is no need for a monitor (I have previously worked as a hired cultural monitor under Na Aikane o Maui, Inc. for both the Lahaina and Kula wildfires.)

There is also a small cave on the property for which our ancestor Nalopi was known by the family to frequent often. This cave would need to be documented; it is now used as the site of a Pohaku-o-Kane (Stone-of-Kane), a shrine dedicated to our family's traditional religious worship of the Hawaiian god, Kane.

There are many prominent stones throughout the property along with many traditional stone retaining walls along the river as well as stone foundations for various mounds. If the project proceeds, these will need to be documented and mapped to preserve the archeological history of the property, especially considering the major flood that occurred in March 2021 in Haiku and came through our property, resulting in mass amounts of causing damage to our property and the flow exiting at water onto Hana Highway.

The Native Register also identifies that the lands under Land Commission Award 3336 also had lo'i kalo. As a result of the March 2021 flood waters, my family and I also had to restore the stone foundations for the lo'i kalo located closer to the road; these lo'i kalo are in active use and also need to be mapped in the event of another major flood occurring.

There is also a small ahu (altar) located closer to the road that has a moa (a triangular shaped stone), the altars of which is named Kupouamoa in dedication to the small land division that the subject property is located within, Kupouamoa (Kuponamoa).

5) Do you think the proposed development would affect any place of cultural significance or access to a place of cultural significance? Please elaborate.

The TMK numbers that encompass Land Commission Award 3336 include, but are not limited to, 270070120000, 270070560000, 270070580000. I am very aware the map being utilized so far in the planning is very inaccurate to the true boundaries of the Land Commission Award 3336 — which are identified in the Land Commission Award 3336, Royal Patent 2194 (certified copies of which are being provided) and in the Survey Boundaries for the parcel (a copy of which is provided to assist in reading the script within the previous documents —- and the history behind said mapping; I believe that in order to move forward with the project, it is the responsibility of the client to hire a land surveyor to map the accurate boundaries as outlined in the copies of the original documents concerning Land Commission Award 3336 as we are concerned about trespassing and development through our allodial title property without our previous consent, being compensated, or having a direct benefit due to the late-1800s to early—1900s history of Alexander & Baldwin and East Maui Irrigation creating fraudulent deeds through Land Court Application 960 in order for the Territory of Hawaii to construct what is now the Haiku Road through our family property and East Maui Irrigation constructing the Lowrie Ditch through our family property without our family's consent, being compensated, or direct benefit to our family; for example, the installation of Haiku Road and the bridge through our property not only resulted in constant car traffic, noise, and disturbance coming through our property, but also impacted the lo'i kalo through building a mound and concrete frame that now blocks the flow of water that would come from a higher elevation relative to the location of the lo'i kalo and traditionally would have ensured our lo'i kalo were full of water even during lower stream flow seasons. In the County records for TMK 270070120000 and outlined under "Legal Information" refer to LCA 960 Map 2 SEC C (Land Court Application Map 2 Section C) that, although not fully accurate, shows the partial of Land Commission Award 3336 as belonging to my ancestor Nalopi in 1934 and inherited by his lineal heirs through an unbroken chain of title; the client the would also have to obtain certified copies of those records as part of further

understanding the history of not only Land Commission Award 3336, but all the kuleana land parcels in both East and West Kuiaha.

Additionally, the installation of the water corridor would also damage our existing tarped, gravel driveway easement from the Haiku Road that leads into the rest of our property. At no point can our access to our kuleana parcel be obstructed.

There needs to be further discussion regarding what our family as heirs ,and thus owners of the subject property, will directly get out of our property being dug through or any other form of installation, along with future maintenance that would inevitably occur, from the water corridor being put into our property if an alternative route or access point for the water corridor is not planned or implemented; one potential solution could be a certified document in writing giving the heirs of Land Commission Award 3336 monthly payment of royalties and a perpetual easement and unregulated, unrestricted access to using the water that would be inside the water corridor from any point within the areas of our allodial title property, being part of our kuleana rights to access water without a permit which is protected and outlined in HRS 174C-101.

6) Are you aware of any traditional gathering practices at the Property area and/or within the surrounding areas both past and ongoing?

Our family continues to exercise our kuleana rights on Land Commission Award 3336. This includes cultivation of food plants such as kalo, uala, mai'a, 'ulu, ko, niu, cultivation of medicinal plants such as mamaki, popolo, 'olena, cultivation of marine life from the stream, including 'o'opu and 'opae, the raising of pigs closer to the road, the raising of chickens, our traditional religious practices. We also grow guinea grass on our property and convert it into mulch. My family and I continue to reside on Land Commission Award 3336.

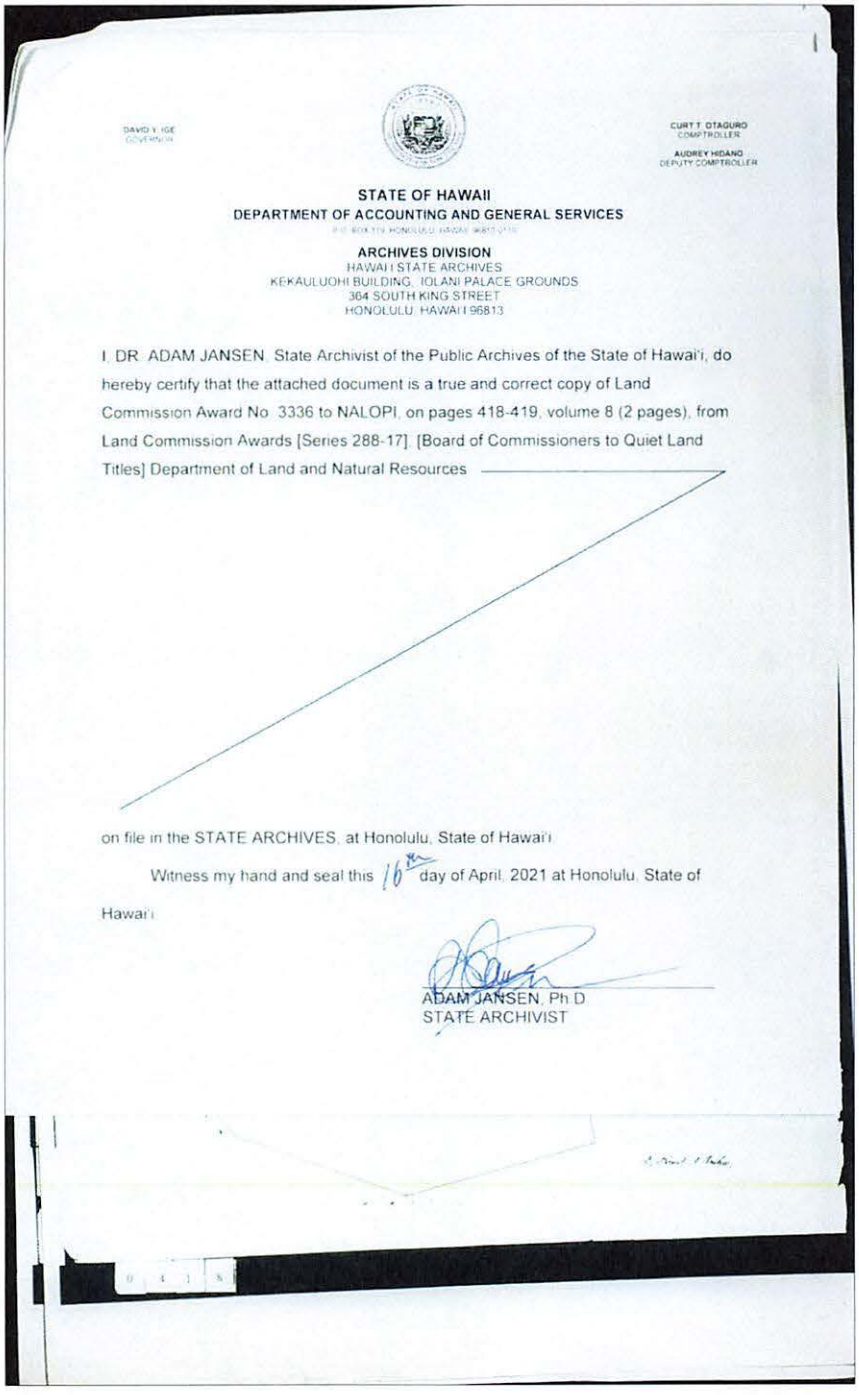
7) What could be done to lessen the adverse effects of the project on any cultural resources or practices in the area?

There needs to be further discussion with my family, the heirs of Nalopi, as we will not accept a forceful installation of the water corridor through our Royal Patent 2194 allodial title kuleana property without our consent, being compensated, and us having a direct benefit and use of the water corridor without our property. A land surveyor must be hired by the client to survey the

original boundaries of Land Commission Award 3336 as provided in the certified copies of the original land documents for the clients own liability purposes. All of the cultural and archeological sites as mentioned previously need to be mapped and documented. There would also need to be a hired cultural monitor present from beginning to end of the project.

8) Do you know of any other kūpuna, kama'āina, cultural/lineal descendants, or other knowledgeable people who might be willing to share their mana'o of Kuiaha Ahupua'a or the surrounding area?

The heirs of Land Commission Award 4959 B and Royal Patent 2169 to Uu also need to be contacted; they are lineal descendants that are also knowledgeable regarding the East Kuiaha ahupua'a and their kuleana parcel is located makai of Land Commission Award 3336 in sharing the same small land division, or ili aina, of Kupouamoa (Kuponamoa) in East Kuiaha. Their kuleana parcel is closer to the planned site of the Fire Station itself and input from representatives of their family is also necessary.



DAVID Y. IGE
GOVERNOR

CURTT. OTAGURO
COMPTROLLER

AUDREY HIDANO
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

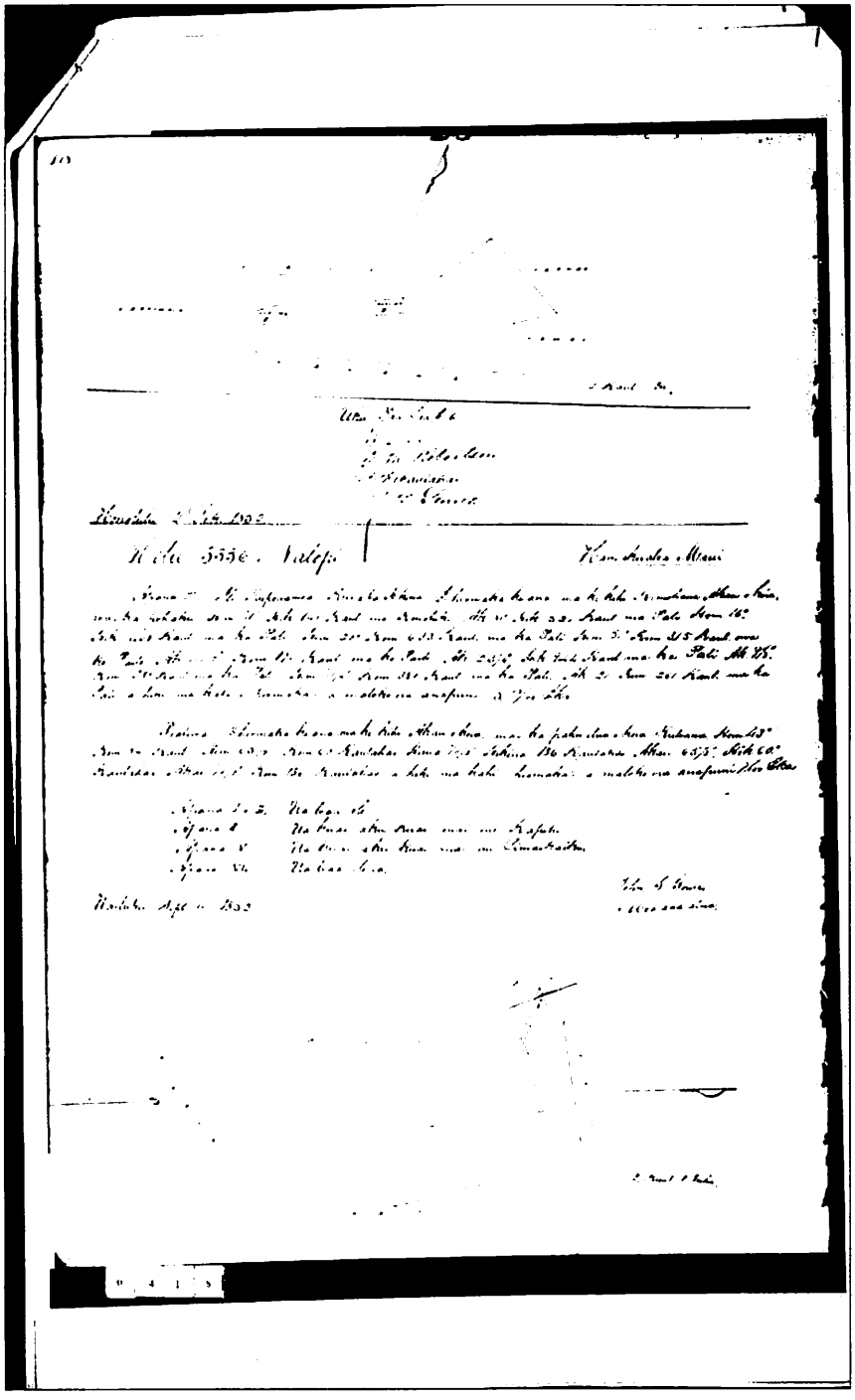
ARCHIVES DIVISION
HAWAII STATE ARCHIVES
KEKAULUOHI BUILDING, IOLANI PALACE GROUNDS
364 SOUTH KING STREET
HONOLULU, HAWAII 96813

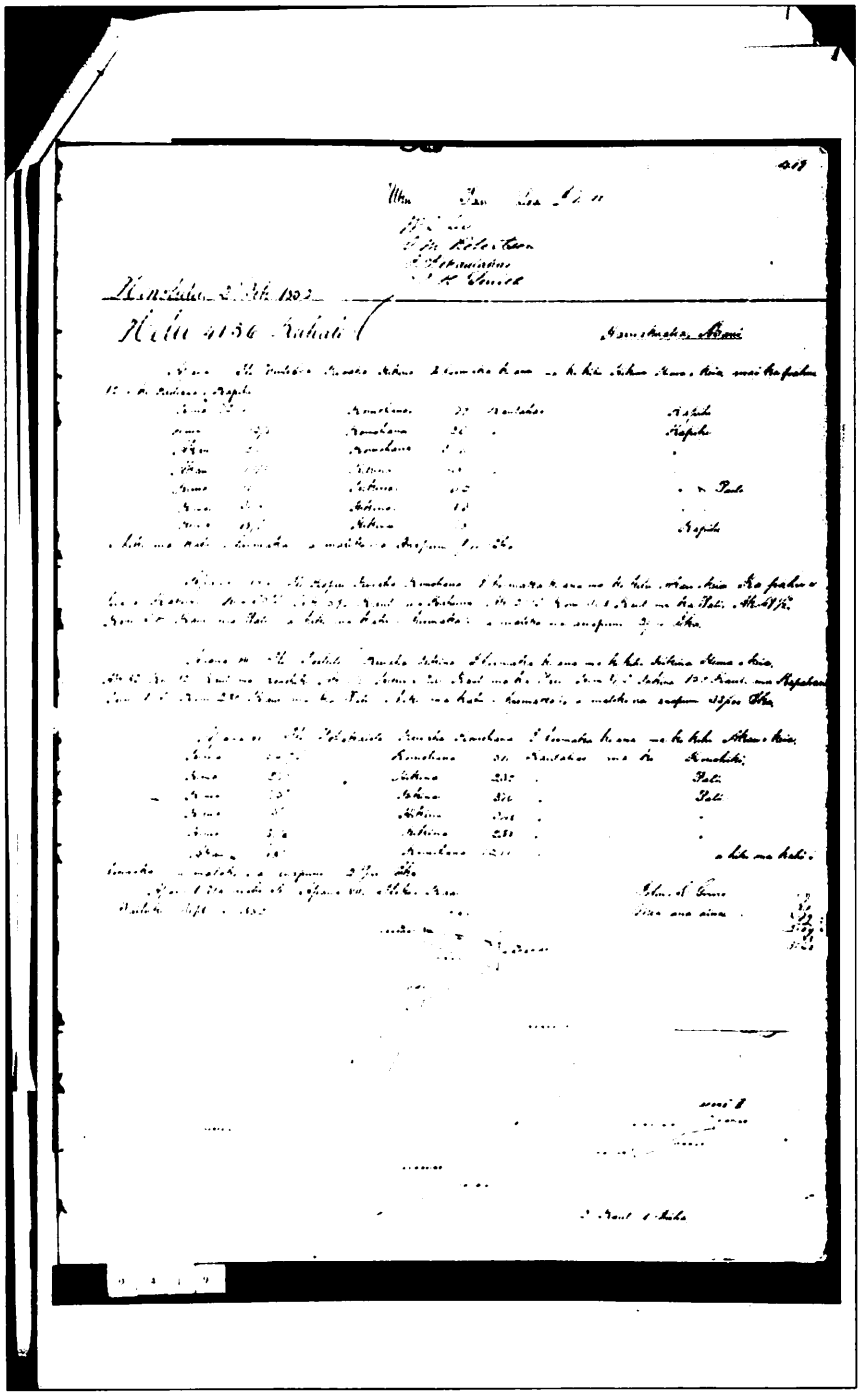
I, DR. ADAM JANSEN, State Archivist of the Public Archives of the State of Hawai'i, do hereby certify that the attached document is a true and correct copy of Land Commission Award No. 3336 to NALOPI, on pages 418-419, volume 8 (2 pages), from Land Commission Awards [Series 288-17], [Board of Commissioners to Quiet Land Titles] Department of Land and Natural Resources

on file in the STATE ARCHIVES, at Honolulu, State of Hawai'i.

Witness my hand and seal this 16th day of April, 2021 at Honolulu, State of Hawai'i.

ADAM JANSEN, Ph.D
STATE ARCHIVIST





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I, DR. ADAM JANSEN, State Archivist of the Public Archives of the State of Hawai'i, do hereby certify that the attached document is a true and correct copy of Royal Patent No. 2194 to NALOPI, on pages 433-434, volume 9 (2 pages), from Patents Upon Confirmation of Land Commission [Series 289-5], [Board of Commissioners to Quiet Land Titles] Department of Land and Natural Resources

on file in the STATE ARCHIVES, at Honolulu, State of Hawai'i.

Witness my hand and seal this 16th day of April, 2021 at Honolulu, State of Hawai'i

ADAM JANSEN, Ph.D
STATE ARCHIVIST

HELU 7/6.

PALAPALA SILA NUI.

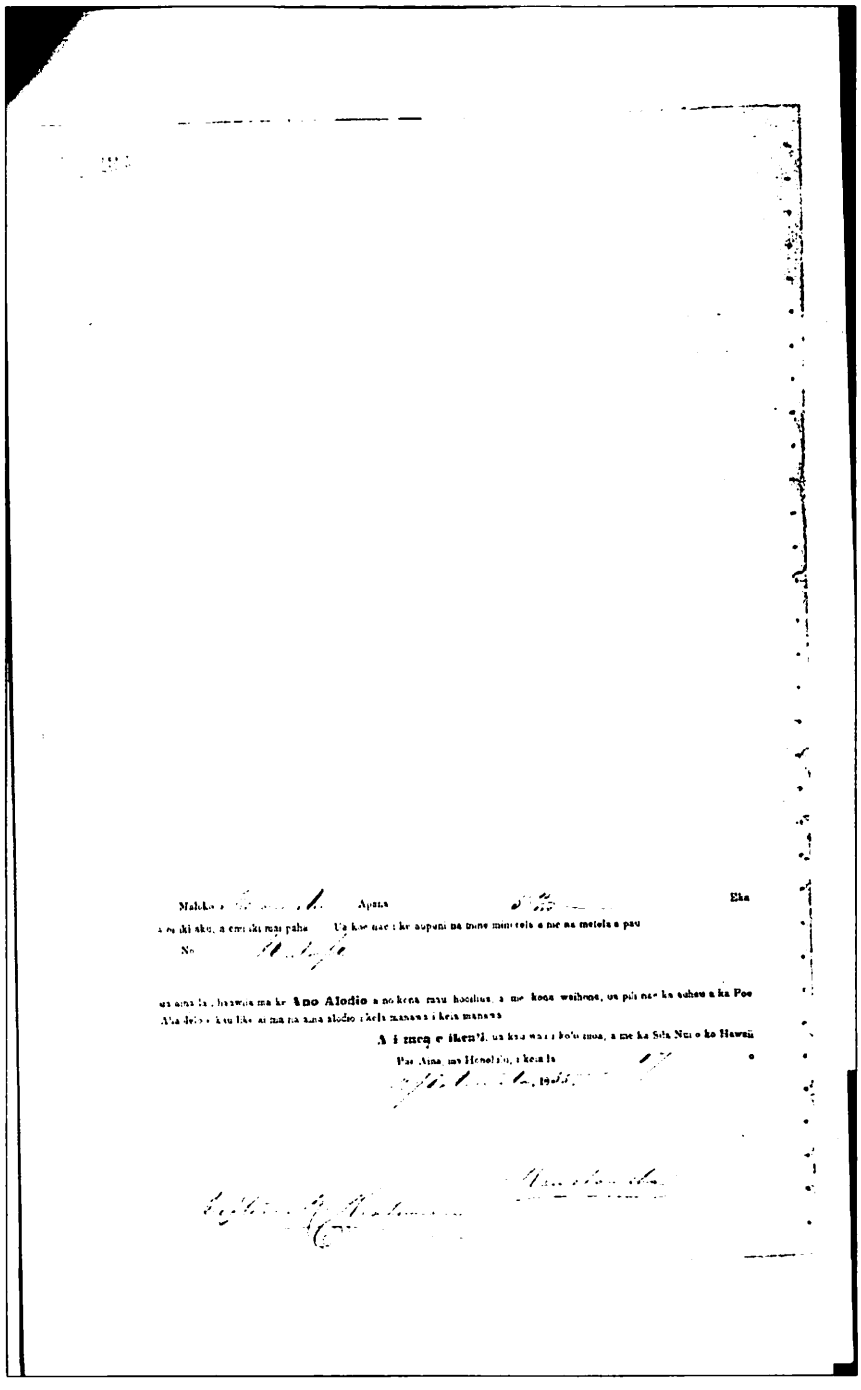
A KE AUE MAMULI O KA OLELO A KA POE HOONA KULEANA.

No ka mea ua hoolilo ka Lunakanawai Hoona i na kuleana aina i ka olelo ke kuleana maoli o

[illegible] Kuleana Aut [illegible]

Nolaila, ua kauia Palapala Sila Nui ke koko ahulau o Kamehameha IV, ke Alii Nui o ke Aupuni o Hawaii Pae Aina, i ua aonaka a pau, i keia la, mana iho a no ia ua nupe Alii au ikaika, a ua [illegible] o ka Aina o Alodio [illegible]

[illegible]



Malelo a [illegible] Apana [illegible] Eha

a ou iki aku, a emi iki mai paha. Ua koe nae i ke aupuni na mea mimiele a me na melola a pau

No [illegible]

au ana la, hoowaiia ma ke **kno Alodio** a no kena mau hoolimu a me koua waihona, ou pii nae ka uhau a ka Poe Aha Jelo. Aole i ku like ai ma na kana alodio iaela manana i kela manana

A i mea e ikea'i, ua koa wau i ko'u moa, a me ka Sila Nui o ko Hawaii

Pae Aina mu Honolulu, i keia la [illegible]

[illegible], 19[illegible].

[illegible]

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
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I, DR. ADAM JANSEN, State Archivist of the Public Archives of the State of Hawai'i, do hereby certify that the attached document is a true and correct copy of Register of claim, dated January 30, 1848, on Land Commission Award No. 3336 to NALOPI, on page 62, volume 6, Native Register, with English translation (2 pages), from Land Commission Registers [Series 286-5], [Board of Commissioners to Quiet Land Titles] Department of Land and Natural Resources

on file in the STATE ARCHIVES, at Honolulu, State of Hawai'i.

Witness my hand and seal this 4th day of September, 2024 at Honolulu, State of Hawai'i.

ADAM JANSEN, Ph.D.
STATE ARCHIVIST

Ina Luna Hoona Aloha
ou kou. Ke hai aku nei au i kiu kuleana,
no mea aina, limoo, aia ma Kailii aina
i kapaia o Kealakapoku ma Wailuku i Maui
mai kou mau makua mai, a o na

62

3336 Nalopi

Aloha na Luna Koona Kuileana, Ke hai aku nei au i he kuleana aina, ma o Kamakua o Kuiaha o Keponamoa ka punuhu aina, kula Ulupepe Poholuahala, Kumapopo, kulanakauhale kulana hale i Kaiku me kahi kula wala i Kaiku, i Pauwela, mo kala, oia kou mau kuleana aina, loi, kula, kauhala ma kulana hale i Pauwela e Kuiaha. Aloha na Luna Koona kuleana me ka mahalua. Kuiaha i Hamakualoa Pauwela Kaiku Na Nalopi
30 Januari 1848

3337 Kaanaa

Ina Luna Koona ane ke
14 Aloha Ke mau loi kou he 35. ma ma Puuia a me Kaalaea ma Waikapu i Maui. Ma Puuia he 19 loi no kou mau mahua mai a pau he 16 kou mau mai. kahuki ka wahi ana, a ma Kaalaea 6 loi no kou kaikoeke mai, a he wahi kula kahi ma Puuia.
Waikapu Na Kaanaa
29 Dek 1847

3338 Kamailou

Ina Luna Koona Aloha
14 oukou. Ke hai aku nei au i kou kuleana, he mau aina, limaa, aia ma Kailii aina, Kapaia e Kalakapalu ma Wailuku i Maui mai kou mau mahua mai, a o na

No. 3332 - Uilama

Greetings to the Land Commissioners: I, Uilama, hereby state my /claim for/ 36 lo'i and the kula at Waikani uuku /small Waikani/.
Wailuku
10 January, 1848

UILAMA, heir of
Namakaelua

No. 3333 - Nika

I hereby state my claim at Ahuka. In this land are two mo'o; that is my claim which is hereby stated to you. A respectful farewell.
Auhaka, Wailuku
January 4, 1848

NIKA

No. 3334 - Nihoaiai

I have 43 lo'i at Kahewa, and 10 lo'i at Puki, that is the total of my lo'i which are occupied there. A respectful farewell.
Kahewa, Wailuku
6 January 1848

NIHOAIAI

No. 3335 - Naonohi

I have 16 lo'i at Kapalaalaea and 8 lo'i at Halaula, those are my claims there. A respectful farewell.
Halaula, Wailuku
6 January 1848

NAONOHI

No. 3336 - Nalopi

Greetings to the Land Commissioners: I hereby state a claim for land. In Hamakua, at Kuiaha, Kuponamoa, is a pauku of land. Kula land is at Ulupepe, Poholauhala, Kumapopo. A house claim is in Haiku and a sweet potato kula also. At Pauwela is a sweet potato mo'o. Those are my claims for land, lo'i and kula. Lauhala and two houses are in Pauwela and in Kuiaha. A respectful farewell to the Land Commissioners.
Kuiaha in Hamakualoa, Pauwela, Haiku.
30 January 1848

NALOPI

No. 3337 - Naanaa

To the Land Commissioners, Greetings: I have 25 more lo'i, at Punia and Kaalaea in Waikapu, Maui. At Punia are 19 lo'i which were from my makuas and which I have had for 17 years. At Kaalaea are 8 lo'i from my brother in law, and also a small kula at Punia.
Waikapu
29 Dec. 1847

NAANAA

No. 3338 - Namailou

To the Land Commissioners, Greetings: I hereby state my claim for

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

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

MEOH-LENG SILLIMAN
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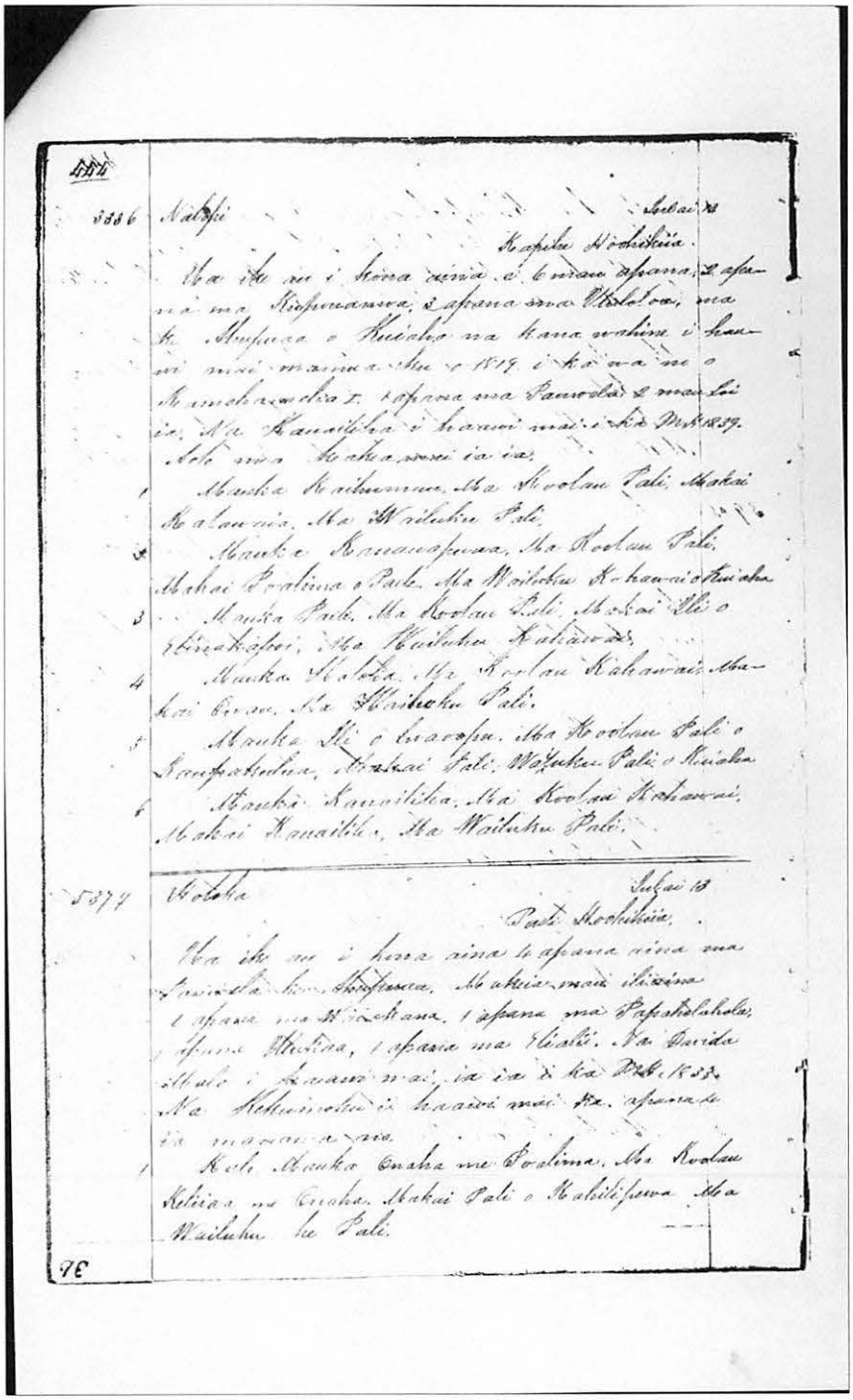
I, DR. ADAM JANSEN, State Archivist of the Public Archives of the State of Hawai'i, do hereby certify that the attached document is a true and correct copy of Testimony, dated July 13, [1849], on Land Commission Award No. 3336 to NALOPI, on page 444, volume 5, Native Testimony, with English translation [revised 8/2024] (2 pages), from Land Commission Testimonies [Series 287-11], [Board of Commissioners to Quiet Land Titles] Department of Land and Natural Resources

on file in the STATE ARCHIVES, at Honolulu, State of Hawai'i.

Witness my hand and seal this 4th day of September, 2024 at Honolulu, State of Hawai'i.

ADAM JANSEN, Ph.D.
STATE ARCHIVIST

Na Kekauonohi e kauoha mai ua oyama ia mauna a pau.
Keki Aloha ma Poalima, Ka Kuahu Keliia o ua Kuahu Makai Pali o Kalalepuwa Ka Waiahu ka Pali.



No. 3[illegible] [illegible] (con't)

Section 4	Mauka	Palai
	Koolau and makai	Pauwela ahupuaa
	Wailuku	Kawalei ili land

No. 3[illegible] Kalopi July 13, 1849 Page 444

Kapiho sworn. Kalopi's land consists of 6 sections of which 2 sections are at Kuhaunoa and 3 sections are at Ululolon of Kuiaha ahupuaa. These were given by him wife before 1819 at the time of Kamehameha I. 1 section at Pauwela with 2 patches. Given by Kauililea in 1839. No one has objected to him.

Section 1	Mauka	Kaihumnu
	Koolau	Pali
	Makai	Kalawaia
	Wailuku	Pali
Section 2	Mauka	Kanaunpuaa
	Koolau	Pali
	Makai	Paele's poalima
	Wailuku	Kuiaha stream
Section 3	Mauka	Paele
	Koolau	Pali
	Makai	Elinakapoi ili
	Wailuku	Stream
Section 4	Mauka	Holoka
	Koolau	Stream
	Makai	Kapiho
	Wailuku	Pali
Section 5	Mauka	Lunoopu ili
	Koolau	Kaupakulua pali
	Makai	Pali
	Wailuku	Kuiaha pali
Section 6	Mauka	Kauaililea
	Koolau	Stream
	Makai	Kauaililea
	Wailuku	Pali

[Note: Translation revised 8/2024]

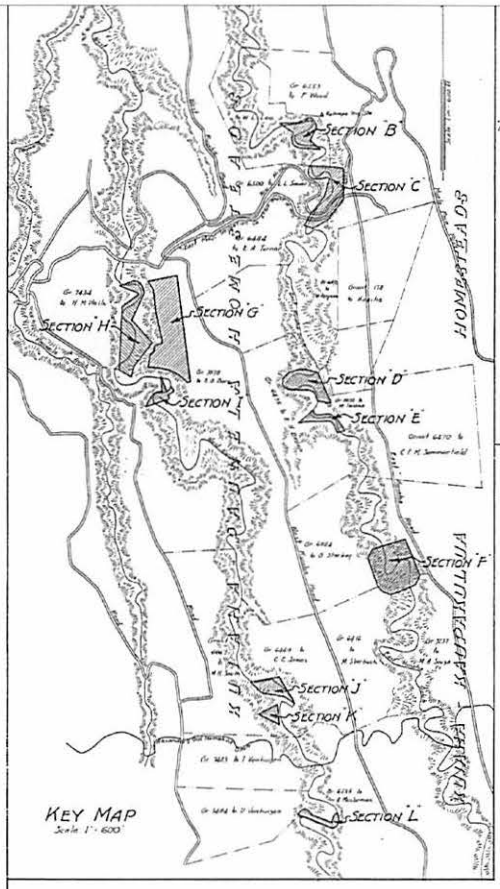
No. 3[illegible]9 Holoka July 13, 1849

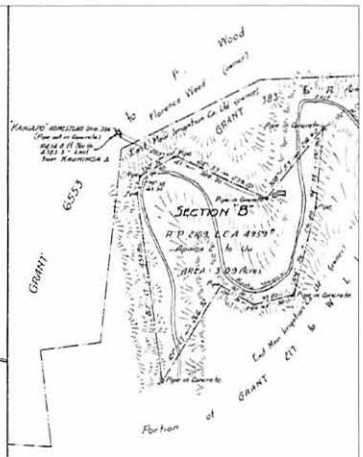
Paele sworn He has seen Holoka's land, it is in 4 sections in Pauwela ahupuaa in the following ilis, Maiokama, Papaholahola, Ulukaa and Elialii. David Malo had given to him in 1833. Kekuaoku gave section 4 at that same time also.

Section 1 - Kapa		
	Mauka	Onaha/Poalima
	Koolau	Kelilina/Onaha
	Makai	Kehilipewa
	Wailuku	Pali

Pg. 445

Section 2 - Kapa		
	Mauka	Kaniau
	Koolau	Pali
	Makai	Nahiku
	Wailuku	Pali
Section 3 - [illegible]		
	Mauka	Kelilina
	Koolau	Pali
	Makai	Paele
	Wailuku	Pali
Section 4 - Kapa		
	Mauka and Koolau	Pali





LAND COURT
TERRITORY OF HAWAII

Map and Description with Application 960 (Amended)
LIBBY, McNEILL & LIBBY OF HONOLULU, LIMITED - APPLICANT.

SECTIONS "B" TO "L" (INCLUSIVE)

SITUATED AT HAMAKUALOA, MAUI, T.H.

I hereby certify that Decree of Registration dated February 26, 1934 and numbered 1129 has issued to LIBBY, McNEILL & LIBBY covering the land described hereon, and that Owner's Certificate of Title No. 12,822 has been transcribed therefrom.
Honolulu, T. H.
February 26, 1934.
Registrar of the Land Court.

SECTION "B"

Being R.P. 2189, L.C.A. 4959, Apana 2 to L
Land situated at Pupaunoa, East Kuaha, Ham

Beginning at a pipe in concrete on the East boundary of
azimuth and distance to Pauwela - Kaupakulua Homestead Triangulati
in concrete) being 703' - 41' 389.7 feet, and the co-ordinates of said
referred to Government Survey Triangulation Station "KAUHINOA"
and 4283.3 feet East, and running by true azimuths from the above

1. 358° - 53' 218.40 feet to a pipe in concrete.
2. 98° - 34' 117.90 feet along path to a pipe;
3. 104° - 36' 141.40 feet along path to a pipe in concrete.
4. 65° - 30' 97.20 feet along path to a pipe;
5. 110° - 31' 92.30 feet along path to a pipe;
6. 101° - 27' 104.70 feet to a pipe set in concrete at foot of path;
7. 162° - 17' 431.89 feet along path to a pipe;
8. 179° - 58' 43.30 feet along path to a pipe;
9. 130° - 51' 96.90 feet along path to a pipe;
10. 74° - 53' 239.20 feet to the point of beginning and containing an

SECTION "C"

Being R.P. 2194, L.C.A. 3336, Apana 4 to Ka
Grant 217 to W. L. Lee
Situated at Pupaunoa, East Kuaha, Hamakua

Beginning at a pipe at the Northeast corner of this piece, a
which referred to Pauwela - Kaupakulua Homestead Survey Triangulati
set in concrete) being 269.35 feet South and 324.43 feet East and fr
"KAHIAPO" Triangulation Station referred to Government Survey Triang
being 10454.6 feet North and 4783.3 feet East, and running by true
described initial point.

1. 355° - 03' 447.80 feet to an iron rail;
2. 38° - 03' 381.60 feet to an iron rail;
3. 57° - 32' 238.00 feet along L.C.A. 3829-6413, Apana 6, Division 1
4. 111° - 42' 128.40 feet along L.C.A. 3829-6413, Apana 6, Division 1
passing over a + on rock at 109.5 feet.

5. 218° - 39' 543.20 feet along path, along Grant 6854 to E. A. Tuner and
6. 142° - 27' 270.80 feet along path, along Grant 6300 to L. L. Sowers
7. 83° - 25' 250.10 feet along path, along Grant 6300 to L. L. Sowers
8. Thence along the West bank of East Wailuku Stream, along Grant 6300 to L
being 352° - 13' 198.00 feet.
9. 273° - 40' 35.00 feet along Grant 217 to W. L. Lee;
10. 271° - 37' 265.45 feet along Grant 217 to W. L. Lee and Grant 383
and from the point of beginning, the true azimuth and distance
11. 235° - 22' 182.00 feet along Grant 6553 to F. Wood to the point of
an area of 5.30 Acres
Subject, however, to an easement in favor
for road purposes, over the following desc

Beginning at a pipe at the Northeast corner of this piece
also the initial point of Section C of this Application as above describe
azimuths:

1. 355° - 03' 383.20 feet.
2. 54° - 15' 237.30 feet along East Maui Irrigation Company, Limite
3. 57° - 16' 141.00 feet along East Maui Irrigation Company, Limite
4. 87° - 10' 84.70 feet along East Maui Irrigation Company, Limite
5. 173° - 10' 178.50 feet along East Maui Irrigation Company, Limite
6. 108° - 39' 134.30 feet.
7. 295° - 20' 36.20 feet.
8. 212° - 26' 128.60 feet.
9. 225° - 28' 322.30 feet.
10. 85° - 11' 340.30 feet.
11. 215° - 22' 46.70 feet to the point of beginning and containing an

SECTION "B"

Being R.P 2169, L.C.A 4959[8], Apana 2 to Uu.
Land situated at Kupoumoa, East Kuiaha, Hamakualoa, Maui, T.H.

Beginning at a pipe in concrete on the East boundary of this piece of land, the true azimuth and distance to Paumalu-Kaupakulua Homestead Triangulation Station "KAHIAPO" (pipe set in concrete) being 203°-41' 389.7 feet, and the co-ordinates of said "KAHIAPO" Triangulation Station referred to Government Survey Triangulation Station "KAUHIKOA" being 10454.8 feet North and 4783.3 feet East, and running by true azimuths from the above described initial point:

1. 308°-53' 216.40 feet to a pipe in concrete;
2. 96°-34' 192.90 feet along pali to a pipe;
3. 104°-56' 216.40 feet along pali to a pipe in concrete;
4. 165°-50' 97.20 feet along pali to a pipe;
5. 210°-31' 92.30 feet along pali to a pipe;
6. 127°-27' 256.70 feet to a pipe set in concrete at foot of pali;
7. 222°-17' 451.80 feet along pali to a pipe;
8. 279°-58' 43.30 feet along pali to a pipe;
9. 330°-32' 96.90 feet along pali to a pipe;
10. 24°-53' 259.20 feet to the point of beginning and containing an area of 3.09 Acres.

SECTION "C"

Being R.P 2194, L.C.A. 3336, Apana 4 to Nalopi, and a portion of Grant 217 to W.L. Lee.
Situated at Kupoumoa, East Kuiaha, Hamakualoa, Maui, T.H.

Beginning at a pipe at the Northeast corner of this piece of land, the co-ordinates of which referred to Paumalu-Kaupakulua Homestead Survey Triangulation Station "KAHIAPO" (pipe set in concrete) being 749.35 feet South and 324.63 feet East, and the co-ordinates of said "KAHIAPO" Triangulation Station referred to Government Survey Triangulation Station "KAUHIKOA" being 10454.8 feet North and 4783.3 feet East, and running by true azimuths from the above described initial point:

1. 358°-03' 447.80 feet to an iron rail;
2. 38°-03' 381.60 feet to an iron rail;
3. 57°-52' 238.00 feet along L.C.A. 3829-6613, Apana 6, Division 1 to Paele to a pipe;
4. 111°-42' 125.40 feet along L.C.A. 3829-6613, Apana 6, Division 1 to Paele to foot of pali, and passing over a "+" on rock at 109.5 feet;

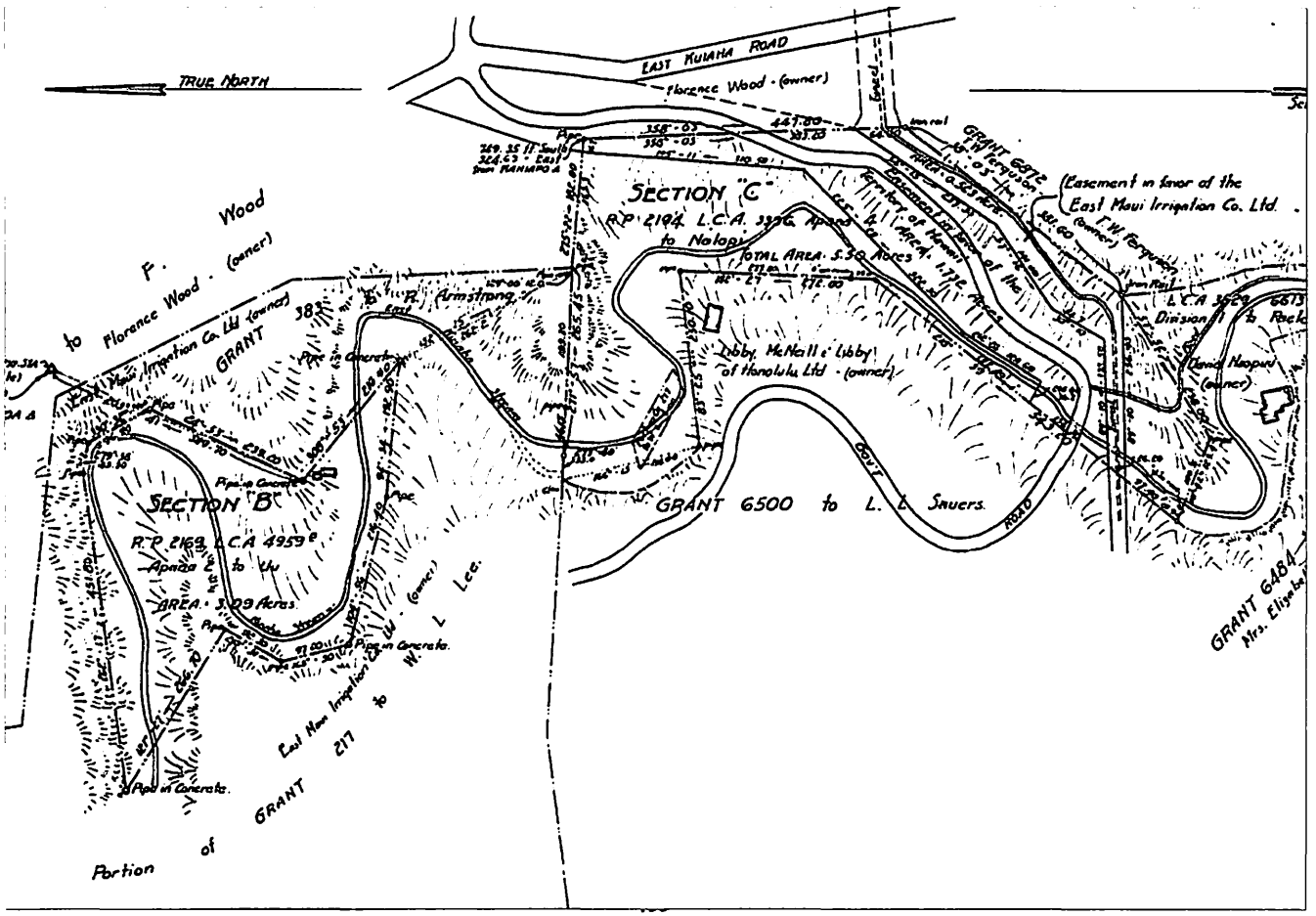
5. 218°-39' 543.20 feet along pali, along Grant 6434 to E.A Turner and Grant 6500 to L.L. Sauers;
6. 182°-27' 272.80 feet along pali, along Grant 6500 to L.L. Sauers to a pipe and passing over a "+" on rock at 35.0 ft
7. 85°-25' 250.10 feet along pali, along Grant 6500 to L.L. Sauers to a pipe;
8. Thence along the West bank of East Kuiaha Stream, along Grant 6500 to L.L. Sauers, the direct azimuth and distance being 152°-13' 194.00 feet.
9. 273°-40' 35.00 feet along Grant 217 to W.L. Lee;
10. 271°-57' 285.45 feet along Grant 217 to W.L. Lee and Grant 383 to R. Armstrong to a pipe on ridge, and from said pipe, the true azimuth and distance to a pipe being 129°-00' 12.0 feet and 270.5 feet, a "+" on rock at 224.4 feet;
11. 275°-22' 182.00 feet along Grant 6553 to I. Wood to the point of beginning and containing an area of 5.50 Acres.

Subject, however, to an easement in favor of the Territory of Hawaii for road purposes, over the following described piece of land:

Beginning at a pipe at the Northeast corner of this piece of land, said pipe being also the initial point of Section "C" of this Application as above described, and running by true azimuths:

1. 358°-03' 383.20 feet;

2. 34°-15' 237.50 feet along East Maui Irrigation Company, Limited, Ditch Right of Way;
3. 57°-15' 141.00 feet along East Maui Irrigation Company, Limited, Ditch Right of Way;
4. 30°-10' 84.70 feet along East Maui Irrigation Company, Limited, Ditch Right of Way;
5. 89°-10' 178.50 feet along East Maui Irrigation Company, Limited, Ditch Right of Way;
6. 218°-39' 136.30 feet;
7. 298°-40' 36.20 feet;
8. 212°-26' 128.60 feet;
9. 225°-28' 322.30 feet;
10. 185°-11' 310.50 feet;
11. 275°-22' 15.70 feet to the point of beginning and containing an area of 1.732 Acres.


TRUE NORTH
EAST KULAHA ROAD
Florence Wood - (owner)
SECTION "C"
R.P. 2194 L.C.A. 3376 Apana 1 to Nalopi
TOTAL AREA 5.38 Acres
Libby, McNeill & Libby of Honolulu Ltd - (owner)
GRANT 6500 to L. L. Sauers.
COURT ROAD
GRANT 6484
Mrs. Elizabe
(Easement in favor of the East Maui Irrigation Co. Ltd.
F.W. Ferguson
(owner)
Area of Easement 1.772 Acres
L.C.A. 3629
Division 1 to Pack
Hawaii Nearer
(owner)
F. Wood
to Florence Wood - (owner)
GRANT
Maui Irrigation Co. Ltd (owner)
"R" Armstrong
East
Pipe Concrete
SECTION "B"
R.P. 2168 L.C.A. 4959 Apana 1 to Lu
AREA 3.09 Acres
East Maui Irrigation Co. Ltd. (owner)
GRANT 217 to W. L. Lee
Portion of

NALOPI - HAMAKUALOA ½ MAUI
APANA 4

L. C. A. 3336
R. P. 2194
Bk. 8, Page 418

Ili Kupouamoa, Kuiaha Hikina. E hoomaka ke ana ma ke kihi Komohana Akau o keia, ma ka pohaku

S. 71° E.	1.41 chains	along Konohiki
N. 81° E.	5.20 chains	along Pali
S. 16° E.	6.68 chains	" "
S. 20° W.	6.33 chains	" "
S. 51° W.	3.15 chains	" Paele
N. 47½° W.	1.90 chains	" "
N. 23¼° E.	9.44 chains	" Pali
N. 9½° W.	3.89 chains	" "
S. 71¼° W.	3.80 chains	" "
N. 21° W.	2.61 chains	" " to the beginning

Area 5 15/100 Acres

Poalima. E hoomaka ke ana ma ke kihi Akau o keia, mai ka pahu elua o keia Kuleana

S. 43° W.	.84 chains
S. 65½° W.	.60 chains
S. 70½° E.	1.86 chains
N. 65½° E.	.60 chains
N. 70½° W	1.86 chains to the beginning

Area 7/100 Acre

Sept. 10, 1852

Current Planning Application Report (ZPA2025-00007)

Plan Type:	CP Change of Zoning/General Plan Amendments/DBA	**Project:**		**App Date:**	07/07/2025
Work Class:	Review	**District:**	Paia-Haiku	**Exp Date:**	NOT AVAILABLE
Status:	In Review	**Square Feet:**		**Completed:**	NOT COMPLETED
Valuation:	$30,000,000.00	**Assigned To:**	Leauanae, Wilton	**Approval Expire Date:**	

Description: County of Maui, Department of Fire and Public Safety (Proposed Ha'ikū Fire Station and Related Improvements Project)

Parcel: 2270070080000-14152 Main	**Address:** 3550 Hana Hwy Haiku, HI 96708 Main	**Zone:** X(Flood Zone: X) 500(Zoning Class: AG Agriculture) Rural(Maui Island Plan: Rural) 999(Zoning Class: Road)

Other
Debralee Esclito
305 High Street Suite 104 Suite 104
Wailuku, HI 96793

Applicant
Michael Arisumi
200 Dairy Road
Kahului, HI 96732

Applicant
Bradford Ventura

Applicant
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, HI 96793
Business: (808) 244-2015

Consultant
Cathleen Krueger
305 S High St STE 104 STE 104
Wailuku, HI 96793
Business: (808) 244-2015

Consultant
Mark Roy
305 S High St Suite 104 Suite 104
Wailuku, HI 96793

Applicant
Rylan Yatsushiro
200 Dairy Rd
Kahului, HI 96732

Plan Custom Fields

I. Project Information

APPLICATION DOCUMENTS

Please use the below hyperlinks to open and/or download forms to be used while preparing and submitting your application.

Outline of ZPA Questions

You can use this outline to help navigate within the set of questions below and refer to any specific one.

Required Attachments for Change of Zoning

Upload all the listed documents in the "Attachments" section if you are requesting a Change of Zoning.

Required Attachments for CP and MIP amendments

Upload all the listed documents in the "Attachments" section if you are requesting an amendment to a Community Plan (CP) or the Maui Island Plan (MIP).

Required Attachments for a Land Use Commission DBA

Upload all the listed documents in the "Attachments" section if you are requesting a Land Use Commission District Boundary Amendment.

Sample of Basic Answers to Questions

You can revew this first sample to help you frame less complex answers to all questions below except those in Section V. Most should be appropriate for a less complex application and/or project. Most sample answers are drawn from actual reports to Commissions.

Sample of Moderately Complex Answers to Questions

You can revew this second sample to help you frame more complex answers to all questions below except those in Section V. Many should be appropriate for a more complex application and/or project. Most sample answers are drawn from actual reports to Commissions.

Sample Answers to Section V. Questions

You can revew this third sample to help you frame answers to questions in Section V. Section V. is specific to only this particular type of application. The questions in the other two samples above are common to a variety of applications which require a public hearing by a County Commission.

Land Use Comm. Admin. Rules 15-15-18 thru 15-15-21

If you are requesting a Land Use Commission District Boundary Amendment, you will need to describe below how the applicable criteria from sections 15-15-18 through 15-15-21 of the Land Use Commission's administrative rules are met.

Notice of Application - ZPA

Fill out the Notice of Application and mail it out with a location map to all owners and recorded lessees within 500 feet of the subject project site property boundaries. Upload a copy in the "Attachments" section.

Notarized Affidavit of Mailing of Notice of App

After mailing out the Notice of Application, fill out the Affidavit, have it notarized, and upload it in the "Attachments" section.

Notice of Public Hearing

Fill out the Notice of Public Hearing and upload it in the "Attachments" section. Do not mail it out until you are asked to do so later.

Notarized Affidavit of Mailing-Notice Public Hrng.

After mailing out the Notice of Public Hearing, fill out the Affidavit, have it notarized, and upload it in MAPPS.

Sample land use change map

Prepare a map of the subject property and its surrounding properties, including their Tax Map Key numbers and the proposed land use change, in a format designed to be printed on regular paper of 8 ½" x 11". The map will not include the metes and bounds on it, nor signature lines or dates for any approvals. Upload it in the "Attachments" section.

You will have the opportunity to upload some attachments in batches in the "Attachments" section.

QUESTIONS

If a question below does not apply to your project, enter NA as your answer and if the question requires a count, enter 0.

I. Project Information

A. GENERAL INFORMATION

1. Select one or more types of amendments or changes being requested
   Change of Zoning, Community Plan Amendment, District Boundary Amendment

2. What other application(s) are you applying for related to this project?
   Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 98 (PDF page 116), Chapter VIII, "List of Permits and Approvals".

3. Associated application number(s), if known
   Not Applicable

4. Is this application for a Maui County agency project?
   Yes

5. Project Name
   Proposed Ha'ikū Fire Station and Related Improvements

6. Total Area of Lot(s) - acreage of TMK parcel(s) where use is proposed
   27.9

7. Project Site Area [Enter only if different from Total Area of Lot(s)] - sq. ft. of area where use is proposed.
   6

8. Valuation of Project*
   30000000

* Total cost or fair market value, as estimated by an architect, engineer, or contractor licensed by the State of Hawaii Dept. of Commerce and Consumer Affairs; or, by the administrator of the Dept. of Public Works, Development Services Administration.

9. Physical Address/Location of Project
   3550 Hāna Highway
   Ha'ikū, Maui, Hawai'i 96708

10. Additional Location Information

11. Describe the Existing Use.
   Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 1 (PDF page 12), Chapter I, Section A "Project Location, Existing Use, and Ownership".

12. Briefly describe the Proposed Development/Use.
   Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 1 (PDF page 12), Chapter I, Section B "Proposed Action".

13. No. of Parking Spaces now on the site
   0

14. No. of Parking Spaces on the site after development
   11

15. Building Permit Application No.
   Not Applicable

16. Has the proposed use or any work related to it already been started or completed for this project?
   No

17. If (Y) describe after-the-fact use or work
   Not Applicable

B. DESCRIPTION OF THE PROJECT

1. List any amendment to text changes you are requesting for zoning conditions or plan wording.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 8-9 (PDF pages 19-20), Chapter I, Section 1.E "Regulatory Requirements".

2. Provide a statement of the purpose and need for the proposed action.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 6-7 (PDF pages 17-18), Chapter I, Section 1.C "Project Need".

3. Describe the full scope of your project. Include, where applicable, but not limited to: use, length, width, height, building materials, floor area, and size of structures in square feet, project need, hours of operation, number of employees, proposed employee housing plan, construction costs, construction timeline, phases, landscaping, and area, depth, or volume of grubbing, grading, fill, and any other ground-altering activity such as utility installation.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 1 (PDF page 12), Chapter I, Section 1.B "Proposed Action".

C. DESCRIBE THE FOLLOWING SITE CONDITIONS

1. Elevations (highest and lowest points)

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 11-17 (PDF pages 23-29), Chapter II, Section A.2 "Climate, Topography, and Soils".

2. Slopes

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 11-17 (PDF pages 23-29), Chapter II, Section A.2 "Climate, Topography, and Soils".

3. Topography

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 11-17 (PDF pages 23-29), Chapter II, Section A.2 "Climate, Topography, and Soils".

4. Soil Types

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 11-17 (PDF pages 23-29), Chapter II, Section A.2 "Climate, Topography, and Soils".

5. Natural Features

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 11-17 (PDF page 23-29), Chapter II, Section A.2 "Climate, Topography, and Soils"; Page 31 (PDF page 43), Chapter II, Section A.10 "Scenic and Open Space Resources"; Page 82 (PDF page 95), Chapter III, Section H.4 "Coastal Ecosystems"; and Page 85 (PDF page 98), Chapter III, Section H.9 "Beach and Coastal Dune Protection".

6. Vegetation

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 22-24 (PDF pages 34-36), Chapter II, Section A.6 "Flora and Fauna".

7. Existing Development

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 1 (PDF page 12), Chapter I, Section A "Project Location, Existing Use, and Ownership".

D. LIST THE ADJACENT AND SURROUNDING LAND USES

1. North

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses".

2. East

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses".

3. South

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses".

4. West

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses".

E. HISTORIC PROPERTIES CHECK/HRS 6E

1. If any of the following apply, check this box

Yes

Does the site include a registered Historic property?

Does the property include any buildings/structures 50 or more years old?

Is there ground altering activity proposed?

2. Is it in NHLD?

No

3. County Historic District?

No

F. CHAPTER 343, HRS (HAWAII ENVIRONMENTAL POLICY ACT) COMPLIANCE

1. If any of the following apply, check this box

Yes

Is there a Chapter 343 trigger?

Has an EA or EIS already been submitted?

Is the project exempt under Chapter 343?

II. Plan Consistency & Impacts

A. SELECT THE RELEVANT THEMES, GOALS, OBJECTIVES, AND POLICIES FROM THE COUNTYWIDE POLICY PLAN AND DESCRIBE HOW YOUR PR(IS OR IS NOT CONSISTENT WITH THEM. WHERE IT IS NOT CONSISTENT, DISCUSS WHY YOUR PROPOSAL IS JUSTIFIED. You may also list and discus other section of the plan that is relevant to the proposed request. Consult the relevant goals, objectives, policies, and implementing actions of the Countywide Policy Plan for guidance.

B. SELECT THE RELEVANT CORE VALUES, GOALS, OBJECTIVES, POLICIES, AND IMPLEMENTING ACTIONS (CH. 1-7) FROM THE MAUI ISLAND PLAN THE DIRECTED GROWTH PLAN (CH. 8) AND DESCRIBE HOW YOUR PROPOSAL IS OR IS NOT CONSISTENT WITH THEM. WHERE IT IS NOT CONSIS DISCUSS WHY YOUR PROPOSAL IS JUSTIFIED. You may also list and discuss any other section of the plan that is relevant to the proposed request. Consult the goals, objectives, policies, implementing actions, and Table 8-2 in Chapter 8 of the Maui Island Plan for guidance.

Core Values: To achieve our island's vision, we will be guided by the following values: a) Adopt responsible stewardship principles by applying sound natural resource management practices. b) Respect and protect our heritage, traditions, and multi-cultural resources. c) Plan and build communities that include a diversity of housing. d) Retain and enhance the unique identity and sense of place. e) Preserve rural and agricultural lands and encourage sustainable agriculture. f) Secure necessary infrastructure concurrently with future development. g) Support efforts that contribute to a sustainable and diverse economy for Maui. h) Create a political climate that seeks and responds to citizen input. i) Respect and acknowledge the dignity of those who live on Maui. j) Establish a sustainable transportation system that includes multiple modes, including walking, biking, and mass transit, as well as automobile-based modes. k) Recognize and be sensitive to landownership issues and work towards resolution.

2. If your request or project falls within a Maui Island Plan Protected Area, address how your project or proposal impacts the Protected Area. Discuss any mitigation measures intended to protect the area. Consult the Protected Area Diagrams and Table 8-2 in Chapter 8 of the Maui Island Plan for guidance. If your request does not fall within a Maui Island Plan Protected Area, answer N/A.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 63-70 (PDF pages 76-83), Chapter III, Section E.2 "Maui Island Plan".

3. If your request or project falls within a Maui Island Plan Growth Boundary, address how your project is consistent with Chapter 8 of the Maui Island Plan, Directed Growth chapter. If your project falls within (affects) a Planned Growth Area, address how your project is consistent with the Planned Growth Area description in Chapter 8. Consult Chapter 7 and 8 of the Maui Island Plan for guidance. If your request does not fall within a Maui Island Plan Growth Boundary, answer N/A

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 63-70 (PDF pages 76-83), Chapter III, Section E.2 "Maui Island Plan".

C. SELECT THE RELEVANT SUBJECTS, GOALS, OBJECTIVES AND POLICIES, AND IMPLEMENTING ACTIONS FROM THE RELEVANT COMMUNITY PL DESCRIBE HOW YOUR PROPOSAL IS OR IS NOT CONSISTENT WITH THEM. WHERE IT IS NOT CONSISTENT, DISCUSS WHY YOUR PROPOSAL IS JU You may also list and discuss any other section of the applicable community plan that is relevant to the proposed request. Community plan areas are defined by geographic boundaries. Consult the relevant goals, objectives, policies, and implementing actions in the relevant Community Plan for guidance.

D. DESCRIBE HOW YOUR PROPOSAL IS CONSISTENT AND CONFORMING WITH EACH OF THE APPLICABLE FOLLOWING TYPES OF MAPPED LAND DESIGNATIONS FOR THE SITE:

1. State Land Use Districts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 44-46 (PDF pages 57-59), Chapter III, Section A "State Land Use Districts" and Section B "Land Use Commission Rules, Chapter 15-15, Hawai'i Administrative Rules".

2. Maui Island Plan Growth Boundaries

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 63-70 (PDF pages 76-83), Chapter III, Section E.2 "Maui Island Plan".

(N/A if project on Molokai or Lana`i)

3. Maui Island Plan Protected Areas

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 63-70 (PDF pages 76-83), Chapter III, Section E.2 "Maui Island Plan".

(N/A if project on Molokai or Lana`i)

4. Community Plan Land Use Designations

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 70-75 (PDF pages 83-88), Chapter III, Section F "Pa'ia-Ha'iku Community Plan".

5. Zoning Designations

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 75-78 (PDF pages 88-91), Chapter III, Section G "Zoning".

DEVELOPMENT IMPACTS

E. ARCHAEOLOGICAL, HISTORICAL, AND CULTURAL RESOURCES IMPACTS:

1. Describe any archaeological impacts.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 24-26 (PDF page 36-38), Chapter II, Section A.7 "Historical and Archaeological Resources".

Although the State Historic Preservation Division (SHPD) accepted the proposed project's Archaeological Inventory Survey on November 12, 2010, the DF&PS re-initiated Hawai'i Revised Statutes (HRS), Chapter 6E-8 consultation on July 7, 2022 when pursuing a demolition permit for the proposed project. The SHPD issued a letter on April 24, 2023 concurring with the DF&PS's "no historic properties affected" determination. See Letter from SHPD Dated April 24, 2023, attachment. In the same letter, the SHPD requested the opportunity to review any additional permits or projects associated with the installation of any new utilities on the subject property. As such, the DF&PS will send updated project plans to SHPD to review when available. Additionally, although not required, the DF&PS has asked the Department of 'Ōiwi Resources to do onsite archaeological and cultural monitoring for this project.

2. Describe any impacts on historic resources.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 24-26 (PDF pages 36-38), Chapter II, Section A.7 "Historical and Archaeological Resources".

As stated above, the proposed project previously received a "no historic properties affected" determination from the SHPD and will submit updated project plans to the SHPD when available. Additionally, although not required, the DF&PS has asked the Department of 'Ōiwi Resources to do onsite archaeological and cultural monitoring for this project.

3. Describe any impacts on cultural resources.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 26-29 (PDF pages 38-41), Chapter II, Section A.8 "Cultural Assessment".

Based on a recommendation from the State of Hawai'i, Office of Planning and Sustainable Development made in a letter dated March 6, 2024, the DF&PS contracted with Keala Pono Archaeological Consulting to conduct additional community consultation with respect to cultural resources and assess how the proposed project likely satisfies the three (3) points of analysis articulated in the Ka Pa'akai O Ka'Aina v. Land Use Commission, 94 Hawai'i 31, 7 P.3d 1068 (2000) case, as amended (Jan. 18, 2001). See Ka Pa'akai Analysis, attachment. The DF&PS responded to the recommendations and suggestions included in Keala Pono's report in a letter to the Department of Planning dated June 20, 2025. See Response Letter to the Department of Planning, attachment. With the actions outlined in the letter to the Department of Planning, adverse impacts on cultural resources are anticipated to be avoided.

4. List any comments/recommendations received from State Historic Preservation Division.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 24-26 (PDF page 36-38), Chapter II, Section A.7 "Historical and Archaeological Resources" and refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume II, PDF pages 28-45, Appendix C-2 "Archaeological Inventory Survey Acceptance Letter from the State Historic Preservation Division".

In addition to the correspondence included in the Final Environmental Assessment, the DF&PS also received a letter from the SHPD dated April 24, 2023 in response to its request for consultation on the project for its demolition permit concurring with the DF&PS's "no historic properties affected" determination. Refer to Letter from SHPD Dated April 24, 2023, attachment.

F. SOCIO ECONOMIC IMPACTS

1. Identify social and economic impacts (such as the need for affordable housing, impacts on population, impacts on labor, local economy, etc.).

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 31-32 (PDF pages 43-44), Chapter II, Section B.1 "Population and Economy".

G. ENVIRONMENTAL IMPACTS

Describe any impacts to the following:

1. Environmentally Sensitive Areas, including shoreline, wetlands, streams, other fresh wasters, estuaries, coastal waters, sea level rise exposure area, other erosion prone areas, geologically hazardous land, tsunami zone, flood plain, rock outcroppings, endangered plants and animals and exceptional trees. For proposals on Maui Island, consult the Protected Area sections in Chapter 8 of the Maui Island Plan (MIP) and discuss how the area will be protected from adverse actions. Include any mitigation measures if applicable. Please consult Table 8-2 in the MIP for guidance.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 20 (PDF page 32), Chapter II, Section A.4 "Flood and Tsunami Conditions"; Pages 63-70 (PDF pages 76-83), Chapter III, Section E.2 "Maui Island Plan"; Page 82 (PDF page 95), Chapter III, Section H.4 "Coastal Ecosystems"; Page 83 (PDF page 96), Chapter III, Section H.6 "Coastal Hazards"; Page 85 (PDF page 98), Chapter III, Section H.9 "Beach and Coastal Dune Protection"; and Pages 85-87 (PDF pages 98-100), Chapter III, Section H.10 "Marine and Coastal Resources".

2. View corridors and scenic resources impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 31 (PDF page 43), Chapter II, Section A.10 "Scenic and Open Space Resources".

3. Flora impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 22-24 (PDF pages 34-36), Chapter II, Section A.6 "Flora and Fauna".

4. Fauna impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 22-24 (PDF pages 34-36), Chapter II, Section A.6 "Flora and Fauna".

5. Dune ecosystems impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 85 (PDF page 98), Chapter III, Section H.9 "Beach and Coastal Dune Protection".

6. Stream ecosystems impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 39-41 (PDF pages 51-53), Chapter II, Section D.4 "Drainage"; Page 97 (PDF page 114), Chapter VII, Section 11 "The Proposed Project Would Not Affect Environmentally Sensitive Areas, Such as Flood Plains, Tsunami Zones, Erosion-prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters or Coastal Waters"; Page 111 (PDF page 130), Chapter IX, Early Consultation Letter from the United States Department of Agriculture, Natural Resources Conservation Service Dated December 7, 2009; and Pages 222-235 (PDF pages 242-255), Chapter X, Draft Environmental Assessment Comment Letter From the U.S. Army Corps of Engineers, Honolulu District Dated January 12, 2011.

7. Marine ecosystem impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 82 (PDF page 95), Chapter III, Section H.4 "Coastal Ecosystems"; Pages 85 (PDF page 98), Chapter III, Section H.9 "Beach and Coastal Dune Protection"; and Pages 85-87 (PDF pages 98-100), Chapter III, Section H.10 "Marine and Coastal Resources".

8. Natural features impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 11-17 (PDF page 23-29), Chapter II, Section A.2 "Climate, Topography, and Soils"; Page 31 (PDF page 43), Chapter II, Section A.10 "Scenic and Open Space Resources"; Page 82 (PDF page 95), Chapter III, Section H.4 "Coastal Ecosystems"; and Page 85 (PDF page 98), Chapter III, Section H.9 "Beach and Coastal Dune Protection".

9. Open space impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 31 (PDF page 43), Chapter II, Section A.10 "Scenic and Open Space Resources".

10. Noise Impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 30-31 (PDF pages 42-43), Chapter II, Section A.9 "Air and Noise Quality".

11. Air Quality Impacts

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 30-31 (PDF pages 42-43), Chapter II, Section A.9 "Air and Noise Quality".

12. List any comments/recommendations received from government agencies.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 98-201 (PDF pages 117-220), Chapter IX "Parties Consulted During the Preparation of the Draft Environmental Assessment; Letters Received and Responses to Substantive Comments"; Pages 201-419 (PDF pages 221-438), Chapter X "Letters Received During the Draft Environmental Assessment Review Period; and Responses to Substantive Comments"; and Pages 418-479 (PDF pages 439-500), Chapter XI "Letters Received During the Updated Draft Environmental Assessment Review Period; and Responses to Substantive Comments".

H. OTHER IMPACTS, MEETINGS, APPROVALS AND ZONING

1. Describe any other impacts.

Not Applicable

2. List the dates of any community meetings held regarding the project and summarize the feedback. Have your neighbors been made aware of your project and what has been their general feedback?

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 7-8 (PDF pages 18-19), Chapter I, Section D "Chapter 343, Hawai'i Revised Statutes"; Pages 89-90 (PDF pages 104-105), Chapter V, Section B "Site Selection Alternative; Pages 91-92 (PDF pages 106-107), Chapter V, Section E "Original Project Scope Alternatives"; and refer to Environmental Assessment Volume II for Proposed Ha'ikū Fire Station and Related Improvements, PDF pages 186-189, Appendix H-1 "Site Selection PowerPoint Presentation Dated April 10, 2007.

3. If applicable, provide an assessment of the impact the proposed use may have on agricultural use of the property with comments from the Department of Agriculture (DOA) and Natural Resources Conversation Service (NRCS).

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 17-20 (PDF pages 29-32), Chapter II, Section A.3 "Agriculture"; and Pages 102-111 (PDF pages 121-130), Chapter IX, Early Consultation Letter from the Natural Resources Conservation Service (NCRS) Dated December 7, 2009.

4. Identify other governmental approvals that the development will be subject to.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 98 (PDF page 116), Chapter VIII, "List of Permits and Approvals".

5. Describe the relationship of the proposed project to the Maui County Code Title 19, Zoning Code.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 75-78 (PDF pages 88-91), Chapter III, Section G "Zoning".

6. Describe the relationship of the proposed project to any other relevant regulatory controls, best management practices, policies, plans, technical studies, guidelines, or studies.

The proposed action is anticipated to require grading and building permits from the County of Maui. Project implementation shall conform to permitting requirements, as set forth in Chapter 20.08 of the Maui County Code (MCC), relating to Soil Erosion and Sedimentation Control, and Chapter 16.26B, MCC, relating to Building Code. Additionally, the proposed action will follow applicable design criteria as set forth in the project's Preliminary Engineering Report, and mitigation provisions set forth by the SHPD, as identified through the HRS 6E process.

1. Table - Countywide Policy Plan

Theme 1: Protect the Natural Environment
Goal 1: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.
Objective 1: (3) Improve the stewardship of the natural environment.
Policies 1: (d) Improve efforts to mitigate and plan for the impact of natural disasters, human influenced emergencies, and global warming.
Implementing Actions 1: (a) Document, record, and monitor existing conditions, populations, and locations of flora and fauna communities.
Other 1: Not applicable.
Relevance 1: The proposed project is directly applicable to the objective and policies to improve stewardship of the natural environment. Best Management Practices (BMPs) will be followed during construction to mitigate potential noise and stormwater runoff impacts. The new fire station will improve the County's efforts to mitigate and plan for human-influenced emergencies related to fire and emergency ambulance services. The proposed project is indirectly applicable to the policy to reduce Maui County's contribution to global climate change through conservation building measures such as the installation of daylight controls in areas adjacent to windows and solar tubes.

Theme 2: Improve Parks and Public Facilities
Goal 2: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.
Objective 2: Not applicable.
Policies 2: Not applicable.
Implementing Actions 2: (d) Identify, acquire, and develop lands for parks, civic spaces, and public uses.
Other 2: Not applicable.
Relevance 2: The proposed project is directly applicable to the implementing action to identify, acquire, and develop lands for parks, civic spaces, and public uses. The Department of Fire and Public Safety (DF&PS) underwent a site selection process for the development of the proposed fire station, including conducting a Feasibility Study in 2021. The analysis concluded that the proposed site offers substantial advantages over the other potential site alternatives in that it is already owned by the County of Maui, requires the least amount of entitlements (given its location within a Rural Growth Boundary), has architectural and engineering plans that are already tailored to the specific property, and is located near the Hai'kū community's historic incident locations. As such, the construction of a fire station in the selected location constitutes the identification and development of lands for public uses.

Theme 3: Improve Physical Infrastructure
Goal 3: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.
Objective 3: (3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.
Policies 3: (j) Encourage green footprint practices.
Implementing Actions 3: Not applicable.
Other 3: Not applicable.
Relevance 3: The proposed project is directly applicable to the goal and policies to promote sustainable building practices. Practices that the proposed project will incorporate to reduce electrical consumption include the use of natural ventilation and solar tubes.

Theme 4: Improve Physical Infrastructure
Goal 4: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.
Objective 4: (3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.
Policies 4: (l) Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.
Implementing Actions 4: Not applicable.
Other 4: Not applicable.
Relevance 4: The proposed project is directly applicable to the goal and policies to promote sustainable building practices. Practices that the proposed project will incorporate to reduce electrical consumption include the use of natural ventilation and solar tubes.

Theme 5: Improve Physical Infrastructure
Goal 5: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.
Objective 5: (4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.
Policies 5: (a) Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.
Implementing Actions 5: Not applicable.
Other 5: Not applicable.
Relevance 5: The proposed project site is located within a Rural Growth Boundary. There is existing infrastructure capacity to service the proposed project. The use of a water storage tank for fire prevention, along with the installation of 300 feet of 8-inch water main along East Kuiaha Road, are appropriate infrastructure technologies to use in a rural area.

Theme 6: Improve Physical Infrastructure
Goal 6: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.

Objective 6: (4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.
Policies 6: (c) Utilize appropriate infrastructure technologies in the appropriate locations.
Implementing Actions 6: Not applicable.
Other 6: Not applicable.
Relevance 6: The proposed project site is located within a Rural Growth Boundary. There is existing infrastructure capacity to service the proposed project. The use of a water storage tank for fire prevention, along with the installation of 300 feet of 8-inch water main along East Kuiaha Road, are appropriate infrastructure technologies to use in a rural area.

Theme 7: Improve Physical Infrastructure
Goal 7: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.
Objective 7: (4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.
Policies 7: (d) Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.
Implementing Actions 7: Not applicable.
Other 7: Not applicable.
Relevance 7: The proposed project site is located within a Rural Growth Boundary. There is existing infrastructure capacity to service the proposed project. The use of a water storage tank for fire prevention, along with the installation of 300 feet of 8-inch water main along East Kuiaha Road, are appropriate infrastructure technologies to use in a rural area.

Theme 8: Improve Physical Infrastructure
Goal 8: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.
Objective 8: (5) Improve the planning and management of infrastructure systems.
Policies 8: (i) Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimize delivery inefficiencies.
Implementing Actions 8: Not applicable.
Other 8: Not applicable.
Relevance 8: The proposed project is directly applicable to the objective and policies related to improving the management of infrastructure systems. The new fire station will be located in Haiʻkū where currently there is none.

Theme 9: Improve Physical Infrastructure
Goal 9: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.
Objective 9: (5) Improve the planning and management of infrastructure systems.
Policies 9: (j) Promote the undergrounding of utility and other distribution lines for health safety, and aesthetic reasons.
Implementing Actions 9: Not applicable.
Other 9: Not applicable.
Relevance 9: The proposed project is directly applicable to the objective and policies related to improving the management of infrastructure systems. The new fire station will be
located in Haiʻkū where currently there is none. The onsite utilities will be located underground.

Theme *: Promote Sustainable Land Use and Growth Management
Goal *: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.
Objective *: (1) Improve land use management and implement a directed-growth strategy.
Policies *: (b) Direct urban and rural growth to designated areas.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the goal and objectives to manage growth and use land in a sustainable manner. The proposed project site is located in a Rural
Growth Boundary. The new fire station will be located in an area where there is infrastructure and service capacity.

Theme *: Promote Sustainable Land Use and Growth Management
Goal *: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.
Objective *: (1) Improve land use management and implement a directed-growth strategy.
Policies *: (h) Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the goal and objectives to manage growth and use land in a sustainable manner. The proposed project site is located in a Rural
Growth Boundary. The new fire station will be located in an area where there is infrastructure and service capacity.

Theme *: Promote Sustainable Land Use and Growth Management
Goal *: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.
Objective *: (3) Design all developments to be in harmony with the environment and to protect each community's sense of place.
Policies *: (b) Encourage the incorporation of green building practices and technologies into all government facilities to the extent practicable.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The new Haʻikū fire station will be designed in accordance with the Pāʻia-Haʻikū Country Town Design Guidelines to ensure the proposed project will maintain the community character of the Haʻikū area. The proposed project will be designed with sustainable building design features.

Theme *: Promote Sustainable Land Use and Growth Management
Goal *: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.
Objective *: (3) Design all developments to be in harmony with the environment and to protect each community's sense of place.
Policies *: (c) Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The new Haʻikū fire station will be designed in accordance with the Pāʻia-Haʻikū Country Town Design Guidelines to ensure the proposed project will maintain the community
character of the Haʻikū area. The proposed project will be designed with sustainable building design features.

Theme *: Promote Sustainable Land Use and Growth Management
Goal *: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.
Objective *: (4) Improve and increase efficiency in land use planning and management.
Policies *: (a) Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the objective and policies to improve and increase efficiency in land use planning and management. The Final Environmental Assessment (EA) for the proposed project analyzes the project's potential affects across
various impact areas, including natural resources, wildlife habitats, and surrounding uses.

Theme *: Promote Sustainable Land Use and Growth Management
Goal *: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.
Objective *: (4) Improve and increase efficiency in land use planning and management.
Policies *: (b) Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the objective and policies to improve and increase efficiency in land use planning and management. The Final EA for the proposed project includes an assessment of cumulative and secondary impacts, as well as an
assessment of community need and consistency with the State Plan, State Functional Plan, Countywide Policy Plan, and Maui Island Plan.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (1) Strengthen governmental planning, coordination, consensus building, and
decision making.
Policies *: (a) Plan and prepare for the effects of social, demographic, economic, and
environmental shifts.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the objective related to strengthening governmental planning, consensus building, and decision making. The DF&PS carried out stakeholder meetings with local community groups during the process of selecting and acquiring the site for this project. As part of the EA process, the DF&PS evaluated whether the proposed project area is located in any environmentally sensitive areas, such as the
3.2-foot Sea-Level Rise Exposure Area, areas outside of Flood Zone X, and the Tsunami Evacuation Zone. The proposed project area is not located in any environmentally
sensitive areas, and, as such, is at a low risk of being impacted by environmental shifts. In addition, the development of a fire station in a community that currently has none aids in the preparation for social and demographic shifts, such as population growth, and environmental shifts that could occur as a result of climate change, such as an increased incidence of wildfires. The proposed project also directly applies to the policy to prepare for large-scale emergencies as a facility that will increase fire protection capabilities in the area.

Theme *: Strive for Good Governance

Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (1) Strengthen governmental planning, coordination, consensus building, and
decision making.
Policies *: (e) Plan and prepare for large-scale emergencies and contingencies.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the objective related to strengthening governmental planning, consensus building, and decision making. The DF&PS carried out stakeholder meetings with local community groups during the process of selecting and acquiring the site for this project. The proposed project directly applies to the policy to prepare for large-scale emergencies as a facility that will increase fire protection capabilities in the area.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (2) Promote civic engagement.
Policies *: (a) Foster consensus building through in-depth, innovative, and accessible public participatory processes.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The EA review process and the land entitlement process for a District Boundary Amendment (DBA), Change of Zoning (COZ), and Community Plan Amendment (CPA)
have provided and will provide opportunities for public review and comment on the proposed project. The DF&PS carried out a number of public and stakeholder meetings
to foster consensus on the scope of the project. The EA process also facilitated the community's ability to obtain relevant information on the proposed project.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (2) Promote civic engagement.
Policies *: (b) Promote and ensure public participation and equal access to government among all citizens.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The land entitlement process for a DBA, COZ, and CPA will provide opportunities for public review and comment on the proposed project. The DF&PS carried out a number
of public and stakeholder meetings to foster consensus on the scope of the project. The EA process also facilitated the community's ability to obtain relevant information on the
proposed project.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (2) Promote civic engagement.
Policies *: (e) Support community-based decision making.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The land entitlement process for a DBA, COZ, and CPA will provide opportunities for public review and comment on the proposed project. The DF&PS carried out a number
of public and stakeholder meetings to foster consensus on the scope of the project. The EA process also facilitated the community's ability to obtain relevant information on the
proposed project.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (2) Promote civic engagement.
Policies *: (g) Expand opportunities for all members of the public to participate in public meetings and forums.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The land entitlement process for a DBA, COZ, and CPA will provide opportunities for public review and comment on the proposed project. The DF&PS carried out a number
of public and stakeholder meetings to foster consensus on the scope of the project. The EA process also facilitated the community's ability to obtain relevant information on the
proposed project.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (2) Promote civic engagement.
Policies *: (h) Facilitate the community's ability to obtain relevant documentation.
Implementing Actions *: Not applicable.
Other *: Not applicable.

Relevance *: The land entitlement process for a DBA, COZ, and CPA will provide opportunities for public review and comment on the proposed project. The DF&PS carried out a number of public and stakeholder meetings to foster consensus on the scope of the project. The EA process also facilitated the community's ability to obtain relevant information on the proposed project.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (3) Improve the efficiency, reliability, and transparency of County government's internal processes and decision making.
Policies *: Not applicable.
Implementing Actions *: (d) Implement plans through programs, regulations, and capital improvements in a timely manner.
Other *: Not applicable.
Relevance *: The EA and land entitlement processes ensure the reliability and transparency of the permitting process and decision making. The proposed project responds to an identified community need and provides capital improvements in a timely manner.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.
Policies *: (b) Encourage the retention and hiring of qualified professionals who can improve cultural and environmental practices.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the objective and policies related to implementing cultural and environmental policies and practices. An EA, Archaeological Inventory Survey (AIS), and Cultural Impact Assessment (CIA) were carried out by qualified professionals for the proposed project.

Theme *: Strive for Good Governance
Goal *: Government services will be transparent, effective, efficient, and responsive to the needs of residents.
Objective *: (5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.
Policies *: (c) Incorporate environmentally sound and culturally appropriate practices in government operations and services.
Implementing Actions *: Not applicable.
Other *: Not applicable.
Relevance *: The proposed project is directly applicable to the objective and policies related to implementing cultural and environmental policies and practices. An EA, AIS, and CIA were carried out by qualified professionals for the proposed project.

1. Table - Maui Island Plan

Goal 1: 1.1 Maui's people, values, and lifestyles thrive through strong, healthy, and vibrant island communities.
Objective 1: Not applicable.
Policy 1: Not applicable.
Implementing Actions 1: Not applicable.
Chapter 8, Directed Growth Plan 1: Not applicable.
Relevance 1: The proposed project is directly applicable to the goal related to strong, healthy island communities. A new fire station in the community of Ha'ikū will provide essential fire protection services in a rural growth area where there currently is no local fire station.
Other, including Core Values 1: Not applicable.

Goal 2: 3.1 Maui will be disaster resilient.
Objective 2: 3.1.2 Greater protection of life and property.
Policy 2: Not applicable.
Implementing Actions 2: Not applicable.
Chapter 8, Directed Growth Plan 2: Not applicable.
Relevance 2: The proposed project is directly applicable to the objective involving greater protection of life and property. The development of a fire station in Ha'ikū, which currently has none, will help to satisfy the long-term fire protection service needs of the growing rural community in that area. It will allow for the more efficient deployment of emergency vehicles and shortened response times, both of which are deemed critical given access limitations and the prevalence of wooden structures throughout the Ha'ikū area. This will increase the County's ability to protect life and property.
Other, including Core Values 2: Not applicable.

Goal 3: 6.7 Maui will have adequate public facilities that meet the diverse needs of residents.
Objective 3: 6.7.1 More effective planning for public facilities to meet community needs.
Policy 3: 6.7.1.c Pursue improvements and upgrades of County public facilities consistent with the public facilities functional plan.
* * *
6.7.1.f Adequately plan and fund public safety facilities (fire, police, ambulance, civil defense) to meet community needs.
* * *
6.7.1.k Incorporate community/area residents' input to determine the appropriate location and design of public facilities.
Implementing Actions 3: Not applicable.
Chapter 8, Directed Growth Plan 3: Not applicable.
Relevance 3: The proposed project is directly applicable to the goal, objectives, and policies for public facilities. The new fire station in Hai'kū responds to a community need, since there is currently no fire station in the community. Hai'kū is an area that has experienced significant growth in the last several years, and a new fire station will provide current and future residents with fire protection and prevention services.
Other, including Core Values 3: Not applicable.

Goal 4: 7.2 Maui will have a rural landscape and lifestyle where natural systems, cultural resources and farm lands are protected and development enhances and compliments the viability and character of rural communities.
Objective 4: 7.2.1 Reduce the proliferation and impact of residential development outside of urban, small town, and rural growth boundaries.
Policy 4: 7.2.1.a Focus development to areas inside urban, small town, and rural growth boundaries to preserve natural, cultural, and agricultural resources.
Implementing Actions 4: Not applicable.
Chapter 8, Directed Growth Plan 4: Not applicable.
Relevance 4: The proposed project is directly applicable to the goal, objectives, and policies related to rural areas. The project site is located in a Rural Growth Boundary. The proposed project has been designed in accordance with the Pā'ia-Hai'kū Country Town Design Guidelines to maintain the rural character of the surrounding area and built environment.
Other, including Core Values 4: Not applicable.

Goal 5: 7.2 Maui will have a rural landscape and lifestyle where natural systems, cultural resources and farm lands are protected and development enhances and compliments the viability and character of rural communities.

Objective 5: 7.2.2 More appropriate service/infrastructure standards to enhance and protect the island's rural character and natural systems.
Policy 5: Not applicable.
Implementing Actions 5: Not applicable.
Chapter 8, Directed Growth Plan 5: Not applicable.
Relevance 5: The proposed project is directly applicable to the goal, objectives, and policies related to rural areas. The project site is located in a Rural
Growth Boundary. The proposed project has been designed in
accordance with the Pā'ia-Hai'kū Country Town Design Guidelines to
maintain the rural character of the surrounding area and built
environment.
Other, including Core Values 5: Not applicable.

Goal 6: 8.2 Maui will maintain opportunities for agriculture and rural
communities through sound planning and clearly defined
development expectations.
Objective 6: Not applicable.
Policy 6: 8.2.b New development shall be consistent with RGB and all other
applicable policies and requirements of the MIP. Public, quasipublic, civic, and limited commercial or industrial uses may be allowed in the RGB when the proposed uses demonstrate a
public need and are consistent with the Community Plan and zoning.
* * *
8.2.j The unique character and function of existing small towns and rural communities shall be protected to retain and preserve their sense of place.
****
8.2.k Preserve rural landscapes in which natural systems, cultural
resources, and agricultural lands are protected and development compliments rural character and contributes to the viability of communities and small towns.
Implementing Actions 6: Not applicable.
Chapter 8, Directed Growth Plan 6: Not applicable.
Relevance 6: The proposed project is directly applicable to the goal, objective, and policies related to the maintenance of opportunities for agriculture and rural communities through sound planning and clearly defined development expectations. The proposed project area is located within the Rural Growth Boundary. It constitutes a public use that is consistent with the character of the rural community. The protection of environmental, cultural, historic, and archaeological resources has been a priority during the planning of this project. In order to preserve the unique character of Ha'ikū, the DF&PS designed the proposed fire station in accordance with the Pā'ia-Hai'kū Country Town Guidelines. For example, in evaluating alternative roof designs for the proposed facility, the DF&PS decided to utilize a "saw-tooth" roof design, which is characteristic of the period of time when the region
was used by plantations for large-scale agricultural crop production.
Other, including Core Values 6: Not applicable.

1. Table - Community Plan

Subject 1: Land Use
Goal 1: A well-planned community that preserves the region's small town ambiance and rural character, coastal scenic vistas, and extensive agricultural land use, and accommodates the future needs of residents at a sustainable rate of growth and in harmony with the region's natural environment, marine resources, and traditional uses of the shoreline and mauka lands.
Objectives 1: (8) Define urban and rural growth limits and densities for the region by determining the needed space to accommodate projected growth, designating the required land using the land use map, and supporting needed development in these areas.
* * *
(11) For the outlying areas such as Ha`iku with existing Urban or Rural Land Use classifications, consideration for expansion of the State Land Use District Boundary should be made on a case by case basis for limited residential development in accordance with the following criteria:

(a) That the proposed change is contiguous with the Urban or Rural District and compatible with the existing character of the surrounding area;
(b) That adequate public services and facilities are available or can be provided at reasonable cost to the petitioner; and

(c) That the proposed land use amendment shall have no significant adverse effects upon agricultural, natural, environmental, recreational, scenic, historic, or other resources of the area.
Policies 1: Not applicable.
Implementing Actions 1: Not applicable.
Relevance 1: The proposed project accommodates the needs of the residents by providing them with improved fire protection and response services. The subject property is designated as "Agriculture" in the Pa'ia-Ha'iku Community Plan. The proposed project is not a supported use within this designation. However, the proposed project conforms to the Maui Island Plan (MIP), updated by the community after the Pa'ia-Ha'iku Community Plan's most recent update. During the development of the MIP, the community included the subject property within the region's Rural Growth Boundary. This indicates that when the Pa'ia-Ha'iku Community Plan is updated, the community would likely carry the same sentiment, considering this parcel is ideally suited for rural-type land uses, like "Public/Quasi-Public". Based on the analysis described in the Final Environmental Assessment (EA), the proposed project is not anticipated to have significant adverse impacts on the area. In fact, it is expected to provide significant beneficial impacts to the area.
Other 1: Not applicable.

Subject 2: Environment
Goal 2: The preservation and protection of the natural environment, marine resources and scenic vistas to maintain the rural and natural ambiance and character of the region.
Objectives 2: (11) Promote greater awareness and opportunities for recycling and sound conservation practices.
Policies 2: Not applicable.
Implementing Actions 2: Not applicable.
Relevance 2: The proposed project will provide public fire protection services to the area, supporting the goal to preserve and protect the environment.
Other 2: Not applicable.

Subject 3: Cultural Resources
Goal 3: Identification, protection, preservation, enhancement and appropriate use of cultural resources, cultural practices and historic sites that provide a sense of history and define a sense of place for the Pa'ia-Ha'ikū region.
Objectives 3: (2) Prevent the desecration of ancient and historic burial sites.
Policies 3: Not applicable.
Implementing Actions 3: Not applicable.
Relevance 3: Although the State Historic Preservation Division (SHPD) accepted the proposed project's Archaeological Inventory Survey on November 12 2010, the DF&PS re-initiated Hawai'i Revised Statutes (HRS), Chapter 6E-8 consultation on July 7, 2022 when pursuing a demolition permit for the proposed project. The SHPD issued a letter on April 24, 2023 concurring with the DF&PS's "no historic properties affected" determination. In the same letter, the SHPD requested the opportunity to review any additional permits or projects associated with the installation of any new utilities on the subject property. As such, DF&PS will send updated project plans to SHPD to review when available. In addition, a Cultural Impact Assessment (CIA) conducted for the proposed project concluded that there is no indication of cultural practices, such as gathering, access, or religious traditions, known to be associated with the project site. As such, adverse impacts to cultural resources, practices, or traditions are not anticipated. The Department of Fire and Public Safety also contracted with Keala Pono Archaeological Consulting to conduct additional community consultation with respect to cultural resources and assess how the proposed project likely satisfies the three (3) points of analysis articulated in the Ka Pa'akai O Ka'Aina v. Land Use Commission, 94 Hawai'i 31, 7 P.3d 1068 (2000) case, as amended (Jan. 18, 2001). Though not required, the DF&PS has asked the Department of Ōiwi Resources to do onsite archaeological and cultural monitoring for this

project.
Other 3: Not applicable.

Subject 4: Town Design
Goal 4: Attractive rural town development in keeping with the existing scale, form and character of settlement areas in the region.
Objectives 4: (1) Incorporate design standards, including, but not limited to, lighting, building and roadway design, appropriate for rural communities. In Agricultural and Rural Districts, excessive roadway standards and street lighting requirements should be discouraged.
* * *
(3) Limit building heights to two (2) stories or thirty (30) feet above grade throughout the region, with any exceptions being subject to design review by the County.

(4) Follow the established design standards for the commercial use areas of Pa`ia Town and Ha`iku based on the following guidelines:
(a) Visually maintain and enhance the low-density town character.
(b) Require that future development be compatible with the desired scale and rural character.
(c) Maintain the ambiance of Pai'a and Ha'iku Towns. Design improvements should be undertaken in a coordinated and ongoing fashion so as to ensure compatibility of future development projects with the desired character. Road improvements for drainage, lighting, and safety should be coordinated with the maintenance of the existing rural, informal streetscape which exemplifies the character of Pa`ia and Ha`iku Towns. For example, urban roadway standards which require excessive street widths detract from a rural character and should be discouraged.
* * *
(7) Use "native plants" for landscape planting in all public projects to the extent practicable.
(8) Ensure that all future subdivisions, construction projects, and developments comply with the Maui County Planting Plan.

Policies 4: Not applicable.
Implementing Actions 4: Not applicable.
Relevance 4: Though the proposed project is not located within Ha'ikū town, its design is informed by the local history and character of the area and the traditional design elements commonly used there. The project will not exceed thirty (30) feet above grade. The project will conform to the Maui County Planting Plan, utilizing native plants as much as practicable.
Other 4: Not applicable.

Subject 5: Physical Instructure
Goal 5: Energy: Greater self-sufficiency in the need for non-renewable energy and more efficiency in use of energy resources.
Objectives 5: (1) Promote energy efficiency as the energy resource of first choice and increase the energy efficiency in all sectors of the community.
(2) Promote environmentally and culturally sensitive use of renewable resources such as biomass, solar, wind, and hydroelectric energy in all sectors of the community.
* * *
(6) Support energy-efficient building design and site development practices.
(7) Promote energy conservation and awareness programs.
Policies 5: Not applicable.
Implementing Actions 5: Not applicable.
Relevance 5: The proposed project incorporates natural lighting sources like windows and solar tubes, reducing the energy used to power lighting. The project will provide for the future installation of photovoltaic (PV) panels on the roof.
Other 5: Not applicable.

Subject 6: Social Infrastructure
Goal 6: Health and Public Safety: A sense of security for all residents and visitors, and aid in the protection of life and property.
Objectives 6: (1) Improve fire protection capabilities in the Ha'iku area and ensure adequate water pressure for fire protection, particularly in urban and rural areas.
Policies 6: Not applicable.
Implementing Actions 6: Not applicable.
Relevance 6: The proposed project accommodates the needs of the residents by providing them with better fire protection and response services than they have now. The proposed project will directly provide residents and visitors in the Ha'ikū area with better protection of life and property. The project will directly improve fire protection capabilities in the Ha'ikū area. The Ha'ikū Fire Station will provide a water storage tank for the fire protection of the station.

Other 6: Not applicable.

Subject 7: Government
Goal 7: Government that demonstrates the highest standards of fairness and is responsive to the needs of the community, fiscally responsible and prudent, effective in planning and implementing programs to accommodate anticipated growth, fair and equitable in taxation, strict in the implementation of the Community Plan, and managed efficiently to provide coordinated and timely responses and the delivery of necessary services and programs to the public.
Objectives 7: (1) Coordinate, direct and manage future development, and provide for necessary public services and infrastructure in a more effective and timely fashion.
* * *
(10) Require that actions taken by public officials, boards or commissions of the County of Maui be in compliance with the goals, objectives and policies of the Community Plan.
Policies 7: Not applicable.
Implementing Actions 7: Not applicable.
Relevance 7: The proposed project accommodates the needs of the residents by providing them with improved fire protection and response services. Fire protection is a necessary service to the public. The Ha'ikū Fire Station would provide more immediate service than the Ha'ikū community currently experiences.
Other 7: Not applicable.

III. Infrastructure

A. WATER

1. Identify existing water source and current usage.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 37-38 (PDF pages 49-50), Chapter II, Section D.2 "Water System".

2. Describe any water transmission lines currently serving the site.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 37-38 (PDF pages 49-50), Chapter II, Section D.2 "Water System".

3. Describe the adequacy of the water supply to meet fire protection requirements.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 37-38 (PDF pages 49-50), Chapter II, Section D.2 "Water System".

4. Describe any anticipated increase in water demand and if necessary, any subsequent improvements.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 37-38 (PDF pages 49-50), Chapter II, Section D.2 "Water System".

5. List any comments/recommendations received from government agencies.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 118-123 (PDF pages 137-142), Chapter IX, Early Consultation Letter From the Department of Health, Clean Water Branch Dated December 10, 2009; Pages 124-126 (PDF pages 143-145), Chapter IX, Early Consultation Letter from the Department of Health, Maui District Health Office Dated December 3, 2009; Pages 128-129 (PDF pages 147-148), Chapter IX, Early Consultation Letter from the Department of Land and Natural Resources, Commission on Water Resource Management Dated December 1, 2009; Pages 163-191 (PDF pages 182-210), Chapter IX, Early Consultation Letter from the Department of Water Supply Dated December 4, 2009; Pages 192-194 (PDF pages 211-213), Chapter IX, Early Consultation Letter from Former Maui County Council Member Gladys C. Baisa Dated November 20, 2009; Pages 251-254 (PDF pages 271-274), Chapter X, Draft Environmental Assessment Comment Letter from the Department of Health Dated January 26, 2011; and Pages 334-344 (PDF pages 354-364), Chapter X, Letter from the Department of Water Supply Dated January 20, 2011.

B. SEWERS

1. Identify existing sewage service (treatment plants, transmission lines, etc.).

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 38-39 (PDF page 50-51), Chapter II, Section D.3 "Wastewater System".

2. Identify current wastewater usage.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 38-39 (PDF pages 50-51), Chapter II, Section D.3 "Wastewater System".

3. Describe any anticipated increase in wastewater demand and if necessary, any subsequent improvements.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 38-39 (PDF pages 50-51), Chapter II, Section D.3 "Wastewater System".

4. List any comments/recommendations received from government agencies.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 118-123 (PDF pages 137-142), Chapter IX, Early Consultation Letter From the Department of Health, Clean Water Branch Dated December 10, 2009; Pages 124-126 (PDF pages 143-145), Chapter IX, Early Consultation Letter from the Department of Health, Maui District Health Office Dated December 3, 2009; Pages 159-161 (PDF pages 178-180), Chapter IX, Early Consultation Letter from the Department of Environmental Management Dated January 25, 2010; Pages 251-257 (PDF pages 271-277), Chapter X, Draft Environmental Assessment Comment Letter from the Department of Health Dated January 6, 2011; and Pages 291-295 (PDF pages 311-315), Chapter X, Draft Environmental Assessment Comment Letter from the Department of Environmental Management Dated January 21, 2011; and Pages 457-458 (PDF pages 478- 479), Chapter XI, Updated Draft Environmental Assessment Letter from the Department of Environmental Management Dated February 9, 2024.

C. DRAINAGE

1. Describe existing drainage pattern.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 39-41 (PDF pages 51-53), Chapter II, Section D.4 "Drainage".

2. Describe existing drainage structures.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 39-41 (PDF pages 51-53), Chapter II, Section D.4 "Drainage".

3. Describe any anticipated increase in drainage and if necessary, any subsequent improvements.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 39-41 (PDF pages 51-53), Chapter II, Section D.4 "Drainage".

4. Describe any flood hazard impact.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 20 (PDF page 32), Chapter II, Section A.4 "Flood and Tsunami Conditions".

D. ROADWAYS, CURBS, GUTTERS AND SIDEWALKS

1. Describe existing roadway conditions including width of right-of-way, pavement width, improvements such as curbs, gutters, sidewalks, deceleration/acceleration lanes.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 35-37 (PDF pages 47-49), Chapter II, Section D.1 "Roadways".

2. Describe existing and proposed ingress and egress into and from the site.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 1-6 (PDF pages 12-17), Chapter I, Section B "Proposed Action"; Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses"; Pages 35-37 (PDF pages 47-49), Chapter II, Section D.1 "Roadways"; and refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume II, PDF pages 4-17, Appendix A "Preliminary Development Plans".

3. Describe any proposed roadway condition improvements.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 1-6 (PDF pages 12-17), Chapter I, Section B "Proposed Action"; Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses"; Pages 35-37 (PDF pages 47-49), Chapter II, Section D.1 "Roadways"; and refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume II, PDF pages 4-17, Appendix A "Preliminary Development Plans".

4. Comprehensively describe traffic impacts in and around the project site.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 35-37 (PDF pages 47-49), Chapter II, Section D.1 "Roadways".

5. List any comments/recommendations received from Department of Public Works or State DOT.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 135-139 (PDF pages 154-158), Chapter IX, Early Consultation Letter From the State of Hawai'i, Department of Transportation Dated December 18, 2009; Page 158 (PDF page 177), Chapter IX, Early Consultation Letter from the Department of Public Works Dated December 14, 2009; Page 162 (PDF page 181), Chapter IX, Early Consultation Letter from the County of Maui, Department of Transportation Dated November 24, 2009; Pages 279-283 (PDF pages 299- 303), Chapter X, Draft Environmental Assessment Comment Letter from the State of Hawai'i, Department of Transportation Dated February 28, 2011; Pages 322-328 (PDF pages 342-348), Chapter X, Draft Environmental Assessment Comment Letter from the Department of Public Works Dated February 9, 2011; Page 329-333 (PDF page 349-353), Chapter X, Draft Environmental Assessment Comment Letter from the County of Maui, Department of Transportation Dated January 20, 2011; and Pages 443-445 (PDF pages 464-466), Chapter XI, Updated Draft Environmental Assessment Comment Letter from the State of Hawai'i, Department of Transportation Dated March 15, 2024.

E. ELECTRICAL, TELEPHONE AND CABLE

1. Describe existing and proposed utilities.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 41-42 (PDF pages 53-54), Chapter II, Section D.5 "Electrical, Telephone and Cable Services".

F. SOLID WASTE

1. Solid Waste Landfill Site

Central Maui Sanitary Landfill in Puunene

2. Solid Waste Facilities Adequacy

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 33-34 (PDF pages 45-46), Chapter II, Section C.3 "Solid Waste".

3. Describe your plans for solid waste disposal and recycling.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 33-34 (PDF pages 45-46), Chapter II, Section C.3 "Solid Waste".

4. List any comments/recommendations received from government agencies.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 159-161 (PDF pages 178-180), Chapter IX, Early Consultation Letter from the Department of Environmental Management Dated January 25, 2010 and Pages 291-295 (PDF pages 311-315), Chapter X, Draft Environmental Assessment Comment Letter from the Department of Environmental Management Dated January 21, 2011.

G. OTHER

1. Describe any other infrastructure requirements

Not Applicable

IV. Public Services

A. PARKS

1. List any County or other local community/recreational facilities that serve your site.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 34 (PDF page 46), Chapter II, Section C.4 "Recreational Resources".

2. Select the State community/recreational facilities that serve your site.

N/A

3. Identify any impacts of your proposed project to those facilities.

Not Applicable

4. Describe any additional public facility requirements to serve your site.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 34 (PDF pages 46), Chapter II, Section C.4 "Recreational Resources".

B. SCHOOLS

1. Select the Public School Facilities which serve your site.

Paia-Haiku Schools

2. Identify any impacts of your proposed project to those facilities.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 34 (PDF page 46), Chapter II, Section C.5 "Educational Facilities".

C. PUBLIC SERVICES

1. Select the fire station that serves your area.

Paia Fire Station on Hana Highway in Paia Town

2. Describe the fire protection for your site.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 32-33 (PDF pages 44-45), Chapter II, Section C.1 "Police and Fire Protection".

3. Select the library that serves your area.

Kahului Public Library on School Street, Makawao Public Library - Makawao Town

4. Select the police station that serves your area

Haiku Community Center

5. Select the hospital that serves your area.

Maui Memorial Medical Center - Wailuku

6. Describe any additional public services to serve your site.

Not Applicable

V. Other Info-Code, DBA & MBA

A. PROVIDE THE OTHER BELOW INFORMATION REQUIRED BY ZONING CODE SECTION 19.510.010

1. A detailed land use history of the subject parcel(s) to include former and existing state and county land use designations, violations, and uses.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 1 (PDF page 12), Chapter I, Section A "Project Location, Existing Use, and Ownership"; Page 8 (PDF 19) Chapter I, Section "E" Regulatory Requirements"; Page 10 (PDF page 22), Chapter II, Section A.1 "Surrounding Land Uses"; Pages 24-26 (PDF pages 36-38), Chapter II, Section A.7 "Historical and Archaeological Resources"; and Pages 26-29 (PDF pages 38-41), Chapter II, Section A.8 "Cultural Assessment".

2. An analysis of secondary impacts of the proposed use on surrounding uses.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 42-43 (PDF pages 54-55), Chapter II, Section E "Cumulative and Secondary Impacts".

3. Identify any traditional beach and mountain access trails and additional trails which may be required for public access, and, if applicable, a preservation/mitigation plan and comments from the Department of Land and Natural Resources and the Office of Hawaiian Affairs.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 26-29 (PDF pages 38-41), Chapter II, Section A.8 "Cultural Assessment"; Pages 127-134 (PDF pages 146-153), Chapter IX, Early Consultation Letter from the Department of Land and Natural Resources, Commission on Water Resource Management Dated December 1, 2009; Pages 141-145 (PDF pages 160- 164), Chapter IX, Early Consultation Letter from the Office of Hawaiian Affairs Dated December 8, 2009; Pages 258-273 (PDF pages 278-293), Chapter X, Draft Environmental Assessment Comment Letters from the Department of Land and Natural resources, Division of Aquatic Resources and Engineering Division Dated February 10, 2011; Pages 274-278 (PDF pages 294-298), Chapter X, Draft Environmental Assessment Comment Letter from the Department of Land and Natural Resources, SHPD Dated February 7, 2011; Pages 284-290 (PDF pages 304-310), Chapter X, Draft Environmental Assessment Comment Letter from the Office of Hawaiian Affairs Dated February 3, 2011; Pages 430-442 (PDF pages 451-463), Chapter XI, Updated Draft Environmental Assessment Comment Letter from the Department of Land and Natural Resources, Division of Forestry and Wildlife Dated March 8, 2024; and Pages 449-452 (PDF pages 470-473), Chapter XI, Updated Draft Environmental Assessment Comment Letter from the Office of Hawaiian Affairs Dated February 23, 2024.

4. Identify and provide an assessment of chemicals and fertilizers used, including, but not limited to, detailing effects upon surface, underground and marine water resources and neighboring properties and surrounding flora and fauna, and if applicable, a mitigation plan and maintenance program and schedule, and comments from the Departments of Health and of Land and Natural Resources of the State, the United States Fish and Wildlife Service, and the United States Environmental Protection Agency.

Fertilizer will be used during plant establishment. However, landscaping for the proposed project will use, to the extent possible, native Hawaiian plant species, which quickly acclimate and thrive within the Ha'ikū micro-climate, promoting irrigation efficiency and reducing the amount of fertilizer needed.

The proposed project involves a BMP plan to be followed during construction to manage stormwater runoff, and permanent drainage mitigation measures will be implemented to address the increase in stormwater runoff associated with the development of the fire station. Please refer to Final Environmental
Assessment Volume I for Proposed Ha'ikū Fire Station and Related Improvements, Pages 39-41 (PDF pages 51-53), Chapter II, Section D.4 "Drainage".

These short-term and permanent BMPs will ensure that surface, underground, and marine water resources; downstream and adjacent properties; and flora and fauna are not affected by the project.

B. DISTRICT BOUNDARY AMENDMENTS

1. For District Boundary Amendments, describe how the applicable criteria from sections 15-15-18 through 15-15-21 of the Land Use Commission rules are met.

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 44-46 (PDF pages 57-59), Chapter III, Sections A "State Land Use Districts" and B "Land Use Commission Rules, Chapter 5-15, Hawai'i Administrative Rules".

C. Maui Island Plan Amendments

Complete this section if your project requires a Maui Island Plan Amendment. Review the Guiding Land Use Principles below for their relevance to your project and describe how your project supports each relevant principle. If your project does not require a Maui Island Plan Amendment, go on to the next section.

CRITERIA FOR GROWTH BOUNDARY AMENDMENTS. SELECT THE RELEVANT LAND USE PRINCIPLES FROM CHAPTER 8, DIRECTED GROWTH PLA MAUI ISLAND PLAN AND DESCRIBE HOW YOUR PROPOSAL SUPPORTS AN AMENDMENT TO A GROWTH BOUNDARY. WHERE IT DOES NOT SUPPC GUIDING LAND USE PRINCIPLE, DISCUSS WHY YOUR PROPOSAL IS JUSTIFIED. Consult the land use principles, themes, goals, policies and implementir actions of the Maui Island Plan for guidance. Review chapters 7 and 8, the Planned Growth Areas in chapter 8, and Table 8-2 in chapter 8 of the Maui Island Plan to help you answer how your project addresses each land use principle below.

Guiding Land Use Principles

1. Respect and encourage island lifestyles, cultures, and Hawaiian traditions: The culture and lifestyle of Maui's residents is closely tied to the island's beauty and natural resources. Maintaining access to shoreline and mountain resources and protecting culturally significant sites and regions perpetuates the island lifestyle and protects Maui's unique identity. One of the most vital components of the island lifestyle and culture is Maui's people. In an island environment where resources are finite, future growth must give priority to the needs of residents in a way that perpetuates island lifestyles.

Not Applicable

2. Promote sustainable land use planning and livable communities: Managing and directing future growth on Maui should promote the concept of sustainability, and the establishment of livable communities. Sustainable practices include: 1) Focusing growth into existing communities; 2) Taking advantage of infill and redevelopment opportunities; 3) Promoting compact, walkable, mixed-use development; 4) Revitalizing urban and town centers; 5) Providing transportation connectivity and multimodal opportunities; 6) Protecting and enhancing natural and environmental resources; 7) Protecting, enhancing, and expanding communities and small towns, where appropriate; and 8) Encouraging energy and water-efficient design and renewable energy technology.

Not Applicable

3. Keep "urban-urban" and keep "country-country": Given the high cost of developing public infrastructure and facilities to service remote areas, the significant environmental and social impacts associated with long vehicle commutes, and the desire to "keep the country-side country" it is preferable to develop compact communities and to locate development within or as close as possible to existing urban areas and employment centers.

Not Applicable

4. Protect traditional small towns: Development within and adjacent to Maui's traditional towns should be compatible with and perpetuate their unique character. Hard edges should be maintained around new and existing communities through the use of greenbelts and significant open space.

Not Applicable

5. Protect open space and working agricultural landscapes: In light of continuing urbanization, the protection of agricultural and open-space resources will depend on a healthy agricultural industry and progressive planning and regulation. Planning should utilize agricultural lands as a tool to define the edges of existing and planned urban communities, apply innovative site design, create buffers along roadways, provide visual relief, and preserve scenic views.

Not Applicable

6. Protect environmentally sensitive lands and natural resources: Environmentally sensitive lands, natural areas, and valued open spaces should be preserved. Native habitat, floodways, and steep slopes should be identified so future growth can be directed away from these areas. It will be important to plan growth on Maui in a manner that preserves habitat connectivity, watersheds, undeveloped shoreline areas, and other environmentally sensitive lands.

Not Applicable

7. Promote equitable development that meets the needs of each community: Each region of the island should have a mix of housing types, convenient public transit, and employment centers. Where appropriate, all neighborhoods should have adequate parks, community centers, greenways, libraries, and other public facilities. No community should have a disproportionate share of noxious activities. Additionally, a fair, efficient, and predictable planning and regulatory process must be provided. A cornerstone of equitable development should reflect a focus on providing affordable housing for all of Maui's residents over developing nonresident housing.

Not Applicable

8. Plan for and provide efficient and effective public facilities and infrastructure: Many of Maui's public infrastructure systems and facilities were constructed decades ago and are in need of repairs and upgrades to meet current and future demand. Growth should be planned for areas with existing infrastructure, or where infrastructure can be expanded with minimal financial burden to the public. Transportation infrastructure should be designed to be in harmony with the surrounding area.

Not Applicable

9. Support sustainable economic development and the needs of small business: Land use decisions should promote and support sustainable business activities.

Not Applicable

10. Promote community responsibility, empowerment, and uniqueness: The development of community plans should be a broad-based, inclusive process. The community plans shall be reviewed by the Community Plan Advisory Committees, the planning commissions, and approved by the Council. The MIP shall provide a framework for the updated community plans. Subsequent proposed community plan amendments should be subject, as much as possible, to local community input.

Not Applicable

VI. Long Range Planning_Info

A. PERMITS REQUESTED

1. What Permits Are You Applying For?

Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Page 98 (PDF page 116), Chapter VIII, "List of Permits and Approvals".

B. RESIDENTIAL PROJECTS

1. How many single-family units?

0

2. Will any accessory dwellings be permitted?

No

3. If yes, how many?

0

4. How many multi-family units are you building?

0

5. Are you subdividing your property?

No

6. If yes, how many buildable lots are you requesting to create?

0

7. How many acres, or square feet, is the project site?

27.9

8. If only a portion of the property is going to be used for this project, how many acres or square feet will be used just for the project?

6

C. LAND USE ENTITLEMENTS

Will This Project Require Land Use Amendments? (Check All That Apply)

1. Change of Zoning (COZ)

Yes

2. Change of Zoning (COZ) From:

Agricultural

3. Change of Zoning (COZ) To:

Public/Quasi-Public (P-1)

4. Community Plan Amendment

Yes

5. Community Plan Amendment From

Agriculture

6. Community Plan Amendment To:

Public/Quasi-Public

7. State Land Use District Boundary Amendment

Yes

8. State Land Use District Boundary Amendment From:

Agricultural

9. State Land Use District Boundary Amendment To:

Rural

10. Maui Island Plan Designation Change

No

11. Maui Island Plan Designation Change From:

Not Applicable

12. Maui Island Plan Designation Change To:
Not Applicable

13. Will you be selling any of the units as "affordable" as defined under HUD guidelines?
No

14. If yes, how many units, or percentage of units will fall under this category?
0

15. From the date of filing the application with the Planning Dept, how long do you estimate the project to reach complete build-out?
0-5 years

D. INDUSTRIAL / COMMERCIAL PROJECTS

WILL THIS PROPERTY BE USED FOR: (List all that apply by providing the square footage proposed)?

1. Retail Purposes
No

2. Office Space/Lease
Yes. Please refer to Final Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Volume I, Pages 1-6 (PDF pages 12-17), Chapter I, Section B "Proposed Action".

3. Industrial Purposes
No

E. BED AND BREAKFAST (B&B), SHORT-TERM RENTAL (STRH) AND TRANSIENT VACATION RENTALS (TVRs)

1. Will the project have a B&B, STRH, or TVR component?
No

2. Will (any of) the unit(s) be owner occupied?
N/A

3. How many bedrooms are proposed for rental?
N/A

4. Will this project be newly constructed?
Yes

5. How many dwellings are entirely rented to visitors?
0

F. VISITOR ACCOMMODATIONS

1. Table 1: Hotels and Timeshares
Accommodation 1: N/A
Units/Rooms 1: 0
Lock-offs 1: N/A
# of Units with Lock-Offs 1: 0

Attachment File Name	Added On	Added By	File Category
Ka Paakai Analysis Haiku Fire Station and Related Improvements - (FINAL).pdf	07/07/2025	Munekiyo Hiraga	Reports
Ltr of Auth.Fire Haiku Fire Station and Related Improvements (final Signed).pdf	07/07/2025	Munekiyo Hiraga	Letter of Authorization
Location Map Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Location Map
Volume II of II Final Environmental Assessment July 2024 Haiku Fire Station.pdf	07/07/2025	Munekiyo Hiraga	Reports
Legal Description of Property Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Other
Countywide Policy Plan Details Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Countywide Policy Plan Details Form
Community Plan Details Form Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Community Plan Details Form
Ownership Documents Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Ownership Documents for Planning
Land Use Designation Form Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Other
Letter from SHPD April 24 2023 Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Other
Volume I of II Final Environmental Assessment July 2024 Haiku Fire Station.pdf	07/07/2025	Munekiyo Hiraga	Reports

Notice of Filing Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Notice of Filing of Application
Comments Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Other
Affidavit of Mailing of Notice of Filing Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Affidavit of Mailing
500 Foot Ownership List Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	500 Foot Ownership List/Map
Finding of No Significant Impact Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Other
Maui Island Plan Haiku Fire Station and Related Improvements.pdf	07/07/2025	Munekiyo Hiraga	Maui Island Plan Details Form

VOLUME I OF II

Final Environmental Assessment

PROPOSED HA'IKŪ FIRE STATION AND RELATED IMPROVEMENTS

TMK NO. (2)2-7-007:008(por.)

Prepared for:

County of Maui,

Department of Fire and Public Safety

July 2024

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by Munekiyo Hiraga

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Planning. Project Management. Sustainable Solutions.

VOLUME I OF II

Final Environmental Assessment

PROPOSED HA'IKŪ FIRE STATION AND RELATED IMPROVEMENTS

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Executive Summary

Project Name:	Proposed Ha'ikū Fire Station and Related Improvements
Type of Document:	Final Environmental Assessment
Legal Authority:	Chapter 343, Hawai'i Revised Statutes
Anticipated Determination:	Finding of No Significant Impact (FONSI)
Applicable Environmental Assessment review "Trigger":	Use of County Funds, Use of State/County Lands, and Amendment to County Community Plan
Location:	Maui Island Ha'ikū TMK No. (2)2-7-007:008(por.)
Landowner:	County of Maui
Applicant:	County of Maui, Department of Fire and Public Safety
Approving Agency:	County of Maui, Department of Fire and Public Safety 200 Dairy Road Kahului, Hawai'i 96732 Contact: Bradford Ventura, Fire Chief Phone: (808) 270-7561
Consultant:	Munekiyo Hiraga 305 High Street, Suite 104 Wailuku, Hawai'i 96793 Contact: Hoku Krueger, Associate Phone: (808) 244-2015
Project Summary:	The County of Maui, Department of Fire and Public Safety (DF&PS) proposes the construction of a new approximately 10,360 square-foot fire station and related improvements in the vicinity of the intersection of Hāna Highway and East Kuiaha Road in Ha'ikū, Maui. The proposed facility will be located on a 6.1-acre portion of a 27.9-acre parcel of land and will incorporate state-of-the-art functional and technological elements to

ensure that services delivered meet the life safety mandate of the DF&PS. The implementation of this facility will enhance the County of Maui's ability to provide fire prevention, suppression, and protection services to residents and businesses throughout the Ha'ikū area.

The project site is designated for agricultural use by the State Land Use Commission, the Pa'ia-Ha'iku Community Plan, and Maui County Zoning. To enable project implementation, a Zoning Plan Amendment (ZPA) application must be pursued requesting a District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ). This ZPA will be initiated and processed by the County of Maui, Department of Planning for the 6.1-acre project site.

Inasmuch as the proposed project involves an amendment to the Pa'ia-Ha'iku Community Plan, the use of County lands and funds, and the installation of driveway and utility improvements within State and County-owned roadways, an Environmental Assessment (EA) has been prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS).

It is noted that a Draft EA (DEA) was published in the Office of Environmental Quality Control's (now known as The Environmental Review Program (ERP)) Environmental Notice on January 8, 2011 for the Proposed Ha'ikū Fire Station. However, since the original plans for the proposed Hai'kū Fire Station in the DEA generated some community and agency concerns, additional community consultation, studies, and agency coordination were carried out, which resulted in design refinements. In light of the refinements and reduction in project scope, the DF&PS published an Updated DEA in the February 8, 2024 edition of the Environmental Notice to adequately disclose the revised scope of the project, obtain public review and comment, and evaluate the potential impacts of the proposed project.

List of Acronyms

A&B	Alexander & Baldwin, Inc.
AFNSI	Anticipated Finding of No Significant Impact
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai'i
amsl	above mean sea level
ASTM	American Society for Testing & Materials
BMP	Best Management Practice
cfs	cubic feet per second
CIA	Cultural Impact Assessment
COZ	Change of Zoning
CPA	Community Plan Ammendment
DA	Department of Army
DBA	District Boundary Ammendment
DEA	Draft Environmental Assessment
DF&PS	County of Maui, Department of Fire and Public Safety
DOFAW	State of Hawai'i, Departent of Land and Natural Resources, Division of Forestry and Wildlife
DOH	Hawai'i Department of Health
DWS	Department of Water Supply
EA	Environmental Assessment
ERP	Environmental Review Program
ESA	Environmental Site Assessment
FEA	Final Environmental Assessment
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
gpm	gallons per minute
HAR	Hawai'i Administrative Rules
HbB and HbC	Soil Classification - two separate classes of Ha'ikū Clay
CZM	Hawai'i Coastal Zone Management Program
HECO	Hawaiian Electric Company
HRS	Hawai'i Revised Statutes
LCA	Land Commission Awards
LOS	Level of Service
LSB	University of Hawai'i, Land Study Bureau
LUC	Land Use Commission
MCC	Maui County Code
MIP	Maui Island Plan
ML&P	Maui Land & Pineapple Company
NDA	New Drainage Areas
NFPA	National Fire Protection Association
PDR	PreFinal Drainage Report
PER	Preliminary Engineering Report
RCRA	Resource Conservation and Recovery Act
RGB	Rural Growth Boundary
SCS	Scientific Consultant Services, Inc.
SHPD	State Historic Preservation Division

SIHP	State Inventory of Historic Places
SMA	Special Management Area
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
UGB	Urban Growth Boundary
UHERO	University of Hawai'i Economic Research Organization
USACE	U.S. Army Corps of Engineers
USGBC	U.S. Green Building Council
WTF	Water Treatment Facility
ZPA	Zoning Plan Amendment

PROJECT OVERVIEW

I. PROJECT OVERVIEW

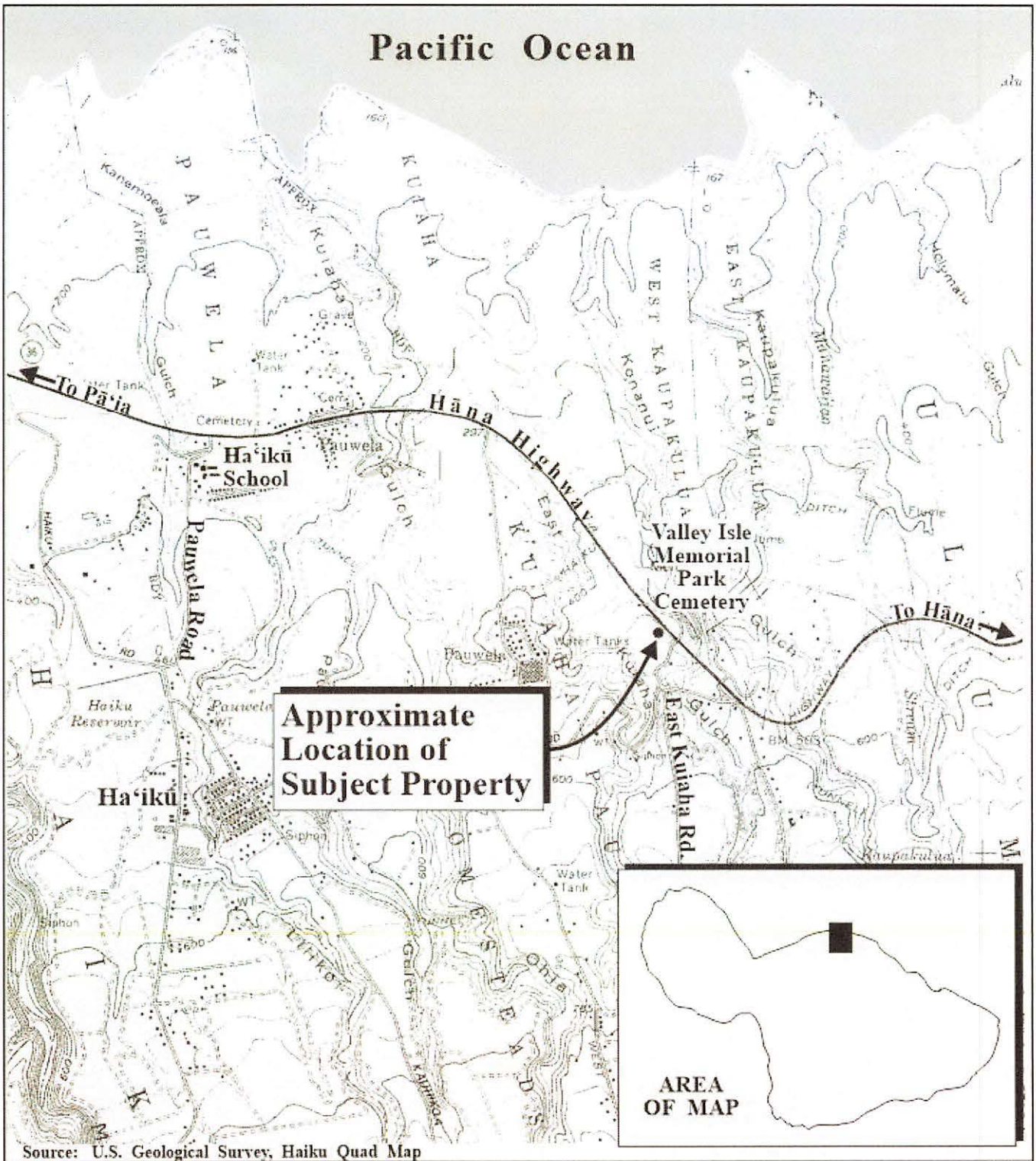
A. PROJECT LOCATION, EXISTING USE, AND OWNERSHIP

The County of Maui, Department of Fire and Public Safety (DF&PS) is proposing to construct a new fire station and related improvements (hereafter referred to as the "subject project" or "proposed action") on an approximately 6.1-acre portion of land (hereafter referred to as the "project site") at Tax Map Key (TMK) (2)2-7-007:008 (por.) (hereafter referred to as "Parcel 8" or "subject property"), Ha'ikū, Maui, Hawai'i. Parcel 8 (approximately 27.9 acres in area), is owned by the County of Maui and is located at the intersection of East Kuiaha Road and Hāna Highway. Parcel 8 was formerly utilized as a plant nursery operation but is not currently in use for agricultural purposes and is currently vacant. Since the County of Maui owns Parcel 8, a subdivision of the 6.1-acre project site from the larger parcel will not be required to develop the proposed project. Access to the site is currently provided via an existing driveway from Hāna Highway. See **Figure 1** and **Figure 2**. Implementation of this new fire station facility will enhance the County of Maui's ability to provide adequate fire protection services to both residential and commercial/industrial areas located throughout the growing Ha'ikū community.

B. PROPOSED ACTION

The proposed fire station will be developed on the project site as a low-rise facility and will use plantation design themes similar to that of other commercial/industrial structures located throughout the Pa'ia-Ha'ikū region. See **Figure 3** and **Figure 4**. The plans for the project have been developed in accordance with the architectural and land use objectives set forth in both the Pā'ia-Ha'ikū Country Town Design Guidelines and the Pa'ia-Ha'iku Community Plan. Preliminary Development Plans for the project are presented in **Appendix "A"**.

The fire station facility will consist of administrative, vehicle storage, and utility buildings. Structures within the project site will not exceed 30 feet in height. The main single-story administrative building (approximately 10,360 square feet, including covered exterior walkways) will provide offices, sleeping quarters, crew quarters, training and exercise facilities, dining and kitchen facilities, and other support functions necessary for the estimated 15 personnel that will be assigned to the station. Various other related improvements will be completed as part of project implementation, including the demolition of an abandoned residential building and old slabs; the construction of an approximately 1,600 square foot storage building and a parking lot; the installation of a 40,000 gallon water storage tank, a septic tank, a drainage field, drainage facilities, and utilities; site grading and grubbing; and landscaping. The project will also involve the construction of



Source: U.S. Geological Survey, Haiku Quad Map

Figure 1 Proposed Ha'ikū Fire Station and Related Improvements
Regional Location Map

0 500 1000 2000 Feet

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL/Haiku Fire Stn Update/Applications/Figures/regional

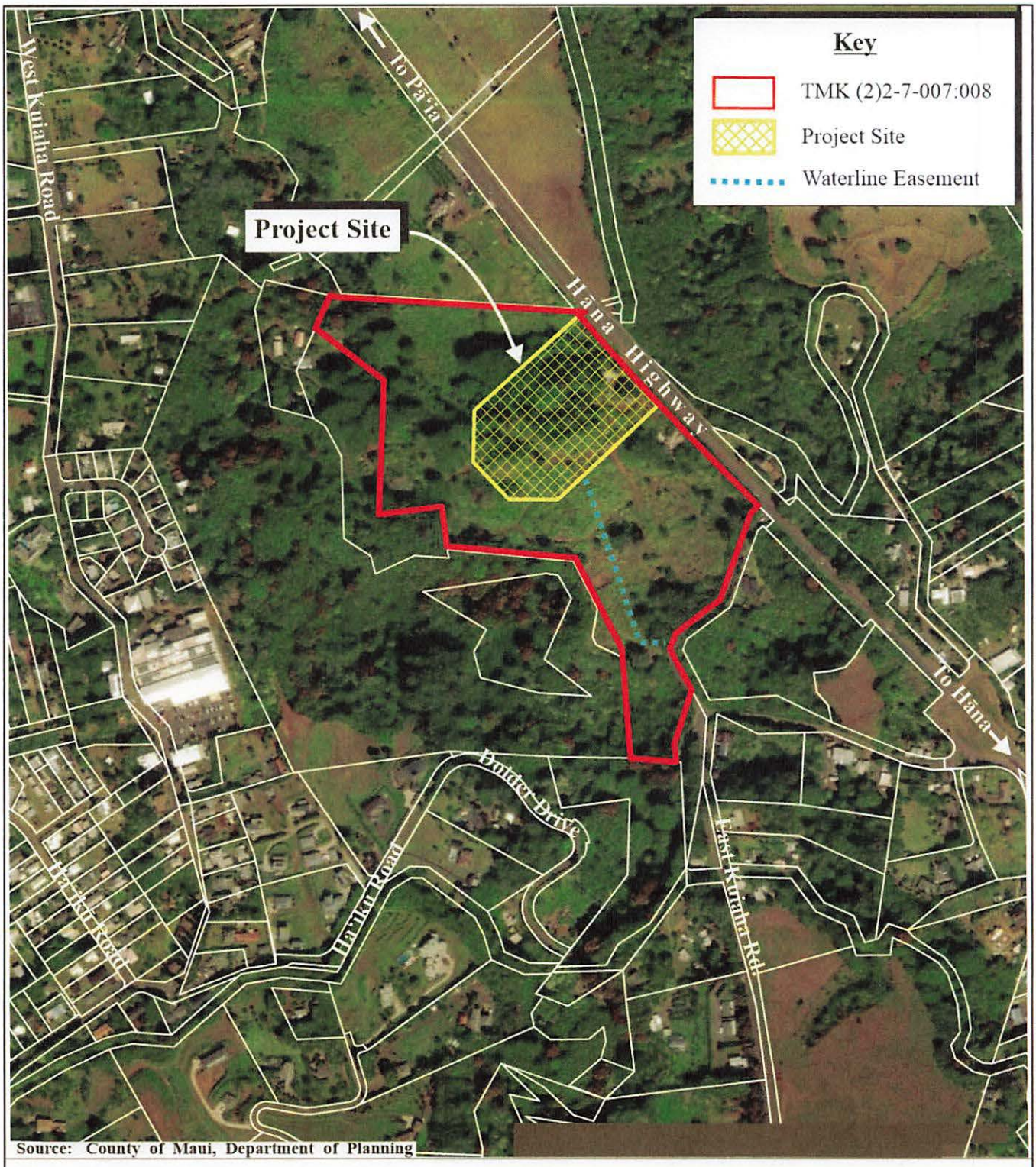


Figure 2 Proposed Ha'ikū Fire Station and Related Improvements
Property Location Map

0 250 Feet
125 500

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures New Property Location

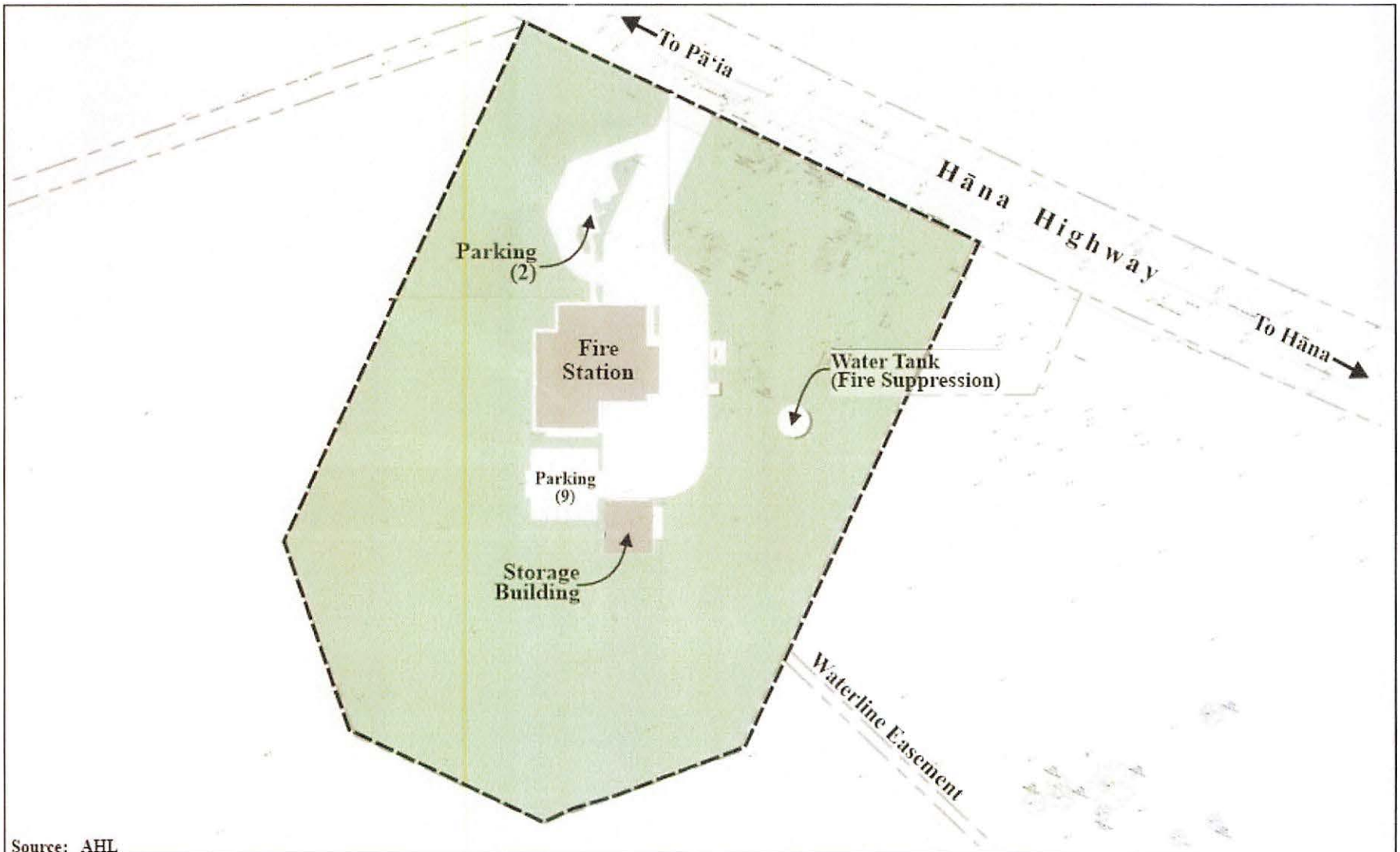
Figure 3 Proposed Ha'ikū Fire Station and Related Improvements
Architectural Rendering

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Sta Update Applications Figures Revised Rendering



Source: AHL

Figure 4

Proposed Ha'ikū Fire Station and Related Improvements

Site Plan

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures Conceptual SP 2023

an access driveway off of Hāna Highway. This shared driveway will provide access for both emergency and non-emergency vehicles utilizing the facilities at the site. Also, as required by the Department of Water Supply (DWS), DF&PS will install approximately 300 feet of 8-inch water main between the location of the project's laterals and water meters on East Kuiaha Road and the intersection of Ha'ikū Road and East Kuiaha Road.

The DF&PS will implement Firewise landscaping principles to the extent possible to reduce fire risk at the station and in the surrounding community. The following objectives have been used in developing a landscaping plan that is conducive to the sustainable design strategy for the project:

- Minimize landscape maintenance and irrigation requirements.
- Select native Hawaiian plant species that quickly acclimate and thrive within the Ha'ikū micro-climate and promote irrigation efficiency.
- Create a "fire-free" area within five (5) feet of the fire station by using non-flammable landscaping materials to reduce ignitability around the structure.
- Plant fruit trees to provide food for the fire station and surrounding community.

The theme of the fire station will, therefore, reflect a natural yet functional, low-maintenance landscape environment which will provide both visual relief and heat gain reduction for the buildings. The preliminary landscaping plan for the project is also presented in **Appendix "A"**. This plan provides detailed information on the species of trees, shrubs, and groundcover that have been selected for use in the design of the new fire station.

C. PROJECT NEED

As noted previously, the proposed fire station is intended to improve fire protection services throughout the Ha'ikū area by providing a facility in an underserved rural area of Maui. Presently, fire prevention, suppression, and protection services for the Pa'ia-Ha'iku Community Plan region are provided by the County's Pā'ia and Makawao fire stations. The Pā'ia fire station is located on Hāna Highway in Pā'ia town approximately six (6) miles to the west of the project site. The Makawao fire station is situated approximately eight (8) miles to the south of the project site on Makawao Avenue. Both the Pā'ia and Makawao stations are undersized to meet the increasing fire protection service needs of the outlying rural communities, including Ha'ikū, Pauwela, and Peahi.

The Pa'ia-Ha'iku Community Plan region has experienced a substantial increase in population over the last several decades. The population increased from 9,077 people in 2000 to 10,768 in 2010. By 2020, the population had increased to 11,065. The increase in population in the Pa'ia-Ha'iku Community Plan region has been driven by growth in the Ha'ikū-Pauwela area. Whereas the population had gone down in Pā'ia between 2000 and

2020, from 2,499 to 2,470, it went up in Ha'ikū-Pauwela from 6,579 to 8,595, an increase of approximately 23 percent (U.S. Census Bureau, 2000, 2010, and 2020).

The proposed new fire station is, therefore, being implemented by the County of Maui to meet the long-term fire protection service needs of the growing rural community in the Ha'ikū area. The development of the fire station at the location proposed will allow for the more efficient deployment of emergency vehicles and shortened response times, both of which are deemed critical given access limitations and the prevalence of wooden structures throughout the Ha'ikū area.

D. CHAPTER 343, HAWAI'I REVISED STATUTES

The proposed project involves a number of actions that trigger the need to comply with the environmental review requirements of HRS, Chapter 343, including an amendment to the Pa'ia-Ha'iku Community Plan, use of County lands and funds, and the installation of driveway and utility improvements and traffic signaling within the State-owned Hāna Highway. This EA has, therefore, been prepared to evaluate the technical characteristics, environmental impacts, and alternatives, as well as advance findings relative to the significance of the project and its related onsite/offsite improvements. The EA will act as the primary supporting technical document for the County's consolidated Zoning Plan Amendment (ZPA) application for the District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ) that will be necessary for project implementation. The Approving Agency for the EA process is the DF&PS.

It is noted that a DEA was published in the Office of Environmental Quality Control's (now known as the Environmental Review Program (ERP)) Environmental Notice on January 8, 2011 for the Proposed Ha'ikū Fire Station. However, since the original plans for the proposed Ha'ikū Fire Station in the DEA generated some community concerns, additional community consultation, studies, and agency coordination were carried out, resulting in substantial project design modifications. Most notably, the proposed helicopter landing pad, an offsite wind turbine, and an ecological wastewater system incorporating a wetland disposal system have been deleted from the proposed project. In addition, an approximately 4,200-foot offsite waterline that was originally proposed to connect the facility to an existing waterline at the West Kuiaha Road and Ha'ikū Road intersection has been substantially revised and reduced. In light of the significant reduction in project scope, DF&PS determined that an Updated DEA was required to adequately disclose the revised scope of the project, obtain public review and comments, evaluate the potential impacts of the proposed project, describe proposed mitigation measures as required, disclose cumulative and secondary impacts, and describe alternatives to the proposed action that were considered. The Updated DEA was published in the February 8, 2024 edition of the Environmental Notice.

This Final EA has been prepared pursuant to Chapter 343, HRS, and Hawai'i Administrative Rules (HAR), Chapter 11-200, entitled Environmental Impact Statement Rules (old rules). The State of Hawai'i repealed HRS, Chapter 11-200, and adopted HRS, Chapter 11-200.1, entitled Environmental Impact Statement Rules (new rules), in July 2019 (becoming effective in August 9, 2019). However, Chapter 11-200.1-32 Retroactivity states:

> *(a) This chapter shall apply immediately upon taking effect, except as otherwise provided below.*
>
> *(b) Chapter 11-200 shall continue to apply to environmental review of agency and applicant actions which began prior to the adoption of chapter 11-200.1, provided that:*
>
> *(1) For EAs, if the draft EA was published by the office prior to the adoption of this chapter and has not received a determination within a period of five years from the implementation of this chapter, then the proposing agency or applicant must comply with the requirements of this chapter. All subsequent environmental review, including an EISPN must comply with this chapter.*

Since the original DEA for the Ha'ikū Fire Station was published under the old rules, and five (5) years have not yet elapsed since the implementation of the new rules, this Final EA meets the criteria to be processed under the old rules of HAR, Chapter 11-200.

E. REGULATORY REQUIREMENTS

The subject property (27.9 acres) is designated for agricultural use by the State Land Use Commission, the Pa'ia-Ha'iku Community Plan, and Maui County Zoning. The 6.1-acre project site is, however, within the Rural Growth Boundary (RGB) identified in the Maui Island Plan adopted December 28, 2012 by the County of Maui (Ordinance 4004) as part of the 2030 General Plan update process. To enable project implementation and ensure consistency between land use designations and the community's vision as reflected in the 2030 General Plan process, a District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ), using a Zoning Plan Amendment (ZPA) application, will be initiated and processed by the Department of Planning for the 6.1-acre project site. The requested amendments to the land use entitlements in the ZPA are summarized in **Table 1** below:

Table 1. Summary of Requested Land Use Amendments for Ha'ikū Fire Station Project

Land Use Designation	Existing	Requested Amendment
State Land Use	Agricultural	Rural
Pa'ia-Ha'iku Community Plan	Agriculture	Public/Quasi-Public
Maui County Zoning	Agricultural	Public/Quasi-Public (P-1)

The project site is located outside of the County of Maui's Special Management Area (SMA), the boundary of which follows the makai side of the right-of-way line of Hāna Highway. Refer to **Figure 13**. As such, a SMA Use Permit will not be required for the project.

F. PROJECT SCHEDULING

Construction of the project is anticipated to be initiated following receipt of all necessary approval and entitlements, with an estimated construction duration of 10 to 12 months.

DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

II

II. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL SETTING

1. Surrounding Land Uses

a. Existing Conditions

The subject property is situated in Ha'ikū, Maui, an agricultural and rural residential area located to the east of Pauwela and to the west of Hāna Town. The project site itself is 1.5 miles east of the Ha'ikū Elementary School via Hāna Highway. It lies approximately one (1) mile inland (south) of the Pacific Ocean shoreline. The project site abuts the mauka side of Hāna Highway to the north and East Kuiaha Road to the east. Across Hāna Highway to the north is the Valley Isle Memorial Park Cemetery. The project site property is currently accessed from Hāna Highway. Refer to **Figure 1**.

Lands in the immediate vicinity of the project area are characterized by rural and agricultural uses. The subject property was used for pineapple farming in the early 1900's and then cleared to make way for a nursery operation which ended years ago. The land has been vacant and underutilized for over a decade.

b. Potential Impacts and Mitigation Measures

The subject project is not anticipated to adversely impact surrounding land uses in the vicinity of the project area. The new fire station will occupy former agricultural lands which have been unused for some time. The facility will be located in an area of Ha'ikū along Hāna Highway near its intersection with East Kuiaha Road and will facilitate ready access to surrounding service areas. Onsite drainage mitigation measures will be implemented to address the increase in storm water runoff associated with the development of the fire station. These improvements, coupled with the proposed grading plan, will ensure that downstream or adjacent properties are not affected by the project.

2. Climate, Topography, and Soils

a. Existing Conditions

Hawai'i's tropical location results in uniform weather conditions throughout the year. Climatic conditions on Maui are characterized by mild and consistent year-round temperatures, moderate humidity, and steady northeasterly tradewinds. Variations in Maui's weather are attributable to regional topographic and climatic conditions.

Ha'ikū is situated on the north coast of the island, near sea level. Average annual rainfall for the area is approximately 55.07 inches per year. The months of October through March are typically the wetter periods of the year, with April through September being typically the drier months. Mean temperatures range from 60.5 degrees Fahrenheit in February to 79 degrees Fahrenheit in September (Maui County Data Book, 2020).

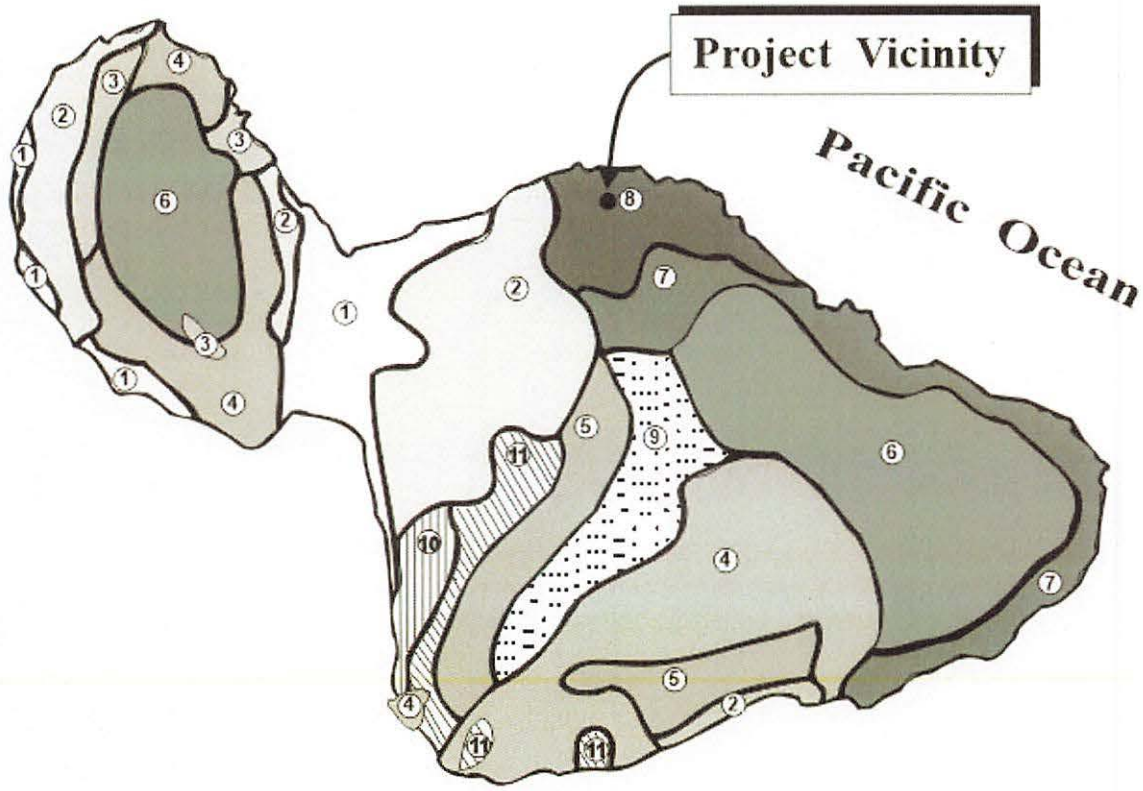
Topography in the region ranges from a rocky coastline to the moderately steep slopes and gulches of Haleakalā. The subject property, which is characterized by slopes of approximately 7 to 15 percent, sits between 450 and 510 feet above mean sea level (amsl). The ground cover across the site is characterized by a variety of grasses and aggressive weeds associated with the property's former use as a nursery.

Underlying the project area are soils belonging to the Pauwela-Ha'ikū Association. See **Figure 5**. The Pauwela-Ha'ikū Association is characterized by well drained, fine-textured soils commonly found on low uplands. These soils are gently sloping to moderately steep. The Pauwela-Ha'ikū Association makes up about 3 percent of the island (U.S. Soil Conservation Service, 1972).

The project area contains underlying soils from the Ha'ikū Clay soil (HbB and HbC) classification. See **Figure 6**. In a representative profile, the surface layer of Ha'ikū Clay soil (HbB and HbC) is dark brown clay about 14 inches thick. The subsoil is yellowish-red, dark reddish-brown, and dark-red clay or silty clay about 31 inches thick. The substratum is soft, weathered, basic igneous rock. The soil is very strongly acidic in the surface layer and extremely acidic and very strongly acidic in the subsoil and substratum. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate. In general, the soil is less than 30 inches deep to the bedrock, and slopes are generally 7 to 15 percent (U.S. Soil Conservation Service, 1972).

KEY

- ① Pulehu-Ewa-Jaucas Association
- ② Waiakoa-Keahua-Molokai Association
- ③ Honolua-Olelo Association
- ④ Rock Land-Rough Mountainous Land Association
- ⑤ Puu Pa-Kula-Pane Association
- ⑥ Hydrandepts-Tropaquods Association
- ⑦ Hana-Makaalae-Kailua Association
- ⑧ Pauwela-Haiku Association
- ⑨ Laumaia-Kaipoipoi-Olinda Association
- ⑩ Keawakapu-Makena Association
- ⑪ Kamaole-Oanapuka Association



Source: USDA, Soil Conservation Service

Figure 5 Proposed Ha'ikū Fire Station and Related Improvements
Soil Association Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL/Haiku Fire Stn Update/Applications/Figures/Soil Association Map

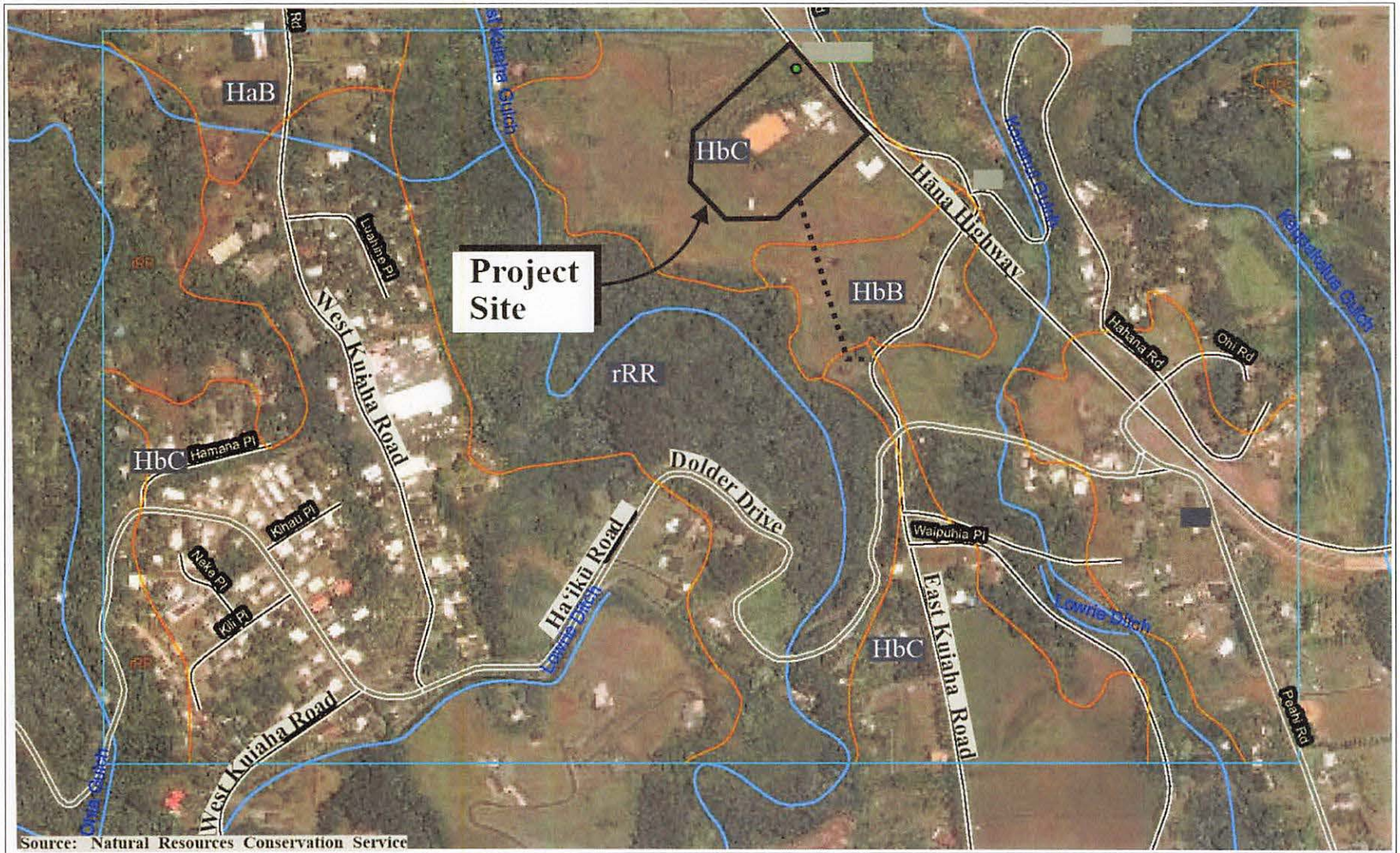


Figure 6

Proposed Ha'ikū Fire Station and Related Improvements

Soils Classification Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures soilsclass.rev

The State Department of Agriculture has established three (3) categories of Agricultural Lands of Importance to the State of Hawai'i (ALISH). The ALISH system classifies lands into "Prime", "Unique", and "Other Important Agricultural Land". The remaining lands are "Unclassified". Utilizing modern farming methods, "Prime" agricultural lands have the soil quality, growing season, and moisture supply needed to produce sustained crop yields economically, while "Unique" agricultural lands possess a combination of soil quality, location, growing season, and moisture supply needed to produce sustained high yields of a specific crop. "Other Important Agricultural Land" includes those which have not been rated as "Prime" or "Unique". The project site is located on lands that have been defined as "Prime Agricultural Lands" by the ALISH rating system. See **Figure 7**.

In addition, the University of Hawai'i, Land Study Bureau (LSB) classifies productivity characteristics on a scale of "A" through "E", with lands designated as "A" reflecting the highest productivity, and "E" representing lands with the lowest productivity (Land Study Bureau, 1967).

Lands underlying the project area have been classified by the LSB as "C". See **Figure 8**. Lands designated as "C" lands are well-suited for agriculture, primarily pineapple and grazing.

Given the former agricultural use of the property, a Phase II Environmental Site Assessment (ESA) was completed in June 2009 by AMEC Earth & Environmental, Inc. The ESA utilized a multi-increment soil sampling strategy to determine the presence and average levels of Resource Conservation and Recovery Act (RCRA) 8 metals, chlorinated herbicides, organochlorine pesticides, organophosphorous pesticides, and dioxins within the surface soils of the property. This strategy was developed in accordance with the following guidance documents:

- American Society for Testing & Materials (ASTM) 2000;
- U.S. Environmental Protection Agency Sampling and Analysis Plan Guidance and Template (2000);
- Hawai'i Department of Health (DOH) Technical Guidance Manual (1997); and
- DOH Screening for Environmental Hazards at Sites with Contaminated Soil and Groundwater (2008).

All samples evaluated during the Phase II ESA fell well below the DOH Environmental Action Limits. As such, it was concluded that the property can be used without restriction.

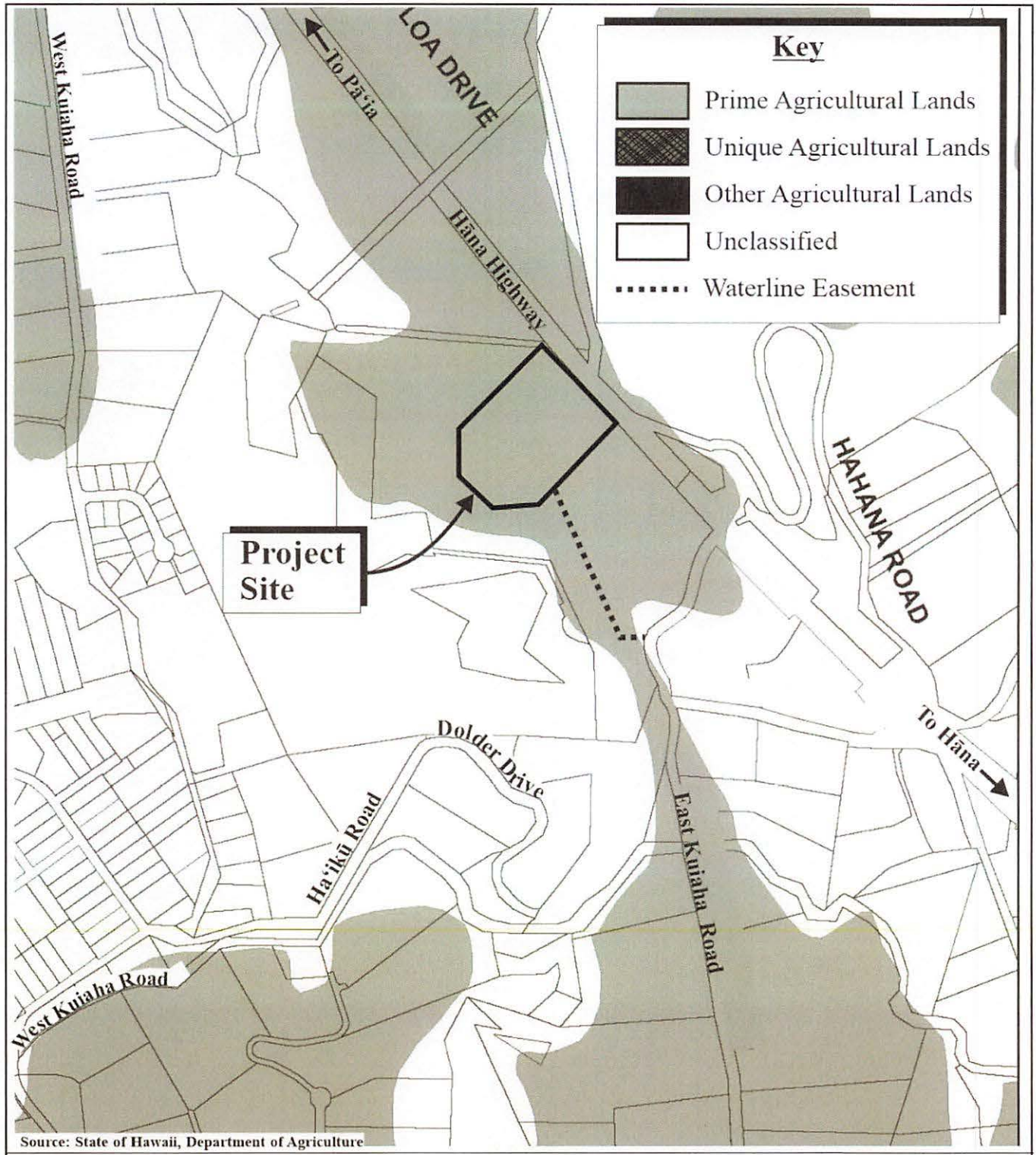


Figure 7

Proposed Ha'ikū Fire Station and Related Improvements

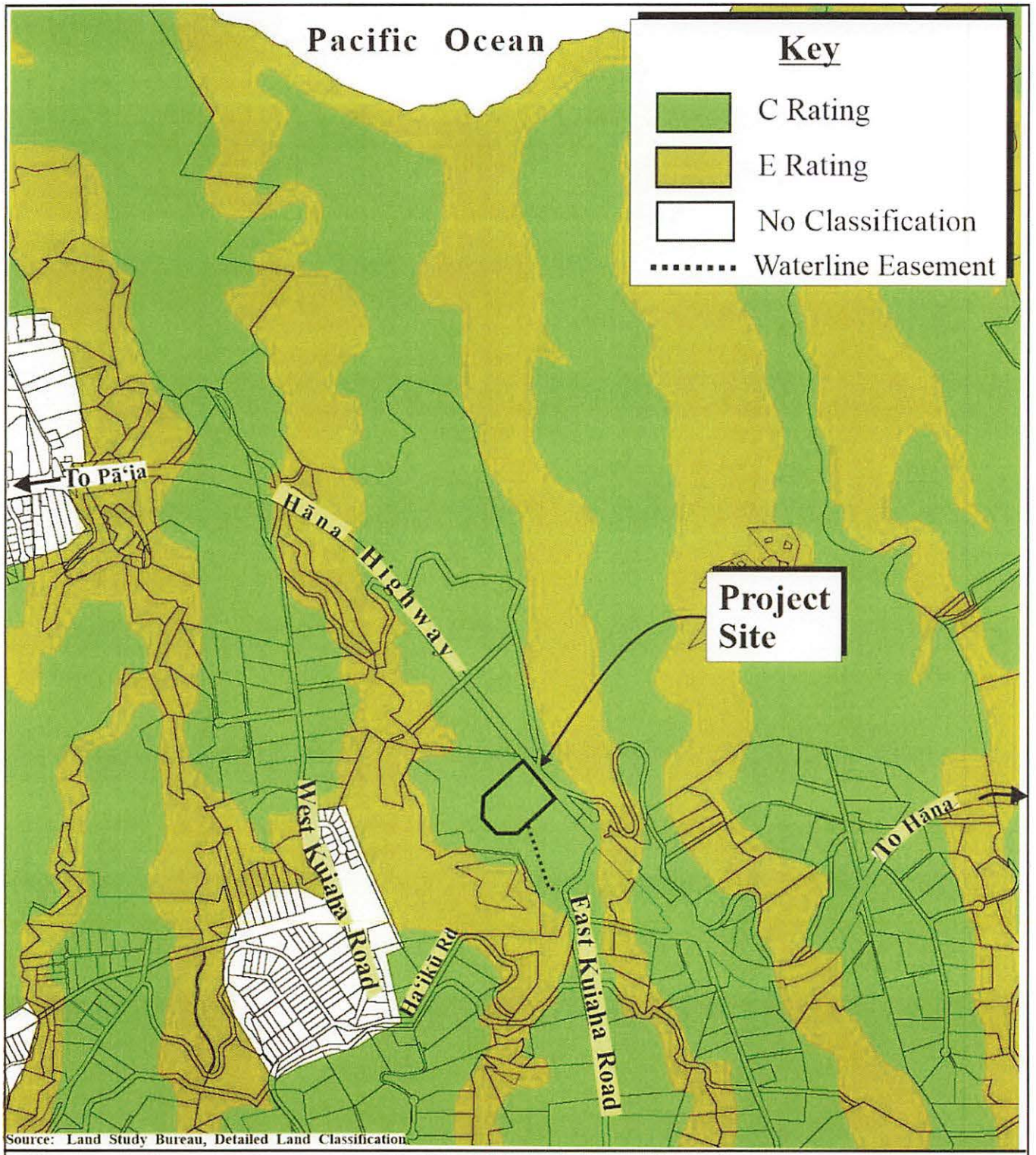
Agricultural Lands of Importance to the State of Hawai'i

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures ALISH



Source: Land Study Bureau, Detailed Land Classification

Figure 8 Proposed Ha'ikū Fire Station and Related Improvements
Land Study Bureau Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL/Haiku Fire Stn Update/Applications/Figures/LandStudy

b. Potential Impacts and Mitigation Measures

Construction of the new fire station will require grading and grubbing of the project site. The proposed grading plan will require an estimated excavation of approximately 58,530 cubic yards and embankment of approximately 3,950 cubic yards. The area of the property that will be affected by grading operations is approximately 3.45 acres. The earthwork and grading work will comply with Maui County Code, Chapter 20.08 – Soil Erosion and Sedimentation Control and the project's geotechnical report, Foundation Investigation, Haiku Fire Station Annex, October 3, 2009.

Project implementation is not expected to result in significant adverse impacts to climatic, topographic, or soil conditions.

3. Agriculture

a. Existing Conditions

Maui has a long history in agriculture cultivation, with the industry playing an important role in the island's culture, landscape, and economy. The commercial agriculture industry began in the eighteenth century, with sugar cane and pineapple plantations driving Maui's economy for over 90 years. Over the past 20 years, the agricultural industry has evolved, with a decline in large-scale sugar cane and pineapple cultivation and an increase in diversified crops and products, including vegetables, tropical fruits, flowers, seed crops, and cattle.

Table 2, below, presents a summary of agricultural data for Maui County in 2004, 2008, and 2017:

Table 2. Agriculture Summary, Maui County

	2004	2008	2017
Total Acreage in Farms	260,000	230,000	248,956
Hired Workers	1,850	1,700	1,880
Number of Farms (a)	850	1,150	1,408
Value of Crop Sales	$145,983,000	$144,231,000	$74,211,000
Value of Livestock Sales	$6,510,000	$7,013,000	$7,995,000
Note: (a) Based on definition of $1,000 or more of agricultural sales. Source: Maui County Data Book, 2010 and 2020			

There were 248,956 acres of land used for farming in Maui County in 2017, the most recent year for which complete data is available. This represents a decrease of approximately 9.5 percent since 2004, when there were 260,000 acres of farmland in the county. While the amount of farmland has

declined, the number of farms has increased. This is consistent with the decline of large-scale plantation agriculture and increase in diversified agriculture (all crops other than sugar cane and pineapple), which is largely comprised of individual or family operations. In 2017, there were 1,408 farms in Maui County, a 60 percent increase over the number in 2004.[1]

In 2017, there were 1,880 hired workers in the agriculture industry in Maui County. Crop sales totaled $74.2 million while livestock sales stood at approximately $7.9 million. Total sales were significantly lower than in 2004.

It should be noted that several key factors have affected the agriculture industry since 2008. Most notably, Maui Land & Pineapple Company (ML&P) ceased its pineapple cultivation operations on the island in December 2009, citing ongoing financial losses associated with its pineapple farming. In 2016, Alexander & Baldwin, Inc. (A&B) closed its 36,000-acre sugar plantation and mill on Maui due to ongoing losses. The cessation of sugar cultivation on Maui represented a significant agricultural shift from large scale farming to diversified agriculture.

As shown in **Table 3**, sugar cane accounted for 34,500 acres, or 15 percent, of the county's 230,000 acres of farmland in 2008 and 0 acres in 2017.

Table 3. Farm Acreage for Select Crops, Maui County

	2004	2008	2017
Total Acreage in Farms	260,000	230,000	248,956
Sugar Cane	34,800	34,500	0
Vegetables and Melons	900	700	1,377
Fruits (excluding pineapple)	500	600	3,095

Note: Acreage data for other crops such as coffee, macadamia nuts, pineapples, and others not available to avoid disclosure of individual operations.
Source: Maui County Data Book, 2010 and 2020

Diversified agriculture crops, such as vegetables and fruits, represented a significant growth in acreage from 700 and 600 acres, respectively, in 2008, to 1,377 and 3,095 acres, respectively, in 2017.

[1] Farms are defined as establishments with $1,000.00 or more of agricultural sales.

Currently, the vast majority of farm establishments are smaller, diversified agriculture farms. **Table 4** presents a breakdown of crop farms by type in Maui County.

Table 4. Number of Crop Farms by Type, Maui County

	2004	2008	2017
Sugar Cane	1	1	0
Pineapple	5	9	55
Vegetables and Melons	107	102	221
Fruits (excluding pineapple)	260	272	1,045
Coffee	27	32	95
Macadamia Nuts	10	20	65
Taro	25	15	58
Flowers and Nursery Products	180	200	350
Total (a)	615	651	1,889

Note: (a) Represents total of crop farms only and therefore does not equal number of total farms in Maui County.
Source: Maui County Data Book, 2010.

As shown, in **Table 4**, from 2004 to 2008 the growth in crop farms in the county was modest, from 615 to 651. However, with the increase in diversified agriculture, crop farms increased to 1,889 in 2017. Among crop growers, fruits (excluding pineapple) and flowers and nursery products comprised the largest number of farms; there were 1,045 fruit farms and 350 flower and nursery product farms in Maui County in 2017. Vegetable and melon farms also comprised a substantial share of crop farms, with 221 establishments in 2017.

As noted previously, the project site has been utilized in the past for pineapple cultivation, and more recently as a nursery operation. There, however, have been no other agricultural pursuits taking place on the property since the closure of the former nursery operation years ago.

b. Potential Impacts and Mitigation Measures

The proposed project involves the reclassification of approximately 6.1 acres of land from the "Agricultural" to "Rural" State Land Use designations. The proposed reclassification of these "Agricultural" lands represents approximately 0.003 percent of the State "Agricultural" designated lands on the island of Maui.

The project will result in the loss of agricultural lands that could be used for diversified agriculture. However, the decline of plantation agriculture on Maui and statewide has made additional land available for diversified agriculture. The amount of land released from plantation agriculture has

exceeded the demand for diversified agriculture lands. The closure of Maui Land & Pineapple Company's pineapple growing business in 2009, and more recently, the closure of A&B's sugar operations in Central Maui in 2016, have resulted in thousands of acres of land being released from plantation agriculture. While some of these former plantation lands have been developed, converted to other uses, or used to cultivate other crops, much of it has remained fallow or been used for grazing. As such, the proposed reclassification of 6.1 acres of "Agricultural" lands will likely not present any impacts on diversified agriculture opportunities on Maui or in the state as a whole.

According to the Hawai'i Wildfire Management Organization (HWMO), undeveloped, vegetated land within a community increases wildfire hazard risk as a potential source of fuel (HWMO, 2023). As such, the development of a portion of agricultural land that had been cleared for previous uses but left uncultivated for many years could have a positive impact on wildfire risk in the project area.

4. Flood and Tsunami Conditions

a. Existing Conditions

The project area is located in Flood Zone X, an area of minimal flooding. The project area is not located within a tsunami evacuation zone, nor are there any wetlands present on the project site.

b. Potential Impacts and Mitigation Measures

Onsite drainage mitigation measures will be implemented to address the increase in storm water runoff associated with the development of the proposed new fire station. These improvements, coupled with the proposed grading plan, will ensure that downstream or adjacent properties are not impacted by project implementation.

Coordination has been undertaken during the EA process with the U.S. Army Corps of Engineers (USACE) to ascertain applicable Department of Army (DA) permit requirements for the project. By way of letter dated January 12, 2011 from USACE, there are no DA permits required for the proposed action. See letter from the U.S. Army Corps of Engineers, Honolulu District, Regulatory Branch, Chapter X, Letters Received During the Draft Environmental Assessment Review Period; and Responses to Substantive Comments.

5. Wildfire Hazard

a. Existing Conditions

Agencies and organizations such as the State Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW), the DF&PS and HWMO have identified wildfires as an increasingly common hazard to communities and native ecosystems due to dry climatic conditions, non-native species, increased commercial and residential development and more people living in close proximity to wildland areas. In Hawai'i, wildfire has also been correlated to drought conditions. Wildfire history data show an increase in ignition and areas burned during the warmer drier months of summer (DOFAW, 2016).

HWMO conducted Community Hazard Assessments to evaluate wildfire hazard risk in each community in the State. These assessments were based on 36 characteristics, which are grouped into five (5) categories:

- *Subdivision Hazard* – The overall rating for the subdivision based on accessibility, density, proximity to wildland areas, and land use.
- *Vegetation Hazard* – The overall rating for vegetation based on general amount of fuels and proximity of fuels to subdivisions and homes.
- *Building Hazard* – The overall rating for buildings based on building design, materials, and utilities placement.
- *Fire Environment Hazard* – Rates the fire environment by rainfall, wind, slope, topography, seasonal conditions and ignition risk.
- *Fire Protection Hazard* – Rating based on response time, community planning and ordinances, fire department preparedness, emergency response preparedness, proximity to fire stations, and water access.

Each community received hazard rankings on the following scale: No Data, Low Hazard, Moderate Hazard, High Hazard and Extreme Hazard. The project area was identified as being at a high Subdivision and Building Hazard risk and at a moderate Vegetation, Fire Protection, and Fire Environment Hazard risk (HWMO, 2023).

Community Wildfire Protection Plans (CWPP), developed by HWMO for communities across the State, identify and prioritize areas for hazardous fuel reduction treatments, suggest methods of treatment and recommend measures to reduce structural ignitability. HWMO has not yet developed a CWPP for the Hā'iku and East Maui region.

b. Potential Impacts and Mitigation Measures

The tragic August 2023 Maui wildfires have underscored the destructive ability of wildfire and the importance of wildfire prevention measures. As such, the proposed project completed an assessment of its potential impacts to fire risk in the project area.

The proposed project will evaluate Firewise landscaping principles for incorporation into its landscape plan. The Firewise USA program was developed by the National Fire Protection Association (NFPA) to provide a collaborative framework that enables individuals to get organized and take action to increase the ignition resistance of their homes and reduce wildfire risk at the local level (NFPA, 2023). Firewise landscaping principles being considered for implementation include creating a "fire-free" area within five (5) feet of the fire station by using non-flammable landscaping materials and mowing the lawn regularly (HWMO, 2018).

As a fire station, the proposed project is anticipated to have a positive impact on wildfire risk in the East Maui community. As noted above, the project area was identified by HWMO as being at a high risk under the Subdivision rating. One (1) of the 36 characteristics that contribute to Subdivision Hazard is untended lands. According to HWMO, undeveloped vegetated lots create risk by providing potential fuel for wildfires. The development of the Hā'iku fire station would involve the development, landscaping and maintenance of a portion of the subject parcel, reducing the amount of uncultivated vegetation in the area. For this reason, the proposed project would help to mitigate Subdivision and Vegetation Hazard risk in the community.

A community's Fire Protection Hazard is measured based on criteria such as response time, proximity to a fire station, fire department structural training and expertise, and the wildland firefighting capacity of the initial response agency. The Hā'iku fire station would employ 15 full-time personnel (across various shifts) and provide fire protection services in an underserved community. As such, the development of a fire station in Hā'iku would improve wildfire risk across all of these categories.

6. Flora and Fauna

a. Existing Conditions

A Biological Resources Survey of the project site for the proposed action was completed by Robert Hobdy in September 2009. Since there has been very little vegetative change on the property since the biological survey, the

findings are still considered relevant. A copy of the report, which includes photos of the project site, is provided in **Appendix "B"**.

Vegetation identified within the vacant lands of the project site is characterized by a host of introduced and native species of grasses and herbaceous weeds associated with the former use of the property as a nursery. There are also a few large trees that have grown on the site, including the African tulip tree *(Spathodea campanulata)*, common ironwood *(Casuarina equisetifolia)*, albizia *(Falcataria moluccana)* and Java plum *(Syzygium cumini)*. Of the 104 plant species identified on the site, five (5) were native Hawaiian species and two (2) were Polynesian introductions – all of which are extremely widespread and common species that are indigenous in Hawai'i and many other Pacific islands. No rare, threatened, or endangered plant species or habitats were identified within the project site.

Avifauna and mammals common to the project site and surrounding areas include introduced birds and feral animals (mongooses, dogs, rats, mice, and cats). Only two (2) mammal species were observed during the survey; the mongoose *(Herpestes auropunctatus)* and the domestic dog *(Canis familiaris)*. It is noted that a special effort was made during the survey to look for the Hawaiian hoary bat *(Lasiurus cinereus semotus)*. Despite visibility being excellent during the evening survey, no evidence of the Hawaiian hoary bat was observed. A bat detection device was also used during the survey. No bats were detected using this device. Refer to **Appendix "B"**.

The federally protected seabirds, Hawaiian petrel and Newell's shearwater, were not detected on the property nor would these species be expected to utilize it for breeding or resting. These birds, however, would be expected to fly over the area between March and November to reach their burrows high in the mountains. Young bird fledglings would also likely take their first tentative flights to the ocean over the Ha'ikū area during November and December. These young birds are especially vulnerable and are often attracted to bright lights during their late evening and early dawn flights and become easily disoriented and crash, killed by vehicles or predators.

b. <u>Potential Impacts and Mitigation Measures</u>

There are no known or identified habitats of rare, threatened, or endangered species of flora, fauna, or avifauna located within the project site. Proposed landscaping will reflect the character of the area and will include the use of native species. A copy of the Preliminary Landscaping

Plan for the project is presented in **Appendix "A"**. Further, outdoor lighting will be shielded so that direct light is not visible from above to reduce any threat to seabirds.

In summary, the implementation of the proposed fire station and related improvements is not anticipated to have an adverse impact upon flora and fauna resources in the area.

7. Historical and Archaeological Resources

a. Existing Conditions

An Archaeological Inventory Survey (AIS) of the project area has been completed by Scientific Consultant Services, Inc. (SCS). A copy of the AIS report approved by the State Historic Preservation Division (SHPD) is presented in **Appendix "C-1"**. The AIS project site assessment included historic background research, a pedestrian survey, and a subsurface investigation of 11 backhoe trenches. The fieldwork for the AIS was conducted between September 21-25, 2009.

Historically, the project site was used for large-scale pineapple cultivation and pasture, later as a house site, and most recently for a nursery operation. These heavy land alterations were likely to have destroyed any traditional Hawaiian sites or features that were present in the area at that time. Therefore, any remaining sites encountered would likely be of a historic nature related to modern agriculture, animal husbandry, or recent habitation within the project area.

b. Potential Impacts and Mitigation Measures

The AIS of the project site revealed no intact subsurface cultural layers or historic materials. This is likely due to historic land use patterns, such as extensive mechanical grading for agricultural pursuits and for the former structures on the site. Further, subsurface observations via the 11 mechanically excavated test trenches revealed no evidence of cultural resources (i.e., charcoal, midden, artifacts, etc.) that would have indicated pre-contact or early historic use. Only one (1) historic era site (SIHP No. 50-50-06-6678) was recorded during the pedestrian survey of the project site and was attributed to the former occupants of the existing vacant house found on the property.

Site 6678 consists of two (2) features and is situated in the northwest portion of the project area adjacent to a vacant cottage and asphalt driveway. The site is in fair to good condition and functions as a retaining

wall and garden terrace, constructed of dry-stacked basalt. The age of the site is estimated to be 50 to 60 years old. It is associated with the previous residential use on the property.

Using the Rules Governing Procedures for Historic Preservation Review, the following significance criteria are used for evaluation of archaeological sites:

> **Criterion A**: Site is associated with events that have made a significant contribution to the broad patterns of our history;
>
> **Criterion B**: Site is associated with the lives of persons significant to our past;
>
> **Criterion C**: Site is an excellent site type; embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual construction;
>
> **Criterion D**: Site has yielded or has the potential to yield information important in prehistory or history;
>
> **Criterion E**: Site has cultural significance; probable religious structures or burials (State of Hawai'i criteria only)

The project site meets Criterion D, as it houses a site that has yielded or has the potential to yield information important in prehistory and/or history (attributed to the former occupants of the vacant house). This site has been thoroughly documented, and it has been concluded that further research would not contribute to the interpretation of the area, region, or Hawaiian prehistory and/or history. Additionally, as noted in the AIS, there are many examples of modern-historic stone walls throughout the island. Thus, the AIS concluded that no further archaeological work or archaeological monitoring is necessary within the 6.1-acre project site.

Also, as applicable, requirements for documentation of any old remnant structures on the property will be addressed in connection with the demolition permit application process.

Further, in the event that a discovery of significant cultural materials and/or burials is made during construction activities for the project, all work in the immediate area of the find will cease and SHPD will be notified to discuss mitigation measures, in accordance with Chapter 6E, Hawai'i Revised Statutes.

The AIS report and its recommendations was accepted by SHPD on November 12, 2010. See **Appendix "C-1** and **C-2"**. Given the substantial reduction in scope of the offsite waterline improvements (from the previous project), it is anticipated that archaeological monitoring will not be required as the proposed improvements are now only confined to the East Kuiaha Road corridor. SHPD, in its acceptance of the AIS, previously determined that monitoring should be undertaken for any offsite waterline work along the Hai'kū Road corridor. As proposed, offsite water improvements for the project are limited to the installation of a 300-foot section of new 8-inch waterline along East Kuiaha Road.

DF&PS will continue consultation with SHPD as the proposed project moves through the Planning Department-initated DBA, CPA, and COZ, and construction permitting processes.

8. Cultural Assessment

a. Existing Conditions

A Cultural Impact Assessment report has been completed for the proposed project by SCS. See **Appendix "D"**.

(i) Geopolitical Organization

Prior to Western contact in Hawai'i, land was divided into moku, or districts. Each of these was further subdivided into units called ahupua'a. Ideally, each ahupua'a was self-sufficient, running from mauka, the mountain, to makai, the ocean (MacKenzie, 1991). These divisions served as both cultural and settlement systems as traditional Hawaiian life was tied intimately to the land. Hunting, gathering, cultivation, and habitation took place within three (3) zones that characterized the ahupua'a: the Mauka Zone, the Agricultural Zone, and the Coastal Zone. The Mauka Zone provided access to a variety of trees, plants, and herbs for various needs, customs, and practices. The planting of yams, sweet potato, sugar cane, taro, and other foods took place in the Agricultural Zone, where gradual slopes of land allowed terraces to be constructed for more efficient irrigation. The Coastal Zone and low-lying areas were where most of the kauhale, group of houses, were found, as well as temples, fishing shrines, and fishponds (Minerbi, 1993).

Western contact brought changes to the Hawaiian land system with the introduction of private land ownership, a concept foreign to the Native Hawaiians. A Board of Land Commissioners was

established in 1845 to uphold or reject all private land claims of both foreigners and Hawaiians. The Commission adopted rules pertaining to the proof of claims, right of tenants, and commutation to the government in attempts to achieve the goal of totally partitioning undivided lands. All lands not claimed by February 1848 were to be forfeited to the government (MacKenzie, 1991).

Following the enactment of these rules, the Mahele division of 1848 divided all lands of Hawai'i between the king and chiefs. Two (2) years later the Kuleana act completed the Mahele process by authorizing the Land Commission to award fee simple titles to native tenants for their land. These kuleana parcels, also known as Land Commission Awards (LCA), were generally among the richest and most fertile in the islands and came from the king, government, or chief's land. All claims and awards were numbered and recorded in the Mahele Book (MacKenzie, 1991). In addition, government lands were sold as "Royal Patent Grants" or "Grants" in order to meet the increasing costs of government. These grants differed from LCAs, as it was not necessary for their recipients to obtain an award for their land from the Land Commission (Chinen, 1958).

(ii) Historical Overview

The subject project is located in the ahupua'a of Kuiaha, which was considered a part of the Hamakua Loa District. The Hamakua Loa region was traditionally associated with the gods Kanaloa and Kane and contained many small gulches, springs, and streams. The gulches in this region helped to support the lo'i, or taro patches, that paralelled the stream bed. The location of many ahupua'a along this coast suggests that this area held a considerable Hawaiian population. The soil in this region was excellent for yielding sweet potatoes, yams, bananas, and other crops, while the nearby bays were excellent for fishing.

Prior to the arrival of Captain Cook on the islands, there was fierce competition between the chiefs of Hawai'i island and the ali'i nui of Maui. In the late 1700's, Kalani'ōpu'u, an ali'i of Hawai'i island, invaded the Hamakua Loa region. He was defeated there by Kahekili, an ali'i of Maui, but ventured back to the area several more times. As a result, the Hamakua Loa region became the site of many battles.

With the onset of Western contact, 25 Land Commission Awards (LCA) were awarded in the Kuiaha ahupua'a, however, it is noted that none were awarded within the project area. The unawarded lands of Kuiaha became government lands and were later sold as Government Grants. The project area was part of Grant 6553. As sugar became a major industry for the islands in the 1800's, both Kuiaha and Pauwela were utilized for their excellent fertility. As the plantations and industry operations grew in scale, the need for water became significant and several ditches were constructed throughout the region. In the 1930's the land was used as cattle pasture and in the 1940's (during WWII) the land was used as the site of a military training camp. Later, the area was used for sugar cane and pineapple farming.

(iii) Traditional and Customary Rights

The traditional and customary rights of Native Hawaiians can be broken down into access rights, gathering rights, burial rights, and religious rights.

Access

Native Hawaiians generally share the same access rights as the general public. However, they have the unique access rights to kuleana parcels and between ahupua'a. Access to kuleana parcels may involve access via ancient trails or expanded access not limited to any route. Additionally, the Kuleana Act granted unobstructed access within the ahupua'a to obtain items necessary to make the kuleana parcel productive. Access rights between ahupua'a involve access to ancient or well established trails (MacKenzie, 1991).

Gathering

In terms of gathering rights, the Hawai'i Supreme Court has upheld gathering rights within an ahupua'a for firewood, house-timber, aho cord, thatch, and ki-leaf under three (3) conditions. The tenant must physically reside within the ahupua'a, the right to gather can only be exercised upon undeveloped lands within the ahupua'a, and the right must be exercised only for the purpose of practicing Native Hawaiian customs and traditions (MacKenzie, 1991).

Burial

According to traditional Hawaiian burial beliefs, following death, the 'uhane, or spirit, must remain near nā iwi, or bones. Burial sites are chosen by Hawaiians for symbolic purposes in places for safekeeping. Often, bones were hidden in caves, cliffs, and sand dunes or deposited in the ocean. Today, federal and state laws protect both unmarked and marked burial sites. The Island Burial Council assists SHPD to inventory and identify unmarked Hawaiian burial sites and determine whether to preserve or relocate Native Hawaiian burial sites (MacKenzie, 1991).

Religious

Hawaiian religion and beliefs were intimately tied to the land. While some practices and traditions were lost over the years, basic Hawaiian religious concepts remain. The terms "aloha 'āina," love the land, and "mālama 'āina", care for and protect the land, convey the unity of humans, nature, and the gods in Hawaiian philosophy (Minerbi, 1993). Furthermore, Hawaiians honored and worshiped 'aumakua, deities, and akua, gods. There were numerous akua of farming, fishing, kapa making, dancing, sports, and any other activity of Hawaiian life. The concept of mana, or sacred attachment to places, people, or things, also remains as a significant aspect of Hawaiian religion (MacKenzie, 1991).

b. Potential Impacts and Mitigation Measures

From a recent historical perspective, land underlying the proposed project site was primarily maintained for agricultural cultivation activities. More recently, the site has been underutilized and is vacant. No indications of cultural practices, such as gathering, access, or religious traditions, are known to be associated with the project site.

With regard to the subject project, no adverse impact to cultural resources, practices, or traditions is anticipated. Refer to **Appendix "D"**.

It is noted that DF&PS will prepare a Ka Pa'akai Analysis during the Planning Department-initiated DBA, CPA, and COZ applications process that will follow completion of the Chapter 343 environmental review.

9. Air and Noise Quality

a. Existing Conditions

Due to the low level of residential and commercial development in the Ha'ikū area, the lack of major point sources of air pollution, and the prevailing tradewind conditions, the Ha'ikū region has good air quality. The primary source of emissions may be attributed to motor vehicles traversing Hāna Highway and local roadways in the area. However, these mobile sources have no adverse influence on regional air quality.

There are no significant noise generators in the vicinity of the project site. Noise generated in this locale may be attributed to traffic in the Ha'ikū area, particularly along Hāna Highway in the vicinity of the property.

b. Potential Impacts and Mitigation Measures

Airborne particulates, including dust, may be generated during site preparation and construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented as needed to minimize wind-blown emissions.

In the long-term, vehicle-generated emissions related to the project will not adversely impact local and regional ambient air quality conditions. The new fire station will be a relatively small facility and is expected to accommodate five (5) full-time employees at any one time.

As with air quality, ambient noise conditions will be temporarily impacted by construction activities. Heavy construction equipment, such as bulldozers, front end loaders, and dump trucks and trailers will be the dominant source of noise during site construction. Construction-generated noise will be mitigated through Best Management Practices (BMPs), and construction activities will be limited to daylight work hours only. The contractor will coordinate with the State Department of Health to ensure that noise permits are obtained, as appropriate.

During the operational phase of the project, noise will be generated by emergency vehicles and sirens, however, such impact will be intermittent in frequency. Additionally, the construction of a fire station in the project area will not increase the incidence of fire in the region. Therefore, the frequency of siren use will remain the same as that under existing conditions due to the fact that emergency calls are currently responded to by other fire stations in the region. Use of the sirens and air horns by emergency vehicles will be limited to roadway clearing activity as stipulated

by law. The use of sirens and air horns will be limited to those instances where the maintenance of public safety is essential.

In summary, due to the intermittent nature of noise generators at the project site, construction and operation of the proposed fire station and its related facilities is not anticipated to present significant adverse impacts on the surrounding agricultural community.

10. Scenic and Open Space Resources

a. Existing Conditions

The project site is located in the Ha'ikū area, abutting the mauka side of Hāna Highway to the north and East Kuiaha Road to the east. Located to the north of the project site is the Valley Isle Memorial Park Cemetery. The immediate vicinity of the project site is composed mainly of vacant rural and agricultural lands. The coastal shoreline lies about one (1) mile away to the north and the Haleakalā Crater lies about 35 miles to the south.

The subject property does not lie within a designated scenic view corridor.

b. Potential Impacts and Mitigation Measures

The proposed fire station improvements are not anticipated to have substantial, adverse impacts on existing view corridors. Most of the project site is heavily vegetated and views of the site from adjacent areas are limited. Because of this, the property is not considered part of a scenic view corridor to the shoreline. All structures installed in connection with the proposed action will respect height standards set forth by the County Zoning regulations. There are no anticipated adverse impacts to the visual resources of the surrounding environment as a result of the proposed project.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Economy

a. Existing Conditions

The population of the County of Maui has exhibited slight growth over the past decade with the 2015 resident population of 164,081 persons increasing to 164,433 persons in 2022 (Maui County Data Book, 2022).

As of 2020, the population of Maui Island was estimated at 139,528 persons, with approximately 10,786 persons residing in the Pā'ia-Ha'ikū

region (Maui County Data Book, 2020). Forecasts for 2025 reflect an island-wide population of 174,184 persons and a population for the Pā'ia-Ha'ikū region of 13,512 persons (Public Facilities Assessment Update, County of Maui, Department of Planning, March 9, 2007).

Hawai'i's economy through 2019 was strong, with record-setting visitor arrivals and low unemployment. The COVID-19 pandemic had far-reaching impacts on the economy on Maui, in Hawai'i, and across the nation. With the end of the pandemic and return of the visitor industry, Maui's economy was growing through the first half of 2023. However, the tragic wildfires in August 2023 will have significant impacts on the economy for several years. Although the project area was not directly impacted by the fires, the entire Maui community is experiencing economic disruption. The fire in Lāhainā destroyed approximately 2,200 structures, displacing thousands of families and impacting many businesses. The fires have had a significant impact on the tourism industry and the overall path of recovery will be a long-term process, dependent on the pace and manner of rebuilding. In 2022, Maui County's unemployment rate averaged 3.8 percent, comparable to the statewide rate of 3.5 percent. Following the fires, the University of Hawai'i Economic Research Organization (UHERO) projected that Maui County's unemployment rate will stand at 6.2 percent, compared to 3.7 percent for the State as a whole (UHERO, 2023).

b. Potential Impacts and Mitigation Measures

Short-term economic benefits associated with construction expenditures for the new fire station are anticipated. The proposed project is not a population generator. Thus, there are no anticipated long-term impacts on population parameters. The proposed fire station will fulfill the Ha'ikū community's need for fire protection and public safety and will also result in lower insurance premiums for surrounding residents.

C. PUBLIC SERVICES

1. Police and Fire Protection

a. Existing Conditions

The County of Maui's Police Department headquarters are located in Wailuku. There are four (4) patrol divisions on the island of Maui. These are the Wailuku, Kīhei, Lahaina, and Hāna divisions. The Wailuku division covers Central Maui, Pā'ia-Ha'ikū, and Upcountry Maui.

Fire prevention, suppression, and protection services for the project area are provided by the Maui County Department of Fire and Public Safety's Pā'ia Fire Station, located six (6) miles from the project site, along Hāna Highway in Pā'ia Town. The commercial and residential areas of Pā'ia have adequate fire protection. However, large areas beyond Ha'ikū do not.

b. Potential Impacts and Mitigation Measures

The new fire station will substantially improve fire protection services in Ha'ikū and the surrounding rural areas. The new station will also allow for the more efficient deployment of emergency vehicles and improved response times. The implementation of the project is not anticipated to adversely impact existing police services in the region.

2. Medical Facilities

a. Existing Conditions

Maui Memorial Medical Center is currently the only major medical facility on the island. Acute, general, and emergency care services are provided by the 219-bed facility. In addition, Pā'ia has medical and dental clinics to service local community residents. Ha'ikū also has a medical office and a pharmacy.

b. Potential Impacts and Mitigation Measures

The proposed project is not anticipated to have adverse impacts on existing medical facilities or services on Maui.

3. Solid Waste

a. Existing Conditions

Except for remote areas, single-family solid waste collection service is provided by the County of Maui on a weekly or twice-weekly basis.

Solid waste is collected by County refuse collection crews and disposed of at the Central Maui Landfill. Commercial waste from private collection companies is also disposed of at the landfill.

b. Potential Impacts and Mitigation Measures

It is anticipated that demolition waste, such as concrete slabs, walkways, and driveways, will be crushed and reused onsite for fill or base course, where feasible. In summary, the proposed fire station aims to facilitate the

recycling and reuse of construction materials and also to divert construction waste away from the Central Maui Landfill. Recycling receptacles will also be utilized within the proposed fire station building to promote responsible waste management practices during the operational phase of the project. With the implementation of the foregoing initiatives, the proposed fire station is not anticipated to adversely impact existing solid waste services on Maui.

4. Recreational Resources

a. Existing Conditions

The main facilities catering to the recreational needs of the Pauwela area are the Ha'ikū Community Center and park, located one (1) mile from the project site, and the Fourth Marine Division Memorial Park, located approximately four (4) miles away. Another major recreational resource of the Pauwela Ha'ikū area is Ho'okipa Beach Park, an internationally recognized park known for its excellent surf and windsurfing.

b. Potential Impacts and Mitigation Measures

The proposed project is not anticipated to adversely impact the existing recreational facilities located in and around the Ha'ikū area.

5. Educational Facilities

a. Existing Conditions

The State of Hawai'i, Department of Education operates seven (7) public schools in East Maui and Upcountry Maui. They are Makawao Elementary School, Kalama Intermediate School, Pukalani Elementary School, Kula Elementary School, Ha'ikū Elementary School, Pā'ia Elementary School, and King Kekaulike High School.

The region is also served by the privately operated Montessori Preschool, Doris Todd, Roots School, Haleakalā Waldorf School, Seabury Hall, and the Maui Campus of Kamehameha Schools.

b. Potential Impacts and Mitigation Measures

The proposed project is not anticipated to adversely impact existing education facilities or services on Maui.

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

The project site is located adjacent to Hāna Highway, a State of Hawai'i roadway that serves as the main access road along the northern coast of Maui. It is a predominantly two-lane, two-way roadway generally oriented in the east-west direction. Southeast of the project site, Hāna Highway intersects with East Kuiaha Road at an unsignaled intersection. East Kuiaha Road is a two-lane, two-way County-owned roadway generally oriented in the north-south direction. At the intersection with Hāna Highway, the East Kuiaha Road approach has a one stop-controlled northbound lane that serves all traffic movements. The southbound approach of the intersection is comprised of a driveway serving an adjacent parcel.

Much of Ha'ikū is composed of rural residential and agricultural areas. Due to the agricultural and rural nature of the area, traffic is generally light, with minimal traffic congestion.

b. Potential Impacts and Mitigation Measures

A Traffic Impact Analysis Report (TIAR) was completed by Wilson Okamoto Corporation for the proposed project. See **Appendix "E-1"**. Because a number of years have passed since the TIAR had been completed, a TIAR update letter was prepared. See **Appendix "E-2"**. The TIAR update letter determines that, although some years have passed since the preparation of the TIAR, the conclusions in that TIAR are still applicable. The TIAR update letter reviews the data against the updated 2025 project completion year and the projected traffic for that time period. Relatively stable traffic volumes in the vicinity are anticipated. The impacts assessed in the TIAR are practically identical to those anticipated for the updated project scope.

Project-related peak hour vehicle trips are expected to primarily be comprised of employee-related trips. The fire station will be staffed by 15 personnel (five (5) people during each 24-hour shift). The shift changes occur daily between 7:00 a.m. and 7:30 a.m. Given the low number of vehicle trips to and from the station and the capacity of Hāna Highway, the proposed project is not anticipated to result in any substantive, adverse impacts to traffic.

The findings of the Level of Service (LOS) analysis presented in the TIAR are summarized in **Table 5**, below:

Table 5. Summary of Level of Service Analysis

Intersection	Approach	AM			PM		
		Existing Conditions	Without Project	With Project	Existing Conditions	Without Project	With Project
Hāna Highway/ East Kuiaha Road	Eastbound	A	A	A	A	A	A
	Westbound	A	A	A	A	A	A
	Northbound	C	C	C	B	B	B
Hāna Highway/Fire Station Driveway	Westbound	--	--	A	--	--	--
	Northbound	--	--	C	--	--	--
Source: Wilson Okamoto Corporation, 2010.							

At the intersection of East Kuiaha Road at Hāna Highway, the LOS is expected to continue to operate at acceptable levels with the implementation of the proposed project. Also, at the approaches of the fire station driveway with Hāna Highway, traffic functionality is expected to operate at LOS "C" or better during the AM peak period. Refer to **Appendix "E-1"**.

The TIAR recommends the following mitigation measures for incorporation in the design for the proposed project:

1. Maintain sufficient sight distance for motorists to safely enter and exit all project driveways/roadways.

2. Provide adequate onsite loading and off-loading service areas and prohibit off-site loading operations.

3. Provide 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.

4. Provide sufficient turning radii at all project driveways/roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

Furthermore, DF&PS will coordinate with the Hawai'i Department of Transportation, Highways Division as project planning progresses to ensure that the project is developed to assure the safe entry and exit of emergency and non-emergency vehicles to and from the site.

With implementation of the foregoing recommendations, the proposed Ha'ikū Fire Station project is not expected to have a significant impact on traffic operations in the project vicinity.

Short-term, construction-related impacts are anticipated while the 8-inch main is being installed in East Kuiaha Road and during the installation of improvements along Hāna Highway. At a minimum, lane closures will be required. Full road closures are not preferred, but are possible depending on the field conditions. A County Roadway Permit and Permit to Perform Work Within State Highway will be acquired, as applicable, and a traffic control plan will be developed.

The proposed project will restore the disturbed roadway areas to their original conditions, including, but not limited to, the replacement of plantings, pavement, striping, reflectors, pavement markings, and existing driveways. It will also resurface any affected travel lane width. With the implementation of the foregoing mitigation measures, significant adverse impacts to area roadways are not anticipated.

2. Water System

a. Existing Conditions

Domestic water for the Ha'ikū region is provided by the Department of Water Supply's (DWS) Upcountry system. Water for the Upcountry system is provided by the Kamaole Weir Water Treatment Facility (WTF) which draws water primarily from Wailoa Ditch. The Kamaole Weir WTF is approximately 1,120 feet above sea level and lies approximately three (3) miles away from the project site. Kamaole Weir's average production is approximately 3.6 million gallons per day. There are two (2) existing 5/8-inch water meters located on the subject property.

b. Potential Impacts and Mitigation Measures

A Preliminary Engineering Report (PER) has been prepared for the proposed project. See **Appendix "F-1"**. The fire station's domestic water will be serviced by three (3) 5/8-inch water meters (two (2) existing and one (1) new). The Department of Water Supply confirmed that the property possesses a reservation for one (1) water meter in addition to the existing two (2) water meters.

Three (3) waterlines will be installed to service the proposed project's domestic water needs, one (1) 12-inch waterline and two (2) 1.5-inch waterlines. They will connect to a new 8-inch waterline off of East Kuiaha Road. The 12-inch waterline will provide fire protection for the site and the new building's fire protection systems. One (1) 1.5-inch waterline will provide water service for the building's interior fixtures and the other 1.5-

inch line will provide water service for exterior fixtures such as hose bibs and the irrigation system.

Fire flow requirements for the project site include 600 gpm for a 2-hour duration based on the National Fire Protection Association's (NFPA) Fire Code, NFPA 1, 2006 Edition, Appendix H, which includes a maximum fire hydrant spacing of 250 feet for industrial areas. The project proposes to construct an onsite water storage tank to supplement the fire protection capacity required for the project site. The water tank will be sized in accordance with NFPA 1142, Standard on Water Supplies for Suburban and Rural Firefighting. The proposed project is estimated to require a 40,000 gallon holding tank. The 12-inch waterline described above will provide for the station's water storage tank, fire hydrants and fire sprinklers.

In order to accommodate the onsite improvements proposed for fire protection, the Department of Water Supply is requiring the installation of approximately 300 linear feet of 8-inch water main between the location of the project's laterals and water meters on East Kuiaha Road and the intersection of Ha'ikū Road and East Kuiaha Road.

Water conservation measures to be incorporated into the proposed project site include the use of low flow plumbing fixtures and the use of landscape planting material that minimizes irrigation water consumption.

Appropriate BMPs will be employed during construction in order to protect the integrity of groundwater and surface water resources in the vicinity of the project site.

Water requirements will be coordinated with the DWS to ensure that adequate supply is available at the time of development. In addition, calculations for domestic, irrigation, and fire protection use will be submitted to the DWS during building permit processing for the project.

3. Wastewater System

a. Existing Conditions

There are no County wastewater treatment facilities servicing the Ha'ikū area. Wastewater disposal in the region is accommodated via cesspools or individual wastewater treatment systems, such as septic tanks and leach fields.

b. Potential Impacts and Mitigation Measures

The proposed project will generate approximately 963 gallons of wastewater per day. The fire station building's sanitary sewerline will discharge from the north side of the building and connect to a gravity sewerline to be treated and disposed of via a Department of Health-approved Individual Wastewater System (IWS). The IWS will be located on the north side of the fire station building near Hāna Highway on the lower elevations of the property. According to the PER prepared for the proposed project, the IWS will require a minimum 1,530-gallon septic tank and a leach field for disposal with a minimum area of 1,683 square feet. See **Appendix "F-1"**.

4. Drainage

a. Existing Conditions

The drainage at the subject property generally flows in a north-westerly direction. A PreFinal Drainage Report (PDR) was prepared for the project by AECOM Pacific, Inc., in November 2023. The objective of the PDR is to analyze, evaluate, and mitigate the drainage impacts of the proposed Ha'ikū Fire Station project in accordance with the County of Maui's Rules for the Design of Storm Drainage Facilities in the County of Maui (November 1995). Refer to **Appendix "F-2"**.

Runoff from the site currently sheet flows along the ground and road surface to the existing East Kuiaha Gulch on the northwest side of the property and to Hāna Highway to the north. There are two (2) existing drainage areas within the subject property affecting the 6.1-acre project site. The drainage areas are referenced in Figure 3 of the PDR as drainage areas X1 and X2. Total runoff from the project site under existing conditions (for the 50-year, 1-hour storm) is 35.22 cubic feet per second (cfs). A summary of the existing drainage conditions is presented below in **Table 6**.

Table 6. Summary of Existing Drainage Conditions Affecting Project Site for the 50-Year, 1-Hour Storm

Drainage Area	Size (acres)	Direction of Flow	Drainage Flow (cfs)
X1	11.67	Flow Towards Northwest Property Line	24.50
X2	5.47	Flow Towards Hāna Highway	10.72
		TOTAL	**35.22 cfs**
Source: AECOM Pacific, Inc., 2023.			

There are currently no drainage system improvements located within the limits of the project site due to undeveloped conditions present within the subject property.

b. Potential Impacts and Mitigation Measures

Under developed conditions, there will be a total of 10 drainage areas (New Drainage Areas (NDA)) affecting the 6.1-acre project site, nine (9) of which will be located within the subject parcel and one (1) outside of the subject parcel. The post-development onsite drainage areas are referenced in Figure 4 of the PDR as drainage areas NDA-1 through NDA-3 and NDA-5 through NDA-10, and the post-development offsite drainage area is referenced as drainage area NDA-4. Drainage from NDA-4 will not flow onto the subject parcel. A summary of the modified drainage conditions within the project site is presented below in **Table 7**.

Table 7. Summary of Post-Development Drainage Conditions Affecting Project Site for the 50-Year, 1-Hour Storm

Drainage Area	Size (acres)	Direction of Flow	Drainage Flow (cfs)
NDA-1 (onsite)	4.47	Flow to Northwest Property Line	9.84
NDA-2 (onsite)	0.07	Flow to Detention Basin	0.52
NDA-3 (onsite)	1.98	Flow to Detention Basin	5.93
NDA-4 (offsite)	6.09	Flow to Hāna Highway	11.93
NDA-5 (onsite)	1.27	Flow to Detention Basin	4.23
NDA-6 (onsite)	1.17	Flow to Detention Basin	4.19
NDA-7 (onsite)	1.05	Flow to Detention Basin	4.83
NDA-8 (onsite)	0.26	Flow to Detention Basin	1.92
NDA-9 (onsite)	0.74	Flow to Detention Basin	2.69
NDA-10 (onsite)	0.04	Flow to Detention Basin	0.27
		TOTAL	**46.35 cfs**

Source: AECOM Pacific, Inc., 2023.

The development of the proposed fire station will result in the introduction of impervious areas within the property and an associated increase in storm water runoff through the project site. To accommodate the increase in drainage runoff resulting from project implementation, an onsite drainage

system will be constructed consisting of drainage structures, drain lines, and a detention basin. The detention basin will be located on the northwest side of the new fire station building (refer to **Appendix "A"**). For a 50-year, 1-hour flow, the detention basin will retain, at minimum, 100 percent of the increase in stormwater runoff associated with the project. This permanent BMP will both reduce the quantity of runoff exiting the project site and increase the quality of water exiting the site by allowing any pollutants to settle in the basin. With the proposed drainage improvements, there are no adverse impacts to downstream properties anticipated from construction of the proposed Ha'ikū Fire Station project. Refer to **Appendix "F-2"**.

5. Electrical, Telephone and Cable Services

a. Existing Conditions

Electrical service to the area in the vicinity of the project site, is provided by Hawaiian Electric (HECO). There is a primary overhead system, located along Hāna Highway, fronting the project site.

Telephone and cable service is provided to the area via the existing overhead distribution system along Hāna Highway by Hawaiian Telcom and Oceanic Time Warner Cable, respectively.

b. Potential Impacts and Mitigation Measures

Coordination is being undertaken with the respective utility companies to connect electrical, telephone and cable TV services from the existing overhead distribution system along Hāna Highway to the project site. Underground ductline systems will be installed for extension of services up to the proposed fire station building. This work will include installation of a new HECO pad-mounted transformer within the project site. Refer to **Figure 4**.

Various energy conservation design measures will also be incorporated as part of the sustainable design program for the project. Examples of such measures being considered for implementation include the following:

1. Installation of roof insulation and solar tubes;

2. Tinted windows to shade and cool the building;

3. Installation of a heat recovery hot water system that will utilize waste heat from air conditioning condensing units;

4. Installation of low blue content (amber) LED luminaires around entrances and exits;

5. Installation of low blue content (amber) LED pole mounted lights at all driveways and vehicle parking areas;

6. Installation of lights to the exterior of the site and building that will be automatically triggered by time switch controls and limited to night time use only;

7. Installation of energy-efficient LED lighting to the building interior;

8. Installation of multi-level or zoned switching of interior lighting in large rooms;

9. Installation of wall-mounted occupancy sensor light switches within private offices, small storage rooms, the laundry room and bathrooms;

10. Installation of occupancy sensor controls within the day room, fitness room and turnout gear room; and

11. Installation of daylight controls in areas adjacent to windows and areas with solar tubes.

The proposed project is not anticipated to adversely affect electrical, telephone, or cable systems.

E. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined as the impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.

The proposed project is not part of a larger action, nor would it occur within the context of such actions. There are no direct community growth impacts resulting from or occurring with the subject project. There are no other public works projects anticipated within the project context.

Secondary impacts are those which have the potential to occur later in time or are farther in distance but are still reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the subject project. Secondary impacts from highway projects can occur, for example, because they can induce development by removing one of the impediments to growth - transportation access.

There are no foreseeable secondary impacts associated with the proposed project. The new fire station will provide much needed fire coverage for the Ha'ikū area and is not considered to be a generating component for population nor will it place additional burden upon infrastructure or the environment.

RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

III

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

A. STATE LAND USE DISTRICTS

Chapter 205, Hawai'i Revised Statutes, relating to the Land Use Commission (LUC), establishes the four (4) major land use districts in which lands in the state are placed. These districts are "Urban", "Rural", "Agricultural", and "Conservation".

The 6.1-acre project site is located within the State "Agricultural" district. See **Figure 9**. The proposed action involves a County-initiated District Boundary Amendment (DBA) to the "Rural" district to permit the proposed action. As provided for in Section 205-5(c)(4), HRS, "Public, quasi-public, and public utility facilities" (such as fire stations) are permitted uses within the "Rural" district. Due to the size of the 6.1-acre project site (i.e., less than 15 acres), the DBA will be processed by the County of Maui and acted upon by the Maui County Council.

B. LAND USE COMMISSION RULES, CHAPTER 15-15, HAWAI'I ADMINISTRATIVE RULES

The proposed reclassification of the project site (via DBA) is in conformance with the following standards of the Rural District set forth in Chapter 15-15-21, Hawai'i Administrative Rules:

> *Chapter 15-15-21 Standards for determining "R" rural district boundaries. Except as otherwise provided in this chapter, in determining the boundaries for the "R" rural district, the following standards shall apply:*
>
> *1. Areas consisting of small farms, provided that the areas need not be included in this district if their inclusion will alter the general characteristics of the areas.*
>
> **Comment:** The proposed fire station will be located in Ha'ikū, a low-density area that is comprised mostly of farms and agricultural lands.
>
> *2. Activities or uses as characterized by low-density residential lots of not less than one-half acre and a density of not more than one single-family dwelling per one-half acre in areas where "city-like" concentration of people, structures, streets, and urban level of services are absent, and where small farms are intermixed with the low-density residential lots; and*

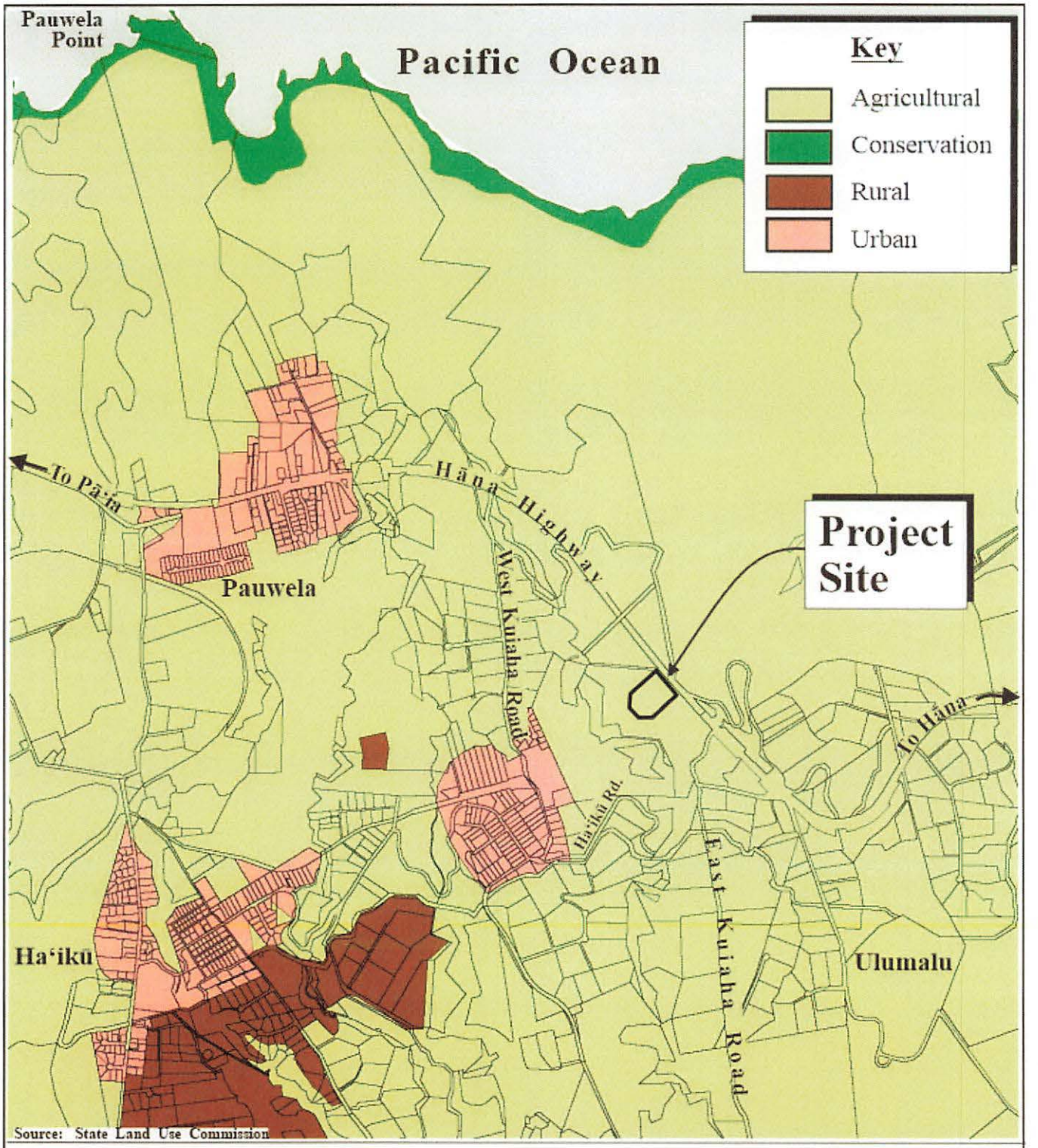


Figure 9 Proposed Ha'ikū Fire Station and Related Improvements
State Land Use Designations Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL Haiku Fire Stn Update Applications Figures SLUD

Comment: As mentioned previously, the proposed project site lies in a low-density area that is comprised mostly of farms and agricultural lands and lacks "city-like" concentrations of people, structures, streets, and services.

3. *It may also include parcels of land which are surrounded by, or contiguous to this district, and are not suited to low-density residential uses for small farm or agricultural uses.*

Comment: The lands contiguous to the proposed rural district are comprised of low-density areas of former and existing agricultural uses.

C. HAWAI'I STATE PLAN

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, priorities, and implementation mechanisms. The Plan consists of three (3) parts. Part I includes the Overall Theme, Goals, Objectives, and Policies; Part II includes Planning, Coordination, and Implementation; and Part III establishes Priority Guidelines. Part II of the State Plan covers its administrative structure and implementation process.

The overall theme of the Hawai'i State Plan is governed by the following general principles.

1. Individual and family self-sufficiency

2. Social and economic mobility

3. Community or social well-being

In consonance with the foregoing principles, the Hawai'i State Plan identifies three (3) clarifying goals:

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.

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.

3. Physical, social, and economic well-being for individuals and families in Hawai'i that nourishes a sense of community responsibility, caring, and participation in community life.

This section of the environmental assessment examines the applicability of the proposed action as it relates to the objectives, policies, and priority guidelines of the Hawai'i State Plan, as set forth in HRS Sections 226-5 through 226-27.

The table below summarizes the relationship between the proposed action and the goals of the Hawai'i State Plan. The relationship between the action and the goals are categorized into the following groups. More detailed analysis and discussion, including the methodology used, is presented in **Appendix "G-1"**.

1. **Directly applicable**: the action and its potential effects directly advance or promote the objective, policy, or priority guideline.

2. **Indirectly applicable**: the action and its potential effects indirectly support or advance the objective, policy, or priority guideline.

3. **Not applicable**: the action and its potential effects have no direct or indirect relationship to the objectives and policies of the Hawai'i State Plan.

In general, a proposed action's applicability to the objectives, policies, and priority guidelines of the Hawai`i State Plan is judged on the basis of the action's direct or indirect relationship to the respective objectives, policies, and priority directions. It is recognized that the categorization of "applicability" is subject to interpretation and should be appropriately considered in the context of local and regional conditions. The analysis presented in **Table 8** and summarized below focuses on key elements of the proposed action's relationship to the Hawai'i State Plan. Detailed discussion on the applicability of the proposed action to each goal and related objectives, policies, and implementing actions of the Hawai'i State Plan is provided in **Appendix "G-1"**.

Table 8. Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Polices (HRS 226-1 to 226-27)

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies **Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable**	**DA**	**IA**	**NA**
HRS 226-1: Findings and Purpose			
HRS 226-2: Definitions			
HRS 226-3: Overall Theme			
HRS 226-4: State Goals. In order to ensure, for the 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 Hawaii's present and future generations. (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.			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(3) Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.			
Chapter 226-5 Objective and Policies for Population			
Objective:			
(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.		✓	
Chapter 226-6 Objectives and policies for the economy – – in general			
Objectives:			
(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 Hawaii's people, while at the same time stimulating 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.			✓
(2) A steadily 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.			✓
Chapter 226-7 Objectives and policies for the economy – – agriculture.			
Objectives:			
(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.			✓
Chapter 226-8 Objective and policies for the economy – – visitor industry.			
Objective:			
(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 Hawaii's economy.			✓
Chapter 226-9 Objective and policies for the economy – – federal expenditures.			
Objective:			
(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 Hawaii's economy.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-10 Objective and policies for the economy – – potential growth and innovative activities.			
Objective:			
(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 Hawaii's economic base.			✓
Chapter 226-10.5 Objectives and policies for the economy – – information industry.			
Objective:			
(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 Hawaii as a leader in broadband and wireless communications and applications in the Pacific Region.			✓
Chapter 226-11 Objectives and policies for the physical environment – – land based, shoreline, and marine resources.			
Objectives:			
(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:			
(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.		✓	
(2) Effective protection of Hawaii's unique and fragile environmental resources.		✓	
Chapter 226-12 Objective and policies for the physical environment – – scenic, natural beauty, and historic resources.			
Objective: (a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.		✓	
Chapter 226-13 Objectives and policies for the physical environment – – land, air, and water quality.			
Objectives:			
(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 Hawaii's land, air, and water resources.		✓	
(2) Greater public awareness and appreciation of Hawaii's environmental resources.		✓	

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-14 Objective and policies for facility systems – – in general.			
Objective:			
(a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, sustainable development, climate change adaptation, sea level rise adaptation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.			✓
Chapter 226-15 Objectives and policies for facility systems – – solid and liquid waste.			
Objectives:			
(a) 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 for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.			✓
Chapter 226-16 Objective and policies for facility systems – – water.			
Objective:			
(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.		✓	
Chapter 226-17 Objectives and policies for facility systems – – transportation.			
Objectives:			
(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 that is consistent with and will accommodate planned growth objectives throughout the State.			✓
Chapter 226-18 Objectives and policies for facility systems – – energy.			
Objectives:			
(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 systems capable of supporting the needs of the people;			✓
(2) Increased energy security and 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;			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(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.			✓
Chapter 226-18.5 Objectives and policies for facility systems – – telecommunications.			
Objective:			
(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.			
Chapter 226-19 Objectives and policies for socio-cultural advancement – – housing.			
Objectives:			
(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 affordable housing is made available to very low-, low- and 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.			✓
Chapter 226-20 Objectives and policies for socio-cultural advancement – – health.			
Objectives:			
(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 Hawaii's communities.			✓
(3) Elimination of health disparities by identifying and addressing social determinants of health.			✓
Chapter 226-21 Objectives and policies for Socio-cultural advancement – – education.			
Objective:			
(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.			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-22 Objective and policies for socio-cultural advancement – – social services.			
Objective:			
(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.			✓
Chapter 226-23 Objective and policies for socio-cultural advancement – – leisure.			
Objective:			
(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.			✓
Chapter 226-24 Objective and policies for socio-cultural advancement – – individual rights and personal well-being.			
Objective:			
(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.			✓
Chapter 226-25 Objective and policies for socio-cultural advancement – – culture.			
Objective:			
(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 Hawaii's people.			✓
Chapter 226-26 Objectives and policies for socio-cultural advancement – – public safety.			
Objectives:			
(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 Hawaii's people.			✓
Chapter 226-27 Objectives and policies for socio-cultural advancement – – government.			
Objectives:			
(a) Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(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.	✓		

The proposed project is directly applicable to the goal and objectives related to public safety. The new Ha'ikū Fire Station will provide fire protection services to the community of Ha'ikū where currently there is no fire station. The proposed project will ensure public safety programs are effective and responsive to community needs.

The proposed project is indirectly applicable to the goal and objectives for population. The proposed project will provide fire protection for a resident population in Ha'ikū that is currently not served by a local fire station. The proposed project will encourage increased job opportunities during the construction phase.

The proposed project is indirectly applicable to the goal and objectives related to the environment. Physical attributes of the site were considered in the final design of the project to ensure environmental impacts are avoided or mitigated. A Biological Resources Survey was conducted for the project. Appropriate mitigation measures will be conducted to avoid and minimize adverse impacts on threatened and endangered species such as the Hawaiian hoary bat and seabirds as recommended by the U.S. Fish and Wildlife Service.

The proposed project is indirectly applicable to the goal and objectives related to energy facility systems. The proposed project will incorporate energy-saving design principles such as the installation of a heat recovery hot water system that will utilize waste heat from air conditioning condensing units and the installation of wall-mounted occupancy sensor light switches within private offices, small storage rooms, the laundry room and bathrooms.

The proposed project is directly applicable to the objectives and policies related to socio-cultural advancement with regard to government services. The new Hai'kū fire station will be an effective and responsive government service that is needed in Hai'kū.

Priority Guidelines

"Priority guidelines" are the guidelines that take precedence when addressing areas of statewide concern. This section addresses the proposed project's applicability to the priority guidelines set forth in HRS, Sections 226-101 to 226-109.

The priority guidelines of the Hawai'i State Plan cover the economy, population growth and land resources, crime and criminal justice, affordable housing, quality education, sustainability, and climate change adaptation.

Table 9 summarizes the relationship between the proposed action and the priority guidelines of the Hawai'i State Plan. More detailed discussion is presented in **Appendix "G-1"**.

Table 9. Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines (Chapters 226-101 to 226-109)

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Chapter 226-101: Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
Chapter 226-102: Overall direction. The State shall strive to improve the quality of life for Hawaii'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.			
Chapter 226-103: Economic priority guidelines.			
(a) **Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy**			✓
(b) **Priority guidelines to promote the economic health and quality of the visitor industry**			✓
(c) **Priority guidelines to promote the continued viability of the sugar and pineapple industries**			✓
(d) **Priority guidelines to promote the growth and development of diversified agriculture and aquaculture**			✓
(e) **Priority guidelines for water use and development**			✓
(f) **Priority guidelines for energy use and development**			✓
(g) **Priority guidelines to promote the development of the information industry**			✓
Chapter 226-104: Population growth and land resources priority guidelines.			
(a) **Priority guidelines to effect desired statewide growth and distribution**	✓		
(b) **Priority guidelines for regional growth distribution and land resource utilization**	✓		
Chapter 226-105: Crime and criminal justice.			
Priority guidelines in the area of crime and criminal justice			✓
Chapter 226-106: Affordable housing.			
Priority guidelines for the provision of affordable housing			✓
Chapter 226-107: Quality education.			
Priority guidelines to promote quality education			✓
CHAPTER 226-108: Sustainability			
Priority guidelines and principles to promote sustainability	✓		
CHAPTER 226-109: Climate change adaptation			
Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture;		✓	

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:			

The proposed project is directly applicable to the priority guidelines related to population growth and land resources. The new fire station will be located on 6.1 acres of nonessential agricultural lands to provide fire protection services to a rural community that presently does not have local fire service. The proposed fire station will be designed to maintain the rural character of the area.

The proposed project is directly applicable to the priority guidelines for sustainability. The proposed project will incorporate sustainable design features. As such, it will meet the needs of the present (fire prevention services) without compromising the needs of future generations (the need for a safe, viable environment).

The proposed project is indirectly applicable to the priority guidelines related to climate change adaptation. The project site is located outside of the 3.2-foot Sea-Level Rise Exposure Area identified in the *Hawai'i Sea Level Rise Vulnerability and Adaptation Report* (2018), meaning that the risk of potential impacts related to sea-level rise are minimal. The proposed landscape plan will incorporate native plants and indigenous trees to both cool the project site and reduce water consumption.

D. STATE FUNCTIONAL PLAN

A key element of the Statewide Planning System is the Functional Plans which set forth the policies, statewide guidelines, and priorities within a specific field of activity. There are 13 Functional Plans, which have been developed by the State agency primarily responsible for a given functional area. Together with the County General Plans, the State Functional Plans establish more specific strategies for implementation. In particular, the State Functional Plans provide for the following:

- Identify major Statewide priority concerns
- Define current strategies for each functional area
- Identify major relationships among functional areas
- Provide direction and strategies for departmental policies, programs, and priorities
- Provide a guide for the allocation of resources

- Coordinate State and County roles and responsibilities in the implementation of the Hawai'i State Plan

Thirteen (13) Functional Plans have been prepared by State agencies. **Table 10** provides an assessment of the relationship between the proposed action and each of the 13 Functional Plans.

Table 10. Relationship Between the Proposed Ha'ikū Fire Station and Related Improvements and the State Functional Plans

	State Functional Plan	State Coordinating Agency	Purpose	Analysis
1	Agriculture Functional Plan (1991)	Department of Agriculture	Continued viability of agriculture throughout the state	Although the proposed project will redesignate 6.1 acres of agricultural land for rural use, due to the vast acreages of agricultural land available for diversified agriculture, the proposed project will not adversely impact the objectives and policies of this functional plan.
2	Conservation Lands State Functional Plan (1991)	Department of Land and Natural Resources	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	The proposed project is not within a Conservation District and does not contravene the objectives of this functional plan.
3	Education State Functional Plan (1989)	Department of Education	Improvements to Hawai'i's educational curriculum, quality of educational staff, and access to adequate facilities	Not Applicable
4	Employment State Functional Plan (1990)	Department of Labor and Industrial Relations	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	In the short-term, the proposed project will generate employment opportunities during construction, thereby directly supporting this functional plan.
5	Energy State Functional Plan (1991)	Department of Business, Economic Development and Tourism	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	The proposed project will incorporate energy saving and resource conservation practices, thereby directly supporting this functional plan.

	State Functional Plan	State Coordinating Agency	Purpose	Analysis
6	Health State Functional Plan (1989)	Department of Health	Improve health care system by providing for those who don't 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	Not Applicable
7	Higher Education Functional Plan (1984)	University of Hawai'i	Prepare Hawai'i's citizens for the demands of an increasingly complex world through providing technical and intellectual tools	Not Applicable
8	Historic Preservation State Functional Plan (1991)	Department of Land and Natural Resources	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	An AIS of the project area was completed and did not reveal any subsurface cultural layers of historic materials. SHPD accepted the findings of the AIS. A Cultural Impact Assessment was also carried out to inform the public on the ethnic and cultural heritages and history of the project area.
9	Housing State Functional Plan (2017)	Hawai'i Housing Finance and Development Corporation	Based largely on joint public/private efforts to finance, build, and maintain an adequate supply of affordable housing. It will be a working tool to guide the state, the counties, as well as the private sector in meeting the overall goal that every Hawai'i resident will have the opportunity to live in a safe, decent, and affordable home.	Not Applicable
10	Human Services State Functional Plan (1989)	Department of Human Services	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	Not Applicable

	State Functional Plan	State Coordinating Agency	Purpose	Analysis
11	Recreation State Functional Plan (1991)	Department of Land and Natural Resources	Manage the use of recreational resources via addressing issues: (1) ocean and shoreline recreation, (2) upland, urban, and other recreation opportunities, (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	Not Applicable
12	Tourism State Functional Plan (1991)	Department of Business, Economic Development and Tourism	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	Not Applicable
13	Transportation State Functional Plan (1991)	Department of Transportation	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	Not Applicable

E. GENERAL PLAN OF THE COUNTY OF MAUI

According to the Maui County Charter, the general plan:

> *... shall indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.*

Chapter 2.80B of the Maui County Code, relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation that calls for a Countywide Policy Plan and a Maui Island Plan.

1. Countywide Policy Plan

The Countywide Policy Plan was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan replaces the General Plan of the County of Maui 1990 Update and provides the policy framework for the development of the Maui Island Plan as well as for updating the nine (9) detailed Community Plans. The Countywide Policy Plan provides broad goals, objectives, policies, and implementing actions that portray the desired direction of the County's future. Goals are intended to describe a desirable condition of the County by the year 2030 and are intentionally general. Objectives tend to be more specific and may be regarded as milestones to achieve the larger goals. Policies are not intended as regulations, but instead provide a general guideline for County decision makers, departments, and collaborating organizations toward the attainment of goals and objectives. Implementing actions are specific tasks, procedures, programs, or techniques that carry out policy.

In general, a proposed action's applicability to the goals, objectives, policies, and implementing actions of the Countywide Policy Plan is judged on the basis of the action's direct or indirect relationship to the respective objectives, policies, and priority directions. It is recognized that the categorization of "applicability" is subject to interpretation and should be appropriately considered in the context of local and regional conditions. The analysis presented in **Table 11** and summarized below focuses on key elements of the proposed action's relationship to the Countywide Policy Plan. Detailed discussion on the applicability of the proposed action to each

goal and related objectives, policies, and implementing actions of the Countywide Policy Plan is provided in **Appendix "G-2"**.

a) **Directly applicable:** the action and its potential effects directly advance, promote or affect the relevant goal, objective, or policy.

b) **Indirectly applicable:** the action and its potential effects indirectly support, advance or affect the objective, policy, or priority guideline.

c) **Not applicable:** the action and its potential effects have no direct or indirect relationship to the objectives and policies of the Countywide Policy Plan.

Table 11. Countywide Policy Plan

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
A. PROTECT THE NATURAL ENVIRONMENT			
Goal: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.		✓	
B. PRESERVE LOCAL CULTURES AND TRADITIONS			
Goal: Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents' multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.		✓	
C. IMPROVE EDUCATION			
Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.			✓
D. STRENGTHEN SOCIAL AND HEALTHCARE SERVICES			
Goal: Health and social services in Maui County will fully and comprehensively serve all segments of the population.			✓
E. EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS			
Goal: Quality, island-appropriate housing will be available to all residents.			✓
F. STRENGTHEN THE LOCAL ECONOMY			
Goal: Maui County's economy will be diverse, sustainable, and supportive of community values.			✓
G. IMPROVE PARKS AND PUBLIC FACILITIES			
Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.	✓		
H. DIVERSIFY TRANSPORTATION OPTIONS			
Goal: Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.			✓
I. IMPROVE PHYSICAL INFRASTRUCTURE			
Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.	✓		

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
J. PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT			
Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.	✓		
K. STRIVE FOR GOOD GOVERNANCE			
Goal: Government services will be transparent, effective, efficient, and responsive to the needs of residents.	✓		
L. MITIGATE CLIMATE CHANGE AND WORK TOWARD RESILIENCE			
Goal: Minimize the causes and negative effects of climate change.	✓		

The proposed project is directly applicable to the objective and policies to improve public facilities. The proposed new Ha'ikū Fire Station will be located in the rural community of Ha'ikū which currently does not have local fire protection services. The nearest fire stations are located in Pā'ia and Makawao, which are located approximately six (6) and eight (8) miles from Ha'ikū, respectively.

Through the EA process, the proposed project analyzed any potential effects it may have on environmental, cultural, historic, and archaeological resources, commissioning studies including a CIA, an AIS, and a Biological Resources Survey, and undergoing review by SHPD. Based on the results of these efforts, the proposed project is not anticipated to have any significant adverse impacts on those resources. As such, it indirectly applies to the goals relating to the protection of the natural environment and the preservation of local cultures and traditions.

The proposed project is directly applicable to the goal involving Maui County's physical infrastructure. The project site is located within a Rural Growth Boundary. There is existing infrastructure capacity to service the proposed project's potable water needs.

The proposed project is directly applicable to the goal to strive for good governance. The DF&PS carried out stakeholder meetings with local community groups during the process of selecting and acquiring the site for the project.

The proposed project is directly applicable to the goal and objectives to manage growth and use land in a sustainable manner. The proposed project site is located in a Rural Growth Boundary. The new fire station will be located in an area where there is infrastructure and service capacity.

The proposed project is directly applicable to the goal to minimize the causes and negative effects of climate change. The project site is located outside of the 3.2-foot Sea-Level Rise Exposure Area identified in the *Hawai'i Sea Level Rise Vulnerability and Adaptation Report* (2018), meaning that the risk of potential

impacts related to sea-level rise are minimal. The proposed landscape plan will incorporate native plants and indigenous trees to both cool the project site and reduce water consumption.

2. Maui Island Plan

The Maui Island Plan (MIP) is applicable to the island of Maui only, providing more specific policy-based strategies for population, land use, transportation, public and community facilities, water and wastewater systems, visitor destinations, urban design, and other matters related to future growth.

As provided by Chapter 2.80B, the MIP shall include the following components:

1. *An island-wide land use strategy, including a managed and directed growth plan*
2. *A water element assessing supply, demand and quality parameters*
3. *A nearshore ecosystem element assessing nearshore waters and requirements for preservation and restoration*
4. *An implementation program which addresses the County's 20-year capital improvement requirements, financial program for implementation, and action implementation schedule*
5. *Milestone indicators designed to measure implementation progress of the MIP*

The MIP addresses a number of planning categories with detailed policy analysis and recommendations which are framed in terms of goals, objectives, policies, and implementing actions. These planning categories address the following areas:

1. *Population*
2. *Heritage Resources*
3. *Natural Hazards*
4. *Economic Development*
5. *Housing*
6. *Infrastructure and Public Facilities*
7. *Land Use*

Additionally, an essential element of the MIP is its directed growth plan, which provides a management framework for future growth in a manner that is fiscally, environmentally, and culturally prudent. Among the directed growth management

tools developed through the MIP process are maps delineating Urban Growth Boundaries (UGB), Small Town Boundaries, and Rural Growth Boundaries. The respective boundaries identify areas appropriate for future growth and their corresponding intent with respect to development character.

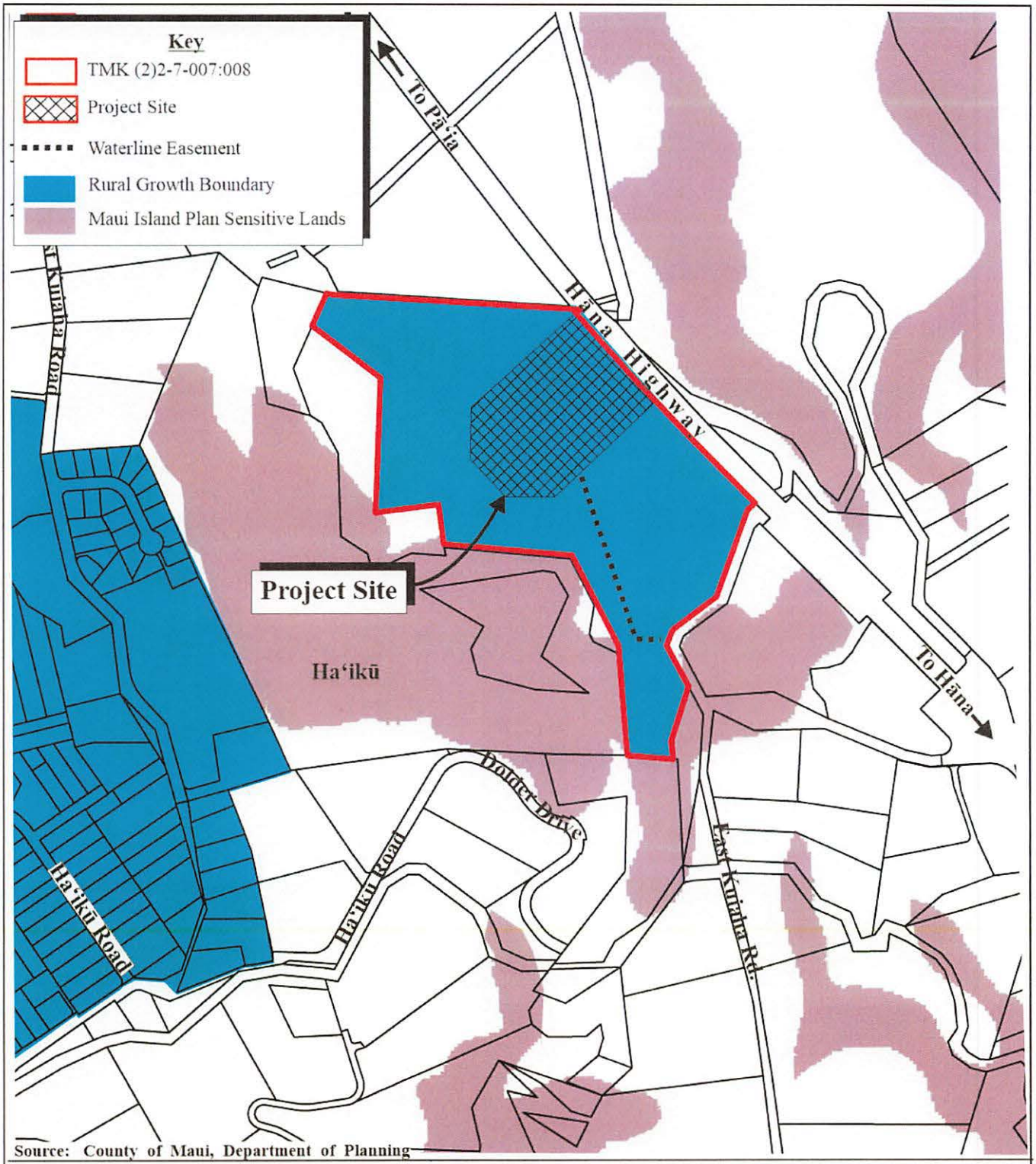
The proposed project is located within the Rural Growth Boundary of the MIP. In this regard, it is consistent with the directed growth strategy defined via growth maps adopted in the MIP. See **Figure 10**. The project does not involve Sensitive Lands as identified by the MIP.

In general, a proposed action's applicability to the MIP is judged on the basis of the action's direct or indirect relationship to the respective objectives, policies, and priority directions. It is recognized that the categorization of "applicability" is subject to interpretation and should be appropriately considered in the context of local and regional conditions. The analysis presented in **Table 12** and summarized below focuses on key elements of the proposed action's relationship to the MIP. Detailed discussion on the applicability of the proposed action to each goal and related objectives, policies, and implementing actions of the MIP is provided in **Appendix "G-3"**.

1. **Directly applicable**: the action and its potential effects directly advance or promote the objective, policy or priority guideline.

2. **Indirectly applicable**: the action's potential effects indirectly support or advance the objective, policy or priority guideline.

3. **Not applicable**: The action and its potential effects have no direct or indirect relationship to the objectives and policies of the MIP.



Source: County of Maui, Department of Planning

Figure 10 Proposed Ha'ikū Fire Station and Related Improvements

Maui Island Plan Map

0 250 Feet
125 500

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

AHL/Haiku Fire Stn Update/Applications/Figures/MIP

Table 12. Maui Island Plan Goals, Objectives and Policies

Maui Island Plan Goals, Objectives, Policies, and Actions Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
CHAPTER 1 – POPULATION			
1.1 Maui's people, values, and lifestyles thrive through strong, healthy, and vibrant island communities.	✓		
CHAPTER 2 – HERITAGE RESOURCES			
CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES ISSUES			
2.1 Our community respects and protects archaeological and cultural resources while perpetuating diverse cultural identities and traditions.		✓	
SHORELINE, REEFS, AND NEARSHORE WATERS			
2.2 An intact, ecologically functional system of reef, shoreline, and nearshore waters that are protected in perpetuity.		✓	
WATERSHEDS, STREAMS, AND WETLANDS ISSUES			
2.3 Healthy watersheds, streams, and riparian environments.		✓	
WILDLIFE AND NATURAL AREAS			
2.4 Maui's natural areas and indigenous flora and fauna will be protected.		✓	
SCENIC RESOURCES			
2.5 Maui will continue to be a beautiful island steeped in coastal, mountain, open space, and historically significant views that are preserved to enrich the residents' quality of life, attract visitors, provide a connection to the past, and promote a sense of place.		✓	
CHAPTER 3 – NATURAL HAZARDS			
3.1 Maui will be disaster resilient.	✓		
CHAPTER 4 – ECONOMIC DEVELOPMENT			
ECONOMIC DIVERSIFICATION			
4.1 Maui will have a balanced economy composed of a variety of industries that offer employment opportunities and well-paying jobs and a business environment that is sensitive to resident needs and the island's unique natural and cultural resources.			✓
TOURISM			
4.2 A healthy visitor industry that provides economic well-being with stable and diverse employment opportunities.			✓
AGRICULTURE			
4.3 Maui will have a diversified agricultural industry contributing to greater economic, food, and energy security and prosperity.			✓
EMERGING SECTORS			
4.4 A diverse array of emerging economic sectors.			✓

Maui Island Plan Goals, Objectives, Policies, and Actions Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
SMALL BUSINESS DEVELOPMENT			
4.5 Small businesses will play a key role in Maui's economy.		✓	
HEALTH CARE SECTOR			
4.6 Maui will have a health care industry and options that broaden career opportunities that are reliable, efficient, and provide social well-being.			✓
EDUCATION AND WORKFORCE DEVELOPMENT			
4.7 Maui will have effective education and workforce development programs and initiatives that are aligned with economic development goals.			✓
CHAPTER 5 – HOUSING			
5.1 Maui will have safe, decent, appropriate, and affordable housing for all residents developed in a way that contributes to strong neighborhoods and a thriving island community.		✓	
CHAPTER 6 – INFRASTRUCTURE AND PUBLIC FACILITES			
SOLID WASTE			
6.1 Maui will have implemented the ISWMP thereby diverting waste from its landfills, extending their capacities.			✓
WASTEWATER			
6.2 Maui will have wastewater systems that comply with or exceed State and Federal regulations; meet levels-of-service needs; provide adequate capacity to accommodate projected demand; ensure efficient, effective, and environmentally sensitive operation; and maximize wastewater reuse where feasible.			✓
WATER			
6.3 Maui will have an environmentally sustainable, reliable, safe, and efficient water system.			✓
TRANSPORTATION			
6.4 An interconnected, efficient, and well-maintained, multimodal transportation system.			✓
TRANSIT			
6.5 An island-wide transit system that addresses the needs of residents and visitors and contributes to healthy and livable communities.			✓
PARKS			
6.6 Maui will have a diverse range of active and passive recreational parks, wilderness areas, and other natural-resource areas linked, where feasible, by a network of greenways, bikeways, pathways, and roads that are accessible to all.			✓

Maui Island Plan Goals, Objectives, Policies, and Actions Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
PUBLIC FACILITIES			
6.7 Maui will have adequate public facilities that meet the diverse needs of residents.	✓		
SCHOOLS AND LIBRARIES			
6.8 Maui will have school and library facilities that meet residents' needs and goals.			✓
HEALTH CARE			
6.9 All of Maui residents will have the best possible health care to include healthy living, disease prevention, as well as acute and long-term care.			✓
ENERGY			
6.10 Maui will meet its energy needs through local sources of clean, renewable energy, and through conservation.		✓	
HARBORS AND AIRPORT			
6.11 Maui will have harbors and airports that will efficiently, dependably, and safely facilitate the movement of passengers and cargo.			✓
CHAPTER 7 – LAND USE			
AGRICULTURAL LANDS			
7.1 Maui will have a prosperous agricultural industry and will protect agricultural lands.			✓
RURAL AREAS			
7.2 Maui will have a rural landscape and lifestyle where natural systems, cultural resources and farm lands are protected and development enhances and compliments the viability and character of rural communities.	✓		
URBAN AREAS			
7.3 Maui will have livable human-scale urban communities, an efficient and sustainable land use pattern, and sufficient housing and services for Maui residents.			✓
CHAPTER 8 – DIRECTED GROWTH PLAN			
URBAN AND SMALL TOWN GROWTH AREA			
8.1 Maui will have well-serviced, complete, and vibrant urban communities and traditional small towns through sound planning and clearly defined development expectations.			✓
RURAL GROWTH AREA			
8.2 Maui will maintain opportunities for agriculture and rural communities through sound planning and clearly defined development expectations.	✓		

Maui Island Plan Goals, Objectives, Policies, and Actions Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
PROTECTED AREA POLICY			
8.3.a The Protect Areas in Diagrams E-1, NW-1, N-1, NE-1, S-1, SE-1, and WC-1 should be concurrently reviewed with Table 8-2 and with any proposed land uses that may result in an adverse impact on a Protected Area. The County Council and the Administration should be notified if a Protected Area may be compromised by a development proposal.			✓

The proposed project is directly applicable to the goal relating to population. A new fire station in Haʻikū, where currently there is none, will offer better protection of life and property. A new fire station will allow the DF&PS to respond to disasters within the Haʻikū community, which has experienced significant growth in the last several decades, and assist in disaster relief services faster and more efficiently. Based on the foregoing, the proposed project is also directly applicable to the goals related to natural hazards and public facilities, and it is indirectly applicable to the goal related to housing.

The proposed project is indirectly applicable to the goal and objectives relating to cultural, historic and archaeological resources. An AIS and CIA were carried out on the project site to ensure historic and cultural resources are protected and not adversely impacted.

The proposed project is indirectly applicable to the goal, objectives, and policies to protect an ecologically functional system of reef, shoreline, and nearshore waters. The project involves a BMP Plan to be followed during construction to manage stormwater runoff. Permanent drainage improvements will be implemented to ensure stormwater runoff will not adversely impact adjacent and downstream properties.

The proposed project is indirectly applicable to the goal, objectives, and policies to ensure natural areas and indigenous flora and fauna will be protected. As noted above, a Biological Resources Survey was carried out to ensure endangered and protected species and their habitats are protected and not adversely impacted. The proposed landscape plan will incorporate the use of indigenous plants.

The proposed project is indirectly applicable to the goal, objectives, and policies to protect scenic resources. The proposed project will involve the development of a new fire station that will be one (1) story in height and set back on the 6.1-acre site to mitigate visual impacts. All outdoor lighting will be shielded and downcast to protect Maui's night sky.

The proposed project is indirectly applicable to the goal, objectives, and policies related to economic development. The proposed project will support the building trades during construction, many of which are small business companies.

The proposed project is indirectly applicable to the goal, objectives, and policies related to energy. The proposed new fire station has been designed with energy conserving features including the use of cross ventilation to reduce electrical consumption.

The proposed project is directly applicable to the goal, objectives, and policies related to rural areas and Rural Growth Boundaries. The project site is located in a Rural Growth Boundary. The proposed project has been designed in accordance with the Pā'ia-Ha'ikū Country Town Design Guidelines to maintain the rural character of the surrounding area and built environment.

F. PA'IA-HA'IKU COMMUNITY PLAN

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas.

The subject property is located within the Pā'ia-Ha'ikū region and occupies lands designated as "AG, Agriculture" in the Community Plan. See **Figure 11**. The proposed action involves the processing of a County-initiated Community Plan Amendment (CPA) application to redesignate the 6.1-acre project site as "Public/Quasi Public" so that the proposed action is a compatible use.

The proposed project is consistent with the following goals, policies, and objectives of the Community Plan:

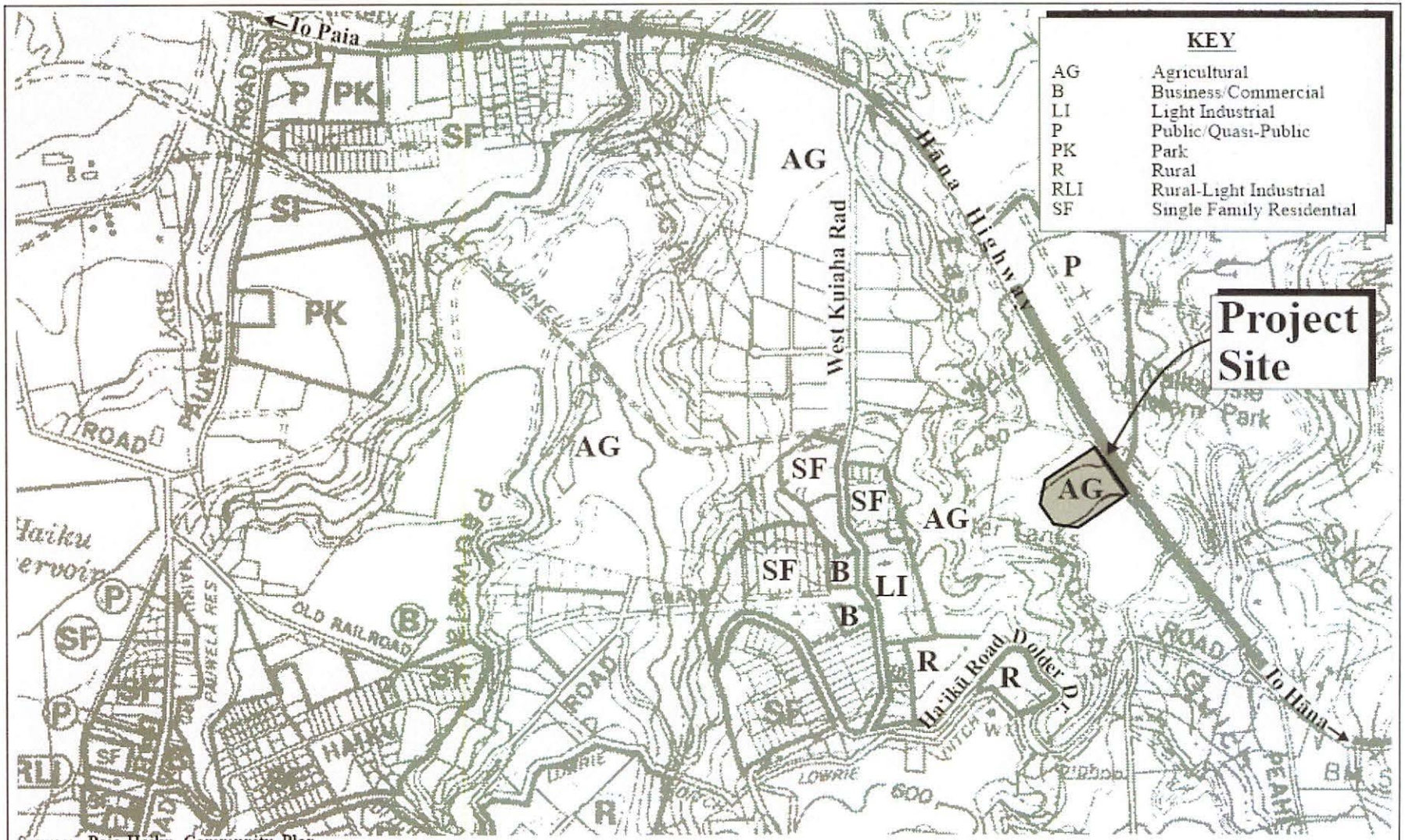
LAND USE

Goal

A well-planned community that preserves the region's small town ambiance and rural character, coastal scenic vistas, and extensive agricultural land use, and accommodates the future needs of residents at a sustainable rate of growth and in harmony with the region's natural environment, marine resources, and traditional uses of the shoreline and mauka lands.

Objectives and Policies

- *Define urban and rural growth limits and densities for the region by determining the needed space to accommodate projected growth, designating the required land using the land use map, and supporting needed development in these areas.*



Source: Paia-Haiku Community Plan

Figure 11

Proposed Ha'ikū Fire Station and Related Improvements

Community Plan Land Use Designations

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

MUNEKIYO HIRAGA

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- *For the outlying areas such as Ha`iku with existing Urban or Rural Land Use classifications, consideration for expansion of the State Land Use District Boundary should be made on a case by case basis for limited residential development in accordance with the following criteria:*

    a. *That the proposed change is contiguous with the Urban or Rural District and compatible with the existing character of the surrounding area;*

    b. *That adequate public services and facilities are available or can be provided at reasonable cost to the petitioner; and*

    c. *That the proposed land use amendment shall have no significant adverse effects upon agricultural, natural, environmental, recreational, scenic, historic, or other resources of the area.*

Response: The proposed project accommodates the needs of the residents by providing them with improved fire protection and response services. The subject property is designated as Agriculture in the Pa'ia-Ha'iku Community Plan. The proposed project is not a supported use within this designation. However, the proposed project conforms to the MIP, updated by the community after the Pa'ia-Ha'iku Community Plan's most recent update. During the development of the MIP, the community included the subject property within the region's Rural Growth Boundary. This indicates that when the Pa'ia-Ha'iku Community Plan is updated, the community would likely carry the same sentiment, considering this parcel is ideally suited for rural-type land uses, like Public/Quasi-Public. Based on the analysis described in this EA document, the proposed project is not anticipated to have significant adverse impacts on the area. In fact, it is expected to provide significant beneficial impacts to the area.

ENVIRONMENT

Goal

The preservation and protection of the natural environment, marine resources and scenic vistas to maintain the rural and natural ambiance and character of the region.

Objectives and Policies

- *Promote greater awareness and opportunities for recycling and sound conservation practices.*

Response: The proposed project will provide public fire protection services to the area, supporting the goal to preserve and protect the environment.

CULTURAL RESOURCES

Goal

Identification, protection, preservation, enhancement and appropriate use of cultural resources, cultural practices and historic sites that provide a sense of history and define a sense of place for the Pa'ia-Ha'ikū region.

Objective and Policy

- *Prevent the desecration of ancient and historic burial sites.*

Response: The DF&PS conducted an AIS, which set out to identify and preserve all cultural resources found within the project site. It concluded that no further archaeological work or monitoring would be necessary during the construction and operation of the proposed fire station on the project site. The project will adhere to all recommendations listed in the AIS report, which was accepted by SHPD on November 12, 2010.

TOWN DESIGN

Goal

Attractive rural town development in keeping with the existing scale, form and character of settlement areas in the region.

Objectives and Policies

- *Incorporate design standards, including, but not limited to, lighting, building and roadway design, appropriate for rural communities. In Agricultural and Rural Districts, excessive roadway standards and street lighting requirements should be discouraged.*
- *Limit building heights to two (2) stories or thirty (30) feet above grade throughout the region, with any exceptions being subject to design review by the County.*
- *Follow the established design standards for the commercial use areas of Pa`ia Town and Ha`iku based on the following guidelines:*
  - *a. Visually maintain and enhance the low-density town character.*
  - *b. Require that future development be compatible with the desired scale and rural character.*
  - *c. Maintain the ambiance of Pai'a and Ha'iku Towns.*

    Design improvements should be undertaken in a coordinated and ongoing fashion so as to ensure compatibility of future development projects with the desired character. Road improvements for drainage, lighting, and safety should be coordinated with the maintenance of the existing rural, informal streetscape which exemplifies the character of Pa`ia and Ha`iku Towns. For example, urban

roadway standards which require excessive street widths detract from a rural character and should be discouraged.

- *Use "native plants" for landscape planting in all public projects to the extent practicable.*
- *Ensure that all future subdivisions, construction projects, and developments comply with the Maui County Planting Plan.*

Response: Though the proposed project is not located within Ha'ikū town, its design is informed by the local history and character of the area and the traditional design elements commonly used there. The project will not exceed thirty (30) feet above grade. The project will conform to the Maui County Planting Plan, utilizing native plants as much as practicable.

PHYSICAL INFRASTRUCTURE

Energy

Goal

Greater self-sufficiency in the need for non-renewable energy and more efficiency in use of energy resources.

Objectives and Policies

- *Promote energy efficiency as the energy resource of first choice and increase the energy efficiency in all sectors of the community.*
- *Promote environmentally and culturally sensitive use of renewable resources such as biomass, solar, wind, and hydroelectric energy in all sectors of the community.*
- *Support energy-efficient building design and site development practices.*
- *Promote energy conservation and awareness programs.*

Response: The proposed project incorporates natural lighting sources like windows and solar tubes, reducing the energy used to power lighting. The project will provide for the future installation of photovoltaic (PV) panels on the roof.

SOCIAL INFRASTRUCTURE

Health and Public Safety

Goal

A sense of security for all residents and visitors, and aid in the protection of life and property.

Objective and Policy

- *Improve fire protection capabilities in the Ha`iku area and ensure adequate water pressure for fire protection, particularly in urban and rural areas.*

Response: The proposed project accommodates the needs of the residents by providing them with better fire protection and response services than they have now. The proposed project will directly provide residents and visitors in the Ha'ikū area with better protection of life and property. The project will directly improve fire protection capabilities in the Ha'ikū area. The Ha'ikū Fire Station will provide a water storage tank for the fire protection of the station.

GOVERNMENT

Goal

Government that demonstrates the highest standards of fairness and is responsive to the needs of the community, fiscally responsible and prudent, effective in planning and implementing programs to accommodate anticipated growth, fair and equitable in taxation, strict in the implementation of the Community Plan, and managed efficiently to provide coordinated and timely responses and the delivery of necessary services and programs to the public.

Objectives and Policies

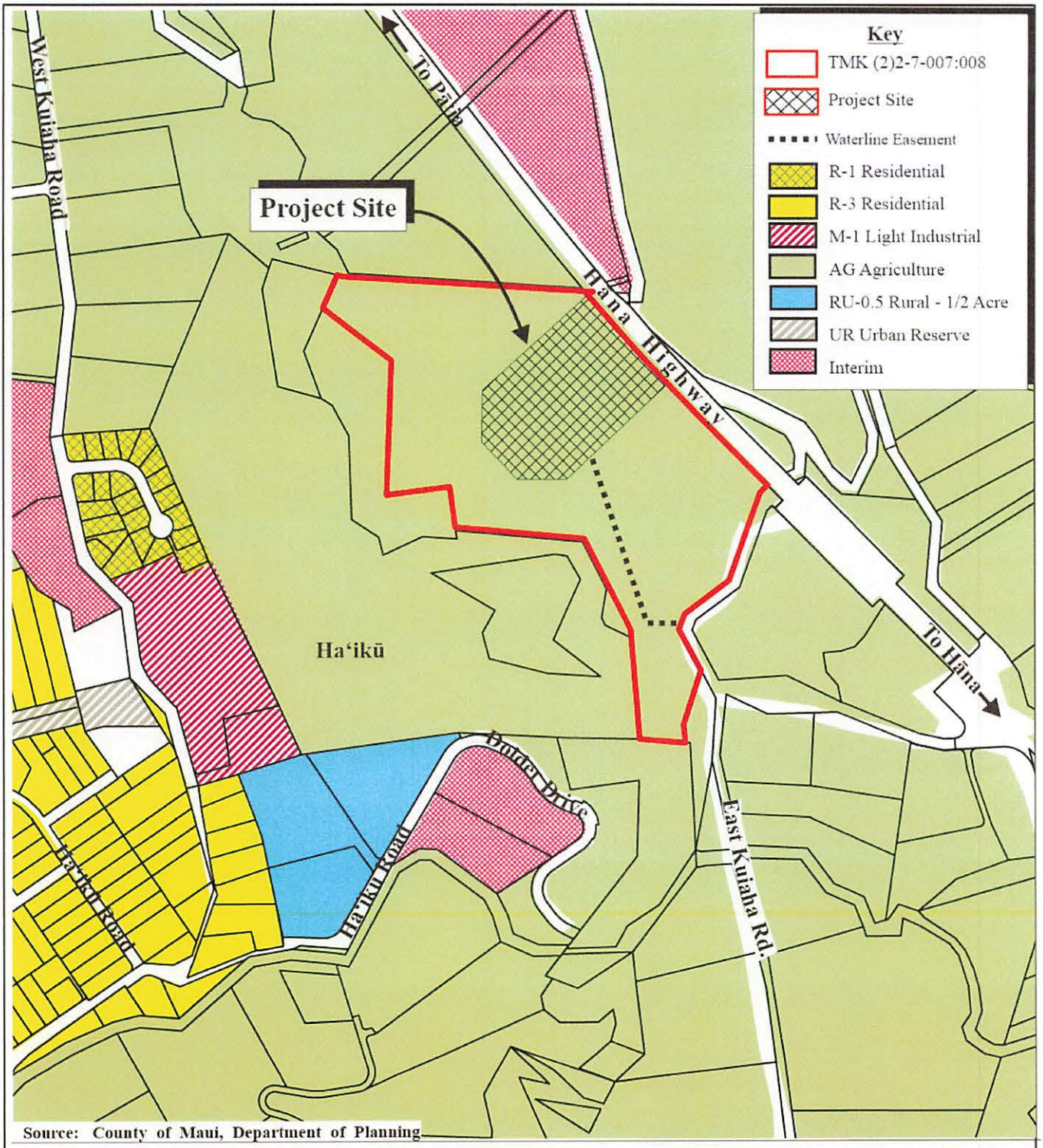
- *Coordinate, direct and manage future development, and provide for necessary public services and infrastructure in a more effective and timely fashion.*
- *Require that actions taken by public officials, boards or commissions of the County of Maui be in compliance with the goals, objectives and policies of the Community Plan.*

Response: The proposed project accommodates the needs of the residents by providing them with improved fire protection and response services. Fire protection is a necessary service to the public. The Ha'ikū Fire Station would provide more immediate service than the Ha'ikū community currently experiences.

G. ZONING

The subject parcel is located within the Maui County Zoning Code "Agricultural" district. See **Figure 12**. A Planning Director-initiated County-initiated ZPA application requesting a Change of Zoning (COZ) will be processed for the proposed project to redesignate the 6.1-acre project site as "P-1, Public/Quasi-Public" to be consistent with the fire station use.

The County Council amended Chapter 19.31, MCC, for permitted uses in the Public/Quasi-Public zoning district, effective June 26, 2013 (Ordinance No. 4048). Public



Source: County of Maui, Department of Planning

Figure 12 Proposed Ha'ikū Fire Station and Related Improvements

Maui County Zoning Map

0 250 Feet
125 500

Prepared for: County of Maui, Dept. of Fire and Public Safety

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facilities, such as "fire and police stations" and "accessory uses/structures" are allowable uses within the County of Maui's "P-1 and P-2, Public/Quasi-Public" zoning districts. A "public facility or public use" is defined by Section 19.04.040, MCC, as "a use conducted by, or a facility or structure owned or managed by, the government of the United States, the State of Hawai'i, or the County of Maui, which provides a governmental function, activity, or service for public benefit". Given that the Ha'ikū Fire Station will be owned and operated by the County of Maui as a public facility for the provision of service to the general public, particularly those residents living within the Ha'ikū region who would benefit from quicker emergency response times and lower insurance rates, the proposed project would be an allowable use within the County's "Public/Quasi-Public" zoning district.

Pursuant to MCC, Section 19.30A.020 District criteria, agricultural lands that meet two (2) of three (3) criteria should be given the highest priority for retention in the Agricultural district. The subject property meets the following two (2) criteria for retention:

1. Agricultural Lands of Importance to the State of Hawai'i (ALISH) designates the property as "Prime" agricultural lands; and
2. Lands which have seventy-five (75) percent or more of their boundaries contiguous to lands within the Agricultural district.

Although the subject property meets the highest priority for retention in the Agricultural district, it is important to note that based on site selection and feasibility studies conducted by the DF&PS in 2007 and 2021, the subject property was selected as the best site for a new fire station to serve Ha'ikū and the surrounding areas. See **Appendix "H-1"** and **Appendix "H-2"**. The construction of a new fire station on the subject property will provide a greater public benefit to the community than the retention of vacant agricultural land. The project is compatible with the public/quasi-public development standards as provided in Section 19.31.50, MCC. Given the rural scale of the proposed fire station, a County-initiated ZPA application will be processed requesting a COZ for the project to redesignate the 6.1-acre project site as "P-1, Public/Quasi-Public", so that the proposed action is a compatible use.

It is noted that the proposed Ha'ikū Fire Station has been designed to be architecturally compatible with the Pā'ia-Ha'ikū Country Town Design Guidelines. Some examples of key design considerations from the Pā'ia-Ha'ikū Country Town Design Guidelines are provided below:

Architectural Compatibility and Regional Sensitivity:

- The building design will be fit into the context of the surrounding environment while drawing inspiration from the architecture in the Pā'ia-Ha'ikū region.

Building Scale:

- The new fire station facility will be human scaled to fit into the rural setting of Ha'ikū.

Roofs:

- A grey metal standing seam roof with slopes of 3/12 will be incorporated to facilitate sustainable building strategies. Two (2) major roof forms make up the entire facility. The first is a large front gable roof over the apparatus bay. The second is a series of saw tooth roofs over the living quarters.

Exterior Wall Finishes and Fenestrations:

- The new fire station will incorporate vertical siding consistent with other structures throughout the Pā'ia-Ha'ikū region. The building color will be green, with multi-paned double hung and awning windows.

H. COASTAL ZONE MANAGEMENT OBJECTIVES AND POLICIES

The Hawai'i Coastal Zone Management Program (CZM), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation, protection, and restoration of natural resources of Hawai'i's coastal zone. The project site lies outside of the County of Maui's Special Management Area (SMA), the boundary of which follows the makai-side of the right-of-way line of Hāna Highway. See **Figure 13**.

Although a SMA Assessment is not required for the project, this section addresses the project's relationship to applicable coastal zone management considerations, set forth in Chapter 205A, HRS.

1. Recreational Resources

Objective:

Provide coastal recreational opportunities accessible to the public.

Policies:

(a) Improve coordination and funding of coastal recreational planning and management; and

(b) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

i. Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

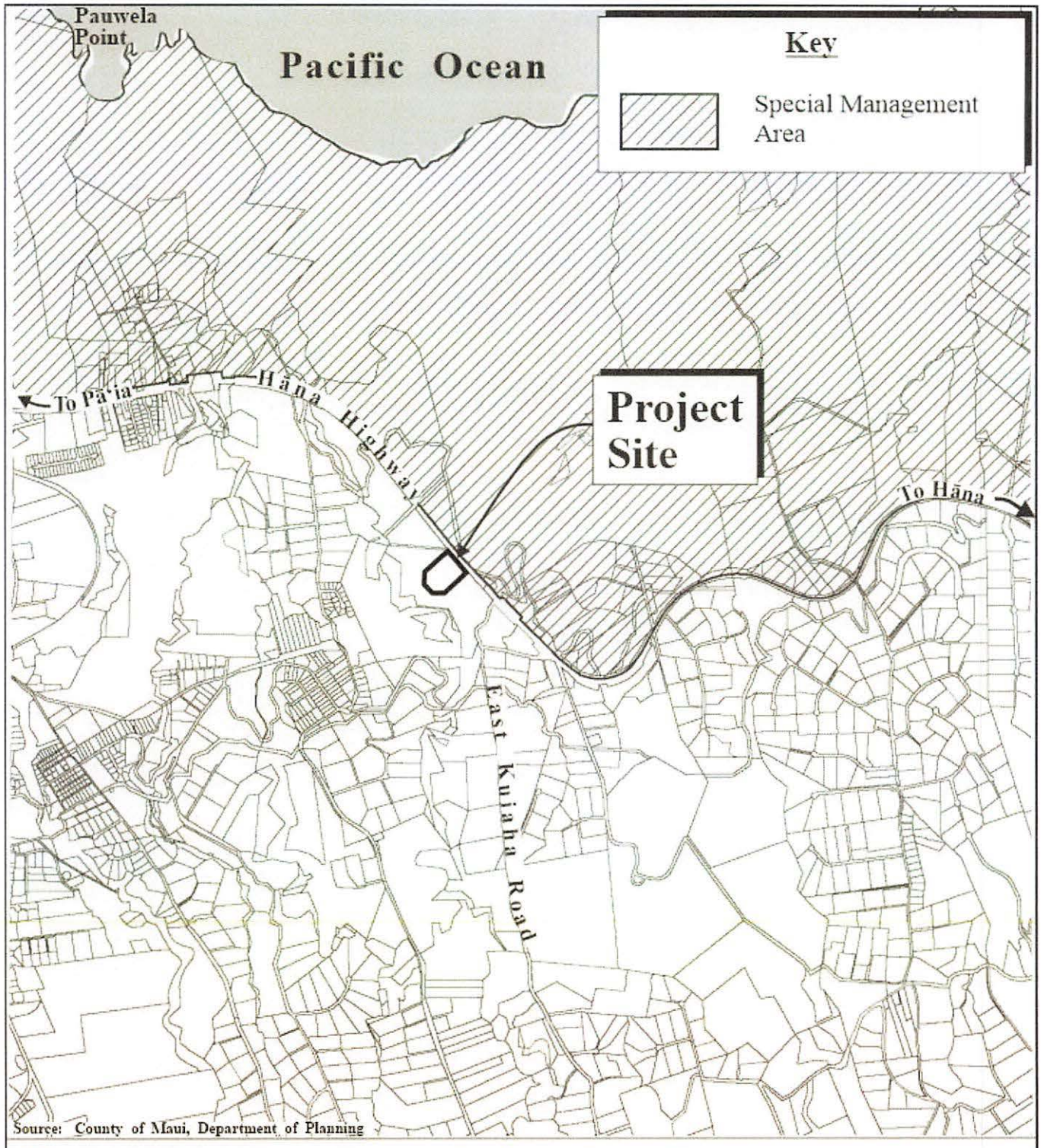

Figure 13 Proposed Ha'ikū Fire Station and Related Improvements
Special Management Area Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

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AHL Haiku Fire Stn Update Applications Figures SMA

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;

iii. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

iv. Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

v. Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

vi. Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

vii. Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

viii. Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting that dedication against the requirements of Section 46-6.

Response: The proposed project is not anticipated to result in adverse impacts to existing coastal or inland recreational resources. The project is not anticipated to limit or compromise any existing shoreline recreational activity.

2. 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 archeological resources;

(b) Maximize information retention through preservation of remains and artifacts or salvage operations; and

(c) Support state goals for protection, restoration, interpretation, and display of historic resources.

Response: The proposed project is not anticipated to have an adverse effect on historic or cultural resources. This finding is based upon the conclusions of the AIS that was completed for the proposed project. Refer to **Appendix "C-1"**. The AIS was accepted by the SHPD on November 12, 2010. Refer to **Appendix "C-2"**.

Should any cultural or historical materials be uncovered during construction-related activities, work will be halted in the area of the find and SHPD will be notified to determine appropriate mitigation measures.

3. 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;

(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;

(c) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

(d) Encourage those developments that are not coastal dependent to locate in inland areas.

Response: The project site is currently being utilized as vacant land and is not deemed a scenic resource. The site is also located away from the shoreline and is not part of a scenic view corridor to the shoreline. No substantive adverse impacts to scenic or open space resources are anticipated to result from implementation of the proposed action.

4. **Coastal Ecosystems**

Objective:

Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, 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;

(b) Improve the technical basis for natural resource management;

(c) Preserve valuable coastal ecosystems of significant biological or economic importance, including reefs, beaches, and dunes;

(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

(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.

Response: The proposed project is not anticipated to result in significant, adverse impacts to coastal ecosystems. Best Management Practices (BMPs) and appropriate drainage design will mitigate potential impacts to the coastal environment.

5. **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;

(b) Ensure that coastal dependent development and coastal related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts in the coastal zone management area; and

(c) *Direct the location and expansion of coastal development to areas designated and used for that development and permit reasonable long-term growth at those areas, and permit coastal development outside of designated areas when:*

i. Use of designated locations is not feasible;

ii. Adverse environmental effects and risks from coastal hazards are minimized; and

iii. The development is important to the State's economy.

Response: The proposed project is not a coastal development. The project will provide short-term economic benefits during the construction-phase, as well as fire protection benefits to area residents during the operational phase.

6. Coastal Hazards

Objective:

Reduce hazard to life and property from coastal hazards.

Policies:

(a) *Develop and communicate adequate information about the risks of coastal hazards;*

(b) *Control development, including planning and zoning control, in areas subject to coastal hazards;*

(c) *Ensure that developments comply with requirements of the National Flood Insurance Program; and*

(d) *Prevent coastal flooding from inland projects.*

Response: The subject property is not located in a tsunami zone. It is located in Flood Zone X, an area of minimal flooding action and without developmental restrictions. No significant adverse impacts resulting from storm water drainage to adjoining or downstream properties are anticipated.

7. 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;

(b) Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and

(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.

Response: Opportunities for public involvement have been provided as part of the EA review process. Future opportunities for input will be presented during the County-initiated land use entitlement change (DBA/CPA/COZ) processes.

8. Public Participation

Objective:

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

Policies:

(a) Promote public involvement in coastal zone management processes;

(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

(c) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: Public awareness and participation have been facilitated through the Chapter 343, HRS EA process. During the course of site acquisition and project planning, DF&PS assessed potential alternative sites and selected the subject property as the preferred location for the proposed Ha'ikū Fire Station. See **Appendix "H-1"** and **Appendix "H-2"**. The County's land use entitlement review process will also provide for additional public input and participation opportunities, as discussed previously.

9. Beach and Coastal Dune Protection

Objective:

(a) Protect beaches and coastal dunes for:

(i) Public use and recreation;
(ii) The benefit of coastal ecosystems; and
(iii) Use as natural buffers against coastal hazards; and

(b) Coordinate and fund beach management and protection.

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;

(b) Prohibit construction of private shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;

(c) Minimize the construction of public shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;

(d) Minimize grading of and damage to coastal dunes;

(e) 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

(f) 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.

Response: The proposed project is located well beyond the vicinity of the shoreline area and will not impact natural beach processes.

10. Marine and Coastal 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;

(b) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

(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;

(d) Promote research, study, and understanding of ocean and coastal processes, impacts of climate change and sea level rise, marine life, and other ocean resources to acquire and inventory information necessary to understand how ocean development activities relate to and impact ocean and coastal resources; and

(e) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: The project is not located in the vicinity of the shoreline. The use of appropriate BMPs and the proposed drainage system will mitigate any potential impacts to marine resources.

In addition to the foregoing objectives and policies, HRS, Section 205A-30.5, Prohibitions, provides specifications for the limitation of lighting in coastal shoreline areas in relation to the granting of SMA permits:

(a) No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:

(1) Directly illuminates the shoreline and ocean waters; or

(2) Is directed to travel across property boundaries toward the shoreline and ocean waters.

(b) Subsection (a) shall not apply to special management area use permits for structures with:

(1) An outdoor lighting fixture that is located on the grounds of a hotel, hotel-condominium, or condominium-hotel as defined in section 486K-1; provided that:

(A) The outdoor lighting fixture is located underwater or is directed downward and illuminates a limited area of no more than thirty feet into the shoreline and ocean waters; or

(B) The outdoor lighting fixture is the only practicable means of ensuring the safety and security of guests, visitors, and employees; and

(2) Artificial lighting provided by a government agency or its authorized users for government operations, security, public safety, or navigational needs; provided that a government agency or its authorized users shall make reasonable efforts to properly position or shield lights to minimize adverse impacts.

(c) The authority shall adopt rules under chapter 91 setting forth procedures for implementing this section.

Response: The proposed project is located in the Ha'ikū-Pauwela area, over a mile from the shoreline. No impacts on the shoreline or ocean waters will occur with the implementation of the project and its related improvements. The project will comply with applicable requirements of the County's Outdoor Lighting Ordinance.

SUMMARY OF UNAVOIDABLE IMPACTS ON THE ENVIRONMENT AND RESOURCES

IV

IV. SUMMARY OF UNAVOIDABLE IMPACTS ON THE ENVIRONMENT AND RESOURCES

The construction of the project may result in certain unavoidable impacts, including noise and air quality impacts associated with the operation of construction equipment. Air quality may also be temporarily impacted by dust generated by site work. Any construction-related impacts will be temporary and mitigated through the implementation of appropriate BMPs. In addition, operation of the fire station may result in minor and brief impacts to ambient noise levels in the immediate vicinity.

The development of the proposed project will involve the commitment of vacant and undeveloped lands. In addition, the proposed action would involve a commitment of fuel, labor, funding, and material resources. However, the commitment of resources necessary to implement the proposed project is considered justified, given the eventual emergency response benefits to be realized through the completion of the new fire station.

In the long-term, the construction of the new fire station is not anticipated to create any significant, long-term adverse environmental effects.

ALTERNATIVES TO THE PROPOSED ACTION

V

V. ALTERNATIVES TO THE PROPOSED ACTION

A. PREFERRED ALTERNATIVE

The proposed project involves the development of a fire station in the Haʻikū area at a location that has been deemed to be suitable based on the operational requirements of the DF&PS and an assessment of potential alternative sites. The new Haʻikū Fire Station involves the construction of a new 10,360 square foot fire station, an estimated 40,000 gallon water storage tank for fire fighting purposes, an approximately 1,600 square foot storage building, a parking lot, an access driveway off of Hāna Highway and related water, wastewater, and electrical improvements on a 6.1-acre portion of a parcel of land owned by the County of Maui and within the County right-of-way (ROW) along East Kuiaha Road. Currently, residents living in the area are not assured adequate fire protection, as the nearest fire station, located in Pāʻia, is about six (6) miles away. The new facility would provide much needed fire coverage for the Haʻikū area and its residents. The station's current proposed location (in the lower elevations of the property) also conforms to the preferences of the Haʻikū residents expressed during the site selection process for the project. As the population in this region grows, fire protection in turn will need to expand. Establishing necessary infrastructure in the region now will ensure that future fire protection needs are provided for as population in the region grows over time. For these reasons, the proposed project has been selected as the preferred alternative, as it meets both the current and future needs of the Haʻikū region and its residents.

B. SITE SELECTION ALTERNATIVE

Various alternative potential properties were evaluated during a site selection process that was conducted by the DF&PS prior to the acquisition of the subject property by the County of Maui. As part of this process, the DF&PS held a community meeting at Haʻikū Elementary School on April 10, 2007. The purpose of this meeting was to (1) inform the community of the need for an additional fire service facility in the Haʻikū region; (2) provide an overview on the criteria evaluated during the review of potential alternative sites for the project; and (3) receive comments on the preferred site (the subject property) that was being recommended as a result of the site selection analysis. A copy of the PowerPoint presentation delivered at this meeting is presented as **Appendix "H-1"**. Additionally, as discussed in Chapter 1.C of this document, the DEA for the proposed project published in The Environmental Notice on January 8, 2011 generated some community concerns. In response to the feedback generated by the 2011 DEA and prior to moving forward, a Feasibility Study was conducted in 2021 by DF&PS. Three (3) additional properties were identified and compared against the originally considered site to determine if there are considerations in location, permitting or design that would warrant relocating the proposed fire station. The analysis concluded that the originally considered site offers substantial advantages over the other potential site alternatives in that it is already owned by the

County of Maui, requires the fewest entitlements (given its location within a Rural Growth Boundary), has architectural and engineering plans that are already tailored to the specific property, and is located near the Ha'ikū community's historic incident locations. All of the other properties have similar infrastructure constraints, such as the need for offsite waterline upgrades and potential for roadway improvements, and no significant advantages to overcome the investments already made at the originally considered site. Refer to **Appendix "H-2"**.

The DF&PS has chosen to proceed with the development of the proposed fire station on the originally (preferred) selected site on a portion of the property situated at a lower elevation. While there are distinct operational advantages associated with locating a fire station at the highest possible elevation on a piece of property, the DF&PS feels that it is important, in this particular instance, to minimize the extent to which the facility can be observed from surrounding residential areas.

C. PROJECT DESIGN ALTERNATIVES

The DF&PS has placed high priority on the need to design a fire station that is appropriate given the agricultural and rural identity of the surrounding Ha'ikū areas. A central component of this effort has been to incorporate design features, where feasible, that reflect the various architectural and land use objectives set forth in both the Pā'ia-Ha'iku Country Town Design Guidelines and the Pa'ia-Ha'iku Community Plan. These planning documents are intended to guide future development in the area to ensure that new projects fit in and are consistent with the history and overall unique characteristics of the community. For example, in evaluating alternative roof designs for the proposed facility, the DF&PS decided that a "saw-tooth" roof design would allow the fire station to take on a more human scale and blend in more appropriately with Ha'ikū's rural surroundings. This type of roof design is a characteristic design element reminiscent of when the region was used by plantations for large-scale agricultural crop cultivation, such as pineapples. Ha'ikū Cannery and the Kahului Cannery represent good examples of prominent buildings that incorporated these kinds of roof designs when they were first developed back in the plantations days. The preferred alternative represents a culmination of this multi-pronged design review process.

D. WATER INFRASTRUCTURE ALTERNATIVES

Extensive consultation with the Department of Water Supply has been undertaken as part of the EA preparation process and overall project planning. As a result of this dialogue, it was determined that the existing system infrastructure in the vicinity of the project site is not adequate to fully cater to the estimated drinking and fire flow requirements of the proposed fire station. As such, the existing system would need to be upgraded to bring water from the Kaupakalua storage tank to the new Ha'ikū Fire Station. This alternative consists of constructing 4,200 linear feet of 8-inch waterline starting from the intersection

of Ha'ikū Road and West Kuiaha Road and running along Ha'ikū Road to its intersection with East Kuiaha Road near the existing water meter on the project site. Where Ha'ikū Road crosses Kuiaha Gulch, the proposed waterline would be above-ground and supported on a beam parallel to the existing bridge. This existing bridge span is approximately 35 feet. The beam would not touch the existing bridge and would have foundation supports on either side of the gulch. This method of waterline crossing would eliminate the need for work to be undertaken within the gulch.

When the 2011 DEA was published, the offsite waterline alternative was determined to be the most practicable solution available given other potential engineering solutions (such as drilling new groundwater wells) and the importance of securing a timely and reliable source of water supply to service the unique needs of a fire station. Due to the cost of the alternative, however, it has since been determined by the Department of Water Supply that an onsite water storage tank dedicated to the firefighting needs of this facility, in the event of a fire at the fire station, could instead be constructed. This alternative allowed for the scope of the proposed offsite water improvements to be significantly reduced. Instead, in consultation with DWS, DF&PS has agreed to install 300 feet of 8-inch water main along East Kuiaha Road between the project's water meters and the East Kuiaha Road-Ha'ikū Road intersection.

E. ORIGINAL PROJECT SCOPE ALTERNATIVE

The original scope of the Ha'ikū Fire Station that was evaluated in the 2011 DEA involved the development of administrative, vehicle storage, and utility buildings. The main single-story administrative building (approximately 10,360 square feet, including covered exterior walkways), includes offices, dormitories, a work-out area, dining and kitchen facilities, and other support functions necessary for the estimated 15 personnel that will be assigned to the station. Various other related improvements proposed as part of the original project included site grading and grubbing, landscaping, the installation of utilities, and the construction of an access driveway off of Hāna Highway and associated site-related roadway improvements.

An emergency helipad was also proposed as part of the original plan for the project. The helipad was located on the southwestern side of the fire station building. In addition, an ecological wastewater treatment system was also proposed to treat wastewater from the new fire station to a R-3 standard, consisting of a primary settling tank (septic tank), a lined vegetated area for secondary treatment, a pump station, and a subsurface drip irrigation disposal system. The ecological wastewater treatment system would have allowed the reuse of treated effluent for the irrigation of landscaping within the property, thereby reducing potable water consumption for the proposed project. Two (2) wind turbines, each rated to produce four (4) kilowatts (kw) of power, were also proposed to offset the fire station's energy consumption using a viable source of renewable energy. The overall height of each vertical axis wind turbine would have been no more than 35

feet, with approximately 15 feet of separation between the existing grade and the bottom of the turbine assembly. Also proposed was the construction of 4,200 linear feet of an 8-inch waterline starting from the intersection of Ha'ikū Road and West Kuiaha Road and running along Ha'ikū Road to its intersection with East Kuiaha Road near the existing water meter on the project site. The original proposal also called for a subdivision of the 6.1-acre project site from the larger 27.9 acre parcel. The subdivision action also triggered road widening improvements along East Ha'ikū Road.

For various reasons, DF&PS decided not to move forward with the originally proposed project following publication of the DEA in 2011. Further community consultation and an alternative site analysis study resulted in DF&PS electing to make the following project modifications:

- Elimination of previous proposal to subdivide the lot from the larger parcel, eliminating the need for road widening improvements along East Ha'ikū Road.
- Elimination of a 4,200-foot offsite waterline and incorporation of an estimated 40,000-gallon water tank onsite for fire fighting purposes.
- Deletion of helicopter landing pad
- Deletion of grassed pavement and concrete curb
- Deletion of wind turbine
- Deletion of wastewater treatment facility, lift station, wetland area, and disposal field
- Deletion of solar hot water system and provision for future installation of PV panels on roof
- Revision of all skylights to solar tubes
- Provision of a new approximately 1,600 square foot apparatus storage structure.
- Installation of 300 feet of 8-inch water main along East Kuiaha Road

F. NO ACTION ALTERNATIVE

The "no action" alternative would see the Ha'ikū area remain without adequate fire coverage and would also see the existing site location remain as vacant land. The "no action" alternative would not meet the present and future needs of Ha'ikū residents in providing adequate fire protection. The existing facilities of the Pā'ia Fire Station are located too far away to swiftly respond to emergency calls in much of the Ha'ikū area. The

"no action" alternative would, therefore, not meet the objective of providing residents of the Ha'ikū area with adequate fire protection services.

G. DEFERRED ACTION ALTERNATIVE

A "deferred action" alternative would have similar consequences to the "no action" alternative in terms of leaving the residents of the Ha'ikū area without adequate fire protection. This alternative could also result in higher development costs due to increases in labor and material costs over time.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

VI

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The proposed Ha'ikū Fire Station project and related improvements are anticipated to result in the irreversible and irretrievable commitment of land and fiscal resources. Other resource commitments include energy, labor, and material resources. Impacts relating to the use of these resources should be minimal, especially when weighed against the expected positive socio-economic benefits to be derived from the project, versus the consequences of taking no action.

In addition, the proposed project is not anticipated to require a substantial commitment of government services or facilities, nor is it anticipated to place additional demands on other services such as police, medical, and social care.

SIGNIFICANCE CRITERIA ASSESSMENT

VII

VII. SIGNIFICANCE CRITERIA ASSESSMENT

The significance criteria of Section 12, of the Hawai'i Administrative Rules (HAR), Title 11, Chapter 200, "Environmental Impact Statement Rules", were reviewed and analyzed to determine whether the proposed project will have a significant adverse impact to the environment. The 2011 DEA for this project was submitted prior to the repeal of HAR, Chapter 200 and adoption of HAR, Chapter 200.1. Therefore, and as discussed in Chapter I, the project is being reviewed under the HAR, Chapter 200 significance criteria. The following analysis is provided:

1. **No Irrevocable Commitment to Loss or Destruction of any Natural or Cultural Resources Would Occur as a Result of the Project**

   The project site is currently vacant. There are no known rare, threatened, or endangered species of flora, fauna, avifauna, or important habitats located within the project site. Refer to **Appendix "B"**. No significant natural or cultural resources have been identified on the subject property. Refer to **Appendix "C-1"** and **Appendix "C-2"**. Should there be unanticipated finds of culturally significant material during project construction, SHPD will be notified and appropriate mitigative measures implemented in accordance with SHPD program requirements.

   DF&PS will continue consultation with SHPD as the proposed project moves through the Planning Department-initated DBA, CPA, and COZ and construction permitting processes.

2. **The Proposed Action Would Not Curtail the Range of Beneficial Uses of the Environment**

   The proposed action is not anticipated to result in adverse environmental impacts. There will be no consequent curtailment of uses of the environment resulting from the proposed action.

3. **The Proposed Action Does Not Conflict with the State's Long-Term Environmental Policies or Goals or Guidelines as Expressed in Chapter 344, Hawai'i Revised Statutes**

   The State's Environmental Policy and Guidelines are set forth in Chapter 344, HRS. The proposed action is in consonance with the policies and guidelines of Chapter 344, HRS. The loss of approximately 6.1 acres of agricultural lands is not deemed significant when compared to the public safety needs addressed by the new fire station.

4. **The Economic or Social Welfare of the Community or State Would Not Be Substantially Affected**

   The proposed action would provide a direct, short-term economic benefit to the community during its construction phase and enhanced fire protection services to area residents

during its operational phase. The implementation of the project will result in lower insurance premiums for surrounding landowners served by the new fire station. There are no adverse long-term economic or social welfare impacts associated with the proposed action.

5. **The Proposed Action Does Not Affect Public Health**

The proposed action would have a direct, positive impact to public health, as the DF&PS will be able to fulfill its goals more capably both in emergency protection and educational outreach. No adverse impacts to public health are anticipated to result from the proposed action.

6. **No Substantial Secondary Impacts, Such as Population Changes or Effects on Public Facilities are Anticipated**

The proposed action is not deemed a population generator. There are also no anticipated adverse effects upon public services, such as police, medical, educational, or waste collection services. Beneficial impacts to fire protection services are anticipated to result from the new fire station.

7. **No Substantial Degradation of Environmental Quality is Anticipated**

During project implementation, appropriate measures such as BMPs, will be utilized to mitigate potential adverse environmental impacts. The proposed action will have no substantial adverse impact to environmental quality.

8. **The Proposed Action Does Not Involve a Commitment to Larger Actions, Nor Would Cumulative Impacts Result in Considerable Effects on the Environment**

The proposed action is not part of or linked to any larger action. The proposed project is not anticipated to create any cumulative impacts that would result in considerable effects upon the environment.

9. **No Rare, Threatened or Endangered Species or Their Habitats Would Be Adversely Affected By the Proposed Action**

There are no identified rare, endangered, or threatened species or habitats within the project vicinity. Thus, no significant adverse impacts are anticipated from the proposed action.

10. **Air Quality, Water Quality or Ambient Noise Levels Would Not Be Detrimentally Affected by the Proposed Project**

During the construction and operation of the new fire station and related improvements, there may be minor and short-term impacts to air and noise quality. Appropriate BMP's

will be implemented to minimize short-term impacts. No significant adverse impacts to water quality are anticipated.

11. The Proposed Project Would Not Affect Environmentally Sensitive Areas, Such as Flood Plains, Tsunami Zones, Erosion-prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters or Coastal Waters

The project site is not located within and would not affect environmentally sensitive areas. The Flood Insurance Rate Map (FIRM) for this region indicates that the project site is located in Zone X, areas of minimal flooding. In addition, the project site is located beyond the reaches of the tsunami inundation zone. The project site is not a shoreline property, nor is it situated near streams, wetland areas, or other areas that would trigger flooding concerns. Soils underlying the project site are not considered to be erosion-prone. There are no geologically hazardous lands, estuaries, or coastal waters within or adjacent to the project site.

The project site is not located in or adjacent to any environmentally sensitive areas. Potential impacts to downstream properties will be mitigated through appropriate BMPs during construction-related activities, as well as drainage improvements.

12. The Proposed Action Would Not Substantially Affect Scenic Views and Viewplanes Identified in County Plans or Studies

The subject property is currently vacant land and is not identified as a scenic resource. The project site is not part of a designated scenic corridor, either inland or shoreline related. Therefore, the proposed action is not anticipated to result in substantive, adverse impacts to identified scenic vistas or viewplanes. There are no residences or public view areas in the immediate area that would have viewplanes significantly impacted by the proposed structures.

13. The Proposed Action Would Not Require Substantial Energy Consumption

The proposed action will involve the short-term commitment of fuel for equipment, vehicles, and machinery during construction activities. However, this is not anticipated to result in the substantial consumption of energy.

In conclusion, based on the analysis and findings presented in this Final Environmental Assessment, the DF&PS has issued a Finding of No Significant Impact (FONSI) for the proposed action.

LIST OF PERMITS AND APPROVALS

VIII

VIII. LIST OF PERMITS AND APPROVALS

The following permits and approvals will be required prior to the implementation of the project.

State of Hawai'i

1. State Land Use Commission District Boundary Amendment (DBA) for 6.1-acre project site to be processed by County of Maui due to project area being less than 15 acres (County-initiated)

2. Construction Permits (Permit to Perform Work Within State Highway)

3. National Pollutant Discharge Elimination System (NPDES) Permit

4. Community Noise Permit, as applicable

County of Maui

1. Community Plan Amendment (CPA) for 6.1-acre project site (County-initiated)

2. County Change of Zoning (COZ) for 6.1-acre project site (County-initiated)

3. Construction Permits (Grubbing, Grading and Roadway)

PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

IX

IX. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies were consulted during preparation of the DEA. Agency comments and responses to substantive comments are included herein.

FEDERAL

1. Larry Yamamoto, State Conservationist
   U.S. Department of Agriculture
   Natural Resources Conservation Service
   P.O. Box 50004
   Honolulu, Hawai'i 96850-0001

2. Ranae Ganske-Cerizo, Soil Conservationist
   Natural Resources Conservation Service
   U.S. Department of Agriculture
   77 Hookele Street, Suite 202
   Kahului, Hawai'i 96732

3. George Young
   Chief, Regulatory Branch
   U.S. Department of the Army
   U.S. Army Engineer District, Honolulu
   Regulatory Branch
   Building 230
   Fort Shafter, Hawai'i 96858-5440

4. Dave Wesley, Deputy Regional Director
   U. S. Fish and Wildlife Service
   Pacific Region
   911 NE 11th Avenue
   Portland, Oregon 97232

5. Patrick Leonard
   Field Supervisor
   U. S. Fish and Wildlife Service
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   Honolulu, Hawai'i 96813

STATE AGENCIES

6. Russ K. Saito, State Comptroller
   Department of Accounting and General Services
   1151 Punchbowl Street, #426
   Honolulu, Hawai'i 96813

7. Sandra Lee Kunimoto, Chair
   Department of Agriculture
   1428 South King Street
   Honolulu, Hawai'i 96814-2512

8. Theodore E. Liu, Director
   State of Hawai'i
   Department of Business, Economic Development & Tourism
   P.O. Box 2359
   Honolulu, Hawai'i 96804

9. Patricia Hamamoto, Superintendent
   State of Hawai'i
   Department of Education
   P.O. Box 2360
   Honolulu, Hawai'i 96804

10. Heidi Meeker
    Planning Division
    Office of Business Services
    Department of Education
    c/o Kalani High School
    4680 Kalanianaole Highway, #T-B1A
    Honolulu, Hawai'i 96821

    cc: Bruce Anderson, Complex Area Superintendent (Central/ Upcountry Maui)

11. Kaulana Park, Chairman
Department of Hawaiian Home Lands
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Honolulu, Hawai'i 96805

12. Chiyome Fukino, M.D., Director
State of Hawai'i
Department of Health
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13. Alec Wong, P.E., Chief
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14. Patti Kitkowski
Acting District Environmental Health
Program Chief
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Department of Health
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15. Laura Thielen, Chairperson
State of Hawai'i
Department of Land and Natural Resources
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16. Dr. Puaalaokalani Aiu, Administrator
State of Hawai'i
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17. Brennon Morioka, Director
State of Hawai'i
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cc: Fred Cajigal

18. Major General Robert G.S. Lee, Director
Hawai'i State Civil Defense
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Honolulu, Hawai'i 96816-4495

19. Katherine Kealoha, Director
Office Of Environmental Quality Control
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Honolulu, Hawai'i 9681

20. Clyde Nāmu`o, Administrator
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21. Abbey Seth Mayer, Director
State of Hawai'i
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22. Dan Davidson, Executive Officer
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COUNTY AGENCIES

23. Charmaine Tavares, Mayor
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200 South High Street
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24. Deidre Tegarden, Director
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25. Gen Iinuma, Administrator
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26. Jeffrey A. Murray, Fire Chief
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27. Lori Tsuhako, Director
County of Maui
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One Main Plaza
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28. Tamara Horcajo, Director
County of Maui
Department of Parks and Recreation
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29. Jeffrey Hunt, Director
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30. Gary Yabuta, Chief
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31. Milton Arakawa, Director
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32. Cheryl Okuma, Director
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33. Donald Medeiros, Director
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34. Jeffrey Eng, Director
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Department of Water Supply
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35. Danny Mateo, Council Chair
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36. Michael J. Molina, Council Vice Chair
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37. Councilmember Gladys Baisa
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38. Councilmember Jo Anne Johnson
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39. Councilmember Sol Kahoohalahala
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40. Councilmember Bill Medeiros
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41. Councilmember Wayne Nishiki
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42. Councilmember Joseph Pontanilla
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43. Councilmember Mike Victorino
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44. **Hawaiian Telcom**
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45. Greg Kauhi, Manager, Customer Operations
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawai'i 96733

46. **Ha'ikū Community Association**
P. O. Box 1036
Ha'ikū, Hawai'i 96708

47. Pa'ia Main Street Association
c/o Jocelyn Perreira, Executive Director
Wailuku Main Street Association
1942 Main Street, Unit 101
Wailuku, Hawai'i 96793

DEC 0 9 2009

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 50004 Rm. 4-118
Honolulu, HI 96850
808-541-2600

December 7, 2009

Munekiyo & Hiraga, Inc.
Mark Alexander Roy, AICP, Project manager
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy,

Thank you for providing the NRCS the opportunity to review the Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at Haiku, Maui. Please find enclosed the NRCS Soil Survey Map, soil reports, and a map indicating areas of Important Farmlands. The Important Farmlands map has been enclosed for your aid in determining if an AD-1006 form, Farmland Impact Conversion Rating Form is needed for this project. Typically, this form is required on projects that convert farmlands into non-farmland uses, and have federal dollars attached to the project. See the website link below for more information on the Farmland Protection Policy Act, and a copy of the AD-1006 form, with instructions. The soil mapping does not identify any hydric soils in this project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impacts to these wetlands would need to demonstrate compliance with the "Clean Water Act", and may need an Army Corp of Engineers 404 permit.

The enclosed Soil Survey Map identifies all soil map units in the project area. The soil reports provide selected soil properties and interpretations, i.e. Small Commercial Buildings, soil layers with USDA textures, and engineering classifications. The limitation ratings for the selected uses, i.e. Small Commercial Buildings and Local Roads and Streets are Severe and Very Limited respectively. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

The NRCS Soil Survey is a general planning tool and does not eliminate the need for an onsite investigation. If you have any questions concerning the soils or interpretations for this project please call, Tony Rolfes, Assistant State Soil Scientist, (808) 541-2600 x129, or email, Tony.Rolfes@hi.usda.gov.

NRCS - Farmland Protection Policy Act Website: http://www.nrcs.usda.gov/programs/fppa/

Sincerely,

LAWRENCE T. YAMAMOTO
Director, Pacific Islands Area

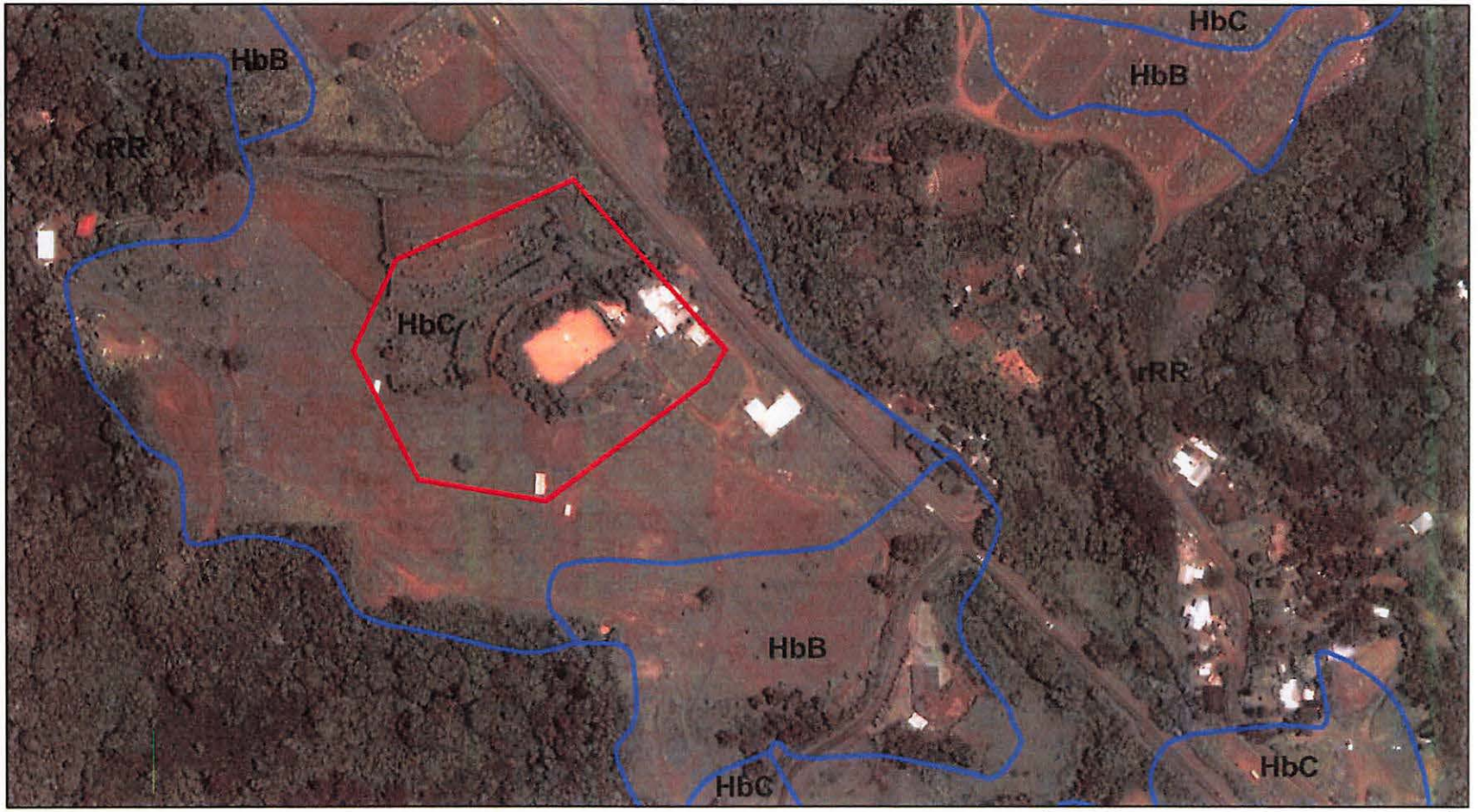
Cc Michael Robotham, Asst. Director for Soil Science and Natural Resource Assessments

Enclosures: 5 pages

Helping People Help the Land

An Equal Opportunity Provider and Employer

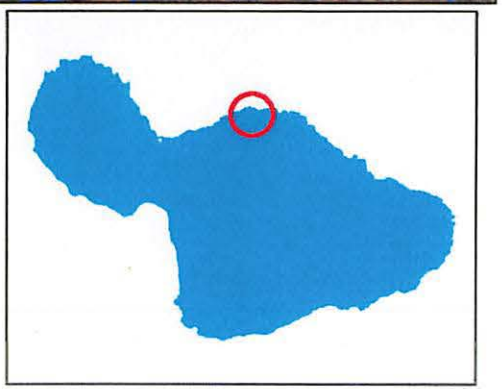
Proposed Haiku Fire Station Soil Map



0 165 330 660 990 1,320 Feet

N

NRCS 11/2009



103

Legend

- Approximate Project Area
- Soil map units

Proposed Haiku Fire Station Important Farmlands Map

Legend

- Approximate Project Area

Important Farmlands

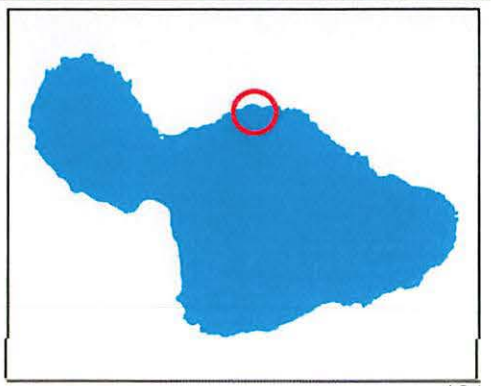
AGTYPE

- 0
- Prime Farmlands
- Unique Farmalnds
- Local and Statewide important Farmlands

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

N

NRCS 11/2009



Map Unit Legend

Island of Maui, Hawaii

Map symbol	Map unit name
HbC	Haiku clay, 7 to 15 percent slopes

Engineering Properties

Island of Maui, Hawaii

[Absence of an entry indicates that the data were not estimated. This report shows only the major soils in each map unit]

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percent passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
	In				*Pct*	*Pct*					*Pct*	
HbC:												
Haiku	0-14	Clay	MH-O (proposed)	A-7	0	0	100	95-100	95-100	95-100	55-75	15-30
	14-66	Clay, silty clay	MH-O (proposed)	A-7	0	0	100	95-100	95-100	95-100	55-75	15-30

Selected Soil Interpretations

Island of Maui, Hawaii

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The table shows only the top five limitations for any given soil. The soil may have additional limitations. This report shows only the major soils in each map unit]

*This soil interpretation was designed as a "limitation" as opposed to a "potential" or "suitability". The numbers in the value column range from 0.01 to 1.00. The larger the value, the greater the potential limitation.

Map symbol and soil name	Pct. of map unit	ENG - Small Commercial Buildings (HI)*		ENG - Local Roads and Streets*		URB/REC - Lawn, Landscape, Golf Fairway (HI)*	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HbC:							
Haiku	100	Severe		Very limited		Moderate	
		Slopes > 8%	1.00	Low strength	1.00	Clay in surface >= 40%	0.50
				Slope	0.37	Slopes 8 to 15%	0.37
						Surface pH from 3.5 to 5	0.04

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Lawrence Yamamoto, Director, Pacific Islands Area
Natural Resources Conservation Service
P. O. Box 50004, Room 4-118
Honolulu, Hawaii 96850

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Mr. Yamamoto:

Thank you for your letter dated December 7, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

Please find enclosed the NRCS Soil Survey Map, soil reports, and a map indicating areas of Important Farmlands.

Response: Thank you for your helpful assistance in providing us with a National Resources Conservation Service (NRCS), Soil Survey Map, soil reports, and a map indicating areas of Important Farmlands. We look forward to your continued support in completion of this project.

Comment No. 2:

The Important Farmlands map has been enclosed for your aid in determining if an AD-1006 form, Farmland Impact Conversion Rating Form is needed for this project. Typically, this form is required on projects that convert farmlands into non-farmland uses, and have federal dollars attached to the project. See the website link below for more information on the Farmland Protection Policy Act, and a copy of the AD-1006 form, with instructions. NRCS - Farmland Protection Policy Act Website: http://www.nrcs.usda.gov/programs/fppa/

Response: We acknowledge your recommendation to utilize the Important Farmlands map to determine if an AD-1006 form, Farmland Impact Conversion Rating Form is needed for this project. The applicant notes that should federal funds be used for the project, the necessary form will be submitted to your office.

Comment No. 3:

The soil mapping does not identify any hydric soils in this project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impacts to these wetlands would need to demonstrate compliance with the "Clean Water Act", and may need an Army Corp of Engineers 404 permit.

Response: We note your comments regarding potential Section 404, Clean Water Act requirements for the project. The applicant notes that there are no wetlands or potential areas of wetlands within, or adjacent to the project site. Therefore, impacts to wetlands or potential areas of wetlands are not anticipated from the project.

Comment No. 4:

The enclosed Soil Survey Map identifies all soil map units in the project area. The soil reports provide selected soil properties and interpretations, i.e. Small Commercial Buildings, soil layers with USDA textures, and engineering classifications. The limitation ratings for the selected uses, i.e. Small Commercial Buildings and Local Roads and Streets are Severe and Very Limited respectively. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

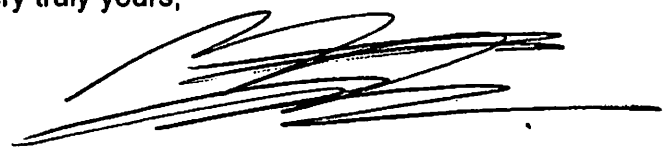
The NRCS Soil Survey is a general planning tool and does not eliminate the need for an onsite investigation.

Response: Thank you for providing us with a Soil Survey Map. A map and a description of the soils conditions relating to the project site will be included in the Draft Environmental Assessment (EA).

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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DEC 09 2009

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
77 Ho'okele Street, Suite 202
Kahului, HI 96732
Phone 808-871-5500
Fax 808-873-6184

December 7, 2009

Mr. Mark Alexander Roy
AICP, Project Manager
Munekiyo & Hiraga, Inc.
305 High St., Suite 104
Wailuku, HI 96793

Subject: Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007: 008 (por.), Haiku, Maui, Hawaii

Dear Mr. Roy:

We have no comments at this time.

Sincerely,

Ranae Ganske-Cerizo
District Conservationist

DEC 1 1 2009

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

December 9, 2009

Regulatory Branch

Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Mr Roy:

This responds to your request for written comments for a draft Environmental Assessment (dEA) which will address activities and impacts of the proposed Haiku Fire Station and Related Improvements located on portions of a 6.1-acre parcel identified as TMK: 227007008, Haiku, Maui.

The dEA should indicate whether waters of the United States, as typically represented by perennial or intermittent streams and wetlands, are in, or adjacent to, or absent from, the proposed project area. The dEA should state in appropriate sections whether there is the potential for waters of the U.S. to be impacted by construction of project structures and associated ground disturbing activities. Upon our receipt of the dEA, we will provide a determination whether a Department of Army (DA) permit for Section 404 activities of the Clean Water Act may, or may not be, required for the proposed Haiku Fire Station and Related Improvements project.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

Thank you for your consideration of potential impacts to the aquatic environment of the Haiku watershed. Please contact Mr. Farley Watanabe of my staff at 438-7701, facsimile 438-4060, or by email at Farley.K.Watanabe@usace.army.mil if you have any questions or need additional information. Please refer to File Number **POH-2009-00341** in any future correspondence with us.

Sincerely,

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

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

George P. Young, P.E., Chief
Regulatory Branch
U. S. Army Corps of Engineers
Honolulu District,
Department of Army
Building 230
Fort Shafter, Hawaii 96858-5440

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui (POH-2009-00341)

Dear Mr. Young:

Thank you for your letter dated December 9, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

The DEA should indicate whether waters of the United States, as typically represented by perennial or intermittent streams and wetlands, are in, or adjacent to, or absent from, the proposed project area. The DEA should state in appropriate sections whether there is the potential for waters of the U.S. to be impacted by construction of project structures and associated ground disturbing activities. Upon our receipt of the DEA, we will provide a determination whether a Department of Army DEA permit for Section 404 activities of the Clean Water Act may, or may not be, required for the proposed Haiku Fire Station and Related Improvements project.

Response: The Draft Environmental Assessment (EA) will include information on existing site conditions and potential impacts to waters of the United States from the proposed project.

Comment No. 2:

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C.1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

Response: We note your comment regarding the need to obtain a Department of the Army (DA) permit for any discharge of dredged and/or fill material into waters of the U.S. The applicant looks forward to receiving the Section 404 determination from your office following review of the Draft EA and will comply with any DA permit requirements for the project, as applicable.

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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DEC 2 9 2009

LINDA LINGLE
GOVERNOR

RUSS K. SAITO
COMPTROLLER

SANDRA L. YAHIRO
DEPUTY COMPTROLLER

(P)1337.9

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

DEC 2 8 2009

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Early Consultation Request
Proposed Haiku Fire Station and Related Improvements
Haiku, Island of Maui, Hawaii
TMK: (2) 2-7-007:008

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time.

If you have any questions, please call me at 586-0400 or have your staff call Mr. David DePonte of the Public Works Division at 586-0492.

Sincerely,

RUSS K. SAITO
State Comptroller

c: Ms. Katherine Kealoha, DOH OEQC
Mr. David Victor, DAGS - Maui

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

November 30, 2009

Mr. Mark Alexander Roy, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Mr. Roy:

Subject: Early Consultation for the Proposed Haiku Fire Station
Haiku, Maui TMK: 2-27-007: por 008

The Department of Education has no comment or concern.

Thank you for the opportunity to comment. If you have any questions, please call Heidi Meeker of the Facilities Development Branch at (808) 377-8301.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS
Lindsay Ball, CAS, Hana/Lahainaluna/Lanai/Molokai Complex Areas

DEC 15 2009

LINDA LINGLE
GOVERNOR
STATE OF HAWAI'I

KAULANA H. R. PARK
CHAIRMAN
HAWAIIAN HOMES COMMISSION

ANITA S. WONG
DEPUTY TO THE CHAIRMAN

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAI'I
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAI'I 96805

December 8, 2009

Mr. Mark Alexander Roy,
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Comments for Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at TMK: (2)2-7-007:008 (Por.), Haiku, Maui

This letter is to inform you that the Department of Hawaiian Home Lands (DHHL) has received your letter of November 17, 2009 regarding the County of Maui's request to construct a new fire station in Haiku.

After a review of your proposed action by our Land Management Division, it is believed that Hawaiian home lands will not be directly impacted by this project. However, the department supports your efforts to improve fire and emergency services to the area. The department has no significant comments to offer at this time. Please keep us informed of your progress.

Mahalo for the opportunity to provide our comments.

Should you have any questions, please call Todd Gray, Land Agent, at (808) 620-9460.

Aloha and mahalo,

Kaulana H. R. Park, Chairman
Hawaiian Homes Commission

DEC 14 2009

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to
EMD / CWB

12043PJF.09

December 10, 2009

Mr. Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

SUBJECT: Early Consultation Request for Proposed Haiku Fire Station and Related Improvements TMK Nos. (2) 2-7-007:008 (Por.) Haiku, Island of Maui, Hawaii

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project.

Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

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 are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for an NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

   a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. 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. An NPDES permit is required before the start of the construction activities.

   b. Hydrotesting water.

   c. Construction dewatering effluent.

   You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html.

3. For types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at:
http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF
Clean Water Branch

JF:rg

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Alec Wong, P.E., Chief
Clean Water Branch
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801-3378

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui (12043PJF.09)

Dear Mr. Wong:

Thank you for your letter dated December 10, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 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).*

Response: We note your comments that the proposed project must meet the criteria set forth in Sections 11-54-1.1 (Antidegradation Policy), 11-54-3 (Designated Uses) and 11-54-4 through 11-54-8 (Water Quality Criteria) of the Hawaii Administrative Rules (HAR).

Comment No. 2:

You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for an NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

a. *Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (l) acre of total land area. 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. An NPDES permit is required before the start of the construction activities.*
b. *Hydrotesting water.*
c. *Construction dewatering effluent.*

Response: The applicant's civil engineer will coordinate with the Clean Water Branch to address applicable NPDES permit requirements for the project.

Comment No. 3:

For types of wastewater not listed in Item No.2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

Response: As noted above, the applicant's civil engineer will coordinate with the Clean Water Branch to address applicable NPDES individual permit requirements for the project.

Comment No. 4:

Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting

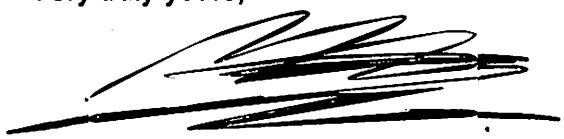
requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

Response: The project will comply with all applicable State Water Quality Standards as specified in Chapter 11-54, HAR.

We appreciate the input provided by your office and will include a copy of your letter in the Draft Environmental Assessment (EA) for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

December 3, 2009

Mr. Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Mr. Roy:

Subject: Early Consultation Request for Proposed Haiku Fire Station and Related Improvements, Haiku Maui. Hawaii
TMK: (2) 2-7-007:008 (Por.)

Thank you for giving us the opportunity to review and comment on this project. The following comments are offered:

1. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of this project.

2. National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.

It is strongly recommended that the Standard Comments found at the Department's website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or e-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Patti Kitkowski

Patti Kitkowski
Acting District Environmental Health Program Chief

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Patti Kitkowski, Acting District
Environmental Health Program Chief
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793-2102

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Ms. Kitkowski:

Thank you for your letter dated December 3, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of this project.

Response: Pursuant to Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control", a noise permit will be secured prior to commencement of construction, as applicable.

Comment No. 2:

National Pollutant Discharge Elimination System (NPDES) permit coverage may be required for this project. The Clean Water Branch should be contacted at 808 586-4309.

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

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Response: The applicant's civil engineer will coordinate with the Clean Water Branch to address applicable NPDES permit requirements for the project.

We appreciate the input provided by your office and will include a copy of your letter in the Draft Environmental Assessment (EA) for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 8, 2009

Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Mr. Mark Alexander Roy, AICP

Ladies and Gentlemen:

Subject: Early Consultation for Proposed Haiku Fire Station and Related Improvements

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Commission on Water Resource Management, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Morris M. Atta
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON

WILLIAM D. BALFOUR, JR.
SUMNER ERDMAN
NEAL S. FUJIWARA
CHIYOME L. FUKINO, M.D.
DONNA FAY K. KIYOSAKI, P.E.
LAWRENCE H. MIIKE, M.D., J.D.

KEN C. KAWAHARA, P.E.
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

December 1, 2009

RECEIVED
LAND DIVISION
2009 DEC -2 P 3:15
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

TO: Morris Atta, Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Proposed Haiku Fire Station, Maui

FILE NO.: N/A
TMK NO.: (2) 2-7-007:008 (por)

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://www.hawaii.gov/dlnr/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 EPA as having high water efficiency can be found at http://www.epa.gov/watersense/pp/index.htm.

☐ 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://hawaii.gov/dbedt/czm/initiative/lid.php.

☒ 6. We recommend the use of alternative water sources, wherever practicable.

☐ 7. 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.

Permits required by CWRM:
Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/resources_permits.htm.

☐ 8. 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.

☐ 9. A Well Construction Permit(s) is (are) required any well construction work begins.

☐ 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☐ 11. 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.

☐ 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.

☐ 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.

☐ 15. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 16. 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 there are any questions, please contact Charley Ice at 587-0218.

DEC 1 1 2009

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 9, 2009

Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Mr. Mark Alexander Roy, AICP

Ladies and Gentlemen:

Subject: Early Consultation for Proposed Haiku Fire Station and Related Improvements

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to Division of Aquatic Resources and Division of Forestry & Wildlife for their review and comment.

The Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Charlene E. Unoki
for Morris M. Atta
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION

2009 DEC -9 A 9:04

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 6, 2008

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

FROM: Morris M. Atta
SUBJECT: Early Consultation for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc. on behalf of County of Maui, Department of Fire & Public Safety

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by December 6, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
(x) We have no comments.
( ) Comments are attached.

Signed:
Date: 12/4/09

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

AQUATIC RESOURCES: 2713

DIRECTOR	
COMM. FISH	
AQ RES/ENV	
AQ REC	
PLANNER	
STAFF SVCS	
RCUH/UH	
STATISTICS	
AFRC/FED AID	
EDUCATION	
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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 6, 2008

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

RECEIVED
NOV 23 2009
AQUATIC RESOURCES

DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII
2009 DEC -9 P 2:43
RECEIVED LAND DIVISION

FROM: Morris M. Atta
SUBJECT: Early Consultation for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc. on behalf of County of Maui, Department of Fire & Public Safety

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by December 6, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed:
Date: 12 Dec. 09

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Morris M. Atta, Administrator
Land Division
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii 96809

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Mr. Atta:

Thank you for your letters dated December 8, 2009, and December 9, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety (DF&PS), we offer the following information in response to the comments noted in your letters:

Comment No. 1 (Commission on Water Resources Management):

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.

Response: We note your comment regarding the County of Maui's Water Use and Development Plan (WUDP). Coordination with the Planning Department and/or Department of Water Supply will be undertaken through the Chapter 343, HRS Environmental Assessment (EA), County land use entitlements and construction plans review processes. It is through these coordination processes that the project will be recognized as a relevant component of the WUDP.

Comment No. 2 (Commission on Water Resources Management):

We recommend the use of alternative water sources, wherever practicable.

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

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Response: We acknowledge your comment regarding use of alternative water sources. An evaluation of alternative water sources and water conservation planning resources will be completed as part of the Leadership in Energy and Environmental Design (LEED) certification process for the project.

In addition to the above noted comments, we received input from your department's Division of Forestry & Wildlife (DOFW) and Division of Aquatic Resources (DAR). The applicant acknowledges that DOFW has no comments on the proposed project. The applicant also acknowledges that the DAR has no objections to the proposed project.

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
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DEC 2 3 2009

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI
JIRO A. SUMADA

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.3479

December 18, 2009

Mr. Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Haiku Fire Station and Related Improvements
Early Consultation (EC) for a Draft Environmental Assessment (DEA)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project to construct a new fire station and related improvements on a 6-acre parcel that is owned by Maui County and is located at the intersection of East Kuiaha Road and the State highway, Hana Highway.

DOT understands that the Maui County Department of Fire and Public Safety's new station will consist of a 7,528 square foot administrative building, vehicle storage and utility building facilities for the six personnel that will be assigned to the station. Primary access for emergency vehicles will be via Hana Highway. A secondary access driveway for non-emergency vehicles will be from either Hana Highway or East Kuiaha Road.

Given the potential impacts to Hana Highway, DOT requests the following comments be addressed in the DEA:

1. The applicant shall coordinate access requirements with the DOT Highways Division, Rights-of-Way Branch.

2. The proposed subject fire station and related improvements, especially parking spaces for emergency vehicles and personnel, should be designed and oriented in such a way as to preclude vehicle back-ups onto Hana Highway.

3. Given that the proposed project site is located on a rolling terrain, the applicant must submit a drainage report and grading plans to the DOT Highways Division for review and approval. Diversion of additional surface water run-off onto Hana Highway is not permitted.

4. The DEA should assess the traffic impacts to Hana Highway and address issues such as, but not limited to, access improvements, project generated traffic, traffic safety controls measures or warning signs and the safety of approaching motorists and bicycles at the fire station, especially when there is an emergency call. A copy of the DEA and any traffic assessment should also be forwarded to the DOT Highways Division Maui District Engineer for concurrent review.

5. A permit is required from DOT Highways Division to transport oversized and overweight equipment/loads within the State highway facilities.

6. Construction plans for all work done within the State highway rights-of-way must be submitted to DOT Highways Division for review and approval.

DOT appreciates the opportunity to provide comments and requests four (4) copies of the DEA. If there are any questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 587-2356.

Very truly yours,

BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

c: David Thyne, Maui County Department of Fire and Public Safety

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Office of the Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui (STP 8.3479)

Dear Sir or Madame:

Thank you for your department's letter dated December 18, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

The applicant shall coordinate access requirements with the DOT Highways Division, Rights-of-Way Branch.

Response: The applicant acknowledges your comment. Access requirements for the proposed project will be coordinated with Department of Transportation (DOT) Highways Division, Rights-of-Way Branch.

Comment No. 2:

The proposed subject fire station and related improvements, especially parking spaces for emergency vehicles and personnel, should be designed and oriented in such a way as to preclude vehicle back-ups onto Hana Highway.

Response: The applicant acknowledges your concerns regarding the need to avoid vehicle back-ups onto Hana Highway. Your comments will be forwarded to the project architect and engineer so that these concerns are reflected in the site plan for the project.

Comment No. 3:

Given that the proposed project site is located on a rolling terrain, the applicant must submit a drainage report and grading plans to the DOT Highways Division for review and approval. Diversion of additional surface water run-off onto Hana Highway is not permitted.

Response: A drainage report and grading plans will be submitted to the DOT Highways Division for review and approval. The drainage system for the project will be designed to retain all increases in stormwater runoff, such that there are no impacts on downstream properties, including Hana Highway.

Comment No. 4:

The DEA should assess the traffic impacts to Hana Highway and address issues such as, but not limited to, access improvements, project generated traffic, traffic safety controls measures or warning signs and the safety of approaching motorists and bicycles at the fire station, especially when there is an emergency call. A copy of the DEA and any traffic assessment should also be forwarded to the DOT Highways Division Maui District Engineer for concurrent review.

Response: The applicant recognizes your concerns regarding the project's potential impact of traffic on Hana Highway. A Traffic Impact Assessment Report (TIAR) has been prepared by the traffic engineer, Wilson Okamoto Corporation, and will be included in the Draft Environmental Assessment (EA). A copy of the Draft EA will be forwarded to both your office and the DOT Highways Division Maui District Engineer for concurrent review.

Comment No. 5:

A permit is required from DOT Highways Division to transport oversized and overweight equipment/loads within the State highway facilities.

Response: A permit from DOT Highways Division to transport oversized and overweight equipment/loads within the State highway facilities will be obtained for the project, as applicable.

Comment No. 6:

Construction plans for all work done within the State highway rights-of-way must be submitted to DOT Highways Division for review and approval.

Response: Construction plans for wall work proposed to be completed within the State right-of-way along Hana Highway will be submitted to DOT Highways Division for review and approval.

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
Cathy Leong, Wilson Okamoto Corporation
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LINDA LINGLE
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE

DEC 0 7 2009

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

December 4, 2009

Mr. Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Early Consultation Request, Proposed Haiku Fire Station
Haiku, Maui, Hawaii

Thank you for the opportunity to comment on this project. After review of your letter and the maps sent for this project, we have no suggestions to make at this time.

We anticipate reviewing the Environmental Assessment when it is completed and will make any appropriate recommendations at that time.

If you have any questions, please contact Mr. Richard Stercho, Hazard Mitigation Planner, at (808) 733-4300, extension 583.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

DEC 15 2009

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD09/4142 B

December 8, 2009

Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

RE: Early consultation Environmental Assessment for the proposed Ha'ikū Fire Station and related improvements; Ha'ikū, Maui; TMK: (2) 2-7-007:008.

Aloha e Mark Alexander Roy,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned request for comment, dated November 17, 2009. According to the letter, Munekiyo & Hiraga, Inc. is preparing a Draft Environmental Assessment (EA) for the proposed Ha'ikū Fire Station, which would include a low-rise administrative facility, access roads, two wind turbines and a new off-site waterline of about 4,200 feet. OHA has reviewed the proposed project and offers the following comments at this time.

We appreciate the applicant's environmental intentions of following the Leadership in Energy and Environmental Design green building rating system, with a variety of environmental elements. In addition to those design features that were listed in the early consultation letter, we would urge the applicant to use native vegetation in its landscaping plan for the subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

OHA also reminds the applicant that Chapter 343 of the Hawaii Revised Statues (HRS) requires that the forthcoming Draft EA include a Cultural Impact Assessment (CIA). The CIA should include information relating to the traditional and customary practices and beliefs of the area's Native Hawaiians, and the community should be involved in this assessment. Consideration must also be afforded to any individuals accessing the project area for

constitutionally protected traditional and customary purposes, in accordance with the Hawai'i State Constitution, Article XII, Section 7.

OHA further requests clarification whether an archaeological inventory survey for the project will be submitted to the State Historic Preservation Division for review and approval. If so, OHA should be allowed the opportunity to comment on the criteria assigned to any cultural or archaeological sites identified within the archaeological inventory survey.

We also request the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance for the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. We look forward to reviewing and providing more detailed comments on the forthcoming Draft EA. If you have further questions, please contact Heidi Guth by phone at (808) 594-1962 or e-mail her at heidig@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Clyde W. Nāmuʻo, Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiʻolani Boulevard, Suite 500
Honolulu, Hawaii 96813

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui (HRD09/4142 B)

Dear Mr. Nāmuʻo:

Thank you for your letter dated December 8, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

We appreciate the applicant's environmental intentions of following the Leadership in Energy and Environmental Design green building rating system, with a variety of environmental elements. In addition to those design features that were listed in the early consultation letter, we would urge the applicant to use native vegetation in its landscaping plan for the subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama ʻāina and creates a more Hawaiian sense of place.

Response: We appreciate your positive feedback regarding the sustainable design elements that are being incorporated in the project and the commitment to the Leadership in Energy and Environmental Design (LEED) certification process. The applicant also notes that various native plants are to be utilized in the landscaping design for the project. A copy of the preliminary landscaping plan for the project will be included in the Draft Environmental Assessment (EA).

Comment No. 2:

OHA also reminds the applicant that Chapter 343 of the Hawaii Revised Statues (HRS) requires that the forthcoming Draft EA include a Cultural Impact Assessment (CIA). The CIA should include information relating to the traditional and customary practices and beliefs of the area's Native Hawaiians, and the community should be involved in this assessment. Consideration must also be afforded to any individuals accessing the project area for constitutionally protected traditional and customary purposes, in accordance with the Hawai'i State Constitution, Article XII, Section 7.

Response: The Draft EA for the project will include a CIA, prepared in accordance with Chapter 343, HRS. The CIA will address Native Hawaiian practices and beliefs associated with the area of the proposed project, as well as traditional and customary access rights, in accordance with the Hawaii State Constitution, Article XII, Section 7.

Comment No. 3:

OHA further requests clarification whether an archaeological inventory survey for the project will be submitted to the State Historic Preservation Division for review and approval. If so, OHA should be allowed the opportunity to comment on the criteria assigned to any cultural or archaeological sites identified within the archaeological inventory survey.

Response: An Archaeological Inventory Survey (AIS) has been prepared for the project. The AIS was accepted by the State Historic Preservation Division (SHPD) on November 12, 2010. A copy of the AIS and the SHPD acceptance letter will be included in the Draft EA for the project, a copy of which will be provided to OHA for review and comment.

Comment No. 4:

We also request the applicant's assurances that should iwi kopuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance for the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Response: We note your comment regarding the discovery of iwi kupuna or Native Hawaiian cultural or traditional deposits during the construction of the project. In the event that these deposits are found, construction work will cease in the immediate vicinity of the find, and SHPD will be contacted immediately to establish the appropriate level of mitigation.

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Michael Dega, Scientific Consulting Services, Inc.
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DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

DEC 1 1 2009

CHARMAINE TAVARES
Mayor

LORI TSUHAKO
Director

JO-ANN T. RIDAO
Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

December 8, 2009

Mr. Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Mark Alexander Roy

Subject: Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (Por.), Haiku, Maui, Hawaii

The Department has reviewed the Early Consultation Request for the above subject project. Based on our review, we have determined that the subject project is not subject to chapter 2.96, Maui County Code. At the present time, the Department has no additional comments to offer.

Please call Ms. Cara Bohne of our Housing Division at 270-5748 if you have any questions.

Sincerely,

Wayde T. Oshiro

WAYDE T. OSHIRO
Housing Administrator

cc: Director of Housing and Human Concerns

DEC 1 1 2009

CHARMAINE TAVARES
Mayor

TAMARA HORCAJO
Director

ZACHARY Z. HELM
Deputy Director

(808) 270-7230
FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

December 7, 2009

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at TMK: 2-7-007:008 (Por.), Haiku, Maui, Hawaii

Dear Mr. Roy:

We have reviewed the proposed subject project and have no comments or objections to the proposed project.

Thank you for the opportunity to review and comment on this matter. Please feel free to contact me or Mr. Robert Halvorson, CIP Coordinator, Planning and Development Division at 270-8017 should you have any other questions.

Sincerely,

TAMARA HORCAJO
Director of Parks & Recreation

c: Patrick Matsui, Chief of Parks Planning and Development

TH:RH:do

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

DEC 18 2009

COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 15, 2009

Mr. Mark Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

SUBJECT: PRE-CONSULTATION COMMENTS IN PREPARATION OF A DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS LOCATED MAUKA OF HANA HIGHWAY AT EAST KUIAHA ROAD, HAIKU, MAUI, HAWAII; TMK: (2) 2-7-007:008 (POR.) (EAC 2009/0044)

The Department of Planning (Department) is in receipt of the above-referenced request for early consultation comments for the Haiku Fire Station Draft EA. The Department understands the proposed action includes the following:

- The Applicant is County of Maui, Department of Fire and Public Safety and the project is proposed on land owned by the County of Maui;
- The project will consist of administrative, vehicle storage, and utility buildings on approximately 6.1 acres; and
- The fire station will be designed to U.S. Green Building Council's LEED green building rating system.

Based on the foregoing, the Department provides the following comments in preparation of the Draft EA:

1. The land use designations for the project area are as follows:

   - State Land Use: Agriculture
   - Paia-Haiku Community Plan: Agriculture
   - County Zoning: Agriculture
   - Other: Outside the Special Management Area (SMA)

   Please have these designations confirmed through the Department's Zoning Administration and Enforcement Division (ZAED) via a Zoning and Flood Confirmation Form.

2. The Department concurs that the proposed Community Plan Amendment and use of county funds and lands are "triggers" that require compliance with Chapter 343, Hawaii Revised Statutes (HRS);

3. If the fire station is to be built on State Agricultural land, a Land Use Commission Special Use Permit would be required to be processed through the Maui Planning Commission (Commission) or a Land Use District Boundary Reclassification to Rural or Urban and a Change in Zoning to Public/Quasi-Public would be obtained;

4. Please provide the level of LEEDS certification you plan to pursue and describe in detail how you plan to achieve this level. This will prove helpful when your project goes before the Commission;

5. Please note that the Department is currently revising Chapter 19.31, Public/Quasi-Public Districts of the Maui County Code. It may prove prudent to contact the Department's Administrative Planning Officer Joseph Alueta at (808) 270-7735 to obtain a draft copy of the proposed revisions. It is likely the code revisions will be processed before your proposal is processed and you would be subject to these revisions; and

6. The County owned parcel is 27.9 acres in size. Provide some information on future uses of the rest of the parcel not to be utilized for the proposed fire station. Maybe the entire 27.9 acres should be re-designated concurrently rather than piece-emailing future re-designations.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch at joseph.prutch@mauicounty.gov or at 270-7512.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for JEFFREY S. HUNT, AICP
Planning Director

xc: Joseph M. Prutch, Staff Planner
Joseph W. Alueta, Administrative Planning Officer
EAC File
General File

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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Kathleen Aoki, Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Ms. Aoki:

Thank you for your letter dated December 15, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety (DF&PS), we offer the following information in response to the comments noted in your letter:

Comment No. 1:

The land use designations for the project area are as follows:

- *State Land Use: Agriculture*
- *Paia-Haiku Community Plan: Agriculture*
- *County Zoning: Agriculture*
- *Other: Outside the Special Management Area (SMA)*

Please have these designations confirmed through the Department's Zoning Administration and Enforcement Division (ZAED) via a Zoning and Flood Confirmation Form.

Response: We note the information on land use designations provided in your comment. A Zoning and Flood Confirmation Form has been completed for confirmation of these designations.

Comment No. 2:

The Department concurs that the proposed Community Plan Amendment and use of county funds and lands are "triggers" that require compliance with Chapter 343, Hawaii Revised Statutes (HRS);

Response: We acknowledge your comment. These triggers of the Chapter 343, HRS process will be discussed in the Draft EA.

Comment No. 3:

If the fire station is to be built on State Agricultural land, a Land Use Commission Special Use Permit would be required to be processed through the Maui Planning Commission (Commission) or a Land Use District Boundary Reclassification to Rural or Urban and a Change in Zoning to Public/Quasi-Public would be obtained;

Response: We note your comment regarding the land use entitlements required for the proposed project to proceed. Based on previous discussions with the Department of Planning (Department), it is our understanding that applications for District Boundary Amendment, Community Plan Amendment and Change in Zoning will be initiated by the Department of Planning for the project.

Comment No. 4:

Please provide the level of LEEDS certification you plan to pursue and describe in detail how you plan to achieve this level. This will prove helpful when your project goes before the Commission;

Response: The DF&PS is currently pursuing the Platinum rating under the Leadership in Energy and Environmental Design (LEED) certification process. This is the highest LEED rating currently available. A number of sustainable design strategies will be implemented within the scope of the project in pursuit of the LEED Platinum objective for the project. Such strategies include, but are not limited to, energy efficiency, onsite renewable energy using photovoltaics/wind turbines, innovative wastewater treatment technologies, water efficiency, and construction waste diversion away from landfills. A description of the sustainable design considerations for the project will be included in the Draft EA.

Comment No. 5:

Please note that the Department is currently revising Chapter 19.31, Public/Quasi-Public Districts of the Maui County Code. It may prove prudent to contact the Department's Administrative Planning Officer Joseph Alueta at (808) 270-7735 to obtain a draft copy of the proposed revisions. It is likely the code revisions will be processed before your proposal is processed and you would be subject to these revisions; and

Response: We acknowledge your comment and as part of this response respectfully request that a copy of the draft revisions proposed for Chapter 19.31, Public/Quasi-Public Districts of the Maui County Code (MCC) be provided to the DF&PS for review.

Comment No. 6:

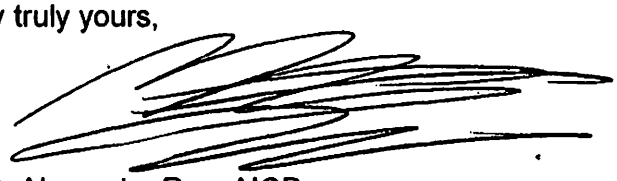
The County owned parcel is 27.9 acres in size. Provide some information on future uses of the rest of the parcel not to be utilized for the proposed fire station. Maybe the entire 27.9 acres should be re-designated concurrently rather than piece-emailing future re-designations.

Response: We note your comment. At this time the applicant has no definitive plans for future uses of the remaining portions of the subject parcel and, as such, will be limiting the scope of land use entitlement applications for the subject project, to just the 6.1-acre project site.

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,



Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Terry McFarland, Architects Hawaii Limited
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DEC 0 7 2009

POLICE DEPARTMENT
COUNTY OF MAUI

CHARMAINE TAVARES
MAYOR

OUR REFERENCE

YOUR REFERENCE

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

GARY A. YABUTA
CHIEF OF POLICE

CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

November 27, 2009

Mr. Mark Alexander Roy, AICP
Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Mr. Roy:

SUBJECT: Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008 (Por.), Haiku

Thank you for your letter of November 17, 2009, requesting comments on the above subject.

We have reviewed the information submitted for this project and have enclosed a copy of our comments. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Danny J. Matsuura
for: Gary A. Yabuta
Chief of Police

c: Jeffrey Hunt, Planning Department

COPY

TO : GARY YABUTA, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS

FROM : STEPHEN ORIKASA, ADMINISTRATIVE SERGEANT, WAILUKU PATROL DIVISION

SUBJECT : RESPONSE TO A REQUEST FOR COMMENTS REGARDING THE PROPOSED HAIKU FIRE STATION PROJECT

This communication is submitted as a response to a request for early consultation comments, by Munekiyo & Hiraga, Inc., Project Manager, Mr. Mark Alexander Roy, AICP, regarding the following subject;

SUBJECT : Early Consultation Request for Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008 (Por.), Haiku, Maui, Hawaii

RESPONSE:

In review of the submitted documents, the focus from the police perspective would be upon the safety of pedestrian and vehicular movement.

The ingress and egress locations appear to be at a reasonable location as to not adversely impact the existing normal vehicular movement. Parking also appears to be adequate for the buildings proposed usage and additional vehicular movement should not have a significant impact upon existing service levels.

During the construction phases, extreme efforts should be made to minimize noise, dust & debris so not to inhibit those whose health and well being may be affected. Adequate traffic control devices and personnel should also be utilized to minimize the impact of heavy equipment and vehicles traveling in and out of the area.

CONCLUSION:

There are no objections to the progression of this project at this time. Although, it is of utmost importance to be cognizant of any health and safety impacts, directly and indirectly, which may arise from this project.

Respectfully submitted for your review and approval.

Stephen T. Orikasa E#716
Administrative Sergeant/Wailuku Patrol Division
11/24/09 @ 0830 Hours

Concur w/Sgt. Orikasa
[illegible]
11/24/09

Concur. with Sgt. Orikasa's comments - no major concerns with the proposed plans.

Capt. J Bingham 8467
11/25/09 1000 hrs.

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Gary Yabuta, Chief of Police
Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Mr. Yabuta:

Thank you for your letter dated November 27, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

The ingress and egress locations appear to be at a reasonable location as to not adversely impact the existing normal vehicular movement. Parking also appears to be adequate for the buildings proposed usage and additional vehicular movement should not have a significant impact upon existing service levels.

Response: We note the comments from your Department that parking and vehicular movements at the project site should not have a significant impact on existing service levels along Hana Highway and East Kuiaha Road. We look forward to your continued support and cooperation in completion of this project.

Comment No. 2:

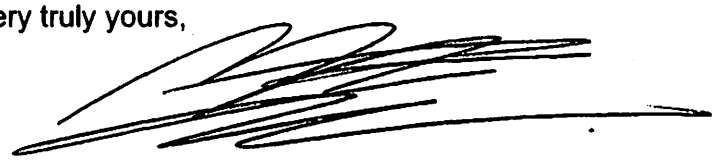
During the construction phases, extreme efforts should be made to minimize noise, dust & debris so not to inhibit those whose health and well being may be affected. Adequate traffic control devices and personnel should also be utilized to minimize the impact of heavy equipment and vehicles traveling in and out of the area.

Response: The applicant will ensure that traffic control devices and personnel will be utilized during construction to minimize the impacts of large equipment traveling in and out of the area. Best Management Practices (BMPs) developed by the project's civil engineer will also be implemented to minimize dust and debris which may result during construction of the project.

We appreciate the input provided by your office and will include a copy of your letter in the Draft Environmental Assessment (EA) for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,



Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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DEC 1 7 2009

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

December 14, 2009

Mr. Mark Alexander Roy, A.I.C.P.
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Mr. Roy:

SUBJECT: EARLY CONSULTATION REQUEST FOR PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS; TMK: (2) 2-7-007:008 (POR.)

We reviewed your early consultation request and have no comments to offer at this time.

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

MMA:MMM:ls
xc: Highways Division
Engineering Division
S:\LUCA\CZM\Prop_Haiku_Fire_Sta_related_Imp_27007008_por_ls.wpd

JAN 27 2010

CHARMAINE TAVARES
Mayor

CHERYL K. OKUMA, Esq.
Director

GREGG KRESGE
Deputy Director

TRACY TAKAMINE, P.E.
Solid Waste Division

DAVID TAYLOR, P.E.
Wastewater Reclamation
Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

January 25, 2010

Mr. Mark Alexander Roy
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: **HAIKU FIRE STATION AND RELATED IMPROVEMENTS**
EARLY CONSULTATION
TMK (2) 2-7-007:008, HAIKU

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments:

   a. Include options for construction waste disposal/recycling/reuse in the discussion of potential impacts and mitigation measures.

2. Wastewater Reclamation Division (WWRD) comments:

   a. None. There is no County wastewater system in the area of the subject project.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

Cheryl K. Okuma, Director

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Cheryl Okuma, Director
Department of Environmental Management
County of Maui
2200 Main Street, Suite 100
Wailuku, Hawaii 96793

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Ms. Okuma:

Thank you for your letter dated January 25, 2010, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1 (Solid Waste Division):

Include options for construction waste disposal/recycling/reuse in the discussion of potential impacts and mitigation measures.

Response: The applicant acknowledges your comment. A Construction Waste Management Plan will be prepared for the project prior to initiation of construction. It is anticipated that existing concrete slabs, walkways, and driveways present on the project site will be crushed and reused on site for fill and/or base course. Other items that are not anticipated to be reused will be diverted away from the landfill or recycled. Diverted items may be reused by other projects should they be deemed fit for reuse. In addition, the applicant will be using Leadership in Energy and Environmental Design (LEED) guidelines on construction waste management and will be aiming at a possible diversion target of 50 percent of demolition and construction waste away from landfills and incineration. A summary of these and other solid waste management measures being evaluated for implementation in the project, will be included in the Draft Environmental Assessment (EA).

Comment No. 2 (Wastewater Reclamation Division):

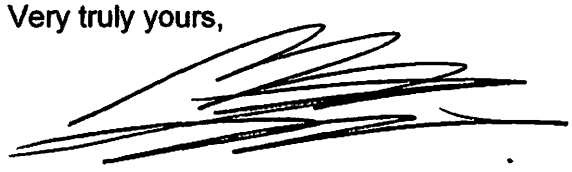
None. There is no County wastewater system in the area of the subject project

Response: We note your comment that there is no County wastewater system in the area of the subject project. In this regard, an ecological wastewater treatment system and water reuse plan is being proposed for the new fire station. Details regarding this system will be included in the Draft EA,

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,



Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
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CHARMAINE TAVARES
MAYOR

DON A. MEDEIROS
Director
WAYNE A. BOTEILHO
Deputy Director
Telephone (808) 270-7511
Facsimile (808) 270-7505

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

November 24, 2009

Mr. Mark Alexander Roy
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: Haiku Fire Station

Dear Mr. Roy,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Don Medeiros
Director

DEC 1 1 2009

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

December 4, 2009

Munekiyo & Hiraga, Inc.
Mr. Mark Alexander Roy, AICP, Project Manager
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

RE: Project Name: Proposed Haiku Fire Station and Related Improvements
Applicant: Department of Fire and Public Safety, County of Maui
Permit I.D.: Early Consultation Request
TMK: (2) 2-7-007:008 (por.)

Thank you for the opportunity to comment on this early consultation request.

Source Availability and Consumption
The project site is within the Department of Water Supply's Haiku service area.

The project site covers approximately 6.1 acres located within a County property of 27.9 acres. One 5/8-inch water meter is located on the property. The property also has water meter reservations for 3 (three) 5/8-inch water meters for a subdivision.

System Infrastructure
There is a 6-inch waterline and a fire hydrant located more than 1,000 feet from the project site on East Kuiaha Road near the east end of the County property. Storage is provided by the 0.5 million gallon (MG) Kaupakalua tank. These are inadequate for the proposed project.

The project scope proposes the installation of approximately 4,200 feet of waterline, beginning at a location approximately 2,300 feet south of the project site, to address domestic use and fire protection concerns.

During the building permit process, the applicant will be required to submit domestic, irrigation and fire flow calculations to determine water meter capacity and adequate fire protection. Approved fire flow calculation methods currently used by the Department of

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

Printed on recycled paper

Water Supply are the "Guidance for Determination of Required Fire Flow" as published by the Insurance Services Office in 1974, 2001 and 2006, or "Fire Flow" as published by the Hawaii Insurance Bureau in 1991. Also required is the installation of a reduced pressure back-flow prevention device, approved by the DWS. For more information or clarification on the device, please contact our Engineering Division at 270-7835 or our Backflow and Cross-Connection Control Section at 270-6132.

Pollution Prevention
The site overlies the Haiku aquifer which has a sustainable yield of 27 million gallons per day. The Department of Water Supply's goal is to protect the integrity of surface and groundwater resources. To achieve this, mitigation measures must be implemented to prevent any water pollution related impacts. Best management practices for construction should, therefore, be applied.

Conservation Measures
The Department of Water Supply encourages the applicant to consider the following conservation measures in the project design, as well as during construction:

1. Utilize reclaimed or non-potable water for dust control, irrigation and other non-potable uses.
2. Water after 7:00 p.m. at night and before 10:00 a.m. in the morning.
3. Utilize low-flow fixtures and devices - Maui County Code Subsection 16.20A.680 requires the use of low-flow fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Even more efficient and consumer tested models are available. Check WaterSense listings at http://www.epa.gov/watersense/pp/index.htm for efficient fixture listings when buying or replacing fixtures.
4. Prevent over-Watering by automated systems - Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evaporation rates at the site. As an alternative, provide more automated, soil-moisture sensors on controllers.
5. Maintain fixtures to prevent leaks - A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons per day.
6. Limit irrigated turf - Low-water use shrubs and ground cover can be equally attractive and require substantially less water than turf.
7. Select climate adapted native plant species for landscaping - Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species.
8. Look for opportunities to conserve water - Here are a few samples: 1) When clearing debris, use a broom instead of a hose and water; 2) Check for leaks in pipes, faucets and toilets.

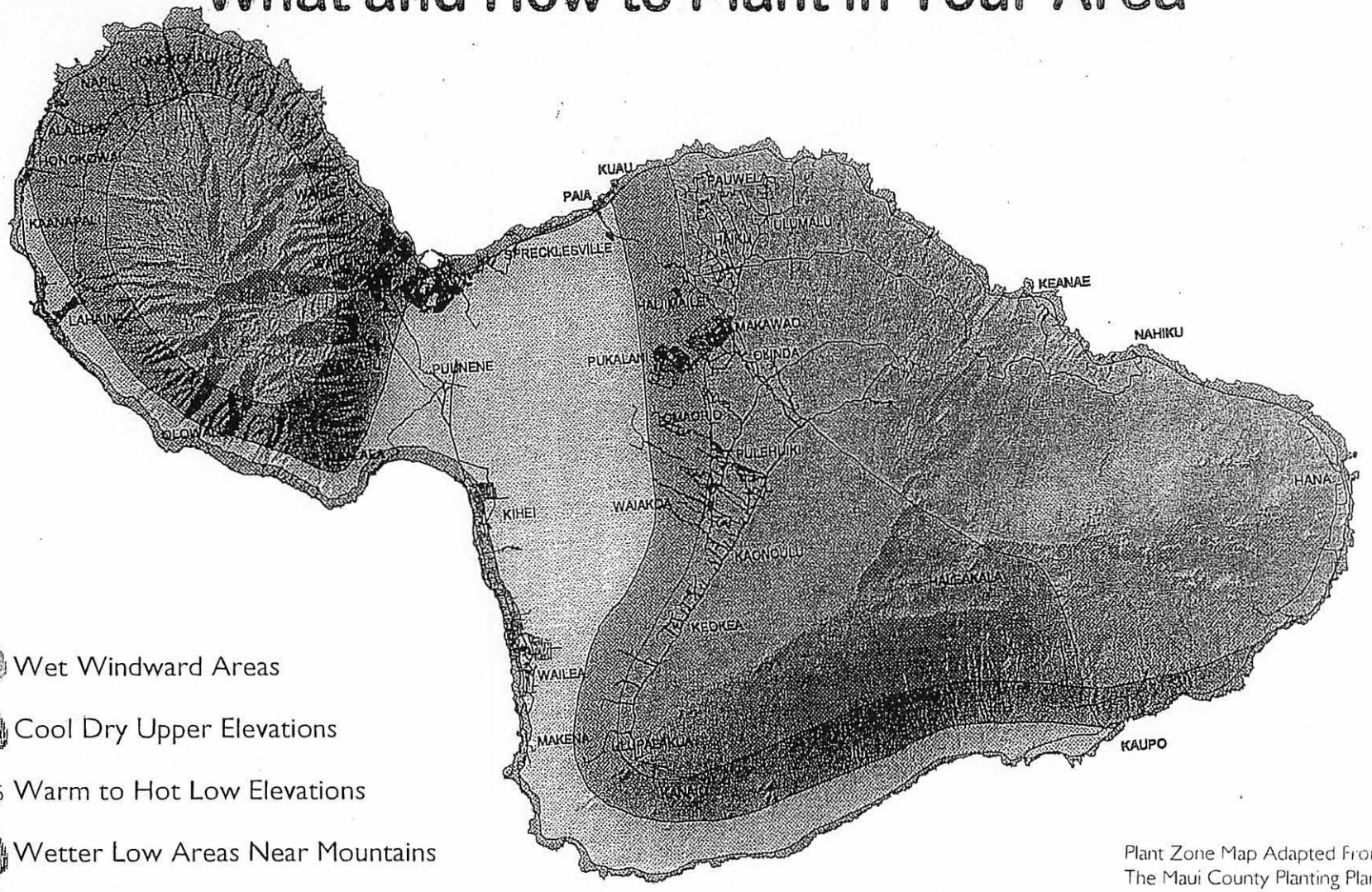
Should you have any questions, please contact our Water Resources & Planning Division at 244-8550.

Sincerely,

JEFFREY K. ENG, DIRECTOR
ayi
Enclosures: Maui County Planting Plan - Saving Water in the Yard - What and How to Plant in your Area
c: DWS Engineering Division
WRPD Project File
WRPD Reading File

Saving Water in The Yard

What and How to Plant in Your Area



1. Wet Windward Areas
2. Cool Dry Upper Elevations
3. Warm to Hot Low Elevations
4. Wetter Low Areas Near Mountains
5. Windward Coastal Salt Spray Zones

Plant Zone Map Adapted From
The Maui County Planting Plan

Tips From The Maui County Department of Water Supply

By Water All Things Find Life

Zone-specific Native and Polynesian plants for Maui County

Zone 1

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
Gr - Sh	Lipochaeta succulenta	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia arecina	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	Pritchardia forbesiana	lo'ulu	15'			
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Cordyline fruticosa	ti, ki	6			
Sh	Hedyotis spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh - Tr	Broussonetia papyrifera	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Charpentiera obovata		15'			
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Hibiscus furcellatus	'akiohala, hau-hele	8'			
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 2

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia mauiensis var. diffusa	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Styphelia tamelameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Charpentiera obovata		15'			
Tr	Erythrina sandwicensis	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

VOLUME II OF II
(Appendices A to H-2)

Final Environmental Assessment

PROPOSED HA‘IKŪ FIRE STATION AND RELATED IMPROVEMENTS

TMK NO. (2)2-7-007:008(por.)

Prepared for:

County of Maui,

Department of Fire and Public Safety

July 2024

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by Munekiyo Hiraga

MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

VOLUME II OF II

Final Environmental Assessment

PROPOSED HAʻIKŪ FIRE STATION AND RELATED IMPROVEMENTS

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MUNEKIYO HIRAGA

List of Appendices – (Volume II of II)

Appendix A. Preliminary Development Plans
Appendix B. Biological Resources Survey
Appendix C-1. Archaeological Inventory Survey Report
Appendix C-2. Archaeological Inventory Survey Acceptance Letter from the State Historic Preservation Division
Appendix D. Cultural Impact Assessment Report
Appendix E-1. Traffic Impact Analysis Report
Appendix E-2. Traffic Update Letter
Appendix F-1. Preliminary Engineering Report
Appendix F-2. PreFinal Drainage Report
Appendix G-1. Hawai‘i State Plan
Appendix G-2. Countywide Policy Plan
Appendix G-3. Maui Island Plan
Appendix H-1. Site Selection PowerPoint Presentation Dated April 10, 2007
Appendix H-2. 2021 Feasibility Study

APPENDIX

A

PRELIMINARY DEVELOPMENT PLANS

HAIKU FIRE STATION

HAIKU, MAUI

MAY 2023
FOR SITE ENVIRONMENTAL ANALYSIS

ahl.

PROJECT LOCATION - HAIKU, MAUI

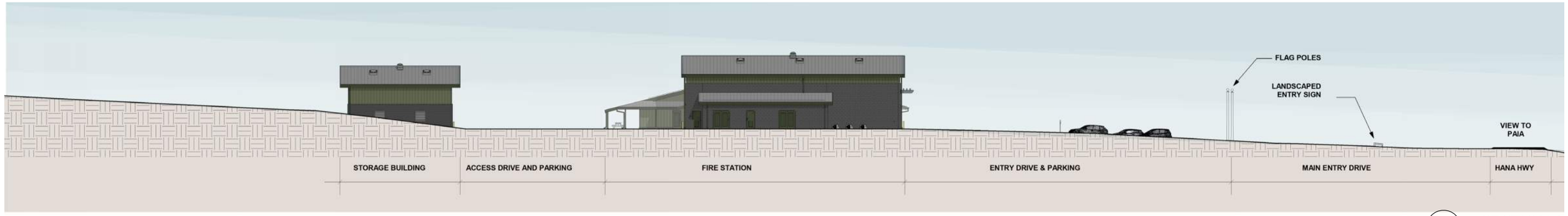
MAY 2023

PROJECT LOCATION - HAIKU, MAUI

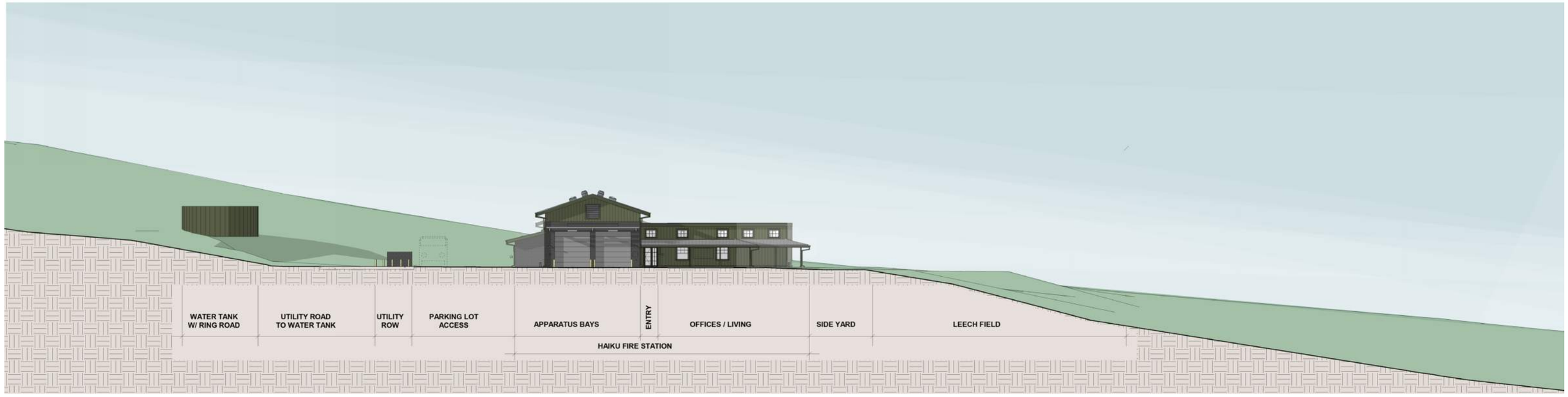
MAY 2023

SITE PLAN

MAY 2023



SECTION 2



SECTION 1

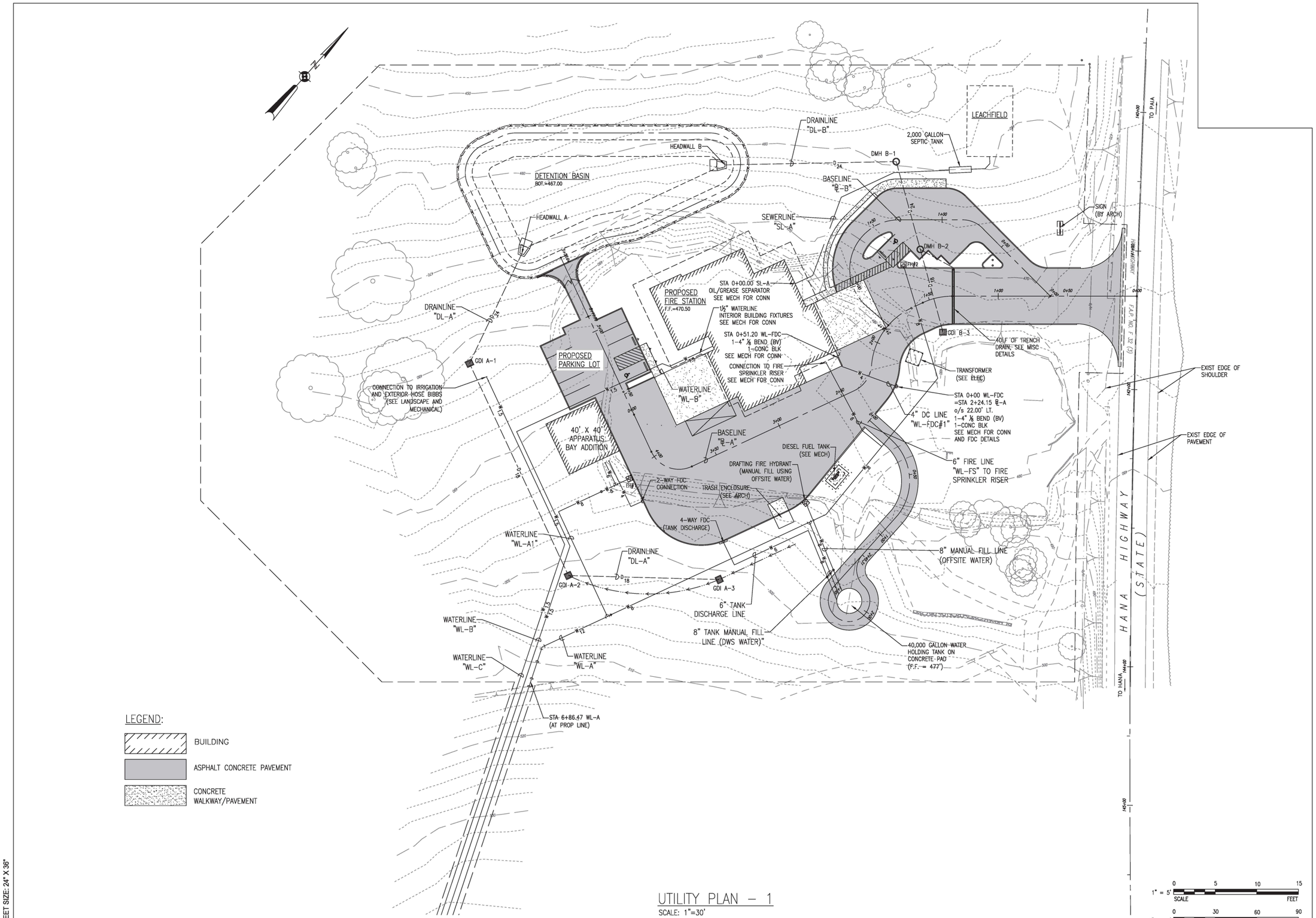
0 10' 20' 40'

SITE SECTIONS

MAY 2023

HAIKU FIRE STATION

HA'IKU FIRE STATION



UTILITY PLAN – 1
SCALE: 1"=30'

SHEET SIZE: 24" X 36"

OWNER

COUNTY OF MAUI DEPARTMENT
OF FIRE & PUBLIC SAFETY
200 DAIRY ROAD
KAHULUI, MAUI 96732

ARCHITECT

ARCHITECTS HAWAII LTD.
733 BISHOP ST, SUITE 3100
HONOLULU, HAWAII 96813
TELEPHONE: 808.523.9636

CONSULTANT

NOT FOR CONSTRUCTION

-

HAIKU FIRE STATION

PERMIT SET -

REVISIONS

NO.	DATE	REVISION

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. (OBSERVATIONS OF CONSTRUCTION AS DEFINED IN CHAPTER 16-115, SUBCHAPTER 1 DEFINITIONS OF THE HAWAII ADMINISTRATIVE RULES. "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.")

APRIL 30, 2024
SIGNATURE EXPIRATION DATE OF LICENSE

NOTE:
CONTRACTOR TO CHECK AND VERIFY DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

HAIKU FIRE STATION

3550 HANA HWY
HAIKU, MAUI

TMK: 2-7-007:008

SHEET DATE: DEC 2023
PROJECT NO: 6909.003

UTILITY PLAN - 1

C-15

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NOTES:

1. AZIMUTH AND COORDINATES SHOWN HEREON REFER TO GOVERNMENT SURVEY TRIANGULATION STATION "KAPUAI".
2. ELEVATIONS SHOWN HEREON ARE REFERENCED TO MEAN SEA LEVEL.

BENCHMARK
STA 7120-1
PK NAIL
N 6754.96
W 8364.65

STA 7120-4 HUB
N 6895.27
W 8546.39

6,827.97 N
8,592.65 W
REF. "KAPUAI"

FROM 7120-1
TO 7120-4
127° 40' 11"
229.59

FROM 7120-1
TO STA 0+00 ℄-A
72° 41' 00"
95.92

FROM STA 0+00 ℄-A
TO 7120-4
151° 54' 03"
191.42

TO PAIA

HANA HIGHWAY (STATE)

TO HANA

580.00'
50° 40' 48"

588.71'
48° 27' 44"

580.00'
50° 30' 49"

316° 06' 00"
32.95'

52° 05' 00"
35.01'

415.49'
136° 06' 00"

EAST KUIAHA ROAD (COUNTY)

20° 50' 00"
277.13'

20° 50' 00"
355.30'

200.00'
53° 55' 00"

196.00'
53° 55' 00"

TMK:(2)
2-7-007:
078 JAMES
N HIROMOTO
(OWNER)

PROPOSED
FIRE STATION

544.09'
227° 06' 00"

274° 10' 00"
847.33'

274° 10' 00"
889.00'

EASEMENT "W-1" (20-FT WIDE) FOR WATERLINE PURPOSES

6,149.73 N
8,587.97 W
REF. "KAPUAI"

APPROXIMATE
LIMITS OF WORK

EASEMENT "A-1"
(12-FT WIDE) FOR
ACCESS PURPOSES

5,643.13 N
8,276.67 W
REF. "KAPUAI"

21° 58' 00"
35.00'

333° 05' 04"
216.60'

333° 12' 00"
175.00'

21° 58' 00"
60.00'

HAIKU ROAD
(COUNTY)

SIMON
FAMILY
PARTNERSHIP
TMK:(2)
2-7-007:
067
(OWNER)

184.00'
132° 22' 00"

92.49'
154° 29' 00"

285° 50' 00"
363.95'

310.50'
128° 08' 00"

SIMON
FAMILY
PARTNERSHIP
TMK:(2)
2-7-007:
007
(OWNER)

TMK:(2)
2-7-007:
057 A & B
PROPERTIES,
INC (OWNER)

485.00'
182° 55' 00"

145.00'
173° 08' 00"

467.60'
95° 55' 00"

370.00'
153° 40' 00"

TMK:(2)
2-7-007:
009 A & B
PROPERTIES,
INC (OWNER)

395.00'
177° 30' 00"

165.30'
95° 22' 00"

270° 12' 11"
264.80'

265° 25' 00"
250.10'

TMK:(2)
2-7-007:
012 A & B
PROPERTIES,
INC (OWNER)

0 80 160 240
1" = 80' SCALE FEET

GENERAL SITE PLAN
SCALE: 1"=80'

SHEET SIZE: 24" X 36"

OWNER
COUNTY OF MAUI DEPARTMENT
OF FIRE & PUBLIC SAFETY
200 DAIRY ROAD
KAHULUI, MAUI 96732

ARCHITECT
ahl.
ARCHITECTS HAWAII LTD.
733 BISHOP ST, SUITE 3100
HONOLULU, HAWAII 96813
TELEPHONE: 808.523.9636

CONSULTANT

NOT FOR CONSTRUCTION

- HAIKU FIRE STATION
PERMIT SET -

REVISIONS

NO.	DATE	REVISION

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. (OBSERVATIONS OF CONSTRUCTION AS DEFINED IN CHAPTER 16-115, SUBCHAPTER 1 DEFINITIONS OF THE HAWAII ADMINISTRATIVE RULES, "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS.")

APRIL 30, 2024
SIGNATURE EXPIRATION DATE OF LICENSE

NOTE:
CONTRACTOR TO CHECK AND VERIFY DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

HAIKU FIRE STATION

3550 HANA HWY
HAIKU, MAUI

TMK: 2-7-007:008

SHEET DATE: DEC 2023
PROJECT NO: 6909.003

GENERAL SITE PLAN

C-4

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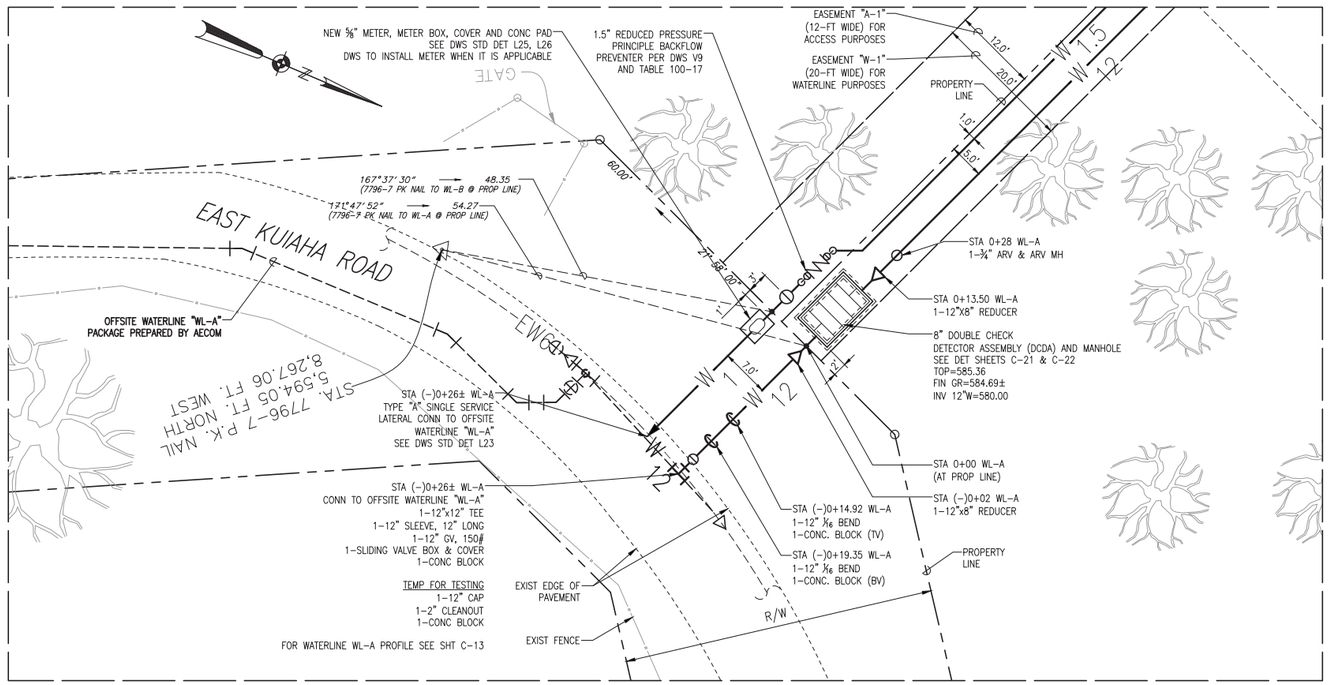
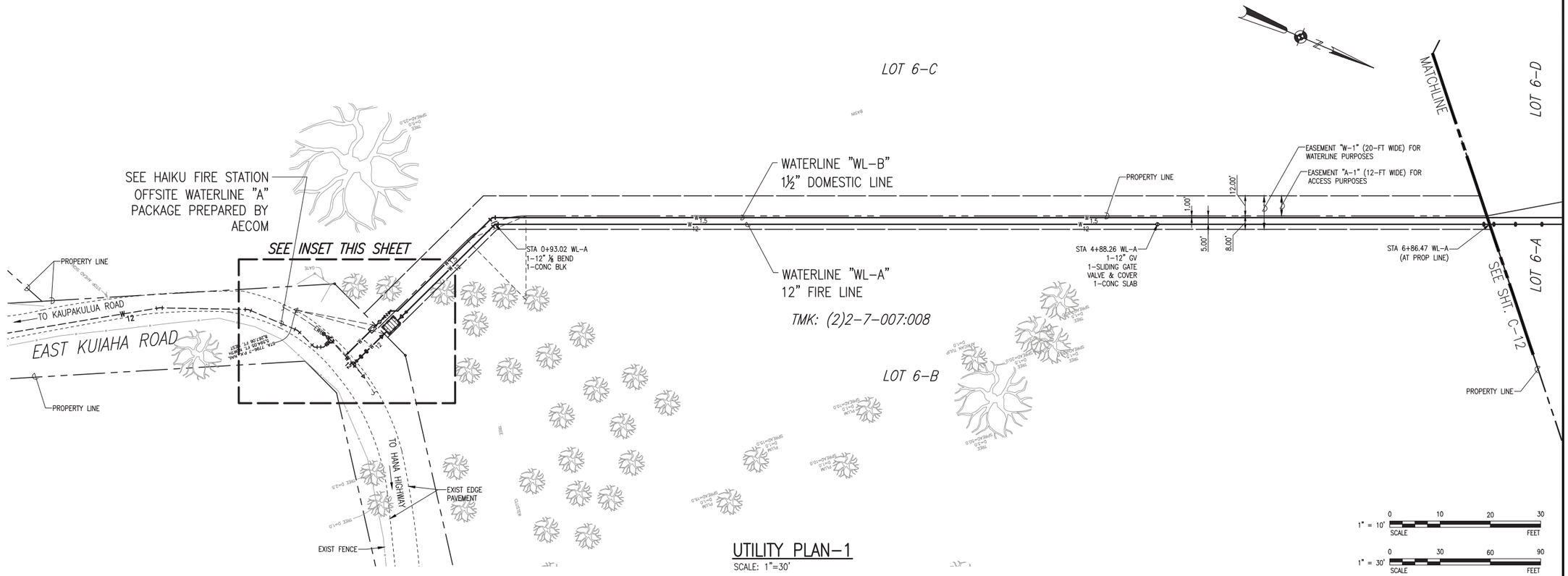


PLAN-INSET
SCALE: 1"=10'

SPECIAL A.C. PIPE NOTES:

1. CONTRACTOR MUST FOLLOW ALL LOCAL, STATE, FEDERAL LAWS, RULES AND REGULATIONS REGARDING THE DISPOSAL OF EXISTING A.C. PIPE.
2. CONTRACTOR TO HAVE PROPER PERSONNEL PRESENT WHO IS LICENSED/CERTIFIED REGARDING THE REMOVAL, BAGGING, AND DISPOSAL OF THE A.C. PIPE.

BACKFLOW PREVENTION DATA (IRRIGATION/DOMESTIC/FIRELINE)
TAX MAP KEY: (2) 2-7-007:008
PROJECT NAME: HAIKU FIRE STATION
SERVICE ADDRESS: 3550 HANA HIGHWAY, HAIKU
IRRIGATION LINE (ACCT. NO.
TYPE OF DEVICE: REDUCED PRESSURE BACKFLOW PREVENTION DEVICE
SIZE/MAKE/MODEL: 1.5" / WATTS / 919 OR APPROVED EQUAL



UTILITY PLAN-1
SCALE: 1"=30'

1" = 10' SCALE 0 10 20 30 FEET
1" = 30' SCALE 0 30 60 90 FEET

ARCHITECTS · HAWAII LIMITED
733 BISHOP STREET, SUITE 3100
HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-9636
FAX: (808) 521-3280
www.ahldesign.com

HAIKU FIRE STATION
3550 HANA HWY
HAIKU, MAUI

UTILITY PLAN - 1

DIANE Y. KODAMA
LICENSED PROFESSIONAL ENGINEER
NO. 6688-C
HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation, (observations of construction as defined in Chapter 16-115, Subchapter 1 Definitions of the Hawaii Administrative Rules, "Professional Engineers, Architects, Surveyors, and Landscape Architects.")

signature 4/30/2014 expiration date of the license

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

PROJECT NO:	5898.001
BIM FILE:	
DRAWN BY:	
DATE:	
DRAWING NO	C-11

of Sheets

PLOT DATE: January 08, 2014 @ 02:16:01 pm
LAST UPDATE: January 08, 2014 @ 01:21:57 pm
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DATE: 4/20/2023 8:46:02 AM
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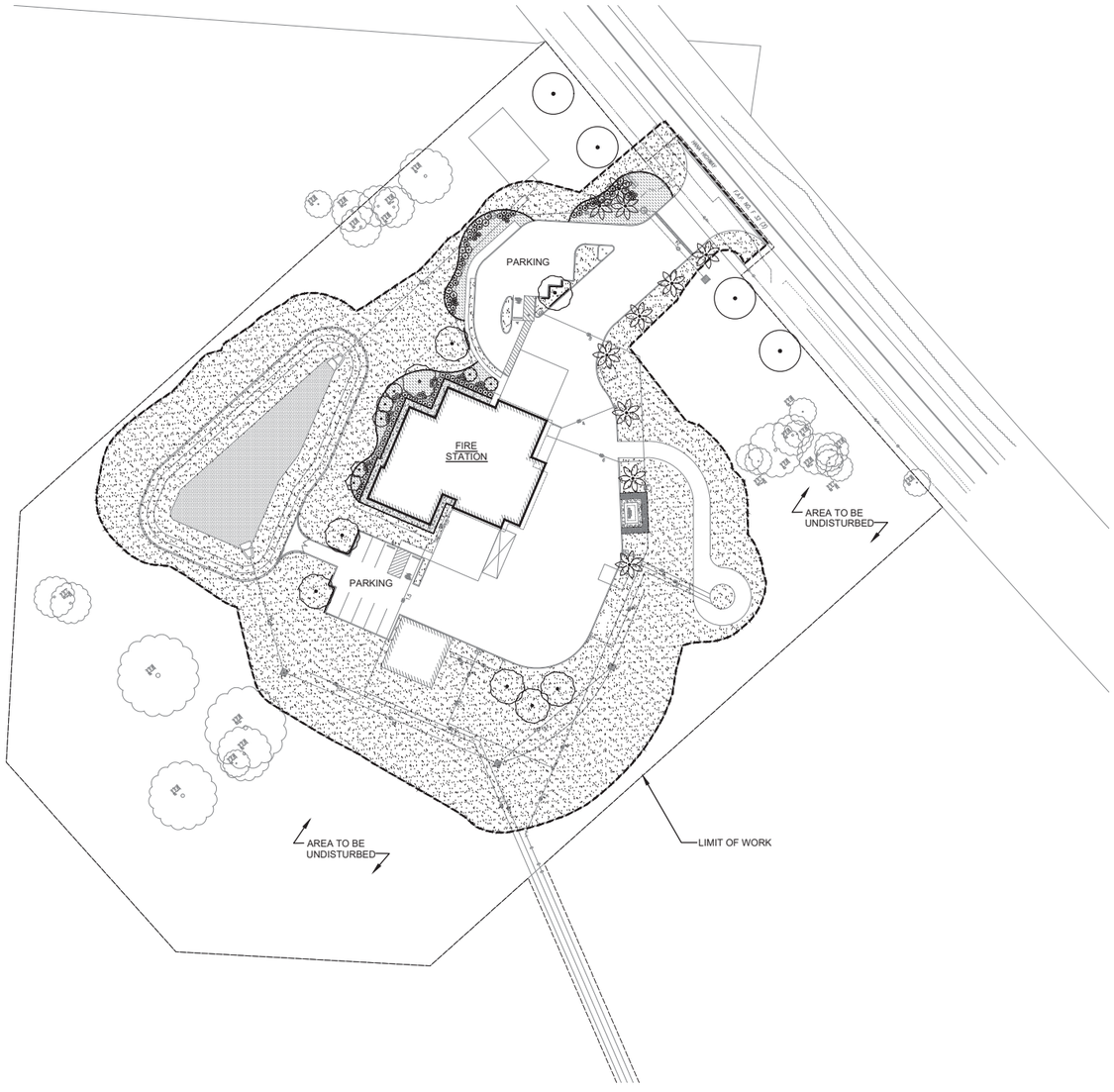
SHEET SIZE: 30" X 42"



1 OVERALL LANDSCAPE PLAN

SCALE: 1" = 40'-0"

N

40' 0 40'

OWNER

ARCHITECT

ahl.

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733 BISHOP ST, SUITE 3100
HONOLULU, HAWAII 96813
TELEPHONE: 808.523.9636
www.ahl.design

CONSULTANT

NOT FOR CONSTRUCTION

05/01/2023

HAIKU FIRE STATION APPARATUS BAY

REVISIONS

NO.	DATE	REVISION
		12.31.20 CONSTRUCTION SET

VIVIAN L. ARITA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 18181
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDERTAKEN UNDER MY RESPONSIBLE CHARGE AS DEFINED IN CHAPTER 16-115, SUBCHAPTER 1 DEFINITIONS OF THE HAWAII ADMINISTRATIVE RULES, "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS".

SIGNATURE — EXPIRATION DATE OF LICENSE

NOTE:
CONTRACTOR TO CHECK AND VERIFY DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

HAIKU FIRE STATION

3550 HANA HWY
HAIKU, MAUI

TMK: 2-2-7-007:008

SHEET DATE: DEC 2023
PROJECT NO: 6909.003

OVERALL LANDSCAPE PLAN

L-100

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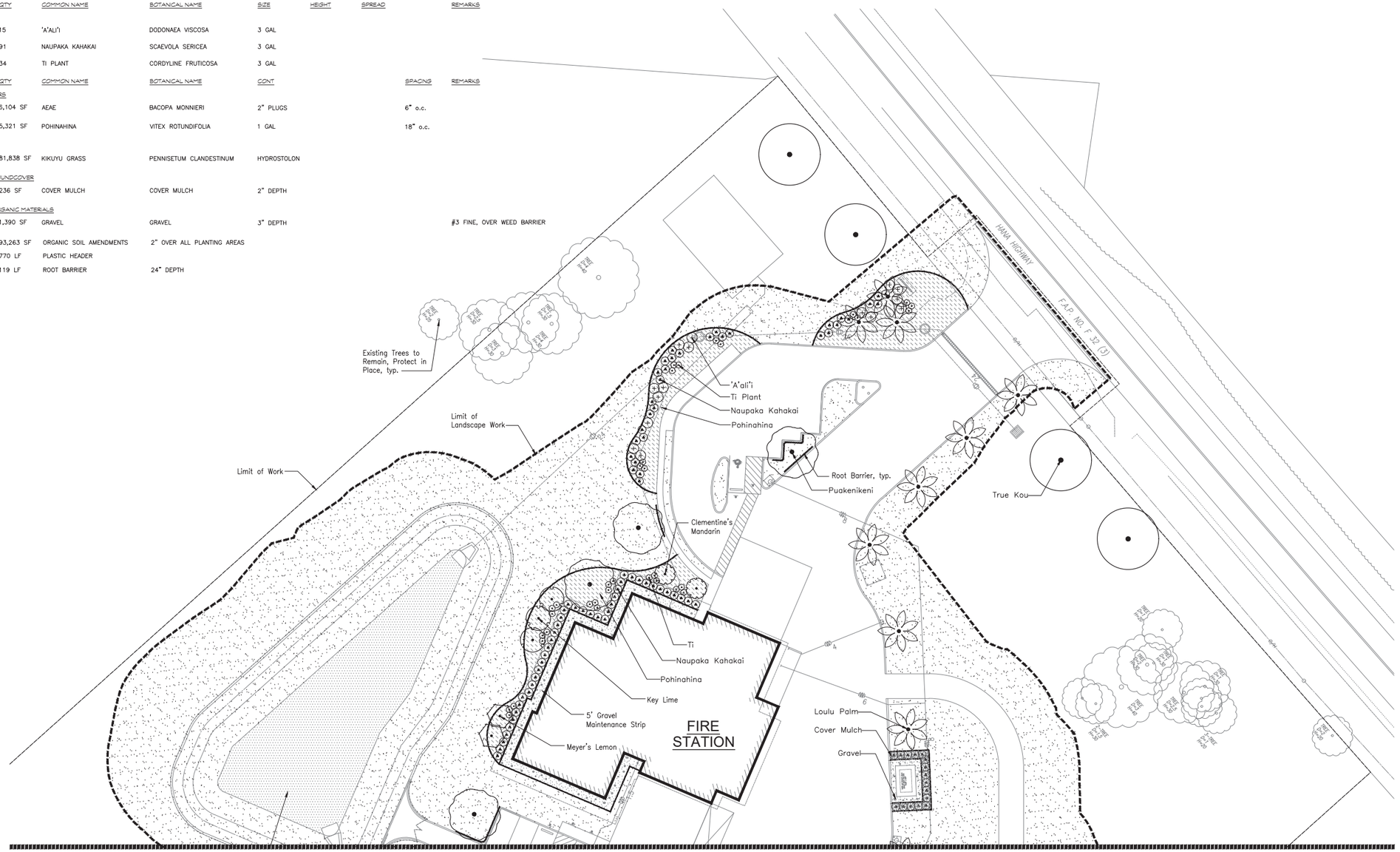
DATE: 4/20/2023 8:46:02 AM

PLANT AND MATERIALS LIST

SYMBOL	QTY	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE	REMARKS
TREES							
	2	CLEMENTINE MANDARIN ORANGE	CITRUS RETICULATA 'CLEMENTINE'	15 GAL	1" CAL., MIN.		
	3	KEY LIME	CITRUS X AURANTIIFOLIA	15 GAL	1" CAL., MIN.	4'-5' HT.	
	10	LOULU PALM	PRITCHARDIA SPP.	FS		6'-8' BTH	
	2	MEYER'S LEMON	CITRUS X MEYERI	15 GAL	1" CAL., MIN.	4'-5' HT.	
	8	PUAKENIKENI	FAGRAEA BERTERIANA	25 GAL	2" CAL. MIN.	8'-10' HT	
	4	TRUE KOU	CORDIA SUBCORDATA	25 GAL	2" CAL. MIN.	8'-10' HT	

SYMBOL	QTY	COMMON NAME	BOTANICAL NAME	SIZE	HEIGHT	SPREAD	REMARKS
SHRUBS							
	15	'A'ALI'I	DODONAEA VISCOSA	3 GAL			
	91	NAUPAKA KAHAKAI	SCAEVOLA SERICEA	3 GAL			
	34	TI PLANT	CORDYLINE FRUTICOSA	3 GAL			

SYMBOL	QTY	COMMON NAME	BOTANICAL NAME	CONT	SPACING	REMARKS
GROUND COVERS						
	6,104 SF	AEAE	BACOPA MONNIERI	2" PLUGS	6" o.c.	
	5,321 SF	POHINAHINA	VITEX ROTUNDIFOLIA	1 GAL	18" o.c.	
GRASS						
	81,838 SF	KIKUYU GRASS	PENNISETUM CLANDESTINUM	HYDROSTOLON		
INORGANIC GROUNDCOVER						
	236 SF	COVER MULCH	COVER MULCH	2" DEPTH		
ROCK AND INORGANIC MATERIALS						
	1,390 SF	GRAVEL	GRAVEL	3" DEPTH		#3 FINE, OVER WEED BARRIER
	93,263 SF	ORGANIC SOIL AMENDMENTS	2" OVER ALL PLANTING AREAS			
	770 LF	PLASTIC HEADER				
	119 LF	ROOT BARRIER	24" DEPTH			



1 **LANDSCAPE PLAN - 1**
SCALE: 1" = 20'-0"

N

20' 0 20'

SHEET SIZE: 30" X 42" FILE NAME: Autodesk Docs://Haiku Fire Station/6909.000 HFS ABA.rvt

OWNER

ARCHITECT

ahl.

ARCHITECTS HAWAII LTD.
733 BISHOP ST, SUITE 3100
HONOLULU, HAWAII 96813
TELEPHONE: 808.523.9636
www.ahl.design

CONSULTANT

NOT FOR CONSTRUCTION

05/01/2023

HAIKU FIRE STATION APPARATUS BAY

REVISIONS

NO.	DATE	REVISION
		12.31.20 CONSTRUCTION SET

VIVIAN L. ARIA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 16181
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. OBSERVATIONS OF CONSTRUCTION AS DEFINED IN THE STATE OF HAWAII ADMINISTRATIVE RULES, "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS" (LA)

SIGNATURE EXPIRATION DATE OF LICENSE

NOTE:
CONTRACTOR TO CHECK AND VERIFY DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

HAIKU FIRE STATION

3550 HANA HWY
HAIKU, MAUI

TMK: 2-2-7-007:008

SHEET DATE: DEC 2023
PROJECT NO: 6909.003

LANDSCAPE PLAN - 1

L-101

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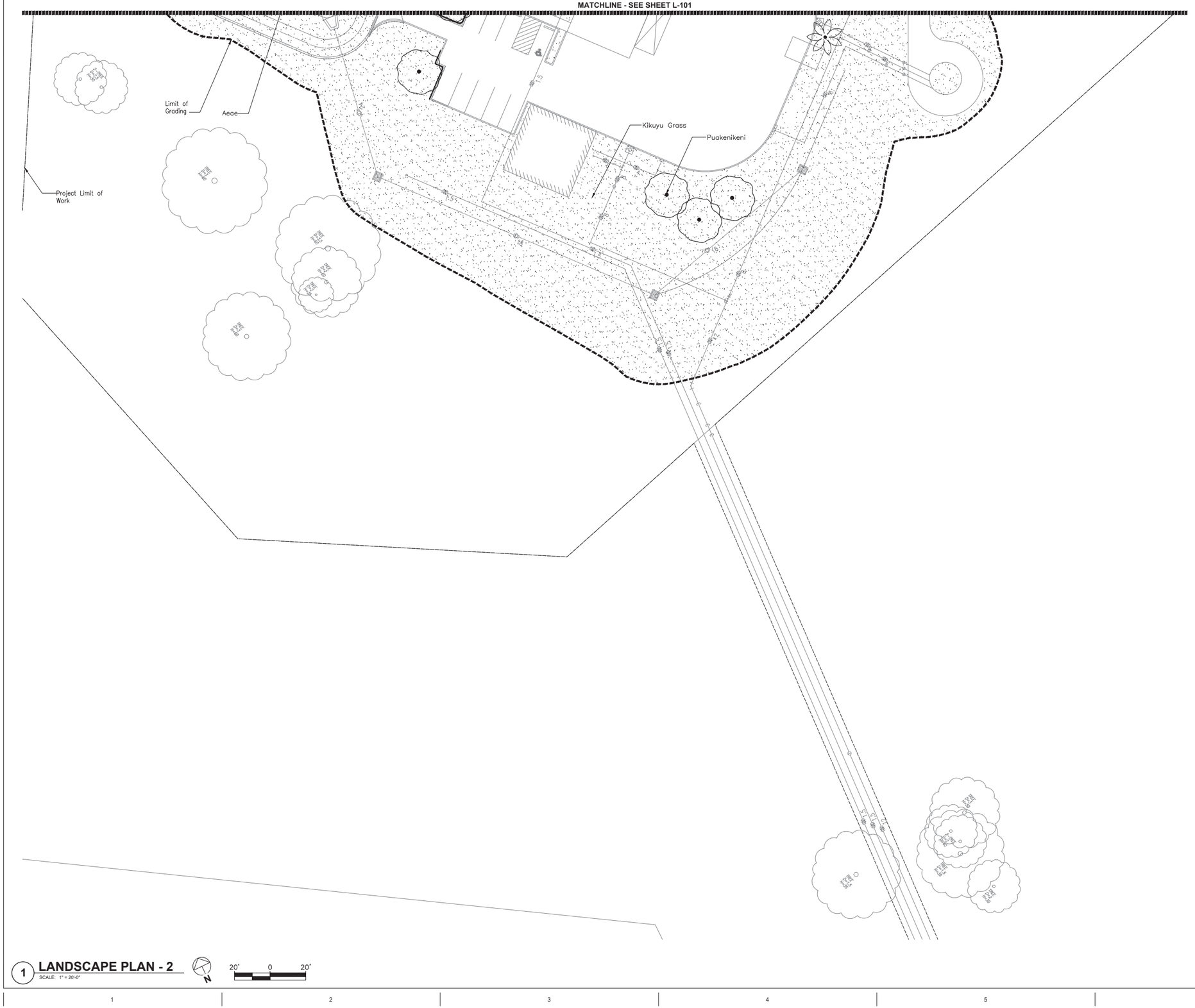
DATE: 4/20/2023 8:46:02 AM
FILE NAME: Autodesk Docs://Haiku Fire Station/6909.000 HFS ABA.rvt
SHEET SIZE: 30" X 42"

MATCHLINE - SEE SHEET L-101



1 **LANDSCAPE PLAN - 2**
SCALE: 1" = 20'-0"

N

20' 0 20'

NOTE:
FOR PLANT AND MATERIAL SCHEDULE, SEE SHEET L-101

OWNER

ARCHITECT

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05/01/2023

HAIKU FIRE STATION APPARATUS BAY

REVISIONS

NO.	DATE	REVISION
		12.31.20 CONSTRUCTION SET

VIVIAN L. ARITA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 18181
HAWAII, U.S.A.

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SIGNATURE — EXPIRATION DATE OF LICENSE: 4/30/2024

NOTE:
CONTRACTOR TO CHECK AND VERIFY DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

HAIKU FIRE STATION

3550 HANA HWY
HAIKU, MAUI

TMK: 2-2-7-007:008

SHEET DATE: DEC 2023
PROJECT NO: 6909.003

LANDSCAPE PLAN - 2

L-102

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DATE: 4/20/2023 8:46:02 AM
FILE NAME: Autodesk Docs://Haiku Fire Station/6909.000 HFS ABA.rvt
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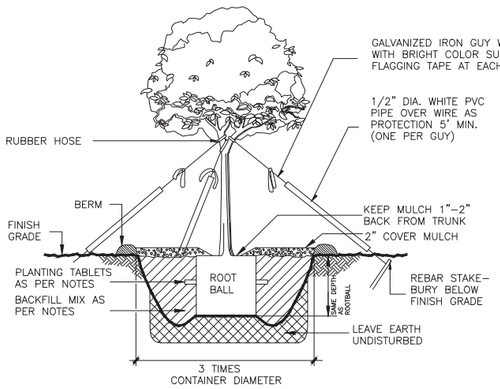
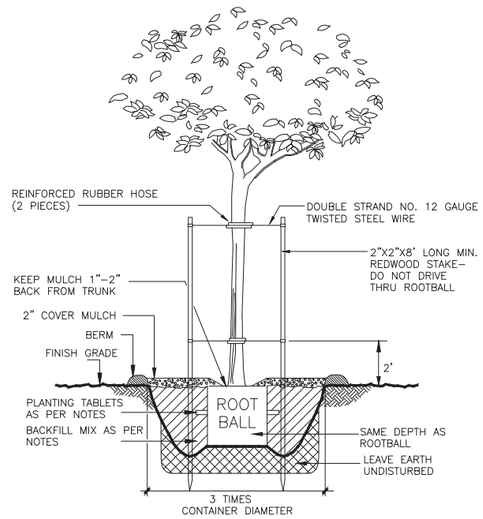


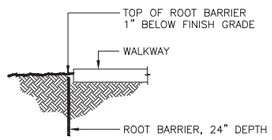
NOTE:

1. TURNBUCKLE EACH WIRE FOR FIELD STOCK TREES ONLY.
2. GUY WIRE SIZES:
   NO. 12 FOR 15 AND 25 GAL. TREES
   NO. 9 FOR FIELD STOCK TREES
3. REBAR STAKE SIZES:
   NO. 4x2'–0" LONG FOR 15 AND 25 GAL. TREES
   NO. 7x3'–0" LONG FOR FIELD STOCK TREES

1 TREE PLANTING AND GUYING DETAIL
NOT TO SCALE

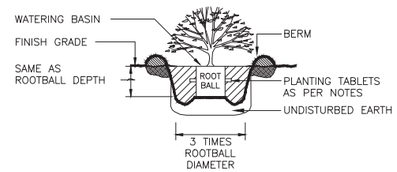


2 TREE PLANTING AND STAKING DETAIL
NOT TO SCALE

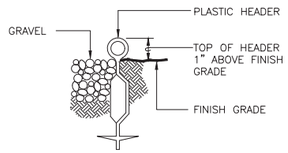


NOTE:
INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

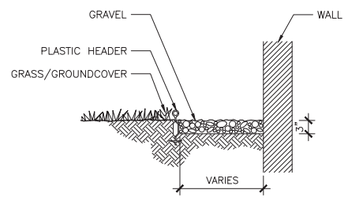
3 ROOT BARRIER DETAIL
NOT TO SCALE



4 SHRUB PLANTING DETAIL
NOT TO SCALE



5 PLASTIC HEADER DETAIL
NOT TO SCALE



6 GRAVEL AT BUILDING DETAIL
NOT TO SCALE

PLANTING NOTES:

1. REFER TO "LANDSCAPE SPECIFICATIONS" SECTION 02480 PRIOR TO THE START OF WORK. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MATERIALS, SCHEDULING, PRODUCTS, WARRANTIES AND METHODS FOR EXECUTION OF WORK WHICH MAY NOT BE INDICATED WITHIN THE DRAWINGS.
2. PROVIDE A 2" LAYER OF ORGANIC SOIL CONDITIONER OVER ALL PLANTING AREAS (SEE SPECIFICATIONS).
3. BACKFILL MIX SHALL CONSIST OF THREE (3) PARTS OF AMENDED IMPORTED PLANTING SOIL TO ONE (1) PART ORGANIC SOIL CONDITIONER (SEE SPECIFICATIONS). ADD ONE (1) POUND OF 10–30–10 FERTILIZER TO ONE (1) CUBIC YARD OF BACKFILL MIX. MIX THOROUGHLY ON PROJECT SITE PRIOR TO ANY PLANTING OPERATIONS.
4. PLANTING TABLETS FOR TREES AND SHRUBS SHALL BE AS FOLLOWS:

A)	FIELD SPECIMEN	12 TABLETS
B)	25 GALLON	8 TABLETS
C)	15 GALLON	5 TABLETS
D)	5 GALLON	3 TABLETS
E)	3 GALLON	2 TABLETS
F)	1 GALLON	1 TABLET

   USE SLOW RELEASE FERTILIZER TABLETS 20–10–5, 21 GRAM SIZE.

5. GROUNDCOVER SHALL BE PLANTED UNDER ALL TREES AND SHRUBS (UNLESS OTHERWISE NOTED ON PLANS).

OWNER

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05/01/2023

HAIKU FIRE STATION APPARATUS BAY

REVISIONS

NO.	DATE	REVISION
1	12.31.20	CONSTRUCTION SET

VIVIAN L. ARIA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 1818I
HAWAII, U.S.A.

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SIGNATURE — EXPIRATION DATE OF LICENSE

NOTE:
CONTRACTOR TO CHECK AND VERIFY DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK.

HAIKU FIRE STATION

3550 HANA HWY
HAIKU, MAUI

TMK: 2-2-7-007:008

SHEET DATE: DEC 2023
PROJECT NO: 6909.003

LANDSCAPE DETAILS AND NOTES

L-103

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APPENDIX B

BIOLOGICAL RESOURCES SURVEY

BIOLOGICAL RESOURCES SURVEY

for the

HAIKU FIRE STATION

EAST KUIAHA, HAMAKUALOA, MAUI

by

ROBERT W. HOBDY
ENVIRONMENTAL CONSULTANT
Kokomo, Maui
September 2009

Prepared for: Munekiyo & Hiraga, Inc.

BIOLOGICAL RESOURCES SURVEY
HAIKU FIRE STATION
EAST KUIAHA, HAMAKUALOA, MAUI

INTRODUCTION

The Haiku Fire Station Project lies on approximately 7 acres of land adjacent to Hana Highway in East Kuiaha, Hamakualoa, Maui TMK (2) 2-7-07:08 (por.). This biological resources study was initiated in response to environmental requirements of the planning process and was conducted in September, 2009.

SITE DESCRIPTION

The project site consists of gently to moderately sloping lands above Hana Highway and just west of East Kuiaha Road. Elevations range from 520 feet and 550 feet above sea level. Annual rainfall averages about 50 inches with the bulk falling during the winter months (Armstrong, 1983). Soils are entirely of the Haiku Series which are deep, well-drained clay soils (Foote et al, 1972). Vegetation consists mainly of a dense growth of large tropical grasses and a scattering of trees. A few structures are situated on the property along with a large concrete slab (see Figures 1-4).

BIOLOGICAL HISTORY

This site was once a lowland, wet native forest consisting of ‘ōhi’a (*Metrosideros polymorpha*), hala (*Pandanus tectorius*), kukui (*Aleurites moluccana*) and a variety of shrubs, vines and ferns. Hawaiians were scattered throughout these lowlands with concentrations in the fertile valley bottoms and along the coast.

The project area was used for pineapple farming in the early 1900s and was cleared, plowed and cultivated for this purpose until about 1960. Following this a nursery operation was developed here with a large greenhouse and some buildings. This was discontinued about 10 years ago, and since then the land has been used as pasture or left idle.

SURVEY OBJECTIVES

This report summarizes the findings of flora and fauna survey for the Haiku Fire Station Project which was conducted in September 2009.
The objectives of the survey were to:

1. Document what plant, bird and mammal species occur on the property or may likely occur in the existing habitat.

2. Document the status and abundance of each species.

3. Determine the presence or likely occurrence of any native flora and fauna, particularly any that are Federally listed as Threatened or Endangered. If such occur, identify what features of the habitat may be essential for these species.

4. Determine if the project area contains any special habitats which if lost or altered might result in a significant negative impact on the flora and fauna in this part of the island.

5. Note which aspects of the proposed development pose significant concerns for plants or for wildlife and recommend measures that would mitigate or avoid these problems.

BOTANICAL SURVEY REPORT

SURVEY METHODS

A walk-through botanical survey method was used covering the entire 7 acre parcel including the alternate access route to the southeast corner. Binoculars were used to scan the property and an inventory of all plant species encountered was made.

DESCRIPTION OF THE VEGETATION

The dominant vegetation on the property is a rank growth of large grass species including: Napier grass (*Pennisetum purpureum*), Guinea grass (*Panicum maximum*), molasses grass (*Melinis minutiflora*) and Hilo grass (*Paspalum conjugatum*). There are a few large trees that have grown on the site including African tulip tree (*Spathodea campanulata*), common ironwood (*Casuarina equisetifolia*), albizia (*Falcataria moluccana*) and Java plum (*Syzygium cumini*). A host of herbaceous weeds associated with its former use as a nursery abound.

A total of 104 plant species were recorded during the survey. Just 5 of these were native Hawaiian species: pala'a fern (*Sphenomeris chinensis*), (*Cyperus polystachyos*) no common name, koali awahia (*Ipomoea indica*), popolo (*Solanum americanum*) and 'uhaloa (*Waltheria indica*). All of these are extremely widespread and common species indigenous in Hawaii and many other Pacific islands.

Two species were Polynesian introductions: ki or ti leaf (*Cordyline fruticosa*) and 'ihi (*Oxalis corniculata*). The remaining 97 species were non-native trees, shrubs, grasses and weeds.

DISCUSSION AND RECOMMENDATIONS

This project area is in a highly altered environmental condition. The site is dominated by aggressive weeds. Five common indigenous native species were found on the property. None of these is a federally Threatened or Endangered species, nor are any of these candidates for such status. There are no special habitats of environmental importance on this property either.

Because of the above conditions on the property it is determined that the proposed development should not have any significant negative impacts on the botanical resources in this part of Maui.

It is recommended, however, that an array of native plants be used in the landscape plans for the proposed facilities to lend a special Hawaiian accent to the project.

PLANT SPECIES LIST

Following is a checklist of all those vascular plant species inventoried during the field studies. Plant families are arranged alphabetically within each of four groups: Ferns, Conifers, Monocots and Dicots. Taxonomy and nomenclature of the Ferns follow Palmer (2003); the Conifers and the flowering plants (Monocots and Dicots) are in accordance with Wagner et al. (1999) and Staples and Herbst (2005)..

For each species, the following information is provided:

1. Scientific name with author citation.

2. Common English or Hawaiian name.

3. Bio-geographical status. The following symbols are used:

   endemic = native only to the Hawaiian Islands; not naturally occurring anywhere else in the world.

   indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).

   non-native = all those plants brought to the islands intentionally or accidentally after western contact.

4. Abundance of each species within the project area:

   abundant = forming a major part of the vegetation within the project area.

   common = widely scattered throughout the area or locally abundant within a portion of it.

   uncommon = scattered sparsely throughout the area or occurring in a few small patches.
   rare = only a few isolated individuals within the project area.

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
FERNS			
LINDSAEACEAE (Lindsaea Fern Family)			
Sphenomeris chinensis (L.) Maxon	*pala'ä*	indigenous	rare
NEPHROLEPIDACEAE (Sword Fern Family)			
Nephrolepis brownii (Desv.) Hovenkamp & Miyam.	Asian sword fern	non-native	uncommon
POLYPODIACEAE (Polypody Fern Family)			
Phymatasorus grossus (Langsd. & Fisch.) Brownlie	*laua'e*	non-native	rare
THELYPTERIDACEAE (Marsh Fern Family)			
Christella parasitica (L.) H. Lev.	----------	non-native	uncommon
CONIFERS			
ARAUCARIACEAE (Araucaria Family)			
Araucaria columnaris (G. Forst.) J.D. Hooker	Cook pine	non-native	rare
MONOCOTS			
ARACEAE (PalmFamily)			
Syngonium auritum (L.) Schott	five fingers	non-native	rare
ARECACEAE (Aroid Family)			
Dypsis lutescens (H. Wendl.) Beentjie & J. Dransfield	golden-fruited palm	non-native	rare
Roystonea regia (Kunth) O.F. Cook	Cuban royal palm	non-native	rare
ASPARAGACEAE (Asparagus Family)			
Cordyline fruticosa (L.) A. Chev.	ki, ti leaf	Polynesian	rare
Dracaena fragrans (L.) Ker Gawler	fragrant dracaena	non-native	rare
Dracaena marginata Lamarck	money tree	non-native	rare
COMMELINACEAE (Spiderwort Family)			
Commelina diffusa N.L. Burm.	honohono	non-native	rare
CYPERACEAE (Sedge Family)			

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
Cyperus involucratus Rottb.	umbrella sedge	non-native	rare
Cyperus polystachyos Rottb.	----------	indigenous	rare
Cyperus rotundus L.	nut sedge	non-native	rare
HELICONIACEA (Heliconia Family)			
Heliconia psittacorum L.f.	parrots beak heliconia	non-native	rare
POACEAE (Grass Family)			
Axonopus compressus (Sw.) P. Beauv.	broad-leaved carpetgrass	non-native	rare
Chloris gayana Kunth	Rhodes grass	non-native	rare
Chloris radiata (L.) Sw.	plushgrass	non-native	rare
Cynodon dactylon (L.) Pers.	Bermuda grass	non-native	uncommon
Digitaria ciliaris (Retz.) Koeler	Henry's crabgrass	non-native	rare
Digitaria insularis (L.) Mez ex ekman	sourgrass	non-native	rare
Eleusine indica (L.) Gaertn.	wiregrass	non-native	rare
Eragrostis pectinacea (Michx.) Nees	Carolina lovegrass	non-native	rare
Melinis minutiflora P. Beauv.	molasses grass	non-native	common
Melinis repens (Willd.) Zizka	Natal redtop	non-native	rare
Panicum maximum Jacq.	Guinea grass	non-native	common
Paspalum conjugatum Bergius	Hilo grass	non-native	common
Paspalum fimbriatum Kunth	Panama grass	non-native	rare
Paspalum urvillei Steud.	Vasey grass	non-native	uncommon
Paspalum sp.	----------	non-native	rare
Pennisetum purpureum Schumach.	Napier grass	non-native	common
Sporobolus africanus (Poir.) Robyns & Tournay	smutgrass	non-native	rare
Sporobolus diander (Retz.) P. Beauv.	Indian dropseed	non-native	uncommon

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
Urochloa mutica (Forssk.) T.Q. Nguyen	California grass	non-native	rare
DICOTS			
ANACARDIACEAE (Mango Family)			
Schinus terebinthifolius Raddi	Christmas berry	non-native	uncommon
APIACEAE (Parsley Family)			
Ciclospermum leptophyllum (Pers.) Sprague	fir-leaved celery	non-native	rare
APOCYNACEAE (Dogbane Family)			
Asclepias physocarpa (E.Mey.) Schlecter	baloon plant	non-native	rare
ARALIACEAE (Ginseng Family)			
Schefflera actinophylla (Endl.) Harms	octopus tree	non-native	rare
ASTERACEAE (Sunflower Family)			
Ageratum conyzoides L.	maile hohono	non-native	rare
Bidens pilosa L.	Spanish needle	non-native	uncommon
Calyptocarpus vialis Less.	----------	non-native	rare
Conyza bonariensis (L.) Cronq.	hairy horseweed	non-native	uncommon
Conyza canadensis (L.) Cronq.	horseweed	non-native	rare
Cyanthillium cinereum (L.) H. Rob.	little ironweed	non-native	rare
Eclipta prostrata (L.) L.	false daisy	non-native	rare
Elephantopus mollis Kunth	elephant's foot	non-native	rare
Emilia fosbergii Nicolson	red pualele	non-native	rare
Emilia sonchifolia (L.) DC	violet pualele	non-native	uncommon
Pluchea carolinensis (Jacq.) G. Don	sourbush	non-native	uncommon
Sonchus oleraceus (L.)	pualele	non-native	rare
Sphagneticola trilobata (L.) Pruski	wedelia	non-native	rare

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
Youngia japonica (L.) DC.	Oriental hawksbeard	non-native	rare
BIGNONIACEAE (Bignonia Family)			
Spathodea campanulata P. Beauv	African tulip tree	non-native	uncommon
BORAGINACEAE (Borage Family)			
Heliotropium procumbens Mill.	four-spike heliotrope	non-native	rare
CARICACEAE (Papaya Family)			
Carica papaya L.	papaya	non-native	rare
CASUARINACEAE (She-oak Family)			
Casuarina equisetifolia L.	common ironwood	non-native	rare
CONVOLVULACEAE (Morning Glory Family)			
Ipomoea indica (J. Burm.) Merr.	koali awahia	indigenous	rare
Ipomoea triloba L.	little bell	non-native	rare
EUPHORBIACEAE (Spurge Family)			
Chamaesyce hirta (L.) Millsp.	hairy spurge	non-native	rare
Chamaesyce hypericifolia (L.) Millsp.	graceful spurge	non-native	uncommon
Chamaesyce thymifolia (L.) Millsp.	----------	non-native	uncommon
Phyllanthus debilis Klein ex Willd.	niruri	non-native	rare
Phyllanthus tenellus Roxb.	----------	non-native	uncommon
FABACEAE (Pea Family)			
Chamaecrista nictitans (L.) Moench	partridge pea	non-native	uncommon
Crotalaria incana L.	fuzzy rattlepod	non-native	uncommon
Crotalaria pallida Aiton	smooth rattlepod	non-native	uncommon
Desmanthus pernambucanus (L.) Thellung	slender mimosa	non-native	rare
Desmodium incanum DC	ka'imi clover	non-native	common
Desmodium triflorum (L.) DC	three-flowered beggarweed	non-native	uncommon

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
Erythrina variegata L.	tiger claw	non-native	rare
Falcataria moluccana (Miq.) Barneby & Grimes	albizia	non-native	rare
Indigofera hendecaphylla Jacq.	creeping indigo	non-native	rare
Indigofera suffruticosa Mill.	'inikö	non-native	rare
Leucaena leucocephala (Lam.) de Wit	koa haole	non-native	rare
Macroptilium lathyroides (L.) Urb.	wild bean	non-native	rare
Mimosa pudica L.	hilahila	non-native	uncommon
GENTIANACEAE (Gentian Family)			
Centaurium erythraea Raf.	bitter herb	non-native	rare
LYTHRACEAE (Loosestrife Family)			
Cuphea carthagenensis (Jacq.) Macbr.	tarweed	non-native	rare
MALVACEAE (Mallow Family)			
Hisbiscus x rosa-sinensis	hybrid hibiscus	non-native	rare
Sida acuta N.L. Burm.	----------	non-native	rare
Sida rhombifolia L.	Cuban jute	non-native	rare
Sida spinosa L.	prickly sida	non-native	rare
Triumfetta semitriloba Jacq.	Sacramento bur	non-native	rare
Waltheria indica L.	*'uhaloa*	indigenous	rare
MELASTOMATACEAE (Melastoma Family)			
Tibouchina herbacea (DC.) Cogn.	cane tibouchina	non-native	rare
MYRTACEAE (Myrtle Family)			
Eucalyptus robusta Sm.	swamp mahogany	non-native	rare
Psidium guajava L.	common guava	non-native	uncommon
Syzygium cumini (L.) Skeels	Java plum	non-native	uncommon

SCIENTIFIC NAME	COMMON NAME	STATUS	ABUNDANCE
Syzygium jambos (L.) Alston	rose apple	non-native	rare
NYCTAGINACEAE (Four-o'clock Family)			
Bougainvillea spectabilis Willd.	bougainvillea	non-native	rare
OXALIDACEAE (Wood Sorrel Family)			
Oxalis corniculata L.	*'ihi*	Polynesian	rare
PASSIFLORACEAE (Passion Flower Family)			
Passiflora edulis Sims	passion fruit	non-native	rare
PLANTAGINACEAE (Plantain Family)			
Plantago lanceolata L.	narrow-leaved plantain	non-native	rare
POLYGALACEAE (Milkwort Family)			
Polygala paniculata L.	milkwort	non-native	uncommon
RUBIACEAE (Coffee Family)			
Pentas lanceolata (Forsskal) Deflers	pentas	non-native	rare
RUTACEAE (Rue Family)			
Citrus reticulata Blanco	tangerine	non-native	rare
SAPINDACEAE (Soapberry Family)			
Litchi sinenensis Sonnerat	litchi	non-native	rare
SOLANACEAE (Nightshade Family)			
Cestrum nocturnum L.	night blooming jasmine	non-native	rare
Solanum americanum Mill.	pöpolo	indigenous	rare
URTICACEAE (Nettle Family)			
Pilea microphylla (L.) Liebm.	artillery plant	non-native	uncommon
VERBENACEAE (Verbena Family)			
Stachytarpheta cayennensis (Rich.) Vahl.	nettle-leaved vervain	non-native	rare
Stachytarpheta jamaicensis (L.) Vahl	Jamaica vervain	non-native	rare
Verbena littoralis Kunth	ha'u öwī	non-native	rare

FAUNA SURVEY REPORT

SURVEY METHODS

A fauna survey was conducted at the same time as the botanical survey. Observations were made using binoculars and listening to vocalizations. Notes were made on species abundance, activities and location as well as observations of trails, tracks, scat and signs of feeding. In addition an evening visit was made to the area to record crepuscular activities and vocalizations and to see if there was any evidence of occurrence of the Hawaiian hoary bat *(Lasturus cinereus semotus)* in the area.

RESULTS

MAMMALS

Just two mammal species were observed on the property during the course of the survey. The extremely dense grass cover made seeing small ground-dwelling mammals difficult, and it made the use of the area by such mammals difficult as well. Taxonomy and nomenclature follow Tomich (1986).

Mongoose (Herpestes auropunctatus) – Two mongooses were seen slipping through the grass on the margins of clearings. These predators hunt for rodents and birds.

Domestic dog (Canis familiaris) – Dogs were heard on nearby properties. These animals no doubt occasionally wander into this property.

Other mammals that no doubt utilize this property include rats (*Rattus spp.*) and mice (*Mus domesticus*) that feed on seeds, fruits and herbaceous vegetation, and feral cats (*Felis catus*) that hunt these rodents as well as birds.

A special effort was made to look for the Hawaiian hoary bat by making an evening survey of the area. When present in an area these bats can be easily identified as they forage for insects, their distinctive flight patterns clearly visible in the glow of twilight. No evidence of such activity was observed though visibility was excellent. In addition a bat detection device (Batbox IIID) was employed, set to the frequencies of 27,000 to 28,000 Hertz that these bats are known to utilize. No bats were detected using this device.

BIRDS

Birdlife was particularly sparse on the project area. The deep, dense grass cover is unsuitable for most bird species use of the area. Just three species of birds were observed during two site visits. Taxonomy and nomenclature follow American Ornithologists' Union (2005).

Japanese white-eye (*Zosterops japonicus*) – A few white-eyes were seen and heard twittering in some of the larger trees on the property.

House finch (*Carpodacus mexicanus*) – Two of these finches were seen flying around the lone ironwood tree.

Cattle egret (*Bubulcus ibis*) – One of these egrets was seen flying across the property during the early evening.

There are a variety of other small non-native birds that might occasionally be seen on this property including common myna, zebra dove, spotted dove, house sparrow, northern cardinal and nutmeg mannikin. This property, however, is not suitable for Hawaii's native forest birds which are presently restricted to native forest habitats at higher elevations, or for ground nesting native seabirds such as the Threatened Newells' shearwater (*Puffinus newelli*) and the Endangered Hawaiian petrel (*Pterodroma sandwichensis*) that dig their burrows on high mountain ridges.

INSECTS

While insects in general were not tallied, there were a diversity of insects seen though not in great numbers. Only one native insect Blackburn's Sphinx moth (*Manduca blackburni*) has thus far been put on the Endangered Species list (USFWS, 2009) and this designation requires special focus to ascertain whether any are present. Blackburn's sphinx moth occurs on Maui although it has not been found in this area. Its native host plants are species of 'aiea *(Nothocestrum)*. A non-native alternative host plant is tree tobacco *(Nicotiana glauca)*. None of these host species occur on or near this property and no Blackburn's sphinx moths or their larvae were seen.

DISCUSSION AND RECOMMENDATIONS

The study area is well vegetated but provides habitat that is suitable for very few forms of wildlife. Only a few species of mammals and birds were found during two site visits. None of these species were native and no Threatened or Endangered fauna were seen or would be expected on the property.

The Endangered Hawaiian bat is known from several locations on Maui and is both highly mobile and widespread. None have been recorded in lower Haiku, however, and the project area is most likely not preferred habitat. None were detected during the evening survey.

The federally protected seabirds, Hawaiian petrel and Newell's shearwater, were not detected on the property nor would be expected to utilize it for breeding or resting. These birds, however, would be expected to overfly the area between March and November to reach their burrows high in the mountains, and the young birds fledging during November and December would take their first tentative flights to the ocean over it. These young birds are especially vulnerable. They are often attracted to bright lights during their late evening and early dawn flights, crash and may be killed by vehicles or predators such as dogs, cats or mongoose.

It is recommended that any bright outdoor lights be shielded so that the direct light is not visible from above to reduce this threat to these seabirds.

ANIMAL SPECIES LIST

Following is a checklist of the animal species inventoried during the field work. Animal species are arranged in descending abundance within two groups: Mammals and Birds. For each species the following information is provided:

1. Common name

2. Scientific name

3. Bio-geographical status. The following symbols are used:

   endemic = native only to Hawaii; not naturally occurring anywhere else in the world.
   indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).
   non-native = all those animals brought to Hawaii intentionally or accidentally after western contact.
   migratory = spending a portion of the year in Hawaii and a portion elsewhere. In Hawaii the migratory birds are usually in the overwintering/non-breeding phase of their life cycle.

4. Abundance of each species within the project area:

   abundant = many flocks or individuals seen throughout the area at all times of day.
   common = a few flocks or well scattered individuals throughout the area.
   uncommon = only one flock or several individuals seen within the project area.
   rare = only one or two seen within the project area.

COMMON NAME	SCIENTIFIC NAME	STATUS	ABUNDANCE
MAMMALS			
Mongoose	*Herpestes auropunctatus*	non-native	rare
Domesitic dog	*canis familiaris*	non-native	rare
BIRDS			
Japanese white-eye	*Zosterops japonicus*	non-native	uncommon
House finch	*Carpodacus mexicanus*	non-native	rare
Cattle egret	*Bubulcus ibis*	non-native	rare

Figure 1 Central portion of parcel

Figure 2 Typical view of overgrown grasses

Figure 3 Area of mauka access easement

Figure 4 Cement slab from old nursery with structures

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APPENDIX C-1

ARCHAEOLOGICAL INVENTORY SURVEY REPORT

SCS Project Number 1012-ISR-3

AN ARCHAEOLOGICAL INVENTORY SURVEY FOR THE PROPOSED HA`IKŪ FIRE STATION AND WATERLINE CORRIDOR IN KUIAHA AHUPUA`A, MAKAWAO DISTRICT, ISLAND OF MAUI, HAWAI`I [TMK 2-7-007:008]

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Revised February 2011
FINAL

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INTRODUCTION

At the request of Munekiyo & Hiraga, Inc. Scientific Consultant Services (SCS), Inc. has conducted an Archaeological Inventory Survey on a 6.1-acre parcel of land in Kuiaha, Makawao District (formerly Hamakua-Loa), Maui [TMK: 2-7-007:008] (Figures 1 and 2). The proposed project includes the construction of a new Ha`ikū Fire Station that will include the station house, parking lots, a helipad and access to Hana Highway (Figure 3). In addition, a new waterline is to be installed from the station house to and along East Kuiaha Road right-of-way that will extend 4200 linear feet (1280 meters) to an existing County waterline at the intersection of West Kuiaha and Ha`ikū Road. Currently, the project area contains a vacant house and outbuildings with large concrete pads and is mostly overgrown with invasive weeds and cane grass.

Inventory Survey work included historic background research and settlement pattern analysis prior to fieldwork, a systematic pedestrian survey of the entire project area, mapping and recording of identified features. Subsurface testing was conducted across the parcel through backhoe trenching and the subsurface stratigraphy was recorded for each trench to assess the presence/absence of subsurface cultural deposits in the project area. No subsurface testing was conducted along the waterline corridor due to traffic and safety concerns. Fieldwork was conducted between September 21-25, 2009 by SCS personnel David Perzinski (Project Supervisor) and Brian Armstrong. The survey was conducted under the direct supervision of Michael Dega, Ph.D., Principle Investigator for the project.

The ultimate goals of the project were to identify historic properties on the parcels, effectively record and document the sites and to provide recommendations to the State Historic Preservation Division (SHPD) regarding site significance and mitigation in regards to future land use in the project area.

ENVIRONMENTAL SETTING

PROJECT AREA LOCATION

The project area is a roughly rectangular shaped parcel with its long axis oriented approximately southwest-northeast. Most of the land in the vicinity of the project area has long been planted in sugar cane or pineapple. The west edge of the property is bounded by agricultural land; the east side is bounded by a vacant property that includes a large outbuilding; to the north the project area abuts Hana Highway and to the south by fallow agricultural land. The property is just east and *mauka* of Valley Isle Memorial Cemetery.

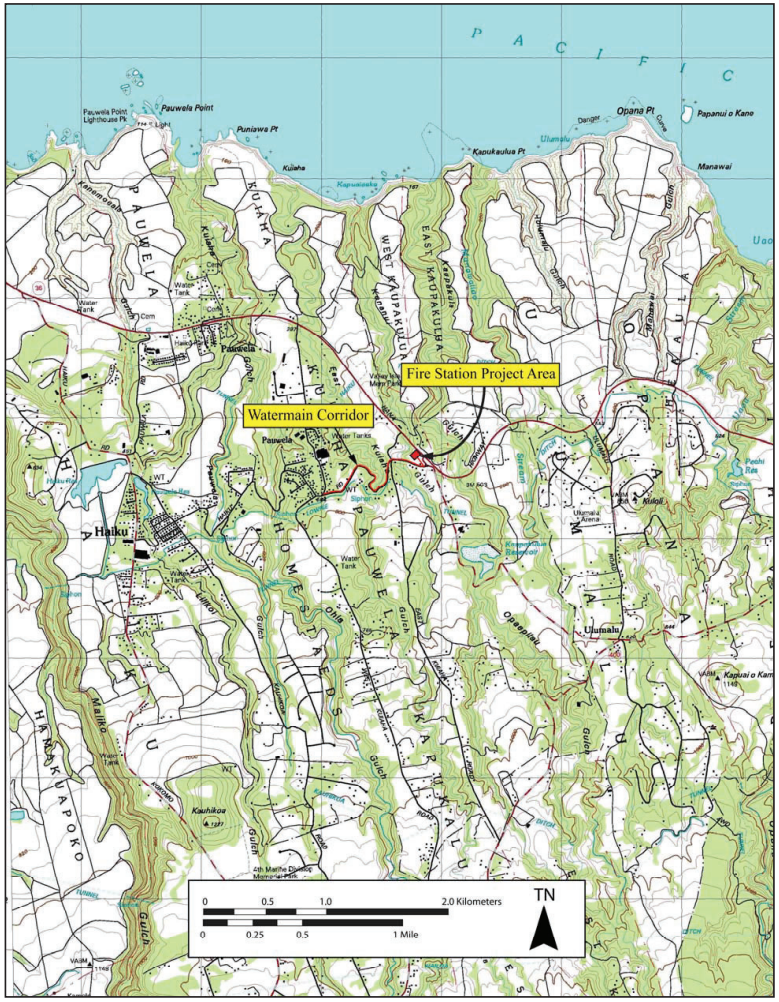

Figure 1: USGS Quadrangle Map Showing Project Area.

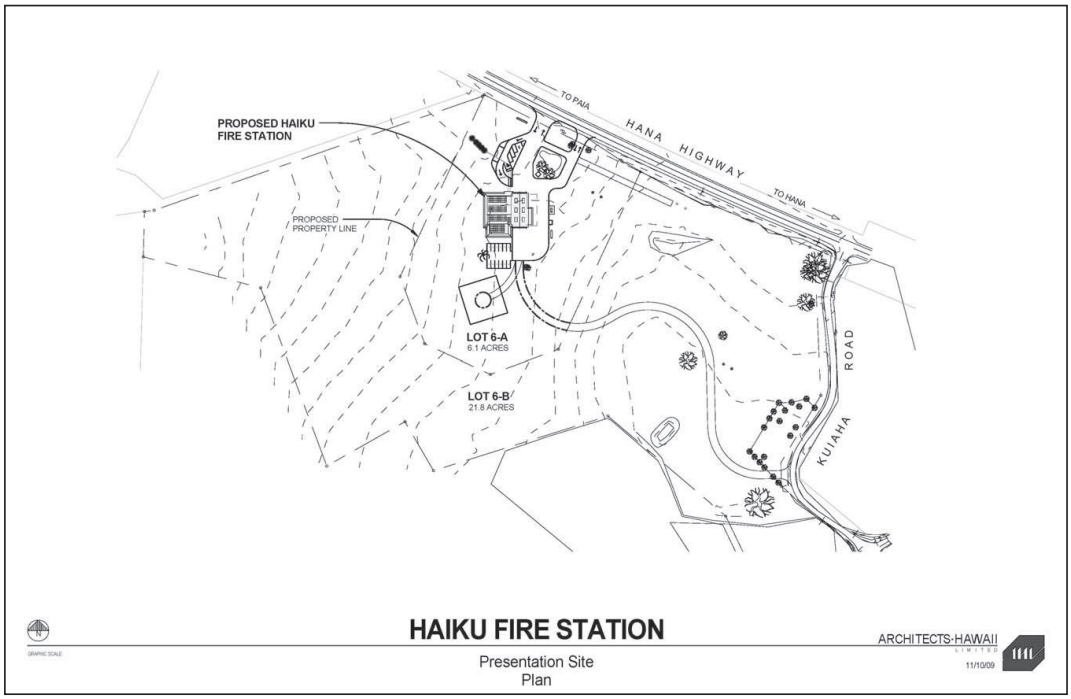

Figure 3: Plan View of Proposed Haiku Fire Station (Courtesy of Munekiyo & Hiraga, Inc.)

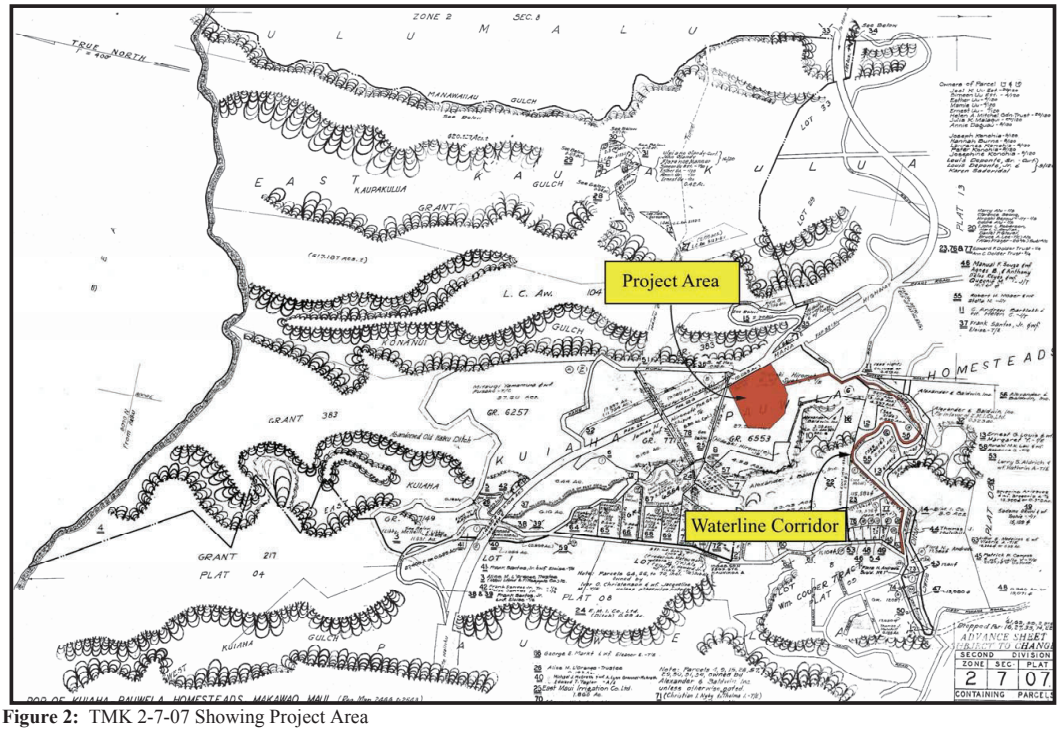

Figure 2: TMK 2-7-07 Showing Project Area

VEGETATION AND TOPOGRAPHY

The project area slopes slightly (10–20º) southwest to northeast where grading activities for the pre-existing buildings had not occurred. In the northern portion of the project area along Hana Highway the project area occupied by an abandoned house, outbuildings, concrete pads and former agricultural land.

The project area is heavily vegetated with a mix of koa haole (*Leucaena leucocephala*), java plum (*Syzgium cumini*), tangerine (*Citrus sp.*), banana (*Musa sp.*), African tulip (*Spathodea campanulata*), common guava (*Psidium guajava*), castor bean (*Ricinus communis*), *liliko`i* (*Passiflora edulis*) and thick cane grass. The thick grasses were generally located in the southern portion of the project area.

SOILS

As classified by Foote, *et al*. (1972:32, Sheet 112), the soil located in the project area consists of Haiku clay (HbC). Haiku clay is associated with "well-drained soils on uplands on the island of Maui. These soils developed in material weathered from basic igneous rock… HbC soil 7 to 15 percent slope has a representative profile consisting of dark-brown clay 14 inches thick with subsoils consisting of yellowish-red, dark reddish-brown and dark-red clay or silty clay that has subangular and angular blocky structure (Foote, et al. 1972:31-32). These soils have moderately rapid permeability, slow to medium runoff and slight to moderate erosion hazard. Lands with Haiku clays are typically used for pineapple, pasture, and homesites.

CLIMATE

The project area is located on the northwestern slope of Mount Haleakalā within East Maui. At approximately 550-590 feet above mean sea level (amsl) and approximately 2 km inland. The area is subject to an average annual rainfall of about 150-200 centimeters (Giambelluca *et al*. 1986:12). The wettest months fall between October and April and the rainfall flows northward. When northeast trade winds blow, the area receives a higher level of precipitation than when southerly, drier Kona winds blow.

CULTURAL HISTORICAL CONTEXT

The island of Maui ranks second in size of the eight main islands in the Hawaiian Archipelago. The Island was formed by two volcanoes, Mount Kukui in the west and Haleakalā in the east. The younger of the two volcanoes, Haleakalā, soars 2,727 m (10,023 feet) above sea level and embodies the largest section of the island. Unlike the amphitheater valleys of West Maui, the flanks of Haleakalā are distinguished by gentle slopes. Although it receives more rain than its counterpart in the east, the permeable lavas of the Honomanū and Kula Volcanic Series prevent the formation of rain-fed perennial streams. The few perennial streams found on the windward side of Haleakalā where the project is located, originate from springs located at low elevations. Valleys and gulches were formed by intermittent water run-off.

PAST POLITICAL BOUNDARIES

Traditionally, the division of Maui's lands into districts (*moku*) and sub-districts was performed by a *kahuna* (priest, expert) named Kalaiha`ōhia, during the time of the *ali`i* Kaka`alaneo (Beckwith 1940:383; Fornander places Kaka`alaneo at the end of the 15th century or the beginning of the 16th century [Fornander 1919-20, Vol. 6:248]). Land was considered the property of the king or *ali`i `ai moku* (the *ali`i* who eats the island/district), which he held in trust for the gods. The title of *ali`i `ai moku* ensured rights and responsibilities to the land, but did not confer absolute ownership. The king kept the parcels he wanted, his higher chiefs received large parcels from him and, in turn, distributed smaller parcels to lesser chiefs. The *maka`āinana* (commoners) worked the individual plots of land.

In general, several terms, such as *moku*, *ahupua`a*, *`ili* or *`ili`āina* were used to delineate various land sections. A district (*moku*) contained smaller land divisions (*ahupua`a*), which customarily continued inland from the ocean and upland into the mountains. Extended household groups living within the *ahupua`a* were therefore, able to harvest from both the land and the sea. Ideally, this situation allowed each *ahupua`a* to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875). The *`ili `āina* or *`ili* were smaller land divisions next to importance to the *ahupua`a* and were administered by the chief who controlled the *ahupua`a* in which it was located *(Ibid*.; Lucas 1995). The *mo`o`āina* were narrow strips of land within an *`ili*. The land holding of a tenant or *hoa `āina* residing in an *ahupua`a* was called a *kuleana* (Lucas 1995).

TRADITIONAL SETTLEMENT PATTERNS

The Hawaiian economy was based on agricultural production and marine exploitation, as well as raising livestock and collecting wild plants and birds. Extended household groups settled in various *ahupua`a*. During pre-Contact times, there were primarily two types of agriculture, wetland and dry land, both of which were dependent upon geography and physiography. River valleys provided ideal conditions for wetland *kalo* (*Colocasia esculenta*) agriculture that incorporated pond fields and irrigation canals. Other cultigens, such as *kō* (sugar cane, *Saccharum officinaruma*) and *mai`a* (banana, *Musa* sp.), were also grown and, where appropriate, such crops as *`uala* (sweet potato, *Ipomoea batatas*) were produced. This was the typical agricultural pattern seen during traditional times on all the Hawaiian Islands (Kirch and Sahlins 1992, Vol. 1:5, 119; Kirch 1985).

The Hāmākua Loa region was associated with the gods Kanaloa and Kane, who caused fresh water to flow from springs and gulches, as they had nothing but *`awa* to drink when they came here (Hill *et al.* 2006). Hāmākua Loa was where the head of the guardian of the god of thunder, Kanehekili, was beheaded by his brother-in-law at Pakanaloe Heiau (Thrum 1908). Although the head had been taken to Lāna`i, the people cut up Kanehekili's body into pieces that were distributed around Maui for all to worship.

Both Hāmākua Poko and Hāmākua Loa, where the *ahupua`a* of Kuiaha is found, contained small gulches surrounded by gently sloping *kula* lands. Opening to the sea, the wide mouths of the gulches supported *lo`i*, that ascended with the stream bed. Handy and Handy stated that Kuiaha Gulch, near the project area, undoubtedly had a few pond fields within its limits (1972). It was very likely that stream taro were planted in the many streamlets that fed into the main gulches, as well as dry land taro in the *kula* lands and in the lower forest (*ibid*).

The many narrow *ahupua`a* along this coast suggests that the population was considerable, even with only a moderate rain fall. The soil was excellent for sweet potato between the gulches, yams and *`awa* could be grown in the interior, and other crops, including banana, breadfruit, sugar cane, and arrowroot, would have thrived in the region (*Ibid*.). The bays were considered excellent for fishing with the *alaloa*, finished by Kihapi`ilani in the 1500s, connecting them for easy access by the people.

Before the landing of Capt. Cook, there was great competition between the chiefs of Hawai`i Island and the *ali`i nui* of Maui. In the early 1700s, Chief Alapa`i nui a Kauaua of Hawai`i Island, returned to Maui to make war on Kekaulike, ruling chief of Maui (Kamakau 1961). Upon arrival to Kaupo, he learned that Kekaulike was dying and had appointed Alapa`i's own nephew, Kamehameha nui, as heir. Alapa`i lost all ambition for war and made peace with the new ruler. Although peace was maintained for many years, it was only a matter of time before the rivalry again surfaced between these two Islands. Tensions were renewed with Kahekili (Kamehameha nui's brother) who had become ruler after Kamehameha nui's death, and Kalaniopu`u, an *ali`i* who had previously served under Alapa`i nui, for control of the island chain (Kamakau 1961, Fornander 1969). Kalaniopu`u invaded Hāmākua Loa late in 1778, but was defeated by Kahekili's warriors. Gathering the support of Mahihelelima, chief of the Hāna District, Kalaniopu`u went back to Hāmākua Loa where they attacked once more. The back-and-forth battles continued for sometime (1775-1779), even after the rise of Kamehameha (Kamakau 1961).

> Hearing of Kamehameha's approach Kalanikupule [son of Kahekili] sent an army to Hamakualoa under the warrior Kapa-kahili . . .after his death the fighting ceased and Kamehameha and his chiefs went on the principal encounter at Wailuku [*Ibid*.:148]

WESTERN CONTACT

Early records, such as journals kept by explorers, travelers and missionaries, Hawaiian traditions that survived long enough to be written down, and archaeological investigations have assisted in the understanding of past cultural activities. It was during the fighting between Kalaniopu`u and Kahekili at Hāmākua Loa in 1778, that Capt. Cook and his men first arrived at the other end of the island chain; Ni`ihau and Kaua`i (Fornander 1969). Returning in November of 1778, they had their first look at Maui and Hāmākua Loa region, and indeed, met Kahekili and Kamehameha who ventured out at different times to investigate, ". . .The tower of Lono!" (Kamakau 1961:97).

Descriptions of the north coast of Maui were first recorded in November of 1778 as the Resolution and the Discovery sailed down a portion of the northeast side of the island (Beaglehole 1967: Part I, Vol. III). David Samwell, a surgeon on the Discovery, reported "...the ships lay to all day about 3 miles off shore, trading with the Natives who came off in their canoes in great number..." (Beaglehole Part I, vol. III 1967:1151).

It had been a time of war between Kalaniopu`u, ruler of Hawai`i Island, and Kahekili, chief of Maui and Moloka`i. During this season of the year (*Makahiki*), however, the fighting

was temporarily suspended and the great chief of Maui, Kahekili, was free to visit the foreign ships. Samwell recorded his impressions of the King and the windward slopes of the northern coast of Maui. He stated that Kahekili was "a middle aged man ... rather of a mean appearance..." and the land was "...mountainous, the sides of the hills are covered with trees...large open plains on which stand their houses & where they have their plantations of sweet potatoes, taro & c. ..." (*Ibid*.).

THE *MĀHELE*

In the 1840s, a drastic change in the traditional land tenure resulted in a division of island lands and a system of private ownership based on Western law. While it is a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kauikeaouli (Kamehameha III) was forced to establish laws changing the traditional Hawaiian society to that of a market economy (Daws 1968; Kuykendall Vol. I, 1938:145 *et passim*; Kame`eleihiwa 1992). Among other things, the foreigners demanded private ownership of land to insure their investments (Kuykendall Vol. I, 1938:138 *et passim*; Kame`eleihiwa 1992; Kelly 1998, 1983). Once lands were made available and private ownership was instituted, native Hawaiians—including the *maka`āinana* (commoners)—were able to claim the plots they were cultivating and living on, if they had been made aware of the foreign procedures (*kuleana* lands, LCAs). This land division, or Māhele, occurred in 1848. The awarded parcels were called Land Commission Awards (LCA). If occupation could be established through the testimony of witnesses, the petitioners were issued a Royal Patent number and could then take possession of the property (Chinen 1961). Twenty-five LCAs were awarded in Kuiaha Ahupua`a, however, none were awarded within the project area (Waihona `aina Database, 2009). The un-awarded lands of Kuiaha became government lands and were later sold as Government Grants. The project area was part of Grant 6553.

Sugar cane became a major industry in the 1800s and Kuiaha and Pa`uwela offered good land for its cultivation. The Haiku Sugar Company was formed in 1858, and by the 1870s, three more plantations were developed in the region (Dorrance and Morgan 2000). As more and more land was cultivated with sugar, the need for water became significant. In 1876, four plantations formed the Hamakua Ditch Company that obtained the water rights and eventually diverted the stream water by using ditches, tunnels and pipes to irrigate the fields. By 1900, most of Pa`uwela was in sugar and water needs had expanded to the point where several ditches were constructed to deliver water: the Koolau Ditch in 1905, the Lowrie Ditch in 1914, and the Haiku Ditch in 1914 (Haun and Henry 2002). During the 1920s both pineapple and grapes were introduced for cultivation.

During WWII (1944), lands in the vicinity of the project area were used for a training base called "Camp Maui." At least 16,000 Marines trained here for the invasion that was to take place on Saipan and Tinian in the Mariana Islands that were held by the Japanese (Joseph *et al*. 2008). Today, there are residences, and some continuing agriculture, in the region.

PREVIOUS ARCHAEOLOGICAL RESEARCH

The earliest archaeological endeavors on Maui were undertaken by Thrum (1909), Stokes (1918), Emory (1921), and Walker (1931). Their data allows for a deeper understanding of traditional Hawaiian lifestyles. Winslow Walker (1930) was the first to systematically record archaeological sites on Maui. He noted 22 *heiau* in the Hāmākua Loa District (presently a portion of Makawao District) of which 12 were destroyed, five were partially destroyed, and five were still intact. Though no archaeological studies have been conducted within the project area, several studies in the vicinity in the past 20 years aid in predicting the potential for encountering sites within the project area (Figure 4).

A 1990 inventory survey of an 18-acre parcel in Kuiaha-Pauwela Homesteads (approximately 1 mile southwest of the project area) was undertaken by Xamanek Researchers and reported no findings. It was noted that intensive pineapple cultivation had likely disturbed any previous sites and/or deposits and concluded that, "the subject parcel was most likely not utilized by Hawaiians in pre-contact or post contact times for any permanent dwellings or for agricultural purposes" (Fredericksen, 1990:6). The pineapple fields are evident on aerial photographs through 1965. In addition, guinea grass is common in the area, and is most often associated with agricultural fields as a secondary growth.

In 1993, Xamanek Researches conducted subsurface testing of an unmarked grave on East Kuiaha, approximately 2 km south of the current project area. Despite the presence of the unmarked grave (SIHP No. 50-50-06-2928; Donham, 1992) and the site area being called a "cemetery", no additional finds were recorded.

In 1998, Cultural Surveys Hawai`i conducted a reconnaissance survey for a new Kaupakulua Bridge approximately 400 m southwest of the project area. Only a concrete bridge was noted with no markings indicating its name or construction date (Hammatt and Chiogioji 1998).

On Maliko Point, an Archaeological Inventory survey was conducted and two sites were identified (Fredericksen and Fredericksen 2001). These consisted of a historic cemetery and a

pre-Contact ceremonial and burial site. In the same area but *makai*, another Archaeological Inventory survey was conducted on 43.76 acres at Maliko Point. No cultural remains were identified (Pantaleo 2002).

Colin and Hammatt (1996) conducted an archaeological assessment for a new bridge on Peahi Road. No sites were recorded and the bridge "was not considered significant a historic bridge… because of its lack on integrity and its relatively recent reconstruction in 1941 and again in 1985 (Colin and Hammatt, 1996:i)."

An Archaeological Inventory Survey was conducted for a 64.27 acre parcel north of the project area previously under cultivation with sugar cane. No archaeological remains were identified (Masterson *et al.* 1995).

Scientific Consultant Services surveyed 62-acres in the Kuiaha-Pauwela-Kaupakalua, approximately 1 mile south of the current project area (Cordero and Dega, 2000). Historic pineapple cultivation had utilized over 90% of the project area and only one small retaining wall was identified. A second retaining wall and several small terraces suggested to have been *lo`i* were identified outside the project area within Kuiaha Gulch. The features were believed to have been utilized for small-scale agricultural use as no evidence of habitation was identified. In all, two sites consisting of a retaining wall (SIHP No. -4968) and the remnants of an historic housesite (-5004) were recorded.

In 2001, the Hāna Belt Road was listed on the National and Hawai`i Registers of Historic Places and given the SIHP No. 50-50-06-1638. The completion of the Road, now referred to as Hāna Highway, was completed in 1926 and linked East Maui with the rest of the island. The engineering and transportation feat utilized existing pathways to construct a road which expands over 1,530 acres and contains over 74 structures.

An Archaeological Inventory Survey was conducted for the Ha`iku Community Center. Pineapple had previously been cultivated on the parcel and no archaeological remains were identified either above or below the surface (Zachman and Spear 2002).

In 2008, an Archaeological Inventory Survey was conducted in Pa`uwela in which three sites were identified consisting of a pre-Contact stone-walled, earth-filled habitation terrace, a historic boundary line represented by a fence and stone wall and a transportation trail (Joseph *et al.* 2008). The 5-plus acres were located north of the present project area.

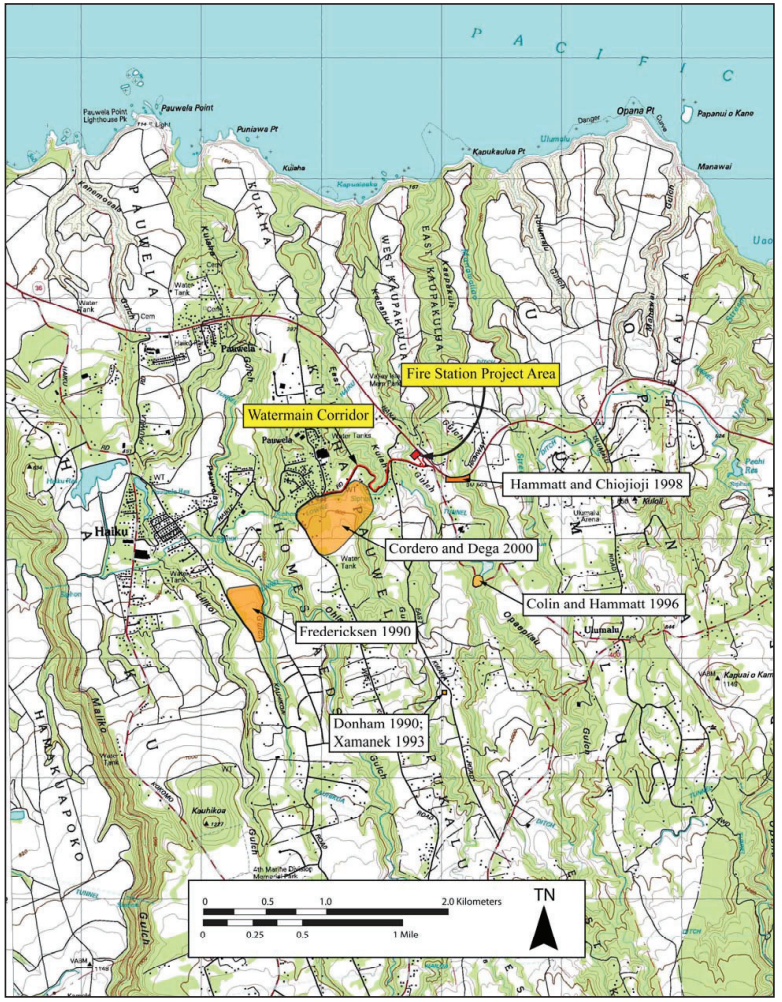

Figure 4: Portion of USGS Map (Haiku Quad) Showing Location of Previous Archaeological Studies

PREDICTIVE MODEL

The earliest settlement on Maui Island is believed to have occurred between A.D. 300-600 in windward and coastal areas, with population expanding into drier leeward areas and uplands by A.D. 1000 (Kirch, 1985 and Kolb *et al.* 1997). While the coastal settlements flourished, areas considered the middle zones (i.e. present project area) contained little archaeological evidence for such expansions (Buffum-Cordero and Dega, 2000).

It is very likely, however, that historic agricultural endeavors such as pineapple cultivation decimated any sites that would have denoted traditional settlement. With the presence of traditional *lo`i* within the gulches around the vicinity of the project area (i.e. Kuiaha), it is likely that the plateau areas could have been utilized for temporary habitation or small scale agriculture. LCA's located in the vicinity of the project area suggest that within the gulches taro was cultivated, while potato was grown on the valley sidewalls. Above the gulches, the lands were generally described as pasture land.

Based on previous archaeological research, it is clear that little evidence of traditional Hawaiian settlement on the plateau lands remains. Studies conducted in these areas (i.e. Fredericksen, 1990; Masterson, 1995; and Cordero and Dega, 2000) suggest that surface sites that could have existed prior to the advent of large-scale agriculture were likely destroyed by these activities. Thus, settlement in the plateau lands between the gulches can only be inferred from historic references and the few sites encountered within the gulches.

Historically, the project area was used for large scale pineapple cultivation and pasture and later as a house site that would have likely destroyed any traditional Hawaiian sites or features. Along the waterline corridor the road has been cut up to 15-feet into the slope effectively eliminating any possibility of encountering subsurface deposits. Thus, it is believed that any sites encountered will likely be of an historic nature related to agriculture, animal husbandry or recent habitation within the project area.

METHODOLOGY

The inventory survey fieldwork took place from September 21-25, 2009 by David Perzinski, B.A. and Brian Armstrong under the overall direction of Michael Dega, Ph.D. The inventory survey included a 100% pedestrian survey with transects conducted in 5-10 m intervals that were oriented roughly north/south depending on ground cover and visual range. When sites/features were encountered, the location was flagged, noted on a project area map and recorded. The sites were documented with written descriptions, photographs and scale plan view maps. The site boundaries were delineated based on the visible horizontal extent of the features visible on the ground surface.

In addition to the pedestrian survey, 11 backhoe trenches were excavated throughout the subject parcel. Trenches were generally 4 to 8 m in length and excavated to sterile sediments (approximately 1.0-1.4 m below surface). Trenches were excavated throughout the southern portion of the project area due to the extremely uneven terrain in the eastern portion of the project area and presence of several concrete pads and pre-existing structures in the northern portion. Once trenches were completely excavated, the stratigraphic sequence was recorded using Munsell Soil Charts with sediment texture, consistency, plasticity and structure being noted in the descriptions.

Along the waterline corridor, the proposed corridor was inspected by a 100% pedestrian survey. The corridor follows East Kuiaha Road and veers west following Ha`ikū Road to its junction with West Kuiaha Road. The majority of the corridor is along the deeply cut Ha`ikū Road, with the western portion extending through a neighborhood near West Kuiaha Road. No subsurface testing was conducted along waterline corridor due to traffic and safety concerns.

Archival research entailed investigating the historic and archaeological background of the general project area. This examination included a documentary search of previous archaeological research conducted in this region of Maui as well as a review of archival literature relating to Land Commission Awards and local mythology. The review of historical documents was accomplished in order to understand the impact of post-Contact events on the cultural and archaeological landscape of the region

All laboratory work was conducted in the Maui office of SCS and included the drafting of site plan view maps and trench profiles. All documentary materials are currently being curated at the SCS office in Maui.

RESULTS OF FIELDWORK

The archaeological inventory survey included a 100% pedestrian survey and limited subsurface backhoe testing. In total, one historic era site (SIHP No. 50-50-06-6678) was recorded and attributed to the former occupants in this portion of the project area. Though a modern structure (constructed of wood and corrugated plastic) is currently located adjacent to the site, it is believed that an earlier structure likely existed nearby. No traditional or early historic sites were observed during the pedestrian inspection. In addition to the pedestrian survey, 11 backhoe trenches were excavated to aid in analysis of the subsurface deposits across the project area, with the majority located within the southern portion of the project area.

The stratigraphic sequences of the 11 trenches were nearly identical (Figures 5 and 6) . The two strata observed were sterile with no cultural layers or materials present. This is likely due to historic land use patterns (pineapple cultivation) and subsequent grading by the landowners. Trenching generally occurred in the southern portion of the project area where thick cane grass and *koa haole* was thriving. In general, the stratigraphic sequence consisted of:

Stratum I: (0-45 cmbs) (dry) 7.5 YR 4/3 (brown) silty clay; slightly hard, medium, granular structure; slightly plastic and sterile; lower boundary is abrupt and wavy

Stratum II: (45-boe) (moist) 5 YR 4/3 (reddish brown) silty clay; slightly hard, medium, subangular structure; slightly plastic and sterile

Along the eastern extent of the proposed waterline corridor, the area appears to have been subjected to grading for the existing East Kuiaha Road. No surface sites or features were observed during the pedestrian survey. Along Ha`ikū Road, the corridor has been deeply cut into the gulch slope, effectively eliminating any possibility of encountering subsurface sites or cultural deposits (Figures 7 and 8). The western extent of the waterline corridor emerges from Kuiaha Gulch and traverses along Ha`ikū Road to its junction with West Kuiaha Road. This portion of the corridor has been graded for the road and existing residential lots.

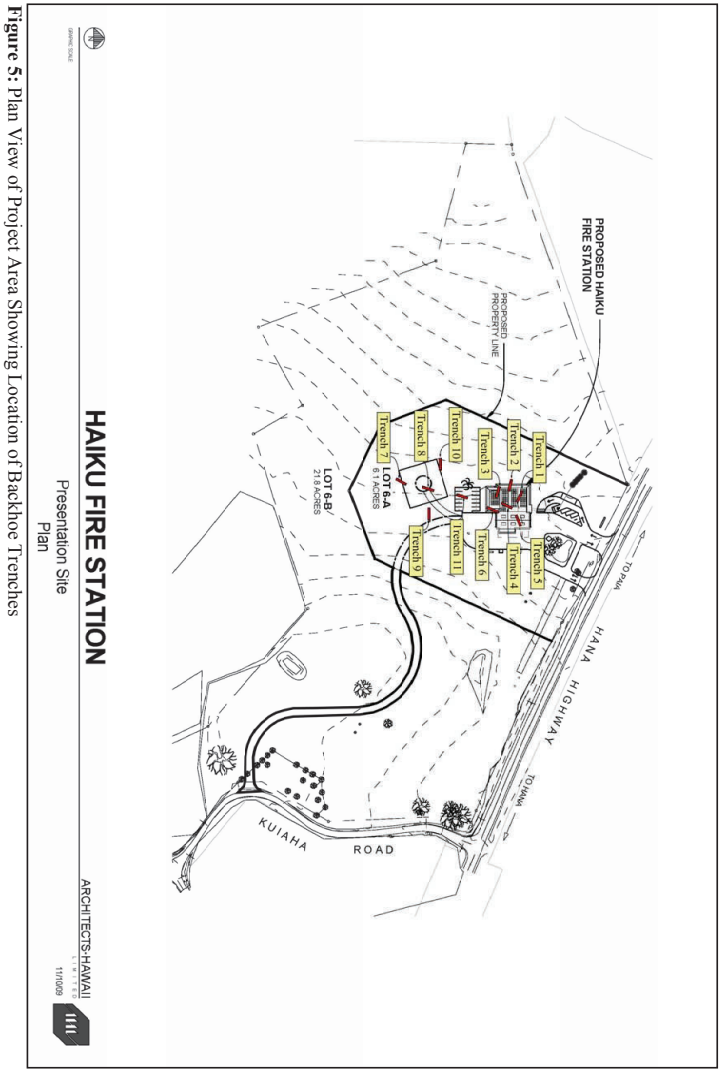

Figure 5: Plan View of Project Area Showing Location of Backhoe Trenches

Figure 7: View West of Ha`ikū Road Waterline Corridor Entering Kuiaha Gulch

Figure 8: View West of Ha`ikū Road Waterline Corridor Exiting Kuiaha Gulch

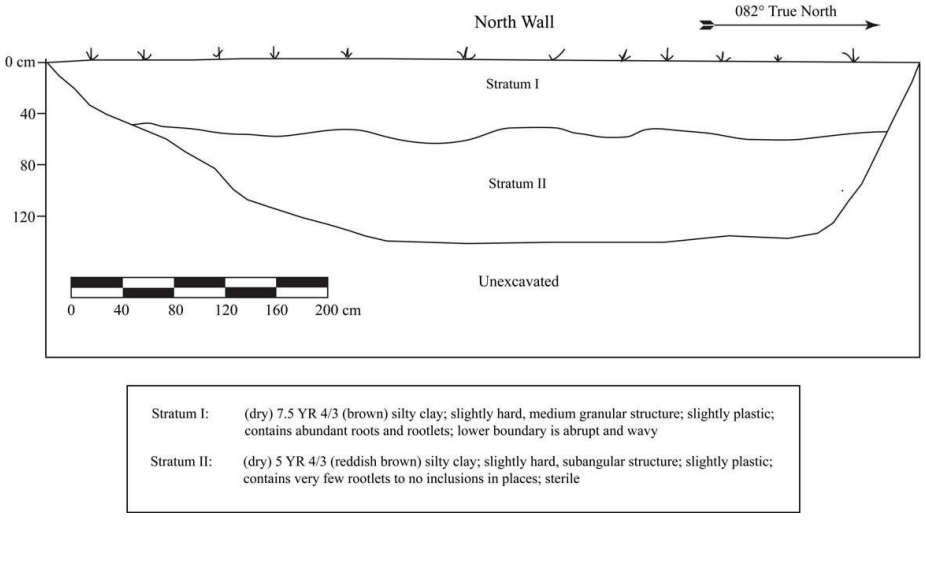

Figure 6: Profile of Trench 2 Showing Stratigraphic Sequence

SIHP No. 50-50-06-6678 Condition: Fair/Good

Site Type: Terraces/Retaining Wall

Function: Soil retention/gardening

Feature (#): 2

Age: Historic (ca. 1950's)

Significance: D

Recommendation: No Further Work

SIHP No. 50-50-06-6678 consists of two features and is situated in the northwest portion of the project area adjacent to a vacant cottage and asphalt driveway (Figure 9). The site is currently in fair to good condition and functions as a retaining wall and garden terrace. The features are set amongst thick grasses and vines with a few cultivated plants (banana and potted palms) that appear to have been abandoned. Though the site is constructed of traditional material (dry-stacked basalt), it is believed that the features were associated with the current or possibly a former residence. The current structure (Figure 13) adjacent to the site is constructed of wood and corrugated plastic and is not believed to be the original structure. The age of the gardening site is estimated to be 50-60 years old (ca. 1950's).

Feature A consists of a 21 m long partially faced basalt retaining wall with a maximum height of 94 cm and constructed of small basalt cobbles to large boulders (Figures 10-11). The retaining wall retains an east/west sloping hill that is covered in cane grass. Feature A is dry-stacked 1-5 courses and delineates the eastern side of an asphalt driveway that creates a parking area for an abandoned cottage.

Feature B consists of an 8 meter by 4 meter terraced garden area that is constructed of stacked basalt cobbles 1-4 courses and built on a moderate slope (Figures 10-12). Banana, pineapple and overgrown grasses and vines were observed and it is believed that it was constructed by the former house occupants.

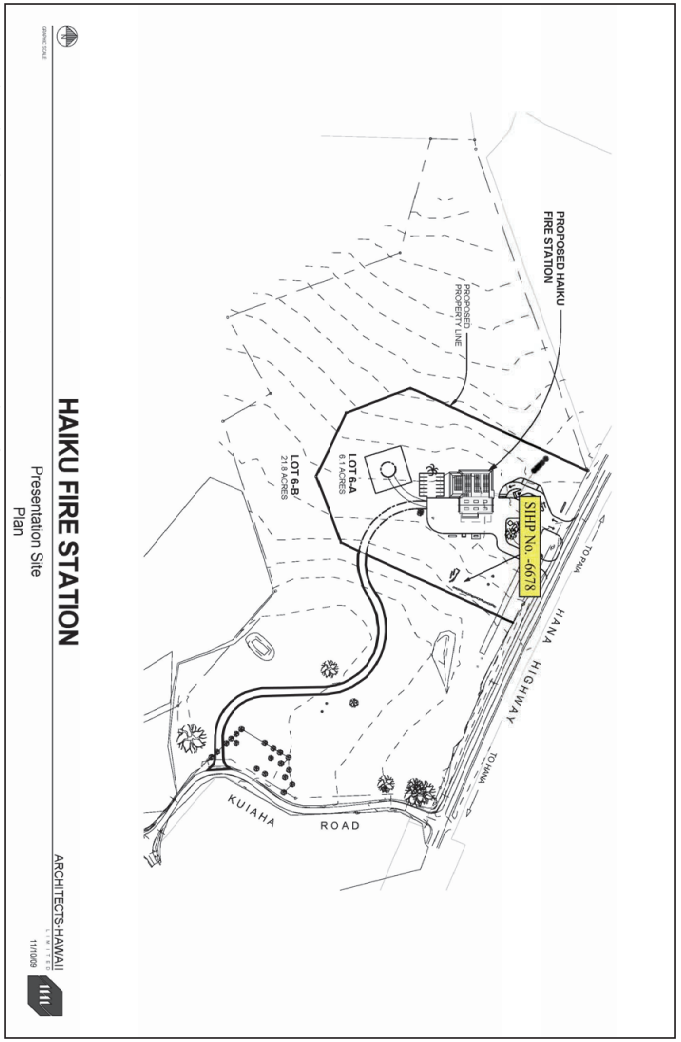

Figure 9: Plan View of Project Area Showing Location of SIHP No. 50-50-06-6678

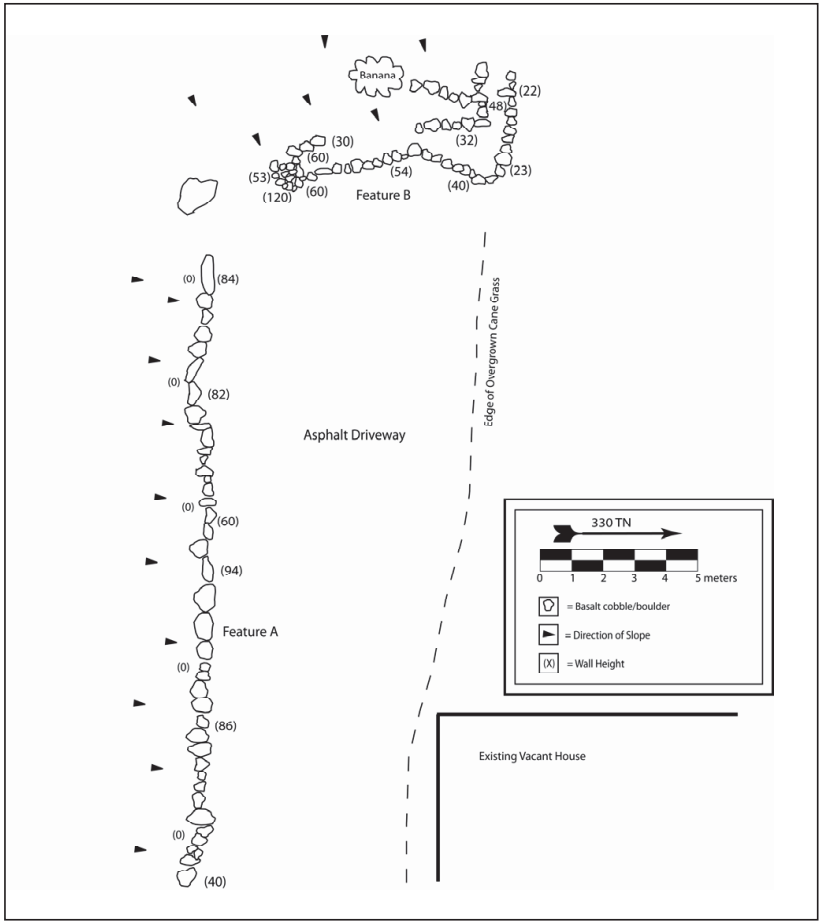

Figure 10: Plan View of SIHP No:50-50-06-6678

Figure 11: View West of SIHP No. -6678 Feature A in Foreground and Feature B in Background

Figure 12: View Northwest of SIHP No. -6678 Feature B

Figure 13: View West of Existing Structure Adjacent to Site -6678

SIGNIFICANCE ASSESSMENTS

One site composed of two features was documented in the project area during Archaeological Inventory Survey at TMK: TMK: (2) 2-7-007:008(por.). The site (see below) has been evaluated for significance according to the criteria established for the State and National Register of Historic Places. The five criteria are listed below:

Criterion A: Site is associated with events that have made a significant contribution to the broad patterns of our history;
Criterion B: Site is associated with the lives of persons significant to our past;
Criterion C: Site is an excellent site type; embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual construction;

Criterion D: Site has yielded or has the potential to yield information important in prehistory or history;
Criterion E: Site has cultural significance; probable religious structures or burials (State of Hawai`i criteria only).

State Site 50-50-06-6678 is designated under Criterion D as a site that has yielded or has the potential to yield information important in prehistory or history. The site has been thoroughly documented with photographs, scale plan view maps and written descriptions.

STATE SITE 50-50-06-6678

No further work is recommended for SIHP No. 50-50-06-6678. It is believed that the features have been adequately documented and additional research focused on the site would not contribute to the interpretation of the area, region or Hawaiian prehistory and/or history. Additionally, there are many modern-historic stone walls throughout the island and nothing about Site -6678 stands out, other then it is fairly well constructed and has retained some integrity.

SUMMARY AND RECOMMENDATIONS

Scientific Consultant Services conducted an Archaeological Inventory Survey on a 6.1-acre parcel of land in Kuiaha Ahupua`a, Makawao District, Maui [TMK: 2-7-007:008]. The proposed project includes the construction of a new Ha`ikū Fire Station that will include the station house, parking lots, a helipad and access to Hana Highway. The project was conducted to document and evaluate cultural resources on approximately 6.1 acres of land that currently is the site of two house structures, concrete pads and unmanicured vegetation. In addition, the project has proposed installing a 4,200-foot (1,280 meter) corridor linking the fire station to a watermain at the junction of Ha`ikū Road and West Kuiaha Road. In all, one site (SIHP No. 50-50-06-6678) was documented within the study parcel and consists of an historic era retaining wall and a small terraced garden area.

Previous archaeological investigations and historic documentation in the vicinity of the project area suggests that the area was marginally utilized in pre-Contact times, likely for small scale agriculture, pasture and possibly temporary habitation. In historic times, the area was utilized for large scale agricultural endeavors, primarily for pineapple, and later as a residential house site.

Though it is possible that the project area was utilized in pre-Contact or early historic times, no physical evidence was documented during the inventory survey. Based on field observation and 11 mechanically subsurface test trenches, it appears that the project area, specifically in the vicinity of the proposed Fire Station structures, parking and helipad, has been subjected to extensive mechanical grading for agricultural pursuits and for the former residences. Subsurface observation revealed no evidence of a cultural component (i.e. charcoal, midden, artifacts) that would have indicated pre-Contact or early historic use.

Based on the findings during the archaeological survey, no monitoring is recommended within the 6.1-acre parcel proposed for the new fire station and associated infrastructure. Access to Hana Highway will likely utilize the existing driveway, though additional grading may be required to widen the access point. Because this section of the Highway has been improved in modern time, no historic architecture will be affected. Along the waterline corridor, archaeological monitoring is recommended along portions of Ha`ikū Road that is not within the cut slope. These areas include the stretch crossing Kuiaha Gulch (an approximate 150 meter stretch) and along the western portion of the corridor from the Ha`ikū Road/West Kuiaha Road junction and extending approximately 400 meters towards the gulch. However, should the inadvertent discovery of significant cultural materials and/or burials occur during unmonitored phases of construction, all work in the immediate area of the find must cease and the SHPD be notified to discuss mitigation.

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ARCHAEOLOGICAL INVENTORY SURVEY ACCEPTANCE LETTER FROM THE STATE HISTORIC PRESERVATION DIVISION

APPENDIX

C-2

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

PAUL J. CONRY
ACTING FIRST DEPUTY

LENORE N. OHYE
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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CONSERVATION AND RESOURCES ENFORCEMENT
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

November 12, 2010

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
711 Kapiolani Blvd., Suite 975
Honolulu, Hawaii 96813

LOG NO: 2010.1245
DOC NO: 1011MD25
Archaeology

Dear Dr. Dega:

SUBJECT: Chapter 6E-8 Historic Preservation Review –
Revised Archaeological Inventory Survey of 6.1 Acres with One New Site
Pa'uwela Ahupua'a, Makawao District, Island of Maui
TMK: (2) 2-7-007:008

This letter summarizes our review of the aforementioned revised report (Perzinski and Dega August 2010; *An Archaeological inventory Survey for the Proposed Ha'ikū Fire Station and Waterline Corridor in Pa'uwela Ahupua'a, Makawao District, Island of Maui, Hawaii [TMK 2-7-007:008];SCS Project Number 1012-ISR-2*), which we received on September 9, 2010. We apologize for the delay in our reply. We previously reviewed a draft of this report (Perzinski and Dega June 2010) and requested changes/clarifications (*Log No. 2010.2365, Doc No. 1007MD36*).

This report documents an archaeological inventory survey conducted for the new Ha'ikū fire station, including driveways, a helipad and a waterline extending 1280 meters along Haiku, East Kuiaha and West Kuiaha Roads. One new site was documented, SIHP 50-50-06-6678, rock alignments built by previous residents of the existing vacant house which were used to line the driveway and create a planting area in the 1950s. SIHP 6678 was recommended as significant under criterion "d" and we concur with that recommendation. We also agree that no further work is required at this site.

Archaeological monitoring is recommended for portions of the waterline that are within the Haiku Road corridor, but not along the cut slope. We agree with this recommendation. Please submit an archaeological monitoring plan to SHPD for review and approval pursuant to HAR § 13-279 prior to the start of any ground-altering construction.

Our requested changes have been addressed and this revised report is accepted as final pursuant to HAR §13-276. Upon receipt of this letter please submit one paper copy of your report marked "Final" to our Kapolei office along with a CD containing a searchable pdf version of the final report and a copy of this approval letter, marked to the attention of the "**Kapolei Library**." If you have questions about this letter please contact Morgan Davis at (808) 243-5169 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

Theresa K. Donham
Acting Archaeology Branch Chief
State Historic Preservation Division

APPENDIX

D

CULTURAL IMPACT ASSESSMENT REPORT

SCS Project Number 1013-CIA-1

A CULTURAL IMPACT ASSESSMENT FOR THE PROPOSED DEVELOPMENT OF A HA`IK Ū FIRE STATION, PA`UWELA, MAKAWAO DISTRICT ISLAND OF MAUI, HAWAI`I [TMK 2-7-007:008]

Prepared by:
Leann McGerty, B.A.
and
Robert L. Spear, Ph.D.
May 2009

Prepared for:
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai`i, 96793

SCIENTIFIC CONSULTANT SERVICES Inc.

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INTRODUCTION

Scientific Consultant Services (SCS), Inc. has been contracted by Munekiyo & Hiraga, Inc. to conduct a Cultural Impact Assessment (CIA) on a 7-acre land parcel in Pa`uwela, Makawao District, Maui [TMK: 2-7-007:008] (Figures 1 and 2). Based on exhibits supplied by Munekiyo & Hiraga, Inc., the proposed project consists of the construction of the Ha`ikū Fire Station. The exact footprint of the project within the 7 acres has yet to be determined.

The Constitution of the State of Hawai`i clearly states the duty of the State, and its agencies, is to preserve, protect, and prevent interference with the traditional and customary rights of native Hawaiians. Article XII, Section 7 requires the State to "protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by *ahupua`a* tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778" (2000). In spite of the establishment of the foreign concept of private ownership and western-style government, Kamehameha III (Kauikeaouli) preserved the peoples traditional right to subsistence. As a result in 1850, the Hawaiian Government confirmed the traditional access rights to native Hawaiian *ahupua`a* tenants to gather specific natural resources for customary uses from undeveloped private property and waterways under the Hawaiian Revised Statutes (HRS) 7-1. In 1992, the State of Hawai`i Supreme Court, reaffirmed HRS 7-1 and expanded it to include, "native Hawaiian rights…may extend beyond the *ahupua`a* in which a native Hawaiian resides where such rights have been customarily and traditionally exercised in this manner" (Pele Defense Fund v. Paty, 73 Haw.578, 1992).

Act 50, enacted by the Legislature of the State of Hawaii (2000) with House Bill 2895, relating to Environmental Impact Statements, proposes that:

> …there is a need to clarify that the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawaii's culture, and traditional and customary rights… [H.B. NO. 2895].

Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs and practices, and resources of native Hawaiians, as well as other ethnic groups. Act 50 also requires state agencies, and other developers, to assess the effects of proposed land use, or shore line developments, on the "cultural practices of the community and State" as part of the HRS Chapter 343 environmental review process (2001).

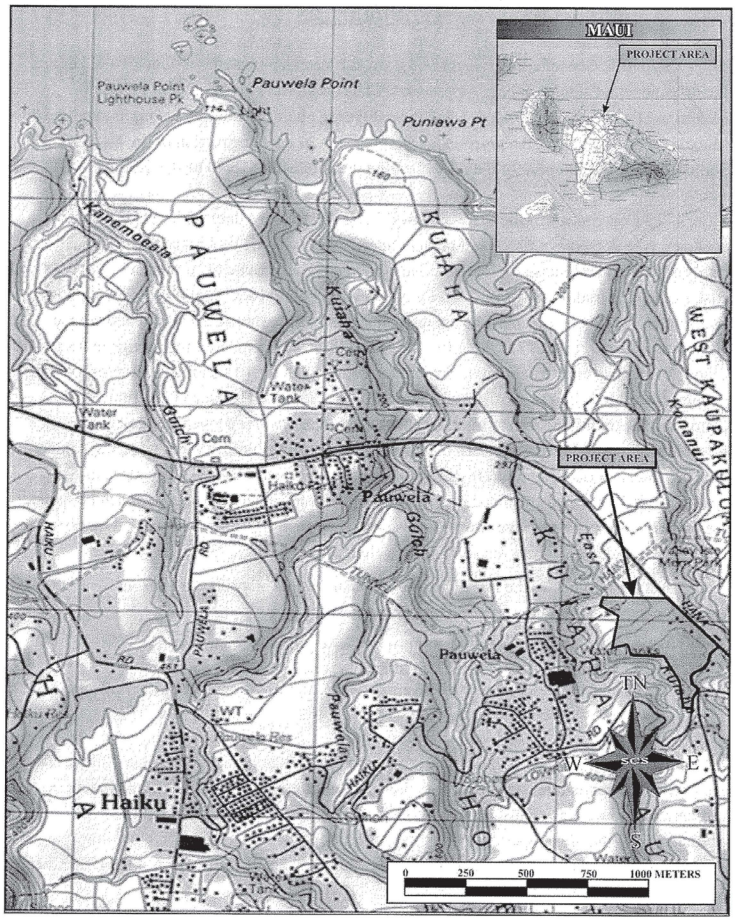
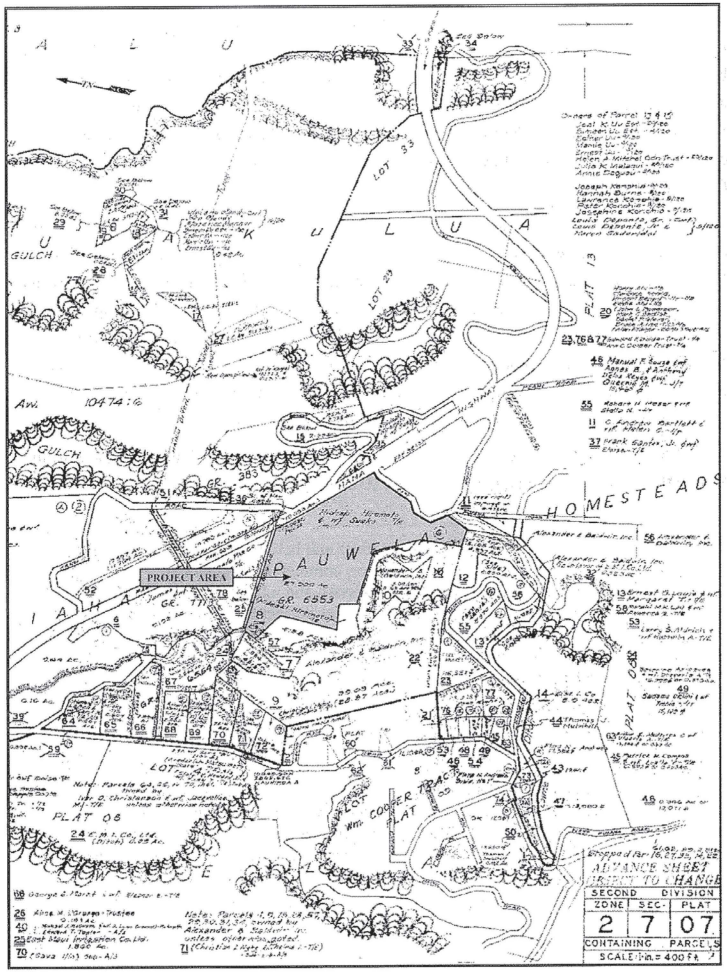


Figure 1: USGS Quadrangle Map Showing Project Area.


PROJECT AREA
PAUWELA
HOMESTEADS
GULCH
PLAT 08
PLAT 13
LOT 33
LOT 35
LOT 36
LOT 37
LOT 38
LOT 39
LOT 40
LOT 41
LOT 42
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LOT 54
LOT

METHODOLOGY

This Cultural Impact Assessment was prepared in accordance with the suggested methodology and content protocol provided in the Guidelines for Assessing Cultural Impacts (OEQC 1997). In outlining the "Cultural Impact Assessment Methodology", the OEQC stated that "…information may be obtained through scoping, community meetings, ethnographic interviews and oral histories…" (1997).

The report contains archival and documentary research, as well as communication with organizations having knowledge of the project area, its cultural resources, and its practices and beliefs. The assessment concerning cultural impacts should make efforts to address the following matters:

(1) a discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints of limitations with might have affected the quality of the information obtained;

(2) a description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken;

(3) ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained;

(4) biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area;

(5) a discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken, as well as the particular perspective of the authors, if appropriate, any opposing views, and any other relevant constraints, limitations or biases;

(6) a discussion concerning the cultural resources, practices and beliefs identified, and for the resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site;

(7) a discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project;

(8) an explanation of confidential information that has been withheld from public disclosure in the assessment;

(9) a discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs;

(10) an analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place, and;

(11) the inclusion of bibliography of references, and attached records of interviews, which were allowed to be disclosed.

Based on the inclusion of the above information, assessments of the potential effects on cultural resources in the project area, and recommendations for mitigation of these effects, can be proposed.

ARCHIVAL RESEARCH

Archival research focused on a historical documentary study involving both published and unpublished sources. These included legendary accounts of native and early foreign writers; early historical journals and narratives; historic maps and land records such as Land Commission Awards, Royal Patent Grants, and Boundary Commission records; historic accounts, and previous archaeological project reports.

INTERVIEW METHODOLOGY

Interviews are conducted in accordance with Federal and State laws, and guidelines, when knowledgeable individuals are able to identify cultural practices in, or in close proximity to the project area. If they have knowledge of traditional stories, practices and beliefs associated with a project area, or if they know of historical properties within the project area, they are approached for additional consultation and interviews. Individuals who have particular knowledge of traditions passed down from preceding generations and a personal familiarity with the project area are invited to share the relevant information. Often people are recommended for

their expertise, and indeed, organizations, such as Hawaiian Civic Clubs, the Island Branch of Office of Hawaiian Affairs (OHA), historical societies, Island Trail clubs, and Planning Commissions are depended upon for their recommendations of suitable informants. These groups are invited to contribute their input, and suggest further avenues of inquiry, as well as specific individuals to interview.

If knowledgeable individuals are identified, personal interviews are sometimes taped and then transcribed. These draft transcripts are returned to each of the participants for their review and comments. After corrections are made, each individual signs a release form, making the information available for this study. When telephone interviews occur, a summary of the information is usually sent for correction and approval, or dictated by the informant and then incorporated into the document. If no cultural resource information is forthcoming and no knowledgeable informants are suggested for further inquiry, interviews are not conducted.

Initial letters were sent to organizations whose jurisdiction included knowledge of the area. Consultation was sought from Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; the Maui Planning Department, Cultural Resources Commission; Kamika Kepa`a of the Native Hawaiian Preservation Council, and Nā Kupuna O Maui (Appendix A).

In addition, a Cultural Impact Assessment Notice was published on January 11, 14, 15, 2009 in *The Honolulu Advertiser* and *The Maui News*, on January 11, 14, 15 2009 (Appendix B). These notices requested information of cultural resources or activities in the area of the proposed project, gave the TMK number and where to respond with information. Based on the responses, an assessment of the potential effects on cultural resources in the project area and recommendations for mitigation of these effects can be proposed.

When a cultural resource is previously unknown, but identified within a project area, or in a proximity that will be affected by the project, it may be necessary to contact the island Branch OHA office, or other ethnic organizations and individuals who possess the requisite capacity to determine whether any site evaluated meets the criteria for having an important cultural value to the native Hawaiian people as well as those of other ethnic groups.

PROJECT AREA AND VICINITY

The project area is located in Pa`uwela Ahupua`a, Makawao District, and abutting the *mauka* side of the Hāna Highway to the north and East Kuaiha Road to the east. Most of the land in the vicinity of the project area has long been planted in sugar cane or pineapple.

CULTURAL HISTORICAL CONTEXT

The island of Maui ranks second in size of the eight main islands in the Hawaiian Archipelago. The Island was formed by two volcanoes, Mount Kukui in the west and Haleakalā in the east. The younger of the two volcanoes, Haleakalā, soars 2,727 m (10,023 feet) above sea level and embodies the largest section of the island. Unlike the amphitheater valleys of West Maui, the flanks of Haleakalā are distinguished by gentle slopes. Although it receives more rain than its counterpart in the east, the permeable lavas of the Honomanū and Kula Volcanic Series prevent the formation of rain-fed perennial streams. The few perennial streams found on the windward side of Haleakalā where the project is located, originate from springs located at low elevations. Valleys and gulches were formed by intermittent water run-off.

PAST POLITICAL BOUNDARIES

Traditionally, the division of Maui's lands into districts (*moku*) and sub-districts was performed by a *kahuna* (priest, expert) named Kalaiha`ōhia, during the time of the *ali`i* Kaka`alaneo (Beckwith 1940:383; Fornander places Kaka`alaneo at the end of the 15th century or the beginning of the 16th century [Fornander 1919-20, Vol. 6:248]). Land was considered the property of the king or *ali`i `ai moku* (the *ali`i* who eats the island/district), which he held in trust for the gods. The title of *ali`i `ai moku* ensured rights and responsibilities to the land, but did not confer absolute ownership. The king kept the parcels he wanted, his higher chiefs received large parcels from him and, in turn, distributed smaller parcels to lesser chiefs. The *maka`āinana* (commoners) worked the individual plots of land.

In general, several terms, such as *moku*, *ahupua`a*, *`ili* or *`ili`āina* were used to delineate various land sections. A district (*moku*) contained smaller land divisions (*ahupua`a*), which customarily continued inland from the ocean and upland into the mountains. Extended household groups living within the *ahupua`a* were therefore, able to harvest from both the land and the sea. Ideally, this situation allowed each *ahupua`a* to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875). The *`ili `āina* or *`ili* were smaller land divisions next to importance to the *ahupua`a* and were administered by the chief who controlled the *ahupua`a* in which it was located *(Ibid.*; Lucas 1995). The *mo`o`āina* were

narrow strips of land within an *`ili*. The land holding of a tenant or *hoa `āina* residing in an *ahupua`a* was called a *kuleana* (Lucas 1995). The project area is located in the *ahupua`a* of Pa`uwela, which translated means literally "hot soot" (Pukui *et al.*:1974:182). Traditionally, Pa`uwela was considered a part of the Hāmākua Loa District. Presently, Pa`uwela is in the Makawao District.

TRADITIONAL SETTLEMENT PATTERNS

The Hawaiian economy was based on agricultural production and marine exploitation, as well as raising livestock and collecting wild plants and birds. Extended household groups settled in various *ahupua`a*. During pre-Contact times, there were primarily two types of agriculture, wetland and dry land, both of which were dependent upon geography and physiography. River valleys provided ideal conditions for wetland *kalo* (*Colocasia esculenta*) agriculture that incorporated pond fields and irrigation canals. Other cultigens, such as *kō* (sugar cane, *Saccharum officinaruma*) and *mai`a* (banana, *Musa* sp.), were also grown and, where appropriate, such crops as *`uala* (sweet potato, *Ipomoea batatas*) were produced. This was the typical agricultural pattern seen during traditional times on all the Hawaiian Islands (Kirch and Sahlins 1992, Vol. 1:5, 119; Kirch 1985).

The Hāmākua Loa region was associated with the gods Kanaloa and Kane, who caused fresh water to flow from springs and gulches, as they had nothing but *`awa* to drink when they came here (Hill *et al.* 2006). Hāmākua Loa was where the head of the guardian of the god of thunder, Kanehekili, was beheaded by his brother-in-law at Pakanaloe Heiau (Thrum 1908). Although the head had been taken to Lāna`i, the people cut up Kanehekili's body into pieces that were distributed around Maui for all to worship.

Both Hāmākua Poko and Hāmākua Loa, where the *ahupua`a* of Pa`uwela is found, contained small gulches surrounded by gently sloping *kula* lands. Opening to the sea, the wide mouths of the gulches supported *lo`i*, that ascended with the stream bed. Handy and Handy stated that Kuiaha Gulch, near the project area, undoubtedly had a few pond fields within its limits (1972). It was very likely that stream taro were planted in the many streamlets that fed into the main gulches, as well as dry land taro in the *kula* lands and in the lower forest (*ibid*). The many narrow *ahupua`a* along this coast suggests that the population was considerable, even with only a moderate rain fall. The soil was excellent for sweet potato between the gulches, yams and *`awa* could be grown in the interior, and other crops, including banana, breadfruit, sugar cane, and arrowroot, would have thrived in the region (*Ibid.*). The bays were considered

excellent for fishing with the *alaloa*, finished by Kihapi`ilani in the 1500s, connecting them for easy access by the people.

Before the landing of Capt. Cook, there was great competition between the chiefs of Hawai`i Island and the *ali`i nui* of Maui. In the early 1700s, Chief Alapa`i nui a Kauaua of Hawai`i Island, returned to Maui to make war on Kekaulike, ruling chief of Maui (Kamakau 1961). Upon arrival to Kaupo, he learned that Kekaulike was dying and had appointed Alapa`i's own nephew, Kamehameha nui, as heir. Alapa`i lost all ambition for war and made peace with the new ruler. Although peace was maintained for many years, it was only a matter of time before the rivalry again surfaced between these two Islands. This time with the brother of Kamehameha nui, Kahekili who had become ruler after Kamehameha nui's death, and Kalaniopu`u, an *ali`i* who had previously served under Alapa`i nui, for control of the island chain (Kamakau 1961, Fornander 1969). Kalaniopu`u invaded Hāmākua Loa late in 1778, but was defeated by Kahekili's warriors. Gathering the support of Mahihelelima, chief of the Hāna District, Kalaniopu`u went back to Hāmākua Loa where they attacked once more. The back-and-forth battles continued for sometime (1775-1779), even after the rise of Kamehameha (Kamakau 1961).

> Hearing of Kamehameha's approach Kalanikupule [son of Kahekili] sent an army to Hamakualoa under the warrior Kapa-kahili . . .after his death the fighting ceased and Kamehameha and his chiefs went on the principal encounter at Wailuku [*Ibid.*:148]

WESTERN CONTACT

Early records, such as journals kept by explorers, travelers and missionaries, Hawaiian traditions that survived long enough to be written down, and archaeological investigations have assisted in the understanding of past cultural activities. It was during the fighting between Kalaniopu`u and Kahekili at Hāmākua Loa in 1778, that Capt. Cook and his men first arrived at the other end of the island chain; Ni`ihau and Kaua`i (Fornander 1969). Returning in November of 1778, they had their first look at Maui and Hāmākua Loa region, and indeed, met Kahekili and Kamehameha who ventured out at different times to investigate, ". . .The tower of Lono!" (Kamakau 1961:97).

Descriptions of the north coast of Maui were first recorded in November of 1778 as the Resolution and the Discovery sailed down a portion of the northeast side of the island (Beaglehole 1967: Part I, Vol. III). David Samwell, a surgeon on the Discovery, reported "...the ships lay to all day about 3 miles off shore, trading with the Natives who came off in their canoes in great number..." (Beaglehole Part I, vol. III 1967:1151).

It had been a time of war between Kalaniopu`u, ruler of Hawai`i Island, and Kahekili, chief of Maui and Moloka`i. During this season of the year (*Makahiki*), however, the fighting was temporarily suspended and the great chief of Maui, Kahekili, was free to visit the foreign ships. Samwell recorded his impressions of the King and the windward slopes of the northern coast of Maui. He stated that Kahekili was "a middle aged man ... rather of a mean appearance..." and the land was "...mountainous, the sides of the hills are covered with trees...large open plains on which stand their houses & where they have their plantations of sweet potatoes, taro & c. ..." (*Ibid.*).

THE *MĀHELE*

In the 1840s, a drastic change in the traditional land tenure resulted in a division of island lands and a system of private ownership based on Western law. While it is a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kauikeaouli (Kamehameha III) was forced to establish laws changing the traditional Hawaiian society to that of a market economy (Daws 1968; Kuykendall Vol. I, 1938:145 *et passim*; Kame`eleihiwa 1992). Among other things, the foreigners demanded private ownership of land to insure their investments (Kuykendall Vol. I, 1938:138 *et passim*; Kame`eleihiwa 1992; Kelly 1998, 1983). Once lands were made available and private ownership was instituted, native Hawaiians—including the *maka`āinana* (commoners)—were able to claim the plots they were cultivating and living on, if they had been made aware of the foreign procedures (*kuleana* lands, LCAs). This land division, or Māhele, occurred in 1848. The awarded parcels were called Land Commission Awards (LCA). If occupation could be established through the testimony of witnesses, the petitioners were issued a Royal Patent number and could then take possession of the property (Chinen 1961). Twenty-eight LCAs were claimed in Pa`uwela Ahupua`a, however, none were awarded within the project area (Waihona `aina Database, 2009). The un-awarded lands of Pa`uwela became government lands and were later sold as Government Grants. The project area was part of Grant 6553.

Sugar cane became a major industry in the 1800s and Pa`uwela offered good land for its cultivation. The Haiku Sugar Company was formed in 1858, and by the 1870s, three more plantations were developed in the region (Dorrance and Morgan 2000). As more and more land was cultivated with sugar, the need for water became significant. In 1876, four plantations formed the Hamakua Ditch Company that obtained the water rights and eventually diverted the stream water by using ditches, tunnels and pipes to irrigate the fields. By 1900, most of

Pa`uwela was in sugar and water needs had expanded to the point where several ditches were constructed to deliver water: the Koolau Ditch in 1905, the Lowrie Ditch in 1914, and the Haiku Ditch in 1914 (Haun and Henry 2002). During the 1920s both pineapple and grapes were introduced for cultivation. In the 1930s, some areas of Pa`uwela were used for cattle pasture lands.

During WWII (1944), Pa`uwela lands were used for a training base called "Camp Maui." At least 16,000 Marines trained here for the invasion that was to take place on Saipan and Tinian in the Mariana Islands that were held by the Japanese (Joseph *et al.* 2008). Today, there are residences, and some continuing agriculture, in the region.

SUMMARY

The "level of effort undertaken" to identify potential effect of a project to cultural resources, places or beliefs (OEQC 1997) has not been officially defined and is left up to the investigator. A good faith effort can mean contacting agencies by letter, interviewing people who may be affected by the project or who know its history, research identifying sensitive areas and previous land use, notifying the community through the media, and other appropriate strategies based on the type of project being proposed and its impact potential. Sometimes the developer might decide to hold meetings in which the public is invited to testify and provide information. As a CIA is not an archaeological study, sending inquiring letters to organizations concerning development of a piece of property that has already been used for previous contemporary activities and is located in an already developed industrial area may be a "good faith effort". If there had been cultural resources and activities in the region, it is likely that they have already been seriously impacted to the point of extinction. However, when many factors need to be considered, such as in coastal or mountain development, a good faith effort might mean an entirely different level of research activity.

In the case of the present parcel, letters of inquiry were sent to organizations whose expertise would include the project area. Consultation was sought from Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; the Maui Planning Department, Cultural Resources Commission; Kamika Kepa`a of the Native Hawaiian Preservation Council, and Nā Kupuna O Maui.

In addition, a Cultural Impact Assessment Notice was published on January 11, 14, 15, 2009 in *The Honolulu Advertiser* and *The Maui News*, on January 11, 14, 15 2009. These notices

requested information of cultural resources or activities in the area of the proposed project, gave the TMK number and where to respond with information.

Historical and cultural source materials were extensively used and can be found listed in the References Cited portion of the report. Such scholars as I`i, Kamakau, Beckwith, Chinen, Kame`eleihiwa, Fornander, Kuykendall, Kelly, Handy and Handy, Puku`i and Elbert, Thrum, Sterling, and Cordy have contributed, and continue to contribute to our knowledge and understanding of Hawai`i, past and present. The works of these and other authors were consulted and incorporated in the report where appropriate. Land use document research was supplied by the Waihona `Aina 2009 Data base.

In addition, archaeological reports specific to the project vicinity were reviewed. Winslow Walker (1930) was the first to systematically record archaeological sites on Maui. He noted 22 *heiau* in the Hāmākua Loa District of which 12 were destroyed, five were partially destroyed, and five were still intact.

An Archaeological Inventory Survey was conducted for a 64.27 acre parcel north of the project area previously under cultivation with sugar cane. No archaeological remains were identified (Masterson *et al.* 1995). In the same area but *makai*, another Archaeological Inventory survey was conducted on 43.76 acres at Maliko Point. No cultural remains were identified (Pantaleo 2002).

On Maliko point a Archaeological Inventory survey was conducted and two sites were identified (Fredericksen and Fredericksen 2001). These consisted of a historic cemetery and a pre-Contact ceremonial and burial site.

An Archaeological Inventory Survey was conducted for the Ha`iku Community Center. Pineapple had previously been cultivated on the parcel and no archaeological remains were identified either above or below the surface (Zachman and Spear 2002).

Several historic burials from around the 1930s were identified in a small parcel west of the present project area (Haun and Henry 2002). These have been preserved by the Maui/Lāna`i Island Burial Council.

Several other surveys conducted between 1998 and 2006 identified agricultural terraces, retaining walls and a steel culvert bridge (Buffum-Cordero and Dega 2000; Hammatt and Chiogioji 1998; and Hill *et al.* 2006).

In 2008, an Archaeological Inventory Survey was conducted in Pa`uwela in which three sites were identified consisting of a pre-Contact stone-walled, earth-filled habitation terrace, a

historic boundary line represented by a fence and stone wall and a transportation trail (Joseph *et al.* 2008). The 5-plus acres were located north of the present project area.

Archaeology deals with material remains, and although cultural beliefs are often reflected through some sort of architecture, like *heiau*, or *ko`a,* there are many examples of cultural associations still important to the community with no physical structures to mark their significance. One such place, *Ulukukui O Lanikāula*, located on Moloka`i, is considered an extremely sacred spot. Another might be Kīlauea and Halema`uma`u, home of Pele. These places have become important sites supporting a traditional belief system still held by the many peoples of Hawai`i. They contain no identified archaeological features, however they are highly meaningful "…because of [their] association with cultural practices or beliefs of a living community . . ." (King 2003:3).

CIA INQUIRY RESPONSE

No specific suggestions of further contacts were received from Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; the Maui Planning Department, Cultural Resources Commission; or Nā Kupuna O Maui from the original letters of inquiry sent in January of 2009.

A response was received from Coochie Cayan, the History and Culture Branch Chief, SHPD (January 28, 2009) and OHA, O`ahu Branch (March 17, 200). It was recommended that we initiate consultation with Leslie Kuloloio, Charles Maxwell, and Ke`emoku Kapu and several others that had already been contacted in the letters of initial inquiry. A second batch of inquiry letters were sent on April 8, 2009 (Appendix C). None of these individuals responded with information concerning cultural activities in the area.

Local and statewide newspaper Public Announcements are included in the strategy and pursuit of information concerning cultural resources and activities associated with specific land parcels. A Cultural Impact Assessment Notice was published on January 11, 14, 15, 2009 in the *Honolulu Advertise*r and *The Maui News* also on January 11, 14, 15, 2009. This notice requested information of cultural resources or activities in the project area, or its vicinity, gives the TMK and where to respond with information. There was no response from either notice.

Analysis of the potential effect of the project on cultural resources, practices or beliefs, its potential to isolate cultural resources, practices or beliefs from their setting, and the potential of the project to introduce elements which may alter the setting in which cultural practices take

place is a requirement of the OEQC (No. 10, 1997). To our knowledge, the project area has not been used for traditional cultural purposes within recent times.

CULTURAL ASSESSMEMNT

Based on historical research and the lack of response from the above listed organizations and individuals, it is reasonable to conclude that Hawaiian rights, or those of any ethnic group related to gathering, access, or other customary activities within the project area will not be affected by developmental activities on this parcel. Because there were no cultural activities identified within the project area, there are no adverse effects.

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APPENDIX A: JANUARY CONSULTANT ENQUIRIES
(Enclosures not included)

SCIENTIFIC CONSULTANT SERVICES, Inc.
711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

January 14, 2009

Central Maui
Hawaiian Civic Club
310 Ka'ahumanu Ave.
Kahului, Maui 96732

Dear Members:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

> The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs…The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural which support such cultural beliefs…

We are asking you for any information that might contribute to the knowledge of traditional activities, or traditional rights that might be impacted by development of the property. The assessment results are dependent on the response and contributions made by individuals and organizations such as yours. Enclosed are maps showing the proposed project area. Please contact me at our SCS Honolulu office at (808) 597-1182; my cell phone, 225-2355; or home, (808) 637-9539, with any information or recommendations concerning this Cultural Impact Assessment.

Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

Ph: 808-597-1182 SCS... SERVING ALL YOUR *ARCHAEOLOGICAL* NEEDS Fax: 808-597-1193
Neighbor Island Offices • Hawai'i Island • Maui • Kaua'i

SCIENTIFIC CONSULTANT SERVICES, Inc.
711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

January 14, 2009

Kamika Kepa'a
Native Hawaiian Preservation Council
606 Kalo Place
Lahaina, HI 96761

Dear Mr. Kepa'a:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

> The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs…The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural which support such cultural beliefs…

We are asking you for any information that might contribute to the knowledge of traditional activities, or traditional rights that might be impacted by development of the property. The assessment results are dependent on the response and contributions made by individuals and organizations such as yours. Enclosed are maps showing the proposed project area. Please contact me at our SCS Honolulu office at (808) 597-1182; my cell phone, 225-2355; or home, (808) 637-9539, with any information or recommendations concerning this Cultural Impact Assessment.

Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

SCIENTIFIC CONSULTANT SERVICES, Inc.
711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

January 14, 2009

Patty Nishiyama
Nā Kupuna O Maui
320 Kaeo Place
Lahaina, Hawaii 96761

Dear Ms. Nishiyama:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

Ph: 808-597-1182 SCS... SERVING ALL YOUR ARCHAEOLOGICAL NEEDS Fax: 808-597-1193
Neighbor Island Offices • Hawai'i Island • Maui • Kaua'i

SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Hinano Rodrigues, Cultural Historian
DLNR Maui Office
130 Mahalani Street
Wailuku, HI 96791

January 14, 2009

Dear Hinano:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Thelma Shimaoka
c/o Office of Hawaiian Affairs
140 Hoohana St.
Suite 206
Kahului, HI 96732

January 14, 2009

Dear Ms. Shimaoka:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

Ph: 808-597-1182 SCS... SERVING ALL YOUR ARCHAEOLOGICAL NEEDS Fax: 808-597-1193
Neighbor Island Offices • Hawai'i Island • Maui • Kaua'i

SCIENTIFIC CONSULTANT SERVICES, Inc.
711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

January 14, 2009

County of Maui
Department of Planning
Cultural Resources Commission
250 S. High Street
Wailuku, HI 96793

Dear Sir or Madam:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

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APPENDIX B: PUBLIC NOTIFICATION

TVK

To: Stacy 597-1182

From: Terri
The Maui News Classified Dept.
Ph: (808) 242-6379 Fax: (808) 242-6399

Please call or fax your corrections/
approval by 4:30 THURSDAY
If I do not hear from you, ad will run
as is. Thank you! GST: $190.80
PO. pwed on-line.

Scientific Consultant 3x2
Class2009 • 01-11-09 Sunday
1457123 - Page 1 - Composite

CULTURAL IMPACT ASSESSMENT NOTICE

Information requested by SCS Of cultural resources or on-going cultural activities on or near this parcel in Pauwela Homesteads, Makawao, Maui.

TMK: (2) 2-7-07:8, Gr. 6553.

Please respond within 30 days to SCS at (808) 597-1182

(MN: Jan. 11, 14, 15, 2009

1013

Proj 1013

IN THE MATTER OF
CULTURAL IMPACT ASSESSMENT NOTICE

1013

CULTURAL IMPACT ASSESSMENT NOTICE:
Information requested by SCS of cultural resources or ongoing cultural activities on or near this parcel in Pauwela Homesteads, Makawao, Maui TMK: (2) 2-7-07:8, Gr. 6553. Please respond within 30 days to SCS at (808) 597-1182.
(Hon. Adv.: Jan. 11, 14, 15, 2009) (A-620589)

STATE OF HAWAII
City and County of Honolulu

AFFIDAVIT OF PUBLICATION

ss.

Valerie L. Yanagihara being duly sworn deposes and says that she is a clerk, duly authorized to execute this affidavit of THE HONOLULU ADVERTISER, a division of GANNETT PACIFIC CORPORATION, that said newspaper is a newspaper of general circulation in the State of Hawaii, and that the attached notice is a true notice as was published in the aforereferenced newspaper as follows

01/11/2009 The Honolulu Advertiser
01/14/2009 The Honolulu Advertiser
01/15/2009 The Honolulu Advertiser

and that affiant is not a party to or in any way interested in the above entitled matter.

Subscribed and sworn to before me this 15th day of January A.D. 2009

ELSIE A. MARUYAMA NOTARY 88-127 PUBLIC STATE OF HAWAII

Elsie A. Maruyama
Notary Public of the First Judicial Circuit
State of Hawaii
My commission expires March 7, 2012

NOTARY PUBLIC CERTIFICATION

Elsie A. Maruyama First Judicial Circuit
Document Description: Affidavit of Publication
No. of Pages: 1 Date of Doc. 1/15/2009
Elsie A. Maruyama 1/27/2009
Notary Signature Date

ELSIE A. MARUYAMA NOTARY 88-127 PUBLIC STATE OF HAWAII

620589

APPENDIX C: APRIL CONSULTATION INQUIRES
(Enclosures not included)

SCIENTIFIC CONSULTANT SERVICES, Inc.
711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Mr. Leslie Kuloloio
469 Maalo Street
Kahului, HI 96732

April 8, 2009

Dear Mr. Kuloloio:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

Ph: 808-597-1182 SCS... SERVING ALL YOUR *ARCHAEOLOGICAL* NEEDS Fax: 808-597-1193
Neighbor Island Offices • Hawai'i Island • Maui • Kaua'i

SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

April 8, 2009 Mr.

Mr. Charles Maxwell
Charles Maxwell
157 Aiea Place
Pukalani, HI 96768

Dear Mr. Maxwell:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Sincerely yours,

Leann McGerty

Leann McGerty,
Senior Archaeologist
Enclosure (2)

SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

April 8, 2009

Ke`eaumoku and U`i Kapu
Kuleana Kuikahi, LLC.
P.O. Box 11524
Lahaina, Maui 96791

Dear Mr. and Mrs. Kapu:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo & Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of a 7 acre parcel in Pauwela, Makawao, Maui (TMK:2-7-007:008). The project proposes the construction of a Ha'ikū Fire Station in Ha'ikū. According to documents supplied by Munekiyo & Hiraga, Inc., SCS has been asked to assess the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

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Leann McGerty,
Senior Archaeologist
Enclosure (2)

Ph: 808-597-1182 SCS... SERVING ALL YOUR *ARCHAEOLOGICAL* NEEDS Fax: 808-597-1193
Neighbor Island Offices • Hawai'i Island • Maui • Kaua'i

APPENDIX

E-1

TRAFFIC IMPACT ANALYSIS REPORT

Traffic Impact Report

Haiku Fire Station

Prepared for:
Munekiyo & Hiraga, Inc.

Prepared by:
Wilson Okamoto Corporation

June 2010

TRAFFIC IMPACT REPORT

FOR THE PROPOSED

HAIKU FIRE STATION

Prepared for:

Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Prepared by:

Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC Ref #7899-01

June 2010

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I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to identify and assess the traffic impacts resulting from the proposed Haiku Fire Station on the island of Maui. The proposed project entails the construction of a new fire station in Haiku adjacent to Hana Highway.

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.
5. Superimposing site-generated traffic over future traffic conditions.
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.

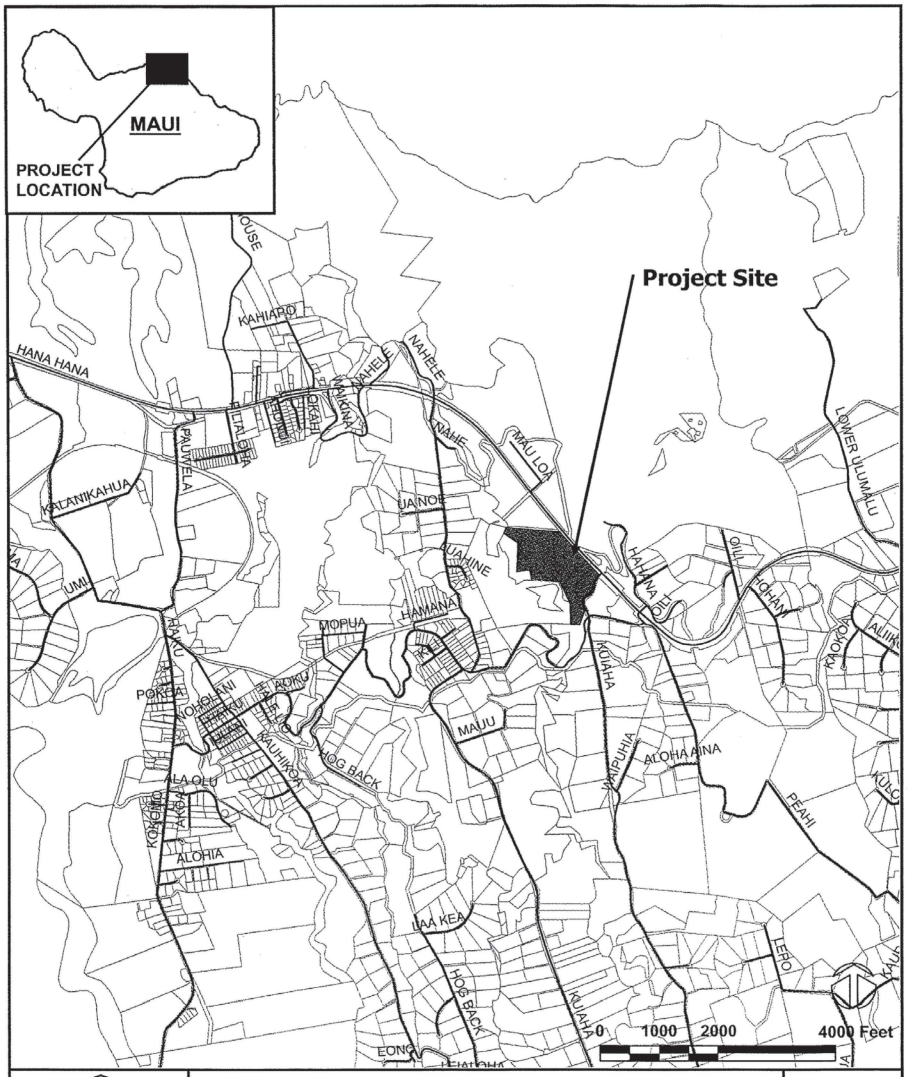
II. PROJECT DESCRIPTION

A. Location

The project site for the new Haiku Fire Station is located adjacent to Hana Highway near East Kuiaha Road in Haiku on the island of Maui (see Figure 1). The proposed site is part of a larger parcel that is further identified as Tax Map Key: 2-7-007: 008 (por.). Access to the new fire station would be provided via a new driveway off Hana Highway.

B. Project Characteristics

The proposed project includes a fire station that will accommodate two fire trucks, utility building, and adjacent at-grade parking areas. The new station will



house office, dining, and living areas, as well as, other miscellaneous support facilities. The new station is expected to be completed by the Year 2012 with access provided via a new driveway off Hana Highway. Figure 2 shows the proposed project site plan.

III. EXISTING TRAFFIC CONDITIONS

A. Area Roadway System

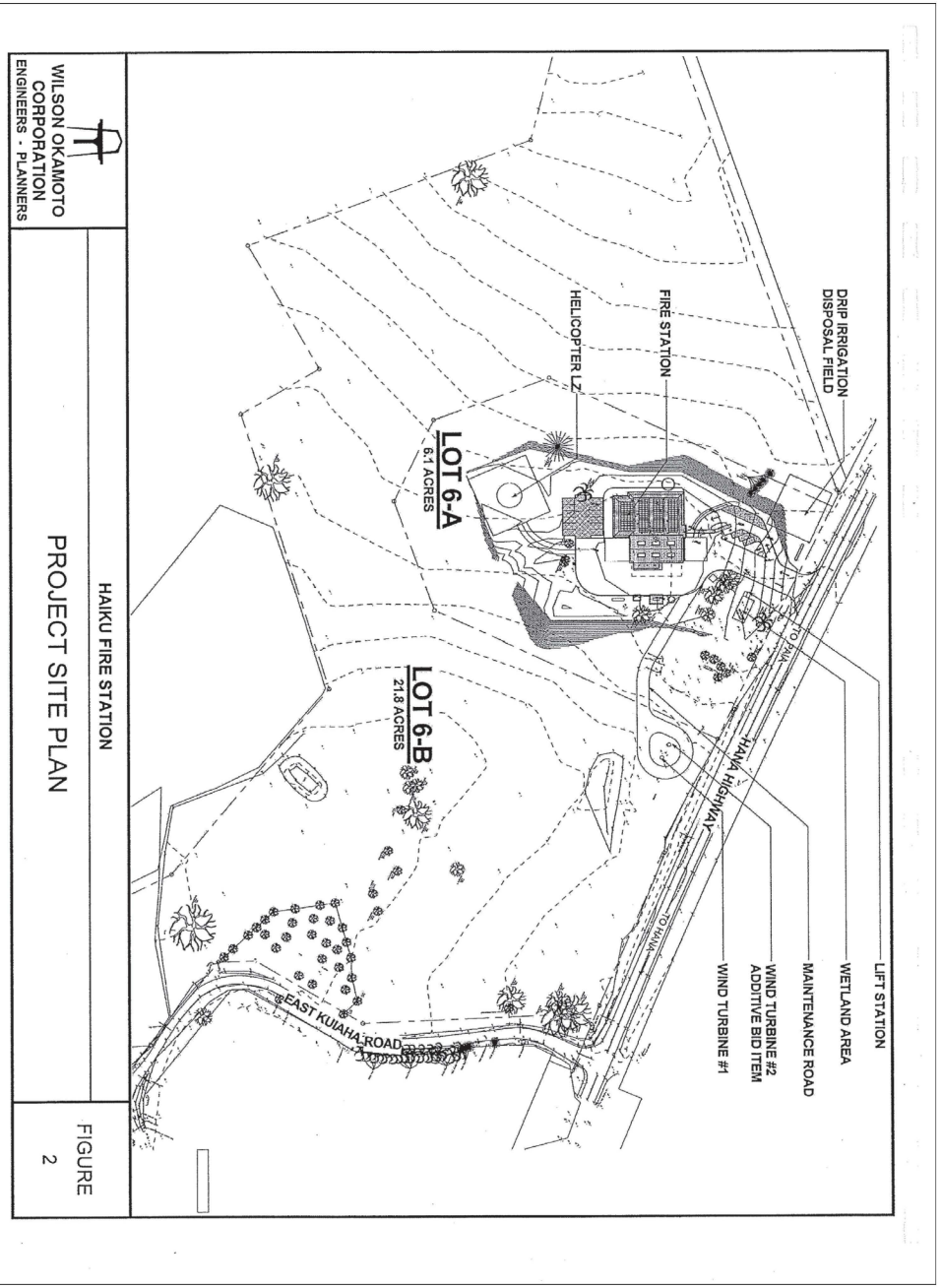
The project site is located adjacent to Hana Highway, a State of Hawaii roadway that serves as the main access road along the northern coast of Maui. In the vicinity of the project site, Hana Highway is a predominantly two-lane, two-way roadway generally oriented in the east-west direction. Southeast of the project site, Hana Highway intersects East Kuiaha Road. At this unsignalized intersection, both approaches of the highway have one lane that serves all traffic movements. East Kuiaha Road is a two-lane, two-way roadway generally oriented in the north-south direction. At the intersection with Hana Highway, the East Kuiaha Road approach has one stop-controlled northbound lane that serves all traffic movements. The southbound approach of the intersection is comprised of a driveway for an adjacent parcel.

B. Traffic Volumes and Conditions

1. General

a. Field Investigation

Field investigations were conducted on April 28, 2008, September 30-October 1, and October 14-15, 2009, and consisted of manual turning movement and 24-hour mechanical traffic count surveys along Hana Highway in the project vicinity. The manual turning movement count surveys were conducted between the morning peak hours of 6:00 AM and 9:00 AM, and the afternoon peak hours of 3:00 PM and 6:00 PM at the intersection of East Kuiaha Road with Hana Highway. 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, 2000, and the "Highway Capacity Software", developed by the Federal Highway Administration. The analysis is based on the concept of Level of Service (LOS).

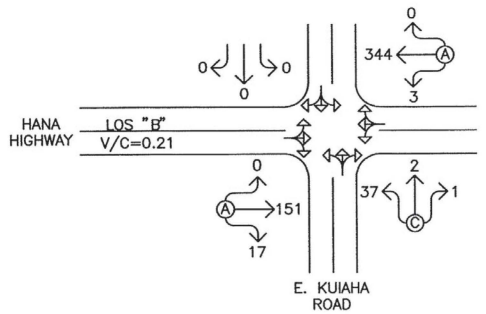
LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F"; LOS "A" representing ideal or free-flow traffic operating conditions and LOS "F" unacceptable or potentially congested traffic operating conditions.

"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.

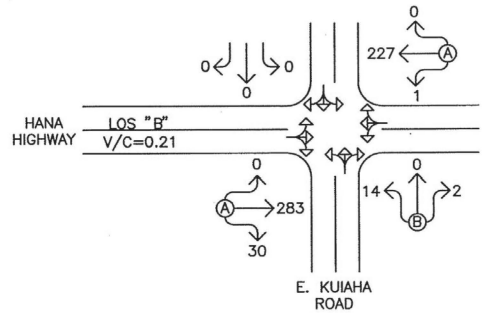
2. Existing Peak Hour Traffic

Figure 3 shows the existing AM and PM peak hour traffic volumes and operating traffic conditions. The AM peak hour of traffic occurs between 7:15 AM and 8:15 AM in the vicinity of the proposed project. In the afternoon, the PM peak hour of traffic generally between the hours of 5:00 PM and 6:00 PM. The analysis is based on these peak hour time periods to identify the traffic impacts resulting from the proposed project. LOS calculations are included in Appendix C.

South of East Kuiaha Road, Hana Highway operates at LOS "B" and a v/c ratio of 0.21 during both peak periods. At the intersection with East Kuiaha Road, the highway carries 168 vehicles eastbound and 347 vehicles westbound during the AM peak hour of traffic. During the PM peak hour, the



AM PEAK PERIOD



PM PEAK PERIOD

LEGEND

90 TRAFFIC MOVEMENT VOLUME (VPH)

LANE USAGE

Ⓐ LANE GROUP LEVEL OF SERVICE

DATE OF COUNT: April 28, 2008
September 30–October 1, 2009
October 14–15, 2009

WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

HAIKU FIRE STATION

EXISTING PEAK HOURS OF TRAFFIC

FIGURE 3

overall traffic volume is higher with 313 vehicles traveling eastbound and 228 vehicles traveling westbound. Both approaches of the highway operate at LOS "A" during both peak periods.

The East Kuiaha Road approach of the intersection carries 40 vehicles northbound and operates at LOS "C" during the AM peak hour of traffic. During the PM peak hour of traffic, the traffic volume is less with 16 vehicles traveling northbound. The approach operates at LOS "B" during this time period.

The southbound approach of the intersection is comprised of a driveway for an adjacent parcel. No vehicles were observed on this approach during both peak hours of traffic.

IV. PROJECTED TRAFFIC CONDITIONS

A. Site-Generated Traffic

1. Trip Generation Methodology

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in "Trip Generation, 8th Edition," 2008. The ITE trip generation rates are developed empirically by correlating the vehicle trip generation data with various land use characteristics such as the number of vehicle trips generated per employee. Since deliveries to the station are expected to occur during off-peak periods and most of the on-site training, conferences, and workshops are expected to be for the personnel assigned to the station, trips during the peak periods are primarily expected to be comprised of employee-related trips. The Maui Fire Department (MFD) has indicated that there will be 6 employees per shift assigned to the Haiku Fire Station with each employee working 24-hour shifts. The shift change occurs daily between 7:00 AM and 7:30 AM. For the purpose of this report, the total number of site-generated trips was based upon the anticipated number of employees with all employees conservatively assumed to enter and exit the site during the morning peak hour of traffic. Table 1 summarizes the project

site trip generation characteristics applied to the AM and PM peak hours of traffic to measure the impact resulting from the proposed Haiku Fire Station.

Table 1: Peak Hour Trip Generation

HAIKU FIRE STATION INDEPENDENT VARIABLE:		# of Employees = 6
		PROJECTED TRIP ENDS
AM PEAK	ENTER	6
	EXIT	6
	TOTAL	12
PM PEAK	ENTER	0
	EXIT	0
	TOTAL	0

2. Trip Distribution

Access to the proposed fire station will be provided via a new driveway off Hana Highway. The directional distribution of site-generated vehicles at the intersection with the highway was based upon the prevailing directional distribution of traffic at the adjacent intersection of the highway with East Kuiaha Road. As such, 85.0% of the entering vehicles were assumed to be traveling eastbound during the AM peak period while 15.0% were assumed to be traveling westbound. Similarly, 2.6% of the exiting vehicles were assumed to be traveling eastbound and 97.4% of the exiting were assumed to be traveling westbound.

B. Through Traffic Forecasting Methodology

The travel forecast is based upon historical traffic count data obtained from the State DOT, Highways Division at survey stations located in the vicinity of the project site. The historical data indicates a stable or declining growth in traffic and, as such, an annual traffic growth rate of approximately 1.0% was conservatively assumed in the project vicinity. As such, using 2009 as the Base Year, a growth rate factor of 1.03 was applied to the existing traffic demands in the project vicinity to achieve the projected Year 2012 traffic demands.

C. Total Traffic Volumes Without Project

The projected Year 2012 AM and PM peak hour traffic volumes and operating conditions in the project vicinity without the proposed Haiku Fire Station are shown on Figure 4, and summarized in Table 2. The existing levels of service are provided for comparison purposes. LOS calculations are included in Appendix D.

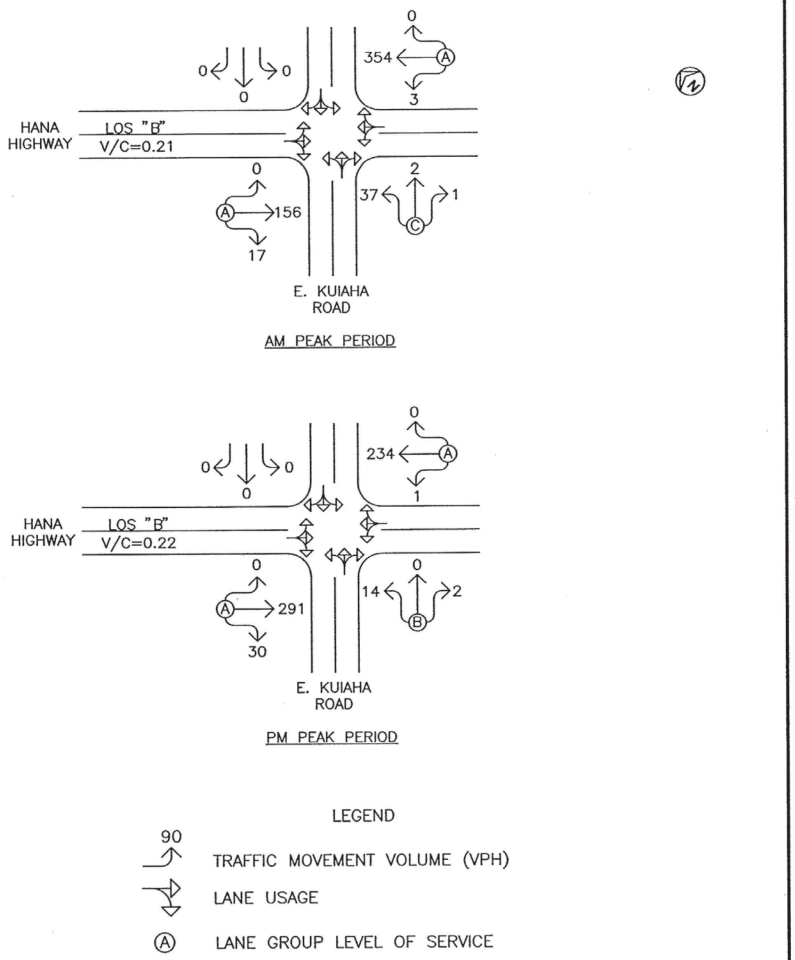
Table 2: Existing and Projected (Without Project) LOS Traffic Operating Conditions

Intersection	Approach	AM		PM	
		Exist	Year 2012 w/out Proj	Exist	Year 2012 w/out Proj
Hana Hwy/ East Kuiaha Rd	Eastbound	A	A	A	A
	Westbound	A	A	A	A
	Northbound	C	C	B	B

Traffic operations under Year 2012 without project conditions are expected to remain similar to existing conditions during both peak hours of traffic. South of East Kuiaha Road, Hana Highway is expected to continue operating at LOS "B" during both peak periods. Similarly, the approaches of the intersection of Hana Highway with East Kuiaha Road are expected to continue operating at levels of service similar to existing conditions.

D. Total Traffic Volumes With Project

Figure 5 shows the Year 2012 cumulative AM and PM peak hour traffic conditions resulting from the projected external traffic and the proposed Haiku Fire Station. The cumulative volumes consist of site- generated traffic superimposed over Year 2012 projected traffic demands. The traffic impacts resulting from the proposed project are addressed in the following section.

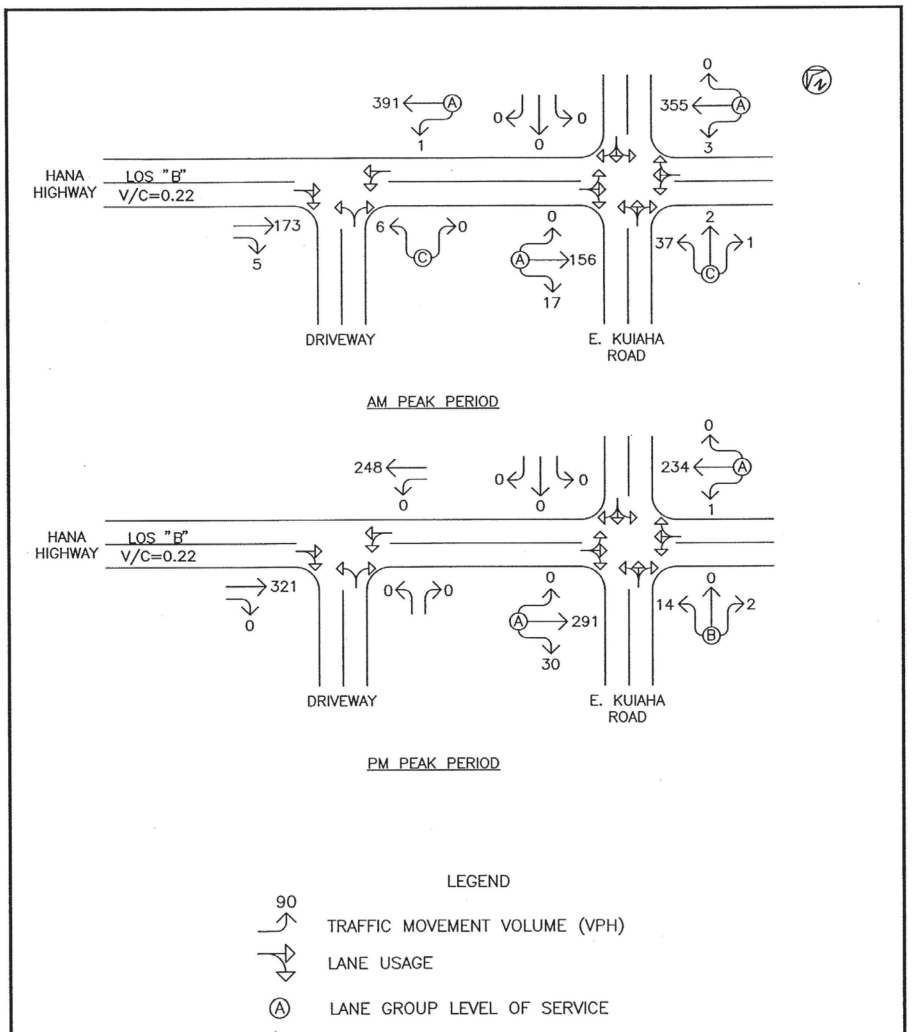


WILSON OKAMOTO CORPORATION
ENGINEERS · PLANNERS

HAIKU FIRE STATION

YEAR 2012 PEAK HOURS OF TRAFFIC WITHOUT PROJECT

FIGURE 4



WILSON OKAMOTO CORPORATION
ENGINEERS · PLANNERS

HAIKU FIRE STATION

YEAR 2012 PEAK HOURS OF TRAFFIC WITH PROJECT

FIGURE 5

V. TRAFFIC IMPACT ANALYSIS

The Year 2012 cumulative AM and PM peak hour traffic conditions with the proposed Haiku Fire Station are summarized in Table 3. The existing and projected Year 2012 (Without Project) operating conditions are provided for comparison purposes. LOS calculations are included in Appendix E.

Table 3: Existing and Projected (Without and With Project) LOS Traffic Operating Conditions

Intersection	Approach	AM			PM		
		Exist	Year 2012		Exist	Year 2012	
			w/out Proj	w/ Proj		w/out Proj	w/ Proj
Hana Hwy/ East Kuiaha Rd	Eastbound	A	A	A	A	A	A
	Westbound	A	A	A	A	A	A
	Northbound	C	C	C	B	B	B
Hana Hwy/ Fire Station Dwy	Westbound	-	-	A	-	-	-
	Northbound	-	-	C	-	-	-

Traffic operations in the project vicinity are expected to remain similar to existing and Year 2012 without project conditions despite the addition of site-generated vehicles to the surrounding roadway network. South of East Kuiaha Road, Hana Highway is expected to continue operating at LOS "B" during both peak periods. At the intersection of the highway with East Kuiaha Road, the approaches of the intersection are expected to continue operating at LOS "C" or better during the AM peak period and LOS "B" or better during the PM peak period. In addition, the approaches of the intersection of the fire station driveway with Hana Highway are expected to operate at LOS "C" or better during the AM peak period.

VI. RECOMMENDATIONS

Based on the analysis of the traffic data, the following are the recommendations of this study:

1. Maintain sufficient sight distance for motorists to safely enter and exit all project driveways/roadways.

2. Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.

3. Provide 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.

4. Provide sufficient turning radii at all project driveways/roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

VII. CONCLUSION

The proposed Haiku Fire Station will house support facilities for two fire trucks, as well as, provide office, dining, and living areas for the employees stationed there. With the development of the new fire station, the approaches of the Hana Highway intersections with East Kuiaha Road and the fire station driveway are anticipated to operate at acceptable levels of service during both peak periods. In addition, the total traffic volumes along Hana Highway are expected to increase by approximately 2% or less during both peak periods with the proposed project. These increases in the total traffic volumes are in the range of daily volume fluctuations along the highway and represent a minimal increase in the overall traffic volumes. As such, the proposed Haiku Fire Station is not expected to have a significant impact on the traffic operations in the project vicinity.

APPENDIX A

EXISTING TRAFFIC COUNT DATA

Wilson Okamoto Corporation

1907 S. Beretania Street Suite 400
Honolulu, Hi 96826

Counter:D4-5676
Counted By:RY
Weather:Clear

File Name : HanaKui PM
Site Code : 00000001
Start Date : 9/30/2009
Page No : 1

Groups Printed- Unshifted

	Private Driveway Southbound				Hana Highway Westbound				E. Kuiaha Road Northbound				Hana Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	2	55	0	57	3	0	0	3	0	42	4	46	106
03:15 PM	0	0	0	0	0	68	0	68	1	0	1	2	0	48	5	53	123
03:30 PM	0	0	0	0	1	52	0	53	3	0	0	3	0	67	2	69	125
03:45 PM	1	0	0	1	0	55	0	55	5	0	0	5	1	57	5	63	124
Total	1	0	0	1	3	230	0	233	12	0	1	13	1	214	16	231	478
04:00 PM	0	0	0	0	1	78	0	79	3	0	0	3	0	56	6	62	144
04:15 PM	0	0	0	0	1	68	0	69	3	0	0	3	1	71	3	75	147
04:30 PM	0	0	0	0	0	46	0	46	1	0	1	2	0	71	6	77	125
04:45 PM	0	0	0	0	0	51	0	51	5	0	0	5	0	67	7	74	130
Total	0	0	0	0	2	243	0	245	12	0	1	13	1	265	22	288	546
05:00 PM	0	0	0	0	1	52	0	53	3	0	1	4	0	76	7	83	140
05:15 PM	0	0	0	0	0	68	0	68	2	0	0	2	0	70	11	81	151
05:30 PM	0	0	0	0	0	51	0	51	6	0	1	7	0	67	7	74	132
05:45 PM	0	0	0	0	0	56	0	56	3	0	0	3	0	70	5	75	134
Total	0	0	0	0	1	227	0	228	14	0	2	16	0	283	30	313	557
Grand Total	1	0	0	1	6	700	0	706	38	0	4	42	2	762	68	832	1581
Apprch %	100	0	0		0.8	99.2	0		90.5	0	9.5		0.2	91.6	8.2		
Total %	0.1	0	0	0.1	0.4	44.3	0	44.7	2.4	0	0.3	2.7	0.1	48.2	4.3	52.6	

	Private Driveway Southbound				Hana Highway Westbound				E. Kuiaha Road Northbound				Hana Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	**1**	52	0	53	3	0	**1**	4	0	**76**	7	**83**	140
05:15 PM	0	0	0	0	0	**68**	0	**68**	2	0	0	2	0	70	**11**	81	**151**
05:30 PM	0	0	0	0	0	51	0	51	**6**	0	1	**7**	0	67	7	74	132
05:45 PM	0	0	0	0	0	56	0	56	3	0	0	3	0	70	5	75	134
Total Volume	0	0	0	0	1	227	0	228	14	0	2	16	0	283	30	313	557
% App. Total	0	0	0		0.4	99.6	0		87.5	0	12.5		0	90.4	9.6		
PHF	.000	.000	.000	.000	.250	.835	.000	.838	.583	.000	.500	.571	.000	.931	.682	.943	.922

Wilson Okamoto Corporation

1907 S. Beretania Street Suite 400
Honolulu, Hi 96826

Counter:D4-5676
Counted By:RY
Weather:Clear

File Name : HanaKui AM
Site Code : 00000001
Start Date : 10/1/2009
Page No : 1

Groups Printed- Unshifted

	Private Driveway Southbound				Hana Highway Westbound				E. Kuiaha Road Northbound				Hana Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:00 AM	0	0	0	0	0	44	0	44	2	0	0	2	0	7	0	7	53
06:15 AM	0	0	0	0	0	50	0	50	5	0	0	5	0	6	1	7	62
06:30 AM	0	0	0	0	0	55	0	55	5	0	0	5	0	18	0	18	78
06:45 AM	0	0	0	0	0	72	0	72	3	0	0	3	0	19	0	19	94
Total	0	0	0	0	0	221	0	221	15	0	0	15	0	50	1	51	287
07:00 AM	0	0	0	0	0	88	0	88	2	0	0	2	0	13	1	14	104
07:15 AM	0	0	0	0	0	92	0	92	11	2	0	13	0	14	3	17	122
07:30 AM	0	0	0	0	1	124	0	125	12	0	0	12	0	36	3	39	176
07:45 AM	0	0	0	0	1	63	0	64	6	0	1	7	0	53	6	59	130
Total	0	0	0	0	2	367	0	369	31	2	1	34	0	116	13	129	532
08:00 AM	0	0	0	0	1	65	0	66	8	0	0	8	0	48	5	53	127
08:15 AM	0	0	0	0	0	61	0	61	8	0	1	9	0	50	1	51	121
08:30 AM	0	0	0	0	0	52	0	52	3	0	0	3	0	63	1	64	119
08:45 AM	0	0	0	0	0	67	0	67	8	0	0	8	0	57	1	58	133
Total	0	0	0	0	1	245	0	246	27	0	1	28	0	218	8	226	500
Grand Total	0	0	0	0	3	833	0	836	73	2	2	77	0	384	22	406	1319
Apprch %	0	0	0		0.4	99.6	0		94.8	2.6	2.6		0	94.6	5.4		
Total %	0	0	0	0	0.2	63.2	0	63.4	5.5	0.2	0.2	5.8	0	29.1	1.7	30.8	

	Private Driveway Southbound				Hana Highway Westbound				E. Kuiaha Road Northbound				Hana Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 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	92	0	92	11	**2**	0	**13**	0	14	3	17	122
07:30 AM	0	0	0	0	**1**	**124**	0	**125**	**12**	0	0	12	0	36	3	39	**176**
07:45 AM	0	0	0	0	1	63	0	64	6	0	**1**	7	0	**53**	**6**	**59**	130
08:00 AM	0	0	0	0	1	65	0	66	8	0	0	8	0	48	5	53	127
Total Volume	0	0	0	0	3	344	0	347	37	2	1	40	0	151	17	168	555
% App. Total	0	0	0		0.9	99.1	0		92.5	5	2.5		0	89.9	10.1		
PHF	.000	.000	.000	.000	.750	.694	.000	.694	.771	.250	.250	.769	.000	.712	.708	.712	.788

Wi...on Oka...oto Co...poratio...
1907 S. Beretania St., Suite 400
Honolulu, HI 96826

Description 1: Haiku Fire Station
Description 2: Hana Highway
Description 3:

Date: 10/14/2009
Wednesday

Daily Volume

Begin	EB		WB		Combined		Begin	EB		WB		Combined	
12:00 AM	-	-	-	-	-	-	12:00 PM	53	220	66	224	119	444
12:15 AM	-		-		-		12:15 PM	61		54		115	
12:30 AM	-		-		-		12:30 PM	55		52		107	
12:45 AM	-		-		-		12:45 PM	51		52		103	
1:00 AM	-	-	-	-	-	-	1:00 PM	59	249	67	255	126	504
1:15 AM	-		-		-		1:15 PM	61		61		122	
1:30 AM	-		-		-		1:30 PM	67		65		132	
1:45 AM	-		-		-		1:45 PM	62		62		124	
2:00 AM	-	-	-	-	-	-	2:00 PM	59	236	62	260	121	496
2:15 AM	-		-		-		2:15 PM	52		66		118	
2:30 AM	-		-		-		2:30 PM	72		63		135	
2:45 AM	-		-		-		2:45 PM	53		69		122	
3:00 AM	-	-	-	-	-	-	3:00 PM	77	288	110	371	187	659
3:15 AM	-		-		-		3:15 PM	76		91		167	
3:30 AM	-		-		-		3:30 PM	71		65		136	
3:45 AM	-		-		-		3:45 PM	64		105		169	
4:00 AM	-	-	-	-	-	-	4:00 PM	74	324	80	304	154	628
4:15 AM	-		-		-		4:15 PM	101		80		181	
4:30 AM	-		-		-		4:30 PM	81		68		149	
4:45 AM	-		-		-		4:45 PM	68		76		144	
5:00 AM	-	-	-	-	-	-	5:00 PM	67	340	66	261	133	601
5:15 AM	-		-		-		5:15 PM	93		69		162	
5:30 AM	-		-		-		5:30 PM	83		64		147	
5:45 AM	-		-		-		5:45 PM	97		62		159	
6:00 AM	-	-	-	-	-	-	6:00 PM	72	352	51	204	123	556
6:15 AM	-		-		-		6:15 PM	84		57		141	
6:30 AM	-		-		-		6:30 PM	111		61		172	
6:45 AM	-		-		-		6:45 PM	85		35		120	
7:00 AM	-	-	-	-	-	-	7:00 PM	70	227	44	126	114	353
7:15 AM	-		-		-		7:15 PM	62		29		91	
7:30 AM	-		-		-		7:30 PM	53		27		80	
7:45 AM	-		-		-		7:45 PM	42		26		68	
8:00 AM	-	-	-	-	-	-	8:00 PM	49	164	24	73	73	237
8:15 AM	-		-		-		8:15 PM	45		16		61	
8:30 AM	-		-		-		8:30 PM	34		22		56	
8:45 AM	-		-		-		8:45 PM	36		11		47	
9:00 AM	-	-	-	-	-	-	9:00 PM	41	141	17	58	58	199
9:15 AM	-		-		-		9:15 PM	40		13		53	
9:30 AM	-		-		-		9:30 PM	35		14		49	
9:45 AM	-		-		-		9:45 PM	25		14		39	
10:00 AM	-	-	-	-	-	-	10:00 PM	19	84	11	31	30	115
10:15 AM	-		-		-		10:15 PM	24		8		32	
10:30 AM	-		-		-		10:30 PM	23		8		31	
10:45 AM	-		-		-		10:45 PM	18		4		22	
11:00 AM	-	6	-	15	-	21	11:00 PM	17	38	11	16	28	54
11:15 AM	-		-		-		11:15 PM	8		0		8	
11:30 AM	-		-		-		11:30 PM	7		4		11	
11:45 AM	6		15		21		11:45 PM	6		1		7	

	EB	WB	Combined
24 Hour Volume	2669 (54.8%)	2198 (45.2%)	4867

	12:00 AM - 12:00 PM			12:00 PM - 12:00 AM		
	EB	WB	Combined	EB	WB	Combined
Count	6	15	21	2663	2183	4846
	28.6 %	71.4 %		55.0 %	45.0 %	
Peak Hour	-	-	-	5:45 PM	3:00 PM	3:00 PM
Volume	-	-	-	364	371	659
Factor	-	-	-	0.82	0.84	0.88

Wilson Okamoto Corporation
1907 S. Beretania St., Suite 400
Honolulu, HI 96826

Description 1: Haiku Fire Station
Description 2: Hana Highway
Description 3:

Site: 100000000000
Date: 4/28/2009
Tuesday

24 Hour Volume

Begin	WB		EB		Combined		Begin	WB		EB		Combined	
9:45 AM	86		63		149		9:45 PM	30		23		53	
10:00 AM	74	285	86	301	160	586	10:00 PM	42	136	17	72	59	208
10:15 AM	70		81		151		10:15 PM	37		21		58	
10:30 AM	75		67		142		10:30 PM	39		29		68	
10:45 AM	66		67		133		10:45 PM	18		5		23	
11:00 AM	67	243	67	280	134	523	11:00 PM	11	41	6	28	17	69
11:15 AM	65		89		154		11:15 PM	12		8		20	
11:30 AM	55		62		117		11:30 PM	13		8		21	
11:45 AM	56		62		118		11:45 PM	5		6		11	
12:00 PM	65	224	73	286	138	510	4/29/2009 12:00 AM	3	16	3	11	6	27
12:15 PM	57		72		129		12:15 AM	8		6		14	
12:30 PM	49		62		111		12:30 AM	3		1		4	
12:45 PM	53		79		132		12:45 AM	2		1		3	
1:00 PM	67	249	82	306	149	555	1:00 AM	2	8	1	5	3	13
1:15 PM	45		79		124		1:15 AM	2		2		4	
1:30 PM	58		69		127		1:30 AM	2		1		3	
1:45 PM	79		76		155		1:45 AM	2		1		3	
2:00 PM	63	251	72	307	135	558	2:00 AM	1	6	1	10	2	16
2:15 PM	63		86		149		2:15 AM	1		2		3	
2:30 PM	48		69		117		2:30 AM	4		3		7	
2:45 PM	77		80		157		2:45 AM	0		4		4	
3:00 PM	58	278	93	344	151	622	3:00 AM	1	4	3	9	4	13
3:15 PM	69		87		156		3:15 AM	2		0		2	
3:30 PM	81		76		157		3:30 AM	0		3		3	
3:45 PM	70		88		158		3:45 AM	1		3		4	
4:00 PM	91	302	109	358	200	660	4:00 AM	1	4	4	27	5	31
4:15 PM	66		79		145		4:15 AM	1		4		5	
4:30 PM	71		84		155		4:30 AM	0		9		9	
4:45 PM	74		86		160		4:45 AM	2		10		12	
5:00 PM	67	317	92	365	159	682	5:00 AM	3	17	19	101	22	118
5:15 PM	87		88		175		5:15 AM	3		19		22	
5:30 PM	84		105		189		5:30 AM	3		30		33	
5:45 PM	79		80		159		5:45 AM	8		33		41	
6:00 PM	92	319	88	286	180	605	6:00 AM	7	57	40	268	47	325
6:15 PM	74		72		146		6:15 AM	10		68		78	
6:30 PM	77		68		145		6:30 AM	16		69		85	
6:45 PM	76		58		134		6:45 AM	24		91		115	
7:00 PM	58	210	43	172	101	382	7:00 AM	21	160	96	431	117	591
7:15 PM	58		48		106		7:15 AM	30		121		151	
7:30 PM	48		39		87		7:30 AM	42		129		171	
7:45 PM	46		42		88		7:45 AM	67		85		152	
8:00 PM	49	200	33	111	82	311	8:00 AM	53	98	88	144	141	242
8:15 PM	54		30		84		8:15 AM	45		56		101	
8:30 PM	44		20		64								
8:45 PM	53		28		81								
9:00 PM	27	124	19	77	46	201							
9:15 PM	37		16		53								
9:30 PM	30		19		49								

	WB	EB	Combined
24 Hour Volume	3635 (45.5%)	4362 (54.5%)	7997

	12:00 AM - 12:00 PM			12:00 PM - 12:00 AM		
	WB	EB	Combined	WB	EB	Combined
Count	984	1650	2634	2651	2712	5363
	37.4 %	62.6 %		49.4 %	50.6 %	
Peak Hour	9:45 AM	6:45 AM	7:15 AM	5:15 PM	4:45 PM	5:15 PM
Volume	305	437	615	342	371	703
Factor	0.89	0.85	0.90	0.93	0.88	0.93

Wilson Okamoto Corporation
1907 S. Beretania St., Suite 400
Honolulu, HI 96826

Description 1: Haiku Fire Station
Description 2: Hana Highway
Description 3:

Date: 10/15/2009
Thursday

Daily Volume

Begin	EB		WB		Combined		Begin	EB		WB		Combined	
12:00 AM	3	9	3	6	6	15	12:00 PM	51	134	64	166	115	300
12:15 AM	0		1		1		12:15 PM	49		62		111	
12:30 AM	1		0		1		12:30 PM	34		40		74	
12:45 AM	5		2		7								
1:00 AM	4	11	0	4	4	15							
1:15 AM	1		0		1								
1:30 AM	2		1		3								
1:45 AM	4		3		7								
2:00 AM	4	8	0	3	4	11							
2:15 AM	2		0		2								
2:30 AM	1		2		3								
2:45 AM	1		1		2								
3:00 AM	1	4	2	11	3	15							
3:15 AM	2		2		4								
3:30 AM	1		5		6								
3:45 AM	0		2		2								
4:00 AM	0	1	3	14	3	15							
4:15 AM	1		3		4								
4:30 AM	0		2		2								
4:45 AM	0		6		6								
5:00 AM	4	16	15	92	19	108							
5:15 AM	3		22		25								
5:30 AM	6		23		29								
5:45 AM	3		32		35								
6:00 AM	9	48	47	251	56	299							
6:15 AM	5		55		60								
6:30 AM	19		76		95								
6:45 AM	15		73		88								
7:00 AM	20	128	80	369	100	497							
7:15 AM	29		92		121								
7:30 AM	25		101		126								
7:45 AM	54		96		150								
8:00 AM	66	286	73	320	139	606							
8:15 AM	59		86		145								
8:30 AM	77		86		163								
8:45 AM	84		75		159								
9:00 AM	84	304	95	347	179	651							
9:15 AM	80		96		176								
9:30 AM	68		74		142								
9:45 AM	72		82		154								
10:00 AM	65	262	67	252	132	514							
10:15 AM	65		64		129								
10:30 AM	61		57		118								
10:45 AM	71		64		135								
11:00 AM	66	254	46	268	112	522							
11:15 AM	64		73		137								
11:30 AM	67		71		138								
11:45 AM	57		78		135								

		EB	WB	Combined
24 Hour Volume		1465 (41.1%)	2103 (58.9%)	3568

	12:00 AM - 12:00 PM			12:00 PM - 12:00 AM		
	EB	WB	Combined	EB	WB	Combined
Count	1331	1937	3268	134	166	300
	40.7 %	59.3 %		44.7 %	55.3 %	
Peak Hour	8:30 AM	7:00 AM	8:30 AM	-	-	-
Volume	325	369	677	-	-	-
Factor	0.97	0.91	0.95	-	-	-

APPENDIX B

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) criteria are given in Table 1. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. If the degree of saturation is greater than about 0.9, average control delay is significantly affected by the length of the analysis period.

Table 1: Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤10.0
B	>10.0 and ≤15.0
C	>15.0 and ≤25.0
D	>25.0 and ≤35.0
E	>35.0 and ≤50.0
F	>50.0

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE CRITERIA FOR A TWO-LANE HIGHWAY

The primary measures of service quality for Class I two-lane highways are percent time-spent-following and average travel speed. For Class II two-lane highways, service quality is based only on percent time-spent-following. LOS criteria are defined for peak 15-min flow periods and are intended for application to segments of significant length.

Level of Service A describes the highest quality of traffic service, when motorists are able to travel at their desired speed. Without strict enforcement, this highest quality would result in average speeds of 55 mi/h or more on two-lane highways in Class I. The passing frequency required to maintain these speeds has not reached a demanding level, so that passing demand is well below passing capacity, and platoons of three or more vehicles are rare. Drivers are delayed no more than 35 percent of their travel time by slow-moving vehicles. A maximum flow rate of 490 pc/h total in both directions may be achieved with base conditions. On Class II highways, speeds may fall below 55 mi/h, but motorists will not be delayed in platoons for more than 40 percent of their travel time.

Level of Service B characterizes traffic flow with speeds of 50 mi/h or slightly higher on level-terrain Class I highways. The demand for passing to maintain desired speeds becomes significant and approximates the passing capacity at the lower boundary of LOS B. Drivers are delayed in platoons up to 50 percent of the time. Service flow rates of 780 pc/h total in both directions can be achieved under base conditions. Above this flow rate, the number of platoons increases dramatically. On Class II highways, speeds may fall below 50 mi/h, but motorists will not be delayed in platoons for more than 55 percent of their travel time.

Level of Service C describes further increases in flow, resulting in noticeable increases in platoon formation, platoon size, and frequency of passing impediments. The average speed still exceeds 45 mi/h on level-terrain Class I highways, even though unrestricted passing demand exceeds passing capacity. At higher volumes the chaining of platoons and significant reductions in passing capacity occur. Although traffic flow is stable, it is susceptible to congestion due to turning traffic and slow-moving vehicles. Percent time-spent-following may reach 65 percent. A service flow rate of up to 1,190 pc/h total in both directions can be accommodated under base conditions. On Class II highways, speeds may fall below 45 mi/h, but motorists will not be delayed in platoons for more than 70 percent of their travel time.

Level of Service D describes unstable traffic flow. The two opposing traffic streams begin to operate separately at higher volume levels, as passing becomes extremely difficult. Passing demand is high, but passing capacity approaches zero. Mean platoon sizes of 5 to 10 vehicles are common, although speeds of 40 mi/h still can be maintained under base conditions on Class I highways. The proportion of no-passing zones along the roadway section usually has little influence on passing. Turning vehicles and roadside distractions cause major shock waves in the traffic stream. Motorists are delayed in

"Highway Capacity Manual," Transportation Research Board, 2000.

platoons for nearly 80 percent of their travel time. Maximum service flow rates of 1,830 pc/h total in both directions can be maintained under base conditions. On Class II highways, speeds may fall below 40 mi/h, but in no case will motorists be delayed in platoons for more than 85 percent of their travel time.

At **Level of Service E**, traffic flow conditions have a percent time-spent-following greater than 80 percent on Class I highways and greater than 85 percent on Class II. Even under base conditions, speeds may drop below 40 mi/h. Average travel speeds on highways with less than base conditions will be slower, even down to 25 mi/h on sustained upgrades. Passing is virtually impossible at LOS E, and platooning becomes intense, as slower vehicles or other interruptions are encountered.

The highest volume attainable under LOS E defines the capacity of the highway, generally 3,200 pc/h total in both directions. Operating conditions at capacity are unstable and difficult to predict. Traffic operations seldom reach near capacity on rural highways, primarily because of lack of demand.

Level of Service F represents heavily congested flow with traffic demand exceeding capacity. Volumes are lower than capacity and speeds are highly variable.

"Highway Capacity Manual," Transportation Research Board, 2000.

APPENDIX C

CAPACITY ANALYSIS CALCULATIONS
EXISTING PEAK HOUR TRAFFIC ANALYSIS

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 06/10/10
Analysis Time Period: AM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Existing
Project ID:
East/West Street: Hana Hwy
North/South Street: E. Kuiaha
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	151	17	3	344	0
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.69	0.69	0.69
Hourly Flow Rate, HFR	0	212	23	4	498	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	37	2	1	0	0	0
Peak Hour Factor, PHF	0.77	0.77	0.77	1.00	1.00	1.00
Hourly Flow Rate, HFR	48	2	1	0	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	4		51			0	
C(m) (vph)	1066	1332		341				
v/c	0.00	0.00		0.15				
95% queue length	0.00	0.01		0.53				
Control Delay	8.4	7.7		17.4				
LOS	A	A		C				
Approach Delay				17.4				
Approach LOS				C				

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 6/10/10
Analysis Time Period: PM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Existing
Project ID:
East/West Street: Hana Hwy
North/South Street: E. Kuiaha
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	283	30	1	227	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.84	0.84	0.84
Hourly Flow Rate, HFR	0	301	31	1	270	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	14	0	2	0	0	0
Peak Hour Factor, PHF	0.57	0.57	0.57	1.00	1.00	1.00
Hourly Flow Rate, HFR	24	0	3	0	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	1		27			0	
C(m) (vph)	1293	1227		442				
v/c	0.00	0.00		0.06				
95% queue length	0.00	0.00		0.19				
Control Delay	7.8	7.9		13.7				
LOS	A	A		B				
Approach Delay				13.7				
Approach LOS				B				

HCS+: Two-Lane Highways Release 5.4

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst	CL
Agency/Co.	
Date Performed	6/10/10
Analysis Time Period	AM Peak
Highway	Hana Hwy
From/To	South of E. Kuiaha
Jurisdiction	
Analysis Year	Existing
Description	

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.90	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	0	%
Terrain type	Rolling		% No-passing zones	0	%
Grade: Length		mi	Access points/mi	8	/mi
Up/down		%			

Two-way hourly volume, V 549 veh/h
Directional split 69 / 31 %

Average Travel Speed

Grade adjustment factor, fG	0.93	
PCE for trucks, ET	1.9	
PCE for RVs, ER	1.1	
Heavy-vehicle adjustment factor,	0.982	
Two-way flow rate,(note-1) vp	668	pc/h
Highest directional split proportion (note-2)	461	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	2.0	mi/h
Free-flow speed, FFS	58.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	52.8	mi/h

HCS+: Two-Lane Highways Release 5.4

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst	CL
Agency/Co.	
Date Performed	6/10/10
Analysis Time Period	PM Peak
Highway	Hana Hwy
From/To	South of E. Kuiaha
Jurisdiction	
Analysis Year	Existing
Description	

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.90	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	0	%
Terrain type	Rolling		% No-passing zones	0	%
Grade: Length		mi	Access points/mi	8	/mi
Up/down		%			

Two-way hourly volume, V 561 veh/h
Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fG	0.93	
PCE for trucks, ET	1.9	
PCE for RVs, ER	1.1	
Heavy-vehicle adjustment factor,	0.982	
Two-way flow rate,(note-1) vp	682	pc/h
Highest directional split proportion (note-2)	382	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	2.0	mi/h
Free-flow speed, FFS	58.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	52.7	mi/h

Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.990	
Two-way flow rate,(note-1) vp	670	pc/h
Highest directional split proportion (note-2)	375	
Base percent time-spent-following, BPTSF	44.5	%
Adj.for directional distribution and no-passing zones, fd/np	0.0	
Percent time-spent-following, PTSF	44.5	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.21	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.990	
Two-way flow rate,(note-1) vp	655	pc/h
Highest directional split proportion (note-2)	452	
Base percent time-spent-following, BPTSF	43.8	%
Adj.for directional distribution and no-passing zones, fd/np	0.0	
Percent time-spent-following, PTSF	43.8	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.21	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

APPENDIX D

CAPACITY ANALYSIS CALCULATIONS
PROJECTED YEAR 2012 PEAK HOUR TRAFFIC
ANALYSIS WITHOUT PROJECT

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 6/10/10
Analysis Time Period: AM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Year 2012 w/out project
Project ID:
East/West Street: Hana Hwy
North/South Street: E. Kuiaha
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	156	17	3	354	0
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.69	0.69	0.69
Hourly Flow Rate, HFR	0	219	23	4	513	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	37	2	1	0	0	0
Peak Hour Factor, PHF	0.77	0.77	0.77	1.00	1.00	1.00
Hourly Flow Rate, HFR	48	2	1	0	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	4		51			0	
C(m) (vph)	1052	1324		330				
v/c	0.00	0.00		0.15				
95% queue length	0.00	0.01		0.55				
Control Delay	8.4	7.7		17.9				
LOS	A	A		C				
Approach Delay				17.9				
Approach LOS				C				

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 6/10/10
Analysis Time Period: PM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Year 2012 w/out project
Project ID:
East/West Street: Hana Hwy
North/South Street: E. Kuiaha
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	291	30	1	234	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.84	0.84	0.84
Hourly Flow Rate, HFR	0	309	31	1	278	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	14	0	2	0	0	0
Peak Hour Factor, PHF	0.57	0.57	0.57	1.00	1.00	1.00
Hourly Flow Rate, HFR	24	0	3	0	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	1		27			0	
C(m) (vph)	1285	1219		430				
v/c	0.00	0.00		0.06				
95% queue length	0.00	0.00		0.20				
Control Delay	7.8	8.0		13.9				
LOS	A	A		B				
Approach Delay				13.9				
Approach LOS				B				

HCS+: Two-Lane Highways Release 5.4

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst CL
Agency/Co.
Date Performed 6/10/10
Analysis Time Period AM Peak
Highway Hana Hwy
From/To South of E. Kuiaha
Jurisdiction
Analysis Year Year 2012 w/out project
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.90	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	0	%
Terrain type	Rolling		% No-passing zones	0	%
Grade: Length		mi	Access points/mi	8	/mi
Up/down		%			

Two-way hourly volume, V 564 veh/h
Directional split 69 / 31 %

Average Travel Speed

Grade adjustment factor, fG	0.93	
PCE for trucks, ET	1.9	
PCE for RVs, ER	1.1	
Heavy-vehicle adjustment factor,	0.982	
Two-way flow rate,(note-1) vp	686	pc/h
Highest directional split proportion (note-2)	473	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	2.0	mi/h
Free-flow speed, FFS	58.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	52.7	mi/h

Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.990	
Two-way flow rate,(note-1) vp	673	pc/h
Highest directional split proportion (note-2)	464	
Base percent time-spent-following, BPTSF	44.7	%
Adj.for directional distribution and no-passing zones, fd/np	0.0	
Percent time-spent-following, PTSF	44.7	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.21	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.4

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst	CL
Agency/Co.	
Date Performed	6/10/10
Analysis Time Period	PM Peak
Highway	Hana Hwy
From/To	South of E. Kuiaha
Jurisdiction	
Analysis Year	Year 2012 w/out project
Description	

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.90	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	0	%
Terrain type	Rolling		% No-passing zones	0	%
Grade: Length		mi	Access points/mi	8	/mi
Up/down		%			

Two-way hourly volume, V	569	veh/h	
Directional split	56 /	44	%

Average Travel Speed

Grade adjustment factor, fG	0.93	
PCE for trucks, ET	1.9	
PCE for RVs, ER	1.1	
Heavy-vehicle adjustment factor,	0.982	
Two-way flow rate,(note-1) vp	692	pc/h
Highest directional split proportion (note-2)	388	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	2.0	mi/h
Free-flow speed, FFS	58.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	52.6	mi/h

Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.990	
Two-way flow rate,(note-1) vp	679	pc/h
Highest directional split proportion (note-2)	380	
Base percent time-spent-following, BPTSF	44.9	%
Adj.for directional distribution and no-passing zones, fd/np	0.0	
Percent time-spent-following, PTSF	44.9	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.22	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

APPENDIX E

CAPACITY ANALYSIS CALCULATIONS
PROJECTED YEAR 2012 PEAK HOUR TRAFFIC
ANALYSIS WITH PROJECT

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 6/10/10
Analysis Time Period: AM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Year 2012 w/ project
Project ID:
East/West Street: Hana Hwy
North/South Street: E. Kuiaha
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	156	17	3	355	0
Peak-Hour Factor, PHF	0.71	0.71	0.71	0.69	0.69	0.69
Hourly Flow Rate, HFR	0	219	23	4	514	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	37	2	1	0	0	0
Peak Hour Factor, PHF	0.77	0.77	0.77	1.00	1.00	1.00
Hourly Flow Rate, HFR	48	2	1	0	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	4		51			0	
C(m) (vph)	1052	1324		330				
v/c	0.00	0.00		0.15				
95% queue length	0.00	0.01		0.55				
Control Delay	8.4	7.7		17.9				
LOS	A	A		C				
Approach Delay				17.9				
Approach LOS				C				

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 6/10/10
Analysis Time Period: PM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Year 2012 w/ project
Project ID:
East/West Street: Hana Hwy
North/South Street: E. Kuiaha
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	291	30	1	234	0
Peak-Hour Factor, PHF	0.94	0.94	0.94	0.84	0.84	0.84
Hourly Flow Rate, HFR	0	309	31	1	278	0
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	14	0	2	0	0	0
Peak Hour Factor, PHF	0.57	0.57	0.57	1.00	1.00	1.00
Hourly Flow Rate, HFR	24	0	3	0	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	1		27			0	
C(m) (vph)	1285	1219		430				
v/c	0.00	0.00		0.06				
95% queue length	0.00	0.00		0.20				
Control Delay	7.8	8.0		13.9				
LOS	A	A		B				
Approach Delay				13.9				
Approach LOS				B				

HCS+: Unsignalized Intersections Release 5.4

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.:
Date Performed: 6/10/2010
Analysis Time Period: AM Peak
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: Year 2012 w/ project
Project ID:
East/West Street: Hana Hwy
North/South Street:
Intersection Orientation: EW Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		173	5	1	391	
Peak-Hour Factor, PHF		0.71	0.71	0.69	0.69	
Hourly Flow Rate, HFR		243	7	1	566	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	6		0			
Peak Hour Factor, PHF	0.77		0.77			
Hourly Flow Rate, HFR	7		0			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		1		7				
C(m) (vph)		1316		347				
v/c		0.00		0.02				
95% queue length		0.00		0.06				
Control Delay		7.7		15.6				
LOS		A		C				
Approach Delay				15.6				
Approach LOS				C				

HCS+: Two-Lane Highways Release 5.4

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst CL
Agency/Co.
Date Performed 6/10/10
Analysis Time Period AM Peak
Highway Hana Hwy
From/To South of E. Kuiaha
Jurisdiction
Analysis Year Year 2012 w/ project
Description

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.90	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	0	%
Terrain type	Rolling		% No-passing zones	0	%
Grade: Length		mi	Access points/mi	8	/mi
Up/down		%			

Two-way hourly volume, V 575 veh/h
Directional split 69 / 31 %

Average Travel Speed

Grade adjustment factor, fG	0.93	
PCE for trucks, ET	1.9	
PCE for RVs, ER	1.1	
Heavy-vehicle adjustment factor,	0.982	
Two-way flow rate,(note-1) vp	699	pc/h
Highest directional split proportion (note-2)	482	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	2.0	mi/h
Free-flow speed, FFS	58.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	52.6	mi/h

Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.990	
Two-way flow rate,(note-1) vp	686	pc/h
Highest directional split proportion (note-2)	473	
Base percent time-spent-following, BPTSF	45.3	%
Adj.for directional distribution and no-passing zones, fd/np	0.0	
Percent time-spent-following, PTSF	45.3	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.22	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

HCS+: Two-Lane Highways Release 5.4

Phone: Fax:
E-Mail:

Two-Way Two-Lane Highway Segment Analysis

Analyst	CL
Agency/Co.	
Date Performed	6/10/10
Analysis Time Period	PM Peak
Highway	Hana Hwy
From/To	South of E. Kuiaha
Jurisdiction	
Analysis Year	Year 2012 w/ project
Description	

Input Data

Highway class	Class 2				
Shoulder width	6.0	ft	Peak-hour factor, PHF	0.90	
Lane width	12.0	ft	% Trucks and buses	2	%
Segment length	0.0	mi	% Recreational vehicles	0	%
Terrain type	Rolling		% No-passing zones	0	%
Grade: Length		mi	Access points/mi	8	/mi
Up/down		%			

Two-way hourly volume, V 569 veh/h
Directional split 56 / 44 %

Average Travel Speed

Grade adjustment factor, fG	0.93	
PCE for trucks, ET	1.9	
PCE for RVs, ER	1.1	
Heavy-vehicle adjustment factor,	0.982	
Two-way flow rate,(note-1) vp	692	pc/h
Highest directional split proportion (note-2)	388	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	-	mi/h
Observed volume, Vf	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	60.0	mi/h
Adj. for lane and shoulder width, fLS	0.0	mi/h
Adj. for access points, fA	2.0	mi/h
Free-flow speed, FFS	58.0	mi/h
Adjustment for no-passing zones, fnp	0.0	mi/h
Average travel speed, ATS	52.6	mi/h

Percent Time-Spent-Following

Grade adjustment factor, fG	0.94	
PCE for trucks, ET	1.5	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fHV	0.990	
Two-way flow rate,(note-1) vp	679	pc/h
Highest directional split proportion (note-2)	380	
Base percent time-spent-following, BPTSF	44.9	%
Adj.for directional distribution and no-passing zones, fd/np	0.0	
Percent time-spent-following, PTSF	44.9	%

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.22	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

APPENDIX

E-2

TRAFFIC UPDATE LETTER

WILSON OKAMOTO CORPORATION
INNOVATORS • PLANNERS • ENGINEERS

7899-02
April 21, 2023

Mr. Mark Alexander Roy
Munekiyo & Hiraga Inc
305 High Street, Suite 104
Wailuku, HI 96793

Subject: Haiku Fire Station Supplemental Traffic Assessment

Dear Mr. Esmeralda,

As requested, we have conducted an assessment for the proposed Haiku Fire Station adjacent to Hana Highway in Haiku, Maui to supplement traffic assessments previously prepared for the project. A Traffic Impact Analysis Report (TIAR) was initially prepared for the project in June 2010 and subsequently re-assessed in 2015 due to changes in the development timeline for the project. The 2015 Traffic Assessment found that the results in 2010 TIAR were still applicable for an assumed project completion in 2018. Since the preparation of the 2015 Traffic Assessment, the project horizon year has changed and is now expected to be completed in Year 2025. As such, this supplemental traffic assessment is intended to address the updated horizon year.

The traffic volumes used for the purpose of this assessment are based on 24-hour traffic data obtained from the State of Hawaii Department of Transportation, Highways Division, in the vicinity of the project. A comparison of the traffic data between Years 2015 and 2022 shows that existing traffic volumes along Hana Highway in the vicinity of the proposed project are approximately similar to traffic volumes from Year 2015. As such, although some years have passed since the preparation of the 2015 Traffic Assessment, the conclusions in that memorandum are still applicable despite the changes to the anticipated completion year to 2025 due to the relatively stable traffic volumes in the vicinity. In addition, it should also be noted since the anticipated site-generated trips for the project are expected to be relatively low, the addition of these trips to the current volumes along the highway are expected to represent a minimal increase in the overall traffic volumes along the highway.

Should you have any questions, please contact our office at 808-946-2277.

Sincerely,
Cathy Leong, P.E.

1907 S. Beretania Street, Suite 400 • Honolulu, Hawaii • 96826 • (808) 946-2277

Enclosures: Traffic Count Data

Run Date: 2016/07/14

Hawaii Department of Transportation
Highways Division
Highways Planning Survey Section

2015 Program Count - Summary

Site ID: B74036000000
Functional Class: RURAL:MAJOR COLLECTOR
Location: Hana Hwy btwn Kaupakalua Rd .Hoolawa Bridge @ 1 MP

Town: Maui
Count Type: VOLUME

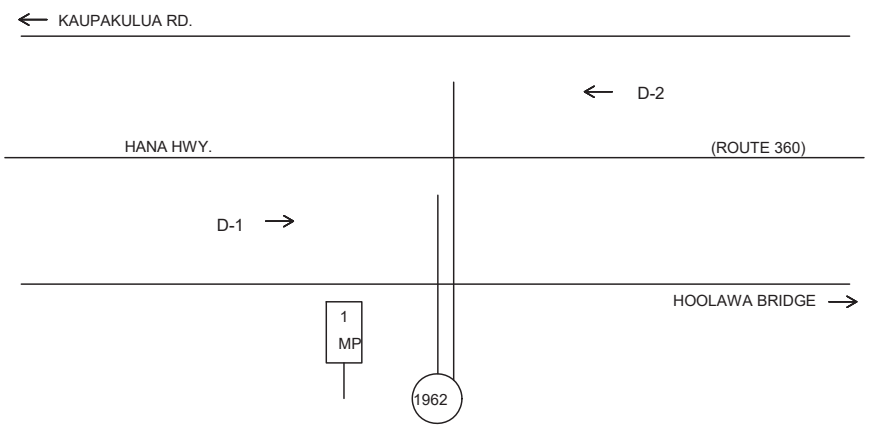
DIR 1: +MP
Counter Type: Tube

DIR 2:-MP

Final AADT: 3800
Route No: 360

TIME-AM	DIR 1	DIR 2	TOTAL	TIME-AM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL
DATE : 04/14/2015															
12:00-12:15	3	2	5	06:00-06:15	2	19	21	12:00-12:15	23	24	47	06:00-06:15	18	44	62
12:15-12:30	0	0	0	06:15-06:30	14	18	32	12:15-12:30	40	23	63	06:15-06:30	32	27	59
12:30-12:45	1	2	3	06:30-06:45	12	20	32	12:30-12:45	33	28	61	06:30-06:45	41	33	74
12:45-01:00	1	0	1	06:45-07:00	15	34	49	12:45-01:00	42	34	76	06:45-07:00	22	11	33
01:00-01:15	1	1	2	07:00-07:15	11	34	45	01:00-01:15	46	34	80	07:00-07:15	17	27	44
01:15-01:30	2	0	2	07:15-07:30	30	32	62	01:15-01:30	25	40	65	07:15-07:30	25	15	40
01:30-01:45	2	2	4	07:30-07:45	19	36	55	01:30-01:45	45	28	73	07:30-07:45	19	13	32
01:45-02:00	1	0	1	07:45-08:00	32	29	61	01:45-02:00	24	37	61	07:45-08:00	18	12	30
02:00-02:15	0	1	1	08:00-08:15	33	33	66	02:00-02:15	28	38	66	08:00-08:15	15	9	24
02:15-02:30	2	0	2	08:15-08:30	42	25	67	02:15-02:30	28	36	64	08:15-08:30	14	8	22
02:30-02:45	0	0	0	08:30-08:45	62	32	94	02:30-02:45	42	44	86	08:30-08:45	10	7	17
02:45-03:00	0	1	1	08:45-09:00	66	22	88	02:45-03:00	26	40	66	08:45-09:00	16	4	20
03:00-03:15	0	0	0	09:00-09:15	46	24	70	03:00-03:15	34	45	79	09:00-09:15	17	4	21
03:15-03:30	1	0	1	09:15-09:30	66	30	96	03:15-03:30	39	52	91	09:15-09:30	12	9	21
03:30-03:45	0	1	1	09:30-09:45	54	35	89	03:30-03:45	34	50	84	09:30-09:45	13	6	19
03:45-04:00	0	2	2	09:45-10:00	62	32	94	03:45-04:00	20	39	59	09:45-10:00	12	0	12
04:00-04:15	0	0	0	10:00-10:15	54	26	80	04:00-04:15	29	54	83	10:00-10:15	10	6	16
04:15-04:30	1	0	1	10:15-10:30	54	22	76	04:15-04:30	35	42	77	10:15-10:30	10	0	10
04:30-04:45	1	3	4	10:30-10:45	65	28	93	04:30-04:45	27	52	79	10:30-10:45	9	0	9
04:45-05:00	2	2	4	10:45-11:00	55	29	84	04:45-05:00	34	52	86	10:45-11:00	5	0	5
05:00-05:15	1	6	7	11:00-11:15	54	24	78	05:00-05:15	36	46	82	11:00-11:15	7	0	7
05:15-05:30	2	6	8	11:15-11:30	64	16	80	05:15-05:30	29	39	68	11:15-11:30	3	2	5
05:30-05:45	4	11	15	11:30-11:45	45	44	89	05:30-05:45	30	40	70	11:30-11:45	5	0	5
05:45-06:00	7	7	14	11:45-12:00	40	32	72	05:45-06:00	26	48	74	11:45-12:00	2	1	3
AM COMMUTER PERIOD (05:00-09:00)								PM COMMUTER PERIOD (15:00-19:00)							
TWO DIRECTIONAL PEAK		DIR 1			DIR 2			TWO DIRECTIONAL PEAK		DIR 1				DIR 2	
AM - PEAK HR TIME			08:00 AM to 09:00 AM					PM - PEAK HR TIME			04:00 PM to 05:00 PM				
AM - PEAK HR VOLUME		203			112	315		PM - PEAK HR VOLUME		125				200	325
AM - K FACTOR (%)			64.44			7.72		PM - K FACTOR (%)			38.46				7.96
AM - D (%)					35.56	100.00		PM - D (%)						61.54	100.00
DIRECTIONAL PEAK								DIRECTIONAL PEAK							
AM - PEAK HR TIME			08:00 AM to 09:00 AM			06:45 AM to 07:45 AM		PM - PEAK HR TIME			04:15 PM to 05:15 PM			04:00 PM to 05:00 PM	
AM - PEAK HR VOLUME		203			136			PM - PEAK HR VOLUME		132				200	
AM PERIOD (00:00-12:00)								PM PERIOD (12:00-24:00)							
TWO DIRECTIONAL PEAK								TWO DIRECTIONAL PEAK							
AM - PEAK HR TIME			09:15 AM to 10:15 AM					PM - PEAK HR TIME			04:00 PM to 05:00 PM				
AM - PEAK HR VOLUME		236			359			PM - PEAK HR VOLUME		125				200	325
AM - K FACTOR (%)						8.80		PM - K FACTOR (%)							7.96
AM - D (%)			65.74		34.26	100.00		PM - D (%)			38.46			61.54	100.00
NON-COMMUTER PERIOD (09:00-15:00)								6-HR, 12-HR, 24-HR PERIODS					DIR 1	DIR 2	Total
TWO DIRECTIONAL PEAK								AM 6-HR PERIOD (06:00-12:00)					997	676	1,673
PEAK HR TIME			09:15 AM to 10:15 AM					AM 12-HR PERIOD (00:00-12:00)					1,029	722	1,751
PEAK HR VOLUME		236			123			PM 6-HR PERIOD (12:00-18:00)					775	965	1,740
DIRECTIONAL PEAK								PM 12-HR PERIOD (12:00-24:00)					1,127	1,203	2,330
PEAK HR TIME			10:30 AM to 11:30 AM			02:00 PM to 03:00 PM		24 HOUR PERIOD					2,156	1,925	4,081
PEAK HR VOLUME		238			158			D (%)					52.83	47.17	100.00

ISLAND: MAUI
AREA: KAUPAKALUA



Station No:	B74 0360 00000

Station Location:			
Hana Highway between Kaupakalua Road and Hoolawa Bridge @ 1 milepost			
Station Mileage:	1.02	GPS Coord (Latitude):	20.91409 N
		GPS Coord (Longitude):	156.25852 W
Begin Survey (Date/Time):	4-13-15 0000	End Survey (Date/Time):	4-16-15 0000
Survey Method:	LOOP **HOSE** OTHER	Survey Type:	**VOL** CLASS SPEED OTHER
Survey Crew:	FIELD CREW	Module No.:	

HPMS DATA

Segment Description:

HANA HIGHWAY - KAUPAKALUA ROAD TO HONOKALA ROAD

Segment Begin LRS	0.00	Segment End LRS	2.63	Length	2.63

Facility Name	Juris	Func Class	Area Type	Route No.	Route Mile	D-1 = Direction to End of Route / D-2 = Direction to Beginning of Route	
HANA HIGHWAY	S	7	1	360	1.02	D-1	KEAWA PLACE @ WHARF
						D-2	KAUPAKALUA

Sketch By: EPJ Date: 6/6/2011 SLD: 2009

HDOT RIMS Traffic Station Analyzer (v50) Log Out Print VLCON in HWYPDC10

Run Date: 03-APR-23

State of Hawaii, Department of Transportation, Highways Division
15 Minute Volume Report

Site ID: B74036000000 **Town:** Maui **DIR 1:** +MP **DIR 2:** -MP **Final AADT:** 0
Functional Class: RURAL:MAJOR COLLECTOR **Count Type:** CLASS **Counter Type:** Tube **Route No:** 360
Location: **DATE: 30-NOV-22**

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	07:45 to 08:45 AM		
AM - PEAK HR VOLUME	233	122	355
AM - K FACTOR(%)			8.78
AM - D(%)	65.63	34.37	100
DIRECTIONAL PEAK			
AM - PEAK HR TIME	07:45 to 08:45 AM	07:00 to 08:00 AM	
AM - PEAK HR VOLUME	233	124	

PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:45 to 04:45 PM		
PM - PEAK HR VOLUME	120	251	371
PM - K FACTOR(%)			9.18
PM -D(%)	32.35	67.65	100
DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:15 to 04:15 PM	03:45 to 04:45 PM	
PM - PEAK HR VOLUME	127	251	

AM PERIOD (00:00-12:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	07:45 to 08:45 AM		
AM - PEAK HR VOLUME	233	122	355
AM - K FACTOR(%)			8.78
AM - D(%)	65.63	34.37	100

PM PERIOD (12:00-24:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:45 to 04:45 PM		
PM - PEAK HR VOLUME	120	251	371
PM - K FACTOR(%)			9.18
PM -D(%)	32.35	67.65	100

NON COMMUTER PERIOD (09:00-15:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
PEAK HR TIME	09:15 to 10:15 AM		
PEAK HR VOLUME	223	122	345
DIRECTIONAL PEAK			
PEAK HR TIME	09:15 to 10:15 AM	02:00 to 03:00 PM	
PEAK HR VOLUME	223	153	

6-HR, 12-HR, 24-HR PERIODS	DIR 1	DIR 2	TOTAL
AM 6-HR PERIOD (06:00-12:00)	1,035	681	1,716
AM 12-HR PERIOD (00:00-12:00)	1,068	722	1,790
PM 6-HR PERIOD (12:00-18:00)	719	996	1,715
PM 12-HR PERIOD (12:00-24:00)	1,023	1,229	2,252
24-HR PERIOD (12:00-24:00)	2,091	1,951	4,042
D%	51.73	48.27	100

TIME - AM	DIR1	DIR 2	TOTAL
12:00 - 12:15	0	0	0
12:15 - 12:30	0	0	0
12:30 - 12:45	2	1	3
12:45 - 01:00	0	0	0
01:00 - 01:15	0	0	0
01:15 - 01:30	1	0	1
01:30 - 01:45	0	0	0
01:45 - 02:00	0	1	1
02:00 - 02:15	1	0	1
02:15 - 02:30	1	0	1
02:30 - 02:45	1	0	1
02:45 - 03:00	0	1	1
03:00 - 03:15	1	1	2
03:15 - 03:30	1	0	1
03:30 - 03:45	1	0	1
03:45 - 04:00	2	0	2
04:00 - 04:15	1	0	1
04:15 - 04:30	1	0	1
04:30 - 04:45	1	4	5
04:45 - 05:00	4	5	9
05:00 - 05:15	2	5	7
05:15 - 05:30	3	11	14
05:30 - 05:45	4	8	12
05:45 - 06:00	6	4	10

TIME - AM	DIR1	DIR 2	TOTAL
06:00 - 06:15	5	11	16
06:15 - 06:30	10	11	21
06:30 - 06:45	19	27	46
06:45 - 07:00	21	26	47
07:00 - 07:15	18	29	47
07:15 - 07:30	33	37	70
07:30 - 07:45	42	24	66
07:45 - 08:00	61	34	95
08:00 - 08:15	44	28	72
08:15 - 08:30	66	26	92
08:30 - 08:45	62	34	96
08:45 - 09:00	52	30	82
09:00 - 09:15	50	29	79
09:15 - 09:30	60	33	93
09:30 - 09:45	51	23	74
09:45 - 10:00	58	29	87
10:00 - 10:15	54	37	91
10:15 - 10:30	50	28	78
10:30 - 10:45	42	28	70
10:45 - 11:00	54	23	77
11:00 - 11:15	38	29	67
11:15 - 11:30	58	30	88
11:30 - 11:45	55	31	86
11:45 - 12:00	32	44	76

TIME - PM	DIR1	DIR 2	TOTAL
12:00 - 12:15	31	22	53
12:15 - 12:30	23	41	64
12:30 - 12:45	31	21	52
12:45 - 01:00	44	38	82
01:00 - 01:15	32	34	66
01:15 - 01:30	24	32	56
01:30 - 01:45	28	48	76
01:45 - 02:00	37	32	69
02:00 - 02:15	19	38	57
02:15 - 02:30	22	32	54
02:30 - 02:45	38	36	74
02:45 - 03:00	37	47	84
03:00 - 03:15	28	27	55
03:15 - 03:30	29	36	65
03:30 - 03:45	31	50	81
03:45 - 04:00	28	41	69
04:00 - 04:15	39	54	93
04:15 - 04:30	28	81	109
04:30 - 04:45	25	75	100
04:45 - 05:00	29	37	66
05:00 - 05:15	28	29	57
05:15 - 05:30	33	66	99
05:30 - 05:45	28	41	69
05:45 - 06:00	27	38	65

TIME - PM	DIR1	DIR 2	TOTAL
06:00 - 06:15	27	40	67
06:15 - 06:30	31	28	59
06:30 - 06:45	25	30	55
06:45 - 07:00	21	15	36
07:00 - 07:15	23	15	38
07:15 - 07:30	16	4	20
07:30 - 07:45	15	19	34
07:45 - 08:00	17	19	36
08:00 - 08:15	9	11	20
08:15 - 08:30	15	7	22
08:30 - 08:45	14	5	19
08:45 - 09:00	14	10	24
09:00 - 09:15	15	3	18
09:15 - 09:30	18	2	20
09:30 - 09:45	7	3	10
09:45 - 10:00	7	3	10
10:00 - 10:15	5	3	8
10:15 - 10:30	5	3	8
10:30 - 10:45	4	1	5
10:45 - 11:00	5	1	6
11:00 - 11:15	4	1	5
11:15 - 11:30	6	1	7
11:30 - 11:45	0	7	7
11:45 - 12:00	1	2	3

Run Date: 2016/07/14

Hawaii Department of Transportation
Highways Division Highways Planning Survey Section
2015 Program Count - Summary

Site ID: B74036000000 **Town:** Maui **DIR 1:** +MP **DIR 2:** -MP **Final AADT:** 3800
Functional Class: RURAL:MAJOR COLLECTOR **Count Type:** VOLUME **Counter Type:** Tube **Route No:** 360
Location: Hana Hwy btwn Kaupakalua Rd _Hoolawa Bridge @ 1 MP

TIME-AM	DIR 1	DIR 2	TOTAL	TIME-AM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL
DATE : 04/15/2015															
12:00-12:15	3	0	3	06:00-06:15	5	13	18	12:00-12:15	42	24	66	06:00-06:15	32	48	80
12:15-12:30	3	1	4	06:15-06:30	17	13	30	12:15-12:30	33	34	67	06:15-06:30	30	25	55
12:30-12:45	2	0	2	06:30-06:45	14	28	42	12:30-12:45	43	35	78	06:30-06:45	24	24	48
12:45-01:00	2	2	4	06:45-07:00	12	44	56	12:45-01:00	34	35	69	06:45-07:00	22	22	44
01:00-01:15	0	1	1	07:00-07:15	10	35	45	01:00-01:15	26	34	60	07:00-07:15	28	11	39
01:15-01:30	1	0	1	07:15-07:30	18	34	52	01:15-01:30	26	40	66	07:15-07:30	18	10	28
01:30-01:45	0	0	0	07:30-07:45	29	36	65	01:30-01:45	36	36	72	07:30-07:45	20	19	39
01:45-02:00	0	1	1	07:45-08:00	26	28	54	01:45-02:00	34	37	71	07:45-08:00	20	8	28
02:00-02:15	4	2	6	08:00-08:15	36	28	64	02:00-02:15	34	31	65	08:00-08:15	17	13	30
02:15-02:30	0	0	0	08:15-08:30	34	34	68	02:15-02:30	38	40	78	08:15-08:30	16	14	30
02:30-02:45	0	0	0	08:30-08:45	54	32	86	02:30-02:45	19	36	55	08:30-08:45	16	6	22
02:45-03:00	0	1	1	08:45-09:00	71	27	98	02:45-03:00	32	57	89	08:45-09:00	17	8	25
03:00-03:15	1	0	1	09:00-09:15	47	30	77	03:00-03:15	23	48	71	09:00-09:15	12	7	19
03:15-03:30	1	0	1	09:15-09:30	40	36	76	03:15-03:30	27	38	65	09:15-09:30	16	4	20
03:30-03:45	0	1	1	09:30-09:45	52	30	82	03:30-03:45	36	28	64	09:30-09:45	24	5	29
03:45-04:00	0	2	2	09:45-10:00	72	22	94	03:45-04:00	16	37	53	09:45-10:00	10	1	11
04:00-04:15	0	2	2	10:00-10:15	47	37	84	04:00-04:15	29	42	71	10:00-10:15	7	6	13
04:15-04:30	1	2	3	10:15-10:30	67	23	90	04:15-04:30	26	30	56	10:15-10:30	2	4	6
04:30-04:45	1	3	4	10:30-10:45	54	28	82	04:30-04:45	30	35	65	10:30-10:45	6	0	6
04:45-05:00	1	4	5	10:45-11:00	65	32	97	04:45-05:00	35	44	79	10:45-11:00	8	0	8
05:00-05:15	2	7	9	11:00-11:15	44	28	72	05:00-05:15	22	48	70	11:00-11:15	5	5	10
05:15-05:30	2	10	12	11:15-11:30	44	23	67	05:15-05:30	30	39	69	11:15-11:30	6	2	8
05:30-05:45	6	16	22	11:30-11:45	48	28	76	05:30-05:45	30	47	77	11:30-11:45	4	2	6
05:45-06:00	2	8	10	11:45-12:00	38	24	62	05:45-06:00	24	33	57	11:45-12:00	0	0	0

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	08:00 AM to 09:00 AM		
AM - PEAK HR VOLUME	195	121	316
AM - K FACTOR (%)			7.96
AM - D (%)	61.71	38.29	100.00
DIRECTIONAL PEAK			
AM - PEAK HR TIME	08:00 AM to 09:00 AM	06:45 AM to 07:45 AM	
AM - PEAK HR VOLUME	195	149	

PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	04:45 PM to 05:45 PM		
PM - PEAK HR VOLUME	117	178	295
PM - K FACTOR (%)			7.43
PM - D (%)	39.66	60.34	100.00
DIRECTIONAL PEAK			
PM - PEAK HR TIME	04:00 PM to 05:00 PM	04:45 PM to 05:45 PM	
PM - PEAK HR VOLUME	120	178	

AM PERIOD (00:00-12:00)			
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	10:00 AM to 11:00 AM		
AM - PEAK HR VOLUME	233	120	353
AM - K FACTOR (%)			8.89
AM - D (%)	66.01	33.99	100.00

PM PERIOD (12:00-24:00)			
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	04:45 PM to 05:45 PM		
PM - PEAK HR VOLUME	117	178	295
PM - K FACTOR (%)			7.43
PM - D (%)	39.66	60.34	100.00

NON-COMMUTER PERIOD (09:00-15:00)			
TWO DIRECTIONAL PEAK			
PEAK HR TIME	10:00 AM to 11:00 AM		
PEAK HR VOLUME	233	120	353
DIRECTIONAL PEAK			
PEAK HR TIME	09:45 AM to 10:45 AM	02:00 PM to 03:00 PM	
PEAK HR VOLUME	240	164	

6-HR, 12-HR, 24-HR PERIODS	DIR 1	DIR 2	Total
AM 6-HR PERIOD (06:00-12:00)	944	693	1,637
AM 12-HR PERIOD (00:00-12:00)	976	756	1,732
PM 6-HR PERIOD (12:00-18:00)	725	908	1,633
PM 12-HR PERIOD (12:00-24:00)	1,085	1,152	2,237
24 HOUR PERIOD	2,061	1,908	3,969
D (%)	51.93	48.07	100.00

HDOT RIMS Traffic Station Analyzer (v50) Log Out Print VLCON in HWYPDC10

Run Date: 03-APR-23

State of Hawaii, Department of Transportation, Highways Division
15 Minute Volume Report

Site ID: B74036000000 **Town:** Maui **DIR 1:** +MP **DIR 2:** -MP **Final AADT:** 0
Functional Class: RURAL:MAJOR COLLECTOR **Count Type:** CLASS **Counter Type:** Tube **Route No:** 360
Location: **DATE: 01-DEC-22**

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	08:00 to 09:00 AM		
AM - PEAK HR VOLUME	234	112	346
AM - K FACTOR(%)			8.96
AM - D(%)	67.63	32.37	100
DIRECTIONAL PEAK			
AM - PEAK HR TIME	08:00 to 09:00 AM	06:30 to 07:30 AM	
AM - PEAK HR VOLUME	234	112	

PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:15 to 04:15 PM		
PM - PEAK HR VOLUME	121	246	367
PM - K FACTOR(%)			9.5
PM -D(%)	32.97	67.03	100
DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:00 to 04:00 PM	03:15 to 04:15 PM	
PM - PEAK HR VOLUME	136	246	

AM PERIOD (00:00-12:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	08:15 to 09:15 AM		
AM - PEAK HR VOLUME	243	112	355
AM - K FACTOR(%)			9.19
AM - D(%)	68.45	31.55	100

PM PERIOD (12:00-24:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	02:45 to 03:45 PM		
PM - PEAK HR VOLUME	153	218	371
PM - K FACTOR(%)			9.6
PM -D(%)	41.24	58.76	100

NON COMMUTER PERIOD (09:00-15:00)	DIR 1	DIR 2	TOTAL
TWO DIRECTIONAL PEAK			
PEAK HR TIME	09:00 to 10:00 AM		
PEAK HR VOLUME	207	117	324
DIRECTIONAL PEAK			
PEAK HR TIME	09:00 to 10:00 AM	12:45 to 01:45 PM	
PEAK HR VOLUME	207	161	

6-HR, 12-HR, 24-HR PERIODS	DIR 1	DIR 2	TOTAL
AM 6-HR PERIOD (06:00-12:00)	933	588	1,521
AM 12-HR PERIOD (00:00-12:00)	965	640	1,605
PM 6-HR PERIOD (12:00-18:00)	759	1,047	1,806
PM 12-HR PERIOD (12:00-24:00)	1,013	1,245	2,258
24-HR PERIOD (12:00-24:00)	1,978	1,885	3,863
D%	51.2	48.8	100

TIME - AM	DIR1	DIR 2	TOTAL
12:00 - 12:15	1	1	2
12:15 - 12:30	2	1	3
12:30 - 12:45	0	2	2
12:45 - 01:00	1	1	2
01:00 - 01:15	0	0	0
01:15 - 01:30	1	0	1
01:30 - 01:45	0	2	2
01:45 - 02:00	1	0	1
02:00 - 02:15	1	0	1
02:15 - 02:30	2	4	6
02:30 - 02:45	0	0	0
02:45 - 03:00	0	1	1
03:00 - 03:15	1	0	1
03:15 - 03:30	2	0	2
03:30 - 03:45	0	0	0
03:45 - 04:00	0	0	0
04:00 - 04:15	2	0	2
04:15 - 04:30	3	0	3
04:30 - 04:45	2	2	4
04:45 - 05:00	3	3	6
05:00 - 05:15	1	4	5
05:15 - 05:30	2	8	10
05:30 - 05:45	5	12	17
05:45 - 06:00	2	11	13

TIME - AM	DIR1	DIR 2	TOTAL
06:00 - 06:15	5	10	15
06:15 - 06:30	10	18	28
06:30 - 06:45	14	29	43
06:45 - 07:00	20	24	44
07:00 - 07:15	14	26	40
07:15 - 07:30	29	33	62
07:30 - 07:45	43	26	69
07:45 - 08:00	50	17	67
08:00 - 08:15	46	29	75
08:15 - 08:30	58	27	85
08:30 - 08:45	71	29	100
08:45 - 09:00	59	27	86
09:00 - 09:15	55	29	84
09:15 - 09:30	47	38	85
09:30 - 09:45	53	24	77
09:45 - 10:00	52	26	78
10:00 - 10:15	48	15	63
10:15 - 10:30	49	17	66
10:30 - 10:45	36	23	59
10:45 - 11:00	41	29	70
11:00 - 11:15	34	17	51
11:15 - 11:30	30	24	54
11:30 - 11:45	28	26	54
11:45 - 12:00	41	25	66

TIME - PM	DIR1	DIR 2	TOTAL
12:00 - 12:15	33	28	61
12:15 - 12:30	31	39	70
12:30 - 12:45	34	22	56
12:45 - 01:00	31	31	62
01:00 - 01:15	28	51	79
01:15 - 01:30	32	43	75
01:30 - 01:45	33	36	69
01:45 - 02:00	27	25	52
02:00 - 02:15	26	35	61
02:15 - 02:30	37	43	80
02:30 - 02:45	29	37	66
02:45 - 03:00	45	44	89
03:00 - 03:15	41	39	80
03:15 - 03:30	31	71	102
03:30 - 03:45	36	64	100
03:45 - 04:00	28	48	76
04:00 - 04:15	26	63	89
04:15 - 04:30	29	56	85
04:30 - 04:45	36	56	92
04:45 - 05:00	37	49	86
05:00 - 05:15	31	49	80
05:15 - 05:30	27	53	80
05:30 - 05:45	28	30	58
05:45 - 06:00	23	35	58

TIME - PM	DIR1	DIR 2	TOTAL
06:00 - 06:15	20	21	41
06:15 - 06:30	18	40	58
06:30 - 06:45	23	25	48
06:45 - 07:00	20	19	39
07:00 - 07:15	19	15	34
07:15 - 07:30	16	13	29
07:30 - 07:45	9	13	22
07:45 - 08:00	20	6	26
08:00 - 08:15	10	6	16
08:15 - 08:30	12	5	17
08:30 - 08:45	5	8	13
08:45 - 09:00	10	4	14
09:00 - 09:15	10	4	14
09:15 - 09:30	11	5	16
09:30 - 09:45	10	2	12
09:45 - 10:00	14	2	16
10:00 - 10:15	6	3	9
10:15 - 10:30	4	0	4
10:30 - 10:45	6	1	7
10:45 - 11:00	4	0	4
11:00 - 11:15	3	4	7
11:15 - 11:30	3	2	5
11:30 - 11:45	0	0	0
11:45 - 12:00	1	-	1

PRELIMINARY ENGINEERING REPORT

APPENDIX F-1

Haiku Fire Station

Haiku, Maui, Hawai‘i
TMK: (2nd Div) 2-7-007:008

Preliminary Engineering Report

November 2023

Prepared for:
Architects Hawaii, Ltd.
7331 Bishop Street, Suite 3100
Honolulu, Hawaii 96813-4022

Prepared by:
AECOM
1001 Bishop Street
ASB Tower, Suite 1600
Honolulu, Hawaii 96813

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FIGURES
Figure 1: Vicinity & Location Map
Figure 2: Water Map

APPENDIX
Onsite Fire Flow Calculations
Individual Wastewater System Calculations

SECTION 1

INTRODUCTION

1.1 PURPOSE

The objective of this Preliminary Engineering Report (PER) is to provide a brief description and evaluation of the physical characteristics of the proposed Haiku Fire Station project.

1.2 GENERAL INFORMATION

The project is located in the Makawao district of Maui (see attached Figure 1, Vicinity & Location Map). The Haiku Fire Station, is being developed by the County of Maui, Department of Fire & Public Safety. The proposed improvements include a main building housing sleeping quarters, crew quarters, food preparation, dining, training and exercise facilities, storage building, parking lot, and utilities. The project site has an approximate area of 6.1 acres. The total parcel area is 27.90 acres.

B. Owner: County of Maui
Department of Fire & Public Safety
200 Dairy Road
Kahului, Maui, Hawai‘i 96732-2978
Contact: Bradford Ventura, Fire Chief
Phone: (808) 270-7561
Email: fire.dept@mauicounty.gov

C. Vicinity & Location Map (See Figure 1)

SECTION 2

PHYSICAL ENVIRONMENT

2.1 LOCATION

The Haiku Fire Station project site is located in Haiku at 3550 Hana Highway. Refer to Figure 1 for a location map of the project. The Tax Map Key (TMK) for the project lot is (2)2-2-007:008 (por.).

2.2 TOPOGRAPHY

The project site generally slopes from an elevation of approximately 510 feet above sea level at its highest point to approximately 450 feet at its lowest. The drainage generally flows in a north-westerly direction.

2.3 SOILS

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref 4) by the United States Department of Agriculture, Soil Conservation Service, the soil at the project site is Haiku clay, with slopes of 7 to 15 percent (soil classification HbC). This series consists of somewhat excessively drained soils on low uplands on the island of Maui. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate.

2.4 DRAINAGE/FLOODING

According to the State of Hawaii, Department of Land and Natural Resources, National Flood Insurance Program, the area is classified as Zone X – an area determined to be outside the 0.2% annual chance floodplain.

2.5 RAINFALL

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref 4) by the United States Department of Agriculture, Soil Conservation Service, the annual rainfall for the project area amounts to 50 to 80 inches.

SECTION 3

GRADING AND UTILITIES

3.1 EARTHWORK

The project will require significant grading for the proposed project as the average slope across the project area ranges from 7 to 15 percent in the northwestern direction. The earthwork and grading work will comply with Maui County Code, Chapter 20.08 – Soil Erosion and Sedimentation Control and the project's geotechnical report, *Foundation Investigation, Haiku Fire Station Annex* by October 23, 2009.

The earthwork disturbance area for the project will remain within the limits of the project's land use district boundary area of 6.1 acres. The proposed grading plan will require an estimated excavation of approximately 58,530 cubic yards and embankment of approximately 3,950 cubic yards. The area of the property that will be affected by grading operations is approximately 3.45 acres.

3.2 WATER SYSTEM

The fire station's domestic and fire protection water will be serviced from two existing 5/8" water meters located along East Kuiaha Road, and one additional water meter that was reserved for the property, which will now be used for fire protection purposes for the project. The three water meters will be located along East Kuiaha Road on the southeast side of the project. The project also includes installing approximately 300 linear feet of 8-inch water main between the project's laterals/water meters location on East Kuiaha Road and the existing Department of Water Supply (DWS) water main at the intersection of Haiku Road and East Kuiaha Road.

The proposed domestic and fire protection water for the project site will consist of three water lines – one 12" and two 1.5" – that will connect to the new 8-inch waterline off of East Kuiaha Road. The 12" water line will provide the fire protection for the site and new building's fire protection systems. Fire hydrants will be provided for the proposed building in accordance with DWS standards. One 1.5" line will provide water service for the building's interior fixtures and the other 1.5" line will provide water service for exterior fixtures such as hose bibbs and irrigation system.

An onsite, at-ground, water tank will be provided to supplement the fire protection capacity required for the site. The water tank will be sized in accordance with NFPA 1142, Standard on Water Supplies for Suburban and Rural Firefighting. The estimated required water tank is a 40,000 gallon water holding tank.

The *Water System Standards* calls for a maximum fire hydrant spacing of 250′ for industrial areas. Fire flow (FF) requirements for the site include 600 gallons per minute (gpm) per the Fire Department and a 2-hour duration, calculations based on the NFPA 1, 2006 Edition, Appendix H.

Waterlines will be sized to meet the following requirements:

- Maximum Daily Water Demand + FF with a residual pressure of 20 pounds per square inch (psi) at the critical fire hydrant.
- Peak Hour Water Demand with a minimum residual pressure of 40 psi.
- Carrying capacities of mains shall be determined through the use of the following values:
    - 4″ & 6″—C = 100;
    - 8″ & 12″—C = 110
    - 16″ & 20″—C = 120; and
    - 24″ & larger—C = 130.
- Maximum flow velocities:
    - Distribution mains—without FF—6 feet per second (fps);
    - Distribution mains—with FF @ maximum day domestic flow—10 fps;
    - Transmission mains—without water services or fire flow—20 fps; and
    - Fire lines—13 fps.
- Maximum static or pumping pressure, whichever is greater, shall not exceed 125 psi.

3.3 SEWER SYSTEM

The fire station building's sanitary sewer line will discharge from the north side of the building and connect to a gravity sewer line to be treated and disposed of via a Department of Health approved Individual Wastewater System (IWS). The IWS will be located on the north side of the fire station building near Hana Highway, on the lower elevations of the property. The IWS will require a septic

tank with a minimum capacity of 1,530 gallons and a leach field for disposal with a minimum area of 1,683 square feet. See attached Individual Wastewater System calculations.

3.4 DRAINAGE CONDITIONS

A topographic survey of the project area indicates that there are two drainage areas in the existing condition. Runoff from the site currently sheet flows along the ground and road surface to the existing East Kuiaha Gulch on the northwest side of the property and to Hana Highway to the north**.** The existing flow rate from Drainage Area X1 to the northwest property line is 17.68 cfs (10-yr) and 24.50 cfs (50-yr). The existing flow rate from Drainage Area X2 is 7.73 cfs (10-yr) and 10.72 cfs (50-yr) and flows to Hana Highway to the north. These flows continue to the northwest along the project side of Hana Highway in a vegetated swale. These flows continue and exit the highway near the project's northwest property corner and continue to flow towards the East Kuiaha Gulch. The total existing flow rate from the project's property is 25.41 cfs (10-yr) and 35.22 cfs (50-yr).

The proposed Haiku Fire Station project is anticipated to generate a 10-year flow rate of 33.44 cfs, an increase of 8.03 cfs from the existing condition and a 50-year flow rate of 46.35 cfs, an increase of 11.13 cfs from the existing conditions. The proposed drainage system will manage the increased flow rates with a detention basin. The flow rate onto Hana Highway will be unchanged, and the flow rate to the northwest property line will be reduced by 10.58 cfs (10-yr) and 14.66 cfs (50-yr). This permanent best management practice is to reduce the quantity of the runoff exiting the project site and increase the quality of water exiting the site by allowing the pollutants to settle in the basin.

There will not be an adverse impact to the existing drainage system downstream, neighboring properties or roadways from the proposed development.

For more information regarding drainage patterns and properties, refer to the PreFinal Drainage Report, November 2023, that accompanies this PER under a separate cover.

REFERENCES

A. State of Hawaii, Department of Land and Natural Resources, *National Flood Insurance Program-Hawaii State, http://gis.hawaiinfip.org/fhat/,* December 08, 2011.

B. *Rainfall-Frequency Atlas of the Hawaiian Islands for Areas to 200 Square Miles, Durations to 24 Hours, and Return Periods from 1 to 100 Years*, Technical Paper No. 43, US Department of Commerce, Weather Bureau, 1962.

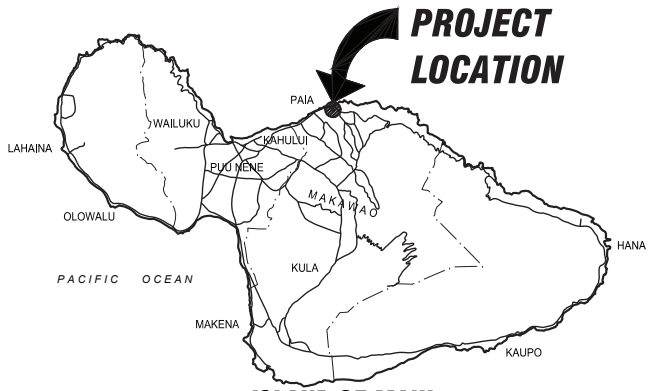
C. *Real Estate Handbook, Zones 1 Thru 6, State of Hawaii, Second Tax Division, Counties of Maui & Kalawao*, First American Real Estate Solutions, Realty Directory, Property Data, 33rd Edition, 1999.

D. *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*, United States Department of Agriculture, Soil Conservation Service, August 1972.

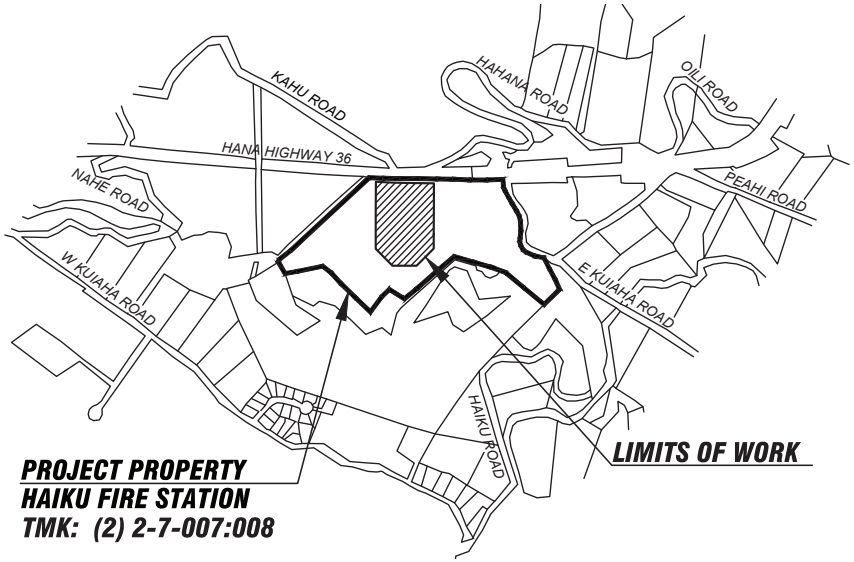
E. *Uniform Plumbing Code*, International Association of Plumbing and Mechanical Officials, 1997.

F. *Water System Standards*, Department of Water Supply, County of Hawai'i, Board of Water Supply, City and County of Honolulu, Department of Water, County of Kaua'i, and Department of Water Supply, County of Maui, State of Hawai'i, 2002.

G. *Title MC-15 Department of Public Works and Water Management,* Subtitle 01 Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui effective November 12, 1995.



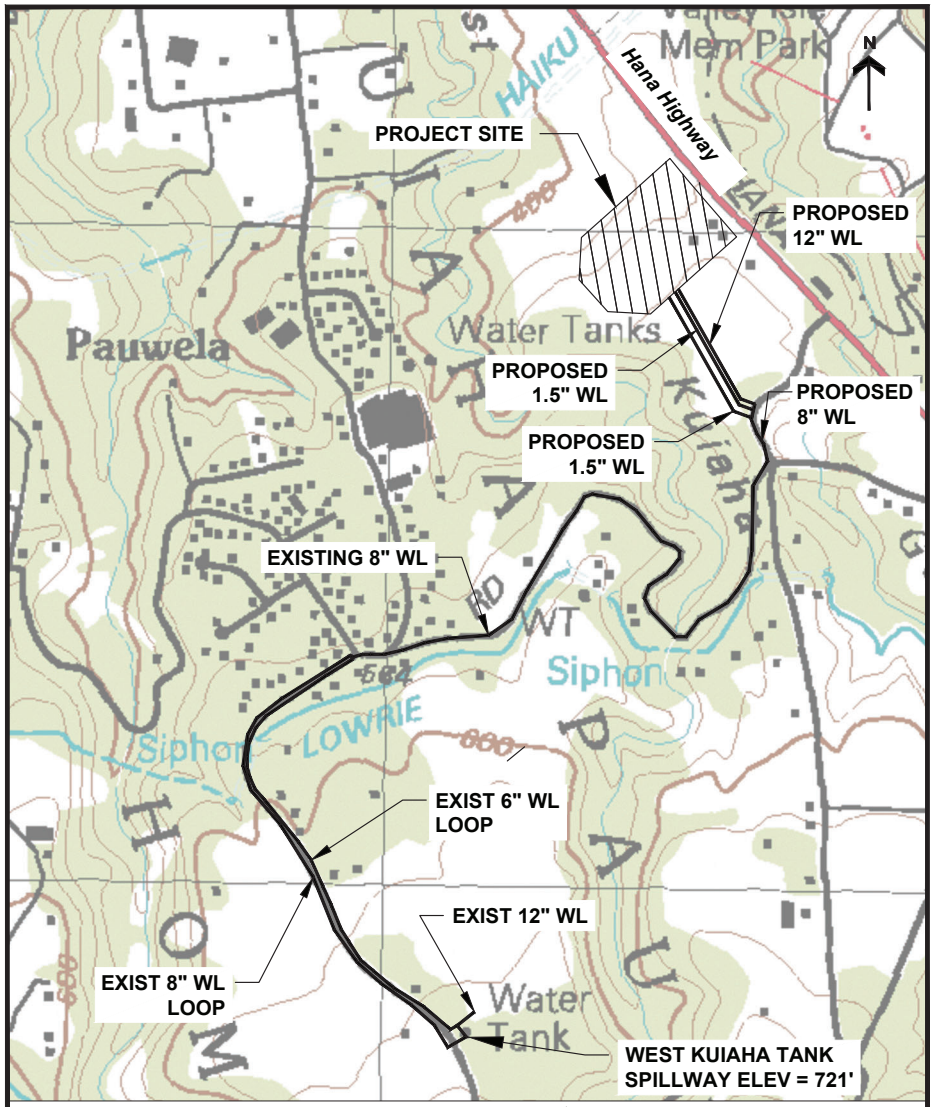
ISLAND OF MAUI
VICINITY MAP
NOT TO SCALE



PROJECT PROPERTY
HAIKU FIRE STATION
TMK: (2) 2-7-007:008

LOCATION MAP
NOT TO SCALE

PRELIMINARY ENGINEERING REPORT
FIGURE 1
Vicinity and Location Maps
HAIKU FIRE STATION
HAIKU, MAUI, HAWAII
November 2023



HAIKU FIRE STATION
NOT TO SCALE

PRELIMINARY ENGINEERING REPORT
FIGURE 2
WATER MAP
HAIKU FIRE STATION
HAIKU, MAUI, HAWAII
November 2023

Project Haiku Fire Station Onsite — Computed JO 11/27/2023
Item Fire Flow Calculation — Checked JMS 11/27/2023

Purpose: Calculate the fire hydrant flow for critical fire hydrant for Haiku Fire Station

References:
1. "Handbook of Hydraulics for the Solution of Hydraulic Engineering Problems." Brater & King, Sixth Edition 1976
2. "*Civil Engineering Reference Manual*" Michael R. Lindeburg, Eighth Edition 2001
3. "Water System Standards." State of Hawaii, 2002
4. "Haiku Fire Station" Construction Plans, 2023

Criteria:

Reservoir Elevation	=	721 '	(spillway)
Residual Baseline	=	20 psi	
Residual Head	=	2.31 x Residual Baseline	
	=	2.31 x 20 '	
	=	46.2 '	
Ground elevation at FH	=	479 '	
FH Elevation	=	480.8 '	(to nozzle)
Hazen Williams			
Discharge Coefficient	=	100	(4" - 6" Pipe)
	=	110	(8" - 12" Pipe)
	=	120	(16" - 20" Pipe)
	=	130	(24" & Larger Pipes)

Schematic: See Attached

Calculations:

From Reservoir to Site - Looped Water System

Un-looped Segment 1 - Reservoir to West Kuiaha Rd:
12 " Pipe = 108 L.F.

Loop 1 - 6" WL along West Kuikaha Rd.
12 " Pipe = 21 L.F.
6 " Pipe = 2,630 L.F.

Loop 2 - 8" WL along West Kuikaha Rd.
12 " Pipe = 21 L.F.
8 " Pipe = 2,759 L.F.

Un-looped Segment 2 - West Kuiaha Rd to Onsite POC:
8 " Pipe = 4,161 L.F.
12 " Pipe = 1,170 L.F.

Project Haiku Fire Station Onsite — Computed JO 11/27/2023
Item Fire Flow Calculation — Checked JMS 11/27/2023

Equivalent Pipe Length: (Derived from Hazen Williams equation)

$$L_e = L\left(\frac{D_e}{D_1}\right)^{4.8704}\left(\frac{C_e}{C_1}\right)^{1.852}$$

L_e = Equivalent Length of Pipe
L = Length of Pipe
D_e = Equivalent Diameter of Pipe
D = Diameter of Pipe
C_e = Equivalent Coefficient Factor for Pipe
C = Coefficient Factor for Pipe

Example:
Equivalent Length of Pipe (16" to 12"):

$L_{e12} = 591(12/16)^{4.8704}(110/120)^{1.852}$
$L_{e12} = 124$ *L.F.*

Un-looped Segment 1 - Reservoir to West Kuiaha Rd:
Equivalent Length of Pipe (to 12"):
12 " Pipe L_{e12} = 108 L.F.
∑ Pipe Lengths = 108 L.F.

Loop 1 - 6" WL along West Kuikaha Rd.
Equivalent Length of Pipe (to 12"):
12 " Pipe L_{e12} = 21 L.F.
6 " Pipe L_{e12} = 91,781 L.F.
∑ Pipe Lengths = 91,802 L.F.

Loop 2 - 8" WL along West Kuikaha Rd.
Equivalent Length of Pipe (to 8"):
12 " Pipe L_{e12} = 21 L.F.
8 " Pipe L_{e12} = 19,879 L.F.
∑ Pipe Lengths = 19,900 L.F.

Un-looped Segment 2 - West Kuiaha Rd to Onsite POC:
8 " Pipe L_{e12} = 29,979 L.F.
12 " Pipe L_{e12} = 1,396 L.F.
∑ Pipe Lengths = 31,375 L.F.

Assumptions:

Q = 600 gpm (Per Fire Department)

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System Standards)

* ***Parallel pipe system:*** *flow divides to make head loss in each branch the same. Iterative process: adjust Q so f on each loop is equal.*

Loop 1 - 6" WL along West Kuikaha Rd.

$Q =$ 183 gpm

Loop 2 - 8" WL along West Kuikaha Rd.

$Q =$ 417 gpm

Hazen Williams Equation:

Un-looped Segment 1 - Reservoir to West Kuiaha Rd:

$Q = 0.006756 \cdot C \cdot D^{2.63} \cdot H^{0.54}$

$H_{12} = 10.44945 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft

$H_{12} = 10449.45 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft/1000

$H_{12} = H_{12} \cdot 62.4/144$ psi/1000'

$H_{12} =$ (10449.45*((600/(110*(12^2.63)))^1.852))*62.4/144

$H_{12} =$ 0.5807 psi/1000'

$H_{12} =$ 0.0006 psi/L.F.

Loop 1 - 6" WL along West Kuikaha Rd.

$Q = 0.006756 \cdot C \cdot D^{2.63} \cdot H^{0.54}$

$H_{12} = 10.44945 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft

$H_{12} = 10449.45 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft/1000

$H_{12} = H_6 \cdot 62.4/144$ psi/1000'

$H_{12} =$ (10449.45*((183/(110*(12^2.63)))^1.852))*62.4/144

$H_{12} =$ 0.0644 psi/1000'

$H_{12} =$ 0.0001 psi/L.F.

Loop 2 - 8" WL along West Kuikaha Rd.

$Q = 0.006756 \cdot C \cdot D^{2.63} \cdot H^{0.54}$

$H_{12} = 10.44945 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft

$H_{12} = 10449.45 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft/1000

$H_{12} = H_8 \cdot 62.4/144$ psi/1000'

$H_{12} =$ (10449.45*((417/(110*(12^2.63)))^1.852))*62.4/144

$H_{12} =$ 0.2960 psi/1000'

$H_{12} =$ 0.0003 psi/L.F.

Un-looped Segment 2 - West Kuiaha Rd to Onsite POC:

$Q = 0.006756 \cdot C \cdot D^{2.63} \cdot H^{0.54}$

$H_{12} = 10.44945 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft

$H_{12} = 10449.45 \cdot (Q / (C \cdot D^{2.63}))^{1.852}$ ft/1000

$H_{12} = H_{12} \cdot 62.4/144$ psi/1000'

$H_{12} =$ (10449.45*((600/(110*(12^2.63)))^1.852))*62.4/144

$H_{12} =$ 0.5807 psi/1000'

$H_{12} =$ 0.0006 psi/L.F.

Friction:

Un-looped Segment 1 - Reservoir to West Kuiaha Rd:

$f_{12} = H_{12}$ ($\sum$ Pipe Lengths)

$f_{12} =$ 0.0054 x 108

$f_{12} =$ 0.06 psi

Loop 1 - 6" WL along West Kuikaha Rd.

$f_{12} = H_{12}$ ($\sum$ Pipe Lengths)

$f_{12} =$ 0.0006 x 91,802

$f_{12} =$ 5.91 psi

Loop 2 - 8" WL along West Kuikaha Rd.

$f_{12} = H_{12}$ ($\sum$ Pipe Lengths)

$f_{12} =$ 0.0028 x 19,900

$f_{12} =$ 5.89 psi

Un-looped Segment 2 - West Kuiaha Rd to Onsite POC:

$f_{12} = H_{12}$ ($\sum$ Pipe Lengths)

$f_{12} =$ 0.0054 x 44,989

$f_{12} =$ 18.22 psi

Head Loss:

Reservoir Elevation	=	721 '
FH elevation	=	480.8 '
Loss Through Meter	=	4 '
Static Pressure	=	236.2 '
	=	194.6 x (62.4/144)
	=	102 psi ≤125 psi OK

Residual Pressure:

P = Static Pressure - ($\sum$ Friction)

= 102 - 0.06 - 5.9 - 18.22

= 78 ≥ 20 psi

therefore OK

Flow at Fire Hydrant (at 20psi):

$$Q = 448.895 \left[\frac{\left(\frac{D}{12}\right)^{4.8704} (C)^{1.852} (h_f)}{4.727(L)} \right]^{\frac{1}{1.852}}$$

Project Haiku Fire Station Onsite
Item Fire Flow Calculation

Computed JO 11/27/2023
Checked JMS 11/27/2023

Q = Available Flow
D = Diameter of Pipe
C = Coefficient of Pipe
h_f = Required Head
L = Equivalent Length of Pipe

h_f = Head at Reservoir - FH Elevation
- Minimum Residual Head - Loss at Meter
= 721 - 522.4 - 46.2- 4
= 190.0

Loop 1 - 6" WL along West Kuikaha Rd.

$$Q = 448.895\left[\frac{\left(\frac{12}{12}\right)^{4.8704}(110)^{1.852}(148.4)}{4.727(108 + 91{,}802 + 31{,}375)}\right]^{\frac{1}{1.852}}$$

Q = 647 gpm > 183 gpm

therefore OK

Loop 2 - 8" WL along West Kuikaha Rd.

$$Q = 448.895\left[\frac{\left(\frac{12}{12}\right)^{4.8704}(110)^{1.852}(148.4)}{4.727(108 + 19{,}900 + 31{,}375)}\right]^{\frac{1}{1.852}}$$

Q = 1038 gpm > 417 gpm

therefore OK

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DATE: November 2023 **COMPLETED BY:** JO
PROJECT NO.: 60051010 **CHECKED BY:** JMS
PROJECT: Haiku Fire Station

SUBJECT: **Individual Wastewater System Calculations**

PURPOSE
Determine the require individual wastewater system size (septic tank and absorption bed area) to treat the sewer flows generated by the proposed Haiku Fire Station project in Haiku, Maui, Hawaii.

REFERENCES
1. *Hawai'i Administrative Rules* (HAR), Title 11, Department of Health, Chapter 62, Wastewater Systems, State of Hawai'i.
2. *Manual of Septic Tank Practice* (MSTP), US Department of Public Health, Education and Welfare, 1972.
3. *Uniform Plumbing Code* (UPC), International Association of Plumbing and Mechanical Officials, 2021.
4. *Wastewater Flow Standards,* February 2, 2006, Wastewater Reclamation Division, County of Maui, State of Hawaii

CRITERIA
A. From *Wastewater Flow* Standards, Wastewater Flow Contribution = 87.5 gal/person/day
   a. Residential, Subdivision = 350 gal/home/day
   b. Residential Occupancy = 4 persons per home
   c. 350 gal/home/day for 4 persons per home = 87.5 gal/person/day
B. From *Wastewater Flow Standards,* use dry weather infiltration/inflow of 5 gallons capita per day for wastewater lines laid above the normal ground water table
C. Employees at any one time (persons, capita) = 11 (Per email from AHL)

DESIGN CALCULATIONS
1. Facility Name
   Haiku Fire Station
   Haiku, Maui, Hawaii
   TMK: 2-7-007:008

2. Average Wastewater Flow
   Average Flow = 11 persons x 87.5 gal/person/day
   Average Flow = 962.5 gpd

Haiku, Maui, Hawai'i
Voice: (808) 961-2776
Fax: (808) 524-8677

3. Dry Weather Infiltration/Inflow (I/I)
   Use 5 gpcd for above normal ground water table (Wastewater Flow Standards)
   Total = 11 persons (capita)
   Dry I/I = 5 gpcd x 11 capita
   Dry I/I = 55 gpd

4. Design Average Flow
   Design Average Flow = Average Flow + Dry I/I
   Design Average Flow = 962.5 gpd + 55 gpd
   Design Average Flow = 1,017.5 gpd → say 1,020 gpd

5. Septic Tank Selection
   Use Design Average Flow of Q = 1,020 gpd
   Volume Required = 1.5*Q = 1.5 * 1,020 = 1,530 gallons (MSTP)
   Use 1 – 2,000 gal. capacity septic tank
   Install one (1) new 2,000-gallon concrete septic tank

6. Disposal Method/Calculation
   Absorption Bed
   Use Design Average Flow of 1,020 gpd
   Use Percolation Rate of 60 min/inch (see Site Evaluation/Percolation Test)
   Use 330 ft^2/200 gallons (HAR, Chapter 11-62, Appendix D, Table III)

$$\frac{330\ ft^2}{200\ gallons} x\ 1{,}020\ gallons = 1{,}683\ ft2\ required$$

   Install one (1) 4-line absorption bed of 21'x80' for total area of 1,680 ft^2
   Install one (1) 5-line absorption bed of 27'x63' for total area of 1,701 ft^2
   Install one (1) 6-line absorption bed of 33'x51' for total area of 1,683 ft^2

Haiku, Maui, Hawai'i
Voice: (808) 961-2776
Fax: (808) 524-8677

APPENDIX F-2

PREFINAL DRAINAGE REPORT

Haiku Fire Station

Haiku, Island of Maui, Hawaii

TMK: (2nd Div) 2-7-007: 008

PreFinal Drainage Report

November 2023

Prepared for:

Architects Hawaii, Ltd.
733 Bishop Street, Suite 3100
Honolulu, Hawaii 96813-4022

Prepared by:

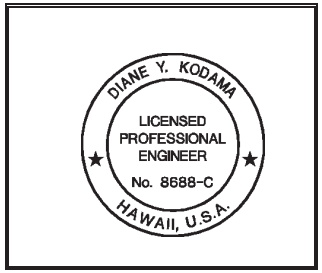
AECOM
1001 Bishop Street
ASB Tower, Suite 1600
Honolulu, Hawaii 96813

Haiku Fire Station

Prefinal Drainage Report

TMK: (2nd Div) 2-7-007:008

November 2023



(Expires April 30, 2024)

This work was prepared by me or under my direct supervision.

Signature (***Diane Y. Kodama***) Date
AECOM

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FIGURES

Figure 1 Vicinity and Location Maps
Figure 2 National Flood Insurance Program (NFIP) Map
Figure 3 Existing Drainage Map
Figure 4 Proposed Drainage Map

SECTION 1

INTRODUCTION

1.1 PURPOSE

The objective of this drainage report is to analyze and evaluate the effects of the proposed Haiku Fire Station project on existing drainage patterns and to form a basis of design for a drainage system to manage flow within the site and convey water off-site in accordance with County of Maui drainage requirements for the area.

1.2 GENERAL INFORMATION

A. The project location is in the Haiku district of the Island of Maui. The Haiku Fire Station is being developed by the County of Maui, Department of Fire & Public Safety. The proposed improvements include installation of a new Fire Station Building and Storage Building with parking lots and utilities. The proposed project limits are approximately 6.1 acres, located within a 27.90 acre property.

B. Owner: County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Maui, Hawai'i 96732-2978
Contact: Bradford Ventura, Fire Chief
Phone: (808) 270-7561
Email: fire.dept@mauicounty.gov

C. Vicinity & Location Maps (See Figure 1, Vicinity and Location Maps)

SECTION 2

PHYSICAL ENVIRONMENT

2.1 LOCATION

The Haiku Fire Station project site is located in Haiku, Maui, Hawaii 96708 at 3550 Hana Highway. Refer to Figure 1 for a location map of the project. The Tax Map Key (TMK) for the project lot is (2)2-7-007:008.

2.2 TOPOGRAPHY

The project site generally slopes from an elevation of approximately 510 feet above sea level at its highest point to approximately 450 feet at its lowest. The drainage generally flows in a north-westerly direction.

2.3 SOILS

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref 4) by the United States Department of Agriculture, Soil Conservation Service, the soil at the project site is Haiku clay, with slopes of 7 to 15 percent (soil classification HbC). This series consists of somewhat excessively drained soils on low uplands on the island of Maui. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate.

2.4 DRAINAGE/FLOODING

According to the State of Hawaii, Department of Land and Natural Resources, National Flood Insurance Program, the area is classified as Zone X – an area determined to be outside the 0.2% annual chance floodplain. Refer to Figure 2, National Flood Insurance Program (NFIP).

2.5 RAINFALL

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref 4) by the United States Department of Agriculture, Soil Conservation Service, the annual rainfall for the project area amounts to 50 to 80 inches.

SECTION 3

DRAINAGE

3.1 METHODOLOGY

Drainage characteristics for the project site are analyzed through the use of the Rational Method. Drainage guideline standards for the County of Maui – *Rules for the Design of Storm Drainage Facilities in the County of Maui* (11/12/95, Ref 3) – states that the Rational Method shall be used for drainage areas of 100 acres or less.

3.2 HYDROLOGIC CRITERIA

The hydrologic criteria used to obtain peak discharges are summarized as follows:

Criteria

Recurrence Interval:	Tm = 10 years (for non-sump conditions)
	Tm = 50 years (for sump conditions)
	Tm = 50 years (for retention & detention basins)

(It is stated in the County of Maui - *Rules for the Design of Storm Drainage Facilities in the County of Maui* (11/12/95, Ref 3), that for drainage areas of 100 acres or less with sump, or tailwater effect and for the design of roadway culverts and bridges, Tm = 50 years)

Intensity and Rainfall Duration	Intensity of 1-hr Rainfall
Peak Discharges	Rational Method
Runoff Coefficient C	Determined from Table 1 or Table 2, (See Appendix A)

3.3 EXISTING DRAINAGE CONDITIONS

The “Existing Drainage Map” (Figure 3) shows the existing site conditions. There are two drainage areas in the existing condition. The existing flow rate from Drainage Area X1 is 17.68 cfs (10-yr) and 24.50 cfs (50-yr), and flows to the northwest property line. Flows from the northwest property line continue towards the East Kuiaha Gulch. The

existing flow rate from Drainage Area X2 is 7.73 cfs (10-yr) and 10.72 cfs (50-yr) and flows to Hana Highway to the north. These flows continue to the northwest along the project side of Hana Highway in a vegetated swale. These flows continue and exit the highway near the project’s northwest property corner and continue to flow towards the East Kuiaha Gulch. The total existing flow rate from the project’s property is 25.41 cfs (10-yr) and 35.22 cfs (50-yr). Refer to Appendix B and D for existing drainage calculations.

3.4 PROPOSED DRAINAGE IMPROVEMENTS

The “Proposed Drainage Map” (Figure 4) shows the proposed site conditions. The proposed improvements for the site include construction of new facilities including a paved driveway off of Hana Highway, visitors parking area, employees parking area, fire station building, storage building, and water tank with maintenance road. The proposed drainage system will include drainage structures, drain lines, and detention basin. The increase in runoff as a result of the increase in impervious area from the proposed project will be discharged in the detention basin.

There are ten drainage areas in the proposed condition. Nine contain areas within the proposed project’s property and one lies outside the proposed project’s property. New Drainage Areas P1 thru P3, and P5 thru P10 include areas onsite. Drainage Area P4 is located off the property, but includes areas where work will be performed. Drainage from P4 will not flow onsite.

Drainage Area P1, with a flow rate of 7.10 cfs (10-yr) and 9.84 (50-yr) will sheet flow offsite towards the northwest property line. Drainage Areas P2, P3 and P5 thru P10 with a combined flow rate of 17.73 cfs (10-yr) and 24.57 cfs (50-yr) will flow into the proposed detention basin. Drainage Area P4 with a flow rate of 8.61 cfs (10-yr) and 11.93 cfs (50-yr) will flow onto Hana Highway.

The total discharge for the proposed project area (including on- and off-site) is anticipated to be 33.44 cfs (10-yr) and 46.35 (50-yr) in the proposed condition. Refer to Appendix C and E for proposed drainage calculations.

3.5 CONCLUSIONS

The proposed Haiku Fire Station project is anticipated to generate a 10-year flow rate of 33.44 cfs, an increase of 8.03 cfs from the existing condition and a 50-year flow rate of 46.35 cfs, an increase of 11.13 cfs from the existing conditions. The proposed drainage system will manage the increased flow rates with a detention basin. The flow rate onto Hana Highway will be unchanged, and the flow rate to the northwest property line will be reduced by 10.58 cfs (10-yr) and 14.66 cfs (50-yr).

There will not be any adverse impact to the existing drainage system downstream, neighboring properties or roadways from the proposed development.

3.6 DETENTION BASIN SIZING

In accordance with County of Maui drainage standards, 50-year storm flows were used to size the detention pond. The existing 50-year proposed project flow is 35.22 cfs and the proposed flow is 46.35 cfs. The detention pond size for a 50-year 1-hour flow is anticipated to be approximately at a minimum of 35,608 cubic feet.

REFERENCES

1. *Foundation Investigation, Science Flood Insurance Rate Map, Maui County, Hawaii*, Map Number 150003 0427 E, Ref Federal Emergency Management Agency, US Department of Homeland Security.

2. *Foundation Investigation, Haiku Fire Station Annex, Haiku, Maui, Hawaii. W.O. 08-4693*, Hirata & Associates, Inc., October 23, 2009.

3. *Rules for the Design of Storm Drainage Facilities in the County of Maui,* Department of Public Works, County of Maui, Title MC-15, Chapter 4.

4. United States Department of Agriculture, Soil Conservation Service, *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*, August 1972.

5. State of Hawaii, Department of Land and Natural Resources, *National Flood Insurance Program-Hawaii State*, http://gis.hawaiinfip.org/fhat/, December 08, 2011.

APPENDIX A

Reference from *RULES FOR THE DESIGN OF STORM DRAINAGE FACILITIES IN THE COUNTY OF MAUI,*

Department of Public Works and Waste Management

County of Maui

Table 1

GUIDE FOR THE DETERMINATION OF RUNOFF COEFFICIENTS FOR BUILT-UP AREAS*

WATERSHED CHARACTERISTICS	EXTREME	HIGH	MODERATE	LOW
INFILTRATION	NEGLIGIBLE 0.20	SLOW 0.14	MEDIUM 0.07	HIGH 0.0
RELIEF	STEEP (> 25%) 0.08	HILLY (15-25%) 0.06	ROLLING (5-15%) 0.03	FLAT (0-5%) 0.0
VEGETAL COVER	NONE 0.07	POOR (< 10%) 0.05	GOOD (10-50%) 0.03	HIGH (50-90%) 0.0
DEVELOPMENT TYPE	INDUSTRIAL & BUSINESS 0.55	HOTEL-APARTMENT 0.45	RESIDENTIAL 0.40	AGRICULTURAL 0.15

**NOTE: The design coefficient "c" must result from a total of the values for all four watershed characteristics of the site.*

Table 2

RUNOFF COEFFICIENTS

Type of Drainage Area	Runoff Coefficient C
Parks, cemeteries	0.25
Playgrounds	0.35
Railroad yard areas	0.40
Unimproved areas	0.30
Streets:	
Asphaltic	0.95
Concrete	0.95
Brick	0.85
Driveway and walks	0.85
Roofs	0.95
Lawns:	
Sandy soil, flat, 2%	0.10
Sandy soil, avg., 2-7%	0.15
Sandy soil, steep, 7%	0.20
Heavy soil, flat, 2%	0.17
Heavy soil, avg., 2-7%	0.22
Heavy soil, steep, 7%	0.35

Table 3

MINIMUM RUNOFF COEFFICIENTS FOR BUILT-UP AREAS

Residential areas	C=0.55
Hotel, apartment areas	C=0.70
Business areas	C=0.80
Industrial areas	C=0.80

The type of soil, the type of open space and ground cover and the slope of the ground shall be considered in arriving at reasonable and acceptable runoff coefficients.

Table 4

APPROXIMATE AVERAGE VELOCITIES OF RUNOFF FOR CALCULATING TIME OF CONCENTRATION

TYPE OF FLOW	VELOCITY IN FPS FOR SLOPES (in percent) INDICATED			
	0–3%	4–7%	8–11%	12–15%
OVERLAND FLOW:				
Woodlands	1.0	2.0	3.0	3.5
Pastures	1.5	3.0	4.0	4.5
Cultivated	2.0	4.0	5.0	6.0
Pavements	5.0	12.0	15.0	18.0
OPEN CHANNEL FLOW:				
Improved Channels	Determine Velocity by Manning's Formula			
Natural Channel* (not well defined)	1.0	3.0	5.0	8.0

**These values vary with the channel size and other conditions so that the ones given are the averages of a wide range. Wherever possible, more accurate determinations should be made for particular conditions by Manning's formula.*

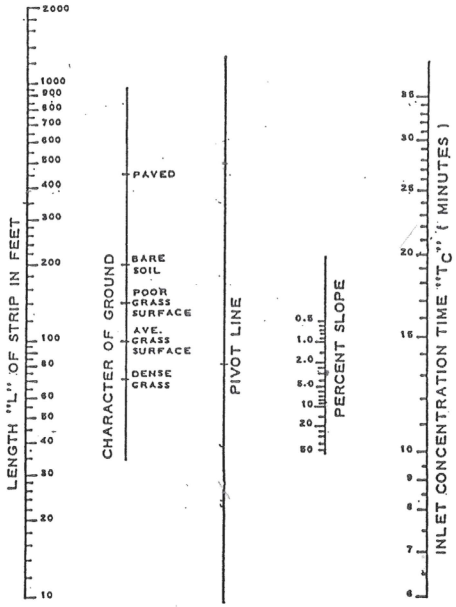
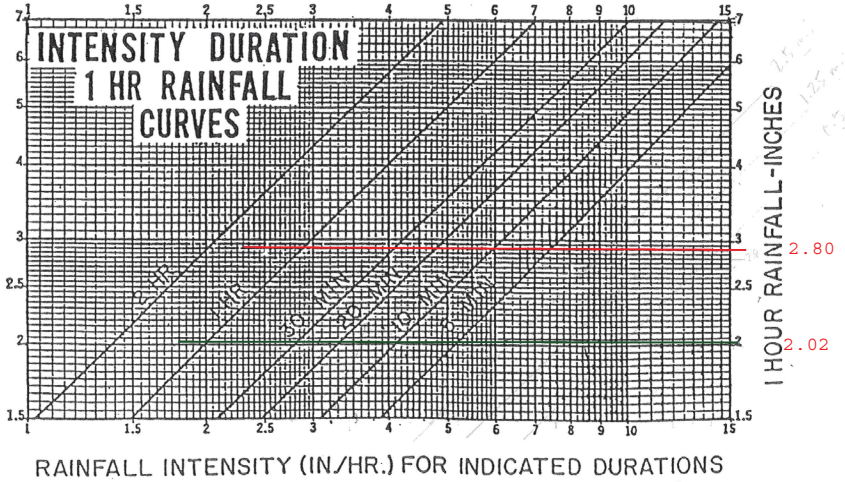


Plate 1

Overland Flow Chart

Plate 2



NOAA Atlas 14, Volume 4, Version 3
Location name: Haiku, Hawaii, USA*
Latitude: 20.9217°, Longitude: -156.3023°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

S. Perica, D. Martin, B. Lin, T. Parzybok, D. Riley, M. Yekta, L. Hiner, L.-C. Chen, D. Brewer, F. Yan, K. Maitaria, C. Trypaluk, G. M. Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.296 (0.251-0.345)	0.376 (0.315-0.434)	0.495 (0.414-0.574)	0.586 (0.488-0.684)	0.713 (0.586-0.840)	0.813 (0.660-0.971)	0.916 (0.733-1.11)	1.02 (0.807-1.26)	1.18 (0.902-1.49)	1.30 (0.973-1.67)
10-min	0.439 (0.373-0.512)	0.557 (0.467-0.644)	0.734 (0.614-0.851)	0.869 (0.723-1.01)	1.06 (0.868-1.25)	1.21 (0.978-1.44)	1.36 (1.09-1.64)	1.52 (1.20-1.87)	1.75 (1.34-2.20)	1.93 (1.44-2.48)
15-min	0.552 (0.468-0.643)	0.700 (0.586-0.809)	0.922 (0.771-1.07)	1.09 (0.908-1.27)	1.33 (1.09-1.57)	1.51 (1.23-1.81)	1.71 (1.36-2.07)	1.91 (1.50-2.35)	2.19 (1.68-2.77)	2.42 (1.81-3.11)
30-min	0.777 (0.659-0.904)	0.985 (0.825-1.14)	1.30 (1.09-1.50)	1.54 (1.28-1.79)	1.87 (1.53-2.20)	2.13 (1.73-2.55)	2.40 (1.92-2.91)	2.69 (2.11-3.31)	3.09 (2.37-3.89)	3.40 (2.55-4.38)
60-min	1.02 (0.867-1.19)	1.30 (1.09-1.50)	1.71 (1.43-1.98)	2.02 (1.68-2.36)	2.46 (2.02-2.90)	2.80 (2.28-3.35)	3.16 (2.53-3.82)	3.54 (2.78-4.35)	4.06 (3.11-5.12)	4.48 (3.36-5.76)
2-hr	1.47 (1.25-1.70)	1.87 (1.57-2.17)	2.46 (2.05-2.85)	2.89 (2.40-3.37)	3.46 (2.84-4.10)	3.91 (3.17-4.67)	4.35 (3.48-5.27)	4.81 (3.78-5.93)	5.42 (4.16-6.85)	5.89 (4.42-7.60)
3-hr	1.73 (1.47-2.00)	2.23 (1.87-2.59)	2.92 (2.44-3.39)	3.43 (2.85-4.01)	4.12 (3.38-4.87)	4.64 (3.77-5.55)	5.16 (4.13-6.26)	5.70 (4.49-7.03)	6.42 (4.94-8.12)	6.97 (5.25-8.99)
6-hr	2.36 (2.01-2.73)	3.01 (2.52-3.49)	3.93 (3.29-4.56)	4.62 (3.84-5.38)	5.52 (4.54-6.52)	6.21 (5.04-7.41)	6.89 (5.52-8.35)	7.59 (5.99-9.35)	8.52 (6.56-10.8)	9.23 (6.95-11.9)
12-hr	3.08 (2.62-3.55)	3.92 (3.29-4.54)	5.10 (4.28-5.92)	5.98 (5.00-6.98)	7.15 (5.90-8.44)	8.04 (6.56-9.60)	8.93 (7.19-10.8)	9.82 (7.78-12.1)	11.0 (8.52-13.9)	11.9 (9.03-15.3)
24-hr	3.93 (3.41-4.48)	5.04 (4.37-5.76)	6.53 (5.65-7.47)	7.67 (6.62-8.80)	9.16 (7.86-10.6)	10.3 (8.80-11.9)	11.5 (9.71-13.3)	12.6 (10.6-14.8)	14.2 (11.8-16.7)	15.3 (12.6-18.3)
2-day	4.66 (4.12-5.20)	5.97 (5.27-6.67)	7.72 (6.81-8.65)	9.06 (7.98-10.2)	10.9 (9.51-12.2)	12.2 (10.7-13.9)	13.6 (11.8-15.5)	15.0 (12.9-17.2)	16.9 (14.3-19.6)	18.3 (15.4-21.4)
3-day	5.23 (4.63-5.84)	6.69 (5.92-7.48)	8.66 (7.65-9.71)	10.2 (8.97-11.4)	12.2 (10.7-13.8)	13.8 (12.0-15.7)	15.4 (13.4-17.6)	17.1 (14.7-19.6)	19.3 (16.4-22.3)	21.0 (17.6-24.5)
4-day	5.81 (5.14-6.48)	7.41 (6.56-8.29)	9.60 (8.48-10.8)	11.3 (9.96-12.7)	13.6 (11.9-15.4)	15.4 (13.4-17.5)	17.2 (14.9-19.6)	19.1 (16.4-21.9)	21.7 (18.4-25.0)	23.6 (19.9-27.5)
7-day	7.00 (6.18-7.82)	8.88 (7.85-9.96)	11.5 (10.1-12.9)	13.6 (11.9-15.3)	16.4 (14.3-18.5)	18.6 (16.2-21.1)	20.9 (18.1-23.9)	23.3 (20.0-26.8)	26.7 (22.6-30.9)	29.3 (24.6-34.2)
10-day	7.96 (7.05-8.91)	10.1 (8.88-11.3)	13.0 (11.4-14.5)	15.3 (13.4-17.1)	18.4 (16.1-20.8)	20.9 (18.2-23.7)	23.5 (20.3-26.7)	26.2 (22.4-30.0)	29.9 (25.2-34.6)	32.8 (27.4-38.3)
20-day	11.0 (9.71-12.3)	13.6 (12.0-15.2)	17.2 (15.2-19.3)	20.0 (17.6-22.5)	23.9 (20.8-26.9)	26.9 (23.3-30.4)	29.9 (25.8-34.1)	33.1 (28.3-37.9)	37.4 (31.6-43.3)	40.8 (34.1-47.6)
30-day	13.7 (12.1-15.3)	16.8 (14.8-18.8)	21.0 (18.4-23.5)	24.2 (21.2-27.2)	28.5 (24.9-32.2)	31.9 (27.7-36.1)	35.3 (30.5-40.2)	38.8 (33.2-44.5)	43.6 (36.8-50.4)	47.2 (39.4-55.0)
45-day	17.4 (15.4-19.3)	21.1 (18.6-23.5)	26.0 (23.0-29.0)	29.8 (26.2-33.3)	34.9 (30.5-39.2)	38.7 (33.8-43.7)	42.6 (36.9-48.4)	46.6 (40.1-53.2)	52.0 (44.1-59.8)	56.1 (47.0-65.1)
60-day	20.8 (18.4-23.2)	25.0 (22.1-27.9)	30.7 (27.1-34.2)	35.0 (30.8-39.1)	40.8 (35.7-45.8)	45.3 (39.4-51.0)	49.8 (43.0-56.4)	54.4 (46.6-62.0)	60.6 (51.2-69.7)	65.3 (54.6-75.8)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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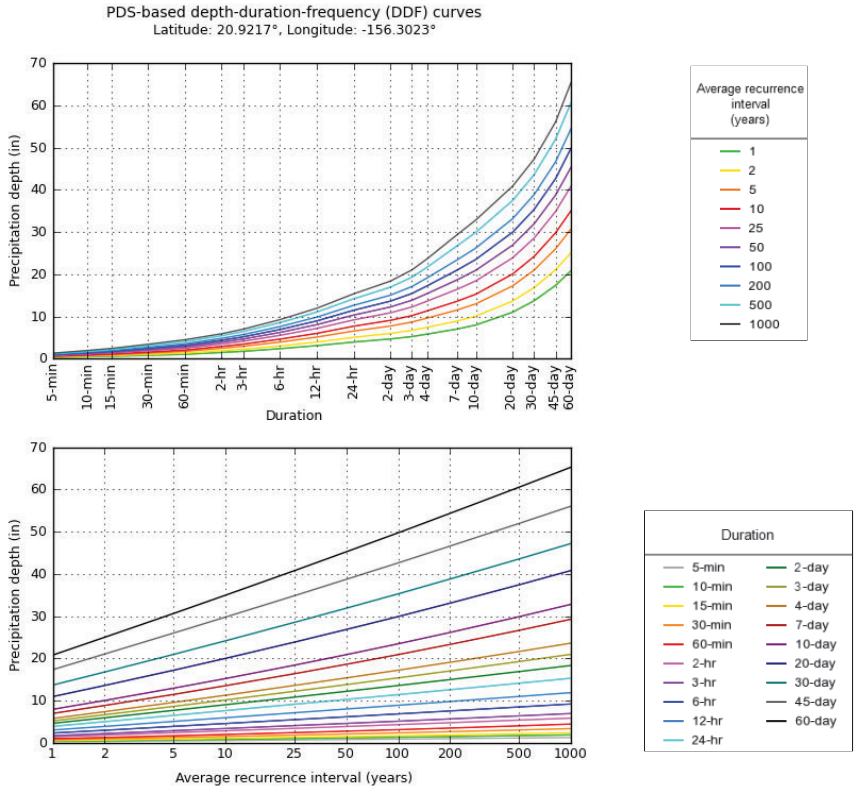
PF graphical



NOAA Atlas 14, Volume 4, Version 3

Created (GMT): Sat Apr 29 01:32:49 2023

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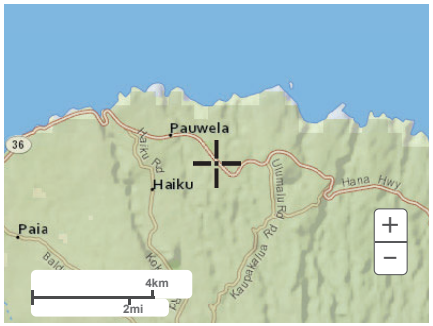
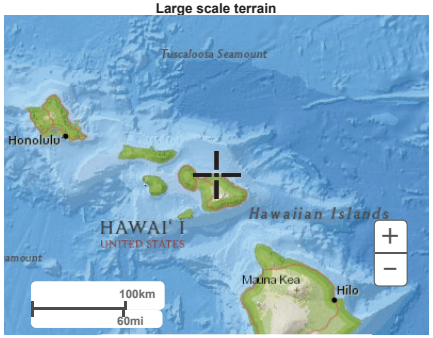
Maps & aerials

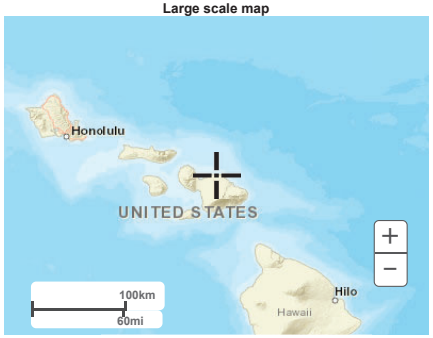
Small scale terrain



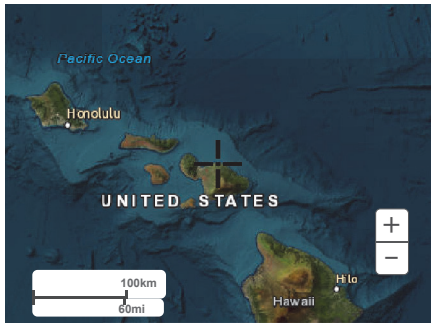
Large scale terrain



Large scale map



Large scale aerial



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National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

APPENDIX B

Drainage Design Calculations

EXISTING CONDITION, 10-YEAR

Drainage Design Calculations

Project Title: Haiku Fire Station **Prepared By:** JO **Date:** November 2023
Location: Haiku, Island of Maui, HI **Checked By:** JMS **Date:** November 2023
Item: DRAINAGE FLOW CALCULATIONS (**EXISTING** CONDITION)

A. PURPOSE

Determine the quantity of surface runoff flow in cubic feet per second of the drainage area from the Haiku Fire Station project area. The 10-year, 1-hour storm was used to estimate the design flow for non-sump conditions. No sump conditions were found for this project.

B. CRITERIA

Peak discharges shall be found using the Rational Method: $Q = C \times I \times A$.

C. CALCULATIONS

Surface runoff for the area of interest:

$$Q = C \cdot I \cdot A,$$

where, Q = flow rate in cubic feet per second (cfs);

C = runoff coefficient;

I = rainfall intensity in inches per hour (in./hr) for a duration equal to the time of concentration (T_c); and

A = drainage area in acres (Ac).

Runoff Coefficient

Table 1 – *Guide for the Determination of Runoff Coefficients for Built-Up Area* – the runoff coefficient is estimated as being:

Infiltration (Negligible)	0.07
Relief (Rolling)	0.03
Vegetal Cover (High)	0.00
Dev. Type (Residential)	0.40
C =	**0.50**

$(C_{XDA\text{-}1}) = 0.50$
$(C_{XDA\text{-}2}) = 0.50$

Rainfall Intensity

Drainage length (L)

$(L_{X1}) \approx 808'$, Slope (S) = $(583.8' - 495') \div (808') \times 100\% \approx 11.0\%$
$(L_{X2}) \approx 1011'$, Slope (S) = $(592' - 535.5') \div (1011') \times 100\% \approx 5.6\%$.

Plate 1 (Reference 1)—*Overland Flow Chart*—yields a time of concentration of:

$T_{c,X1} = 28$ minutes.
$T_{c,X2} = 35$ minutes.

NOAA Atlas 14, Volume 4, Version 3 (Reference 2)—*Precipitation Frequency Data Server*—indicates a 10year, 1-hour recurrent rainfall intensity of:

$$I_{10\text{-yr, }1\text{-hr}} = 2.02 \text{ inches}$$

For all existing drainage areas.

Plate 2 (Reference 1)—*Intensity Duration 1 Hr Rainfall Curves*—indicates a converted, actual, working rainfall intensity for the project site to be used in the Rational Method as being:

$I_{X1} = 3.03$ in./hr.
$I_{X2} = 2.83$ in./hr.

Area

As calculated through AutoCAD:

$A_{X1} = 11.67$ Ac.
$A_{X2} = 5.47$ Ac.

Surface Runoff

The product of the aforementioned, determined values yields the anticipated drainage flow that sheet flows into and from the project site:

$$Q = C \times I \times A$$

$Q_{X1} = C \times I \times A = (0.50) \times (3.03 \text{ in./hr}) \times (11.67 \text{ Ac}) =$ **17.68 cfs.**
$Q_{X2} = C \times I \times A = (0.50) \times (2.83 \text{ in./hr}) \times (5.47 \text{ Ac}) =$ **7.73 cfs.**

Summary

Area	Area (acres)	Flow (cfs)	Description
X1	11.67	17.68	*flow to N-W property line*
X2	5.47	7.73	*flow to Hana Highway (Mauka)*

Thus, the total amount of drainage due to the proposed project is anticipated to be about **25.41 cfs** in the existing condition.

REFERENCES

1. *Rules for the Design of Storm Drainage Facilities in the County of Maui*, County of Maui, November 12, 1995.
2. *Point Precipitation Frequency Estimates*, NOAA Precipitation Frequency Data Server, April 28, 2023.

APPENDIX C

Drainage Design Calculations

EXISTING CONDITION, 50-YEAR

Drainage Design Calculations

Project Title: Haiku Fire Station **Prepared By:** JO **Date:** November 2023
Location: Haiku, Island of Maui, HI **Checked By:** JMS **Date:** November 2023
Item: DRAINAGE FLOW CALCULATIONS (**EXISTING** CONDITION)

A. PURPOSE

Determine the quantity of surface runoff flow in cubic feet per second of the drainage area from the Haiku Fire Station project area. The 50-year, 1-hour storm was used to estimate the design flow for detention pond sizing.

B. CRITERIA

Peak discharges shall be found using the Rational Method: $Q = C \times I \times A$.

C. CALCULATIONS

Surface runoff for the area of interest:

$$Q = C \cdot I \cdot A,$$

where, Q = flow rate in cubic feet per second (cfs);

C = runoff coefficient;

I = rainfall intensity in inches per hour (in./hr) for a duration equal to the time of concentration (T_c); and

A = drainage area in acres (Ac).

Runoff Coefficient

Table 1 – *Guide for the Determination of Runoff Coefficients for Built-Up Area* – the runoff coefficient is estimated as being:

Infiltration (Negligible)	0.07
Relief (Rolling)	0.03
Vegetal Cover (High)	0.00
Dev. Type (Residential)	0.40
C =	**0.50**

(C_{X1}) = 0.50

(C_{X2}) = 0.50

Rainfall Intensity

Drainage length (L)

(L_{X1}) ≈ 808′, Slope (S) = (583.8′ – 495′) ÷ (8088′) × 100% ≈ 11.0%

(L_{X2}) ≈ 1011′, Slope (S) = (592′ – 535.5′) ÷ (1011′) × 100% ≈ 5.6%.

Plate 1 (Reference 1)—*Overland Flow Chart*—yields a time of concentration of:

$T_{c,X1}$ = 28 minutes.

$T_{c,X2}$ = 35 minutes.

NOAA Atlas 14, Volume 4, Version 3 (Reference 2)—*Precipitation Frequency Data Server*—indicates a 50 year, 1-hour recurrent rainfall intensity of:

$I_{50\text{-yr, }1\text{-hr}}$ =2.80 inches.

For all existing drainage areas.

Plate 2 (reference 1)—*Intensity Duration 1 Hr Rainfall Curves*—indicates a converted, actual, working rainfall intensity for the project site to be used in the Rational Method as being:

I_{X1} = 4.20 in./hr.

I_{X2} = 3.92 in./hr.

Area

As calculated through AutoCAD:

$A_{XDA\text{-}1}$ = 11.67 Ac.

$A_{XDA\text{-}2}$ = 5.47 Ac.

Surface Runoff

The product of the aforementioned, determined values yields the anticipated drainage flow that sheet flows into and from the project site:

$$Q = C \times I \times A$$

Q_{X1} = C × I × A = (0.50) × (4.20 in./hr) × (11.67 Ac) = **24.50 cfs**.

Q_{X2} = C × I × A = (0.50) × (3.92 in./hr) × (5.47 Ac) = **10.72 cfs**.

Summary

Area	Area (acres)	Flow (cfs)	Description
X1	11.67	24.50	*flow to N-W property line*
X2	5.47	10.72	*flow to Hana Highway (Mauka)*

Thus, the total amount of drainage due to the proposed project is anticipated to be about **35.22 cfs** in the existing condition.

REFERENCES

1. *Rules for the Design of Storm Drainage Facilities in the County of Maui*, County of Maui, November 12, 1995.
2. *Point Precipitation Frequency Estimates*, NOAA Precipitation Frequency Data Server, April 28, 2023.

APPENDIX D

Drainage Design Calculations

PROPOSED CONDITION, 10-YEAR

Drainage Design Calculations

Project Title:	Haiku Fire Station	**Prepared By:**	JO	**Date:**	November 2023
Location:	Haiku, Island of Maui, HI	**Checked By:**	JMS	**Date:**	November 2023
Item:	DRAINAGE FLOW CALCULATIONS (**PROPOSED** CONDITION)				

A. PURPOSE

Determine the quantity of surface runoff flow in cubic feet per second of the drainage area from the Haiku Fire Station project area. The 10-year, 1-hour storm was used to estimate the design flow for non-sump conditions. No sump conditions were found for this project.

B. CRITERIA

Peak discharges shall be found using the Rational Method: $Q = C \times I \times A$.

C. CALCULATIONS

Surface runoff for the area of interest:

$$Q = C \cdot I \cdot A,$$

where, Q = flow rate in cubic feet per second (cfs);

C = runoff coefficient;

I = rainfall intensity in inches per hour (in./hr) for a duration equal to the time of concentration (T_c); and

A = drainage area in acres (Ac).

Runoff Coefficient

Table 1 – *Guide for the Determination of Runoff Coefficients for Built-Up Areas* (Reference 1) – the runoff coefficients were weighted according to the percentage of permeable/impermeable surface in the area:

Example calculation for NDA-1:
Pavement (0.31 Acres) C= 0.95
Similar to Existing Condition (4.21 Acres) C= 0.50

Weighted C = $((C_{1a} \times A_{1a})+(C_{1b} \times A_{1b}))/(A_{1a}+A_{1b})$
Weighted C = $((0.31 \times 0.95)+(4.21 \times 0.50))/4.52$
Weighted C = 0.53

(C_{P1}) = 0.53
(C_{P2}) = 0.95
(C_{P3}) = 0.51
(C_{P4}) = 0.50
(C_{P5}) = 0.57
(C_{P6}) = 0.58
(C_{P7}) = 0.68
(C_{P8}) = 0.95
(C_{P9}) = 0.65
(C_{P10}) = 0.95

Rainfall Intensity

Drainage length (L)

(L_{P1}) ≈ 808′, Slope (S) = (583.8′ – 495′) ÷ (808′) × 100% ≈ 11.0%.
(L_{P2}) ≈ 124′, Slope (S) = (522′ – 519′) ÷ (124′) × 100% ≈ 2.4%.
(L_{P3}) ≈ 600′, Slope (S) = (580′ – 518′) ÷ (600′) × 100% ≈ 10.3%.
(L_{P4}) ≈ 1011′, Slope (S) = (592′ – 535.5′) ÷ (1011′) × 100% ≈ 5.6%.
(L_{P5}) ≈ 345′, Slope (S) = (583.8′ – 520′) ÷ (345′) × 100% ≈ 18.5%.
(L_{P6}) ≈ 506′, Slope (S) = (583.8′ – 520′) ÷ (506′) × 100% ≈ 12.6%.
(L_{P7}) ≈ 172′, Slope (S) = (530′ – 505′) ÷ (172′) × 100% ≈ 14.5%.
(L_{P8}) ≈ 50′, Roof, Slope (S) ≈ 33%.
(L_{P9}) ≈ 420′, Slope (S) = (583.8′ – 520′) ÷ (420′) × 100% ≈ 15.2%.
(L_{P10}) ≈ 50′, Roof, Slope (S) ≈ 1.7%.

Plate 1 (Reference 1)—*Overland Flow Chart*—yields a time of concentration of:

$T_{c,P1}$ = 28.0 minutes.
$T_{c,P2}$ = <5 minutes.
$T_{c,P3}$ = 14.0 minutes.
$T_{c,P4}$ = 35.0 minutes.
$T_{c,P5}$ = 13.8 minutes.
$T_{c,P6}$ = 11.5 minutes.
$T_{c,P7}$ = 8.3 minutes.
$T_{c,P8}$ = <5 minutes.
$T_{c,P9}$ = 14.9 minutes.
$T_{c,P10}$ = <5 minutes.

NOAA Atlas 14, Volume 4, Version 3 (Reference 2)—*Precipitation Frequency Data Server*—indicates a 10 year, 1-hour recurrent rainfall intensity of:

$I_{10\text{-yr, }1\text{-hr}}$ = 2.02 inches.

For all existing drainage areas.

Plate 2 (Reference 1)—*Intensity Duration 1 Hr Rainfall Curves*—indicates a converted, actual, working rainfall intensity for the project site to be used in the Rational Method as being:

I_{P1} = 3.03 in./hr.
I_{P2} = 5.66 in./hr.
I_{P3} = 4.24 in./hr.
I_{P4} = 2.83 in./hr.
I_{P5} = 4.24 in./hr.
I_{P6} = 4.44 in./hr.
I_{P7} = 4.85 in./hr.
I_{P8} = 5.66 in./hr.
I_{P9} = 4.04 in./hr.
I_{P10} = 5.66 in./hr.

Area

As calculated through AutoCAD:

A_{P1} = 4.47 Ac.
A_{P2} = 0.07 Ac.
A_{P3} = 1.98 Ac.
A_{P4} = 6.09 Ac.
A_{P5} = 1.27 Ac.
A_{P6} = 1.17 Ac.
A_{P7} = 1.05 Ac.
A_{P8} = 0.26 Ac.
A_{P9} = 0.74 Ac.
A_{P10} = 0.04 Ac.

Surface Runoff

The product of the aforementioned, determined values yields the anticipated drainage flow that sheet flows into and from the project site:

$$Q = C \times I \times A$$

$Q_{P1} = C \times I \times A = (0.53) \times (3.03 \text{ in./hr}) \times (4.47 \text{ Ac}) =$ **7.10 cfs**.
$Q_{P2} = C \times I \times A = (0.95) \times (5.66 \text{ in./hr}) \times (0.07 \text{ Ac}) =$ **0.37 cfs**.
$Q_{P3} = C \times I \times A = (0.51) \times (4.24 \text{ in./hr}) \times (1.98 \text{ Ac}) =$ **4.28 cfs**.
$Q_{P4} = C \times I \times A = (0.50) \times (2.83 \text{ in./hr}) \times (6.09 \text{ Ac}) =$ **8.61 cfs**.
$Q_{P5} = C \times I \times A = (0.57) \times (4.24 \text{ in./hr}) \times (1.27 \text{ Ac}) =$ **3.05 cfs**.
$Q_{P6} = C \times I \times A = (0.58) \times (4.44 \text{ in./hr}) \times (1.17 \text{ Ac}) =$ **3.02 cfs**.
$Q_{P7} = C \times I \times A = (0.68) \times (4.85 \text{ in./hr}) \times (1.05 \text{ Ac}) =$ **3.49 cfs**.
$Q_{P8} = C \times I \times A = (0.95) \times (5.66 \text{ in./hr}) \times (0.26 \text{ Ac}) =$ **1.38 cfs**.
$Q_{P9} = C \times I \times A = (0.65) \times (4.04 \text{ in./hr}) \times (0.74 \text{ Ac}) =$ **1.94 cfs**.
$Q_{P10} = C \times I \times A = (0.95) \times (5.66 \text{ in./hr}) \times (0.04 \text{ Ac}) =$ **0.20 cfs**.

Summary

Area	Area (acres)	Flow (cfs)	Description
P1	4.47	7.10	*flow to N-W property line*
P2	0.07	0.37	*flow piped to Detention Basin*
P3	1.98	4.28	*flow piped to Detention Basin*
P4	6.09	8.61	*flow to Hana Highway*
P5	1.27	3.05	*flow piped to Detention Basin*
P6	1.17	3.02	*flow piped to Detention Basin*
P7	1.05	3.49	*sheet flow to Detention Basin*
P8	0.26	1.38	*flow piped to Detention Basin*
P9	0.74	1.94	*flow piped to Detention Basin*
P10	0.04	0.20	*flow piped to Detention Basin*

Thus, the total amount of surface runoff generated from a 10-year, 1-hour rainfall event due to the proposed project is anticipated to be about **33.44 cfs** in the proposed condition.

REFERENCES

1. *Rules for the Design of Storm Drainage Facilities in the County of Maui*, County of Maui, November 12, 1995.
2. *Point Precipitation Frequency Estimates*, NOAA Precipitation Frequency Data Server, April 28, 2023.

APPENDIX E

Drainage Design Calculations

PROPOSED CONDITION, 50-YEAR

Drainage Design Calculations

Project Title:	Haiku Fire Station	**Prepared By:**	JO	**Date:**	November 2023
Location:	Haiku, Island of Maui, HI	**Checked By:**	JMS	**Date:**	November 2023
Item:	DRAINAGE FLOW CALCULATIONS (**PROPOSED** CONDITION)				

A. PURPOSE

Determine the quantity of surface runoff flow in cubic feet per second of the drainage area from the Haiku Fire Station project area. The 50-year, 1-hour storm was used to estimate the design flow for detention pond sizing.

B. CRITERIA

Peak discharges shall be found using the Rational Method: $Q = C \times I \times A$.

C. CALCULATIONS

Surface runoff for the area of interest:

$$Q = C \cdot I \cdot A,$$

where, Q = flow rate in cubic feet per second (cfs);

C = runoff coefficient;

I = rainfall intensity in inches per hour (in./hr) for a duration equal to the time of concentration (T_c); and

A = drainage area in acres (Ac).

Runoff Coefficient

Table 1 – *Guide for the Determination of Runoff Coefficients for Built-Up Areas* (Reference 1) – the runoff coefficients were weighted according to the percentage of permeable/impermeable surface in the area:

Example calculation for NDA-1:
Pavement (0.31 Acres) C= 0.95
Similar to Existing Condition (4.21 Acres) C= 0.50

$$\text{Weighted C} = \frac{((C_{1a} \times A_{1a})+(C_{1b} \times A_{1b}))}{(A_{1a}+A_{1b})}$$

$$\text{Weighted C} = \frac{((0.31 \times 0.95)+(4.21 \times 0.50))}{4.52}$$

Weighted C = 0.53

(C_{P1}) = 0.53
(C_{P2}) = 0.95
(C_{P3}) = 0.51
(C_{P4}) = 0.50
(C_{P5}) = 0.57
(C_{P6}) = 0.58
(C_{P7}) = 0.68
(C_{P8}) = 0.95
(C_{P9}) = 0.65
(C_{P10}) = 0.95

Rainfall Intensity

Drainage length (L)

(L_{P1}) ≈ 808′, Slope (S) = (583.8′ – 495′) ÷ (808′) × 100% ≈ 11.0%.
(L_{P2}) ≈ 124′, Slope (S) = (522′ – 519′) ÷ (124′) × 100% ≈ 2.4%.
(L_{P3}) ≈ 600′, Slope (S) = (580′ – 518′) ÷ (600′) × 100% ≈ 10.3%.
(L_{P4}) ≈ 1011′, Slope (S) = (592′ – 535.5′) ÷ (1011′) × 100% ≈ 5.6%.
(L_{P5}) ≈ 345′, Slope (S) = (583.8′ – 520′) ÷ (345′) × 100% ≈ 18.5%.
(L_{P6}) ≈ 506′, Slope (S) = (583.8′ – 520′) ÷ (506′) × 100% ≈ 12.6%.
(L_{P7}) ≈ 172′, Slope (S) = (530′ – 505′) ÷ (172′) × 100% ≈ 14.5%.
(L_{P8}) ≈ 50′, Roof, Slope (S) ≈ 33%.
(L_{P9}) ≈ 420′, Slope (S) = (583.8′ – 520′) ÷ (420′) × 100% ≈ 15.2%.
(L_{P10}) ≈ 50′, Roof, Slope (S) ≈ 1.7%.

Plate 1 (Reference 1)—*Overland Flow Chart*—yields a time of concentration of:

$T_{c,P1}$ = 28.0 minutes.
$T_{c,P2}$ = <5 minutes.
$T_{c,P3}$ = 14.0 minutes.
$T_{c,P4}$ = 35.0 minutes.
$T_{c,P5}$ = 13.8 minutes.
$T_{c,P6}$ = 11.5 minutes.
$T_{c,P7}$ = 8.3 minutes.
$T_{c,P8}$ = <5 minutes.
$T_{c,P9}$ = 14.9 minutes.
$T_{c,P10}$ = <5 minutes.

NOAA Atlas 14, Volume 4, Version 3 (Reference 2)—*Precipitation Frequency Data Server*—indicates a 50 year, 1-hour recurrent rainfall intensity of:

$$I_{50\text{-yr, }1\text{-hr}} = 2.80 \text{ inches.}$$

For all existing drainage areas.

Plate 2 (reference 1)—*Intensity Duration 1 Hr Rainfall Curves*—indicates a converted, actual, working rainfall intensity for the project site to be used in the Rational Method as being:

I_{P1}= 4.20 in./hr.
I_{P2}= 7.84 in./hr.
I_{P3}= 5.88 in./hr.
I_{P4} = 3.92 in./hr.
I_{P5}= 5.88 in./hr.
I_{P6}= 6.16 in./hr.
I_{P7} = 6.72 in./hr.
I_{P8} = 7.84 in./hr.
I_{P9} = 5.60 in./hr.
I_{P10} = 7.84 in./hr.

Area

As calculated through AutoCAD:

A_{P1} = 4.47 Ac.
A_{P2} = 0.07 Ac.
A_{P3} = 1.98 Ac.
A_{P4} = 6.09 Ac.
A_{P5} = 1.27 Ac.
A_{P6} = 1.17 Ac.
A_{P7} = 1.05 Ac.
A_{P8} = 0.26 Ac.
A_{P9} = 0.74 Ac.
A_{P10} = 0.04 Ac.

Surface Runoff

The product of the aforementioned, determined values yields the anticipated drainage flow that sheet flows into and from the project site:

$$Q = C \times I \times A$$

Q_{P1}= C × I × A = (0.53) × (4.20 in./hr) × (4.47 Ac) = **9.84 cfs**.
Q_{P2}= C × I × A = (0.95) × (7.84 in./hr) × (0.07 Ac) = **0.52 cfs**.
Q_{P3}= C × I × A = (0.51) × (5.88 in./hr) × (1.98 Ac) = **5.93 cfs**.
Q_{P4}= C × I × A = (0.50) × (3.92 in./hr) × (6.09 Ac) = **11.93 cfs**.
Q_{P5}= C × I × A = (0.57) × (5.88 in./hr) × (1.27 Ac) = **4.23 cfs**.
Q_{P6} = C × I × A = (0.58) × (6.16 in./hr) × (1.17 Ac) = **4.19 cfs**.
Q_{P7}= C × I × A = (0.68) × (6.72 in./hr) × (1.05 Ac) = **4.83 cfs**.
Q_{P8}= C × I × A = (0.95) × (7.84 in./hr) × (0.26 Ac) = **1.92 cfs**.
Q_{P9}= C × I × A = (0.65) × (5.60 in./hr) × (0.74 Ac) = **2.69 cfs**.
Q_{P10} = C × I × A = (0.95) × (7.84 in./hr) × (0.04 Ac) = **0.27 cfs**.

Summary

Area	Area (acres)	Flow (cfs)	Description
P1	4.47	9.84	*flow to N-W property line*
P2	0.07	0.52	*flow piped to Detention Basin*
P3	1.98	5.93	*flow piped to Detention Basin*
P4	6.09	11.93	*flow to Hana Highway*
P5	1.27	4.23	*flow piped to Detention Basin*
P6	1.17	4.19	*flow piped to Detention Basin*
P7	1.05	4.83	*sheet flow to Detention Basin*
P8	0.26	1.92	*flow piped to Detention Basin*
P9	0.74	2.69	*flow piped to Detention Basin*
P10	0.04	0.27	*flow piped to Detention Basin*

Thus, the total amount of surface runoff generated from a 50-year, 1-hour rainfall event due to the proposed project is anticipated to be about **46.35 cfs** in the proposed condition.

REFERENCES

1. *Rules for the Design of Storm Drainage Facilities in the County of Maui*, County of Maui, November 12, 1995.
2. *Point Precipitation Frequency Estimates*, NOAA Precipitation Frequency Data Server, April 28, 2023.

APPENDIX F

Drainage Design Calculations

DETENTION POND SIZING

Required Storage Calculations for Storm Water Detention

Project Title: Haiku Fire Station **Prepared By:** JO **Date:** November 2023
Location: Haiku, Island of Maui, HI **Checked By:** JMS **Date:** November 2023
Item: STORM WATER STRUCTURE REQUIRED STORAGE CALCULATIONS

A. PURPOSE

Determine the required storage volume in cubic feet for the storm water detention system in the Haiku Fire Station project. In accordance with County of Maui drainage standards, the 50-year, 1-hour storm was used to estimate the design drainage flows.

B. CRITERIA

The modified rational method is utilized in estimating the size of the storm water detention system. An estimate of the minimum required storage is measured as the difference between the area under the direct runoff hydrograph (DRH) for the 50-year, 1-hour storm at the proposed developed condition at the site and the existing condition at the site. Refer to the attached calculations for the development of the estimated existing and proposed hydrographs.

C. REFERENCES

1. *Title MC-15, Rules for the Design of Storm Drainage Facilities in the County of Maui, Chapter 4* Department of Public Works and Wastewater Management, County of Maui
2. DRAINAGE FLOW CALCULATIONS (**EXISTING** CONDITION) November 2023
3. DRAINAGE FLOW CALCULATIONS (**PROPOSED** CONDITION) November 2023
4. Viessman Jr., Warren and Lewis, Gary L. Introduction to Hydrology. 5th ed. Upper Saddle River, NJ: Prentice Hall, 2003.

D. CALCULATIONS

The DRH has a generally trapezoidal shape with a base of 60 minutes (1-hr Rainfall) and the time to peak flow is the time of concentration. The time from peak flow to the zero runoff is also the time of concentration.

EXISTING CONDITION

Time of concentration = 30.0 minutes

Q_{E50} = CIA = 35.22 cfs (Ref. 2)

V_{E50} = $(\frac{1}{2}*(\text{bottom} + \text{top})*\text{height})_{\text{Trapezoid}}$ x 60 sec/min
= $(\frac{1}{2}*(60+(60-60))*35.22)*60$
= 63,396 ft^3

PROPOSED CONDITION

Time of concentration = 24.4 minutes (weighted)

Q_{P50} = CIA =46.35 cfs (Ref. 3)

V_{P50} = (½*(bottom + top)*height)$_{Trapezoid}$ x 60 sec/min
= (½*(60+(60-48.8))*46.35)*60
= 99,004 ft^3

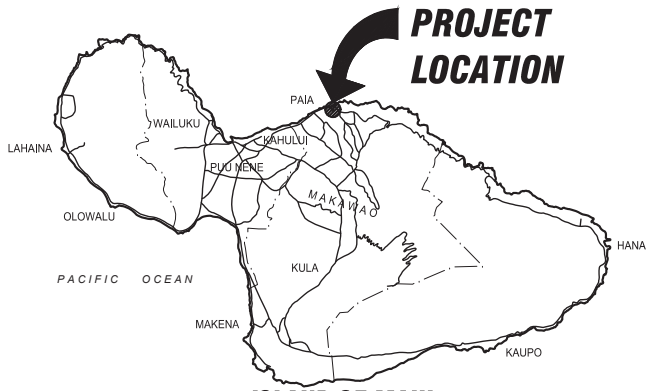
Therefore, the theoretical minimum detention/retention storage volume needed is calculated as:

Minimum Required Storage = $V_{P50} - V_{E50}$
= 99,004 – 63,396
= 35,608 ft^3

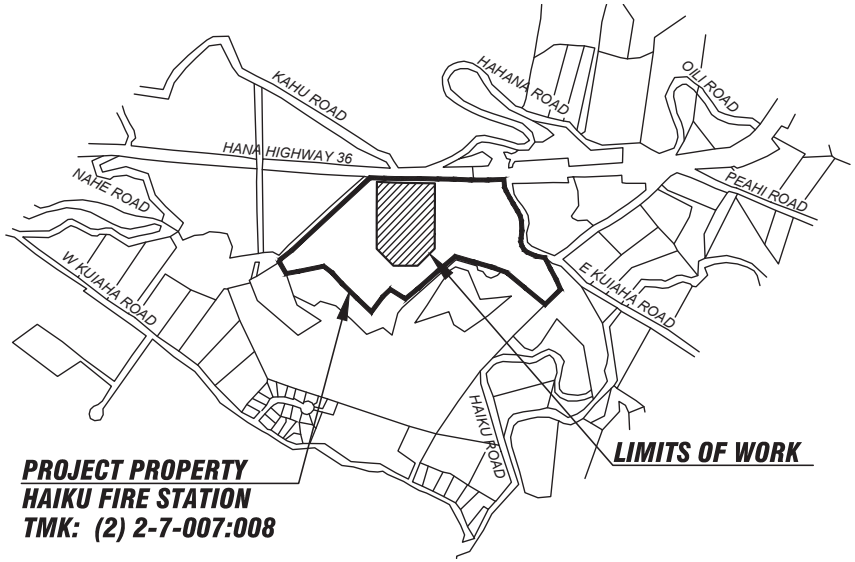
E. SUMMARY

Thus, the minimum storm water detention system required by the County of Maui to attenuate the 50-year, 1-hour flood is approximately **35,608 ft^3** for 50-year 1 hour storm. The project will provide a detention basin with a minimum volume of 35,608 cubic feet.

FIGURES

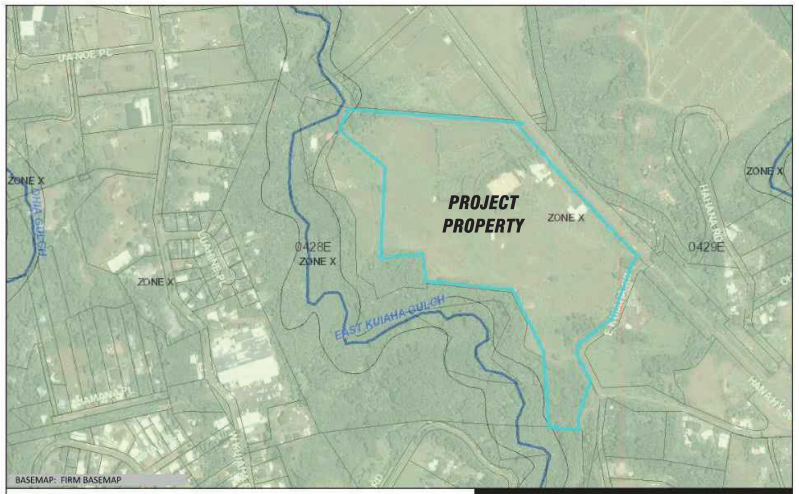


ISLAND OF MAUI
VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

PREFINAL DRAINAGE REPORT
FIGURE 1
Vicinity and Location Maps
HAIKU FIRE STATION
HAIKU, MAUI, HAWAII
November 2023



Flood Hazard Assessment Report

www.hawaiinfip.org

Property Information

COUNTY:	MAUI
TMK NO:	(2) 2-7-007:008
WATERSHED:	KUIAHA
PARCEL ADDRESS:	3550 HANA HWY HAIKU, HI 96708

Notes:

Flood Hazard Information

FIRM INDEX DATE:	NOVEMBER 04, 2015
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL - EFFECTIVE DATE:	1500030428E - SEPTEMBER 25, 2009 1500030429E - SEPTEMBER 25, 2009

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: NO
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 400 800 ft

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

If this map has been identified as "PRELIMINARY", please note that it is being provided for informational purposes and is not to be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

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

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

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

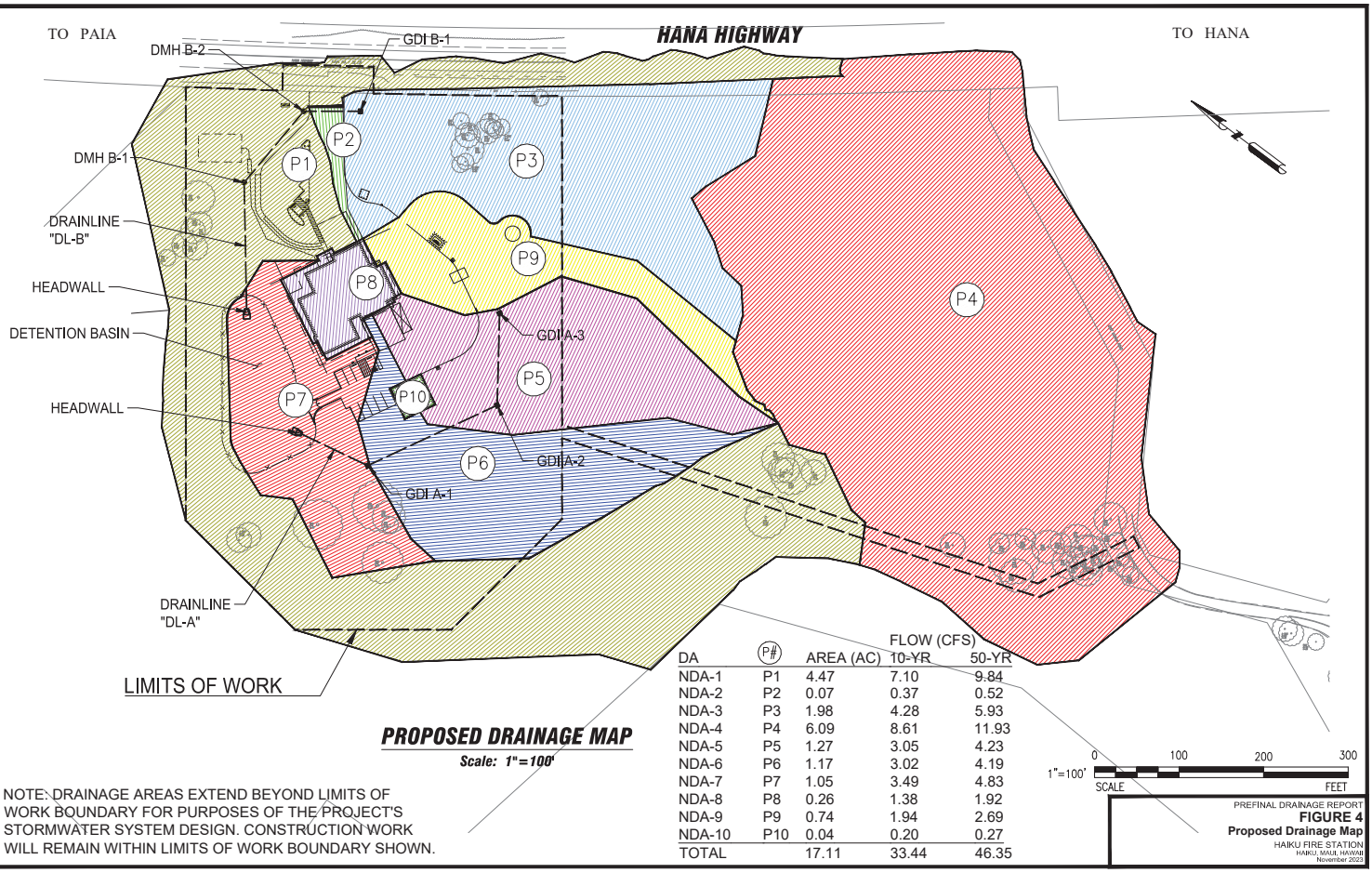
- **Zone XS (X shaded)**: Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X**: Areas determined to be outside the 0.2% annual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

OTHER FLOOD AREAS

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

NFIP MAP
NOT TO SCALE

PREFINAL DRAINAGE REPORT
FIGURE 2
National Flood Insurance Program (NFIP)
HAIKU FIRE STATION
HAIKU, MAUI, HAWAII
November 2023



PROPOSED DRAINAGE MAP

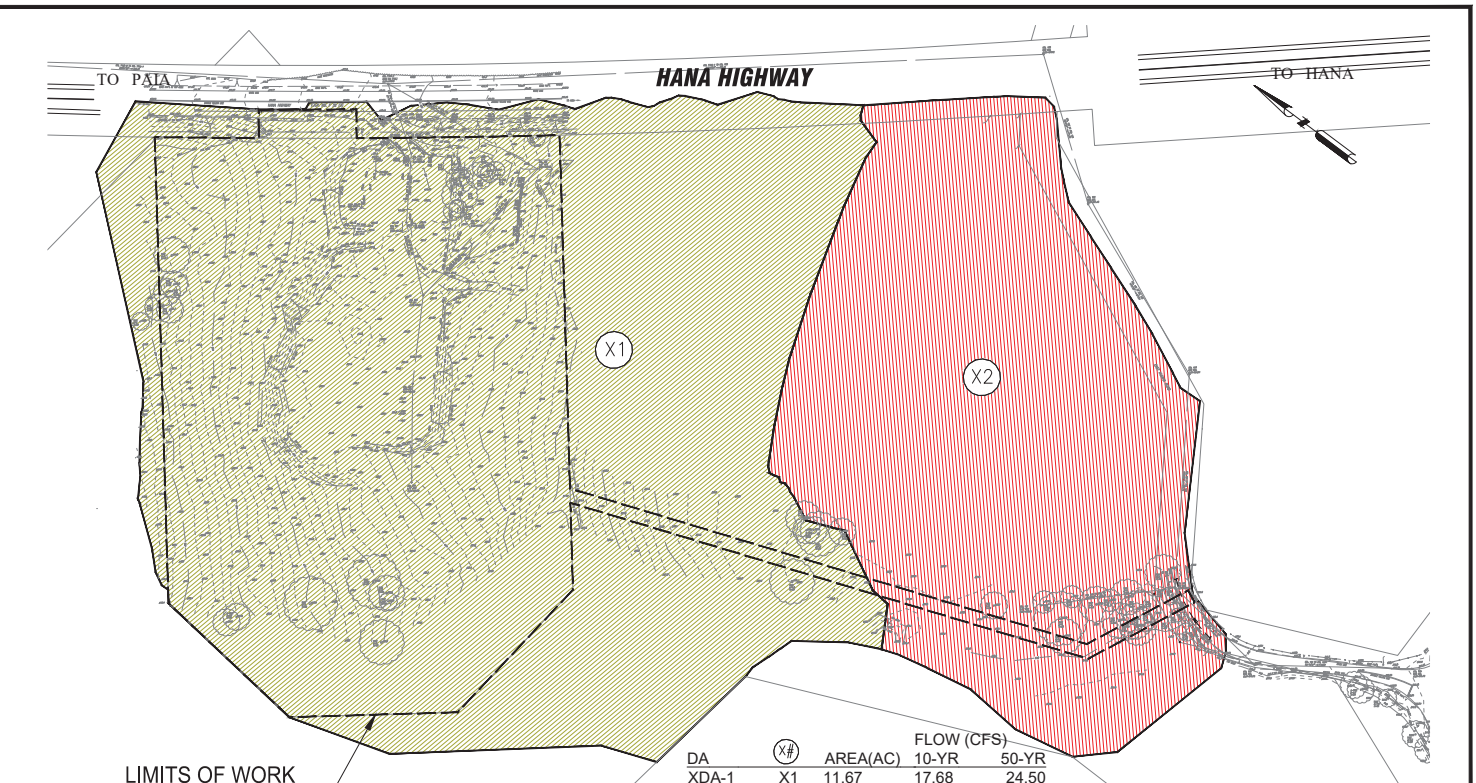
Scale: 1"=100'

DA	P#	AREA (AC)	FLOW (CFS) 10-YR	50-YR
NDA-1	P1	4.47	7.10	9.84
NDA-2	P2	0.07	0.37	0.52
NDA-3	P3	1.98	4.28	5.93
NDA-4	P4	6.09	8.61	11.93
NDA-5	P5	1.27	3.05	4.23
NDA-6	P6	1.17	3.02	4.19
NDA-7	P7	1.05	3.49	4.83
NDA-8	P8	0.26	1.38	1.92
NDA-9	P9	0.74	1.94	2.69
NDA-10	P10	0.04	0.20	0.27
TOTAL		17.11	33.44	46.35

1"=100' SCALE 0 100 200 300 FEET

NOTE: DRAINAGE AREAS EXTEND BEYOND LIMITS OF WORK BOUNDARY FOR PURPOSES OF THE PROJECT'S STORMWATER SYSTEM DESIGN. CONSTRUCTION WORK WILL REMAIN WITHIN LIMITS OF WORK BOUNDARY SHOWN.

PREFINAL DRAINAGE REPORT
FIGURE 4
Proposed Drainage Map
HAIKU FIRE STATION
HAIKU, MAUI, HAWAII
November 2023



EXISTING DRAINAGE MAP

Scale: 1"=100'

DA	X#	AREA(AC)	FLOW (CFS) 10-YR	50-YR
XDA-1	X1	11.67	17.68	24.50
XDA-2	X2	5.47	7.73	10.72
TOTAL		17.14	25.41	35.22

1"=100' SCALE 0 100 200 300 FEET

NOTE: DRAINAGE AREAS EXTEND BEYOND LIMITS OF WORK BOUNDARY FOR PURPOSES OF THE PROJECT'S STORMWATER SYSTEM DESIGN. CONSTRUCTION WORK WILL REMAIN WITHIN LIMITS OF WORK BOUNDARY SHOWN.

PREFINAL DRAINAGE REPORT
FIGURE 3
Existing Drainage Map
HAIKU FIRE STATION
HAIKU, MAUI, HAWAII
November 2023

APPENDIX

HAWAIʻI STATE PLAN

G-1

APPENDIX "G-1"

Analysis of Project Applicability to Hawai'i State Plan

Chapter 226, HRS, also known as the Hawai'i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. The Plan consists of three (3) parts. Part I includes the Overall Theme, Goals, Objectives, and Policies; Part II includes Planning, Coordination, and Implementation; and Part III establishes Priority Guidelines. Inasmuch as Part II of the State Plan covers its administrative structure and implementation process, discussion of the proposed project's applicability to Part II is not appropriate. Below is an analysis of the project's applicability to Part I and Part III of the Hawai'i State Plan.

The methodology for the analysis involves examining the project's applicability to the Hawai'i State Plan's goals, objectives, and policies. "Applicability" refers to a project's need, purpose and effects, and how these advance or promote a particular set of goals, objectives and priority guidelines. In assessing the relationship between a proposed action and the Hawai'i State Plan, an action may be categorized in one of the following groups:

1. **Directly applicable**: the action and its potential effects directly advance or promote the objective, policy or priority guideline.

   Example: A county project to develop a new water source and related transmission facilities would be directly applicable to the objectives and policies for Facility Systems-Water (HRS 226-16) which states: *(5) Support water supply services to areas experiencing critical water problems.*

2. **Indirectly applicable**: the action and its potential effects indirectly support or advance the objective, policy or priority guideline.

   Example: The County water source project cited above supports other related objectives and policies for the economy (HRS 226-6, General), which, by example, states: *(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.* In this case, the principle purpose of the project was not to create new construction activities, but nonetheless, supports this policy by creating temporary construction activity during the implementation of the project. In this instance, the proposed action may be deemed to be indirectly applicable to the objective and policy of the Hawai'i State Plan.

3. **Not applicable**: the action and its potential effects have no direct or indirect relationship to the objectives and policies of the Hawai'i State Plan.

Example: That same county water source improvement project referenced above, may not have direct or indirect linkage to objectives and policies for the economy-Federal Expenditures (HRS 226-9) which states: *(1) Encourage the sustained flow of federal expenditures in Hawaii that generates long-term government civilian employment*. From the standpoint of the agency proposing the water system improvement, and assuming no Federal Funding for the project, there is an unlikely intent that the proposed water source project would be connected to or reliant upon the foregoing policy. Hence, from the standpoint of judiciously applied policy analysis, the proposed action would be considered not applicable to the policy.

In general, a proposed action's applicability the objectives, policies and priority guidelines of the Hawai'i State Plan is judged on the basis of the action's direct or indirect relationship to the respective objectives, policies and priority directions. It is recognized that the categorization of "applicability" is subject to interpretation and should be appropriately considered in the context of local and regional conditions.

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies **Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable**	**DA**	**IA**	**NA**
HRS 226-1: Findings and Purpose			
HRS 226-2: Definitions			
HRS 226-3: Overall Theme			
HRS 226-4: State Goals. In order to ensure, for the 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 Hawaii's present and future generations. (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. (3) Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.			
Analysis: **The proposed project will directly provide physical well-being through fire protection for the residents in Haʻikū, where currently the closest fire hall is in Paʻiā or Makawao, approximately five (5) and eight (8) miles away, respectively. The proposed project will indirectly support a strong, viable economy during the construction phase.**			
Chapter 226-5 Objective and Policies for Population			
Objective:			
(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.		✓	
Policies:			
(b) 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 Hawaii's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.		✓	

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(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.		✓	
(3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.			✓
(4) Encourage research activities and public awareness programs to foster an understanding of Hawaii's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaii's population.			✓
(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			✓
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			✓
(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.			✓
***Analysis*: The proposed project is indirectly applicable to the goal and objectives for population. The proposed project will provide fire protection for a resident population in Ha'ikū that is currently not served by a local fire station. The proposed project will encourage increased job opportunities during the construction phase.**			
Chapter 226-6 Objectives and policies for the economy – – in general			
Objectives:			
(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 Hawaii's people, while at the same time stimulating 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.			✓
(2) A steadily 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.			✓
Policies:			
(b) To achieve general economic objectives, it shall be the policy of this State to:			
(1) Promote and encourage entrepreneurship within Hawaii by residents and nonresidents of the State.			✓
(2) Expand Hawaii'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.			✓
(3) Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.			✓

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(4) Transform and maintain Hawaii as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.			✓
(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawaii.			✓
(6) Seek broader outlets for new or expanded Hawaii business investments.			✓
(7) Expand existing markets and penetrate new markets for Hawaii's products and services.			✓
(8) Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.			✓
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.			✓
(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaii's small scale producers, manufacturers, and distributors.			✓
(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.			✓
(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawaii.			✓
(13) Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities.			✓
(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.			✓
(15) Maintain acceptable working conditions and standards for Hawaii's workers.			✓
(16) Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.			✓
(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.			✓
(18) Encourage businesses that have favorable financial multiplier effects within Hawaii's economy, particularly with respect to emerging industries in science and technology.			✓
(19) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.			✓
(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 or innovative potential growth industries in particular.			✓
(21) Foster a business climate in Hawaii--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.			✓

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Analysis: **Not Applicable**			
Chapter 226-7 Objectives and policies for the economy – – agriculture.			
Objectives:			
(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.			✓
Policies:			
(b) To achieve the agriculture objectives, it shall be the policy of this State to:			
(1) Establish a clear direction for Hawaii's agriculture through stakeholder commitment and advocacy.			✓
(2) Encourage agriculture by making the best use of natural resources.			✓
(3) Provide the governor and the legislature with information and options needed for prudent decision-making for the development of agriculture.			✓
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			✓
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawaii's economy.			✓
(6) Seek the enactment and retention of federal and state legislation that benefits Hawaii's agricultural industries.			✓
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaii's food producers and consumers in the State, nation, and world.			✓
(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.			✓
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			✓
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			✓
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			✓
(12) In addition to the State's priority on food, expand Hawaii'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.			✓
(13) Promote economically competitive activities that increase Hawaii'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.			✓

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(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			✓
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			✓
(16) Facilitate the transition of agricultural lands in economically nonfeasible agricultural production to economically viable agricultural uses.			✓
(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.			✓
(18) Increase and develop small-scale farms.			✓
Analysis: **Not Applicable**			
Chapter 226-8 Objective and policies for the economy – – visitor industry.			
Objective:			
(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 Hawaii's economy.			✓
Policies:			
(b) To achieve the visitor industry objective, it shall be the policy of this State to:			
(1) Support and assist in the promotion of Hawaii's visitor attractions and facilities.			✓
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.			✓
(3) Improve the quality of existing visitor destination areas by utilizing Hawaii's strengths in science and technology.			✓
(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.			✓
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii's people.			✓
(6) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the visitor industry.			✓
(7) Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.			✓
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawaii's cultures and values.			✓
Analysis: **Not Applicable**			
Chapter 226-9 Objective and policies for the economy – – federal expenditures.			
Objective:			
(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 Hawaii's economy.			✓

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Policies:			
(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 Hawaii that generates long-term government civilian employment;			✓
(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;			✓
(3) Promote the development of federally supported activities in Hawaii that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaii's environment;			✓
(4) Increase opportunities for entry and advancement of Hawaii's people into federal government service;			✓
(5) Promote federal use of local commodities, services, and facilities available in Hawaii;			✓
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawaii; and			✓
(7) Pursue the return of federally controlled lands in Hawaii 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.			✓
Analysis: **Not Applicable**			
Chapter 226-10 Objective and policies for the economy – – potential growth and innovative activities.			
Objective:			
(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 Hawaii's economic base.			✓
Policies:			
(b) To achieve the potential growth and innovative 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;			✓
(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 Hawaii through the export of services or products or substitution of imported services or products;			✓
(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;			✓

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(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;			✓
(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;			✓
(6) Expand Hawaii's capacity to attract and service international programs and activities that generate employment for Hawaii's people;			✓
(7) Enhance and promote Hawaii's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts;			✓
(8) Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste;			✓
(9) Promote Hawaii's geographic, environmental, social, and technological advantages to attract new or innovative economic activities into the State;			✓
(10) Provide public incentives and encourage private initiative to attract new or innovative industries that best support Hawaii's social, economic, physical, and environmental objectives;			✓
(11) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research;			✓
(12) Develop, promote, and support research and educational and training programs that will enhance Hawaii's ability to attract and develop economic activities of benefit to Hawaii;			✓
(13) Foster a broader public recognition and understanding of the potential benefits of new or innovative growth-oriented industry in Hawaii;			✓
(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;			✓
(15) Increase research and development of businesses and services in the telecommunications and information industries;			✓
(16) Foster the research and development of nonfossil fuel and energy efficient modes of transportation; and			✓
(17) Recognize and promote health care and health care information technology as growth industries.			✓
Analysis: **Not Applicable**			
Chapter 226-10.5 Objectives and policies for the economy – – information industry.			
Objective:			
(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 Hawaii as a leader in broadband and wireless communications and applications in the Pacific Region.			✓

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Policies:			
(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 Hawaii and between Hawaii and the world, and make high speed communication available to all residents and businesses in Hawaii;			✓
(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth and innovation in Hawaii's economy;			✓
(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;			✓
(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;			✓
(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry;			✓
(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;			✓
(7) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the information industry;			✓
(8) Foster a recognition of the contribution of the information industry to Hawaii's economy; and			✓
(9) Assist in the promotion of Hawaii as a broker, creator, and processor of information in the Pacific.			✓
Analysis: **Not Applicable**			
Chapter 226-11 Objectives and policies for the physical environment – – land based, shoreline, and marine resources.			
Objectives:			
(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:			
(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.		✓	
(2) Effective protection of Hawaii's unique and fragile environmental resources.		✓	
Policies:			
(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 Hawaii's natural resources.			✓

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(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.			✓
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.		✓	
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.			✓
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			✓
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.		✓	
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			✓
(8) Pursue compatible relationships among activities, facilities, and natural resources.		✓	
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.			✓
Analysis: **The proposed project is indirectly applicable to the goal and objectives related to the environment. Physical attributes of the site were considered in the final design of the project to ensure environmental impacts are avoided or mitigated. A Biological Resources Survey was conducted for the project. Appropriate mitigation measures will be conducted to avoid and minimize adverse impacts to threatened and endangered species such as the Hawaiian hoary bat and seabirds as recommended by the U.S. Fish and Wildlife Service.**			
Chapter 226-12 Objective and policies for the physical environment – – scenic, natural beauty, and historic resources.			
Objective:			
(a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.		✓	
Policies:			
(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.			✓
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.			✓
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.		✓	
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.		✓	
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.		✓	

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Analysis: **The proposed project is indirectly applicable to the goal and objectives for the physical environment. An Archaeological Inventory Survey and Cultural Impact Assessment were carried out to ensure historic and cultural resources are protected. The design of the fire station took into account the architectural style of Hai'kū to maintain the rural character of the built environment.**			
Chapter 226-13 Objectives and policies for the physical environment – – land, air, and water quality.			
Objectives:			
(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 Hawaii's land, air, and water resources.		✓	
(2) Greater public awareness and appreciation of Hawaii's environmental resources.		✓	
Policies:			
(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 Hawaii's limited environmental resources.			✓
(2) Promote the proper management of Hawaii's land and water resources.		✓	
(3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.			✓
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.			✓
(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.		✓	
(6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.		✓	
(7) Encourage urban developments in close proximity to existing services and facilities.		✓	
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.		✓	
Analysis: **The proposed project is indirectly applicable to the goal and objectives related to planning for the State's physical environment. An EA has been prepared for the proposed project to ensure adverse impacts to the physical environment are avoided or mitigated. Construction and post-construction drainage improvements will be carried out to ensure there will not be adverse impacts to adjacent and downstream properties and to maintain groundwater quality. The addition of a fire station in Ha'ikū will help reduce the threat to life and properties posed by fires.**			
Chapter 226-14 Objective and policies for facility systems – – in general.			
Objective:			
(a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, sustainable development, climate change adaptation, sea level rise adaptation, waste			✓

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disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.			
Policies: (b) To achieve the general facility systems objective, it shall be the policy of this State to:			
(1) Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.			✓
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.			✓
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.			✓
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			✓
(5) Identify existing and planned state facilities that are vulnerable to sea level rise, flooding impacts, and natural hazards.			✓
(6) Assess a range of options to mitigate the impacts of sea level rise to existing and planned state facilities.			✓
Analysis: **Not Applicable**			
Chapter 226-15 Objectives and policies for facility systems – – solid and liquid waste.			
Objectives:			
(a) 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 for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.			✓
Policies:			
(b) 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.			✓
(2) Promote reuse and recycling to reduce solid and liquid wastes and employ a conservation ethic.			✓
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			✓
Analysis: **Not Applicable**			
Chapter 226-16 Objective and policies for facility systems – – water.			
Objective:			
(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		✓	

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other needs within resource capacities.			
Policies:			
(b) To achieve the facility systems water objective, it shall be the policy of this State to:			
(1) Coordinate development of land use activities with existing and potential water supply.		✓	
(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.			✓
(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.			✓
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.			✓
(5) Support water supply services to areas experiencing critical water problems.			✓
(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.		✓	
Analysis: **The proposed project is indirectly applicable to the objective and policies related to water. DF&PS coordinated with DWS to ensure that there will be sufficient water supply to meet the needs of the proposed project. Additionally, the proposed project will incorporate water conservation practices during its operational phase, including the use of low flow plumbing fixtures and landscape planting material that minimizes irrigation water consumption.**			
Chapter 226-17 Objectives and policies for facility systems – – transportation.			
Objectives:			
(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 that is consistent with and will accommodate planned growth objectives throughout the State.			✓
Policies:			
(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;			✓
(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;			✓
(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;			✓
(4) Provide for improved accessibility to shipping, docking, and storage facilities;			✓
(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;			✓

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(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;			✓
(7) Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;			✓
(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;			✓
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;			✓
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment;			✓
(11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;			✓
(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; and			✓
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.			✓
Analysis: **Not Applicable**			
Chapter 226-18 Objectives and policies for facility systems – – energy.			
Objectives:			
(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 systems capable of supporting the needs of the people;			✓
(2) Increased energy security and 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.			✓
Policies:			
(b) To achieve the energy objectives, it shall be the policy of this State to ensure the short- and long-term provision of adequate, reasonably prices, 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;			✓
(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;			✓

Hawai'i State Plan, Chapter 226, HRS Part I. Overall Themes, Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
(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;			✓
(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		✓	
(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; and			✓
(6) Support research, development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies;			✓
(7) Promote alternate fuels and transportation energy efficiency;			✓
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications;			✓
(9) Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives;			✓
(10) Provide priority handling and processing for all state and county permits required for renewable energy projects;			✓
(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; and			✓
(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.			✓
Analysis: **The proposed project is indirectly applicable to the goal and objectives related to energy facility systems. The proposed project will incorporate energy saving design principles such as the installation of daylight controls in areas adjacent to windows and areas with solar tubes.**			
Chapter 226-18.5 Objectives and policies for facility systems – – telecommunications.			
Objectives:			
(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.			
Policies:			

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(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 telecommunications systems and resources;			✓
(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;			✓
(3) Promote efficient management and use of existing telecommunications systems and services; and			✓
(4) Facilitate the development of education and training of telecommunications personnel.			✓
Analysis: **Not Applicable**			
Chapter 226-19 Objectives and policies for socio-cultural advancement – – housing.			
Objectives:			
(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 very 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.			✓
Policies:			
(b) To achieve the housing objectives, it shall be the policy of this State to:			
(1) Effectively accommodate the housing needs of Hawaii's people.			✓
(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.			✓
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.			✓
(4) Promote appropriate improvement, rehabilitation, and maintenance of existing rental and for sale housing units and residential areas.			✓
(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.			✓
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.			✓

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(7) Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.			✓
(8) Promote research and development of methods to reduce the cost of housing construction in Hawaii.			✓
Analysis: **Not Applicable**			
Chapter 226-20 Objectives and policies for socio-cultural advancement – – health.			
Objectives:			
(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 Hawaii's communities.			✓
(3) Elimination of health disparities by identifying and addressing social determinants of health.			✓
Policies:			
(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.			✓
(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.			✓
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			✓
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			✓
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			✓
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.			✓
(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.			✓
Analysis: **Not Applicable**			
Chapter 226-21 Objectives and policies for socio-cultural advancement – – education.			

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Objective:			
(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.			✓
Policies:			
(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.			✓
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.			✓
(3) Provide appropriate educational opportunities for groups with special needs.			✓
(4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.			✓
(5) Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.			✓
(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.			✓
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			✓
(8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.			✓
(9) Support research programs and activities that enhance the education programs of the State.			✓
Analysis: **Not Applicable**			
Chapter 226-22 Objective and policies for socio-cultural advancement – – social services.			
Objective:			
(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.			✓
Policies:			
(a) To achieve the social service objective, it shall be the policy of the 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.			✓
(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			✓

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to enhance their participation in society.			
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaii's communities.			✓
(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			✓
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			✓
(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			✓
Analysis: **Not Applicable**			
Chapter 226-23 Objective and policies for socio-cultural advancement – – leisure.			
Objective:			
(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.			✓
Policies:			
(b) To achieve the leisure objective, it shall be the policy of this State to:			
(1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.			✓
(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.			✓
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.			✓
(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.			✓
(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.			✓
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.			✓
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaii's people.			✓
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.			✓
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawaii's population to participate in the creative arts.			✓
(10) Assure adequate access to significant natural and cultural resources in public ownership.			✓

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Analysis: **Not Applicable**			
Chapter 226-24 Objective and policies for socio-cultural advancement – – individual rights and personal well-being.			
Objective:			
(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.			✓
Policies:			
(b) To achieve the individual rights and personal well-being 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.			✓
(2) Uphold and protect the national and state constitutional rights of every individual.			✓
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			✓
(4) Ensure equal opportunities for individual participation in society.			✓
Analysis: **Not Applicable**			
Chapter 226-25 Objective and policies for socio-cultural advancement – – culture.			
Objective:			
(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 Hawaii's people.			✓
Policies:			
(b) To achieve the culture objective, it shall be the policy of this State to:			
(1) Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii.			✓
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs.			✓
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaii.			✓
(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaii's people and visitors.			✓
Analysis: **Not Applicable**			
Chapter 226-26 Objectives and policies for socio-cultural advancement – – public safety.			
Objectives:			
(a) Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			

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(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 Hawaii's people.			✓
Policies (Public Safety):			
(b) To achieve the public safety objectives, it shall be the policy of this State to:			
(1) Ensure that public safety programs are effective and responsive to community needs.	✓		
(2) Encourage increased community awareness and participation in public safety programs.	✓		
Policies (Public Safety-Criminal Justice):			
(c) To further achieve public safety objectives related to criminal justice, it shall be the policy of this State to:			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			✓
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			✓
(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.			✓
Policies (Public Safety – Emergency Management):			
(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.	✓		
(2) Enhance the coordination between emergency management programs throughout the State.			✓
Analysis: **The proposed project is directly applicable to the goal and objectives related to public safety. The new Hai'kū fire station will provide fire protection services to the community of Ha'ikū where currently there is not a fire station. The proposed project will ensure public safety programs are effective and responsive to community needs.**			
Chapter 226-27 Objectives and policies for socio-cultural advancement – – government.			
Objectives:			
(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.	✓		

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(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.	✓		
Policies:			
(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.	✓		
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			✓
(3) Minimize the size of government to that necessary to be effective.			✓
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawaii.			✓
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			✓
(6) Provide for a balanced fiscal budget.			✓
(7) Improve the fiscal budgeting and management system of the State.			✓
(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.			✓
Analysis: **The proposed project is directly applicable to the objectives and policies for socio-cultural advancement of government services. The new Hai'kū fire station will be an effective and responsive government service that is needed in Hai'kū, where there currently is no fire station.**			

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
Chapter 226-101: Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
Chapter 226-102: Overall direction. The State shall strive to improve the quality of life for Hawaii'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.			
Chapter 226-103: Economic priority guidelines.			
(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii'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.			✓
(A) Encourage investments which:			✓
(i) Reflect long term commitments to the State;			✓
(ii) Rely on economic linkages within the local economy;			✓
(iii) Diversify the economy;			✓
(iv) Reinvest in the local economy;			✓
(v) Are sensitive to community needs and priorities; and			✓
(vi) Demonstrate a commitment to provide management opportunities to Hawaii residents; and			✓
(B) Encourage investments in innovative activities that have a nexus to the State, such as:			✓
(i) Present or former residents acting as entrepreneurs or principals;			✓
(ii) Academic support from an institution of higher education in Hawaii;			✓
(iii) Investment interest from Hawaii residents;			✓
(iv) Resources unique to Hawaii that are required for innovative activity; and			✓
(v) Complementary or supportive industries or government programs or projects.			✓
(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			✓
(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.			✓
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			✓
(5) Streamline the processes for building and development permit and review, and telecommunication infrastructure installation approval and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where scientific evidence indicates that public health, safety and welfare would not be adversely affected.			✓
(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawaii's small-scale producers, manufacturers, and distributors.			✓

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
(7) Continue to seek legislation to protect Hawaii from transportation interruptions between Hawaii and the continental United States.			✓
(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 Hawaii's unique location and available physical and human resources.			✓
(B) A clean industry that would have minimal adverse effects on Hawaii's environment.			✓
(C) An industry that is willing to hire and train Hawaii's people to meet the industry's labor needs at all levels of employment.			✓
(D) An industry that would provide reasonable income and steady employment.			✓
(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawaii business.			✓
(10) Enhance the quality of Hawaii's labor force and develop and maintain career opportunities for Hawaii's people through the following actions:			✓
(A) Expand vocational training in diversified agriculture, aquaculture, information industry, 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.			✓
(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 Hawaii'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 Hawaii's residents and visitors.			✓
(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 provide for adequate shoreline setbacks and beach access.			✓
(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.			✓
(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.			✓
(5) Develop and maintain career opportunities in the visitor industry for Hawaii's people, with emphasis on managerial positions.			✓
(6) Support and coordinate tourism promotion abroad to enhance Hawaii's share of existing and potential visitor markets.			✓

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.			✓
(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.			✓
(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.			✓
(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.			✓
(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawaii.			✓
(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			✓
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			
(1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.			✓
(2) Assist in providing adequate, reasonably priced water for agricultural activities.			✓
(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.			✓
(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			✓
(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawaii's agricultural community.			✓
(6) Seek favorable freight rates for Hawaii's agricultural products from interisland and overseas transportation operators.			✓
(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.			✓
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			✓
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			✓
(10) Support the continuation of land currently in use for diversified agriculture.			✓
(11) Encourage residents and visitors to support Hawaii's farmers by purchasing locally grown food and food products.			✓
(e) Priority guidelines for water use and development:			
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.			✓
(2) Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.			✓
(3) Increase the support for research and development of economically feasible alternative water sources.			✓
(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.			✓
(f) Priority guidelines for energy use and development:			

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(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			✓
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			✓
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			✓
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			✓
(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 Hawaii.			✓
(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.			✓
(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.			✓
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			✓
(5) Encourage research activities, including legal research in the information and telecommunications fields.			✓
(6) Support promotional activities to market Hawaii's information industry services.			✓
(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.			✓
Analysis: **Not Applicable**			
Chapter 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 insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.			✓
(2) Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people.			✓
(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.	✓		
(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.			✓
(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.			✓
(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.			✓

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
(7) Support the development of high technology parks on the neighbor islands.			✓
(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.			✓
(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.	✓		
(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.			✓
(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.			✓
(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 noncontiguous new urban core.			✓
(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.			✓
(7) Pursue rehabilitation of appropriate urban areas.			✓
(8) Support the redevelopment of Kakaako into a viable residential, industrial, and commercial community.			✓
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.			✓
(10) Identify critical environmental areas in Hawaii 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.			✓
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.	✓		
(12) Utilize Hawaii'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.	✓		
(13) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.			✓
Analysis: **The proposed project is directly applicable to the priority guidelines for population and land resources. It would use nonessential agricultural lands that are currently uncultivated for a rural use that would benefit the community through increased fire protection. The proposed reclassification of these lands represents approximately 0.003 percent of the State "Agricultural" designated lands on the island of Maui, meaning that the vast majority of agriculture land will be maintained if this project is implemented. The proposed fire station will be designed to maintain the rural character of the area. The proposed new fire station will be located in an area where there is currently no fire station to serve the local Hai'kū community.**			

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
Chapter 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.			✓
(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.			✓
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			✓
(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.			✓
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			✓
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			✓
Analysis: **Not Applicable**			
Chapter 226-106: Affordable housing.			
Priority guidelines for the provision of affordable housing:			
(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of extremely low-, very low-, lower-, moderate-, and above and moderate-income households.			✓
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.			✓
(3) Improve information and analysis relative to land availability and suitability for housing.			✓
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawaii's low-, very low-, lower-, and moderate-income households and residents with special needs.			✓
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner-occupied housing.			✓
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.			✓
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.			✓
(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 Hawaii.			✓
Analysis: **Not Applicable**			
Chapter 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;			✓
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;			✓
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force;			✓

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision making responsibilities;			✓
(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.			✓
(6) Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;			✓
(7) Pursue the establishment of Hawaii's public and private universities and colleges as research and training centers of the Pacific;			✓
(8) Develop resources and programs for early childhood education;			✓
(9) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and			✓
(10) Strengthen and expand educational programs and services for students with special needs.			✓
Analysis: **Not Applicable**			
CHAPTER 226-108: Sustainability			
Priority guidelines and principles to promote sustainability shall include:			
(1) Encouraging balanced economic, social, community, and environmental priorities;	✓		
(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;			✓
(3) Promoting a diversified and dynamic economy;			✓
(4) Encouraging respect for the host culture;		✓	
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;	✓		
(6) Considering the principles of the ahupuaa system; and			✓
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.			✓
Analysis: **The proposed project is directly applicable to the priority guidelines for sustainability. The new fire station encourages balanced economic, social, community, and environmental priorities and will meet current community needs without compromising the needs of future generations. The proposed project is indirectly applicable to encouraging he respect for the host culture. A Cultural Impact Assessment was carried out to avoid impacts to the host cultural practices.**			
CHAPTER 226-109: Climate change adaptation priority guidelines			
Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:			
(1) Ensure that Hawaii's people are educated, informed, and aware of the impacts climate change may have on their communities;			✓
(2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;			✓

Hawai'i State Plan, Chapter 226, HRS Part III. Priority Guidelines Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	N/A
(3) Invest in continued monitoring and research of Hawaii's climate and the impacts of climate change on the State;			✓
(4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;			✓
(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;			✓
(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;		✓	
(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;		✓	
(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;			✓
(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; and			✓
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.		✓	
Analysis: **The proposed project is indirectly applicable to the priority guidelines for climate change adaptation. The project site is located outside of the 3.2-foot Sea-Level Rise Exposure Area identified in the *Hawai'i Sea Level Rise Vulnerability and Adaptation Report* (2018), meaning that the risk of potential impacts related to sea-level rise are minimal. The proposed landscape plan will incorporate native plants and indigenous trees to both cool the project site and reduce water consumption.**			

APPENDIX

G-2

COUNTYWIDE POLICY PLAN

APPENDIX "G-2"

Analysis of Project Applicability to Countywide Policy Plan

The Countywide Policy Plan was adopted in March 2010 and is a comprehensive policy document for the islands of Maui County to the year 2030. The plan replaces the *General Plan of the County of Maui 1990 Update* and provides the policy framework for the development of the forthcoming Maui Island Plan as well as for updating the nine detailed Community Plans.

The Countywide Policy Plan provides broad goals, objectives, policies and implementing actions that portray the desired direction of the County's future. Goals are intended to describe a desirable condition of the County by the year 2030 and are intentionally general. Objectives tend to be more specific and may be regarded as milestones to achieve the larger goals. Policies are not intended as regulations, but instead provide a general guideline for County decision makers, departments, and collaborating organizations toward the attainment of goals and objectives. Implementing actions are specific tasks, procedures, programs, or techniques that carry out policy.

Discussion of how the proposed project conforms to the relevant goals, objectives, policies, and implementing actions of the Countywide Policy Plan is provided below. The methodology for assessing a project's relationship to the Countywide Policy Plan involves examining the project's applicability to the Plan's goals, objectives, and policies. "Applicability" refers to a project's need, purpose and effects, and how they advance or promote a particular set of goals, objectives and policies. In assessing the relationship between a proposed action and the Countywide Policy Plan, an action may be categorized in one of the following groups:

1. **Directly applicable:** the action and its potential effects directly advance, promote or affect the relevant goal, objective, or policy.

   Example: A County project to develop a new water source and related transmission facilities would be directly applicable to improving physical infrastructure. The relevant objective states: *"Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water*" (Objective I.1). A policy within this objective category states: *Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents* (Policy I.1.a).

   In this instance, the proposed action is considered to be directly applicable to the cited objective and policy.

2. **Indirectly applicable:** the action and its potential effects indirectly support, advance or affect the objective, policy or priority guideline.

   Example: The county water source project cited above supports the objective to: *"Improve land use management and implement a directed-growth strategy"* (Objective J.1). A related policy encompassed by this objective states: *"Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources"* (Policy J.1.h). In this case, the principle purpose of the project is not to create source specifically intended to improve land use management. Nonetheless, the proposed action indirectly supports the Countywide Policy Plan's directives relating to appropriate locations for new development.

3. **Not applicable:** the action and its potential effects have no direct or indirect relationship to the objectives and policies of the Countywide Policy Plan.

   Example: The county water source improvement project referenced above, may not have direct or indirect linkage to Objective D.1, which states: *"In cooperation with the Federal and State governments and nonprofit agencies, broaden access to social and healthcare services and expand options to improve the overall wellness of the people of Maui County"*. Hence, from a policy analysis and linkage standpoint, the proposed action would be considered not applicable to this set of objectives and policies.

It is recognized that policy analysis is subject to interpretation and is best considered in the context of the proposed action's local and regional conditions.

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
A. PROTECT THE NATURAL ENVIRONMENT			
Goal: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.		✓	
Objective:			
(1) Improve the opportunity to experience the natural beauty and native biodiversity of the islands for present and future generations.			✓
Policies:			
(a) Perpetuate native Hawaiian biodiversity by preventing the introduction of invasive species, containing or eliminating existing noxious pests, and protecting critical habitat areas.			✓
(b) Preserve and reestablish indigenous and endemic species' habitats and their connectivity.			✓
(c) Restore and protect forests, wetlands, watersheds, and stream flows, and guard against wildfires, flooding, and erosion.			✓
(d) Protect baseline stream flows for perennial streams, and support policies that ensure adequate stream flow to support Native Hawaiian aquatic species, traditional kalo cultivation, and self-sustaining ahupua'a.			✓
(e) Protect undeveloped beaches, dunes, and coastal ecosystems, and restore natural shoreline processes.			✓
(f) Protect the natural state and integrity of unique terrain, valued natural environments, and geological features.			✓
(g) Preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources.		✓	
(h) Expand coordination with the State and nonprofit agencies and their volunteers to reduce invasive species, replant indigenous species, and identify critical habitat.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Implementing Actions:			
(a) Develop island-wide networks of greenways, watercourses, and habitat corridors.			✓
Analysis: **The proposed project is indirectly applicable to the goal and objectives to protect the natural environment. An EA was carried out to ensure the proposed project will not adversely impact the environment. The proposed new Hai'kū fire station was designed based on the Pā'ia-Hai'kū Country Town Design Guidelines to maintain the rural character of the built environment.**			
Objective:			
(2) Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island.		✓	
Policies:			
(a) Protect and restore nearshore reef environments and water quality.		✓	
(b) Protect marine resources and valued wildlife.		✓	
(c) Improve the connection between urban environments and the natural landscape, and incorporate natural features of the land into urban design.		✓	
(d) Utilize land-conservation tools to ensure the permanence of valued open spaces.			✓
(e) Mitigate the negative effects of upland uses on coastal wetlands, marine life, and coral reefs.		✓	
(f) Strengthen coastal-zone management, re-naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.			✓
(g) Regulate the use and maintenance of stormwater-treatment systems that incorporate the use of native vegetation and mimic natural systems.			✓
(h) Advocate for stronger regulation of fishing, boating, cruise ship, and ecotourism activities.			✓
(i) Restore watersheds and aquifer-recharge areas to healthy and productive status, and increase public knowledge about the importance of watershed stewardship, water conservation, and groundwater protection.			✓
Implementing Actions:			
(a) Develop regulations to minimize runoff of pollutants into nearshore waters and reduce nonpoint and point source pollution.			✓
Analysis: **The proposed project is indirectly applicable to the objective to improve the quality of environmentally sensitive and locally valued natural resources. A Biological Resources Survey was carried out on the project site to ensure locally valued natural resources and native ecology will not be adversely impacted by the proposed project.**			
Objective:			
(3) Improve the stewardship of the natural environment.		✓	
Policies:			
(a) Preserve and protect natural resources with significant scenic, economic, cultural, environmental, or recreational value.		✓	
(b) Improve communication, coordination, and collaboration among government agencies, nonprofit organizations, communities, individuals, and land owners that work for the protection of the natural environment.		✓	
(c) Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.		✓	

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(d) Improve efforts to mitigate and plan for the impact of natural disasters, human influenced emergencies, and global warming.	✓		
(e) Regulate access to sensitive ecological sites and landscapes.			✓
(f) Reduce air, noise, light, land, and water pollution, and reduce Maui County's contribution to global climate change.		✓	
(g) Plan and prepare for and educate visitors and residents about the possible effects of global warming.			✓
(h) Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.			✓
(i) Educate the construction and landscape industries and property owners about the use of best management practices to prevent erosion and nonpoint source pollution.	✓		
(j) Support the acquisition of resources with scenic, environmental, and recreational value, and encumber their use.			✓
(k) Improve enforcement activities relating to the natural environment.			✓
(l) For each shoreline community, identify and prioritize beach-conservation objectives, and develop action plans for their implementation.			✓
Implementing Actions:			✓
(a) Document, record, and monitor existing conditions, populations, and locations of flora and fauna communities.	✓		
(b) Implement Federal and State policies that require a reduction of greenhouse-gas emissions.			✓
(c) Establish a baseline inventory of available natural resources and their respective carrying capacities.			✓
Analysis: **The proposed project is directly applicable to the objective and policies to improve stewardship of the natural environment. Best Management Practices (BMPs) will be followed during construction to mitigate potential noise and stormwater runoff impacts. The new fire station will improve the County's efforts to mitigate and plan for human-influenced emergencies. The proposed project is indirectly applicable to the policy to reduce Maui County's contribution to global climate change through conservation building measures such as the installation of daylight controls in areas adjacent to windows and solar tubes.**			
Objective:			
(4) Educate residents and visitors about responsible stewardship practices and the interconnectedness of the natural environment and people.			✓
Policies:			
(a) Expand education about native flora, fauna, and ecosystems.			✓
(b) Align priorities to recognize that the health of the natural environment and the health of people are inextricably linked.			✓
(c) Promote programs and incentives that decrease greenhouse-gas emissions and improve environmental stewardship.			✓
Analysis: **Not Applicable**			
B. PRESERVE LOCAL CULTURES AND TRADITIONS			
Goal: Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.		✓	
Objective:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(1) Perpetuate the Hawaiian culture as a vital force in the lives of residents.		✓	
Policies:			
(a) Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.		✓	
(b) Prohibit inappropriate development of cultural lands and sites that are important for traditional Hawaiian cultural practices, and establish mandates for the special protection of these lands in perpetuity.		✓	
(c) Promote the use of ahupua'a and moku management practices.			✓
(d) Encourage the use of traditional Hawaiian architecture and craftsmanship.			✓
(e) Promote the use of the Hawaiian language.			✓
(f) Recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.			✓
(g) Encourage schools to promote broader incorporation of Hawaiian and other local cultures' history and values lessons into curriculum.			✓
(h) Ensure the protection of Native Hawaiian rights.			✓
(i) Promote, encourage, and require the correct use of traditional place names, particularly in government documents, signage, and the tourism industry.			✓
Implementing Actions:			
(a) Establish alternative land use and overlay zoning designations that recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.			✓
(b) Develop requirements for all County applicants to perpetuate and use proper traditional place names in all applications submitted.			✓
Analysis: **The proposed project is indirectly applicable to the goal and objectives to preserve local cultures and traditions. An AIS and CIA were carried out on the proposed project to ensure historic and cultural resources and practices are not adversely impacted.**			
Objective:			
(2) Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.		✓	
Policies:			
(a) Acknowledge the Hawaiian culture as the host culture, and foster respect and humility among residents and visitors toward the Hawaiian people and their practices.		✓	
(b) Perpetuate a respect for diversity, and recognize the historic blending of cultures and ethnicities.			✓
(c) Encourage the perpetuation of each culture's unique cuisine, attire, dance, music, and folklore, and other unique island traditions and recreational activities.			✓
(d) Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.		✓	
(e) Protect and prioritize funding for recreational activities that support local cultural practices, such as surfing, fishing, and outrigger-canoe paddling.			✓
Analysis: **The proposed project is indirectly applicable to the objective and policies to respect our unique local cultures and natural environment. An EA, AIS and CIA were carried out on the proposed project to protect cultural resources and practices and the natural environment.**			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Objective:			
(3) Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County.			✓
Policies:			
(a) Foster teaching opportunities for cultural practitioners to share their knowledge and skills.			✓
(b) Support the development of cultural centers.			✓
(c) Broaden opportunities for public art and the display of local artwork.			✓
(d) Foster the Aloha Spirit by celebrating the Hawaiian host culture and other Maui County cultures through support of cultural-education programs, festivals, celebrations, and ceremonies.			✓
(e) Support the perpetuation of Hawaiian arts and culture.			✓
(f) Support programs and activities that record the oral and pictorial history of residents.			✓
(g) Support the development of repositories for culture, history, genealogy, oral history, film, and interactive learning.			✓
Implementing Actions:			
(a) Establish incentives for the display of public art.			✓
(b) Establish centers and programs of excellence for the perpetuation of Hawaiian arts and culture.			✓
Analysis: **Not Applicable**			
Objective:			
(4) Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.		✓	
Policies:			
(a) Support the development of island-wide historic, archaeological, and cultural resources inventories.		✓	
(b) Promote the rehabilitation and adaptive reuse of historic sites, buildings, and structures to perpetuate a traditional sense of place.			✓
(c) Identify a sustainable rate of use and set forth specific policies to protect cultural resources.			✓
(d) Protect and preserve lands that are culturally or historically significant.		✓	
(e) Support programs that protect, record, restore, maintain, provide education about, and interpret cultural districts, landscapes, sites, and artifacts in both natural and museum settings.			✓
(f) Perpetuate the authentic character and historic integrity of rural communities and small towns.		✓	
(g) Seek solutions that honor the traditions and practices of the host culture while recognizing the needs of the community.			✓
(h) Support the development of an Archaeological District Ordinance.			✓
(i) Protect summits, slopes, and ridgelines from inappropriate development.			✓
(j) Support the registering of important historic sites on the State and Federal historic registers.			✓
(k) Provide opportunities for public involvement with restoration and enhancement of all types of cultural resources.			✓
(l) Foster partnerships to identify and preserve or revitalize historic and cultural sites.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Implementing Actions:			
(a) Identify, develop, map, and maintain an inventory of locally significant natural. cultural, and historical resources for protection.			✓
(b) Prepare, continually update, and implement a cultural-management plan for cultural sites, districts, and landscapes, where appropriate.			✓
(c) Enact an Archaeological District Ordinance.			✓
(d) Nominate important historic sites to the State and Federal historic registers.			✓
Analysis: **The proposed project is indirectly applicable to the objective and policies to preserve cultural sites. A CIA was carried out on the project site to ensure cultural resources and practices are protected and preserved.**			
C. IMPROVE EDUCATION			
Goal: Residents will have access to lifelong formal and informal educational options enabling them to realize their ambitions.			✓
Objective:			
(1) Encourage the State to attract and retain school administrators and educators of the highest quality.			✓
Policies:			
(a) Encourage the State to provide teachers with nationally competitive pay and benefit packages.			✓
(b) Encourage the State to ensure teachers will have the teaching tools and support staff needed to provide students with an excellent education.			✓
(c) Explore Maui County district- and school-based decision making in public education.			✓
Analysis: **Not Applicable**			
Objective:			
(2) Provide nurturing learning environments that build skills for the 21st century.			✓
Policies:			
(a) Expand professional-development opportunities in disciplines that support the economic-development goals of Maui County.			✓
(b) Plan for demographic, social, and technological changes in a timely manner.			✓
(c) Encourage collaborative partnerships to improve conditions of learning environments.			✓
(d) Promote development of neighborhood schools and educational centers.			✓
(e) Integrate schools, community parks, and playgrounds, and expand each community's use of these facilities.			✓
(f) Support coordination between land use and school-facility planning agencies.			✓
(g) Encourage the upgrade and ongoing maintenance of public-school facilities.			✓
(h) Encourage the State Department of Education to seek reliable, innovative, and alternative methods to support a level of per-pupil funding that places Hawai'i among the top tier of states nationally for its financial support of public schools.			✓
(i) Encourage the State to promote healthier, more productive learning environments, including by providing healthy meals, more physical activity, natural lighting, and passive cooling.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(j) Encourage the State to support the development of benchmarks to measure the success of Hawai'i's public-education system and clarify lines of accountability.			✓
(k) Design school and park facilities in proximity to residential areas.			✓
(l) Support technology- and natural-environment-based learning.			✓
(m) Encourage the State to support lower student-teacher ratios in public schools.			✓
(n) Encourage alternative learning and educational opportunities.			✓
Implementing Actions:			
(a) Develop safe walking and bicycling programs for school children.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Provide all residents with educational opportunities that can help them better understand themselves and their surroundings and allow them to realize their ambitions.			✓
Policies:			
(a) Encourage the State to improve Maui Community College as a comprehensive community college that will serve each community.			✓
(b) Broaden the use of technology and telecommunications to improve educational opportunities throughout the County.			✓
(c) Attract graduate-level research programs and institutions.			✓
(d) Promote the teaching of traditional practices, including aquaculture; subsistence agriculture; Pacific Island, Asian, and other forms of alternative health practices; and indigenous Hawaiian architecture.			✓
(e) Integrate cultural and environmental values in education, including self-sufficiency and sustainability.			✓
(f) Foster a partnership and ongoing dialogue between business organizations, formal educational institutions, and vocational training centers to tailor learning and mentoring programs to County needs.			✓
(g) Ensure teaching of the arts to all ages.			✓
(h) Expand and develop vocational learning opportunities by establishing trade schools.			✓
(i) Encourage the State to integrate financial and economic literacy in elementary, secondary, and higher-education levels.			✓
Implementing Actions:			
(a) Encourage the State to establish a four-year university, and support the development of other higher-education institutions to enable residents to obtain bachelor degrees and postgraduate degrees in Maui County.			✓
Analysis: **Not Applicable**			
Objective:			
(4) Maximize community-based educational opportunities.			✓
Policies:			
(a) Encourage the State and others to expand pre-school, after-school, and homebased (parent-child) learning.			✓
(b) Support public-private partnerships to develop youth-internship, -apprenticeship, and -mentoring programs.			✓
(c) Support the development of a wide range of informal educational and cultural programs for all residents.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(d) Improve partnerships that utilize the skills and talents at Hawai'i's colleges and universities to benefit the County.			✓
(e) Support career-development and job-recruitment programs and centers.			✓
(f) Attract learning institutions and specialty schools to diversify and enhance educational opportunities.			✓
(g) Expand education of important life skills for the general public.			✓
(h) Support community facilities such as museums, libraries, nature centers, and open spaces that provide interactive-learning opportunities for all ages.			✓
Analysis: **Not Applicable**			
D. STRENGTHEN SOCIAL AND HEALTHCARE SERVICES			
Goal: Health and social services in Maui County will fully and comprehensively serve all segments of the population.			✓
Objective:			
(1) In cooperation with the Federal and State governments and nonprofit agencies, broaden access to social and healthcare services and expand options to improve the overall wellness of the people of Maui County.			✓
Policies:			
(a) Work with other levels of government and the nonprofit sector to expand services to address hunger, homelessness, and poverty.			✓
(b) Support the improvement of opportunities for disadvantaged youth, encourage the tradition of hanai relatives, and support expanded opportunities for foster care.			✓
(c) Support expanded long-term-care options, both in institutions and at home, for patients requiring ongoing assistance and medical attention.			✓
(d) Encourage the expansion and improvement of local hospitals, facilitate the establishment of new healthcare facilities, and facilitate prompt and high-quality emergency- and urgent-care services for all.			✓
(e) Support broadened access to affordable health insurance and health care, and recognize the unique economic challenges posed to families when healthcare services are provided off-island.			✓
(f) Encourage equal access to social and healthcare services through both technological and traditional means.			✓
Analysis: **Not Applicable**			
Objective:			
(2) Encourage the Federal and State governments and the private sector to improve the quality and delivery of social and healthcare services.			✓
Policies:			
(a) Strengthen partnerships with government, nonprofit, and private organizations to provide funding and to improve counseling and other assistance to address substance abuse, domestic violence, and other pressing social challenges.			✓
(b) Encourage the State to improve the quality of medical personnel, facilities, services, and equipment.			✓
(c) Encourage investment to improve the recruitment of medical professionals and the quality of medical facilities and equipment throughout Maui County.			✓
(d) Promote the development of continuum-of-care facilities that provide assisted living, hospice, home-care, and skilled-nursing options allowing the individual to be cared for in a manner congruent with his or			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
her needs and desires.			
(e) Support improved social, healthcare, and governmental services for special needs populations.			✓
(f) Plan for the needs of an aging population and the resulting impacts on social services, housing, and healthcare delivery.			✓
(g) Improve coordination among the police, the courts, and the public in the administration of social and healthcare services.			✓
(h) Support programs that address needs of veterans.			✓
(i) Support programs that address the needs of immigrants.			✓
Implementing Actions:			
(a) Invest in programs designed to improve the general welfare and quality of life of Native Hawaiians.			✓
(b) Assist and facilitate the State Department of Public Safety and others in efforts to strengthen programs and facilities that will improve the mental and social health of incarcerated people and assist in prison inmates' successful transition back into Maui County communities.			✓
(c) Develop and maintain a comprehensive index that will measure the health and wellness needs of families.			✓
(d) Provide heliports countywide for emergency health and safety purposes.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Strengthen public-awareness programs related to healthy lifestyles and social and medical services.			✓
Policies:			
(a) Expand public awareness about personal safety and crime prevention.			✓
(b) Encourage residents to pursue education and training for careers in the healthcare, social services, and community-development fields.			✓
(c) Expand public awareness and promote programs to achieve healthy eating habits and drug-free lifestyles.			✓
Analysis: **Not Applicable**			
E. EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS			
Goal: Quality, island-appropriate housing will be available to all residents.			✓
Objective:			
(1) Reduce the affordable housing deficit for residents.			✓
Policies:			
(a) Ensure that an adequate and permanent supply of affordable housing, both new and existing units, is made available for purchase or rental to our resident and/or workforce population, with special emphasis on providing housing for low- to moderate-income families, and ensure that all affordable housing remains affordable in perpetuity.			✓
(b) Seek innovative ways to lower housing costs without compromising the quality of our island lifestyle.			✓
(c) Seek innovative methods to secure land for the development of low- and moderate- income housing.			✓
(d) Provide the homeless population with emergency and transitional shelter and other supportive programs.			✓
(e) Provide for a range of senior-citizen and special needs housing choices on each island that affordably facilitates a continuum of care and			✓

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services.			
(f) Support the Department of Hawaiian Home Lands' development of homestead lands.			✓
(g) Manage property-tax burdens to protect affordable resident homeownership.			✓
(h) Explore taxation mechanisms to increase and maintain access to affordable housing.			✓
(i) Improve awareness regarding available affordable homeowner's insurance.			✓
(j) Redevelop commercial areas with a mixture of affordable residential and business uses, where appropriate.			✓
(k) Ensure residents are given priority to obtain affordable housing units developed in their communities, consistent with all applicable regulations.			✓
(l) Establish pricing for affordable housing that is more reflective of Maui County's workforce than the United States Housing and Urban Development's median-income estimates for Maui County.			✓
(m) Develop neighborhoods with a mixture of accessible and integrated community facilities and services.			✓
(n) Provide alternative regulatory frameworks to facilitate the use of Kuleana lands by the descendants of Native Hawaiians who received those lands pursuant to the Kuleana Act of 1850.			✓
(o) Work with lending institutions to expand housing options and safeguard the financial security of homeowners.			✓
(p) Promote the use of the community land trust model and other land-lease and land- financing options.			✓
(q) Support the opportunity to age in place by providing accessible and appropriately designed residential units.			✓
Analysis: **Not Applicable**			
Objective:			
(2) Increase the mix of housing types in towns and neighborhoods to promote sustainable land use planning, expand consumer choice, and protect the County's rural and small town character.			✓
Policies:			
(a) Seek innovative ways to develop 'ohana cottages and accessory-dwelling units as affordable housing.			✓
(b) Design neighborhoods to foster interaction among neighbors.			✓
(c) Encourage a mix of social, economic, and age groups within neighborhoods.			✓
(d) Promote infill housing in urban areas at scales that capitalize on existing infrastructure, lower development costs, and are consistent with existing or desired patterns of development.			✓
(e) Encourage the building industry to use environmentally sustainable materials, technologies, and site planning.			✓
(f) Develop workforce housing in proximity to job centers and transit facilities.			✓
(g) Provide incentives to developers and owners who incorporate green building practices and energy-efficient technologies into their housing developments.			✓
Implementing Actions:			
(a) Revise laws to support neighborhood designs that incorporate a mix of			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
housing types that are appropriate for island living.			
Analysis: **Not Applicable**			
Objective:			
(3) Increase and maintain the affordable housing inventory.			✓
Policies:			
(a) Recognize housing as a basic human need, and work to fulfill that need.			✓
(b) Prioritize available infrastructure capacity for affordable housing.			✓
(c) Improve communication, collaboration, and coordination among housing providers and social-service organizations.			✓
(d) Study future projected housing needs, monitor economic cycles, and prepare for future conditions on each island.			✓
(e) Develop public-private and nonprofit partnerships that facilitate the construction of quality affordable housing.			✓
(f) Streamline the review process for high-quality, affordable housing developments that implement the goals, objectives, and policies of the General Plan.			✓
(g) Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable agricultural lands.			✓
(h) Encourage long-term residential use of existing and future housing to meet residential needs.			✓
Implementing Actions:			
(a) Develop policies to even out the peaks and valleys in Maui County's construction-demand cycles.			✓
Analysis: **Not Applicable**			
Objective:			
(4) Expand access to education related to housing options, homeownership, financing, and residential construction.			✓
Policies:			
(a) Broaden access to information about County, State, and Federal programs that provide financial assistance to renters and home buyers.			✓
(b) Expand access to information about opportunities for homeownership and self-help housing.			✓
(c) Educate residents about making housing choices that support their individual needs, the needs of their communities, and the health of the islands' natural systems.			✓
(d) Improve home buyers' education on all aspects of homeownership.			✓
Analysis: **Not Applicable**			
F. STRENGTHEN THE LOCAL ECONOMY			
Goal: Maui County's economy will be diverse, sustainable, and supportive of community values.			✓
Objective:			
(1) Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.			✓
Policies:			
(a) Support economic decisions that create long-term benefits.			✓
(b) Promote lifelong education, career development, and technical training for existing and emerging industries.			✓
(c) Invest in infrastructure, facilities, and programs that foster economic			✓

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diversification.			
(d) Support and promote locally produced products and locally owned operations and businesses that benefit local communities and meet local demand.			✓
(e) Support programs that assist industries to retain and attract more local labor and facilitate the creation of jobs that offer a living wage.			✓
(f) Encourage work environments that are safe, rewarding, and fulfilling to employees.			✓
(g) Support home-based businesses that are appropriate for and in character with the community.			✓
(h) Encourage businesses that promote the health and well-being of the residents, produce value-added products, and support community values.			✓
(i) Foster an understanding of the role of all industries in our economy.			✓
(j) Support efforts to improve conditions that foster economic vitality in our historic small towns.			✓
(k) Support and encourage traditional host-culture businesses and indigenous agricultural practices.			✓
(l) Support public and private entities that assist entrepreneurs in establishing locally operated businesses.			✓
Implementing Actions:			
(a) Develop regulations and programs that support opportunities for local merchants, farmers, and small businesses to sell their goods and services directly to the public.			✓
(b) Monitor the carrying capacity of the islands' social, ecological, and infrastructure systems with respect to the economy.			✓
Analysis: **Not Applicable**			
Objective:			
(2) Diversify and expand sustainable forms of agriculture and aquaculture.			✓
Policies:			
(a) Support programs that position Maui County's agricultural products as premium export products.			✓
(b) Prioritize the use of agricultural land to feed the local population, and promote the use of agricultural lands for sustainable and diversified agricultural activities.			✓
(c) Capitalize on Hawai'i's economic opportunities in the ecologically sensitive aquaculture industries.			✓
(d) Assist farmers to help make Maui County more self-sufficient in food production.			✓
(e) Support ordinances, programs, and policies that keep agricultural land and water available and affordable to farmers.			✓
(f) Support a tax structure that is conducive to the growth of the agricultural economy.			✓
(g) Enhance County efforts to monitor and regulate important agricultural issues.			✓
(h) Support education, research, and facilities that strengthen the agricultural industry.			✓
(i) Maintain the genetic integrity of existing food crops.			✓
(j) Encourage healthy and organic farm practices that contribute to land health and regeneration.			✓

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(k) Support cooperatives and other types of nontraditional communal farming and efforts.			✓
(l) Encourage methods of monitoring and controlling genetically modified crops to prevent adverse effects.			✓
(m) Work with the State to ease the permitting process for the revitalization of traditional fish ponds.			✓
Implementing Actions:			
(a) Redirect efforts in the Office of Economic Development to further facilitate the development of the agricultural section and to monitor agricultural legislation and issues.			✓
(b) Publicly identify, with signage and other means, the field locations of all genetically modified crops.			✓
(c) Create agricultural parks in areas distant from genetically modified crops.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Support a visitor industry that respects the resident culture and the environment.			✓
Policies:			
(a) Promote traditional Hawaiian practices in visitor-related facilities and activities.			✓
(b) Encourage and educate the visitor industry to be sensitive to island lifestyles and cultural values.			✓
(c) Encourage a spirit of welcome for residents at visitor facilities, such as by offering kama'aina incentives and discount programs.			✓
(d) Support the renovation and enhancement of existing visitor facilities.			✓
(e) Support policies, programs, and a tax structure that redirect the benefits of the visitor industry back into the local community.			✓
(f) Encourage resident ownership of visitor-related businesses and facilities.			✓
(g) Develop partnerships to provide educational and training facilities to residents employed in the visitor industry.			✓
(h) Foster an understanding of local cultures, customs, and etiquette, and emphasize the importance of the Aloha Spirit as a common good for all.			✓
(i) Support the diversification, development, evolution, and integration of the visitor industry in a way that is compatible with the traditional, social, economic, spiritual, and environmental values of island residents			✓
(j) Improve collaboration between the visitor industry and the other sectors of Maui County's economy.			✓
(k) Perpetuate an authentic image of the Hawaiian culture and history and an appropriate recognition of the host culture.			✓
(l) Support the programs and initiatives outlined in the Maui County Tourism Strategic Plan 2006-2015.			✓
(m) Promote water conservation, beach conservation, and open-space conservation in areas providing services for visitors.			✓
(n) Recognize the important contributions that the visitor industry makes to the County's economy, and support a healthy and vibrant visitor industry.			✓
Analysis: **Not Applicable**			
Objective:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(4) Expand economic sectors that increase living-wage job choices and are compatible with community values.			✓
Policies:			
(a) Support emerging industries, including the following: • Health and wellness industry; • Sports and recreation industry; • Film and entertainment industry; • Arts and culture industry; • Renewable-energy industry; • Research and development industry; • High-technology and knowledge-based industries; • Education and training industry; • Ecotourism industry; and • Agritourism industry.			✓
Analysis: **Not Applicable**			
G. IMPROVE PARKS AND PUBLIC FACILITIES			
Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.	✓		
Objective:			
(1) Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.			✓
Policies:			
(a) Protect, enhance, and expand access to public shoreline and mountain resources.			✓
(b) Expand and enhance the network of parks, multi-use paths, and bikeways.			✓
(c) Assist communities in developing recreational facilities that promote physical fitness.			✓
(d) Expand venue options for recreation and performances that enrich the lifestyles of Maui County's people.			✓
(e) Expand affordable recreational and after-school programs for youth.			✓
(f) Encourage and invest in recreational, social, and leisure activities that bring people together and build community pride.			✓
(g) Promote the development and enhancement of community centers, civic spaces, and gathering places throughout our communities.			✓
(h) Expand affordable access to recreational opportunities that support the local lifestyle.			✓
Implementing Actions:			
(a) Identify and reserve lands for cemeteries, and preserve existing cemeteries on all islands, appropriately accommodating varying cultural and, faith-based traditions.			✓
Analysis: **Not Applicable**			
Objective:			
(2) Improve the quality and adequacy of community facilities.			✓
Policies:			
(a) Provide an adequate supply of dedicated shelters and facilities for disaster relief.			✓
(b) Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.			✓
(c) Ensure that parks and public facilities are safe and adequately equipped for the needs of all ages and physical abilities to the extent reasonable.			✓

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(d) Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.			✓
(e) Redesign or retrofit public facilities to adapt to major shifts in environmental or urban conditions to the extent reasonable.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Enhance the funding, management, and planning of public facilities and park lands.			✓
Policies:			
(a) Identify and encourage the establishment of regulated and environmentally sound campgrounds.			✓
(b) Manage park use and control access to natural resources in order to rest sensitive places and utilize the resources in a sustainable manner.			✓
(c) Provide public-recreational facilities that are clean and well-maintained.			✓
(d) Develop partnerships to ensure proper stewardship of the islands' trails, public lands, and access systems.			✓
(e) Ensure that there is an adequate supply of public restrooms in convenient locations.			✓
Implementing Actions:			
(a) Encourage the State to allow for overnight fishing along the shoreline in accordance with management plans and regulations.			✓
(b) Develop and regularly update functional plans, including those relating to public facilities, parks, and campgrounds.			✓
(c) Develop and adopt local level-of service standards for public facilities and parks.			✓
(d) Identify, acquire, and develop lands for parks, civic spaces, and public uses.	✓		
Analysis: **The proposed project is directly applicable to the implementing action to identify, acquire, and develop lands for parks, civic spaces, and public uses. The DF&PS underwent a site selection process for the development of the proposed fire station, including conducting a Feasibility Study in 2021. The analysis concluded that the proposed site offers substantial advantages over the other potential site alternatives in that it is already owned by the County of Maui, requires the least amount of entitlements (given its location within a Rural Growth Boundary), has architectural and engineering plans that are already tailored to the specific property, and is located near the Haiʻkū community's historic incident locations. As such, the construction of a fire station in the selected location constitutes the identification and development of lands for public uses.**			
H. DIVERSIFY TRANSPORTATION OPTIONS			
Goal: Maui County will have an efficient, economical, and environmentally sensitive means of moving people and goods.			✓
Objective:			
(1) Provide an effective, affordable, and convenient ground-transportation system that is environmentally sustainable.			✓
Policies:			
(a) Execute planning strategies to reduce traffic congestion.			✓
(b) Plan for the efficient relocation of roadways for the public benefit.			✓
(c) Support the use of alternative roadway designs, such as traffic-calming techniques and modern roundabouts.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(d) Increase route and mode options in the ground-transportation network.			✓
(e) Ensure that roadway systems are safe, efficient, and maintained in good condition.			✓
(f) Preserve roadway corridors that have historic, scenic, or unique physical attributes that enhance the character and scenic resources of communities.			✓
(g) Design new roads and roadway improvements to retain and enhance the existing character and scenic resources of the communities through which they pass.			✓
(h) Promote a variety of affordable and convenient transportation services that meet countywide and community needs and expand ridership of transit systems.			✓
(i) Collaborate with transit agencies, government agencies, employers, and operators to provide planning strategies that reduce peak-hour traffic.			✓
(j) Develop and expand an attractive, island-appropriate, and efficient public transportation system.			✓
(k) Provide and encourage the development of specialized transportation options for the young, the elderly, and persons with disabilities.			✓
(l) Evaluate all alternatives to preserve quality of life before widening roads.			✓
(m) Encourage businesses in the promotion of alternative transportation options for resident and visitor use.			✓
(n) Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.			✓
Implementing Actions:			
(a) Create incentives and implement strategies to reduce visitor dependence on rental cars.			✓
(b) Establish efficient public-transit routes between employment centers and primary workforce residential areas.			✓
(c) Create attractive, island-appropriate, conveniently located park-and-ride and ride- share facilities.			✓
Analysis: **Not Applicable**			
Objective:			
(2) Reduce the reliance on the automobile and fossil fuels by encouraging walking, bicycling, and other energy-efficient and safe alternative modes of transportation.			✓
Policies:			
(a) Make walking and bicycling transportation safe and easy between and within communities.			✓
(b) Require development to be designed with the pedestrian in mind.			✓
(c) Design new and retrofit existing rights-of-way with adequate sidewalks, bicycle lanes, or separated multi-use transit corridors.			✓
(d) Support the development of a countywide network of bikeways, equestrian trails, and pedestrian paths.			✓
(e) Support the reestablishment of traditional trails between communities, to the ocean, and through the mountains for public use.			✓
(f) Encourage educational programs to increase safety for pedestrians and bicyclists.			✓
Implementing Actions:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(a) Design, build, and modify existing bikeways to improve safety and separation from automobiles.			✓
(b) Increase enforcement to reduce abuse of bicycle and pedestrian lanes by motorized vehicles.			✓
(c) Identify non-motorized transportation options as a priority for new sources of funding.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Improve opportunities for affordable, efficient, safe, and reliable air transportation.			✓
Policies:			
(a) Discourage private helicopter and fixed-wing landing sites to mitigate environmental and social impacts.			✓
(b) Encourage the use of quieter aircraft and noise-abatement procedures for arrivals and departures.			✓
(c) Encourage the modernization and maintenance of air-transportation facilities for general-aviation activities.			✓
(d) Encourage a viable and competitive atmosphere for air carriers to expand service and ensure sufficient intra-County flights and affordable fares for consumers.			✓
(e) Continue to support secondary airports, and encourage the State to provide them with adequate funding.			✓
(f) During Community Plan updates, explore the use of the smaller airports.			✓
(g) Encourage the State to provide efficient, adequate, and affordable parking and transit connections within and around airports.			✓
Analysis: **Not Applicable**			
Objective:			
(4) Improve opportunities for affordable, efficient, safe, and reliable ocean transportation.			✓
Policies:			
(a) Support programs and regulations that reduce the disposal of maritime waste and prevent spills into the ocean.			✓
(b) Encourage the upgrading of harbors to resist damage from natural hazards and disasters.			✓
(c) Encourage the State to study the use of existing harbors and set priorities for future use.			✓
(d) Explore all options to protect the traditional recreational uses of harbors, and mitigate harbor-upgrade impacts to recreational uses where feasible.			✓
(e) Encourage the upgrading of harbors and the separation of cargo and bulk materials from passenger and recreational uses.			✓
(f) Encourage the State to provide for improved capacity at shipping, docking, and storage facilities.			✓
(g) Encourage the State to provide adequate parking facilities and transit connections within and around harbor areas.			✓
(h) Encourage the redevelopment and revitalization of harbors while preserving historic and cultural assets in harbor districts.			✓
(i) Encourage the State to provide adequate facilities for small-boat operations, including small-boat launch ramps, according to community needs.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(j) Support the maintenance and cleanliness of harbor facilities.			✓
(k) Support the redevelopment of harbors as pedestrian-oriented gathering places.			✓
Analysis: **Not Applicable**			
Objective:			
(5) Improve and expand the planning and management of transportation systems.			✓
Policies:			
(a) Encourage progressive community design and development that will reduce transportation trips.			✓
(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.			✓
(c) Establish appropriate user fees for private enterprises that utilize public transportation facilities for recreational purposes.			✓
(d) Support the revision of roadway-design criteria and standards so that roads are compatible with surrounding neighborhoods and the character of rural areas.			✓
(e) Plan for multi-modal transportation and utility corridors on each island.			✓
(f) Support designing all transportation facilities, including airport, harbor, and mass- transit stations, to reflect Hawaiian architecture.			✓
(g) Utilize transportation-demand management as an integral part of transportation planning.			✓
(h) Accommodate the planting of street trees and other appropriate landscaping in all public rights-of-way.			✓
Analysis: **Not Applicable**			
I. IMPROVE PHYSICAL INFRASTRUCTURE			
Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.	✓		
Objective:			
(1) Improve water systems to assure access to sustainable, clean, reliable, and affordable sources of water.		✓	
Policies:			
(a) Ensure that adequate supplies of water are available prior to approval of subdivision or construction documents.		✓	
(b) Develop and fund improved water-delivery systems.			✓
(c) Ensure a reliable and affordable supply of water for productive agricultural uses.			✓
(d) Promote the reclamation of gray water, and enable the use of reclaimed, gray, and brackish water for activities that do not require potable water.			✓
(e) Retain and expand public control and ownership of water resources and delivery systems.			✓
(f) Improve the management of water systems so that surface-water and groundwater resources are not degraded by overuse or pollution.			✓
(g) Explore and promote alternative water-source-development methods.			✓
(h) Seek reliable long-term sources of water to serve developments that achieve consistency with the appropriate Community Plans.			✓
Implementing Actions:			
(a) Develop a process to review all applications for desalination.			✓

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Analysis: **The proposed project is indirectly applicable to the objective related to water systems. DF&PS coordinated with DWS to ensure that an adequate supply of water will be available to support the proposed project.**			
Objective:			
(2) Improve waste-disposal practices and systems to be efficient, safe, and as environmentally sound as possible.			✓
Policies:			
(a) Provide sustainable waste-disposal systems and comprehensive, convenient recycling programs to reduce the flow of waste into landfills.			✓
(b) Support innovative and alternative practices in recycling solid waste and wastewater and disposing of hazardous waste.			✓
(c) Encourage vendors and owners of automobile, appliance, and white goods to participate in the safe disposal and recycling of such goods, and ensure greater accountability for large waste producers.			✓
(d) Develop strategies to promote public awareness to reduce pollution and litter, and encourage residents to reduce, reuse, recycle, and compost waste materials.			✓
(e) Pursue improvements and upgrades to existing wastewater and solid-waste systems consistent with current and future plans and the County's Capital Improvement Program.			✓
Implementing Actions:			
(a) Establish recycling, trash-separation, and materials recovery programs and facilities to reduce the flow of waste into landfills.			✓
(b) Study the feasibility of developing environmentally safe waste-to-energy facilities.			✓
(c) Utilize taxes and fees as means to encourage conservation and recycling.			✓
(d) Implement and regularly update the Integrated Solid Waste Management Plan.			✓
(e) Phase out the use of injection wells.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Significantly increase the use of renewable and green technologies to promote energy efficiency and energy self-sufficiency.	✓		
Policies:			
(a) Promote the use of locally renewable energy sources, and reward energy efficiency.			✓
(b) Consider tax incentives and credits for the development of sustainable- and renewable-energy sources.			✓
(c) Expand education about energy conservation and self-sufficiency.			✓
(d) Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.			✓
(e) Expand renewable-energy production.			✓
(f) Develop public-private partnerships to ensure the use of renewable energy and increase energy efficiency.			✓
(g) Require the incorporation of locally appropriate energy-saving and green building design concepts in all new developments by providing energy efficient urban design guidelines and amendments to the Building Code.	✓		

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(h) Encourage the use of sustainable energy to power vehicles.			✓
(i) Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.			✓
(j) Encourage green footprint practices.	✓		
(k) Reduce Maui County's dependence on fossil fuels and energy imports.			✓
(l) Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.	✓		
(m) Promote and support environmentally friendly practices in all energy sectors.	✓		
Implementing Actions:			
(a) Adopt an energy-efficiency policy for Maui County government as a model for other jurisdictions.			✓
(b) Adopt a Green Building Code, and support green building practices.			✓
Analysis: **The proposed project is directly applicable to the goal and policies to promote sustainable building practices. Practices that the proposed project will incorporate to reduce electrical consumption include the use of natural ventilation and solar tubes.**			
Objective:			
(4) Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.	✓		
Policies:			
(a) Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.	✓		
(b) Planning for new towns should only be considered if a region's growth is too large to be directed into infill and adjacent growth areas.			✓
(c) Utilize appropriate infrastructure technologies in the appropriate locations.	✓		
(d) Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.	✓		
(e) Support catchment systems and on-site wastewater treatment in rural areas and aggregated water and wastewater systems in urban areas if they are appropriately located.	✓		
Implementing Actions:			
(a) Develop a streamlining system for urban infill projects.			✓
(b) Identify appropriate areas for urban expansion of existing towns where infrastructure and public facilities can be provided in a cost-effective manner.			✓
Analysis: **The proposed project site is located within a Rural Growth Boundary. There is existing infrastructure capacity to service the proposed project. The use of a water storage tank for fire prevention, along with the installation of 300 feet of 8-inch water main along East Kuiaha Road, are appropriate infrastructure technologies to use in a rural area.**			
Objective:			
(5) Improve the planning and management of infrastructure systems.	✓		
Policies:			
(a) Provide a reliable and sufficient level of funding to enhance and maintain infrastructure systems.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(b) Require new developments to contribute their pro rata share of local and regional infrastructure costs.			✓
(c) Improve coordination among infrastructure providers and planning agencies to minimize construction impacts.			✓
(d) Maintain inventories of infrastructure capacity, and project future infrastructure needs.			✓
(e) Require social-justice and -equity issues to be considered during the infrastructure-planning process.			✓
(f) Discourage the development of critical infrastructure systems within hazard zones and the tsunami-inundation zone to the extent practical.			✓
(g) Ensure that infrastructure is built concurrent with or prior to development.			✓
(h) Ensure that basic infrastructure needs can be met during a disaster.			✓
(i) Locate public facilities and emergency services in appropriate locations that support the health, safety, and welfare of each community and that minimize delivery inefficiencies.	✓		
(j) Promote the undergrounding of utility and other distribution lines for health safety, and aesthetic reasons.			✓
Implementing Actions:			
(a) Develop and regularly update functional plans for infrastructure systems.			✓
(b) Develop, adopt, and regularly update local or community-sensitive level-of service standards for infrastructure systems.			✓
Analysis: **The proposed project is directly applicable to the objective and policies related to improving the management of infrastructure systems. The new fire station will be located in Hai'kū where currently there is none.**			
J. PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT			
Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.	✓		
Objective:			
(1) Improve land use management and implement a directed-growth strategy.	✓		
Policies:			
(a) Establish, map, and enforce urban- and rural-growth limits.	✓		
(b) Direct urban and rural growth to designated areas.	✓		
(c) Limit the number of visitor-accommodation units and facilities in Community Plan Areas.			✓
(d) Maintain a sustainable balance between the resident, part-time resident, and visitor populations.			✓
(e) Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.			✓
(f) Discourage new entitlements for residential, resort, or commercial development along the shoreline.			✓
(g) Restrict development in areas that are prone to natural hazards, disasters, or sea-level rise.			✓
(h) Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.	✓		

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(i) Establish and maintain permanent open space between communities to protect each community's identity.			✓
(j) Support the dedication of land for public uses.			✓
(k) Preserve the public's rights of access to and continuous lateral access along all shorelines.			✓
(l) Enable existing and future communities to be self-sufficient through sustainable land use planning and management practices.			✓
(m) Protect summits, slopes, and ridgelines from inappropriate development.			✓
Implementing Actions:			
(a) Regularly update urban- and rural-growth boundaries and their maps.			✓
(b) Establish transfer and purchase of development rights programs.			✓
(c) Develop and adopt a green infrastructure plan.			✓
(d) Develop studies to help determine a sustainable social, environmental, and economic carrying capacity for each island.			✓
(e) Identify and define resort-destination areas.			✓
Analysis: **The proposed project is directly applicable to the goal and objectives to manage growth and use land in a sustainable manner. The proposed project site is located in a Rural Growth Boundary. The new fire station will be located in an area where there is infrastructure and service capacity.**			
Objective:			
(2) Improve planning for and management of agricultural lands and rural areas.			✓
Policies:			
(a) Protect prime, productive, and potentially productive agricultural lands to maintain the islands' agricultural and rural identities and economies.			✓
(b) Provide opportunities and incentives for self-sufficient and subsistence homesteads and farms.			✓
(c) Discourage developing or subdividing agriculturally designated lands when non- agricultural activities would be primary uses.			✓
(d) Conduct agricultural-development planning to facilitate robust and sustainable agricultural activities.			✓
Implementing Actions:			
(a) Inventory and protect prime, productive, and potentially productive agricultural lands from competing non-agricultural land uses.			✓
Analysis: **Not Applicable**			
Objective:			
(3) Design all developments to be in harmony with the environment and to protect each community's sense of place.	✓		
Policies:			
(a) Support and provide incentives for green building practices.	✓		
(b) Encourage the incorporation of green building practices and technologies into all government facilities to the extent practicable.	✓		
(c) Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.	✓		
(d) Ensure that adequate recreational areas, open spaces, and public-gathering places are provided and maintained in all urban centers and			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
neighborhoods.			
(e) Ensure business districts are distinctive, attractive, and pedestrian-friendly destinations.			✓
(f) Use trees and other forms of landscaping along rights-of-way and within parking lots to provide shade, beauty, urban-heat reduction, and separation of pedestrians from automobile traffic in accordance with community desires.			✓
(g) Where appropriate, integrate public-transit, equestrian, pedestrian, and bicycle facilities, and public rights-of-way as design elements in new and existing communities.			✓
(h) Ensure better connectivity and linkages between land uses.			✓
(i) Adequately buffer and mitigate noise and air pollution in mixed-use areas to maintain residential quality of life.			✓
(j) Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.			✓
(k) Support small-town revitalization and preservation.			✓
(l) Facilitate safe pedestrian access, and create linkages between destinations and within parking areas.			✓
Implementing Actions:			
(a) Establish design guidelines and standards to enhance urban and rural environments.			✓
(b) Provide funding for civic-center and civic-space developments.			✓
(c) Establish and enhance urban forests in neighborhoods and business districts.			✓
Analysis: **The new Haʻikū fire station will be designed in accordance with the Pāʻia-Haʻikū Country Town Design Guidelines to ensure the proposed project will maintain the community character of the Haʻikū area. The proposed project will be designed with sustainable building design features.**			
Objective:			
(4) Improve and increase efficiency in land use planning and management.	✓		
Policies:			
(a) Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.	✓		
(b) Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.	✓		
(c) Encourage public and private partnerships to preserve lands of importance, develop housing, and meet the needs of residents.			✓
(d) Promote creative subdivision designs that implement best practices in land development, sustainable management of natural and physical resources, increased pedestrian and bicycle functionality and safety, and the principles of livable communities.			✓
(e) Coordinate with Federal, State, and County officials in order to ensure that land use decisions are consistent with County plans and the vision local populations have for their communities.			✓
(f) Enable greater public participation in the review of subdivisions.			✓
(g) Improve land use decision making through the use of land- and geographic information systems.			✓
Implementing Actions:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(a) Institute a time limit and sunsetting stipulations on development entitlements and their implementation.			✓
Analysis: **The proposed project is directly applicable to the objective and policies to improve and increase efficiency in land use planning and management. The EA includes an assessment of cumulative and secondary impacts, as well as an assessment of community need and consistency with the State Plan, State Functional Plan, General Plan, Countywide Policy Plan, and Maui Island Plan.**			
K. STRIVE FOR GOOD GOVERNANCE			
Goal: Government services will be transparent, effective, efficient, and responsive to the needs of residents.	✓		
Objective:			
(1) Strengthen governmental planning, coordination, consensus building, and decision making.	✓		
Policies:			
(a) Plan and prepare for the effects of social, demographic, economic, and environmental shifts.	✓		
(b) Plan for and address the possible implications of Hawaiian sovereignty.			✓
(c) Encourage collaboration among government agencies to reduce duplication of efforts and promote information availability and exchange.			✓
(d) Expand opportunities for the County to be involved in and affect State and Federal decision making.			✓
(e) Plan and prepare for large-scale emergencies and contingencies.	✓		
(f) Improve public awareness about preparing for natural hazards, disasters, and evacuation plans.			✓
(g) Improve coordination among Federal, State, and County agencies.			✓
Implementing Actions:			
(a) Develop policies, regulations, and programs to protect and enhance the unique character and needs of the County's various communities.			✓
(b) Evaluate and if necessary, recommend modifications to the County Charter that could result in a possible change to the form of governance for Maui County.			✓
(c) Study and evaluate the feasibility and implications of voting in Maui County Council elections.			✓
(d) Study and evaluate the feasibility of authorizing town governments in Maui County.			✓
Analysis: **The proposed project is directly applicable to the objective related to strengthening governmental planning, consensus building and decision making. The DF&PS carried out stakeholder meetings with local community groups during the process of selecting and acquiring the site for this project. As part of the EA process, the DF&PS evaluated whether the proposed project area is located in any environmentally sensitive areas, such as the 3.2-foot Sea-Level Rise Exposure Area, areas outside of Flood Zone X and the Tsunami Evacuation Zone. The proposed project area is not located in any environmentally sensitive areas, and, as such, is at a low risk of being impacted by environmental shifts. In addition, the development of a fire station in a community that currently has none aids in the preparation for social and demographic shifts, such as population growth, and environmental shifts that could occur as a result of climate change, such as an increased incidence of wildfires. The proposed project also directly applies to the policy to prepare for large-scale emergencies as a facility that will increase fire protection capabilities in the area.**			
Objective:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(2) Promote civic engagement.	✓		
Policies:			
(a) Foster consensus building through in-depth, innovative, and accessible public participatory processes.	✓		
(b) Promote and ensure public participation and equal access to government among all citizens.	✓		
(c) Encourage a broad cross-section of residents to volunteer on boards and commissions.			✓
(d) Encourage the State to improve its community-involvement processes.			✓
(e) Support community-based decision making.	✓		
(f) Expand advisory functions at the community level.			✓
(g) Expand opportunities for all members of the public to participate in public meetings and forums.	✓		
(h) Facilitate the community's ability to obtain relevant documentation.	✓		
(i) Increase voter registration and turnout.			✓
Implementing Actions:			
(a) Implement two-way communication using audio-visual technology that allows residents to participate in the County's planning processes.			✓
(b) Ensure and expand the use of online notification of County business and public meetings, and ensure the posting of all County board and commission meeting minutes.			✓
(c) Explore funding mechanisms to improve participation by volunteers on boards and commissions.			✓
(d) Develop a project-review process that mandates early and ongoing consultation in and with communities affected by planning and land use activities.			✓
Analysis: **The EA review process provided opportunities for public review and comment on the proposed project. The DF&PS carried out a number of public and stakeholder meetings to foster consensus on the scope of the project. The EA process also facilitated the community's ability to obtain relevant information on the proposed project.**			
Objective:			
(3) Improve the efficiency, reliability, and transparency of County government's internal processes and decision making.	✓		
Policies:			
(a) Use advanced technology to improve efficiency.			✓
(b) Simplify and clarify the permitting process to provide uniformity, reliability, efficiency, and transparency.			✓
(c) Improve communication with Lana'i and Moloka'i through the expanded use of information technologies, expanded staffing, and the creation and expansion of government-service centers.			✓
(d) Ensure that laws, policies, and regulations are internally consistent and effectuate the intent of the General Plan.			✓
Implementing Actions:			
(a) Update the County Code to be consistent with the General Plan.			✓
(b) Identify and update County regulations and procedures to increase the productivity and efficiency of County government.			✓

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(c) Develop local level-of-service standards for infrastructure, public facilities, and services.			✓
(d) Implement plans through programs, regulations, and capital improvements in a timely manner.	✓		
(e) Expand government online services.			✓
Analysis: **The EA and land entitlement processes ensure the reliability and transparency of the permitting process and decision making. The proposed project responds to an identified community need and provides capital improvements in a timely manner.**			
Objective:			
(4) Adequately fund in order to effectively administer, implement, and enforce the General Plan.			✓
Policies:			
(a) Adequately fund, staff, and support the timely update and implementation of planning policy, programs, functional plans, and enforcement activities.			✓
(b) Ensure that the County's General Plan process provides for efficient planning at the County, island, town, and neighborhood level.			✓
(c) Encourage ongoing professional development, education, and training of County employees.			✓
(d) Encourage competitive compensation packages for County employees to attract and retain County personnel.			✓
(e) Enable the County government to be more responsive in implementing our General Plan and Community Plans.			✓
(f) Review discretionary permits for compliance with the Countywide Policy Plan.			✓
(g) Strengthen the enforcement of County, State, and Federal land use laws.			✓
Implementing Actions:			
(a) Establish penalties to ensure compliance with County, State, and Federal land use laws.			✓
Analysis: **Not Applicable**			
Objective:			
(5) Strive for County government to be a role model for implementing cultural and environmental policies and practices.	✓		
Policies:			
(a) Educate residents on the benefits of sustainable practices.			✓
(b) Encourage the retention and hiring of qualified professionals who can improve cultural and environmental practices.	✓		
(c) Incorporate environmentally sound and culturally appropriate practices in government operations and services.	✓		
(d) Encourage all vendors with County contracts to incorporate environmentally sound and culturally appropriate practices.			✓
Analysis: **The proposed project is directly applicable to the objective and policies related to implementing cultural and environmental policies and practices. An EA, AIS and CIA were carried out by qualified professionals for the proposed project.**			
L. MITIGATE CLIMATE CHANGE AND WORK TOWARD RESILIENCE			
Goal: Minimize the causes and negative effects of climate change.	✓		
Objective:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(1) Lower carbon emissions levels to mitigate climate change impacts and limit the rate of global warming.			✓
Policies:			
(a) Increase reforestation efforts by encouraging residents and visitors to plant non-invasive gardens and trees.			✓
(b) Improve communication, coordination, and collaboration among those that work to mitigate climate change impacts.			✓
(c) Promote the teaching and use of regenerative agriculture.			✓
(d) Invest in infrastructure that is not dependent on fossil fuels and utilizes renewable energy.			✓
(e) Improve efforts to mitigate and plan for the impact of natural disasters and global warming.	✓		
(f) Encourage the building industry to use environmentally sustainable materials, technology, and site planning.		✓	
(g) Reduce air, noise, light, land, and water pollution, and reduce Maui County's contribution to global climate change.			✓
(h) Plan and prepare for and educate visitors and residents about the possible effects of global warming.			✓
(i) Promote programs and incentives that decrease greenhouse-gas emissions and improve environmental stewardship.			✓
(j) Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.			✓
Implementing Actions:			
(a) Implement Federal and State policies that require a reduction of greenhouse-gas emissions.			✓
(b) Establish a Countywide Climate Action Plan			✓
(c) Develop programs that assist residents and businesses with obtaining access to renewable energy sources.			✓
(d) Revise laws to support neighborhood designs that incorporate the use of renewable energy sources that are appropriate for island living.			✓
(e) Incorporate planting of native and indigenous trees as a major component of Urban Design to both cool neighborhoods and reduce carbon dioxide.	✓		
(f) Coordinate with State, County, and private landowners in the development of forestry and prioritizing of native and indigenous trees to reduce carbon dioxide.			✓
(g) Strongly support efforts to restore and improve Maui County's watersheds for the purpose of improving the water supply, controlling carbon dioxide levels, decreasing soil runoff, and reducing coastal flooding.			✓
Analysis**: The proposed project is directly applicable to the goal to minimize the causes and negative effects of climate change. The construction of a fire station in an area where there currently are none represents an effort to plan for the impact of natural disasters, such as wildfires, and global warming. Sustainable building practices, such as the use of energy-efficient LED lighting and solar tubes will be utilized in order to minimize the project's carbon footprint throughout its lifetime. The project site is located outside of the 3.2-foot Sea-Level Rise Exposure Area identified in the H*awai'i Sea Level Rise Vulnerability and Adaptation Report* (2018), meaning that the risk of potential impacts related to sea-level rise are minimal. The proposed landscape plan will incorporate native plants to both cool the project site and reduce water consumption.**			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
Objective:			
(2) Reduce the impacts of sea-level rise by acknowledging climate change, adapting, mitigating, and planning accordingly.	✓		
Policies:			
(a) Evaluate development to assess potential short-term and long-term sea-level rise impacts on nearshore environments.	✓		
(b) Improve efforts to mitigate and plan for the impact of sea-level rise.			✓
(c) Protect undeveloped beaches, dunes, and ecosystems, and restore natural shoreline processes.			✓
(d) Develop an inventory of private wastewater systems (septic systems, cesspools) that may be affected by sea-level rise.			✓
(e) Strengthen coastal-zone management, re-naturalization of shorelines, where possible, and filtration or treatment of urban and agricultural runoff.			✓
(f) Educate the construction and landscape industries and property owners about the use of best management practices to prevent erosion and nonpoint source pollution.	✓		
(g) Discourage beach hardening processes such as building sea walls and revetments that block movement of the shoreline and can accelerate erosion.			✓
(h) Discourage new entitlements for residential, resort, or commercial development along the shoreline.			✓
(i) Restrict development in areas that are prone to sea-level rise.	✓		
(j) Move or rebuild public facilities away from nearshore environments to account for sea-level rise to the extent reasonable.			✓
(k) Move or rebuild roads that are in sea-level rise inundation zones to the extent reasonable.			✓
(l) Ensure that public or affordable housing projects include siting and design standards that promote equity and resilience for vulnerable populations.			✓
(m) Identify, research, and evaluate innovative and sustainable financing to support mitigation and adaptation to sea level rise.			✓
Implementing Actions:			
(a) Develop programs to help transition shoreline property owners out of their nearshore locations and develop a long-term plan to stay out of the way of natural beach migration.			✓
(b) Identify buildings, roads, and other infrastructure that are in sea-level rise inundation zones and assist in adaptive efforts, including nature-based solutions, elevation, or moving them away from such zones.			✓
(c) Identify disaster redevelopment alternatives that support resilience-focused adaptation to sea level rise in the event of a catastrophic coastal event.			✓
Analysis: **The proposed project is directly applicable to the objective and policies to reduce the impact of sea-level rise. The project site is located outside of the 3.2-foot Sea-Level Rise Exposure Area identified in the *Hawai'i Sea Level Rise Vulnerability and Adaptation Report* (2018), meaning that the risk of potential impacts related to sea-level rise are minimal. A BMPs plan will be included in the construction documents and plans to direct contractors on appropriate BMPs to prevent onsite erosion impacts from stormwater runoff during construction. Long-term drainage improvements will also be incorporated into the project to prevent long-term erosion impacts.**			
Objective:			

COUNTYWIDE POLICY PLAN (Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable)	DA	IA	NA
(3) Significantly increase the use of renewable and green technologies to. promote energy efficiency and energy self-sufficiency.	✓		
Policies:			
(a) Promote the use of locally renewable energy sources, and reward energy efficiency.			✓
(b) Consider tax incentives and credits for the development of sustainable- and renewable-energy sources.			✓
(c) Expand education about energy conservation and self-sufficiency.			✓
(d) Encourage small-scale energy generation that utilizes wind, sun, water, biowaste, and other renewable sources of energy.			✓
(e) Expand renewable-energy production.			✓
(f) Develop public-private partnerships to ensure the use of renewable energy and increase energy efficiency.			✓
(g) Require the incorporation of locally appropriate energy-saving and green building design concepts in all new developments by providing energy-efficient urban design guidelines and amendments to the Building Code.	✓		
(h) Encourage the use of sustainable energy to power vehicles.			✓
(i) Promote the retrofitting of existing buildings and new development to incorporate energy-saving design concepts and devices.			✓
(j) Encourage green footprint practices.	✓		
(k) Reduce Maui County's dependence on fossil fuels and energy imports.			✓
(l) Support green building practices such as the construction of buildings that aim to minimize carbon dioxide production, produce renewable energy, and recycle water.	✓		
(m) Promote and support environmentally friendly practices in all energy sectors.			✓
Implementing Actions:			
(a) Adopt an energy-efficiency policy for Maui County government as a model for other jurisdictions.			✓
(b) Adopt a Green Building Code and support green building practices.			✓
Analysis: **The proposed project is directly applicable to the objective and policies related to increasing the use of sustainable building practices. The proposed project will incorporate natural ventilation and solar tubes to reduce electrical consumption.**			

APPENDIX

MAUI ISLAND PLAN G-3

APPENDIX "G-3"

Analysis of Project Applicability to Maui Island Plan

The Maui Island Plan (MIP) is applicable to the island of Maui only, providing more specific policy-based strategies for population, land use, transportation, public and community facilities, water and wastewater systems, visitor destinations, urban design, and other matters related to future growth.

As provided by Chapter 2.80B, the MIP shall include the following components:

1. *An island-wide land use strategy, including a managed and directed growth plan*
2. *A water element assessing supply, demand and quality parameters*
3. *A nearshore ecosystem element assessing nearshore waters and requirements for preservation and restoration*
4. *An implementation program which addresses the County's 20-year capital improvement requirements, financial program for implementation, and action implementation schedule*
5. *Milestone indicators designed to measure implementation progress of the MIP*

It is noted that Ordinance No. 4004 does not address the component relating to the implementation program. Chapter 2.80B of the Maui County Code, relating to the General Plan, was amended via Ordinance No. 3979, October 5, 2012, to provide that the implementation program component be adopted no later than one (1) year following the effective date of Ordinance No. 4004. In December 2013 and March 2014, the Council approved time extensions for approval and adoption of the implementation chapter of the MIP. The implementation program component of the MIP was adopted as Ordinance No. 4126 on May 29, 2014.

The MIP addresses a number of planning categories with detailed policy analysis and recommendations which are framed in terms of goals, objectives, policies and implementing actions. These planning categories address the following areas:

1. *Population*
2. *Heritage Resources*
3. *Natural Hazards*
4. *Economic Development*
5. *Housing*
6. *Infrastructure and Public Facilities*
7. *Land Use*

The proposed project has been reviewed with respect to pertinent goals, objectives, policies and implementing actions of the MIP. The analysis is presented in the table below.

The methodology used for assessing a project's relationship to the MIP involves examining the project's applicability to the Plan's goals, objectives, and policies. "Applicability" refers to a project's need, purpose and effects, and how these advance or promote a particular set of goals, objectives and priority guidelines. In assessing the relationship between a proposed action and the MIP, an action may be categorized in one of the following groups:

1. **Directly applicable:** the action and its potential effects directly advance or promote the objective, policy or priority guideline.

   Example: Using a county project to develop a new water source and related transmission facilities as an example, a project of this nature would be directly applicable to the MIP's Objective 6.3.2, which states: *"Increase the efficiency and capacity of the water systems in striving to meet the needs and balance the island's water needs".* As well, this action would directly advance the MIP's Policy 6.3.2.f, which states: "*Acquire and develop additional sources of potable water".* The need, purpose and effects of the proposed new water source project is directly applicable to the foregoing objective and policy.

2. **Indirectly applicable:** the action's potential effects indirectly support or advance the objective, policy or priority guideline.

   Example: The county water source project cited above supports the MIP's Objective 7.3.2 which states: *"Facilitate more self-sufficient and sustainable communities".* Additionally, this kind of action is indirectly applicable to the related MIP Policy 7.3.2.f, which states: *"Facilitate the development of housing by focusing projects in locations where land and infrastructure costs facilitate the development of affordably-priced housing".* In this case, the principle purpose of the project was not to specifically facilitate the development of affordably-priced housing. However, the project's contribution to adequate infrastructure systems is supportive of the policy. In this instance, the proposed action may be deemed to be indirectly applicable to the objective and policy of the MIP.

3. **Not applicable:** The action and its potential effects have no direct or indirect relationship to the objectives and policies of the Maui Island Plan.

   Example: That same county water source improvement project referenced above may not have direct or indirect linkage to the MIP's Objective 4.2.1, which states: *"Increase the economic contribution of the visitor industry to the island's environmental well-being for the island's residents' quality of life".* In this case, there is no reasonably deduced direct or indirect relationship between the proposed action and Objective 4.2.1. Hence, the proposed action would be considered not applicable to the objective.

In general, a proposed action's applicability to the MIP is assessed on the basis of the action's direct or indirect relationship to the respective objectives, policies and implementing actions. It is recognized that the categorization of "applicability" is subject to interpretation and should be appropriately considered in the context of local and regional conditions.

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
CHAPTER 1 – POPULATION			
Goal:			
1.1 Maui's people, values, and lifestyles thrive through strong, healthy, and vibrant island communities.	✓		
Objective:			
1.1.1 Greater retention and return of island residents by providing viable work, education, and lifestyle options.			✓
Policies:			
1.1.1.a Expand programs that enable the community to meet the education, employment, housing, and social goals of youth and young adults.			✓
1.1.1.b Expand housing, transportation, employment, and social opportunities to ensure residents are able to comfortably age within their communities.			✓
1.1.1.c Measure and track resident satisfaction through surveys and community indicators.			✓
1.1.1.d Support funding for transportation, housing, health care, recreation, and social service programs that help those with special needs (including the elderly and disabled).			✓
Analysis: **The proposed project is directly applicable to the goal related to strong, healthy island communities. A new fire station in the community of Haʻikū will provide essential fire protection services in a rural growth area where there currently is no local fire station.**			
CHAPTER 2 – HERITAGE RESOURCES			
CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES ISSUES			
Goal:			
2.1 Our community respects and protects archaeological and cultural resources while perpetuating diverse cultural identities and traditions.		✓	
Objective:			
2.1.1 An island culture and lifestyle that is healthy and vibrant as measured by the ability of residents to live on Maui, access and enjoy the natural environment, and practice Hawaiian customs and traditions in accordance with Article XII, Section 7, Hawai'i State Constitution, and Section 7-1, Hawai`i Revised Statutes (HRS).		✓	
Policies:			
2.1.1.a Perpetuate the spirit of aloha and celebrate the host Hawaiian culture and other ethnic cultures.			✓
2.1.1.b Perpetuate a respect for diversity and recognize the broad blending of cultures and ethnicities as vital to the quality of life on Maui.		✓	
2.1.1.c Ensure traditional public access routes, including native Hawaiian trails, are maintained for public use.		✓	

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
2.1.1.d Support the education of visitors and new residents about the customs and etiquette of the Hawaiian culture, as well as other cultures.			✓
Objective:			
2.2 A more effective and efficient planning and review process that incorporates the best available cultural resources inventory, protection techniques, and preservation strategies.	✓		
Policies:			
2.1.2.a Ensure that the island has a comprehensive and up-to-date inventory of historic and archaeological resources, and their cultural significance.	✓		
2.1.2.b Require the update of existing planning and regulatory mechanisms to protect the natural, cultural, scenic, and historic resources within designated Heritage Areas (see Cultural Resources Overlay/Scenic Corridor Protection Technical Reference Map).			✓
2.1.2.c Ensure that cultural, historic, and archaeological resources are protected for the benefit of present and future generations.	✓		
Objective:			
2.3 Enhance the island's historic, archaeological, and cultural resources.	✓		
Policies:			
2.1.3.a Identify and pursue a listing of the properties and sites on the State and National Register of Historic Places.			✓
2.1.3.b Support the use of easements, dedications, and other mechanisms to acquire, maintain, and protect lands with cultural, archaeological, and historic significance.			✓
2.1.3.c Support regulations to require developers, when appropriate, to prepare an Archaeological Inventory Survey, Cultural Impact Assessment, and Ethnographic Inventories that are reviewed and commented upon by the Office of Hawaiian Affairs, Native Hawaiian advisory bodies, the State Historic Preservation Division (SHPD), and the Office of Environmental Quality Control, and systematically comply with the steps listed in SHPD's administrative rules, including consultation and monitoring during construction phases of projects.	✓		
2.1.3.d Promote the rehabilitation and adaptive reuse of historic sites, buildings, and structures.			✓
2.1.3.e Encourage property owners to register historic and archaeological sites on the State and National Register.			✓
2.1.3.f Support opportunities for public involvement with the intent to facilitate the protection and restoration of historic and archeological sites, including consultation with stakeholders.	✓		
2.1.3.g Encourage the resolution of land title questions relating to Land Commission Awards and Royal patents.			✓
2.1.3.h Ensure compliance with historic preservation laws, and discourage demolition of properties that are determined to be eligible for listing on the National or State Register of Historic Places.	✓		
Analysis**: The proposed project is indirectly applicable to the goal, objectives, and policies related to historical and cultural resources.**			

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The project commissioned experts to prepare an AIS and CIA for the project, contributing to the island's inventory of historic and archaeological resources in the project area. Furthermore, the project will comply with all SHPD recommendations to ensure that cultural, historic, and archaeological resources are protected during both the construction and operational phases of the project.			
SHORELINE, REEFS, AND NEARSHORE WATERS			
Goal:			
2.2 An intact, ecologically functional system of reef, shoreline, and nearshore waters that are protected in perpetuity.		✓	
Objective:			
2.2.1 A more comprehensive and community-based ICZM program.			✓
Policies:			
2.2.1.a Encourage a management system that protects and temporarily rests the reef ecosystems from overuse.			✓
2.2.1.b Support the establishment of additional MMAs and reef replenishment areas.			✓
2.2.1.c Work with appropriate agencies and community members to protect any special managed conservation areas from overuse and ensure that surrounding land uses do not contribute to the degradation of the natural resources, such as 'Ahihi-Kina'u Natural Area Reserve, Honolua-Mokulē'ia Bay Marine Life Conservation District, and Mākena State Park.			✓
2.2.1.d Incorporate the following into the MIP, where consistent with the MIP:			✓
(1) Beach Management Plan for Maui;			✓
(2) Coastal Nonpoint Pollution Control Program Management Plan;			✓
(3) Implementation Plan for Polluted Runoff Control; and			✓
(4) Ocean Resource Management Plan.			✓
2.2.1.e Support greater coordination among governmental agencies involved with the protection of the island's marine resources.			✓
Objective:			
2.2.2 Improved reef health, coastal water quality, and marine life.		✓	
Policies:			
2.2.2.a Create additional mechanisms where needed to contain and control runoff and pollution.		✓	
2.2.2.b Allow extraction of high quality, Class A, low silt sands only when they will be used to protect or restore Maui's shorelines and beaches.			✓
2.2.2.c Carefully manage beach nourishment activities to protect the coastal and marine ecosystem.			✓
2.2.2.d Require, where appropriate, a buffer between landscaped areas and the shoreline, gulches, and streams to reduce the runoff of fertilizers, pesticides, herbicides, and other pollutants into coastal waters.			✓

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2.2.2.e Strictly regulate shoreline armoring in accordance with adopted Shoreline Rules, with an intent to protect the coastal and marine ecosystem.			✓
2.2.2.f Support greater protection of Keālia Pond National Wildlife Refuge through the following:			✓
(1) Enhancement of marine ecosystems;			✓
(2) Beach and sand dune restoration; and			✓
(3) Expansion of habitat for Maui's threatened or endangered sea turtles, birds, and other species.			✓
2.2.2.g Support the development of regulations to prevent the excessive depletion of fish stocks due to non-sustainable practices and gear such as SCUBA spear-fishing and lay nets, within the context of nearshore ecosystems.			✓
2.2.2.h Encourage the State to conduct a regular census of fish populations and monitor coral health.			✓
2.2.2.i Encourage the State to significantly increase the number of park rangers, enforcement officers, and marine biologists to protect coastal resources.			✓
2.2.2.j Encourage the State to prohibit the collection and exportation of fish, coral, algae, and other marine species for the ornamental and aquarium trade.			✓
Objective:			
2.2.3 Water quality that meets or exceeds State Clean Water Act standards.		✓	
Policies:			
2.2.3.a Reduce the amount of impervious surface and devise site plan standards that aim to minimize storm runoff and NPS pollution.		✓	
2.2.3.b Support the revision of existing regulations to require an Erosion and Sedimentation Control Plan (ESCP) for development activities that may pose a threat to water quality.			✓
2.2.3.c Require an on-site monitoring program, where applicable, when grading may pose a threat to water quality or when recommended in the ESCP.			✓
2.2.3.d Avoid development actions that impair Maui's reef systems and remove identified stressors.			✓
2.2.3.e Phase out cesspools and restrict the use of septic systems in ecologically sensitive coastal areas by converting to environmentally-friendly alternative sewage treatment systems, and connecting to central sewerage systems when and where feasible.			✓
2.2.3.f Prohibit the development of new wastewater injection wells, except when unavoidable for public health and safety purposes.			✓
2.2.3.g Ensure that the County upholds its affirmative duty under the Clean Water Act by monitoring and reducing point and NPS pollution to help safeguard coastal waters.		✓	
Objective:			
2.2.4 Acquire additional shoreline lands and shoreline access rights.			✓
Policies:			

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2.2.4.a Promote the use of conservation easements, land trusts, transfer and purchase of development rights, and mitigation banking.			✓
2.2.4.b Require the dedication of public beach and rocky shoreline access ways to and along the shoreline where it serves a practical public interest as a condition of development or subdivision approval; future subdivisions and developments shall be consistent with and effectuate, to the extent practicable, the *Shoreline Access Inventory Update - Final Report* (March 2005), and its updates.			✓
2.2.4.c Incorporate the *Shoreline Access Inventory Update - Final Report* (March 2005), and its regular updates, into this plan.			✓
2.2.4.d Identify access points while further acquiring key shoreline parcels and easement rights to enhance and protect beach access and shoreline recreation.			✓
Analysis: **The proposed project is indirectly applicable to the goal to have an intact ecologically functional system of reef, shoreline, and nearshore waters that are protected in perpetuity. To accommodate the increase in drainage runoff resulting from project implementation, an onsite drainage system will be constructed consisting of drainage structures, drain lines, and a detention basin. For a 50-year, 1-hour flow, the detention basin will retain, at minimum, 100 percent of the increase in stormwater runoff associated with the project. This permanent BMP will both reduce the quantity of runoff exiting the project site and increase the quality of water exiting the site by allowing any pollutants to settle in the basin.**			
WATERSHEDS, STREAMS, AND WETLANDS ISSUES			
Goal:			
2.3 Healthy watersheds, streams, and riparian environments.		✓	
Objective:			
2.3.1 Greater protection and enhancement of watersheds, streams, and riparian environments.		✓	
Policies:			
2.3.1.a All present and future watershed management plans shall incorporate concepts of ahupua‘a management based on the interconnectedness of upland and coastal ecosystems/species.			✓
2.3.1.b Continue to support and be an active member of watershed partnerships.			✓
2.3.1.c Support the establishment of regional water trusts, composed of public and private members, to manage water resources.			✓
2.3.1.d Support regulations to require developments to utilize ahupua‘a management practices.			✓
2.3.1.e Work with private and non-profit entities to educate the public about the connection between upland activities within the watershed and the impacts on nearshore ecosystems and coral reefs.			✓
2.3.1.f Provide adequate funding and staff to develop and implement watershed protection plans and policies, including acquisition and management of watershed resources and land.			✓
2.3.1.g Encourage the State to mandate instream assessment to provide adequate water for native species.			✓
2.3.1.h Maui will protect all watersheds and streams in a manner that guarantees a healthy, sustainable riparian environment.			✓

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Objective:			
2.3.2 Decreased NPS and point source pollution.			✓
Policies:			
2.3.2.a Enforce water pollution related standards and codes.			✓
2.3.2.b Support the use of LID Techniques such as those described in the State of Hawai‘i LID Practitioner’s Guide (June 2006), as amended.			✓
2.3.2.c Encourage farmers and ranchers to use agricultural BMPs to address NPS pollution.			✓
Objective:			
2.3.3 Preserve existing wetlands and improve and restore degraded wetlands.			✓
Policies:			
2.3.3.a Prohibit the destruction and degradation of existing upland, mid-elevation, and coastal wetlands.			✓
2.3.3.b Support and fund wetland protection and improvement, and restoration of degraded wetlands.			✓
2.3.3.c Where applicable, require developers to provide a wetland protection buffer and/or other protective measures around and between development and wetland resources.			✓
Objective:			
2.3.4 Greater preservation of native flora and fauna biodiversity to protect native species.		✓	
Policies:			
2.3.4.a Work with appropriate agencies to eliminate feral ungulate populations and invasive species.			✓
2.3.4.b Encourage the State to provide adequate funding to preserve biodiversity, protect native species, and contain or eliminate invasive species.			✓
2.3.4.c Support the work of conservation groups and organizations that protect, reestablish, manage, and nurture sensitive ecological areas and threatened indigenous ecosystems.			✓
Objective:			
2.3.5 Limited development in critical watershed areas.			✓
Policies:			
2.3.5.a Discourage development and subdivision of land within critical watersheds and in areas susceptible to high erosion and sediment loss.			✓
2.3.5.b Designate critical watershed areas as conservation lands.			✓
2.3.5.c Strongly encourage new subdivisions and developments that are proximate to environmentally sensitive watershed resources to prepare and implement CSD plans.			✓
Objective:			

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2.3.6 Enhance the vitality and functioning of streams, while balancing the multiple needs of the community.			✓
Policies			
2.3.6.a Protect and enhance natural streambeds and discourage stream alteration.			✓
2.3.6.b Work with appropriate agencies to establish minimum stream flow levels and ensure adequate stream flow to sustain riparian ecosystems, traditional kalo cultivation, and self-sustaining ahupua'a.			✓
2.3.6.c Respect and participate in the resolution of native Hawaiian residual land and water rights issues (kuleana lands, ceded lands, and historic agricultural and gathering rights).			✓
2.3.6.d Ensure that stream flows implement laws and policies found in the State Constitution and Water Code.			✓
2.3.6.e Work with appropriate agencies and stakeholders to establish minimum stream flow levels, promote actions to support riparian habitat and the use of available lo'i, and maintain adequate flows for the production of healthy kalo crops.			✓
Analysis: **The proposed project is indirectly applicable to the objective involving greater preservation of native flora and fauna biodiversity to protect native species. Robert Hobdy performed a Biological Resources Survey within the project site on behalf of the proposed project and concluded that there are no known or identified habitats of rare, threatened, or endangered species of flora, fauna, or avifauna located within the project site. Additionally, landscaping will reflect the character of the area and will include the use of native species.**			
WILDLIFE AND NATURAL AREAS			
Goal:			
2.4 Maui's natural areas and indigenous flora and fauna will be protected.		✓	
Objective:			
2.4.1 A comprehensive management strategy that includes further identification, protection, and restoration of indigenous wildlife habitats.		✓	
Policies:			
2.4.1.a Identify and inventory the following:		✓	
(1) Natural, recreational, and open space resources;			✓
(2) Flora and fauna with medium, high, and very high concentrations of threatened or endangered species; and		✓	
(3) Location and extent of invasive species.		✓	
2.4.1.b Require flora and fauna assessment and protection plans for development in areas with concentrations of indigenous flora and fauna; development shall comply with the assessment and protection plan and shall use the avoidance, minimization, and mitigation approach respectively, with an emphasis on avoidance.		✓	
2.4.1.c Support the implementation of Hawai'i's Comprehensive Wildlife Conservation Strategy (October 2005).			✓
Objective:			

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2.4.2 A decrease in invasive species through programs and partnerships that eradicate undesirable species and protect native habitat.			✓
Policies:			
2.4.2.a Prevent the introduction of invasive species at all of Maui's airports and harbors.			✓
2.4.2.b Encourage the State to increase funding in support of invasive species interception, control, and eradication.			✓
2.4.2.c Encourage the State to develop programs that allow students to participate in invasive species eradication projects.			✓
Objective:			
2.4.3 Greater protection of sensitive lands, indigenous habitat, and native flora and fauna.			✓
Policies:			
2.4.3.a Secure an interconnected network of sensitive lands, greenways, watercourses, and habitats.			✓
2.4.3.b Protect Maui's sensitive lands (see Sensitive Lands on Protected Areas Diagrams).			✓
2.4.3.c Promote innovative environmental-planning methods and site-planning standards that preserve and re-establish indigenous flora and fauna habitat, to preserve and restore connected habitat corridors and open space.			✓
2.4.3.d Utilize protection tools such as conservation easements, land trusts, land banks, Purchase of Developments Rights (PDRs), Transfer of Development Rights (TDRs), and other stewardship tools to acquire natural areas			✓
2.4.3.e Encourage discussions with communities to designate heritage areas that protect recreational and cultural lifestyles and resources.			✓
2.4.3.f Support the expansion of Haleakalā National Park, and the creation of new national parks, where appropriate and supported by local communities.			✓
2.4.3.g Encourage reforestation efforts that increase native species' habitat.			✓
2.4.3.h Utilize the Natural Area Partnership Program (NAPP) and other programs to protect natural lands.			✓
2.4.3.i Support increased dedicated funding for the acquisition, protection, restoration, or preservation of important natural areas or open space through the following: grants from the Land and Water Conservation Fund; dedicated funding from real property taxes or other appropriate revenues; bond issues; real estate transfer tax; revenues from the Transient Accommodations Tax; development mitigation fees; and other appropriate funding sources.			✓
Analysis: **The proposed project is indirectly applicable to the goal, objectives, and policies to ensure natural areas and indigenous flora and fauna will be protected. As noted above, a Biological Resources Survey was carried out to ensure endangered and protected species and their habitats are not adversely impacted.**			
SCENIC RESOURCES			
Goal:			
2.5 Maui will continue to be a beautiful island steeped in coastal, mountain, open space, and historically significant views that are preserved to enrich the		✓	

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residents' quality of life, attract visitors, provide a connection to the past, and promote a sense of place.			
Objective:			
2.5.1 A greater level of protection for scenic resources.		✓	
Policies:			
2.5.1.a Protect views to include, but not be limited to, Haleakalā, ʻĪao Valley, the Mauna Kahalawai (West Maui Mountains), Puʻu Ōʻlaʻi, Kahoʻolawe, Molokini, Molokaʻi, and Lānaʻi, Mauna Kea, Mauna Loa, sea stacks, the Pacific Ocean, and significant water features, ridgelines, and landforms.		✓	
2.5.1.b Identify, preserve, and provide ongoing management of important scenic vistas and open space resources, including mauka-to-makai and makai-to-mauka view planes.			✓
2.5.1.c Protect "night sky" resources by encouraging the implementation of ambient light ordinances and encouraging conversion of all sources that create excessive light pollution, affecting our ability to view the stars.		✓	
2.5.1.d Protect ridgelines from development where practicable to facilitate the protection of public views.			✓
2.5.1.e Protect scenic resources along Maui's scenic roadway corridors.			✓
Objective:			
2.5.2. Reduce impacts of development projects and public-utility improvements on scenic resources.			✓
Policies:			
2.5.2.a Enforce the policies and guidelines of the SMA regarding the protection of views.			✓
2.5.2.b Require any new subdivision of land, development, or redevelopment adjacent to a "high" or "exceptional" scenic corridor to submit an impact assessment of the project's scenic impacts; this assessment shall use the avoidance, minimization, and mitigation steps respectively, with an emphasis on avoidance.			✓
2.5.2.c Require appropriate building setbacks and limits on wall heights to protect views along scenic corridors.			✓
2.5.2.d Encourage the State of Hawai`i Board of Land and Natural Resources to deny any development within the State Conservation District that interferes with a scenic landscape or disrupts important open space resources.			✓
2.5.2.e Require Urban Design and Review Board (UDRB) review and approval of utility poles, facilities, and other visible infrastructure improvements along scenic corridors.			✓
2.5.2.f Ensure little or no effect on scenic resources from utility improvements, primarily power poles.			✓
2.5.2.g Protect scenic vistas from intrusion by power poles.			✓
Objective:			
2.5.3 Greater protection of and access to scenic vistas, access points, and scenic lookout points.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Policy:			
2.5.3.a Protect, enhance, and acquire access to Maui's scenic vistas and resources.			✓
Analysis: **The proposed project is indirectly applicable to the goal, objectives, and policies to protect scenic resources. The subject property does not lie within a designated scenic view corridor. All structures installed in connection with the proposed project will respect height standards set forth by the County Zoning regulations. All outdoor lighting installed will be shielded and downcast.**			
CHAPTER 3 – NATURAL HAZARDS			
Goal:			
3.1 Maui will be disaster resilient.	✓		
Objective:			
3.1.1 Increased inter-agency coordination.			✓
Policy:			
3.1.1.a Reinforce the island's preparedness capacity by:			✓
(1) Applying the latest data-gathering techniques/technology;			✓
(2) Pursuing funding opportunities;			✓
(3) Improving monitoring and advance warning systems;			✓
(4) Fostering public awareness; and			✓
(5) Working with external agencies to coordinate disaster mitigation and response.			✓
Objective:			
3.1.2 Greater protection of life and property.	✓		
Policies:			
3.1.2.a Identify critical infrastructure, lifelines, roads, and populations that are vulnerable to coastal hazards, and encourage strategic retreat and relocation to safer areas.			✓
3.1.2.b Consider the location of dams, reservoirs, holding ponds, and other water-containing entities that are upstream of inhabited areas to anticipate, avoid, and mitigate inundation risks, and discourage new development in areas where possible inundation hazards may exist.			✓
3.1.2.c Strengthen current development standards to minimize destruction of land and property.			✓
3.1.2.d Encourage the use of construction techniques that reduce the potential for damage from natural hazards.			✓
3.1.2.e Increase the County's resilience to drought.			✓
3.1.2.f Increase food and energy security through local production and storage.			✓
Objective:			

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3.1.3 A more coordinated emergency response system that includes clearly defined and mapped evacuation routes.			✓
Policy:			
3.1.3.a Identify and expand shelter facilities and evacuation routes away from areas susceptible to natural hazards.			✓
Objective:			
3.1.4 A more educated and involved public that is aware of and prepared for natural hazards.			✓
Policies:			
3.1.4.a Promote public education and involvement related to natural hazards awareness and preparedness.			✓
3.1.4.b Coordinate a multi-agency effort to establish and promote a comprehensive public education program that will focus on practical approaches to preparedness, damage prevention, and hazard mitigation.			✓
Analysis: **The proposed project is directly applicable to the objective involving greater protection of life and property. The development of a fire station in Ha'ikū, which currently has none, will help to satisfy the long-term fire protection service needs of the growing rural community in that area. It will allow for the more efficient deployment of emergency vehicles and shortened response times, both of which are deemed critical given access limitations and the prevalence of wooden structures throughout the Ha'ikū area. This will increase the County's ability to protect life and property.**			
CHAPTER 4 – ECONOMIC DEVELOPMENT			
ECONOMIC DIVERSIFICATION			
Goal:			
4.1 Maui will have a balanced economy composed of a variety of industries that offer employment opportunities and well-paying jobs and a business environment that is sensitive to resident needs and the island's unique natural and cultural resources.			✓
Objective:			
4.1.1 A more diversified economy.			✓
Policies:			
4.1.1.a Encourage an economy that is driven by innovation, research and development, and human resource development, including but not limited to, increasing technology- and knowledge-based sectors to be a major component in Maui County's economic base.			✓
4.1.1.b Support the creation of new jobs and industries that provide a living wage.			✓
4.1.1.c Facilitate and expedite permits and approvals.			✓
4.1.1.d Develop linkages and partnerships among international research and development activities and Maui businesses.			✓
Objective:			
4.1.2 Increase activities that support principles of sustainability.			✓
Policies:			

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4.1.2.a Support industries that are sustainable, and culturally and environmentally sensitive.			✓
4.1.2.b Encourage and support local businesses.			✓
4.1.2.c Substitute imports with locally-produced services and products where practicable.			✓
4.1.2.d Support the development of economic development clusters in targeted industry sectors.			✓
4.1.2.e Encourage all businesses to save energy, water, and other resources.			✓
Objective:			
4.1.3 Improve the island's business climate.			✓
Policies:			
4.1.3.a Upgrade, maintain the quality of, and improve access to telecommunications infrastructure.			✓
4.1.3.b Ensure an adequate supply of affordable workforce housing.			✓
4.1.3.c Develop neighborhoods and communities that are attractive to the workforce of a diversified economy.			✓
4.1.3.d Encourage, nurture, and reward entrepreneurship and innovation.			✓
4.1.3.e Encourage employers to establish incentive programs. Support flexibility in workforce policies compatible with business and quality of life goals.			✓
4.1.3.f Assist community development organizations with revitalization and development of neighborhoods and communities that are attractive to the workforce of a diversified economy.			✓
Analysis: **Not Applicable**			
TOURISM			
Goal:			
4.2 A healthy visitor industry that provides economic well-being with stable and diverse employment opportunities.			✓
Objective:			
4.2.1 Increase the economic contribution of the visitor industry to the island's environmental well-being for the island's residents' quality of life.			✓
Policies:			
4.2.1.a Engage the visitor industry in the growth of emerging sectors where practicable.			✓
4.2.1.b Support the implementation of the Maui County TSP, when consistent with the MIP.			✓
4.2.1.c Focus economic growth in the visitor industry through enhanced visitor experiences and an emphasis on attracting higher-spending.			✓
4.2.1.d Provide a rich visitor experience, while protecting the island's natural beauty, culture, lifestyles, and aloha spirit.			✓

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4.2.1.e Diversify the tourism industry by supporting appropriate niche activities such as ecotourism, cultural tourism, voluntourism, ag-tourism, health and wellness tourism, educational tourism, medical tourism, and other viable tourism-related businesses in appropriate locations.			✓
4.2.1.f Recognize the important economic contributions that the visitor industry makes and support a healthy and vibrant visitor industry.			✓
4.2.1.g Support the increased availability of kama'āina discount programs.			✓
Objective:			
4.2.2 Comprehensively manage future visitor-unit expansion.			✓
Policies:			
4.2.2.a Mitigate the impact of tourism on the host culture, natural environment, and resident lifestyles.			✓
4.2.2.b Allow, where permitted by the community plan, the development of business hotels and small, sensitively-designed inns.			✓
4.2.2.c Manage impacts from transient vacation rentals, hotels, bed and breakfast units, timeshares, and resort condominiums on residential communities, public infrastructure, and community facilities.			✓
4.2.2.d Discourage supplanting of existing island housing to visitor accommodations that may have a negative impact on long-term rental housing, price of housing, and price of land.			✓
4.2.2.e Allow the designation of retreat/mini-conference centers in appropriate locations through the community plan process.			✓
4.2.2.f Community plans should consider establishing standards such as limits on building size, room count, and the number of inns, if any, that will be allowed in small towns.			✓
Objective:			
4.2.3 Maximize residents' benefits from the visitor industry.			✓
Policies:			
4.2.3.a Promote a desirable island population by striving to not exceed an island-wide visitor population of roughly 33 percent of the resident population.			✓
4.2.3.b Use the required General Plan Annual Status Report to monitor trends related to residents and visitors.			✓
Analysis: **Not Applicable**			
AGRICULTURE			
Goal:			
4.3 Maui will have a diversified agricultural industry contributing to greater economic, food, and energy security and prosperity.			✓
Objective:			
4.3.1 Strive for at least 85 percent of locally-consumed fruits and vegetables and 30 percent of all other locally-consumed foods to be grown in-State.			✓
Policies:			

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
4.3.1.a Strive to substitute food/agricultural product imports with a reliable supply of locally produced food and agricultural products.			✓
4.3.1.b Facilitate and support the direct marketing/sale of the island's agricultural products to local consumers, through farmers markets and similar venues.			✓
4.3.1.c Encourage growing a diverse variety of crops and livestock to ensure the stewardship of our land while safeguarding consumer safety.			✓
4.3.1.d Work with the State to regulate and monitor genetically-modified-organism (GMO) crops to ensure the safety of all crops and label all GMO products.			✓
Objective:			
4.3.2 Maintain or increase agriculture's share of the total island economy.			✓
Policies:			
4.3.2.a Encourage the export of the island's agricultural products to offshore markets.			✓
4.3.2.b Support infrastructure investments at harbors, such as ferry service, airports, and other facilities for the rapid and cost-effective export of island-grown products.			✓
4.3.2.c Encourage the continued viability of sugar cane production, or other agricultural crops, in central Maui and all of Maui Island.			✓
4.3.2.d Work with the State to reduce excise taxes for commercial agricultural products produced within the State.			✓
4.3.2.e Coordinate with appropriate State and Federal Departments and agencies, private shipping companies, and farmers associations to assist in the rapid and cost-effective export of Maui's agricultural products to off-island markets.			✓
Objective:			
4.3.3 Expand diversified agriculture production at an average annual rate of 4 percent.			✓
Policies:			
4.3.3.a Promote the development of locally-grown and ecologically-sound biofuels, aquaculture, and forest products.			✓
4.3.3.b Support the development of farming associations/cooperatives.			✓
4.3.3.c Work with educational institutions and appropriate agencies to provide education and training for farm owners and entrepreneurs.			✓
Analysis: **The proposed project is not applicable to the goal, objectives, and policies related to diversified agriculture. Although the project will reclassify 6.1 acres of agricultural land for public/quasi-public use, there is an abundance of remaining agricultural land in the area to support diversified agriculture.**			
EMERGING SECTORS			
Goal:			
4.4 A diverse array of emerging economic sectors.			✓
Objective:			
4.4.1 Support increased investment and expanded activity in emerging industries.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Policies:			
4.4.1.a Support the development of and access to state-of-the-art voice, video, and data telecommunications systems and high-speed Internet.			✓
4.4.1.b Attract and assist industries to compete in high technology activities such as those related to renewable energy, green technologies, diversified agriculture, ocean sciences, health sciences, space technologies, and other knowledge-based industries.			✓
4.4.1.c Support new industries that are environmentally and culturally sensitive such as health and wellness, sports and outdoor activities, cultural activities, the arts, film-making, entertainment, and digital media.			✓
4.4.1.d Support a sustainable, culturally sensitive, astronomy industry.			✓
4.4.1.e Support the continued development of the Maui Research and Technology Park in Kihei, as a center for research and development, education, and diversified economic development, as provided by the Maui County Code.			✓
4.4.1.f Work with appropriate organizations to support the development of high technology clusters around renewable energy, diversified agriculture, ocean sciences, health sciences, and other knowledge-based industries.			✓
Objective:			
4.4.2 Increase the development of renewable energy technologies that are supported by the local community.			✓
Policies:			
4.4.2.a Support the expansion of the renewable energy sector and the use of solar, wind, wave, and biofuel technologies.			✓
4.4.2.b Provide incentives to encourage renewable energy development, the use of green energy technologies, and energy conservation.			✓
4.4.2.c Ensure an adequate supply of land and facilitate permitting to meet the needs for renewable energy technologies such as solar, wind, wave, biofuel, and other technologies, provided that environmental, view plane, and cultural impacts are addressed.			✓
4.4.2.d Support the Maui County Energy Alliance Plan where consistent with the MIP.			✓
Analysis: **Not Applicable**			
SMALL BUSINESS DEVELOPMENT			
Goal:			
4.5 Small businesses will play a key role in Maui's economy.		✓	
Objective:			
4.5.1 Increase the number of and revenue generated by small businesses and decrease the percentage of small business failures.		✓	
Policies:			
4.5.1.a Provide incentives and support for small businesses and entrepreneurs that incorporate sustainable technologies and practices into their operations, utilize local materials, or produce and sell locally-made goods or services.			✓
4.5.1.b Assist traditional "mom and pop" business establishments.		✓	

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
4.5.1.c Reduce barriers to small business development.			✓
4.5.1.d Require, where feasible, the government procurement of goods and services from locally-owned, small businesses.			✓
4.5.1.e Support community markets and venues that sell locally-made produce, goods, and services.			✓
***Analysis*:** **The proposed project is indirectly applicable to the goal, objectives, and policies for small business development. The proposed project will support the building trades during construction, many of which are small businesses.**			
HEALTH CARE SECTOR			
Goal:			
4.6 Maui will have a health care industry and options that broaden career opportunities that are reliable, efficient, and provide social well-being.			✓
Objective:			
4.6.1 Expand the economic benefits of the health care sector.			✓
Policies:			
4.6.1.a Encourage expanded services at MMMC and at other medical facilities.			✓
4.6.1.b Support expansion of federally qualified health centers with the direct involvement of the residents of the communities served.			✓
4.6.1.c Support the use of multimedia as a means to provide healthcare information.			✓
4.6.1.d Encourage digitalization of all diagnostic equipment at all facilities on Maui to enable sharing of data and more efficient use of limited provider workforce, consistent with data protection and patient privacy.			✓
4.6.1.e Support the expansion of telemedicine.			✓
4.6.1.f Encourage expansion and improved access to emergency care in all communities.			✓
Objective:			
4.6.2 Be more efficient in the delivery of health care services and in minimizing health care costs.			✓
Policies:			
4.6.2.a Support expansion of health care providers and facilities to improve access to quality care throughout the island.			✓
4.6.2.b Encourage the expansion of veteran health care services.			✓
4.6.2.c Allow home-based out-patient medical care that does not interfere with surrounding neighborhoods.			✓
Objective:			
4.6.3. Expand Maui's alternative health care services, including spiritual practices.			✓
Policies:			
4.6.3.a Support efforts to promote alternative medicine.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
4.6.3.b Allow small-scale home-alternative medicine businesses such as massage, chiropractic care, traditional Hawaiian healing, and acupuncture that do not interfere with surrounding neighborhoods.			✓
Analysis: **Not Applicable**			
EDUCATION AND WORKFORCE DEVELOPMENT			
Goal:			
4.7 Maui will have effective education and workforce development programs and initiatives that are aligned with economic development goals.			✓
Objective:			
4.7.1 Improve preschool and K-12 education to allow our youth to develop the skills needed to successfully navigate the 21st century.			✓
Objective:			
4.7.1.a Encourage the State to implement programs such as:			✓
(1) Universally available preschool for children between the ages of one and five;			✓
(2) Mandatory kindergarten;			✓
(3) Mandatory K-5th grade classroom size limits of 1 teacher to 20 students;			✓
(4) Mandatory nutrition programs; and			✓
(5) Mandatory Native Hawaiian programs at all grade levels.			✓
4.7.1.b Encourage the DOE to extend the school day by at least an hour.			✓
4.7.1.c Encourage the State to increase funding for public education so that Hawai'i is among the top 10 states nationally as measured by investment per pupil.			✓
4.7.1.d Encourage the State to ensure teacher certifications relate to effective delivery and improved student performances, and develop an industry experience/equivalency certification to assure our DOE students have access to career technical education and training.			✓
4.7.1.e Encourage the UHMC to provide dormitory space for high school students.			✓
4.7.1.f Encourage the development and implementation of curriculum on native Hawaiian history, culture, and practices, in consultation with native Hawaiian groups and associations.			✓
Objective:			
4.7.2 Encourage an increase in the number of certificate recipients and associate, bachelors, and graduate degrees conferred.			✓
Policies:			
4.7.2.a Encourage the State to increase the number of articulation agreements between the UHMC and four-year universities, particularly the University of Hawai'i at Manoa.			✓
4.7.2.b Encourage the State to expand accredited 2-year, 4-year, and graduate programs through the UHMC.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
4.7.2.c Encourage the education and training of our residents to meet the needs of a diversified economy.			✓
4.7.2.d Support education and training programs such as student internships, vocational training, and career development opportunities to ensure a highly skilled workforce			✓
4.7.2.e Work with educational institutions to improve and expand access to education and training through multiple modes, including distance learning.			✓
Objective:			
4.7.3 Strive to ensure that more of Maui's jobs are developed in STEM-related sectors by 2030.			✓
Policies:			
4.7.3.a Support the development of STEM-related certificates and degrees at the two- and four year levels.			✓
4.7.3.b Support the education initiatives of the Maui Agricultural Development Plan.			✓
4.7.3.c Expand and seek funding for internships, mentoring, job shadowing, etc. to foster interest in health and green workforce careers.			✓
4.7.3.d Work with MEDB, UHMC, and other similar organizations to expand internship/education programs to support STEM careers.			✓
4.7.3.e Continue to partner with the MEDB and other similar organizations to recruit, assist, and retain emerging industries, research and development activities, and educational/workforce opportunities.			✓
Analysis: **Not Applicable**			
CHAPTER 5 – HOUSING			
Goal:			
5.1 Maui will have safe, decent, appropriate, and affordable housing for all residents developed in a way that contributes to strong neighborhoods and a thriving island community.		✓	
Objective:			
5.1.1 More livable communities that provide for a mix of housing types, land uses, income levels, and age.			✓
Policies:			
5.1.1.a Promote livable communities (compact/walkable/bikeable, access to transit) that provide for a mix of housing types and land uses, including parks, open space, and recreational areas.			✓
5.1.1.b Promote planning approaches that provide a mix of multifamily and single-family housing units to expand housing choices.			✓
5.1.1.c Discourage gated communities.			✓
5.1.1.d Provide incentives for the rehabilitation or adaptive reuse of historic structures to facilitate more housing choices.			✓
5.1.1.e Use planning and regulatory approaches to provide higher housing densities.			✓
Objective:			

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
5.1.2 Better monitoring, evaluation, and refinement of affordable housing policy in conjunction with the economic cycle.		✓	
Policies:			
5.1.2.a Improve data on resident and nonresident housing.			✓
5.1.2.b Utilize the following approaches to promote resident housing and to minimize offshore market impacts:			✓
(1) Ensure that the future housing stock is composed of a mix of housing types (multifamily, small lots, ohana units, co-housing, cottage houses, etc.);			✓
(2) Encourage new housing in proximity to jobs and services, in places that are conducive/affordable to island residents; and		✓	
(3) Explore taxation alternatives and building fee structures.			✓
Objective:			
5.1.3 Provide affordable housing, rental or in fee, to the broad spectrum of our island community.			✓
Policies:			
5.1.3.a Consider regulations that can help keep affordable housing available at affordable rents.			✓
5.1.3.b Seek to have ownership of affordable for-sale and rental housing vested in a non-profit community land trust, or other qualified housing provider, committed to keeping such housing affordable in perpetuity.			✓
5.1.3.c Facilitate the use of public lands in urban areas that are suitable for affordable housing.			✓
5.1.3.d Develop or support partnerships and initiatives that provide housing-related education/outreach.			✓
5.1.3.e Support the continuing efforts of the County and its community partners to:			✓
(1) Disseminate information on different housing/financial assistance programs (loans, grants, etc.) including information on housing rehabilitation/restoration/adaptive reuse;			✓
(2) Provide housing-related counseling including budget, credit, and financial planning assistance; and			✓
(3) Create and maintain a comprehensive/master list of available affordable housing to help residents secure a unit that satisfies their need.			✓
Objective:			
5.1.4 Provide infrastructure in a more timely manner to support the development of affordable housing.		✓	
Policies:			
5.1.4.a Prioritize the development of infrastructure that supports the development of affordable housing.			✓
5.1.4.b Utilize appropriate financing approaches and assistance tools to encourage the development of infrastructure and public facilities.			✓

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5.1.4.c Tailor infrastructure requirements to correspond with appropriate level-of-service standards to help control housing costs and to maintain safety.			✓
Objective:			
5.1.5 A wider range of affordable housing options and programs for those with special needs.			✓
Policies:			
5.1.5.a Ensure that residents with special needs have access to appropriate housing.			✓
5.1.5.b Encourage housing to be built or rehabilitated to allow the elderly and those with special needs to live in their homes.			✓
5.1.5.c Ensure and facilitate programs to assist those with special needs from becoming homeless.			✓
5.1.5.d Promote programs that stimulate the production of sustainable homeless shelters and alternative housing technologies.			✓
5.1.5.e Support programs that offer home modification counseling on low-interest retrofit loans and grants to those with special needs.			✓
Objective:			
5.1.6 Reduce the cost to developers of providing housing that is affordable to families with household incomes 160 percent and below of annual median income.			✓
Policies:			
5.1.6.a Support fast-track processing procedures for the following housing-related entitlements: affordable housing projects/units; indigenous Hawaiian housing/units; and special-needs housing units (seniors, disabled, homeless, etc.).			✓
5.1.6.b Require the construction of affordable for-sale and rental housing units as part of the construction of new housing developments.			✓
5.1.6.c Offer extra incentives in boom periods and withdraw incentives during slack periods.			✓
Objective:			
5.1.7 Increased preservation and promotion of indigenous Hawaiian housing and architecture.			✓
Policies:			
5.1.7.a Preserve, promote, and give priority to Hawaiian housing/architecture forms to preserve Hawaiian culture.			✓
5.1.7.b Provide for indigenous architecture as an allowable structure for native Hawaiian uses to include hula and lāʻau lapaʻau.			✓
Analysis: The proposed project is indirectly applicable to the objective to provide infrastructure in a more timely manner to support the development of affordable housing. A new fire station in an area where there currently is none will provide fire protection and prevention services to Haiʻkū in a timely manner.			
CHAPTER 6 – INFRASTRUCTURE AND PUBLIC FACILITES			
SOLID WASTE			

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Goal:			
6.1 Maui will have implemented the ISWMP thereby diverting waste from its landfills, extending their capacities.			✓
Objective:			
6.1.1 Meet our future solid waste needs with a more comprehensive planning and management strategy.			✓
Policies:			
6.1.1.a Update and publicize the ISWMP every ten years.			✓
6.1.1.b Strengthen inter-agency coordination including Planning and Environmental Management departments.			✓
6.1.1.c Divert waste from the landfills and educate the public about the recommendations of the ISWMP.			✓
6.1.1.d Minimize future active, unlined landfill cells to the extent feasible.			✓
Objective:			
6.1.2 Divert at least 60 percent of solid waste from the island's landfills.			✓
Policies:			
6.1.2.a Require residents and commercial enterprises that generate waste to pay a fair proportion of disposal costs.			✓
6.1.2.b Encourage environmentally safe waste-to-energy solutions.			✓
6.1.2.c Facilitate the reduction of solid waste generated by packaging, food service products, construction waste, etc.			✓
6.1.2.d Educate residents and visitors about the impacts of and methods to reduce, reuse, and recycle.			✓
6.1.2.e Discourage the disposal of landfill leachate by diversion to wastewater treatment plants, where practicable.			✓
Analysis: **Not Applicable**			
WASTEWATER			
Goal:			
6.2 Maui will have wastewater systems that comply with or exceed State and Federal regulations; meet levels-of-service needs; provide adequate capacity to accommodate projected demand; ensure efficient, effective, and environmentally sensitive operation; and maximize wastewater reuse where feasible.			✓
Objective:			
6.2.1 A wastewater planning program capable of efficiently providing timely and adequate capacity to service projected demand where economically feasible and practicable.			✓
Policies:			

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6.2.1.a Encourage the use of renewable energy in support of wastewater treatment facilities.			✓
6.2.1.b Focus the expansion of wastewater systems to accommodate planned growth consistent with the MIP Directed Growth Strategy.			✓
6.2.1.c Establish new wastewater treatment plant(s) outside the tsunami zone.			✓
Objective:			
6.2.2 Adequate levels of wastewater service with minimal environmental impacts.			✓
Policies:			
6.2.2.a Meet or exceed all State and Federal standards regulating wastewater disposal or reuse.			✓
6.2.2.b Encourage tertiary treatment for all municipal wastewater that is disposed through deep injection wells. Phase out all municipal and private injection wells in coordination with water reuse programs, where feasible, by 2020.			✓
6.2.2.c Improve and upgrade the County's existing wastewater collection, treatment, and reuse facilities consistent with current and future plans and the County's CIP.			✓
6.2.2.d Maintain an ongoing sewer inspection program for public and private multi-user systems to identify potential problems and forecast each system's residual life.			✓
6.2.2.e Require all new developments to fund system improvements in proportion to the development impact and in accordance with the County's wastewater functional plan.			✓
6.2.2.f Require appropriate funding mechanisms, such as a sinking fund, to adequately maintain or replace aging water-system components.			✓
6.2.2.g Strongly encourage the phase out of cesspools.			✓
Objective:			
6.2.3 Increase the reuse of wastewater.			✓
Policies:			
6.2.3.a Strengthen coordination between the Department of Water Supply (DWS) and the WWRD to promote reuse/recycling of wastewater.			✓
6.2.3.b Expand the reuse of wastewater from the Central Maui, Kīhei, Lahaina, and other wastewater systems.			✓
Analysis: **Not Applicable**			
WATER			
Goal:			
6.3 Maui will have an environmentally sustainable, reliable, safe, and efficient water system.			✓
Objective:			
6.3.1 More comprehensive approach to water resources planning to effectively protect, recharge, and manage water resources including watersheds,			✓

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groundwater, streams, and aquifers.			
Policies:			
6.3.1.a Ensure that DWS actions reflect its public trust responsibilities toward water.			✓
6.3.1.b Ensure the WUDP implements the State Water Code and MIP's goals, objectives, and policies.			✓
6.3.1.c Regularly update the WUDP, to maintain compliance with the General Plan.			✓
6.3.1.d Ensure that the County's CIP for water-source development is consistent with the WUDP and the MIP.			✓
6.3.1.e Where desirable, retain and expand public ownership and management of watersheds and fresh-water systems.			✓
6.3.1.f Encourage and improve data exchange and coordination among Federal, State, County, and private land use planning and water resource management agencies.			✓
Objective:			
6.3.2 Increase the efficiency and capacity of the water systems in striving to meet the needs and balance the island's water needs.			✓
Policies:			
6.3.2.a Ensure the efficiency of all water system elements including well and stream intakes, water catchment, transmission lines, reservoirs, and all other system infrastructure.			✓
6.3.2.b Encourage increased education about and use of private catchment systems where practicable for nonpotable uses.			✓
6.3.2.c Maximize the efficient use of reclaimed wastewater to serve nonpotable needs.			✓
6.3.2.d Work with appropriate State and County agencies to achieve a balance in resolving the needs of water users in keeping with the water allocation priorities of the MIP.			✓
6.3.2.e Ensure water conservation through education, incentives, and regulations.			✓
6.3.2.f Acquire and develop additional sources of potable water.			✓
Objective:			
6.3 Improve water quality and the monitoring of public and private water systems.			✓
Policy:			
6.3.3.a Protect and maintain water delivery systems.			✓
Analysis: **Not Applicable**			
TRANSPORTATION			
Goal:			
6.4 An interconnected, efficient, and well-maintained, multimodal transportation system.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Objective:			
6.4.1 Provide for a more integrated island-wide transportation and land use planning program that reduces congestion and promotes more efficient (transit-friendly) land use patterns.			✓
Policies:			
6.4.1.a Plan for an integrated multi-modal transportation system comprised of public transit, bicycle, pedestrian, automobile, and other transportation modes.			✓
6.4.1.b Refocus transportation investment from the construction of additional roadways only for the automobile to the expansion of a multimodal transportation system.			✓
6.4.1.c Encourage the use of "complete streets" design methods.			✓
6.4.1.d Encourage employers to implement TDM strategies.			✓
Objective:			
6.4.2 Safe, interconnected transit, roadway, bicycle, equestrian, and pedestrian network.			✓
Policies:			
6.4.2.a Ensure transit-, roadway-, and pedestrian-facilities design and level-of-service standards respect the unique character of our communities.			✓
6.4.2.b Prioritize transportation improvements list to cost-effectively meet existing and future needs consistent with the MIP.			✓
6.4.2.c Require new development, where appropriate, to integrate sidewalks, pathways, bikeways, and transit infrastructure into new commercial and residential projects while enhancing community character.			✓
6.4.2.d Identify and improve hazardous and substandard sections of roadways, drainage infrastructure, and bridges, provided that the historical integrity of the roads and bridges are protected.			✓
6.4.2.e Consider identification, acquisition where appropriate, and utilization of abandoned right of-ways for bikeways, pedestrian pathways, and open-space networks.			✓
6.4.2.f Support the implementation of the *Central Maui Pedestrian & Bicycle Master Plan* (March 2012), when consistent with the MIP.			✓
Objective:			
6.4.3 An island-wide, multimodal transportation system that respects and enhances the natural environment, scenic views, and each community's character.			✓
Policies:			
6.4.3.a Ensure that the roadway and transit alignments respect the natural environment and scenic views.			✓
6.4.3.b Ensure that roadways and transit systems in rural areas and small towns enhance community character.			✓
6.4.3.c Design all transit systems to respect visual corridors and Maui's character.			✓
Analysis: **Not Applicable**			

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
TRANSIT			
Goal:			
6.5 An island-wide transit system that addresses the needs of residents and visitors and contributes to healthy and livable communities.			✓
Objective:			
6.5.1 An integrated transit system that better serves all mobility needs of Maui's residents and visitors.			✓
Policies:			
6.5.1.a Maximize access to public transit in town centers, commercial districts, and employment centers.			✓
6.5.1.b Expand regional and inter-regional transit services, where appropriate, in heavily traveled corridors and within communities			✓
6.5.1.c Increase the frequency of current service, add additional bus routes as demand requires, and transition to nonpolluting transit vehicles, as funding permits.			✓
6.5.1.d Provide adequate transit infrastructure (e.g., bus pullouts, waiting benches and shelters, signs) along existing and future transit right-of-ways.			✓
6.5.1.e Require new development where appropriate, to provide right-of-ways (ROWs) to accommodate transit circulation and support facilities.			✓
6.5.1.f Identify, protect, and preserve, or acquire corridors for future inter-community transit use, including but not limited to, rail and also multimodal use corridors.			✓
6.5.1.g Establish transit corridors by planning for and securing right-of-way when appropriate for alternative modes of transportation (such as rail and water ferry service).			✓
6.5.1.h Pursue improvements and upgrades to the existing transit system consistent with updated MDOT planning studies/transit plans (within the framework of comprehensive island-wide multimodal transportation plans).			✓
6.5.1.i Increase inter-agency coordination between the Department of Planning, State Department of Transportation, County Department of Public Works, and other applicable agencies.			✓
Objective:			
6.5.2 Plan for a more diversified and stable funding base to support transportation goals.			✓
Policies:			
6.5.2.a Support alternative methods and sources of funding transportation improvements (including impact fees, higher taxes, fare adjustments, dedicated sources of funding, and assessments).			✓
6.5.2.b Collaborate with public-private entities or nonprofit organizations to reduce public transit operational expenses.			✓
6.5.2.c Coordinate with appropriate Federal, State, and County agencies to fund transportation projects in areas where growth is anticipated.			✓
Analysis: **Not Applicable**			
PARKS			

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
Goal:			
6.6 Maui will have a diverse range of active and passive recreational parks, wilderness areas, and other natural-resource areas linked, where feasible, by a network of greenways, bikeways, pathways, and roads that are accessible to all.			✓
Objective:			
6.6.1 More effective, long-range planning of parks and recreation programs able to meet community needs.			✓
Policies:			
6.6.1.a Support, consistent with the MIP, the implementation of open-space and recreational plans, such as the Pali to Puamana Parkway Master Plan and the Upcountry Greenways Master Plan.			✓
6.6.1.b Utilize the ahupua'a approach by integrating mauka-to-makai natural landscapes into an island-wide parks and recreation functional plan.			✓
6.6.1.c Provide a balanced mix of passive and active parks, including neighborhood, community, and regional parks, in each community plan area.			✓
6.6.1.d Support the expansion of Haleakala National Park, where supported by affected communities.			✓
6.6.1.e Support lo'i and dryland taro restoration in County, State, and Federal parks.			✓
6.6.1.f Encourage private landowners to dedicate land to Federal, State, or County governments, or nonprofit land trusts, for parks and open-space protection consistent with the MIP.			✓
6.6.1.g Strengthen inter-agency coordination including State and County departments, such as resolving joint use of facilities and properties.			✓
6.6.1.h Work with the State to prepare and implement a master management plan for 'Āhihi-Kīna'u and La Perouse-Keone'ō'io Bay to Kanaloa Point region.			✓
Objective:			
6.6.2 Achieve parks and recreation opportunities to meet the diverse needs of our community.			✓
Policies:			
6.6.2.a Establish appropriate level-of-service standards at the neighborhood, community, and regional levels.			✓
6.6.2.b Identify and acquire parks and recreational facilities that address existing park inadequacies and complement and enhance neighborhoods, communities, and natural land features.			✓
6.6.2.c Design park facilities to preserve and enhance natural site characteristics, maximize views, protect environmental and cultural sites, and minimize water demands.			✓
6.6.2.d Acquire lands along the shoreline, between coastal roadways and the ocean.			✓
6.6.2.e Encourage the development of regional parks, district parks, and greenways in a manner that helps to contain sprawl, provide separation between distinct communities, or offer open space within urban communities.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable	DA	IA	NA
6.6.2.f Require large master-planned communities that incorporate a mixture of park facilities pursuant to parks standards and functional plans.			✓
6.6.2.g Support appropriate areas for cultural parks (e.g., Kepaniwai) in each community plan area.			✓
6.6.2.h Incorporate community input to determine the appropriate location, design, and long-term stewardship of parks and recreation facilities.			✓
6.6.2.i Manage commercial activities at public parks to minimize impacts to residents.			✓
6.6.2.j Support public-private partnerships to implement the acquisition and development of parks when consistent with the General Plan.			✓
6.6.2.k Support a coordinated program to improve, operate, and maintain joint-use facilities and grounds.			✓
Objective:			
6.6.3 An expanded network of greenways, trails, pathways, and bikeways.			✓
Policies:			
6.6.3.a Link existing and future park sites, natural areas, the shoreline, and residential areas with a network of bikeways, pedestrian paths, trails, and greenways.			✓
6.6.3.b Support the implementation of plans and programs that facilitate pedestrian mobility and access to active and passive recreation areas and sites.			✓
6.6.3.c Collaborate with the State and private land owners to ensure perpetual access and proper stewardship of traditional trails and access systems.			✓
6.6.3.d Facilitate the development of well-managed noncommercial campgrounds throughout the island.			✓
6.6.3.e Consider requiring commercial bike rental businesses to provide funding that supports a mauka-to-makai Haleakalā bikeway improvement program.			✓
6.6.3.f Ensure ADA compliance and seek opportunities to make all parks and recreational facilities accessible to people with disabilities.			✓
Analysis: **Not Applicable**			
PUBLIC FACILITIES			
Goal:			
6.7 Maui will have adequate public facilities that meet the diverse needs of residents.	✓		
Objective:			
6.7.1 More effective planning for public facilities to meet community needs.	✓		
Policies:			
6.7.1.a Ensure the development and update of island-wide public facilities functional plans that incorporate prioritized facilities, programs, and a financial component.			✓
6.7.1.b Establish appropriate level-of-service standards for public facilities provided by the County.			✓

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6.7.1.c Pursue improvements and upgrades of County public facilities consistent with the public facilities functional plan.	✓		
6.7.1.d Recognize Wailuku Town as Maui's Civic Center and support the revitalization of the Civic Center District by consolidating government office spaces, enhancing landscape beautification, and providing adequate public parking.			✓
6.7.1.e Support, with community input, the relocation of the Maui Community Correctional Center from Wailuku to an appropriate location in Puʻunēnē.			✓
6.7.1.f Adequately plan and fund public safety facilities (fire, police, ambulance, civil defense) to meet community needs.	✓		
6.7.1.g Increase joint facilities utilization and program coordination between State and County agencies such as baseyards, communication centers, recreational facilities, etc., where feasible.			✓
6.7.1.h Focus future expenditures for additional government office space, parking, and related facilities in Wailuku's Civic Center District.			✓
6.7.1.i Encourage continuous and safe walkways for children within one mile of each school.			✓
6.7.1.j Encourage public-private partnerships to identify and resolve public facility plan shortcomings when consistent with the General Plan.			✓
6.7.1.k Incorporate community/area residents' input to determine the appropriate location and design of public facilities.	✓		
Analysis: **The proposed project is directly applicable to the goal, objectives, and policies for public facilities. The new fire station in Haiʻkū responds to a community need, since there is currently no fire station in the community. Haiʻkū is an area that has experienced significant growth in the last several years, and a new fire station will provide current and future residents with fire protection and prevention services.**			
SCHOOLS AND LIBRARIES			
Goal:			
6.8 Maui will have school and library facilities that meet residents' needs and goals.			✓
Objective:			
6.8.1 Assist in providing appropriate school and library facilities in a timely manner and in strategic locations.			✓
Policies:			
6.8.1.a Work in partnership with all educational institutions to meet current and future needs including appropriate location, timing, and design of future facilities.			✓
6.8.1.b Allow for the expansion and intensification of uses at the UHMC including satellite campuses operating in remote areas.			✓
6.8.1.c Encourage the DOE to build and maintain smaller, community-oriented schools.			✓
6.8.1.d Encourage better cooperation by the State and County for use of State and County facilities.			✓
6.8.1.e Encourage the State to upgrade, modernize, and expand school facilities, including those in remote communities.			✓

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6.8.1.f Work with the State to develop a master plan for the expansion of UHMC in accordance with the MIP.			✓
6.8.1.g Support partnerships (public/private/nonprofit) to build and staff new schools and improve existing facilities.			✓
6.8.1.h Work with the BOE HSPLS to provide centralized library services (including telecommunications) to all areas of Maui.			✓
6.8.1.i Work with the State to expedite planning and construction of Kīhei High School, including the integration of the high school with the Maui Research and Technology Park.			✓
6.8.1.j Work with the State to identify intermediate school sites in Central Maui and other areas where needed.			✓
Objective:			
6.8.2 Provide a more expansive network of safe and convenient pedestrian-friendly streets, trails, pathways, and bikeways between neighborhoods and schools where appropriate.			✓
Policies:			
6.8.2.a Encourage the State to build new school facilities in appropriate locations that minimize time and distance for students to travel to and from school.			✓
6.8.2.b Encourage the State to implement the Safe Routes to School initiative with funding commitments to help the County plan and fund projects that ensure safe access routes to school.			✓
Analysis: **Not Applicable**			
HEALTH CARE			
Goal:			
6.9 All of Maui residents will have the best possible health care to include healthy living, disease prevention, as well as acute and long-term care.			✓
Objective:			
6.9.1 Greater autonomy to the Maui region in their efforts to improve medical care on the island.			✓
Policies:			
6.9.1.a Encourage the State to give greater autonomy to the Maui region in their efforts to improve medical care on the island.			✓
6.9.1.b Support innovative financial solutions, such as capital partnerships, joint ventures, and consolidations for MMMC and other health institutions.			✓
6.9.1.c Support MMMC as a major core medical center that provides a greater range of services.			✓
6.9.1.d Support the immediate development of a critical access hospital in West Maui.			✓
6.9.1.e Support the expansion of regional critical-access facilities, where allowed by Federal regulations.			✓
6.9.1.f Improve medical service to remote and outlying regions.			✓

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6.9.1.g Support transportation services for dialysis patients and community dialysis programs.			✓
6.9.1.h Work with the State to determine the feasibility of appropriate medical facilities in South Maui and Hāna, including the possible reestablishment of a small community hospital in Hāna, the establishment of a hospital in South Maui, and assist the State in securing funding to meet Maui's health care needs.			✓
Objective:			
6.9.2 An expansion of long-term care facilities and long-term care alternatives to meet the needs of our aging population.			✓
Policies:			
6.9.2.a Support efforts to increase Maui's long-term care bed capacity to cover current and future needs, close to large population centers.			✓
6.9.2.b Recognize that facilities for low-income elders who need long-term care are a needed form of affordable and subsidized housing.			✓
6.9.2.c Evaluate the needs of the long-term disabled and provide planning support for their care, if there is a need for long-term care facilities.			✓
6.9.2.d Consider long-term care facilities as a major potential employment base and encourage the recruitment and training of potential employees.			✓
Objective:			
6.9.3 More support to home-care and community-based programs so they become alternatives to traditional nursing homes.			✓
Policies:			
6.9.3.a Support the establishment of a program to assist the elderly and people with disabilities to remain in their homes or in a home-like setting.			✓
6.9.3.b Support the establishment of senior and adult-day-care centers and senior housing.			✓
6.9.3.c Continue to support existing senior centers (e.g. Kaunoa), and establish new senior centers that will provide day-care sites and programs for the disabled and elderly.			✓
6.9.3.d Support funding alternatives for community-based services that assist home-care efforts.			✓
6.9.3.e Encourage the State to adopt the recommendations contained within the Legislative Reference Bureau's report entitled "Gimme a Break: Respite Care Services in Other States," (December 2007) where appropriate, feasible, and consistent with the MIP.			✓
Objective:			
6.9.4 Improved preventative medicine and primary health care.			✓
Policies:			
6.9.4.a Develop and utilize health-status benchmarks to measure prevention and primary health care service delivery.			✓
6.9.4.b Support programs that provide family planning assistance.			✓

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Analysis: **Not Applicable**			
ENERGY			
Goal:			
6.10 Maui will meet its energy needs through local sources of clean, renewable energy, and through conservation.		✓	
Objective:			
6.10.1 Reduce fossil fuel consumption. Using the 2005 electricity consumption as a baseline, reduce by 15 percent in 2015; 20 percent by 2020; and 30 percent by 2030.		✓	
Policies:			
6.10.1.a Support energy efficient systems, processes, and methods in public and private operations, buildings, and facilities.		✓	
6.10.1.b Support the Maui Solar Rooftop initiative.			✓
6.10.1.c Support Hawai`i Energy and other Public Utility Commission (PUC) approved energy efficiency programs.			✓
Objective:			
6.10.2 Increase the minimum percentage of electricity obtained from clean, renewable energy sources. By 2015, more than 15 percent of Maui's electricity will be produced from locally-produced, clean, renewable energy sources, 25 percent by 2020, and 40 percent by 2030.			✓
Policies:			
6.10.2.a Evaluate available renewable energy resource sites and applicable technologies.			✓
6.10.2.b Encourage the installation of renewable energy systems, where appropriate.			✓
6.10.2.c Support the establishment of new renewable energy facilities at appropriate locations provided that environmental, view plane, and cultural impacts are addressed.			✓
6.10.2.d Encourage all new County facilities completed after January 1, 2015, to produce at least 15 percent of their projected electricity needs with onsite renewable energy.			✓
Objective:			
6.10.3 Increased use of clean, renewable energy.			✓
Policies:			
6.10.3.a Support efforts in the PUC to upgrade Maui's power grid to integrate renewable energy from multiple sources and wheeling of electricity.			✓
6.10.3.b Encourage the PUC to work with the County to implement and expedite community supported renewable energy projects.			✓
6.10.3.c Encourage efforts to produce more renewable energy using distributed generation.			✓
6.10.3.d Encourage import substitution by MECO and the broader community to become more self-sufficient in energy production.			✓

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6.10.3.e Educate the public on the economic and environmental benefits from the increased use of renewable energy.			✓
6.10.3.f Encourage support from the Federal government, State, and the private sector for Maui's renewable energy objectives.			✓
6.10.3.g Encourage incentives to support the development and use of renewable energy.			✓
Objective:			
6.10.4 More efficient distribution of power throughout the island while preserving island beauty.			✓
Analysis: **The proposed project is indirectly applicable to the objective related to fossil fuel consumption. The proposed new fire station incorporates energy-conserving features into its design including the use of cross ventilation and solar tubes to reduce electrical consumption.**			
HARBORS AND AIRPORT			
Goal:			
6.11 Maui will have harbors and airports that will efficiently, dependably, and safely facilitate the movement of passengers and cargo.			✓
Objective:			
6.11.1 Upgraded harbor facilities to handle larger volumes of freight and passengers and additional small boat harbors.			✓
Policies:			
6.11.1.a Support the expansion and upgrade of Kahului Harbor through the following, provided that any expansion is respectful of cultural practices and existing recreational uses and supports improved water quality:			✓
(1) Accommodate increasing volumes of cargo;			✓
(2) Provide deeper pier depths and greater fuel-receiving and storing capacities; and			✓
(3) Ensure safe and efficient work areas, including separating passenger operations from fuel and cargo operations.			✓
6.11.1.b Work with public and private entities to provide adequate pier slips, utilities, repair facilities, and waste-disposal capabilities.			✓
6.11.1.c Encourage the State to safely separate passenger (cruise and ferry) operations from hazardous bulk fuels and heavy cargo transporting operations, while not decreasing harbor's capacity to safely support various recreational uses.			✓
6.11.1.d Encourage the State to develop cargo inspecting sites and facilities for efficient cargo and container processing and transportation and to prevent alien species entry.			✓
6.11.1.e Support a State and County task force to study the feasibility of a second commercial harbor on Maui.			✓
Objective:			
6.11.2 Establish more economically thriving and environmentally sensitive small boat harbors accommodating resident and business activity, including fishing, recreation, and tour boats.			✓

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Policy:			
6.11.2.a Provide for needed shore-side facilities and capabilities to support small boat harbor users (e.g. repair facilities, parking, cold storage, and mass-transit connections).			✓
Objective:			
6.11.3 Upgraded airport facilities and navigation aids to serve the needs of passengers, freight movements, and general aviation.			✓
Policies:			
6.11.3.a Protect the island's airports from encroaching urbanization that may negatively impact the airport operations.			✓
6.11.3.b Support State efforts to improve Kahului Airport operations to better serve passenger and cargo needs.			✓
6.11.3.c Support State efforts to identify sites and plan to relocate and accommodate small and rotary wing aircraft.			✓
6.11.3.d Encourage the State to improve airport safety including lighting, fuel transmission, fuel safety, etc.			✓
6.11.3.e Consider expansion of rental car facilities in West and South Maui.			✓
6.11.3.f Consider expansion of mass transit (bus, fixed-rail, shuttle, and taxis, bicycle, and pedestrian facilities) to and from Kahului Airport and not limited to passenger movements (allowing for luggage and cargo).			✓
6.11.3.g Encourage the State to maintain airport capacity and to encourage more responsive air services to Hāna and Kapalua.			✓
Analysis: **Not Applicable**			
CHAPTER 7 – LAND USE			
AGRICULTURAL LANDS			
Goal:			
7.1 Maui will have a prosperous agricultural industry and will protect agricultural lands.			✓
Objective:			
7.1.1 Significantly reduce the loss of productive agricultural lands.			✓
Policies:			
7.1.1.a Allow, where appropriate, the clustering of development on agricultural lands when approved as a CSD plan or similar approval mechanism.			✓
7.1.1.b Require, where appropriate, the review and approval of CSD plans prior to the subdivision of agricultural land.			✓
7.1.1.c Discourage developing or subdividing productive agricultural lands for residential uses in which the residence would be the primary use and any agricultural activities would be secondary uses.			✓

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7.1.1.d Consider requirements for public notification and review of the subdivision of agricultural land into four or more lots.			✓
7.1.1.e Focus urban growth, to the extent practicable, away from productive and important agricultural lands.			✓
7.1.1.f Strongly discourage the conversion of productive and important agricultural lands (such as sugar, pineapple, and other produce lands) to rural or urban use, unless justified during the General Plan update, or when other overriding factors are present.			✓
7.1.1.g Further develop the requirements for agricultural assessments found under Section 19.510, MCC.			✓
7.1.1.h Provide incentives for landowners to preserve and protect agricultural lands from development through the use of TDR/PDR, tax credits, easement programs, or similar means.			✓
7.1.1.i Promote the use of U.S.D.A. Farm and Ranch Lands Protection Program grants to fund the acquisition of conservation easements on eligible agricultural lands.			✓
7.1.1.j Require all major developments adjacent to agricultural lands to provide an appropriate and site-specific agricultural protection buffer as part of a required site plan.			✓
7.1.1.k Support and promote the viability of Maui's agricultural businesses through property tax incentives and other programs and subsidies.			✓
7.1.1.l Encourage future community plan efforts to identify lands within the County Agricultural zoning district that are primarily being used for large-lot residential or rural use and consider such lands for reclassification to an appropriate County Rural zone.			✓
Objective:			
7.1.2 Reduction of the island's dependence on off-island agricultural products and expansion of export capacity.			✓
Policies:			
7.1.2.a Coordinate with the agricultural community, associations/community groups, agricultural landowners, and the State to designate IALs.			✓
7.1.2.b Support an incentive package for productive Agricultural Lands which aims to ensure agricultural viability for small- and commercial-scale agricultural producers.			✓
7.1.2.c Actively look to acquire land and provide infrastructure to expand the agricultural park and establish new agricultural parks.			✓
7.1.2.d Support the designation of a research and development area within agricultural parks to help farmers stay attuned to new technology and research.			✓
7.1.2.e Support local cooperative extension services to facilitate timely technology transfer opportunities.			✓
7.1.2.f Support plans and programs to develop additional sources of water for irrigation purposes.			✓

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7.1.2.g Consider appropriate subdivision requirements (gravel roads, above-ground utilities, etc.) in those subdivisions creating Agricultural Parks where lots are limited to agricultural production with no dwellings.			✓
7.1.2.h Support the recommendations, policies, and actions contained within the Maui Agricultural Development Plan, July 2009, when consistent with the MIP.			✓
7.1.2.i Allow water and tax discounts for legitimate farming operations on rural and agricultural land.			✓
7.1.2.j Give priority in delivery and use of agricultural water and agricultural land within County agricultural parks to cultivation of food crops for local consumption.			✓
7.1.2.k Support programs that control pests and diseases that affect agriculture.			✓
7.1.2.l Support the development of training and apprenticeship programs to encourage an adequate supply of agricultural workers.			✓
Objective:			
7.1.3 Support and facilitate connectivity between communities.			✓
Policies:			
7.1.3.a Evaluate the impact of gated communities on interconnectivity.			✓
7.1.3.b Discourage land use and urban design that impedes interconnectivity between adjacent communities.			✓
Analysis: **Not Applicable**			
RURAL AREAS			
Goal:			
7.2 Maui will have a rural landscape and lifestyle where natural systems, cultural resources and farm lands are protected and development enhances and compliments the viability and character of rural communities.	✓		
Objective:			
7.2.1 Reduce the proliferation and impact of residential development outside of urban, small town, and rural growth boundaries.	✓		
Policies:			
7.2.1.a Focus development to areas inside urban, small town, and rural growth boundaries to preserve natural, cultural, and agricultural resources.	✓		
7.2.1.b Encourage cluster development with a mandatory buffer requirement/clear edge at the interface of country towns, agricultural uses, and surrounding rural landscapes.			✓
7.2.1.c Encourage or require, where appropriate, CSDs and the use of green spaces/natural separations to protect the character of rural landscapes.			✓
7.2.1.d Encourage basic goods/services in business country towns.			✓
7.2.1.e Allow for mixed uses, including residential uses, within Business Country Town Districts.			✓
7.2.1.f Encourage the use of alternative stormwater management techniques that			✓

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minimize land disturbance and preserve natural drainage features.			
7.2.1.g Encourage green belts, open space buffers, and riparian zones to minimize conflicts between agriculture and residential uses.			✓
7.2.1.h Evaluate the impact of gated communities on inter-connectivity.			✓
Objective:			
7.2.2 More appropriate service/infrastructure standards to enhance and protect the island's rural character and natural systems.	✓		
Policies:			
7.2.2.a Minimize impermeable surfaces within rural areas.			✓
7.2.2.b Protect and support the character, economic viability, and historic integrity of Maui's small towns.			✓
7.2.2.c Use infrastructure, public service, and design standards that are appropriate to rural areas.			✓
7.2.2.d Discourage land use and urban design that impede interconnectivity between adjacent communities.			✓
Analysis: **The proposed project is directly applicable to the goal, objectives, and policies related to rural areas. The project site is located in a Rural Growth Boundary. The proposed project has been designed in accordance with the Pā'ia-Hai'kū Country Town Design Guidelines to maintain the rural character of the surrounding area and built environment.**			
URBAN AREAS			
Goal:			
7.3 Maui will have livable human-scale urban communities, an efficient and sustainable land use pattern, and sufficient housing and services for Maui residents.			✓
Objective:			
7.3.1 Facilitate and support a more compact, efficient, human-scale urban development pattern.			✓
Policies:			
7. 3.1.a Ensure higher-density compact urban communities, infill, and redevelopment of underutilized urban lots within Urban Growth Boundaries.			✓
7.3.1.b Maintain a distinct separation between communities, such as but not limited to, Wailuku and Waikapū; Wailuku and Waihe'e; Pukalani and Makawao; Pukalani and Kula; Makawao and Hāli'imaile; Lahaina and Kā'anapali; Kīhei and Mā'alaea; and Mā'alaea and Waikapū, to protect the character and identity of Maui's communities.			✓
7.3.1.c Strengthen evaluation requirements for new urban expansion, new towns, and major urban infill projects within urban growth areas. Tailor submittal requirements to reflect the impact or scale of different projects.			✓
7.3.1.d Ensure future amendments to urban growth boundaries achieve the following: (1) provide a beneficial extension of the existing community; (2) are in areas where it is cost-effective to provide and operate infrastructure/public service			✓

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facilities; and (3) do not promote automobile-oriented land use patterns.			
7.3.1.e Evaluate the impact of gated communities on inter-connectivity.			✓
7.3.1.f Encourage the development and implementation of neighborhood design standards that are environmentally friendly, such as LEED for Neighborhood Development (LEED – ND) standards.			✓
7.3.1.g Discourage future pyramid zoning within the industrial zoning districts, while allowing accessory commercial uses and grandfathering existing uses.			✓
7.3.1.h Promote agriculture by encouraging community gardening, community-supported agricultural programs, and farmers markets within and adjacent to urban areas.			✓
7.3.1.i Discourage land use and urban design that impedes inter-connectivity between adjacent communities.			✓
Objective:			
7.3.2 Facilitate more self-sufficient and sustainable communities.			✓
Policies:			
7.3.2.a When developing new communities, provide sufficient lands for commercial, appropriate industrial, educational, spiritual, and non-profit uses to serve the daily needs of community residents.			✓
7.3.2.b Site community facilities such as schools, parks, libraries, and community centers within walking and biking distance of residences.			✓
7.3.2.c Facilitate self-sufficient communities and shorten commutes by:			✓
(1) Directing residential development to job-rich areas;			✓
(2) Allowing for appropriate commercial development and community services to shorten commutes; and			✓
(3) Allowing home occupations or home-based businesses that are compatible with surrounding neighborhoods and lifestyles.			✓
7.3.2.d Ensure, where appropriate, that affordable employee housing and multi-modal transportation opportunities are located near major employment centers.			✓
7.3.2.e Discourage the establishment of bedroom communities where long commutes are required to employment centers.			✓
7.3.2.f Facilitate the development of housing by focusing projects in locations where land and infrastructure costs facilitate the development of affordably-priced housing.			✓
7.3.2.g Provide incentives to facilitate the development of multifamily housing.			✓
7.3.2.h Encourage the placement of rental housing projects in the same areas as for-sale housing to facilitate mixed-income communities.			✓
7.3.2.i Develop communities that provide sufficient parks, schools, libraries, and other essential public facilities and services to serve resident needs.			✓
7.3.2.j Promote agriculture by encouraging community gardening, edible landscaping, community-supported agricultural programs, and farmers markets within and			✓

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adjacent to urban areas.			
Objective:			
7.3.3 Strengthen the island's sense of place.			✓
Policies:			
7.3.3.a Protect and enhance the unique architectural and landscape characteristics of each community.			✓
7.3.3.b Encourage Hawaiian architecture and tropical building designs.			✓
7.3.3.c Support the continued revitalization of historic country towns, Wailuku Town, and Kahului's commercial core and harbor-front without displacing traditional, cultural, recreational and customary uses.			✓
7.3.3.d Strongly encourage the preservation of buildings, structures, and sites of historic significance.			✓
7.3.3.e Require community input through Design Workshops for major new urban expansion, new towns, and major urban infill projects.			✓
7.3.3.f Require design enhancement, landscaping, and integration of park and rides, bicycle parking areas, and mass-transit infrastructure to mitigate the effect of parking lots and structured parking on the urban landscape.			✓
7.3.3.g Ensure that safe and attractive public spaces (e.g., plazas, parks, town/village squares) are provided throughout the island's urban areas.			✓
Objective:			
7.3.4 Strengthen planning and management for the visitor industry to protect resident quality of life and enhance the visitor experience.			✓
Policies:			
7.3.4.a Discourage the conversion of hotel units to timeshares and fractional ownership.			✓
7.3.4.b Monitor and manage the amount of, and impacts from, timeshares and fractional ownership.			✓
7.3.4.c Manage short-term rentals and bed-and-breakfast homes through a permitting and regulatory process in accordance with adopted ordinances and community plan policies.			✓
7.3.4.d Limit large-scale resort development to the four existing resort destination areas of Wailea, Mākena, Kapalua and Kā'anapali. "Large Scale Resort" is defined as complexes that include multiple accommodation facilities, activity businesses, retail complexes, and other amenities.			✓
Objective:			
7.3.5 Ensure that Maui's planning and development review process becomes more transparent, efficient, and innovative.			✓
Policies:			
7.3.5.a Encourage greater community involvement in land use planning and decision making.			✓
7.3.5.b Establish a predictable and timely development review process that facilitates			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable		DA	IA	NA
	the approval of projects that meet planning and regulatory requirements.			
7.3.5.c	Increase inter-agency coordination between the Department of Planning and all State and County agencies responsible for infrastructure and public facilities provision, particularly as it relates to the mitigation of long-term cumulative impacts resulting from development projects.			✓
7.3.5.d	Provide greater certainty and transparency in the development review process.			✓
7.3.5.e	Expand and maintain land use and geographic information system databases for improved decisions, and make data and products available to the public.			✓
Analysis:	**Not Applicable**			
CHAPTER 8 – DIRECTED GROWTH PLAN				
URBAN AND SMALL TOWN GROWTH AREA				
Goal:				
8.1	Maui will have well-serviced, complete, and vibrant urban communities and traditional small towns through sound planning and clearly defined development expectations.			✓
Policies:				
8.1.a	The County, with public input, will be responsible for designating new growth areas where infrastructure and public facilities will be provided, consistent with the policies of the MIP and in accordance with State and County infrastructure plans.			✓
8.1.b	Amendments to a UGB or STB shall be reviewed as a MIP amendment. A UGB or STB shall only be expanded if the island-wide inventory (maintained by the Department of Planning) of existing land uses (residential, commercial, industrial) indicates that additional urban density land is necessary to provide for the needs of the projected population growth within ten years of that inventory; or, during the decennial update of the MIP.			✓
8.1.c	Community plans shall provide for urban density land use designations only within UGBs and Small Towns. The County may only support and approve State Urban Land Use Designations for areas within UGBs, STBs, and Rural Villages.			✓
8.1.d	The unique character and function of existing small towns shall be protected to retain and preserve their sense of place.			✓
8.1.e	New development shall be consistent with the UGBs, STBs, and all other applicable policies of the MIP. New urban-density development shall not be allowed outside of a UGB or STB.			✓
8.1.f	The County, as a condition of development approval, shall require developers of privately owned infrastructure systems to provide financial insurance (bonding, etc.) for the operation and maintenance of these systems.			✓
8.1.g	The County shall implement a zoning program to comprehensively redistrict and rezone lands within UGBs according to updated community plan policies and map designations.			✓
8.1.h	The County will seek to focus capital improvements (schools, libraries, roads, and other infrastructure and public facilities) within the UGBs and STBs in accordance with the MIP.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable		DA	IA	NA
8.1.i	The County will promote (through incentives, financial participation, expedited project review, infrastructure/public facilities support, etc.) appropriate urban infill, redevelopment and the efficient use of buildable land within UGBs to avoid the need to expand the UGBs.			✓
8.1.j	The MIP's UGBs and STBs shall not be construed or implemented to prohibit the construction of a single-family dwelling on any existing parcel where otherwise permitted by law.			✓
Analysis:	**Not Applicable**			
RURAL GROWTH AREA				
Goal:				
8.2	Maui will maintain opportunities for agriculture and rural communities through sound planning and clearly defined development expectations.	✓		
Policies:				
8.2.a	Amendments to a RGB shall be reviewed as an MIP amendment. A RGB shall only be expanded if an island-wide inventory of existing land uses (residential, commercial, industrial) indicates that additional lands are necessary to provide for the needs of the projected population growth within ten years of that inventory; or, during the decennial update of the MIP.			✓
8.2.b	New development shall be consistent with RGB and all other applicable policies and requirements of the MIP. Public, quasi-public, civic, and limited commercial or industrial uses may be allowed in the RGB when the proposed uses demonstrate a public need and are consistent with the Community Plan and zoning.	✓		
8.2.c	Environmental protection and compatibility will be a top priority in rural growth areas.		✓	
8.2.d	All development within rural growth areas should avoid encroachment upon prime agricultural land.			✓
8.2.e	Rural growth areas include Rural Residential Areas and Rural Villages. Rural residential areas may be designated when they are located in association with or on the border of urban growth areas or Small Towns; and/or when they provide for complete, self-sufficient rural communities with a range of uses to be developed at densities that do not require urban infrastructure.			✓
8.2.f	Community plans shall provide for rural density land use designations only within RGBs; provided that limited community plan urban designations may be allowed within Rural Villages. New rural growth areas shall not be located where urban expansion may ultimately become necessary or desirable. New rural-density development shall not be allowed outside of a RGB.			✓
8.2.g	New rural growth areas intended to be complete, self-sufficient rural communities must be located a significant distance from existing urban areas, distinctly separated by agricultural or open lands.			✓
8.2.h	Urban-scale infrastructure and public facilities shall not be provided in rural areas except as described in the defined Level-of-Service (LOS) standards. There should be no expectations of urban services in rural areas.			✓
8.2.i	Urban development standards shall not be required within RGBs except in fulfillment of Federal law.			✓

Maui Island Plan Goals, Objectives and Policies Key: DA = Directly Applicable, IA = Indirectly Applicable, NA = Not Applicable		DA	IA	NA
8.2.j	The unique character and function of existing small towns and rural communities shall be protected to retain and preserve their sense of place.	✓		
8.2.k	Preserve rural landscapes in which natural systems, cultural resources, and agricultural lands are protected and development compliments rural character and contributes to the viability of communities and small towns.	✓		
8.2.l	The MIP's RGBs shall not be construed or implemented to prohibit the construction of a single family dwelling on any existing parcel where otherwise permitted by law.			✓
8.2.m	The County shall implement a zoning program to comprehensively redistrict and rezone lands within RGBs, and to implement community plan policies and map designations.			✓
8.2.n	At the time of zoning from agricultural to rural, Council will consider prohibiting restrictions on agricultural activity.			✓
Analysis: **The proposed project is directly applicable to the goal, objective and policies related to the maintenance of opportunities for agriculture and rural communities through sound planning and clearly defined development expectations. The proposed project area is located within a Rural Growth Boundary. It constitutes a public use that is consistent with the character of the rural community. The protection of environmental, cultural, historic and archaeological resources has been a priority during the planning of this project. In order to preserve the unique character of Ha'ikū, the DF&PS designed the proposed fire station in accordance with the Pā'ia-Hai'kū Country Town Guidelines. For example, in evaluating alternative roof designs for the proposed facility, the DF&PS decided to utilize a "saw-tooth" roof design, which is characteristic of the period of time when the region was used by plantations for large-scale agricultural crop production.**				
PROTECTED AREA POLICY				
8.3.a	The Protected Areas in Diagrams E-1, NW-1, N-1, NE-1, S-1, SE-1, and WC-1 should be concurrently reviewed with Table 8-2 and with any proposed land uses that may result in an adverse impact on a Protected Area. The County Council and the Administration should be notified if a Protected Area may be compromised by a development proposal.			✓
Analysis: **Not Applicable**				

SITE SELECTION POWERPOINT PRESENTATION DATED APRIL 10, 2007

APPENDIX H-1

ALOHA

Tuesday, April 10, 2007

Haiku Elementary School

Maui County
Fire & Public Safety Department
is dedicated to protect and preserve
life, environment, and property.

Specific Goals

- Suppress and extinguish all hostile fires
- Improve the department's response time performance to emergencies
- Increase response resources in rural areas
- Improve the department's emergency medical services capability
- Develop a plan to improve the community's fire protection insurance rating

3

Planning Process

Documents that assist the Fire Department in the decision-making process:

- National Fire Protection Association Standards
- Paia/Haiku Community Plan
- Maui County – 2007 Public Facilities Update
- Hawaii Insurance Rating Bureau guidelines

4

Site Selection

Based on the following:

1. National Fire Protection Association Standards
2. Fire/Rescue Operations within the district
3. Fire Department's Strategic Plan

5

Criteria

Location
- Specific area needs
  - Historical data (Response calls)
  - Critical areas (Schools, Community Center, Recreation attractions; i.e. Twin Falls, Kapuaiaaka)
- Five-Mile, Five-Minute Response
- District overlap with existing stations

6

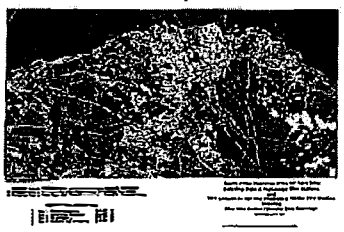
Criteria

Fire Operations
- Access to critical areas
- Road Safety
  - Ingress/Egress
  - Sight Distance
- Coverage Overlap (Personnel & Apparatus)

7

Planning Process

Maps



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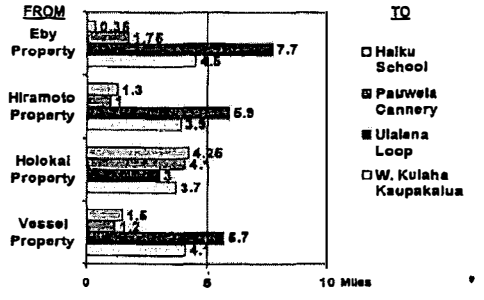
Response Distances
(Miles)



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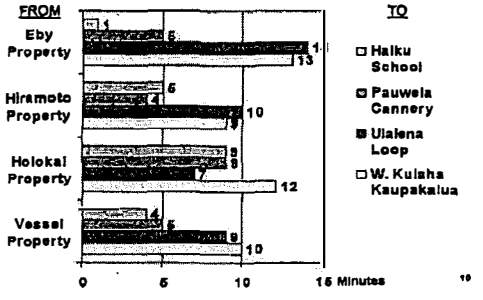
Response Times
(Minutes)



10

Criteria

Infrastructure
- Water
  - Meter on property
  - Hydrant distance
- Power
- Sewer
- Drainage

Other Considerations
- Zoning
- Land Availability
- Price

11

Assessment

Site	Location	Fire Operations	Infra-structure	Zoning	Acres Available	Price Price/Acre
Eby Property	3rd	3rd	2nd	Ag	21.7	$3.5 M $161,290
Hiramoto Property	1st	2nd	4th	Ag	5.9	$1.3 M $220,340
Holokai Property	4th	4th	3rd	Ag	6.3	State Owned
Vessel Property	1st	1st	1st	Ag	27.9	$3.2 M $114,695

12

Department Recommendation

Based on the goals and objectives of the Department of Fire and Public Safety and the assessment process, the Department recommends the Vessel property located at 3550 Hana Highway for the Haiku Fire Station.

13

Next Steps

1. Property appraisal
2. Council approval for land purchase
3. Land acquisition
4. Preliminary planning with the community through public meetings
5. Funding for construction fire station in Fiscal Year 2009

14

Community

Questions & Comments

15

MAHALO & ALOHA

16

2021 FEASIBILITY STUDY

APPENDIX

H-2

Feasibility Study

REVISED HAIKU FIRE STATION PROJECT
(TMK (2)2-7-007:008 (por.))

Prepared for:

County of Maui,
Department of Fire and Public Safety

February 2021
(Updated June 2021)

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by Munekiyo Hiraga

MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Feasibility Study

REVISED HAIKU FIRE STATION PROJECT
(TMK (2)2-7-007:008 (por.))

Prepared for:

County of Maui, Department of Fire and Public Safety

February 2021
(Updated June 2021)

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MUNEKIYO HIRAGA

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Exhibit B. Design Feasibility Analysis Report by Architects Hawaii Limited
Exhibit C. Updated Construction Cost Estimate
Exhibit D. Alternative Sites Assessment Memorandum and Summary Matrix

Executive Summary

BACKGROUND

This Feasibility Assessment for the County of Maui, Department of Fire and Public Safety (DF&PS) is a study on the viability of constructing the proposed Haiku Fire Station (HFS) on an approximate 6.1-acre site within a portion of land identified by TMK (2)2-7-007:008(por.), owned by the County of Maui. This property is referred to herein as the "originally considered site". The proposed HFS is intended to improve fire protection services throughout the Haiku area by providing a facility in a rural area of Maui where there is currently none available.

In January 2011, DF&PS published a Draft Environmental Assessment (EA) for the HFS project at the originally considered site. A Preliminary Final EA was prepared, but DF&PS subsequently elected not to proceed with the project. As such, a Final EA was not published.

SCOPE OF FEASIBILITY STUDY

This Feasibility Assessment explores the technical practicalities and economic justifiability of developing a modified version of the proposed fire station at the originally considered site. The Feasibility Assessment assesses revised design requirements and identifies updated construction costs, land use requirements, as well as an anticipated timeline to develop the project.

Additionally, at the request of DF&PS, this feasibility assessment also provides a comparative analysis of other potential sites that could be considered for the HFS in the Haiku area. An alternative sites assessment matrix is presented as part of this report which is accompanied by a memorandum describing the key assumptions and methodology used, limitations, key findings as well as the reasons supporting proceeding with the originally considered site.

SUMMARY OF STUDY FINDINGS

The feasibility assessment is based on a project having modified design parameters from that proposed in 2011. As examples, design changes reflected in the current fire station proposal eliminates the previously proposed helipad, ecological wastewater treatment system (to be replaced by a septic system), addition of an approximately 1,600 s.f. storage building, and deferral of the roof-mounted photo voltaic panels.

The modified scope does not impact constructability parameters, nor does it involve a reduction on service capacity for the proposed fire station. The current estimated project cost is $17.434 million vs. the estimated 2012 cost of $10.927 million. The higher cost is primarily attributed to time-based cost escalation.

Land use entitlements will also be required for the proposed implementation of the project. The feasibility assessment assumes that the Planning Director will initiate the District Boundary Amendment, Community Plan Amendment, and Change of Zoning processes. In coordination

with the project's Chapter 343, Hawai'i Revised Statutes EA, it is estimated that the overall land use and EA processes would take about two (2) years.

The estimated cost for the land use entitlements and EA process is $230,000.00, which would include a community outreach component.

BACKGROUND

I. BACKGROUND

A. DESCRIPTION OF ORIGINAL PROPOSAL

In 2011, the Department of Fire and Public Safety (DF&PS) proposed the construction of a new 7,528 square foot fire station and related improvements on a 6.1-acre parcel of land owned by the County of Maui. Identified by TMK No. (2)2-7-007:008(por.) and referred to as the originally considered site, the subject property is located in the vicinity of the intersection of Hana Highway and East Kuiaha Road in Haiku, Maui. See **Figure 1 (Location Map)**. The proposed facility was to include a helicopter landing pad and state-of-the-art features to ensure that services delivered could meet the life safety mandates of the DF&PS. The fire station was designed according to sustainable design principles, including an offsite wind turbine and ecological wastewater system, and was intended to undergo certification through the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) green building rating system.

In addition to the fire station, an approximately 4,200-foot waterline was proposed to connect the facility to an existing waterline at the West Kuiaha Road and Haiku Road intersection. The proposed waterline was to travel along East Kuiaha Road and Dolder Drive/Haiku Road.

Presently, fire prevention, suppression, and protection services for the Paia-Haiku Community Plan region are provided by the County's Paia and Makawao fire stations. The Paia fire station is located on Hana Highway in Paia town approximately six (6) miles to the west of the project site. The Makawao fire station is situated approximately eight (8) miles to the south of the project site on Makawao Avenue. Both the Paia and Makawao stations are undersized to meet the increasing fire protection service needs of the outlying rural communities, including Haiku, Pauwela and Peahi.

The Paia-Haiku Community Plan region has experienced a substantial increase in population in recent years. The population increased from 7,788 persons in 1990 to 11,866 persons in 2000, an increase of approximately 52 percent (County of Maui, 2006). More current demographic data suggests that regional population will continue to grow, although at a more moderate rate (Gale, 2019)[1]

The DF&PS has determined that a new fire station is, therefore, needed to meet the long-term fire protection services of the growing rural community in the Haiku area. The development of a new fire station at the location proposed will allow for the more efficient

[1] Gale (A Cengage Company) demographic data base, 2019.

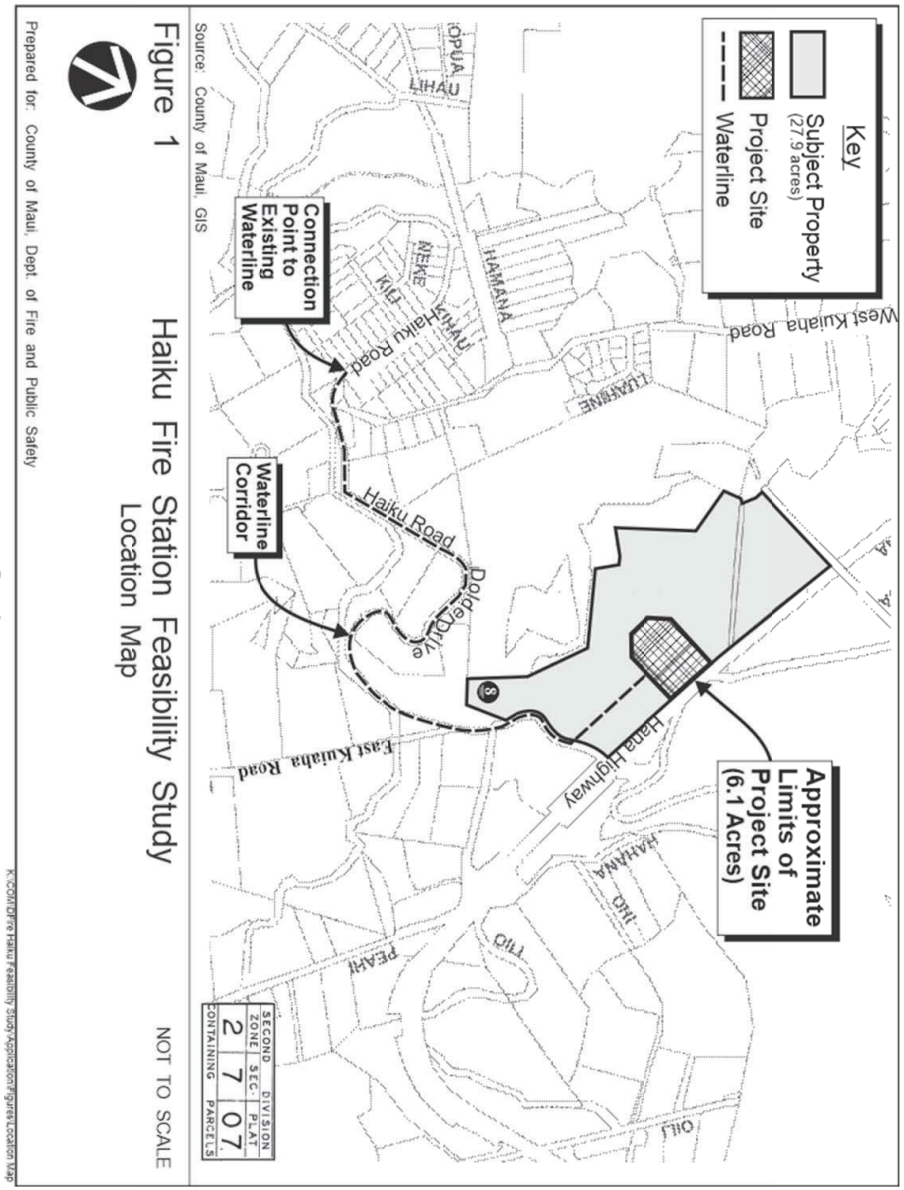

Figure 1 Haiku Fire Station Feasibility Study
Location Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

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deployment of emergency vehicles and shortened response times, both of which are deemed critical given access limitations and the prevalence of wooden structures throughout the Haiku area. As such, DF&PS is assessing the feasibility of advancing a modified HFS proposal for implementation.

B. DESCRIPTION OF PROPOSED PROJECT MODIFICATIONS

For various reasons, DF&PS decided not to move forward with the project following publication of the Draft EA in 2011. This Feasibility Assessment analyzes what it would take to now construct the proposed HFS with the following modifications to the original project plans:

1. Update plans and drawings to reflect current code and zoning requirements from the time the original plans were prepared to current standards.

2. Elimination of previous proposal to subdivide the lot from the larger parcel and keep the project site as a single lot.

3. Update costs for an offsite waterline along East Kuiaha Road for feasibility assessment purposes. Confirmation as to the need for offsite waterline will be carried out during the entitlement and preliminary engineering processes when the consultant team will be coordinating with agencies on more detailed infrastructural requirements.

4. Update costs for road widening requirements for feasibility assessment purposes. Confirmation as to applicability of road widening along East Kuiaha Road will be carried out with appropriate agencies during the entitlement and preliminary engineering processes when the consultant team will be coordinating with agencies on more detailed project infrastructural requirements.

5. Deletion of helicopter landing pad
   a. Grassed pavement to be deleted
   b. Concrete curb to be deleted
   c. Replace the foregoing with landscaping and irrigation

6. Deletion of wind turbine, utilities to turbine and access road

7. Deletion of wastewater treatment facility, lift station, wetland area and disposal field
   a. Replace with septic system

8. Deletion of solar hot water system and provide for future installation of PV panels on roof of HFS.

9. Revision of all skylights to solar tubes

10. Provision of a new 1,600 square foot apparatus storage structure

LAND USE ENTITLEMENT ASSESSMENT

II

II. LAND USE ENTITLEMENT ASSESSMENT

A. RELEVANT LAND USE DESIGNATIONS, REQUIRED PERMITTING AND APPROVALS

This section provides an analysis of the current land use designations and future required land use designations for the 6.1 acre project site to accommodate the proposed HFS. The project site is located near the intersection of Hana Highway and East Kuiaha Road, Haiku, Maui and identified by TMK (2)2-7-007:008(por.). Land use parameters at this location are governed by the following planning-based framework:

- State Land Use Designation
- Maui Island Plan
- Paia-Haiku Community Plan
- Maui County Zoning

The project site is located outside the County of Maui Special Management Area (SMA), as such a SMA Use Permit will not be required for project implementation.

State Land Use District

Chapter 205, Hawai'i Revised Statues (HRS), relating to the State Land Use Commission, establishes four (4) major land use districts: Agricultural, Conservation, Rural, and Urban. The proposed project area is located in the State's "Agricultural" land use district. See **Figure 2 (SLUC Map)** and **Exhibit "A" (Zoning and Flood Confirmation Form)**. The proposed HFS is not permitted in this land use designation and, as such, a District Boundary Amendment (DBA) to change the land use designation from the "Agricultural" to "Rural" district will be required prior to plan implementation.

Inasmuch as the project area is less than 15-acres in size, the Maui County Council will be the final approving authority for the DBA request.

Maui Island Plan

The Maui Island Plan (MIP), adopted in 2012, is a guidance document applicable to the island of Maui only. The MIP identifies goals and policies on a range of functional planning areas including, but not limited to, population growth, resource management, economic development, and land use. Importantly, the MIP establishes growth boundaries and strategies for future development within those boundaries.

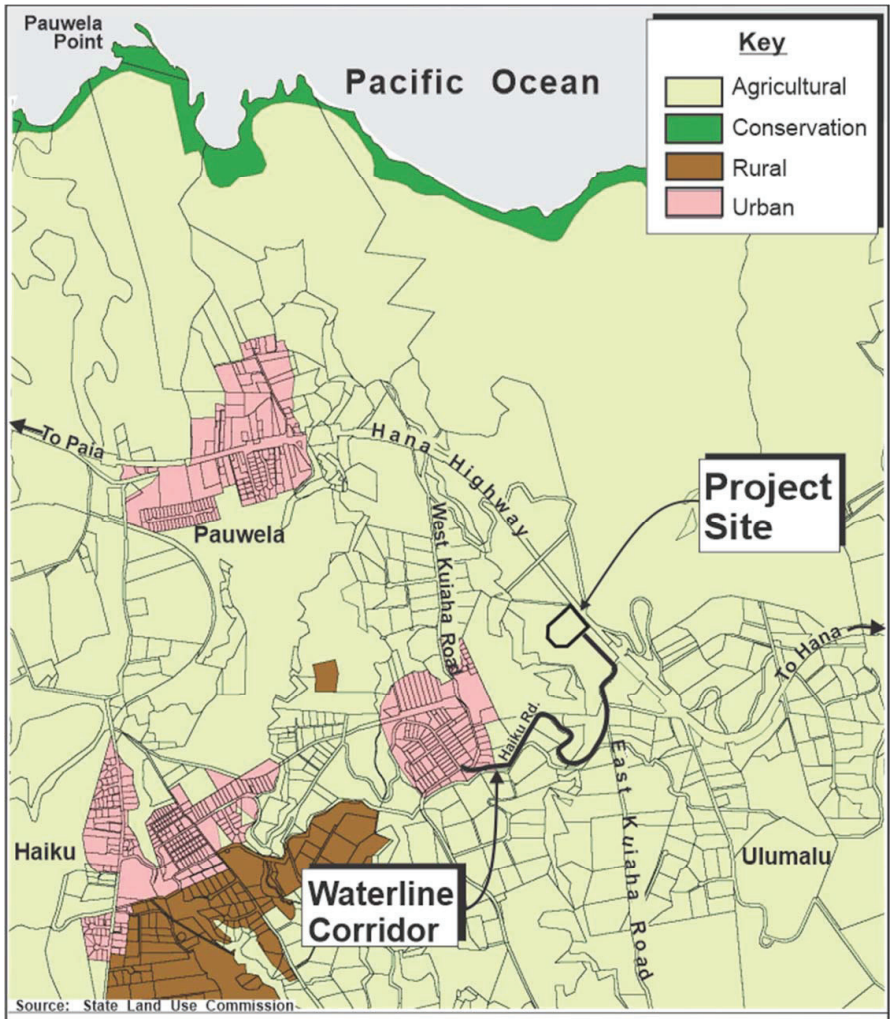

Figure 2 Haiku Fire Station Feasibility Study State Land Use Designations Map

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

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The proposed project area is located in the Rural Growth Boundary (RGB) of the MIP. See **Figure 3 (Maui Island Plan Map)**. In this regard, the proposed HFS is consistent with the directed growth strategy defined through the growth maps adopted in the MIP. No modification to the MIP is required for plan implementation.

Paia-Haiku Community Plan

The Paia-Haiku Community Plan, one of nine (9) community plans for Maui County, reflects current and anticipated conditions in the Paia-Haiku region and advances planning goals, objectives, policies, and implementation considerations to guide decision making in the region. The Paia-Haiku region includes the towns of Paia, Kuau, Haiku, Pauwela, and Kuiaha.

Land use guidelines are set forth by the Paia-Haiku Community Plan's land use map. As shown in **Figure 4 (Community Plan Map)**, the proposed project area is designated as "Agricultural". The proposed HFS is not consistent with the underlying "Agricultural" land use designation. As such, a Community Plan Amendment (CPA) will be required to change the community plan land use designation from "Agricultural" to "Public/Quasi-Public" prior to plan implementation.

Maui County Zoning

Maui County Zoning is the implementing mechanism for land use actions within Maui County. The zoning ordinances are recorded in Title 19 of the Maui County Code (MCC) and administered by the Department of Planning. These ordinances establish permitted uses and specific performance standards such as setbacks, heights, and floor area ratios for each of the zoning categories identified by the code.

The project site is zoned "Agricultural" district by the County of Maui. The proposed HFS is not permitted and not consistent with the underlying County zoning designation for the project site. As such, a Change of Zoning (COZ) from "Agricultural" district to "Public/Quasi-Public" district will be required prior to plan implementation. Coordination will be undertaken during the entitlement processing phase to confirm whether the project should seek a "P-1" or "P-2" zoning designation.

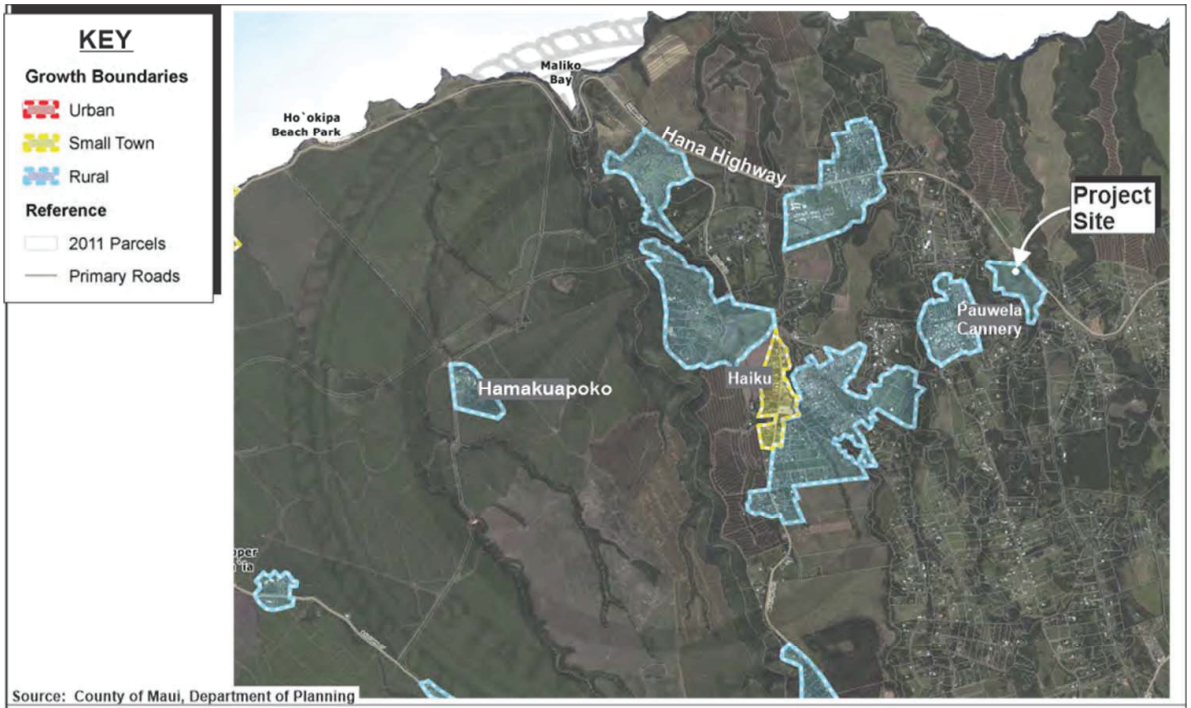

Figure 3 Haiku Fire Station Feasibility Study
Maui Island Plan Directed Growth
Map N2 Kuau/Haiku

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

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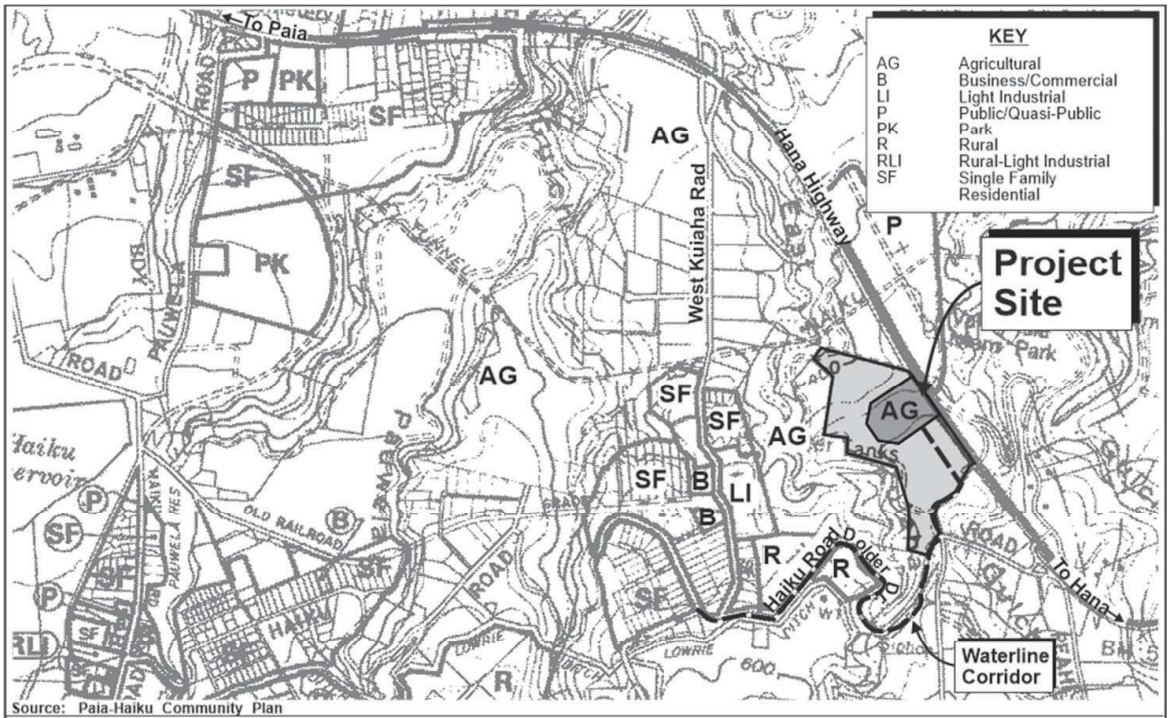

Figure 4 Haiku Fire Station Feasibility Study
Community Plan Land Use Designations

NOT TO SCALE

Prepared for: County of Maui, Dept. of Fire and Public Safety

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In summary, the necessary amendments to the land use entitlements are presented in **Table 1** below:

Table 1. Land Use Entitlement Summary

Land Use Designation	Existing[a]	Required Amendment
State Land Use Commission	Agricultural	Rural
Paia-Haiku Community Plan	Agricultural	Public/Quasi-Public
Maui County Zoning	Agricultural	Public/Quasi-Public

[a] Refer to **Exhibit "A" (Zoning and Flood Confirmation Form)**.

B. HAWAI'I REVISED STATUTES, CHAPTER 343, ENVIRONMENTAL IMPACT STATEMENTS

The proposed project involves a number of actions which trigger the need to comply with the requirements of HRS, Chapter 343, Environmental Impact Statements, including an amendment to the Paia-Haiku Community Plan, use of County lands and funds, and the installation of driveway and utility improvements within both the State-owned Hana Highway and the County-owned East Kuiaha Road and Haiku Road. As such, an Environmental Assessment (EA) of the proposed action will be necessary to evaluate the technical characteristics, environmental impacts and alternatives, as well as advance findings relative to the significance of the project and its related improvements. The EA document will also serve as the primary supporting technical document for a consolidated County-initiated DBA/CPA/COZ application document.

As noted above, the Draft EA for the original proposed HFS project was published in the Office of Environmental Quality Control (OEQC), *Environmental Notice*, on January 8, 2011. The Final EA was not published and therefore, DF&PS will need to withdraw the Draft EA via a withdrawal notice to be published in the *Environmental Notice*, before publication of a new Draft EA for the revised HFS project.

C. SCOPE OF WORK FOR REVISED HFS LAND ENTITLEMENTS

The required land use entitlements for the revised HFS project will involve a Chapter 343, EA, as well as DBA, CPA, and COZ applications. The cost estimate for these entitlements will be based on a defined scope of work.

The scope of work to complete the requisite land use entitlements are addressed in summary fashion below. The three (3) primary elements of the scope of work are:

1. Chapter 343, HRS EA (**Table 2**)

2. DBA, CPA and COZ Application Processes (**Table 3**)

3. Project Management and Community Outreach (**Table 4**)

Although the foregoing elements of the scope of work are listed as separate items, from a practical and functional standpoint, the respective tasks will be interwoven and coordinated to ensure an effective and efficient process in accordance with established County practices and policies. Once a decision is made by DF&PS to proceed with the project, an updated integrated project time schedule will be prepared for review and comment by the DF&PS. **Table 2**, **Table 3,** and **Table 4**, below, provides the respective task summaries for the critical work elements.

Table 2. Chapter 343, HRS Environmental Assessment Scope of Work and Process Considerations

Scope of Work Item	Key Tasks and Process Considerations
Early Consultation Letter (ECL)	• Prepare draft ECL for review by DF&PS. The purpose of the ECL is to provide, in writing, key parameters of the project's background and description to facilitate early input and comments from Federal, State and County agencies, as well as affected community stakeholders. • Following finalization of the ECL, the letter will be transmitted to the foregoing mentioned agencies and community stakeholders. Written responses received on the ECL will be responded to and included in the Draft EA
Draft EA	• Prepare the preliminary version of the Draft EA for review and comment by the DF&PS. The Draft EA document will address comments provided by DF&PS and will be prepared in accordance with the Department of Health's Hawaii Administrative Rules (Chapter 11-200.1) • The Draft EA will incorporate updated information, findings and recommendations of technical studies prepared for the EA process (e.g., traffic study, updated Cultural Impact Assessment (CIA), etc.) • The Draft EA will be published in the Office of Environmental Quality Control's *Environmental Notice* which triggers the initiation of the 30-day public comment period. (The Draft EA will be distributed to those agencies and stakeholders receiving the ECL, as well as others who may have been identified as affected entities.) • Since the overall land use entitlements process includes the DBA, CPA, and COZ processes, the Maui Planning Commission is assumed to be provided the opportunity to review and comment on the Draft EA. • Written comments received during the 30-day public comment period will be responded to and included in the Final EA.
Final EA	• Prepare the preliminary version of the Final EA for review and comment by the DF&PS. The Final EA document will address comments provided by DF&PS. • As applicable, the Final EA will be revised to address substantive comments received on the Draft EA. • The Final EA will be published in the Office of Environmental Quality Control's *Environmental Notice* which triggers the initiation of the 30-day EA challenge

	period. It is assumed that the Final EA will be published as a *Finding of No Significant Impact*.

Table 3. DBA, CPA, and COZ Scope of Work and Process Considerations

Scope of Work Item	Key Tasks and Process Considerations
DBA, CPA, and COZ Application Package	• The DBA, CPA, and COZ requests are assumed to be initiated by the County of Maui, Planning Director. Under this assumption, the DF&PS will provide the requisite support and assistance to compile the consolidated DBA, CPA, and COZ documentation. • Provide required assistance to the Planning Department in the distribution of the application package to agencies and community stakeholders (as noted in **Table 2**).
Processing of the Application Package	• Respond to agency comments on the application package. Responses to the DBA, CPA and COZ applications will be consolidated with the responses to comments on the Draft EA. • Coordinate with Planning Department to confirm a Maui Planning Commission public hearing date and to complete applicable noticing requirements. The public hearing will be scheduled following the 30-day challenge period for the Final EA. • Support DF&PS's participation in the Maui Planning Commission proceedings. Recommendations of the Maui Planning Commission are forwarded to the Maui County Council. Coordinate with Planning Department staff to ensure the timely transmittal of the Maui Planning Commission's record to the County Council. • Coordinate with County Council staff to address questions from the Committee assigned to review and approve the proposed bills for ordinance for the DBA, CPA and COZ. • Coordinate with DF&PS in preparing for Council Committee meetings and full Council meetings on the proposed bills for ordinances.

Table 4. Project Management and Community Outreach

Scope of Work Item	Key Tasks and Process Considerations
Project Management	▪ Manage and coordinate project actions with DF&PS on an ongoing basis. The Chapter 343, EA and DBA, CPA and COZ processes are involved in their requirements for agency coordination and response to public comments. The role of an effective project management framework is to ensure that details of coordination are addressed in a timely and complete manner. ▪ Specific tasks which may fall under the "project management" regime include meetings with DF&PS, agencies and stakeholders, as well as the provision of support services to facilitate productive outcomes in coordination action items (e.g., preparation of action matrices to track follow-up work requirements, preparation of correspondences on behalf of the DF&PS, etc.)
Community Outreach	▪ In coordination with the DF&PS, formulate an outreach plan which identifies key community stakeholders and creates a program for engaging stakeholders on an ongoing basis to ensure transparent dialogue throughout the Chapter 343, HRS and DBA, CPA, and COZ processes. ▪ A draft community outreach work program will be prepared for review and comment by the DF&PS. The work program will identify means and methods for engaging with stakeholders in a project appropriate context (e.g., one-to-one meetings, community meetings, media distribution, correspondences, etc.) ▪ Action items related to community outreach strategies will be integrated with key milestones of the Chapter 343, HRS and DBA, CPA, and COZ processes.

It is noted that the community outreach component of project planning represents a key aspect in advancing the project towards successful completion. Ongoing communication with key stakeholders will also provide input as to design and DF&PS operational feasibility. In a rapidly evolving environment where public health (COVID-19) issues intersect with public engagement opportunities, community outreach and engagement may need to extend beyond traditional public outreach methods to reach community stakeholders. A full spectrum of digital tools and engagement supported by physically distanced in-person meetings, where feasible, will ensure effective engagement.

D. COST ESTIMATE FOR REVISED HFS LAND ENTITLEMENTS

Based on the above scope of work, the entitlement costs for the revised HFS project are estimated to be approximately $230,000.00. The budget breakdown summary is presented in **Table 5**, below.

Table 5. Revised HFS Land Entitlements Cost Summary

Item	*Budget Ceiling*
I. Chapter 343 EA (Prepared Under 2019 EIS Rules)	$70,000.00
II. EA Supporting Studies by Technical Consultants (including support at hearings during EA/land use entitlement applications process)	
a. Updated Archaeological Inventory Survey and Updated Cultural Impact Assessment & Archaeological Monitoring Plan	$20,000.00
b. Updated Traffic Impact Analysis Report	$40,000.00
c. Noise Impact Analysis	$35,000.00
d. Flora/Fauna	$5,000.00
III. Land Use Entitlement Support -- District Boundary Amendment/Community Plan Amendment/Change of Zoning Applications -- Processing Assistance (Applications Assumed to be Initiated by the County of Maui – Planning Director)	$30,000.00
IV. Project Management and Community Outreach	$30,000.00
TOTAL*	**$230,000.00**

* Cost estimate assumes that there would be no zoning or height variances needed for project implementation. The estimates presented in this table also assume that the costs to revise preliminary architectural and engineering plans are excluded and will be developed upon further review and determination of specific project design criteria.

DESIGN FEASIBILITY ANALYSIS

III

III. DESIGN FEASIBILITY ANALYSIS

Architects Hawaii Limited (AHL) the original design architect of the Haiku Fire Station (HFS), was retained by Munekiyo Hiraga (MH) to carry out a design feasibility analysis and update requirements on the existing HFS plans as part of the HFS feasibility study. See **Exhibit "B"**. AHL's design analysis includes the following assessment:

i. Review and mark-up the current HFS design drawings to identify proposed modifications to drawings, specifications and calculations required to move the HFS proposal into the project entitlement phase.

ii. A final report documenting proposed project modifications and update requirements for the HFS plans and drawings for project entitlement phase.

AHL's analysis included a review and mark-up of the current complete set of plans for the HFS including architectural, civil, landscape, structural, mechanical/plumbing, and electrical drawings. The results of AHL's analysis is summarized as follows:

A. ARCHITECTURAL

The following is a summary of the review of the current plans and required updates, as well as DF&PS's requested architectural design modifications that will affect the construction documents

1. Code and Zoning Requirements: The drawings and specifications currently reflect the requirements of the 1997 Uniform Building Code (UBC) which was the effective code in 2011 when the documents were being prepared. The 2012 International Building Code (IBC) is the current code and the documents will need to be revised to comply with this code. In addition, the documents will need to be checked for any Maui County zoning changes that may have occurred within the past 9 years.

2. Department of Fire & Public Safety (DF&PS) Proposed Plan Modifications and Updates including the following:

    a. Delete subdivision lot split- to remain as a single lot

    b. Delete Helicopter Landing Pad access paving

    c. Omit wind turbine, utility connections and paving

    d. Replace ecological wastewater system with septic system

    e. Replace pervious pavement and grass pave with standard asphaltic concrete paving

    f. Add equipment storage building (approx. 1,600sf)

    g. Replace large skylights in HFS building with solar tubes

    h. Delete roof mounted photo voltaic panels and provide for future installation

B. CIVIL ENGINEER

Civil plans will be revised to meet current design and standards. During the land use entitlements phase, the project area will need to be re-evaluated to ensure that the earthwork is balanced, the utilities are the most feasible design, and water quality standards are met. Coordination with agencies will be carried out during the entitlement phase because the old comments may not apply and agreements made in 2011 will need to be discussed with current agency staff and reviewed, as applicable.

C. LANDSCAPE ARCHITECT

The anticipated changes to the landscape design are due to the removal of items identified by DF&PS from the original plans. These include:

1. The removal of the drip irrigation/wastewater disposal field

2. The removal of the lift station and constructed ecological wastewater system area, replaced with septic system

3. The removal of the maintenance road

4. The removal of the helicopter landing pad and access road

5. The removal of wind turbines #1 and #2

The removal of the above items will require landscape to replace the areas once occupied by their footprint. In most cases grass will be installed in areas where these items once were. The plant and materials list will also be adjusted to reflect the new landscape quantities.

D. STRUCTURAL ENGINEER

The company who prepared the structural set of drawings on the original HFS plans no longer provides structural engineering services. As such, AHL has retained Shigemura, Lau, Sakanashi, Higuchi and Associates, Inc (SLSH) to provide structural engineering design services for the proposed HFS project. As SLSH is not the design firm who prepared the structural drawings, the entire set of original structural drawings needs to be reviewed and modified to conform to the professional standard of care of SLSH and their responsibility as licensed structural engineers. Included in the required modifications will

be items related to the change in governing building code. With the exception of the wind load analysis, the changes resulting from reference to the 2012 edition of the IBC should not have an appreciable effect to the design loads. However, the detailing and presentation of the structural design may need to be modified based on the preference of the new Structural Engineer of Record.

In addition to the items mentioned above, additional information is needed in the structural drawings. An apparatus storage building will be added to the scope of work and no structural design had been provided in the existing set of drawings. Additional notes and details will also need to be provided for the rigid steel frames in order to properly show the design intent to the contractor. There is also a number of typical details, some of which may not apply to this project in general. As such, review and editing of that content needs to occur.

E. MECHANICAL/PLUMBING/FIRE PROTECTION ENGINEER

The mechanical revisions that are required to update the heating, ventilation, air conditioning (HVAC) system, plumbing and fire sprinkler design is driven by updates to current codes, equipment models as well as the deletion of LEED requirements. The Maui County adoption of International Energy Conservation Code (IECC) 2015 has increased the energy efficiency requirements for HVAC equipment, as well as mandated energy conservation measures such as motorized automatic outside air dampers. The selection of new, higher efficiency equipment is required to meet these efficiency standards. As a result, all HVAC drawings, specifications and equipment schedules are required to be revised. The lapse in time from the original submittal also resulted in improved and/or revised, improved equipment technology which also requires updates to the equipment schedule.

Plumbing revisions involve removal of LEED water catchment systems and conversion to standard storm drain systems. Garage floor drains are also not allowed per Maui County code so they, along with the associated oil interceptor shall be removed. The generator specifications and requirements which are actually electrical scope items have likely changed because of increased Environmental Protection Agency (EPA) standards. These revisions will have an impact on the generator room layout and configuration.

All drawings which have architectural revisions will also require the mechanical, plumbing and fire sprinkler drawings to also be revised. This will also require full coordination of equipment, air device, plumbing fixture/equipment and access panel locations as well as fire sprinkler head locations.

F. ELECTRICAL ENGINEER

Electrical design documents will be modified to meet current scope of work, current codes, current equipment requirements and current utility company requirements. To meet the current scope of work, the photo voltaic and wind turbine systems will be deleted. To meet the current energy code, the fluorescent light fixtures will be replaced with light emitting diode (LED) light fixtures and a new lighting control system will be included to incorporate daylighting controls, additional occupancy sensors and revised occupancy sensor light switches. The lighting layout will be revised to accommodate the LED light fixtures and addition of solar tubes. The power circuits will be revised to accommodate updated mechanical requirements that result from energy code requirements and current equipment requirements. The generator layout will be revised to accommodate updated equipment requirements. The Hawaiian Electric metering system will be revised to meet current Hawaiian Electric requirements, which includes moving the Hawaiian Electric metering equipment from the building to the exterior Hawaiian Electric pad-mounted transformer.

UPDATED CONSTRUCTION COST ESTIMATE

IV

IV. UPDATED CONSTRUCTION COST ESTIMATE

Based on the proposed modified and updated scope of work for the HFS, AHL has prepared a project construction cost estimate of $14.784 million. See **Exhibit "C"**. This estimated cost does not include East Kuiaha Road Widening improvements, which is separately estimated to cost $2.65 million. As such, the total construction costs for the revised HFS project, including the East Kuiaha Road Widening component, is estimated to cost $17.434 million.

A detailed breakdown of the construction cost estimate is provided in **Table 6**, below.

Table 6. Detailed Construction Cost Estimate

ITEM	*ESTIMATED COST*
Existing Conditions	$81,430.00
Concrete	$160,600.00
Masonry	$140,490.00
Metals	$316,730.00
Wood, Plastics, Composites	$101,850.00
Thermal & Moisture Protection	$259,275.00
Openings	$243,775.00
Finishings	$254,450.00
Equipment	$47,170.00
Furnishings	$2,000.00
Fire Sprinkler	$176,000.00
Plumbing	$208,250.00
HVAC	$458,500.00
Electrical	$846,480.00
Earthwork	$1,269,600.00
New Apparatus Storage Building: Assume 1,600 sf @ $550/SF	$800,000.00
Exterior Improvements (On Site): Civil Site Work	$457,370.00
Landscape	$322,135.00
Storm Drainage	$226,150.00
Water	$510,700.00
Sewer	$59,550.00

ITEM	*ESTIMATED COST*
Exterior Improvements (Off Site): Water	$1,193,000.00
TOTAL NET COST	**$8,215,505.00**
Margins & Adjustments (Estimated at 33% of Net)	$2,711,117.00
Estimated Total Cost (2012 $)	$10,926,622.00
Mark Up to 2021 $ (23% Cost Increase)	$13,439,745.00
Design Contingency at 10%	$14,783,719.00
TOTAL ESTIMATED BUDGET	**$14,783,719.00**
Not included in above budget estimate: East Kuiaha Road Widening	$2,650,000.00
Source: Architects Hawaii Limited July 2020	

In summary, the total project costs for the proposed revised HFS project including land entitlement costs ($230,000) and hard construction costs (assuming East Kuiaha Road widening improvements are required) is estimated to be $17,663,719.00.

V ANTICIPATED DEVELOPMENT TIMELINE

V. ANTICIPATED DEVELOPMENT TIMELINE

For illustration purposes, a preliminary time schedule for the land entitlement phase has been prepared for the revised HFS project, as shown in **Table 7**. In general, it is anticipated the entitlement phase will take approximately 24 months to complete. Once the entitlement process is complete, the building permit review phase is anticipated to take approximately six (6) to eight (8) months and construction is anticipated to take approximately 14 months.

Table 7. Preliminary Time Schedule for Environmental Assessment and Land Use Entitlements

Item No.	Work Element	Duration Estimate (Months)	Comments
1	Prepare Preliminary Architectural Plans	4	Revised plans to be used for Early Consultation Letter, updating of technical consultant studies and preparation of Draft EA, DBA, CPA and COZ application package
2	Draft EA and DBA, CPA and COZ Application Package	8	Includes completion of updated technical studies, preparation of Draft EA, Publication in OEQC's *Environmental Notice*, and 30-day public comment period
3	Final EA and DBA, CPA and COZ Public Hearing by Maui Planning Commission	5	Includes preparation of Final EA, Publication in OEQC's *Environmental Notice*, 30-day challenge period, and Maui Planning Commission Public Hearing
4	Transmittal of Maui Planning Commission Recommendations to County Council	4	
5	Council Committee Meetings on DBA, CPA and COZ	2	This duration dependent on when the Maui Planning Commission recommendations are transmitted to the County Council. If the County Council receives the Maui Planning Commission's recommendations during the Council's annual budget deliberations, the Committee's consideration of the matter may be delayed.
6	Council Approval of DBA, CPA and COZ Ordinances	1	Two (2) readings required for each ordinance.
TOTAL ESTIMATED DURATION		**24 months**	

The line item durations shown in **Table 7** are based on the consultants' previous experience with projects of similar scopes of work. However, it is noted that uncertainties and concerns raised during the review process by government agencies and the public and delivery of construction materials, goods and services may affect the individual line item durations.

FEASIBILITY ASSESSMENT SUMMARY

VI

VI. FEASIBILITY ASSESSMENT SUMMARY

This chapter assembles the analysis and findings of the previous sections of this report to summarize feasibility considerations for the proposed HFS. For the assessment, key assumptions utilized are as follows:

1. The HFS will utilize the same property limits as the original 6.1-acre fire station proposal.

2. Design modifications affecting function and cost parameters include the following:

    a. Design and construction requirements to be in accordance with updated building and related County of Maui code provisions.

    b. Elimination of the subdivision to create a separate 6.1-acre plat for the fire station.

    c. Deletion of the helipad and related improvements.

    d. Deletion of the wind turbine and related improvements.

    e. Replacement of the ecological wastewater treatment system with a septic system.

    f. Replacement of pervious and grass pavement with standard asphaltic concrete pavement

    g. Addition of an approximately 1,600 s.f. storage building.

    h. Replacing skylights with solar tubes.

    i. Deleting roof-mounted photo voltaic panels, and providing for future installation of same.

A. MODIFICATIONS TO PROJECT SCOPE – IMPLICATIONS FOR DESIGN AND CONSTRUCTION

Site development constraints and opportunities for the 6.1-acre property have not changed since 2011. While facility design requirements have been reduced to some extent (e.g., removal of helipad), a new storage building addition is now included in the design program. As well, based on preliminary consultation with the Department of Water Supply, the offsite waterline improvements are still assumed to be a necessary part of the project. The project's construction cost in 2012 was $10.927 million. AHL's 2020 construction cost estimate (including possible road widening for East Kuiaha Road) is $17.434 million.

In summary, site conditions have not changed since 2011 and updated design program requirements will not alter constructability parameters.

B. LAND USE ENTITLEMENTS

Land use entitlements requirements have not changed since 2011. While the Maui Island Plan was adopted by ordinance in the year 2012, the project area's Rural Growth designation does not create an additional impediment to land use regulatory processing. A new Chapter 343, HRS Environmental Assessment (EA) will be needed and DBA, CPA, and COZ land use changes required. It is assumed that the Planning Director would initiate the land use requests. These land use ordinances would still fall within the approving authority of the Maui County Council. While the EA and land use processes would be consolidated for efficiency purposes, it is considered reasonable that an approximately two (2) year timeframe to complete these processes would be needed. Additionally, these processes can be facilitated by a community outreach program specifically designed to engage stakeholders having a direct interest in the proposed action. The preliminary estimated cost to undertake the EA and land use entitlements process is $230,000.00.

C. FEASIBILITY ASSESSMENT SUMMARY

The total cost of the revised project (including land entitlements and hard construction costs) is estimated at $17,663,719.00. The proposed modified design for the HFS, from a comparative standpoint, is viewed as a project worthy of further review, including the potential for concept design development which may be discussed with community stakeholders. As with any significant capital project, project viability will also depend on the public's understanding and acceptance of its purpose, benefits and operational effects on the community, all of which may affect the overall timeframe and cost of delivery.

D. SITE ALTERNATIVES ASSESSMENT SUMMARY

An analysis of other potential sites was conducted to determine whether or not there is a more feasible location for the HFS in the Haiku area. See **Exhibit "D"**. The analysis found that most suitable properties in Haiku are limited by similar constraints as the originally considered site.

Three (3) additional properties were identified and compared against the originally considered site to determine if there are considerations, in location, permitting or design, which would warrant relocating the proposed fire station. The analysis concluded that the originally considered site offers substantial advantages over the other potential site alternatives in that it is already owned by the County of Maui, requires the least amount of entitlements (given its location within a rural growth boundary), has architectural and engineering plans that are already tailored to the specific property, and is located near the

Haiku community's historic incident locations. All of the other properties have similar infrastructure constraints, such as the need for offsite waterline upgrades and potential for roadway improvements, and no significant advantages to overcome the investments already made at the originally considered site.

COUNTY OF MAUI ZONING AND FLOOD CONFIRMATION FORM

EXHIBIT

A

20140522

RECEIVED
SEP 21 2020
COUNTY OF MAUI
DEPARTMENT OF PLANNING

COUNTY OF MAUI
DEPARTMENT OF PLANNING
One Main Plaza Building
2200 Main Street, Suite 315
Wailuku, Hawaii 96793

Zoning Administration and
Enforcement Division (ZAED)
Telephone: (808) 270-7253
Facsimile: (808) 270-7634
E-mail: planning@mauicounty.gov

ZONING AND FLOOD CONFIRMATION FORM

(This section to be completed by the Applicant)

APPLICANT NAME Munekiyo Hiraga (c/o Kauanoe Batangan) TELEPHONE 244-2015

PROJECT NAME General Information Request E-MAIL planning@munekiyohiraga.com

PROPERTY ADDRESS 3550 Hana Hwy, Haiku, HI 96708 TAX MAP KEY (2) 2-7-007:008

☐ Yes ■ No **Will this Zoning & Flood Confirmation Form be used with a Subdivision Application?**
IF YES, answer questions A and B below and comply with instructions 2 & 3 below:

A) ☐ Yes ■ No **Will it be processed under a consistency exemption from Section 18.04.030(B), MCC?**
IF YES, which exemption? (No. 1, 2, 3, 4 or 5) _____

B) State the purpose of subdivision and the proposed land uses (*ie 1-lot into 2-lots for all land uses allowed by law*):

INSTRUCTIONS:
1) **Please use a separate Zoning & Flood Confirmation Form for each Tax Map Key (TMK) number.**
2) **If this will be used with a subdivision application AND the subject property contains multiple districts/designations of (1) State Land Use Districts, (2) Maui Island Plan Growth Boundaries, (3) Community Plan Designations, or (4) County Zoning Districts; submit a signed and dated Land Use Designations Map, prepared by a licensed surveyor, showing the metes & bounds of the subject parcel and of each district/designation including any subdistricts.**
3) **If this will be used with a subdivision application AND the subject property contains multiple State Land Use Districts; submit an approved District Boundary Interpretation from the State Land Use Commission.**

(This section to be completed by ZAED)

LAND USE DISTRICTS/DESIGNATIONS (LUD) AND OTHER INFORMATION: [1] ☐ (SMA) Special Management Area

STATE DISTRICT: ☐ Urban ☐ Rural ☒ Agriculture ☐ Conservation

MAUI ISLAND PLAN — Growth Boundary:[2] ☐ Urban ☐ Small Town ☒ Rural ☐ Planned Growth Area ☐ Outside Growth Boundaries

Protected Area:[2] ☐ Preservation ☐ Park ☐ Greenbelt ☐ Greenway ☒ Sensitive Land ☒ Outside Protected Areas

COMMUNITY PLAN:[2] Agricultural

COUNTY ZONING: Agriculture District

OTHER/COMMENTS:

☐ (PD) Planned Development
☐ (PH) Project District
☐ See Additional Comments (Pg.2)
☐ See Attached LUD Map

FEMA FLOOD INFORMATION: A Flood Development Permit is required if any portion of a parcel is designated V, VE, A, AO, AE, AH, D, or Floodway, and the project is on that portion.

FLOOD HAZARD AREA ZONES [3] & BASE FLOOD ELEVATIONS: Zone X

☐ FEMA DESIGNATED FLOODWAY For Flood Zone AO, FLOOD DEPTH:

SUBDIVISION LAND USE CONSISTENCY: ☐ Not Consistent, (LUDs appear to have NO permitted uses in common).

_____ (Signature) ☐ Not Applicable, (Due to processing under consistency exemption No. ☐1, ☐2, ☐3, ☐4, ☐5).

☐ Interim Zoning, (The parcel or portion of the parcel that is zoned interim shall not be subdivided).

☐ [4] Consistent, (LUDs appear to have ALL permitted uses in common).

☐ [4] Consistent, upon obtaining an SMA, PD, or PH subdivision approval from Planning.

☐ [4] Consistent, upon recording a permissible uses unilateral agreement processed by Public Works (See Pg.2).

NOTES:
1 The conditions and/or representations made in the approval of a State District Boundary Amendment, Community Plan Amendment, County Change in Zoning, SMA Permit, Planned Development, Project District and/or a previous subdivision, may affect building permits, subdivisions, and uses on the land.
2 Please review the Maui Island Plan and the Community Plan document for any goals, objectives, policies or actions that may affect this parcel.
3 Flood development permits might be required in zones X and XS for any work done in streams, gulches, low-lying areas, or any type of drainageway; Flood development permits are required for work in all other zones. Subdivisions that include/adjoin streams, gulches, low-lying areas, or any type of drainageway might require the following designations to be shown on the subdivision map: 100-year flood inundation limits, base flood elevations, drainage reserves.
4 Subdivisions will be further reviewed during the subdivision application process to verify consistency, unilateral agreement requirements, and the conditions associated with a unilateral agreement [Section 18.04.030D, Maui County Code].

REVIEWED & CONFIRMED BY:

Shelby Hiraga 9/22/20
(Signature) (Date)

For: John S Rapacz, Planning Program Administrator, Zoning Administration and Enforcement Division

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DESIGN FEASIBILITY ANALYSIS REPORT BY ARCHITECTS HAWAII LIMITED

EXHIBIT B

ahl.

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Honolulu, Hawaii 96813

808.523.9636
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Katie Stephens AIA
Frederick Hong AIA, LEED AP
Deirdre Stearns AIA, LEED AP

July 13, 2020

HAIKU FIRE STATION
CONSTRUCTION DOCUMENTS ASSESSMENT SUMMARY

OVERVIEW

This is an assessment of the construction documents dated April 15, 2011 for the proposed Haiku Fire Station located at 3550 Hana Highway, Haiku, Maui. This project has been on hold for over 9 years, building codes have changed and the County of Maui has advised AHL of design modifications they would like to make moving forward with this project in 2020. The following is a summary of the modifications to drawings, specifications, calculations and basis of design proposed by each architectural and engineering discipline to meet the above requirements. Attached with this summary is an Assessment Report detailing what will need to be done to each drawing along with a red marked drawing set indicating where each modification will occur on the drawing.

ARCHITECRTURAL

The following modifications are proposed to be made to the architectural drawings and specifications.

1. Code and Zoning Requirements:
   The drawings and specifications currently reflect the requirements of the 1997 Uniform Building Code (UBC) which was the effective code in 2011 when the documents were being prepared. The 2012 International Building Code (IBC) is the current code for 2020 and the documents will need to be revised to comply with this code. In addition, the documents will need to be checked for any Maui County zoning changes that may have occurred within the past 9 years.
2. Fire Department/Maui County Modifications:
   A. Delete subdivision lot split- to remain as a single lot
   B. The following is a summary of Fire Department requested architectural design modifications that will affect the construction documents
      - Delete Helipad and access paving
      - Omit wind turbine, utility connections and paving
      - Replace wetlands with septic system
      - Replace pervious pavement and grass pave with standard ac Paving
      - Add equipment storage building (approx. 1,600sf)
      - Replace large skylights with solar tubes
      - Delete roof mounted photo voltaic panels, provide for future installation

CIVIL ENGINEER

Civil plans will be revised to meet current design and standards. The project area will need to be re-evaluated to ensure that the earthwork is balanced, the utilities are the most feasible design, water quality standards are met, agencies will need to be alerted

of the project because the old comments may not apply any more, agreements made in 2011 will need to be discussed with current agency staff and reapproved.

LANDSCAPE ARCHITECT

The anticipated changes to the landscape design are due to the removal of items identified as VE items. These include:

- The removal of the drip irrigation/wastewater disposal field
- The removal of the lift station and constructed wetland area, replaced with septic system
- The removal of the maintenance road
- The removal of the helipad
- The removal of wind turbines #1 and #2

The removal of the above items will require landscape to replace the areas once occupied by their footprint. In most cases grass will be installed in areas where these items once were.

The plant and materials list will also be adjusted to reflect the new landscape quantities.

DESIGN THAT INSPIRES

www.ahl.design

STRUCTURAL ENGINEER

Shigemura, Lau, Sakanashi, Higuchi and Associates, Inc (SLSH) is not the consultant who prepared the structural drawings. The company who prepared the structural set no longer provides structural engineer services. Therefore the entire set of structural drawings needs to be reviewed and modified to conform to the professional standard of care of SLSH and their responsibility as licensed structural engineers. Included in the required modifications will be items related to the change in governing building code. With the exception of the wind load analysis, the changes resulting from reference to the 2012 edition of the International Building Code (IBC) should not have an appreciable effect to the design loads. However, the detailing and presentation of the structural design may need to be modified based on the preference of the new Structural Engineer of Record.

In addition to the items mentioned above, additional information is needed in the structural drawings. An apparatus storage building will be added to the scope of work and no structural design had been provided in the existing set of drawings. Additional notes and details will also need to be provided for the rigid steel frames in order to properly show the design intent to the contractor. There is also a lot of typical details, some of which may not apply to this project in general. A review and editing of that content needs to occur.

MECHANICAL/PLUMBING/FIRE PROTECTION ENGINEER

The mechanical revisions that are required to update the HVAC, plumbing and fire sprinkler design is driven by updates to current codes, equipment models as well as the deletion of LEED requirements. The Maui County adoption of IECC 2015 has increased the energy efficiency requirements for HVAC equipment as well as mandated energy

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

ARCHITECTURAL DRAWINGS (AHL)

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
G-001	**General Information Sheet**		
1.	Revise note to reference applicable codes	Old codes superseded by current codes	
2.	Revise reference to structural engineer	Original engineer no longer doing structural engineering	
3.	Delete Ecological consultant reference	Deleted per County request	
G-002	**General Information Sheet**		
1.	Revise code analysis to confirm with current code	Old codes superseded by current codes	
2.	Confirm zoning requirements with current Maui County zoning		
A-001	**General Information Sheet**		
1.	No changes to this sheet		
A-002	**Overall Site Plan**		
1.	Delete all references to subdivision lot split	Directed by County to retain single lot	
2.	Delete wind turbine(s), structural support, maintenance road up to it from below and electrical connections as required.	Deleted per County request to reduce construction cost	
3.	Delete wetland area and drip irrigation disposal field, replace with septic system and place landscaping in place of wetland/drip irrigation disposal field.	Deleted per County request to reduce construction cost	
4.	Delete helipad and replace with landscaping as required	Deleted per County request to reduce construction cost	
5.	Add an apparatus storage structure to the rear of the site in the approximate location of the deleted helipad. Size of building approximately 1,600 sf. Provide power, lighting, ventilation and fire sprinklers per AHL proposed and submitted sketch.	Added per County request.	

conservation measures such as motorized automatic outside air dampers. The selection of new, higher efficiency equipment is required to meet these efficiency standards. As a result, all HVAC drawings, specifications and equipment schedules are required to be revised. The lapse in time from the original submittal also resulted in improved and/or revised, improved equipment technology which also requires updates to the equipment schedule.

Plumbing revisions involve removal of LEED water catchment systems and conversion to standard storm drain systems. Garage floor drains are also not allowed per Maui County code so they along with the associated oil interceptor shall be removed. The generator specs and requirements which are actually electrical scope items have likely changed because of increased EPA standards. These revisions will have an impact on the generator room layout and configuration.

All drawings which have Architectural revisions will also require the mechanical, plumbing and fire sprinkler drawings to also be revised. This will also require full coordination of equipment, air device, plumbing fixture/equipment and access panel locations as well as fire sprinkler head locations.

ELECTRICAL ENGINEER

Electrical design documents will be modified to meet current County of Maui Scope of Work, current codes, current equipment requirements and current utility company requirements. To meet the current County of Maui Scope of Work, the PV and Wind Turbine systems will be deleted. To meet the current energy code, the fluorescent light fixtures will be replaced with LED light fixtures and a new lighting control system will be included to incorporate daylighting controls, additional occupancy sensors and revised occupancy sensor light switches. The lighting layout will be revised to accommodate the LED light fixtures and addition of solatubes. The power circuits will be revised to accommodate updated mechanical requirements that result from energy code requirements and current equipment requirements. The generator layout will be revised to accommodate updated equipment requirements. The Maui Electric Company (MECo) metering system will be revised to meet current MECo requirements, which includes moving the MECo metering equipment from the building to the exterior MECo pad-mounted transformer.

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
A-003	**Architectural Site Plan**		
1.	Confirm parking requirements with current County of Maui zoning code	Old codes superseded by current codes	
2.	Delete wind turbine(s), structural support, maintenance road up to it from below and electrical connections as required.	Deleted per County request to reduce construction cost	
3.	Delete wetland area and drip irrigation disposal field, replace with septic system and place landscaping in place of wetland/drip irrigation disposal field.	Deleted per County request to reduce construction cost	
4.	Delete helipad and replace with landscaping as required	Deleted per County request to reduce construction cost	
5.	Add an apparatus storage structure to the rear of the site in the approximate location of the deleted helipad. Size of building approximately 1,600 sf. Provide power, lighting, ventilation and fire sprinklers per AHL proposed and submitted sketch.	Added per County request.	
6.	Delete reference to grass paving and replace with ac paving	Revised per AHL direction to reduce construction cost	
A-101	**Floor Plan Level 1**		
1.	No changes to this sheet		
A-102	**Enlarged Floor Plan Area 1**		
1.	No changes to this sheet		
A-103	**Enlarged Floor Plan Area 2**		
1.	No changes to this sheet		
A-104	**Floor Plan- Clerestory Level**		
1.	No changes to this sheet		
A-105	**Reflected Ceiling Plan**		
1.	Delete skylights in apparatus bay and replace with light tubes	Light tubes will still provide natural daylighting but are more economical solution	
A-106	**Roof Plan**		
1.	Delete skylights in apparatus bay and replace with light tubes	Light tubes will still provide natural daylighting but are more economical solution	
2.	Delete 14" diameter skylights and replace with light tubes	Light tubes will still provide natural daylighting but are more economical solution	
3.	Delete photovoltaic panels- possible future installation	Deleted per County request to reduce construction cost	
A-107	**Slab Edge Plan**		
1.	No changes to this sheet		
A-108	**Trash Enclosure Details**		
1.	No changes to this sheet		

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
A-201	**Exterior Elevations**		
1.	Delete skylights in apparatus bay and replace with light tubes	Light tubes will still provide natural daylighting but are more economical solution	
A-202	**Exterior Elevations**		
1.	Delete photovoltaic panels- possible future installation	Deleted per County request to reduce construction cost	
A-301	**Building Sections**		
1.	Delete photovoltaic panels- possible future installation	Deleted per County request to reduce construction cost	
A-302	**Building Sections**		
1.	No changes to this sheet		
A-303	**Building Sections**		
1.	Delete photovoltaic panels- possible future installation	Deleted per County request to reduce construction cost	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

CIVIL ENGINEERING DRAWINGS (AECOM)

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFICATION	COUNTY OF MAUI COMMENTS
ALL		UPDATE PLANS TO CURRENT STANDARDS/DESIGN	
ALL		REDO CALCULATION TO CURRENT STANDARDS UPDATE DESIGN	
ALL		REDO PLAN AND PROFILES TO CURRENT DESIGN	
T-1	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update title information/index/blocks	
C-1	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	update notes to current standards	
C-2	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	update notes to current standards	
C-3	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update General Site Plan to match current design	
C-4	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update erosion control plan to current standards	
C-5	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update notes and details to meet current standards	
C-6	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Are we keeping the same topo from 10 years ago?	
C-7	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current design	
C-8	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current design	
C-9	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current design	
C-10	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current design	
C-11	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current design	
C-12	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current design	
C-13	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update profiles to match current design	
C-14	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update profiles to match current design	
C-15	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update profiles to match current design	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

C-16	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update profiles to match current design	

| SHEET NUMBER | DESCRIPTION OF MODIFICATION(S) | REASON FOR MODIFICATION | COUNTY OF MAUI COMMENTS |

C-17	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to match current design and standards	
C-18	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to match current design and standards	
C-19	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to match current design and standards	
C-20	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to match current design and standards	
C-21	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to match current design and standards	
C-22	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to match current design and standards	
Offiste WL			
TITLE	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update title information/index/blocks	
NOTES	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	update notes to current standards	
PLAN	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update plan to match current standards	
PROFILE	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update profile to meet current standards	
DETAILS	UPDATE PLANS TO CURRENT STANDARDS/DESIGN	Update details to meet current standards	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

LANDSCAPE DRAWINGS (MD)

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
L-101			
1.	remove drip irrigation/wastewater disposal field	VE'd out	
2.	delete lift station and constructed wetland area and replace with septic system	VE'd out	
3.	add grass over previous lift station and constructed wetland area	to replace VE'd item	
4.	delete maintenance road	VE'd out	
5.	add grass over previous maintenance road	to replace VE'd item	
6.	delete subdivision map/lot splits where previously shown	Directed by County to retain single lot	
7.	adjust plant schedule per new plant quantities	result of changes	
L-102			
1.	delete helipad and maintenance/access road to helipad	VE'd out	
2.	add grass over previous helipad and maintenance/access road area	to replace VE'd item	
3.	delete subdivision map/lot splits where previously shown	Directed by County to retain single lot	
4.	delete wind turbine #1	VE'd out	
5.	delete wind turbine #2	VE'd out	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

STRUCTURAL DRAWINGS (SLSH)

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
S-001	**STRUCTURAL GENERAL NOTES**		
1.	Update building code reference.	State Building Code currently incorporates the 2012 edition the IBC. Counties will follow as mandated.	
2.	Update and/or add design references and standard specifications for the various construction materials.	Referenced documents have newer editions that are integral with the 2012 Building Code.	
3.	Revise contents of general notes to SLSH, Inc. office standards. Eliminate information that is redundant with the project specifications.	Original structural set produced by Wilson Okamoto Corporation (WOC). SLSH will be the new structural consultants with Howard Lau as the structural engineer of record.	
4.	Need to add rigid frame notes.	Rigid frame notes not currently on the drawings.	
S-002	**GENERAL STRUCTURAL NOTES-2**		
1.	Revise Metal Decking Notes to SLSH standards.	Same as item 3 of sheet S-001 above.	
2.	Revise special inspection requirements.	Requirements for special inspection have been evolving. The special inspection notes have to be updated to provide more information as prescribed in the current Building Code.	
3.	Revise design criteria.	Design reference needs to be updated. Basic wind speed in 2012 IBC is strength level instead of allowable level. Other nomenclature in the Design Criteria need to be updated.	
S-003	**TYPICAL CONC. GRADE SLAB DETAILS**		
1.	Remove unused typical details. Update balance of details to SLSH standards.	Some details may not apply to this project. Also, there is a new Structural Engineer of Record. The drawings must reflect the design preference of the new engineer.	
S-004	**TYPICAL CONC. DETAILS**		
1.	Update typical concrete details to SLSH standards.	New Engineer of Record, therefore the drawing must reflect the design preference of the new engineer.	
S-005	**TYPICAL CONCRETE WALL FOOTING DETAILS**		
1.	Update typical concrete wall footing details to SLSH standards.	New Engineer of Record, therefore the drawing must reflect the design preference of the new engineer.	
S-006	**TYPICAL CONCRETE MASONRY UNIT (CMU) DETAILS**		
1.	Update typical CMU details to SLSH standards.	New Engineer of Record, therefore the drawing must reflect the design preference of the new engineer.	
S-007	**TYPICAL METAL DECK DETAILS**		
1.	Update and add more typical metal deck details in order to conform to SLSH standards and include typical conditions not detailed.	New Engineer of Record, therefore the drawing must reflect the design preference of the new engineer.	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
S-101	**FOUNDATION PLAN**		
1.	Need to add a legend and foundation notes.	Plan legend and foundation notes need to be added.	
2.	Need to add foundation plan for new apparatus storage building and additional general.	New structure added.	
S-102	**ROOF FRAMING PLAN**		
1.	Need to add a legend and roof framing notes.	Plan legend and roof framing notes need to be added.	
2.	No room for apparatus storage roof framing.	Apparatus Storage building roof framing plan should be on this sheet. May need to move Apparatus Bay roof framing plan to a new sheet.	
S-201	**FOUNDATION DETAILS**		
1.	Need to incorporate new apparatus storage building details.	Apparatus Storage Building has been added to the scope of this project.	
S-301	**WALL SECTIONS**		
1.	Minimal change if any.	Engineer of Record may have a detailing preference for a connection requiring revision.	
S-302	**WALL SECTIONS**		
1.	Same as S-301	Same as S-301	
S-303	**WALL SECTIONS**		
1.	Same as S-301	Same as S-301	
2.	Need to include building section with rigid frame elevation. May need to add a new sheet.	Rigid frame elevations missing.	
S-401	**Details**		
1.	Minimal change if any.	Engineer of Record may have a detailing preference for a connection requiring revision.	
S-402	**Details**		
1.	Minimal change, (if any at all,) to the details currently on the sheet.	Engineer of Record may have a detailing preference for a connection requiring revision.	
2.	Rigid frame details need to be added.	Some rigid frame details need to be shown. Such as column to CMU wall connection.	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

MECHANICAL DRAWINGS (LSE)

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
M-1			
1.	REVISE EQUIPMENT SCHEDULE	NEW EQUIPMENT SELECTIONS AND MODEL NUMBERS SINCE 2011	
2.	REVISE ENERGY CERTIFICATION	NEW IECC 2015 CODE ADOPTION	
3.	ADD OUTSIDE AIR AUTOMATIC DAMPERS AT EACH FAN COIL UNIT	NEW IECC 2015 CODE ADOPTION	
M-2			
1.	REVISE GENERATOR ROOM LAYOUT	NEW GENERATOR SELECTION AND PHYSICAL SIZE SINCE 2011	
M-3			
1.	ADD OUTSIDE AIR AUTOMATIC DAMPERS AT EACH FAN COIL UNIT	NEW IECC 2015 CODE ADOPTION	
M-4			
1.	REVISE BACKGROUNDS TO REMOVE PV SYSTEM	DELETE LEED REQUIREMENTS (ELECTRICAL) AND DECREASED BUDGET	
2.	ADJUST MECHANICAL SECTIONS TO MATCH PLANS	PLAN CHANGES REQUIRE SECTION CHANGES	
FS-1			
1.	REVISE BACKGROUNDS TO MATCH ARCHITECTURAL	ARCHITECTURAL CEILING AND FLOOR PLAN REVISIONS REQUIRE UPDATED BACKGROUND INFO	
P-1			
1.	DELETE RAINWATER HARVESTING SYSTEM INCLUDING UNDERGROUND STORM DRAIN PIPING	DELETE LEED REQUIREMENTS AND DECREASED BUDGET	
2.	REVISE STORM DRAIN SYSTEM TO ACCOMMODATE CIVIL CHANGES	DELETE LEED REQUIREMENTS AND DECREASED BUDGET	
3.	DELETE TRENCH DRAINS AND OIL-WATER SEPARATOR SYSTEM	MAUI COUNTY CODE DOES NOT ALLOW INTERIOR GARAGE DRAINS	
4.	REVISE GENERATOR ROOM LAYOUT	NEW GENERATOR SELECTION AND PHYSICAL SIZE SINCE 2011	
5.	REVISE EQUIPMENT SCHEDULE	NEW EQUIPMENT SELECTIONS AND MODEL NUMBERS SINCE 2011. DELETE RAINWATER HARVESTING EQUIPMENT	
NEW SHEETS	ADD DETAILS, DIAGRAMS AND ENLARGEDSCALE PLANS	PREVIOUS DRAWINGS WERE NOT AT 100% COMPLETION	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

ELECTRICAL DRAWINGS (ECS)

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
E-1			
1.	Revise and add symbols	New Energy Code (IECC 2015 Adopted)	
2.	Revise Energy Stamp	New Energy Code (IECC 2015 Adopted)	
E-2			
1.	Revise Electrical Site Plan background and adjust electrical systems to match new background	Architectural and Civil scope revisions. Delete wind turbine	
2.	Delete wind turbine	Budget/Scope reduction	
3.	Delete wind turbine ducts from Duct Section Schedule	Budget/Scope reduction	
E-3			
1.	Revise electrical system to accommodate mechanical revisions	New Energy Code (IECC 2015 Adopted)	
E-4			
1.	Revise electrical system to accommodate mechanical revisions	New Energy Code (IECC 2015 Adopted)	
2.	Delete PV inverters and switches	Budget/Scope reduction	
3.	Move MECO CT's and meter to exterior MECO transformer per current MECO requirements, if possible on single-phase transformer	Updated MECO requirements	
4.	Revise generator dimensions.	Updated generator size.	
E-5			
	Revise fire alarm system. Majority of changes will be adding visual devices.	New Fire Code (NFPA 1 2012 Adopted)	
E-6			
1.	Revise fire alarm system. Majority of changes will be adding visual devices.	New Fire Code (NFPA 1 2012 Adopted)	
E-7			
1.	Revise light fixture layout	New Energy Code (IECC 2015 Adopted) and reduced IES lighting level requirements, so might be able to eliminate some light fixtures.	
2.	Revise light fixture layout	Accommodate the addition/increase of solatubes	
	Add daylighting control system	New Energy Code (IECC 2015 Adopted)	
3.	Revise electrical system to accommodate mechanical revisions	New Energy Code (IECC 2015 Adopted)	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

SHEET NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
E-8			
1.	Revise light fixture layout	New Energy Code (IECC 2015 Adopted) and reduced IES lighting level requirements, so might be able to eliminate some light fixtures.	
2.	Add daylighting control system	New Energy Code (IECC 2015 Adopted)	
3.	Revise electrical system to accommodate mechanical revisions	New Energy Code (IECC 2015 Adopted)	
E-9			
1.	Delete sheet.	Budget/Scope reduction, so delete PV system	
E-10			
1.	Revise light fixtures from fluorescent and HPS to LED type.	New Energy Code (IECC 2015 Adopted)	
E-11	No changes to this sheet		
E-12			
1.	Revise HPS light fixture to LED light fixture	New Energy Code (IECC 2015 Adopted)	
E-13			
1.	Delete PV system from One-Line Diagram and delete PV Notes.	New Energy Code (IECC 2015 Adopted)	
2.	Delete Wind Turbine system from One-Line Diagram and delete Wind Turbine Notes.	New Energy Code (IECC 2015 Adopted)	
3.	Move MECO CT's and meter to exterior MECO transformer per current MECO requirements, if possible on single-phase transformer	Updated MECO requirements	
E-14			
	Revise circuits and add circuit(s) on panel schedules to accommodate mechanical revisions	New Energy Code (IECC 2015 Adopted)	
	Revise loads for circuits on panel schedules per revision from fluorescent to LED light fixtures.	New Energy Code (IECC 2015 Adopted)	
E-15	No changes to this sheet		
E-16			
1.	Revise Fire Alarm Riser Diagram to reflect fire alarm system plan revisions. Majority of changes will be adding visual devices.	New Fire Code (NFPA 1 2012 Adopted)	
2.	Delete Typical Night Light Control Diagram (this function will be covered by the new Lighting Control Diagram)	New Energy Code (IECC 2015 Adopted)	
E-17			
1.	This is a new drawing. Add Lighting Control Diagram to indicate new daylighting control and occupancy sensor systems.	New Energy Code (IECC 2015 Adopted)	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

ARCHITECTURAL SPECIFIATIONS (AHL)

DIVISION NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
Division 0			
Intro, Bidding etc.	Instructions to Bidders, Notice to Contractors, Proposal Form, Request for Tax Clearance, Special Provisions, State Wage Rates, Supplementary Conditions	County to provide up to date Division 1 documents	
Division 1			
General Requirements	Summary of Work	AHL to confirm and make current	
	Project Management and Coordination		
	Submittal proceedures		
	LEED Requirements		
	Quality Requirements		
	Temporary Facilities and Controls		
	Construction Waste Management		
	Product Requirements		
	Execution Requirements		
	Hazzardous Materials Survey		
	Closeout Procedures		
	Project As Built Drawings		
	Operation and Maintenance Data		
	General Commissioning Requirements		
Division 6			
Wood and Plastics	Rough Carpentry	AHL to confirm and make current	
	Miscellaneous Carpentry		
	Heavy Timber Construction		
	Wood Decking		
	Sheathing		
	Finish Carpentry		
	Exterior Finish Carpentry		
	Interior Finish Carpentry		
	Preservative Treated Lumber		
	Interior Architecture Woodwork		
	Solid Surface Fabrications		
	Decorative Plastic Laminates		

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

DIVISION NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
Division 7			
Thermal and Moisture Protection	Sheet Waterproofing	AHL to confirm and make current	
	Traffic Coatings		
	Building Insulation		
	Preformed Metal Roofing		
	Metal Roof Panels		
	Fiber Reinforced Cementious Panel		
	Thermal Plastic Membrane Roofing		
	Flashing and Sheet Metal		
	Preformed Metal Roofing		
	Sheet Metal Flashing, Gutters and Downspouts		
	Firestopping		
	Joint Sealers		
	Sealants		
Division 8			
Doors and Windows	Steel Doors and Frames	AHL to confirm and make current	
	Wood Doors and Frames		
	Flush Wood Doors		
	Access Doors and Frames		
	Sectional Overhead Doors		
	Vinyl Windows		
	Metal Framed Skylights		
	Tubular Skylights		
	Finish Hardware		
	Glazing		
	Mirrors		
	Structured Polycarbonate-Panel Assemblies		

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

ELECTRICAL SPECS (ECS)

SECTION NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
16011			
1.	Delete PV and Wind Turbine from description of work.	Budget/Scope reduction	
2.	Change Oceanic Time Warner Cable to Spectrum	Company name revision	
16100			
1.	Delete PV specs	Budget/Scope reduction	
16208			
1.	Revise generator spec to meet current requirements such as Tier level.	Updated EPA requirements.	
16262	No changes to this section		
16510			
1.	Delete fluorescent and HPS light fixture specs and replace with LED light fixture specs	New Energy Code (IECC 2015 Adopted)	
2.	Add daylight sensor specs	New Energy Code (IECC 2015 Adopted)	
3.	Add lighting control panel specs	New Energy Code (IECC 2015 Adopted)	
16530			
1.	Delete HPS specs and replace with LED light fixture specs	New Energy Code (IECC 2015 Adopted)	
16700			
1.	Update telecom cables from Category-5e to Catergory 6	Update to current telecom standards.	
16725			
1.	Verify if County still want to specify around Simplex. Update part/device numbers to current part/device number.	Update to current requirements.	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

MECHANICAL SPECIFIATIONS (LSE)

SECTION NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
15300	UPDATE CODE INFO, EQUIPMENT SELECTIONS, MODEL NUMBERS	COMPLY WITH CURRENT CODES AND UPDATED EQUIPMENT	
15400	UPDATE CODE INFO, EQUIPMENT SELECTIONS, MODEL NUMBERS	COMPLY WITH CURRENT CODES AND UPDATED EQUIPMENT AND DESIGN REVISIONS	
15800	UPDATE CODE INFO, EQUIPMENT SELECTIONS, MODEL NUMBERS	COMPLY WITH CURRENT CODES AND UPDATED EQUIPMENT AND DESIGN REVISIONS	

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

DIVISION NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
Division 9		AHL to confirm and make current	
Finishes	Gypsum Wall Board		
	Gypsum Board Assemblies		
	Grout		
	Floor and Wall Tile		
	Cementitious Wood Fiber Ceilings		
	Suspended Acoustical Ceilings		
	Resilient Athletic Flooring		
	Resilient Wall Base and Accessories		
	Resilient Base-Floor Base Moulding and Corners		
	Static Dissipative Tile		
	Painting		
	Stain		
	Tackable Wall Covering		
Division 10		AHL to confirm and make current	
Specialties	Visual Display Boards (Whiteboards and Tackboards)		
	Toilet Compartments		
	Solid Phenolic Partitions and Urinal Screens		
	Louvers and Vent		
	Acoustical Louvers		
	Wall and Corner Guards		
	Manufactured Exterior Specialties		
	Flagpoles - Signage		
	Identifying Devices		
	Exterior Fiberglass Signs		
	Signage		
	Lockers		
	Metal Lockers and Locker Room Accessories		
	Fire Extinguishers and Cabinets		
	Wire Mesh Partitions		
	Storage Shelving		
	Toilet Accessories		
	Miscellaneous Specialties		
Division 11		AHL to confirm and make current	
Equipment	Public Address System		
	Residential Appliances		
	Appliances		
Division 12		AHL to confirm and make current	
Furnishings	Window Treatment		

HAIKU FIRE STATION CONSTRUCTION DOCUMENTS ASSESSMENT

DIVISION NUMBER	DESCRIPTION OF MODIFICATION(S)	REASON FOR MODIFIATION	COUNTY OF MAUI COMMENTS
Division 13		AHL to confirm and make current	
Special Construction	Storage Tanks		
	Removal and Disposal of Asbestos Containing Material		
	Asbestos Abatement		
	Lead-Containing Paint Control Measures		
	Removal and Disposal of Polychlorinated Biphenyls (PCB) and Mercury		
	Asbestos Abatement Monitoring		
	Solar and Wind Energy Equipment		
	Photovoltaic Collector		

HAIKU FIRE STATION

3550 Hana Highway
Haiku, Maui, Hawaii 96708
TMK 2-2-7-07:008
AHL JOB NO 5898.001

PROJECT SUMMARY

THE PROJECT SITE FOR THE HAIKU FIRE STATION IS LOCATED NEAR HANA HIGHWAY IN HAIKU ON THE ISLAND OF MAUI. THE PROPOSED SITE IS PART OF A LARGER PARCEL THAT IS FURHTER IDENTIFIED AS TAX MAP KEY - 2-2-7-07:008.

PROJECT CHARACTERISTICS:
THE PROJECT WILL INCLUDE THE DECONSTRUCTION OF 5 STRUCTURES AND A LARGE CONCRETE SLAB.

THE PROPOSED BUILDING WILL BE LOCATED WITHIN A 27.90 ACRE DEVELOPMENT AREA. IT WILL PROVIDE ADMINISTRATIVE OFFICES, APPARATUS BAYS FOR VEHICLE STORAGE FOR THE COUNTY OF MAUI DEPARTMENT OF FIRE & PUBLIC SAFETY STATIONED IN HAIKU. IN ADDITION TO OFFICER SLEEPING QUARTERS, FOOD PREPARATION, DINING, AND EXERCISE FACILITIES, THIS FACILITY WILL ALSO ADDRESS DIESEL FUEL STORAGE.

MAUI COUNTY'S FIRE DEPARTMENT IS COMMITTED TO ATTAIN THE HIGHEST LEVELS OF LEED CERTIFICATION.

THE FACILITY SHALL BE BE FULLY ACCESSIBLE AND MEET ADA REQUIREMENTS.

THE BUILDING WILL INCLUDE AUTOMATIC FIRE SPRINKLER PROTECTION.

CONSULTANTS

ARCHITECT:	**Architects Hawaii, Limited 1001 BISHOP ST., SUITE 200 HONOLULU, HAWAII 96813**	ELECTRICAL:	**ECS INC. 615 PIIKOI ST., SUITE 207 HONOLULU, HAWAII 96814**
CIVIL:	**AECOM (M&E Pacific Inc.) 841 BISHOP ST., SUITE 1900 HONOLULU, HAWAII 96813**	ACOUSTICAL:	**DL Adams Associates, Ltd. 970 N. KALAHEO AV, A311 KAILUA, HAWAII 96734**
STRUCTURAL:	**~~Wilson Okamoto Corporation 1907 S. BERETANIA ST., SUITE 400 HONOLULU, HAWAII 96826~~**	LANDSCAPE:	**KI Concepts, LLC 1580 MAKALOA ST., SUITE 1005 HONOLULU, HAWAII 96814**
MECHANICAL:	**Randolph Murayama & Associates 1267 YOUNG ST. HONOLULU, HAWAII 96814**	ECOLOGICAL:	**~~Roth Ecological Design Int. LLC P.O. BOX 11081 HONOLULU, HAWAII 96828~~**

Shigemura, Lau, Sakanashi, Higuchi

APPLICABLE CODES

UNIFORM BUILDING CODE, 1997 EDITION WITH LOCAL AMENDMENTS

UNIFORM PLUMBING CODE, 1997 EDITION WITH LOCAL AMENDMENTS

NATIONAL ELECTRIC CODE

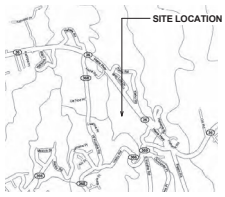
UNIFORM FIRE CODE, 1997 EDITION WITH 1998 & 1999 SUPPLEMENTS

LAND USE ORDINANCE, APRIL 2003

Confirm new codes and impacts to project design and costs

ISLAND MAP

VICINITY MAP



APPROVALS

CHIEF, DEPARTMENT OF FIRE AND PUBLIC SAFETY
COUNTY OF MAUI — DATE

DIRECTOR, DEPARTMENT OF WATER SUPPLY — DATE
(Approval is limited to the Water System Improvements which will be dedicated to the Department Water Supply)

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HAIKU FIRE STATION
3550 HANA HWY
HAIKU, MAUI

PERMIT SET - APRIL 15, 2011

COVER SHEET

LICENSED PROFESSIONAL ARCHITECT — No. 7418 — TERRY M. CLAWSON — HAWAII, U.S.A.

NO.	DATE	ISSUE/DESCRIPTION
1	06/01/2011	Updated Permit Set

PROJECT NO: 5898.001
RM FILE:
DRAWN BY: Author
DATE: APRIL 15, 2011
DRAWING NO:

G-001

of Sheets

DRAWING LIST

NO.	SHEET NAME
GENERAL	
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C-2	CONSTRUCTION NOTES 2
C-3	DOT NOTES & DETAIL
C-4	GENERAL SITE PLAN
C-5	EROSION CONTROL PLAN
C-6	EROSION CONTROL PLAN DETAIL
C-7	DECONSTRUCTION PLAN
C-8	SITE PLAN
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C-10	GRADING & DRAINAGE PLAN
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S-002	GENERAL STRUCTURAL NOTES-2
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S-004	TYPICAL CONCRETE DETAILS
S-005	TYPICAL CONCRETE WALL FOOTING DETAILS
S-006	TYPICAL CONCRETE MASONRY UNIT (CMU) DETAILS
S-007	TYPICAL METAL DECKING DETAILS
S-101	FOUNDATION PLAN
S-102	ROOF FRAMING PLAN
S-201	FOUNDATION DETAILS
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S-401	DETAILS
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A-003	ARCHITECTURAL SITE PLAN
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A-103	ENLARGED FLOOR PLAN
A-104	FLOOR PLAN - CLERESTORY LEVEL
A-105	REFLECTED CEILING PLAN - LEVEL 1
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A-107	SLAB EDGE PLAN
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A-201	EXTERIOR ELEVATIONS
A-202	EXTERIOR ELEVATIONS
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A-402	INTERIOR ELEVATIONS
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A-404	INTERIOR ELEVATIONS
A-405	INTERIOR ELEVATIONS
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A-509	MISC DETAILS
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A-602	DOOR DETAILS
A-603	DOOR DETAILS
A-604	WINDOW SCHEDULE AND WINDOW TYPES
A-605	ROOM FINISH SCHED., COLOR/MATERIAL SCHED.
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PA-103	PA SYSTEM ENLARGED FLOOR PLAN AREA 2
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E-6	SIGNAL PLAN - LEVEL 1B
E-7	LIGHTING PLAN - LEVEL 1A
E-8	LIGHTING PLAN - LEVEL 1B
E-9	ELECTRICAL ROOF PLAN
E-10	LUMINAIRE SCHEDULE
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E-12	MISCELLANEOUS DETAILS
E-13	ONE-LINE DIAGRAM
E-14	PANEL SCHEDULE
E-15	TELEDATA SYSTEM & CATV SYSTEM RISER DIAGRAM
E-16	FIRE ALARM RISER, & MISC DIAGRAM.

BUILDING CODE INFORMATION

BUILDING PARCEL SIZE: 6.33 ACRES (275,732.00 SF)

OCCUPANCY: B

TYPE OF CONSTRUCTION: TYPE V - N

ALLOWABLE FLOOR AREA : 1 STORY, 8,000 SF/STORY
Area Increase 525.3 = 8000 SF x 3 = 24,000 SF

ACTUAL BUILDING AREA: 9,994 SF

FIRE SPRINKLER: YES

REQ. EXITS 2 — 6 PROVIDED

OCCUPANT LOAD CALCULATIONS: 82

PARKING DATA:

REQUIRED PARKING: 5315 SF / 500 SF = 11 PARKING STALLS

ON-SITE STALLS: 11 PARKING STALLS

LOADING STALLS REQ: 1 LOADING STALL PER 10,000 SF

LOADING STALLS PROVIDED: 1 LOADING STALLS

ADA STALLS REQ: 2 PARKING STALL

ADA STALLS PROVIDED: 2 PARKING STALL

ZONING & CODE INFORMATION

PROJECT:	HAIKU FIRE STATION
PARCEL:	3550 HANA HIGHWAY HAIKU, MAUI, HAWAII 96708
BUILDING CODE:	1997 UBC
TMK:	2-2-7-07:008
OWNER:	COUNTY OF MAUI
STATE LAND USE:	AG (REVISE TO RURAL)
COMMUNITY PLAN REGION:	PAIA - HAIKU COMMUNITY PLAN
COUNTY ZONING:	AG (REVISE TO PUBLIC/QUASI-PUBLIC)
SMA:	NONE
FLOOD ZONE:	C - AREAS OF MINIMAL FLOODING
LOT SIZE::	27.429 ACRES
LOT COVERAGE:	XX
BUILDING SUMMARY:	MAIN BUILDING 5,315 SF - APPARATUS BAY 3,192 SF - COVERED LANAI 1,487 SF TOTAL 9,994 SF TRASH ENCLOSURE 115 SF
ALLOWABLE HEIGHT:	2 STORIES, NOT TO EXCEED 35 FT
ACTUAL HEIGHT:	1 STORY, 25 FT
DISTANCE TO PROPERTY LINE:	FRONT YARD 15' MIN. SIDE YARD 10' MIN. REAR YARD 15' MIN.

ADDITIVE ALTERNATES

Confirm with new codes

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HAIKU, MAUI

PERMIT SET - APRIL 15, 2011

SHEET INDEX, SYMBOLS, GENERAL INFO

LICENSED PROFESSIONAL ARCHITECT — No. 7418 — TERRY M. CLAWSON — HAWAII, U.S.A.

NO.	DATE	ISSUE/DESCRIPTION
1	06/01/2011	Updated Permit Set

PROJECT NO: 5898.001
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DATE: APRIL 15, 2011
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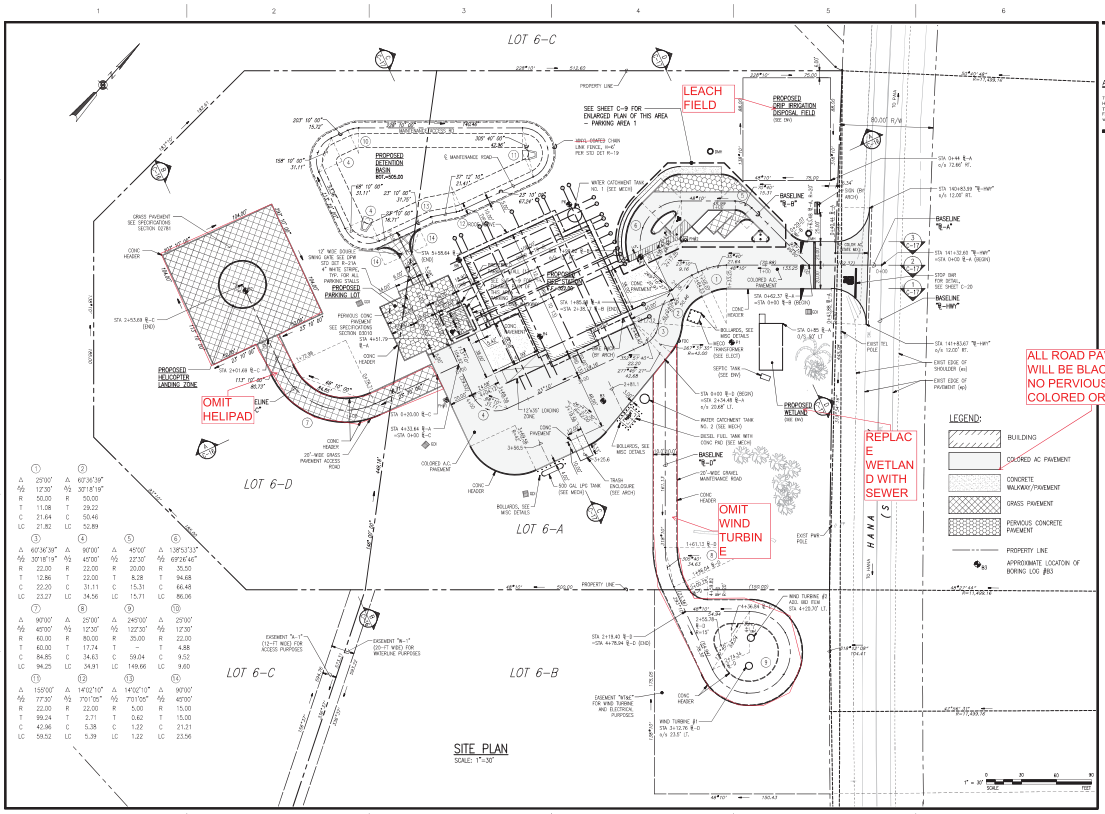

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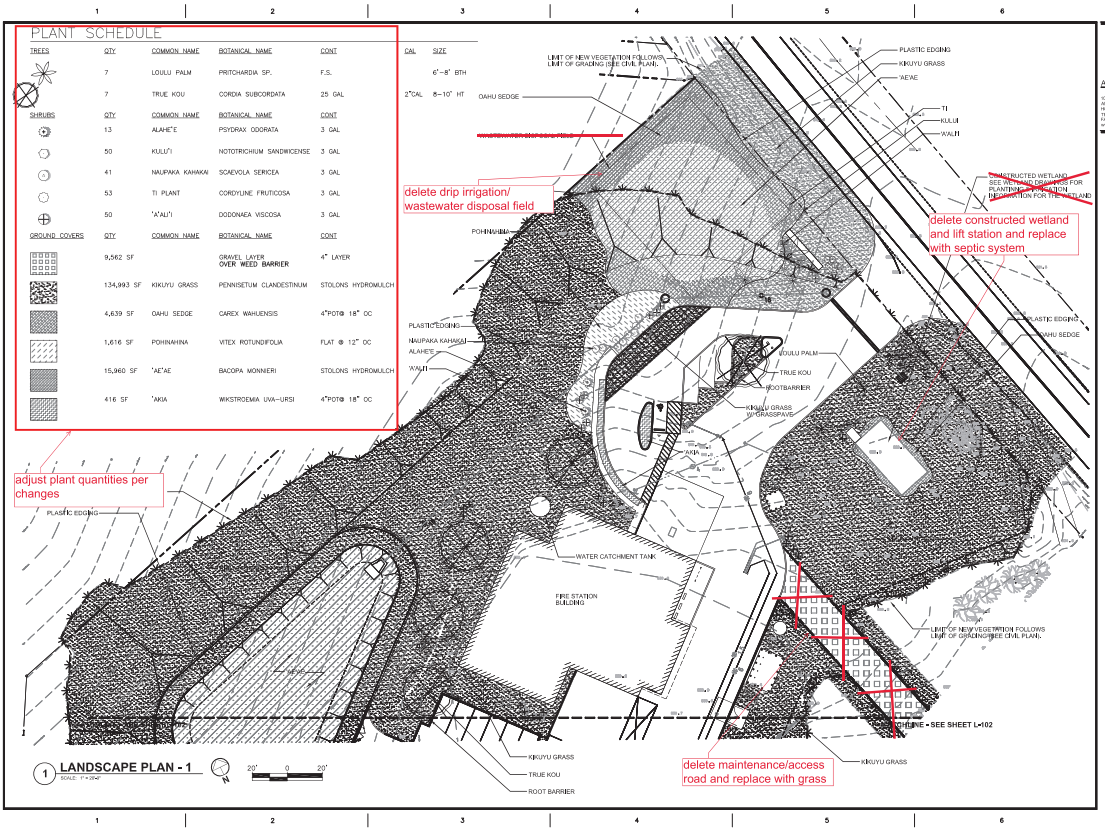
HAIKU FIRE STATION
3595 HANA HWY
HAIKU, MAUI

SITE PLAN

C-8



TREES	QTY	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE
	7	LOULU PALM	PRITCHARDIA SP.	F.S.		6'-8' BTH
	7	TRUE KOU	CORDIA SUBCORDATA	25 GAL	2"CAL	8-10' HT
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONT		
	13	ALAHE'E	PSYDRAX ODORATA	3 GAL		
	50	KULU'I	NOTOTRICHIUM SANDWICENSE	3 GAL		
	41	NAUPAKA KAHAKAI	SCAEVOLA SERICEA	3 GAL		
	53	TI PLANT	CORDYLINE FRUTICOSA	3 GAL		
	50	'A'AU'I	DODONAEA VISCOSA	3 GAL		
GROUND COVERS	QTY	COMMON NAME	BOTANICAL NAME	CONT		
	9,562 SF		GRAVEL LAYER OVER WEED BARRIER	4" LAYER		
	134,993 SF	KIKUYU GRASS	PENNISETUM CLANDESTINUM	STOLONS HYDROMULCH		
	4,639 SF	OAHU SEDGE	CAREX WAHLENSIS	4"POT@ 18" OC		
	1,616 SF	POHINAHINA	VITEX ROTUNDIFOLIA	FLAT @ 12" OC		
	15,960 SF	'AE'AE	BACOPA MONNIERI	STOLONS HYDROMULCH		
	416 SF	'AKIA	WIKSTROEMIA UVA-URSI	4"POT@ 18" OC		

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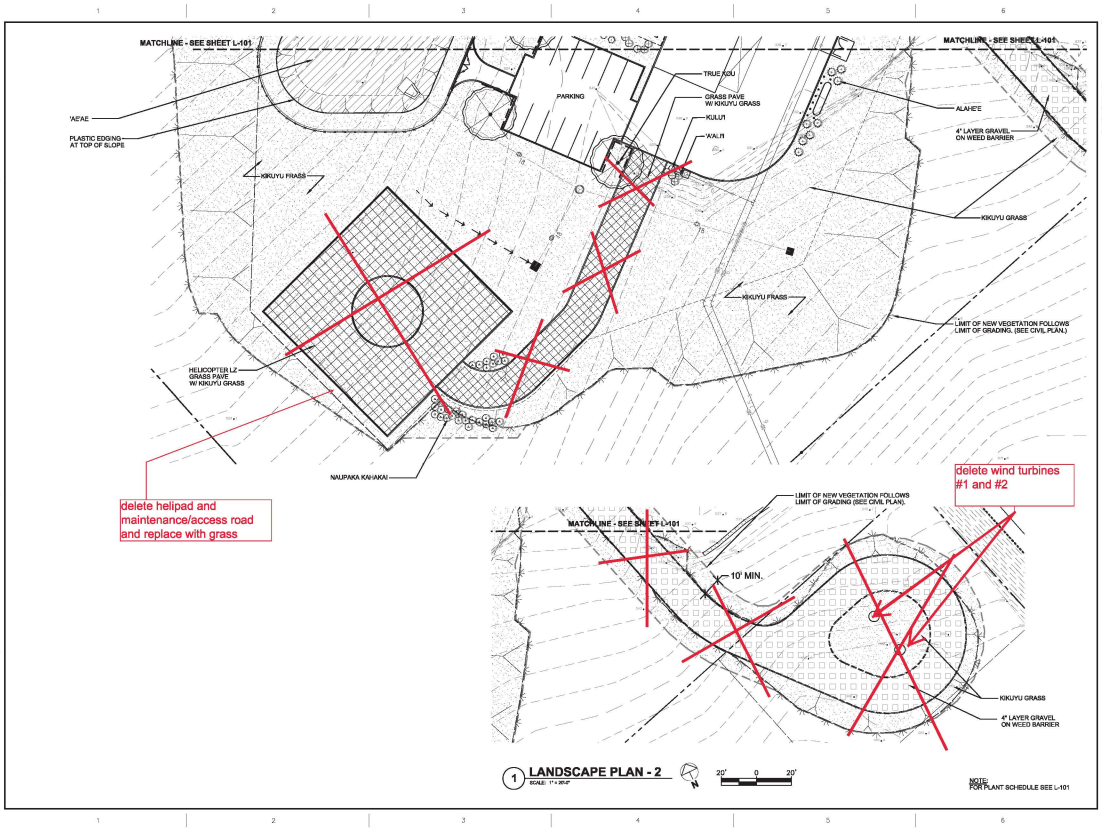
HAIKU FIRE STATION
3595 HANA HWY
HAIKU, MAUI

LANDSCAPE PLAN - 1

L-101



1 LANDSCAPE PLAN - 2
SCALE: 1" = 20'-0"

20' 0 20'

NOTE:
FOR PLANT SCHEDULE SEE L-101

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HAIKU FIRE STATION
3000 HANA HWY
HAIKU, MAUI

PERMIT SET –
APRIL 18, 2011

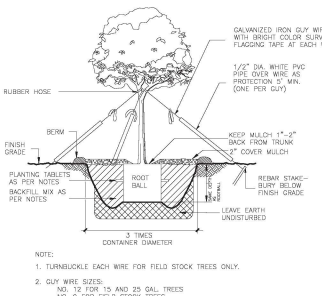
LANDSCAPE PLAN - 2

1" = 20'-0"

PROJECT NO: 5906.001
DWG FILE:
DRAWN BY: MM
DATE: 4/18/11
DRAWING NO

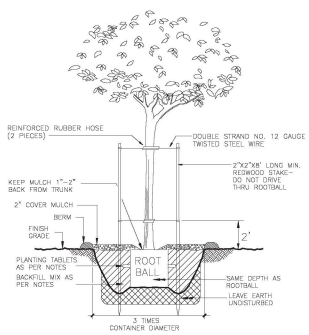
L-102

of Sheets

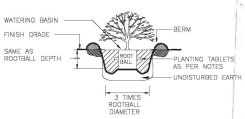


NOTE:
1. TURNBUCKLE EACH WIRE FOR FIELD STOCK TREES ONLY.
2. GUY WIRE SIZES:
NO. 12 FOR 15 AND 25 GAL. TREES
NO. 9 FOR FIELD STOCK TREES
3. REBAR STAKE SIZES:
NO. 4x2'-0" LONG FOR 15 AND 25 GAL. TREES
NO. 7x3'-0" LONG FOR FIELD STOCK TREES

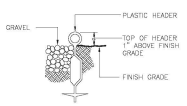
1 TREE PLANTING AND GUYING DETAIL
NOT TO SCALE



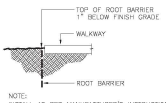
2 TREE PLANTING AND STAKING DETAIL
NOT TO SCALE



3 SHRUB PLANTING DETAIL
NOT TO SCALE



4 PLASTIC HEADER DETAIL
NOT TO SCALE



NOTE:
INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

5 ROOT BARRIER DETAIL
NOT TO SCALE

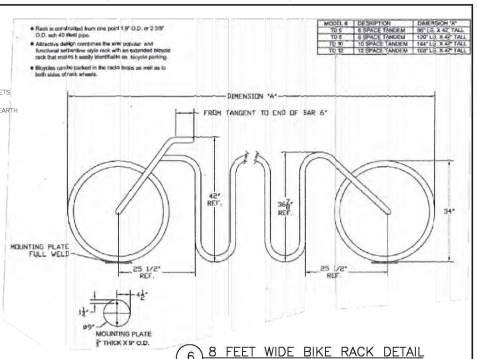
PLANTING NOTES:

1. REFER TO "LANDSCAPE SPECIFICATIONS" SECTION 02480 PRIOR TO THE START OF WORK. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL MATERIALS, SCHEDULING, PRODUCTS, WARRANTIES AND METHODS FOR EXECUTION OF WORK WHICH MAY NOT BE INDICATED WITHIN THE DRAWINGS.
2. PROVIDE A 2" LAYER OF ORGANIC SOIL CONDITIONER OVER ALL PLANTING AREAS (SEE SPECIFICATIONS).
3. BACKFILL MIX SHALL CONSIST OF THREE (3) PARTS OF AMENDED IMPORTED PLANTING SOIL TO ONE (1) PART ORGANIC SOIL CONDITIONER (SEE SPECIFICATIONS). ADD ONE (1) POUND OF 10-30-10 FERTILIZER TO ONE (1) CUBIC YARD OF BACKFILL MIX. MIX THOROUGHLY ON PROJECT SITE PRIOR TO ANY PLANTING OPERATIONS.
4. PLANTING TABLETS FOR TREES AND SHRUBS SHALL BE AS FOLLOWS:

A)	FIELD SPECIMEN	12 TABLETS
B)	25 GALLON	8 TABLETS
C)	15 GALLON	5 TABLETS
D)	5 GALLON	3 TABLETS
E)	3 GALLON	2 TABLETS
F)	1 GALLON	1 TABLET

USE SLOW RELEASE FERTILIZER TABLETS 20-10-5, 21 GRAM SIZE.

5. GROUNDCOVER SHALL BE PLANTED UNDER ALL TREES AND SHRUBS (UNLESS OTHERWISE NOTED ON PLANS).
6. PROVIDE A TYPICAL ROOT BARRIER AROUND EACH ROOT BALL OF ALL TREES NEW OR TRANSPLANTED.



MODEL #	DESIGNATION	DIMENSION "A"
TO 6	6 SPACE TANDEM	90" L.O. X 40" TALL
TO 8	8 SPACE TANDEM	120" L.O. X 40" TALL
TO 10	10 SPACE TANDEM	144" L.O. X 40" TALL
TO 12	12 SPACE TANDEM	168" L.O. X 40" TALL

6 8 FEET WIDE BIKE RACK DETAIL
NOT TO SCALE

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HAIKU FIRE STATION
3000 HANA HWY
HAIKU, MAUI

PERMIT SET –
APRIL 18, 2011

PLANTING DETAILS & NOTES

AS SHOWN

PROJECT NO: 5906.001
DWG FILE:
DRAWN BY: MM
DATE: 4/18/11
DRAWING NO

L-103

of Sheets

GENERAL NOTES

A. SEE ALSO:
1. SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.
2. SPECIAL NOTES ON OTHER SHEETS.

B. DISCREPANCIES: CONTRACTOR SHALL VERIFY CONDITIONS IN THE FIELD, COORDINATE LOCATIONS OF PENETRATIONS THROUGH FLOORS, ROOFS AND WALLS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES IN WRITING TO THE CONTRACTING OFFICER BEFORE COMMENCING WORK OR ORDERING MATERIALS.

C. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2006 INTERNATIONAL BUILDING CODE, AS AMENDED BY THE COUNTY OF MAUI, IN ADDITION TO OTHER CODES CITED IN THE DESIGN CRITERIA SECTION OF SHEET S-002.

Update code reference.

D. DETAILS SHOWN ON DRAWINGS SHALL BE TYPICAL FOR SIMILAR CONDITIONS. MODIFY DETAILS FOR SPECIAL CONDITIONS AS DIRECTED BY THE CONTRACTING OFFICER.

E. SEE ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS, CHAMFERS, EDGE RAIN, DRIPS, REGLETS, FINISHES AND NON-STRUCTURAL ITEMS NOT SHOWN OR SPECIFIED ON STRUCTURAL DRAWINGS. STRUCTURAL DRAWINGS SHOW RELATIVE CONFIGURATIONS, LOCATIONS OF ELEMENTS AND PERTINENT STRUCTURAL RELATED DIMENSIONS.

CONSTRUCTION NOTES

A. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS TECHNIQUES, SEQUENCES, WORKMANSHIP, AND JOB SAFETY, INCLUDING FALSEWORK, BRACINGS, MUD SILLS, OTHER TEMPORARY ITEMS USED FOR THE CONSTRUCTION OF THE PROJECT, AND PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING, OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY REGULATORY AGENCIES.

B. CONTRACTOR IS SOLELY RESPONSIBLE TO PROVIDE ADEQUATE SHORING, SHEETING, LAGGING, BRACING, ETC. AS REQUIRED TO PROTECT EXISTING ADJACENT STRUCTURES, EXCAVATIONS, FACILITIES AND PERSONNEL AT THE SITE. THE WORK SHALL CONFORM TO THE REQUIREMENTS OF APPLICABLE NATIONAL, STATE AND COUNTY OCCUPATIONAL SAFETY ORDINANCES.

C. CONSTRUCTION LOADING ALLOWED SHALL NOT EXCEED THE DESIGN LIVE LOADING, UNLESS SPECIAL SHORES ARE USED TO SUPPORT THE CONSTRUCTION LOADS WITHOUT OVERLOADING ANY PORTION OF THE STRUCTURE. ALLOWABLE LOADING SHALL BE REDUCED IN AREAS WHERE THE STRUCTURE HAS NOT ATTAINED IT'S FULL DESIGN STRENGTH.

D. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER AT LEAST 48 HOURS IN ADVANCE FOR REVIEW AND OBSERVATION OF EXCAVATIONS, REINFORCING, AND CONCRETE POURS.

E. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A LEVEL TOP SURFACE OF ALL SLABS IN ACCORDANCE WITH THE LEVELNESS TOLERANCE REQUIRED FOR ALL FINISHES, PARTITIONS, BUILT-IN CABINETS AND COUNTERS, ETC.

1. ALL SLABS AND BEAMS ARE EXPECTED TO DEFLECT AFTER SHORES ARE REMOVED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A LEVEL FINISH SURFACE BY FILLING ALL LOW CONCRETE SURFACE AREAS WITH A CEMENTITIOUS GROUT THAT WILL BOND TO THE CONCRETE SURFACE AND THAT IS COMPATIBLE WITH THE SPECIFIED FLOOR FINISHES.

2. THE CONTRACTOR SHALL ALLOW FOR CHIPPING AND/OR FILLING THE FLOORS TO SATISFY THE REQUIREMENT FOR A "LEVEL" FLOOR. IN NO CASE SHALL THE TOP OF THE FLOOR BE CHIPPED MORE THAN ¾" (INCH) WITHIN A 10'-0" (FEET) X 10'-0" (FEET) AREA TO ACHIEVE THIS.

F. SHORING:
1. NO SHORING SHALL BE REMOVED UNTIL STRUCTURE CAN SUPPORT THE IMPOSED LOADS AND WITHOUT THE APPROVAL OF THE QUALITY CONTROL INSPECTOR.
2. SHORES FOR ALL FLOORS SHALL BE ALIGNED FROM STORY TO STORY.
3. SHORES SHALL BE ARRANGED IN SUCH A WAY THAT THEY REMAIN UNDISTURBED.

G. FORM AND SHORE REMOVAL:
1. SEQUENCE SHALL ALWAYS BE FROM MIDSPAN TO SUPPORTS, AND FROM SLAB TO JOISTS TO GIRDERS.
2. MINIMUM TIME BEFORE REMOVAL OF FORMS:
(A) SIDE FORMS OF BEAMS: 5 DAYS (24 HOURS IF MOIST CURED FOR 7 DAYS OR SEALED WITH CURING COMPOUND)
(B) SLABS EXCEPT CANTILEVERS:
(1) SPANS 8 FEET OR LESS: 8 DAYS
(2) SPANS GREATER THAN 8 FEET: 8 DAYS PLUS 1 DAY FOR EACH FOOT GREATER THAN 8 FEET
(C) SLAB CANTILEVERS, BEAMS AND GIRDER SOFFITS: 21 DAYS

Update to SLSH standard notes. Remove items that are covered in the specifications and duplicated here.

FOUNDATION NOTES

Does geotech need to review and/or update the report?

A. FOUNDATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE DRAWINGS AND PROJECT SPECIFICATIONS.

B. THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE FINAL REPORT TITLED "FOUNDATION INVESTIGATION HAIKU FIRE STATION ANNEX, HAIKU, MAUI, HAWAII, TMK: 2-7-007:008 DATED OCTOBER 23, 2009, BY HIRATA & ASSOCIATES, INC.

C. FOUNDATION DESIGN FOR ATTACHED BUILDING PORTICO IS BASED ON A MAXIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF (DEAD LOAD PLUS LONG TERM LIVE LOADS), 3000 PSF (INCLUDING WIND OR SEISMIC FORCES), PASSIVE PRESSURE OF 300 PSF PER FOOT OF DEPTH (THE UPPER 12 INCHES SHALL BE NEGLECTED UNLESS IT IS CONFINED BY PERMANENT SLABS OR PAVEMENTS), AND A FRICTION FACTOR OF. FOOTINGS SHALL BE EMBEDDED AT LEAST 18 INCHES BELOW ADJACENT FINISHED GRADES.

D. REFER TO THE PROJECT SPECIFICATIONS FOR RECOMMENDATIONS CONTAINED IN THE MENTIONED GEOTECHNICAL REPORT.

E. COMPACTION: MATERIAL FOR FILLING AND BACKFILLING AND COMPACTION SHALL BE IN CONFORMANCE TO THE PROJECT SPECIFICATIONS.

REINFORCING STEEL NOTES

A. STIRRUPTIES – UNLESS OTHERWISE NOTED ON PLANS, REINFORCING BARS SHALL BE A615, GRADE 60.

B. SPLICES:
1. LENGTHS SHALL BE PER SCHEDULE OF 1/S–002 OR 24 INCHES WHICHEVER IS GREATER, UNLESS OTHERWISE SHOWN.
2. LOCATIONS, UNLESS SHOWN OTHERWISE:
(A) WALLS – SPLICES SHALL BE STAGGERED AS FAR APART AS POSSIBLE, MIN. 4'–0" (FEET).
(B) BEAMS AND SLABS:
(1) TOP BARS AT MIDSPAN.
(2) BOTTOM BARS AT SUPPORTS.

C. MINIMUM CONCRETE CLEAR COVER:
1. CONCRETE POURED AGAINST EARTH . . . . . 3"
2. CONC POURED AGAINST FORMS & LATER EXPOSED TO EARTH . 2"
3. COLUMNS AND BEAMS (FROM TIES OR STIRRUPS) . . . . . 1–1/2"
4. SLABS EXPOSED TO WEATHER OR GROUND . . . . . 2"
5. SLABS AND WALLS (NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND) . . . . . 3/4"

D. BAR BENDS, HOOKS, AND OFFSETS SHALL BE IN ACCORDANCE WITH THE ACI RECOMMENDATIONS.

E. TESTS – SEE SPECIFICATIONS.

F. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185 WITH MINIMUM YIELD STRENGTH, Fy = 65 KSI.

G. SPECIAL CHAIRS: PLASTIC "CHAIRS" SHALL BE USED TO MAINTAIN MINIMUM CONCRETE CLEAR COVER FOR SLABS, BEAMS, COLUMNS AND WALL REINFORCING AT SIDES EXPOSED TO WEATHER.

H. TEMPLATES SHALL BE USED WHEN PLACING REINFORCING STEEL IN AREAS OF CONGESTION.

J. REINFORCING STEEL SHALL NOT BE BENT OR STRAIGHTENED AFTER PARTIAL EMBEDMENT IN THE CONCRETE.

K. DOWELS AND OTHER REINFORCING SHALL BE PROTECTED AGAINST BENDING AND OTHER DAMAGES DURING CONSTRUCTION. DOWELS USED IN JOINTS SHALL BE SMOOTH TO LENGTH (SHEAR CUTTING IS NOT PERMISSIBLE)

L. MINIMUM REINFORCING: IF NOT OTHERWISE SHOWN, MINIMUM REINFORCING SHALL BE AS FOLLOWS:
1. SLABS: #4 AT 12" TOP AND BOTTOM WITH TOP BARS EXTENDED 3 FEET BEYOND SUPPORTS OR BENT 12" INTO SUPPORT AT THE FAR FACE. BOTTOM BARS SHALL EXTEND 6" INTO SUPPORT AND SHALL BE HOOKED.
2. CONCRETE TOPPINGS: REINFORCING CROSS–SECTIONAL AREA PER 12" WIDTH (EACH WAY) = 0.0216 x TOPPING THICKNESS.
3. BEAMS: REINFORCING CROSS–SECTIONAL AREA = 0.005 x BEAM CROSS–SECTION AREA, TOP AND BOTTOM; PLUS #3 DOUBLE LEG STIRRUPS AT HALF THE BEAM DEPTH SPACING. BARS SHALL BE EXTENDED TO SUPPORTS SIMILAR TO SLABS.

CONCRETE NOTES

Reference ACI 301, not ACI 318.

A. MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)", "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT (ACI 315), AND THE LATEST RECOMMENDATIONS OF THE PRESTRESSED CONCRETE INSTITUTE, UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE NOTES (CONTINUED)

B. CONCRETE SHALL DEVELOP THE FOLLOWING MINIMUM ULTIMATE COMPRESSIVE STRENGTHS, WITH CORRESPONDING MAXIMUM SIZE OF AGGREGATES AS FOLLOWS, UNLESS SHOWN ELSEWHERE:

ELEMENT	f'c (PSI) AT 28 DAYS	MAXIMUM SIZE AGGREGATES
1. FOOTINGS	3000 PSI	1–1/4"
2. SLAB ON GRADE	3000 PSI	3/4"
3. FLOOR TOPPING	4000 PSI	3/4"
4. WALLS AND COLUMNS	5000 PSI	3/4"
5. BEAMS, FLOOR SLABS, AND ROOF SLABS	4000 PSI	3/4"
6. MISCELLANEOUS	3000 PSI	3/4"

Specify max w/cm ratio.

C. UNLESS OTHERWISE SHOWN, CONSTRUCTION JOINTS SHALL BE LOCATED BY THE CONTRACTOR; SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER. JOINTS SHALL BE SO LOCATED, AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND TO MINIMIZE SHRINKAGE STRESSES. PROVIDE DOWELS AS DIRECTED AND THOROUGHLY CLEAN AND ROUGHEN SURFACES BEFORE PROCEEDING WITH NEXT POUR (THIS REQUIREMENT APPLIES TO FLOORS, COLUMNS, AND WALLS).

D. THE USE OF CHLORIDE IN CONCRETE ADMIXTURES IS PROHIBITED.

E. SEE SPECIFICATIONS FOR PLACEMENT, TESTING, AND CURING OF CONCRETE.

F. PIPING SHALL NOT BE EMBEDDED IN THE STRUCTURAL SLAB–ON–GRADE UNLESS INDICATED IN THE STRUCTURAL DRAWINGS, OR UNLESS APPROVED BY THE CONTRACTING OFFICER.

G. PROVIDE ¾" CHAMFER AT CORNERS UNLESS NOTED OTHERWISE.

H. CONCRETE SLAB–ON–GRADE SHALL CONTAIN SUPPLIMENTARY REINFORCING FIBERS AT A RATE OF 25 POUNDS PER CUBIC YARD.

Steel shop drawing submittal?

CONCRETE MASONRY UNIT (CMU) NOTES

A. CONCRETE BLOCK SHALL BE STANDARD 2–CELL, HOLLOW LOAD BEARING UNITS. ALL CONCRETE MASONRY UNITS SHALL BE MODULAR, SIZE AS INDICATED ON PLANS, CONFORMING TO ASTM C90, CLASS 1,ASDF

B. CELLS SHALL BE SOLID GROUTED, UNLESS NOTED OTHERWISE.

C. MINIMUM REINFORCING, UNLESS OTHERWISE SHOWN, SHALL BE:
1. VERTICAL REINFORCING –
A. EXTERIOR WALLS: #5 AT 24" (INCHES) O.C. WITH BARS ALSO AT ENDS, CORNERS, AND INTERSECTIONS. PROVIDE DOWELS TO MATCH VERT REINFORCING. SEE DET 1/S–006 FOR LINTEL REINF AT EXTERIOR WALLS.
B. INTERIOR WALLS: #5 AT 24" (INCHES) O.C. WITH BARS ALSO AT ENDS, CORNERS, AND INTERSECTIONS. PROVIDE DOWELS TO MATCH VERT REINFORCING.
2. HORIZONTAL REINFORCING – #4 AT 24" (INCHES) O.C. AND 2–#4 AT TOP OF WALLS. REINFORCING SHALL BE CONTINUOUS AROUND ALL CORNERS AND INTERSECTIONS. SEE DETAIL FOR LINTEL REINFORCING.

D. PROVIDE VERTICAL CONTROL JOINTS IN WALLS AT MAXIMUM 40 FEET O.C. (SUBJECT TO CONTRACTING OFFICER'S APPROVAL).

E. SEE REINFORCING STEEL NOTES AND STANDARD DETAILS FOR REINFORCEMENT REQUIREMENTS. REINFORCING STEEL IN MASONRY SHALL BE LAPPED A MINIMUM OF 48 BAR DIAMETERS.

F. CONCRETE BLOCK UNITS SHALL BE LAID IN RUNNING BOND PATTERN, UNLESS OTHERWISE SHOWN OR NOTED.

G. PROVIDE 2–#5 AROUND ALL OPENINGS INCLUDING JAMBS; ALL BARS TO EXTEND A MINIMUM OF 24" (INCHES) BEYOND THE EDGE OF THE OPENING ALSO, PROVIDE 2–#5 VERTICAL AT ALL CORNERS AND INTERSECTIONS HORIZONTAL BAR LAPS AT CORNERS AND INTERSECTIONS SAME AS IN TYPICAL CONCRETE DETAILS. PROVIDE 2–#5 VERTICAL AT EACH SIDE OF EXPANSION AND CONTROL JOINTS.

H. MORTAR SHALL CONFORM TO ASTM C270, TYPE M.

I. GROUT SHALL CONFORM TO ASTM C476 WITH A MINIMUM STRENGTH OF 2000 PSI. SEE SPECIFICATIONS.

EPOXY GROUT

Update epoxy adhesive notes to current design standards

A. EPOXY GROUT SHALL BE TWO–COMPONENT 100 PERCENT SOLIDS PASTE EPOXY POLYMER DESIGNED FOR STRUCTURAL CONCRETE BONDING OF STEEL DOWELS OR REINFORCING IN HARDENED CONCRETE.

B. EPOXY GROUT SHALL BE MIXED, APPLIED, AND CURED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SEE DRAWINGS FOR REQUIRED EMBEDMENT DEPTHS.

C. MINIMUM ALLOWABLE LOADS IN 2000 PSI CONCRETE:

BAR SIZE	HOLE DIAMETER	EMBEDMENT	TENSION	SHEAR
#4	9/16"	4 1/2"	4120 LBS	3060 LBS
#5	3/4"	5 5/8"	6150 LBS	4740 LBS
#6	7/8"	6 3/4"	9595 LBS	6730 LBS
#7	1"	7 7/8"	11940 LBS	9180 LBS
#8	1 1/8"	9"	13420 LBS	12085 LBS

D. SUBMIT ICBO TEST REPORTS VERIFYING ANCHOR CAPACITIES PRIOR TO INSTALLATION.

STRUCTURAL STEEL NOTES

A. MATERIAL: WIDE FLANGE BEAMS SHALL BE ASTM A992, GRADE 50, ALL OTHER STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS SHOWN OTHERWISE.

B. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST AISC AND AWS CODES.

C. CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF MEMBERS CONNECTED, UNLESS DETAILED OTHERWISE.

D. SHOP COAT – REMOVE MILL SCALE, SLAG AND OTHER BOND REDUCERS BEFORE APPLYING SHOP COAT OR APPROVED PRIMER. PRIME FIELD WELDS AND ABRADED PARTS TO THE SATISFACTION OF THE CONTRACTING OFFICER BEFORE APPLYING FINISH PAINT.

E. PLATE INSERTS EMBEDDED IN CONCRETE SHALL HAVE THE ANCHORS WELDED TO DEVELOP THE FULL STRENGTH OF THE ANCHORS.

F. UNLESS SHOWN OTHERWISE, EMBEDDED BOLTS, ANCHORS, PLATES, INSERTS, ETC., SHALL BE HOT–DIPPED GALVANIZED.

G. ANCHOR BOLTS SHALL CONFORM TO ASTM A307, GALVANIZED.

H. HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A325.

J. STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE B.

K. UNLESS A LARGER SIZE OF FILLET WELD IS SPECIFIED ON THE PLANS, PROVIDE MINIMUM SIZE OF WELD PER AISC TABLE J2.4 (13TH ED.).

L. WELDING SHALL COMPLY WITH AWS SPECIFICATIONS AND SHALL BE PERFORMED BY CERTIFIED WELDERS WITH THE ELECTRIC ARC PROCESS WITH E70XX ELECTRODES.

M. BEAMS SHALL BE CAMBERED UPWARD WHERE SHOWN ON THE PLANS. WHERE NO CAMBER IS INDICATED, MILL CAMBER SHALL BE DETAILED UPWARD.

N. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO FABRICATION OR PREPARATION OF SHOP DRAWINGS OF ALL STRUCTURAL STEEL WORK.

Revise notes to:
* Update code reference (building code and material specifications
* Remove information that is explicit in the specifications.
* Information that is in the typical details should not be repeated explicitly in the general notes.

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APRIL 2020

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APRIL 15, 2011

GENERAL STRUCTURAL NOTES

NONE

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LICENSED PROFESSIONAL ENGINEER
No. 9764

PROJECT NO. 0898.001
DRAWN BY: WGC
DATE: 2011-04-15
DRAWING NO.

S-001

of Sheets

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APRIL 2020

METAL DECKING NOTES

A. METAL DECK SHALL BE APPROVED BY THE ICC AND/OR ALL GOVERNING AGENCIES.

B. METAL DECKING SHALL BE CAPABLE OF SUPPORTING THE LOADS SPECIFIED ON THE DRAWINGS FOR THE INDICATED SPANS.

C. MINIMUM GAGE THICKNESS OF METAL ROOF DECKING SHALL BE 18 GAGE AND MINIMUM GAGE OF METAL FLOOR DECKING SHALL BE 20 GAGE.

D. ALL METAL DECK UNITS SHALL BE ATTACHED TO THEIR SUPPORTS AND TO EACH OTHER TO CREATE A CONTINUOUS DIAPHRAGM. MINIMUM FASTENING SHALL BE AS SHOWN ON DETAIL 1/S–007.

E. STEEL END AND SIDE CLOSURES SHALL BE PROVIDED WHERE SHOWN AND WHERE REQUIRED TO PREVENT LEAKAGE OF CONCRETE FILL AND SHALL BE 20 GAGE MINIMUM THICKNESS.

F. STEEL DECK WORK SHALL BE IN ACCORDANCE WITH THE "BASIC DESIGN SPECIFICATIONS" OF THE STEEL DECK INSTITUTE.

G. FLOOR DECK:
1. STEEL FLOOR DECK AND ALL FLASHING SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A653 – G90.
2. FLOOR UNITS SHALL BE FORMED WITH INTEGRAL LOCKING LUGS OR EMBOSSMENTS TO PROVIDE MECHANICAL LOCK BETWEEN THE STEEL FLOOR AND THE CONCRETE SLAB.
3. STEEL FLOOR UNITS SHALL BE FASTENED TO THE STEEL FRAMEWORK AT ALL SUPPORTS BY ⅝" (INCH) DIAMETER PUDDLE WELDS. WHERE TWO UNITS LAP, THEY SHALL BE PUNCH LOCKED. SEE DET 1/S–005 FOR SPACING.

H. ROOF DECK:
1. ROOF DECK AND ACCESSORIES SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A653 – G90 – GRADE B OR BETTER.
2. SEE DET 1/S–007 FOR TYPE, GAGE AND ATTACHMENT OF DECK.

J. SCREED CONCRETE PARALLEL TO METAL DECKING TO THICKNESS INDICATED ON THE PLANS.

SPECIAL INSPECTION

A. SPECIAL INSPECTION SHALL BE PERFORMED PER REQUIREMENTS OF CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) AS AMENDED BY THE COUNTY OF MAUI.

B. THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTION:
1. REINFORCING STEEL.
2. BOLTS INSTALLED IN CONCRETE
3. POURED IN PLACE CONCRETE
4. CONCRETE MASONRY UNITS
5. WELDING
6. EPOXY GROUTED INSTALLATION

C. THE SPECIAL INSPECTOR SHALL SUBMIT A SIGNED FINAL REPORT TO THE BUILDING DEPARTMENT AND OFFICER IN CHARGE.

D. CONTRACTOR SHALL RETAIN AND PAY FROM ALLOWANCE FOR A QUALIFIED SPECIAL INSPECTOR TO PROVIDE MONITORING AND TESTING SERVICE IN ACCORDANCE WITH IBC SECTION 1705. CONTRACTOR TO SUBMIT QUALIFICATIONS OF THE SPECIAL INSPECTOR TO THE OFFICER IN CHARGE FOR REVIEW AND APPROVAL. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING.

DESIGN CRITERIA

A. DESIGN REFERENCES:
IBC 2006
ASCE 7–02

B. LIVE LOADS:
1. ROOF . . . . . = 20 PSF (REDUCIBLE)

C. LATERAL LOADS:
1. SEISMIC LOADS (IBC 2006)
Ss = 1.02g
S1 = 0.27g
SITE CLASSIFICATION: D
SEISMIC USE GROUP: III
OCCUPANCY CATEGORY: IV
IMPORTANCE FACTOR, I_E 1.5
2. WIND LOADS (ANSI/ASCE 7)
BASIC WIND SPEED 105 mph
EXPOSURE C
IMPORTANCE FACTOR, I_W 1.15

Update design terminology and special inspection requirements.

ABBREVIATION

@	AT
A. B	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
ADD	ADDITION OR ADDITIONAL
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWS	AMERICAN WELDING SOCIETY
BET	BETWEEN
BLDG	BUILDING
BLK	BLOCK OR BLOCKING
BM	BEAM
BOT	BOTTOM
BRG	BEARING
CEM	CEMENT
CIP	CAST–IN–PLACE
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DO	DITTO
DRWG(S)	DRAWING(S)
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FAB	FABRICATE
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIN	FINISH
FLR	FLOOR
FO	FACE OF
FOP	FACE OF POST
FOS	FACE OF STUD
FP	FULL PENETRATION
FS	FAR SIDE
FT	FEET
FTG	FOOTING
GA	GAGE
GALV	GALVANIZE
GB	GRADE BEAM
GR	GRADE
(H)	HIGH
HDR	HEADER
HGR	HANGAR
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT

ABBREVIATION

ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
ID	INSIDE DIAMETER
IN	INCH(ES)
INFO	INFORMATION
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP (1000 LBS)
KSI	KIPS PER SQUARE INCH
(L)	LOW
LG	LONG
LIN	LINEAR
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LS	LAG SCREW
LTWT	LIGHTWEIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
(N)	NEW
NIC	NOT IN CONTRACT
#, NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PC	PRECAST
PERF	PERFORATE
PERP	PERPENDICULAR
PL, P	PLATE
PLMB	PLUMBING
PP	PARTIAL PENETRATION
PROJ	PROJECT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
R	RADIUS
REINF	REINFORCING
REQD	REQUIRED
RM	ROOM
SECT	SECTION
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SOG	SLAB ON GRADE
SPECS	SPECIFICATIONS
SQ	SQUARE
STAG	STAGGER (ED)
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
(T)	TOP
T & B	TOP AND BOTTOM
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TOW	TOP OF WALL
TS	STRUCTURAL TUBE
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UNO	UNLESS NOTED OTHERWISE
VERT (V)	VERTICAL

ABBREVIATION

W/	WITH
WD	WOOD
WP	WORKING POINT
WPM	WATERPROOFING MEMBRANE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X–STR	EXTRA STRONG
XX–STR	DOUBLE EXTRA STRONG

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GENERAL STRUCTURAL NOTES-2

NONE

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DRAWING NO.

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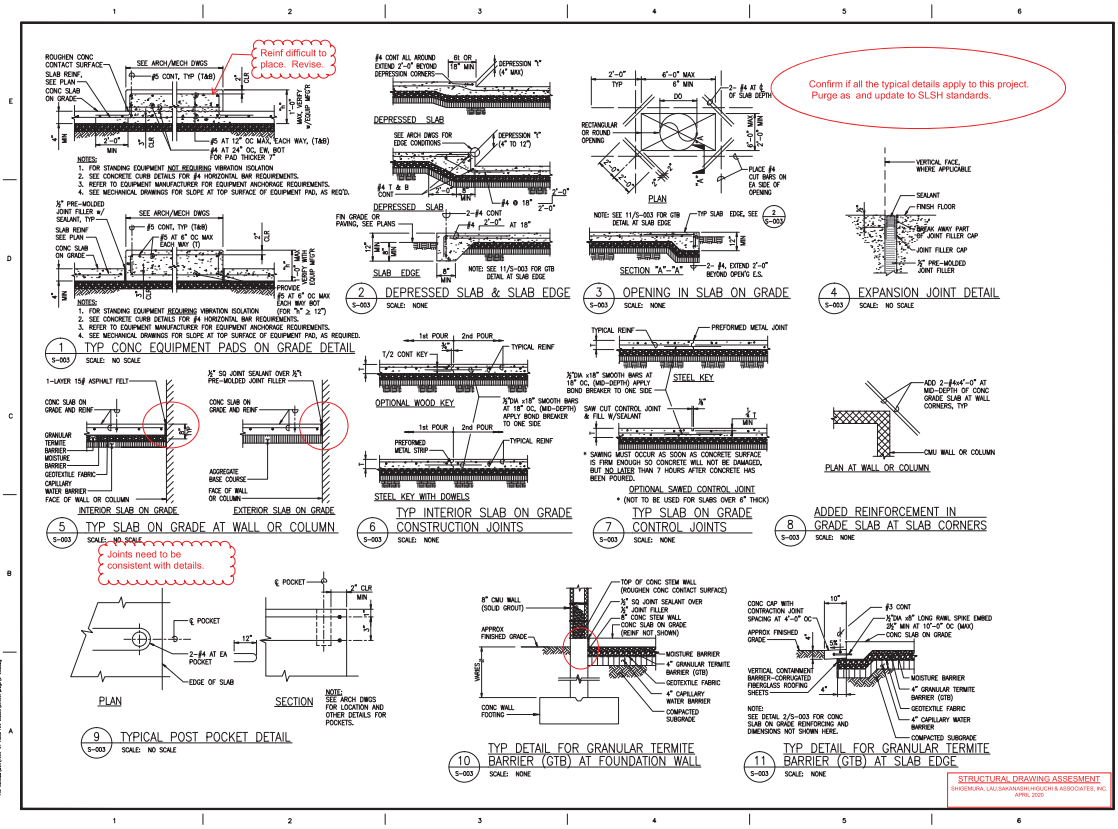
ROUGHEN CONC CONTACT SURFACE
SLAB REINF, SEE PLAN
CONC SLAB ON GRADE
SEE ARCH/MECH DWGS
#5 CONT, TYP (TAB)
#5 AT 12" OC MAX, EACH WAY, (TAB)
#4 AT 24" OC, EW, BOT FOR PAD THICKER 7"
Reinf difficult to place. Revise.
NOTES:
1. FOR STANDING EQUIPMENT NOT REQUIRING VIBRATION ISOLATION
2. SEE CONCRETE CURB DETAILS FOR #4 HORIZONTAL BAR REQUIREMENTS.
3. REFER TO EQUIPMENT MANUFACTURER FOR EQUIPMENT ANCHORAGE REQUIREMENTS.
4. SEE MECHANICAL DRAWINGS FOR SLOPE AT TOP SURFACE OF EQUIPMENT PAD, AS REQ'D.
1 S-003 TYP CONC EQUIPMENT PADS ON GRADE DETAIL
SCALE: NO SCALE
#4 CONT ALL AROUND EXTEND 2'-0" BEYOND DEPRESSION CORNERS
DEPRESSED SLAB
SEE ARCH DWGS FOR EDGE CONDITIONS
#4 T & B CONT
#4 @ 18"
SLAB EDGE
NOTE: SEE 11/S-003 FOR GTB DETAIL AT SLAB EDGE
2 S-003 DEPRESSED SLAB & SLAB EDGE
SCALE: NONE
RECTANGULAR OR ROUND OPENING
PLACE #4 CUT BARS ON EA SIDE OF OPENING
PLAN
NOTE: SEE 11/S-003 FOR GTB DETAIL AT SLAB EDGE
SECTION "A"-"A"
3 S-003 OPENING IN SLAB ON GRADE
SCALE: NONE
Confirm if all the typical details apply to this project. Purge as and update to SLSH standards.
VERTICAL FACE, WHERE APPLICABLE
SEALANT
FINISH FLOOR
BREAK AWAY PART OF JOINT FILLER CAP
JOINT FILLER CAP
PRE-MOLDED JOINT FILLER
4 S-003 EXPANSION JOINT DETAIL
SCALE: NO SCALE
1-LAYER 15# ASPHALT FELT
CONC SLAB ON GRADE AND REINF
GRANULAR TERMITE BARRIER
MOISTURE BARRIER
GEOTEXTILE FABRIC
CAPILLARY WATER BARRIER
FACE OF WALL OR COLUMN
INTERIOR SLAB ON GRADE
EXTERIOR SLAB ON GRADE
AGGREGATE BASE COURSE
5 S-003 TYP SLAB ON GRADE AT WALL OR COLUMN
SCALE: NO SCALE
1st POUR
2nd POUR
TYPICAL REINF
T/2 CONT KEY
OPTIONAL WOOD KEY
PREFORMED METAL STRIP
STEEL KEY WITH DOWELS
6 S-003 TYP INTERIOR SLAB ON GRADE CONSTRUCTION JOINTS
SCALE: NONE
TYPICAL REINF
PREFORMED METAL JOINT
STEEL KEY
SAW CUT CONTROL JOINT & FILL W/SEALANT
OPTIONAL SAWED CONTROL JOINT
(NOT TO BE USED FOR SLABS OVER 6" THICK)
7 S-003 TYP SLAB ON GRADE CONTROL JOINTS
SCALE: NONE
ADD 2-#4x4'-0" AT MID-DEPTH OF CONC GRADE SLAB AT WALL CORNERS, TYP
CMU WALL OR COLUMN
PLAN AT WALL OR COLUMN
8 S-003 ADDED REINFORCEMENT IN GRADE SLAB AT SLAB CORNERS
SCALE: NONE
Joints need to be consistent with details.
℄ POCKET
2-#4 AT EA POCKET
EDGE OF SLAB
PLAN
SECTION
NOTE: SEE ARCH DWGS FOR LOCATION AND OTHER DETAILS FOR POCKETS.
9 S-003 TYPICAL POST POCKET DETAIL
SCALE: NO SCALE
8" CMU WALL (SOLID GROUT)
APPROX FINISHED GRADE
TOP OF CONC STEM WALL (ROUGHEN CONC CONTACT SURFACE)
CONC STEM WALL
CONC SLAB ON GRADE (REINF NOT SHOWN)
MOISTURE BARRIER
4" GRANULAR TERMITE BARRIER (GTB)
GEOTEXTILE FABRIC
4" CAPILLARY WATER BARRIER
COMPACTED SUBGRADE
CONC WALL FOOTING
10 S-003 TYP DETAIL FOR GRANULAR TERMITE BARRIER (GTB) AT FOUNDATION WALL
SCALE: NONE
CONC CAP WITH CONTRACTION JOINT SPACING AT 4'-0" OC
APPROX FINISHED GRADE
#3 CONT
1/2"DIA x8" LONG RAWL SPIKE EMBED 2½" MIN AT 10'-0" OC (MAX)
CONC SLAB ON GRADE
VERTICAL CONTAINMENT BARRIER-CORRUGATED FIBERGLASS ROOFING SHEETS
MOISTURE BARRIER
4" GRANULAR TERMITE BARRIER (GTB)
GEOTEXTILE FABRIC
4" CAPILLARY WATER BARRIER
COMPACTED SUBGRADE
NOTE: SEE DETAIL 2/S-003 FOR CONC SLAB ON GRADE REINFORCING AND DIMENSIONS NOT SHOWN HERE.
11 S-003 TYP DETAIL FOR GRANULAR TERMITE BARRIER (GTB) AT SLAB EDGE
SCALE: NONE
STRUCTURAL DRAWING ASSESMENT
SHIGEMURA, LAU,SAKAMAKISHI,HIGUCHI & ASSOCIATES, INC.
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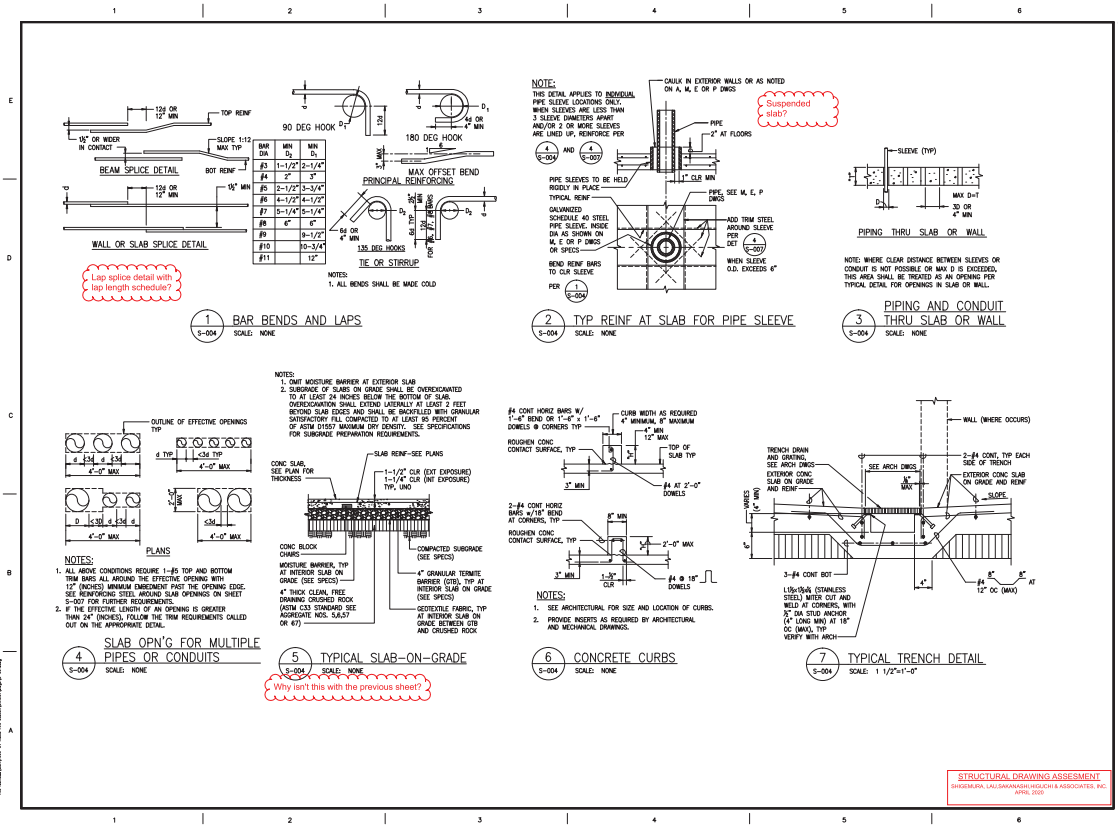
S-003


12ϕ OR 12" MIN
TOP REINF
½" OR WIDER IN CONTACT
SLOPE 1:12 MAX TYP
BOT REINF
1½" MIN
BEAM SPLICE DETAIL
WALL OR SLAB SPLICE DETAIL
90 DEG HOOK
180 DEG HOOK
MAX OFFSET BEND
PRINCIPAL REINFORCING
135 DEG HOOKS
TIE OR STIRRUP
BAR DIA | MIN D2 | MIN D1
#3 | 1-1/2" | 2-1/4"
#4 | 2" | 3"
#5 | 2-1/2" | 3-3/4"
#6 | 4-1/2" | 6-1/2"
#7 | 5-1/4" | 5-1/4"
#8 | 6" | 6"
#9 | 9-1/2"
#10 | 10-3/4"
#11 | 12"
Lap splice detail with lap length schedule?
NOTES:
1. ALL BENDS SHALL BE MADE COLD
1 S-004 BAR BENDS AND LAPS
SCALE: NONE
NOTE:
THIS DETAIL APPLIES TO INDIVIDUAL PIPE SLEEVE LOCATIONS ONLY. WHEN SLEEVES ARE LESS THAN 3 SLEEVE DIAMETERS APART AND/OR 2 OR MORE SLEEVES ARE LINED UP, REINFORCE PER
CAULK IN EXTERIOR WALLS OR AS NOTED ON A, M, E OR P DWGS
Suspended slab?
PIPE
2" AT FLOORS
1" CLR MIN
PIPE SLEEVES TO BE HELD RIGIDLY IN PLACE
TYPICAL REINF
PIPE, SEE M, E, P DWGS
GALVANIZED SCHEDULE 40 STEEL PIPE SLEEVE, INSIDE DIA AS SHOWN ON M, E OR P DWGS OR SPECS
ADD TRIM STEEL AROUND SLEEVE PER DET
BEND REINF BARS TO CLR SLEEVE PER
WHEN SLEEVE O.D. EXCEEDS 6"
2 S-004 TYP REINF AT SLAB FOR PIPE SLEEVE
SCALE: NONE
SLEEVE (TYP)
MAX D=T
3D OR 4" MIN
PIPING THRU SLAB OR WALL
NOTE: WHERE CLEAR DISTANCE BETWEEN SLEEVES OR CONDUIT IS NOT POSSIBLE OR MAX D IS EXCEEDED, THIS AREA SHALL BE TREATED AS AN OPENING PER TYPICAL DETAIL FOR OPENINGS IN SLAB OR WALL.
3 S-004 PIPING AND CONDUIT THRU SLAB OR WALL
SCALE: NONE
OUTLINE OF EFFECTIVE OPENINGS TYP
PLANS
NOTES:
1. ALL ABOVE CONDITIONS REQUIRE 1-#5 TOP AND BOTTOM TRIM BARS ALL AROUND THE EFFECTIVE OPENING WITH 12" (INCHES) MINIMUM EMBEDMENT PAST THE OPENING EDGE. SEE REINFORCING STEEL AROUND SLAB OPENINGS ON SHEET S-007 FOR FURTHER REQUIREMENTS.
2. IF THE EFFECTIVE LENGTH OF AN OPENING IS GREATER THAN 24" (INCHES), FOLLOW THE TRIM REQUIREMENTS CALLED OUT ON THE APPROPRIATE DETAIL.
4 S-004 SLAB OPN'G FOR MULTIPLE PIPES OR CONDUITS
SCALE: NONE
NOTES:
1. OMIT MOISTURE BARRIER AT EXTERIOR SLAB
2. SUBGRADE OF SLABS ON GRADE SHALL BE OVEREXCAVATED TO AT LEAST 24 INCHES BELOW THE BOTTOM OF SLAB. OVEREXCAVATION SHALL EXTEND LATERALLY AT LEAST 2 FEET BEYOND SLAB EDGES AND SHALL BE BACKFILLED WITH GRANULAR SATISFACTORY FILL COMPACTED TO AT LEAST 95 PERCENT OF ASTM D1557 MAXIMUM DRY DENSITY. SEE SPECIFICATIONS FOR SUBGRADE PREPARATION REQUIREMENTS.
SLAB REINF-SEE PLANS
CONC SLAB, SEE PLAN FOR THICKNESS
1-1/2" CLR (EXT EXPOSURE) 1-1/4" CLR (INT EXPOSURE) TYP, UNO
CONC BLOCK CHAIRS
MOISTURE BARRIER, TYP AT INTERIOR SLAB ON GRADE (SEE SPECS)
4" THICK CLEAN, FREE DRAINING CRUSHED ROCK (ASTM C33 STANDARD SIZE AGGREGATE NOS. 5,6,57 OR 67)
COMPACTED SUBGRADE (SEE SPECS)
4" GRANULAR TERMITE BARRIER (GTB), TYP AT INTERIOR SLAB ON GRADE (SEE SPECS)
GEOTEXTILE FABRIC, TYP AT INTERIOR SLAB ON GRADE BETWEEN GTB AND CRUSHED ROCK
Why isn't this with the previous sheet?
5 S-004 TYPICAL SLAB-ON-GRADE
SCALE: NONE
#4 CONT HORIZ BARS W/ 1'-6" BEND OR 1'-6" x 1'-6" DOWELS @ CORNERS TYP
CURB WIDTH AS REQUIRED 4" MINIMUM, 8" MAXIMUM
4" MIN 12" MAX
ROUGHEN CONC CONTACT SURFACE, TYP
TOP OF SLAB TYP
#4 AT 2'-0" DOWELS
2-#4 CONT HORIZ BARS w/18" BEND AT CORNERS, TYP
8" MIN
2'-0" MAX
#4 @ 18" DOWELS
NOTES:
1. SEE ARCHITECTURAL FOR SIZE AND LOCATION OF CURBS.
2. PROVIDE INSERTS AS REQUIRED BY ARCHITECTURAL AND MECHANICAL DRAWINGS.
6 S-004 CONCRETE CURBS
SCALE: NONE
WALL (WHERE OCCURS)
TRENCH DRAIN AND GRATING, SEE ARCH DWGS
EXTERIOR CONC SLAB ON GRADE AND REINF
SEE ARCH DWGS
2-#4 CONT, TYP EACH SIDE OF TRENCH
EXTERIOR CONC SLAB ON GRADE AND REINF
SLOPE
3-#4 CONT BOT
L1½x1½x¼ (STAINLESS STEEL) MITER CUT AND WELD AT CORNERS, WITH ¾" DIA STUD ANCHOR (4" LONG MIN) AT 18" OC (MAX), TYP VERIFY WITH ARCH
#4 @ 12" OC (MAX)
7 S-004 TYPICAL TRENCH DETAIL
SCALE: 1 1/2"=1'-0"
STRUCTURAL DRAWING ASSESMENT
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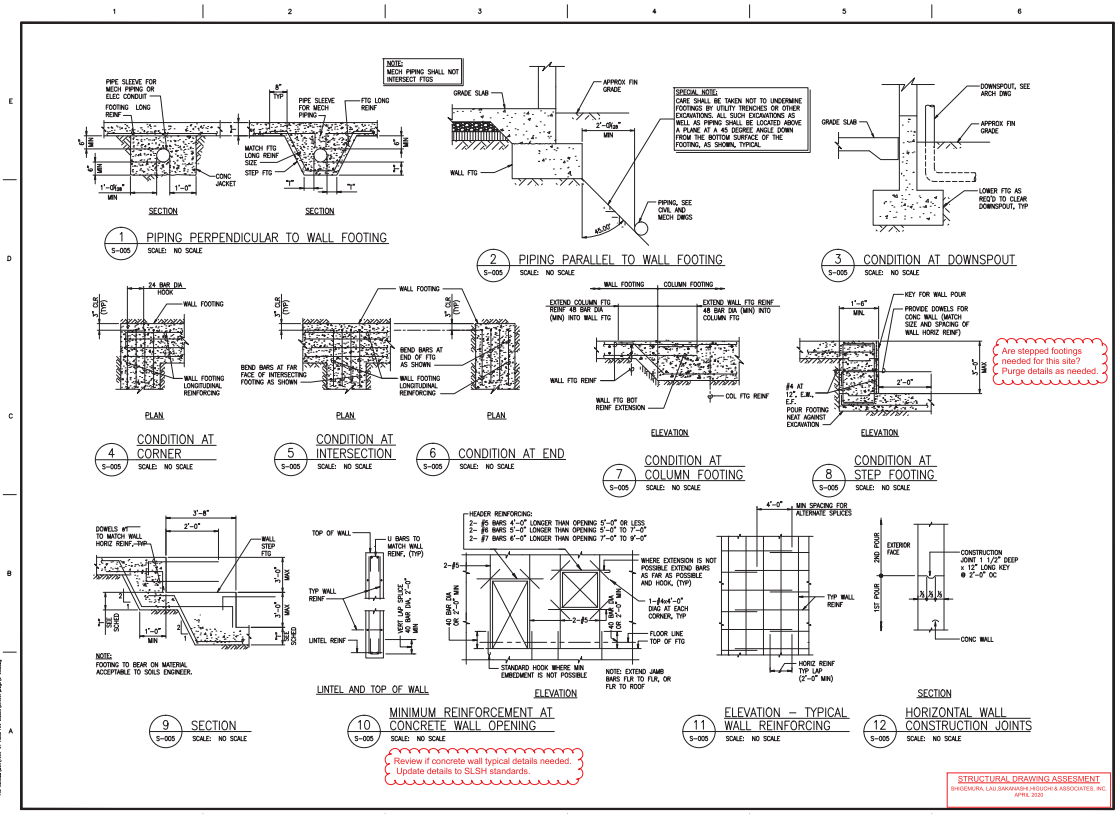
S-004



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PERMIT SET:
APRIL 15, 2011

TYPICAL CONCRETE WALL FOOTING DETAILS

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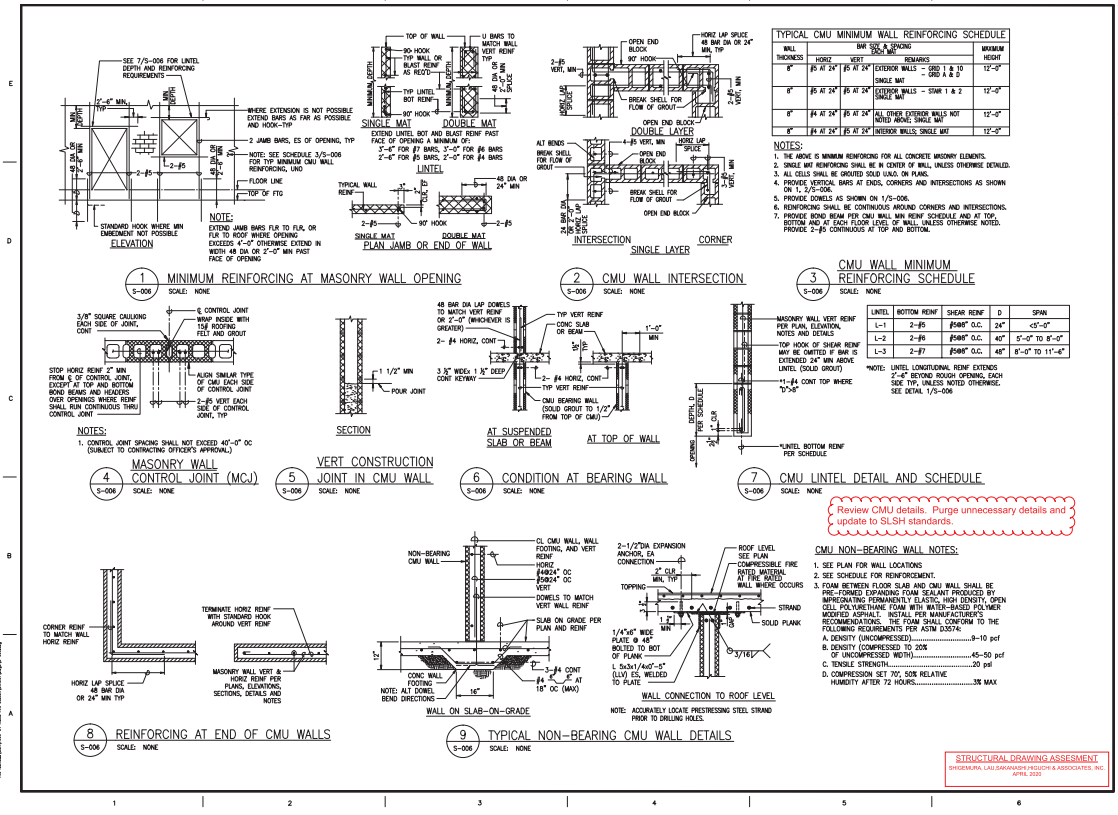
HONOLULU, HAWAII

PROJECT NO: 3898.001
DESIGN BY: WGC
DATE: 2011-04-15
CHKD NO

S-005



TYPICAL CMU MINIMUM WALL REINFORCING SCHEDULE				
WALL THICKNESS	BAR SIZE & SPACING HORIZ.	VERT.	REMARKS	MINIMUM HEIGHT
8"	#5 AT 24"	#5 AT 24"	EXTERIOR WALLS – GRID 1 & 10 – GRID A & D SINGLE MAT	12'-0"
8"	#5 AT 24"	#5 AT 24"	EXTERIOR WALLS – STAIR 1 & 2 SINGLE MAT	12'-0"
8"	#4 AT 24"	#5 AT 24"	ALL OTHER EXTERIOR WALLS NOT NOTED ABOVE; SINGLE MAT	12'-0"
8"	#4 AT 24"	#5 AT 24"	INTERIOR WALLS; SINGLE MAT	12'-0"

NOTES:
1. THE ABOVE IS MINIMUM REINFORCING FOR ALL CONCRETE MASONRY ELEMENTS.
2. SINGLE MAT REINFORCING SHALL BE IN CENTER OF WALL, UNLESS OTHERWISE DETAILED.
3. ALL CELLS SHALL BE GROUTED SOLID U.N.O. ON PLANS.
4. PROVIDE VERTICAL BARS AT ENDS, CORNERS AND INTERSECTIONS AS SHOWN ON 1, 2/S-006.
5. PROVIDE DOWELS AS SHOWN ON 1/S-006.
6. REINFORCING SHALL BE CONTINUOUS AROUND CORNERS AND INTERSECTIONS.
7. PROVIDE BOND BEAM PER CMU WALL MIN REINF SCHEDULE AND AT TOP, BOTTOM AND AT EACH FLOOR LEVEL OF WALL, UNLESS OTHERWISE NOTED. PROVIDE 2–#5 CONTINUOUS AT TOP AND BOTTOM.

LINTEL	BOTTOM REINF	SHEAR REINF	D	SPAN
L–1	2–#5	#3@8" O.C.	24"	<5'–0"
L–2	2–#6	#3@8" O.C.	40"	5'–0" TO 8'–0"
L–3	2–#7	#3@8" O.C.	48"	8'–0" TO 11'–6"

*NOTE: LINTEL LONGITUDINAL REINF EXTENDS 2'–6" BEYOND ROUGH OPENING, EACH SIDE TYP, UNLESS NOTED OTHERWISE. SEE DETAIL 1/S–006

CMU NON–BEARING WALL NOTES:
1. SEE PLAN FOR WALL LOCATIONS
2. SEE SCHEDULE FOR REINFORCEMENT.
3. FOAM BETWEEN FLOOR SLAB AND CMU WALL SHALL BE PRE–FORMED EXPANDING FOAM SEALANT PROVIDED BY IMPREGNATING PERMANENTLY ELASTIC, HIGH DENSITY, OPEN CELL POLYURETHANE FOAM WITH WATER–BASED POLYMER MODIFIED ASPHALT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. THE FOAM SHALL CONFORM TO THE FOLLOWING REQUIREMENTS PER ASTM D3574:
A. DENSITY (UNCOMPRESSED).....9–10 pcf
B. DENSITY (COMPRESSED TO 20% OF UNCOMPRESSED WIDTH).....45–50 pcf
C. TENSILE STRENGTH.....20 psi
D. COMPRESSION SET 70°, 50% RELATIVE HUMIDITY AFTER 72 HOURS.....3% MAX

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HAIKU, MAUI

PERMIT SET:
APRIL 15, 2011

TYPICAL CONCRETE MASONRY UNITS (CMU) DETAILS

NONE

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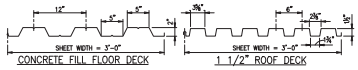
PROJECT NO: 3898.001
DESIGN BY: WGC
DATE: 2011-04-15
CHKD NO

S-006



NOTES:

1. DECK SPAN SHALL BE IN THE DIRECTION AS NOTED ON PLAN.
2. DECK SHALL BE FASTENED TO PERPENDICULAR SUPPORTING BEAMS OR JOISTS WITH THE MINIMUM FASTENERS INDICATED, UNLESS NOTED OTHERWISE.
3. AT PARALLEL SUPPORTS IN ANY AREA, USE FASTENERS FOR SHEAR, UNLESS NOTED OTHERWISE.
4. END AND MARGINAL WELDS FOR FLOOR DECKS SHALL BE PUDDLE WELDS HAVING A MINIMUM EFFECTIVE DIAMETER OF 1/2" LONG FILLET OR 3/4" DIAMETER. WELD SHALL BE AT 12" OC (MAX).
5. SEE PLAN FOR CONCRETE FILL THICKNESS ON FLOOR DECK.
6. MAXIMUM SPAN FOR FLOOR DECK SHALL BE 8'-0", UNLESS INDICATED OTHERWISE ON PLAN.
7. MAXIMUM SPAN FOR ROOF DECK SHALL BE 4'-0", UNLESS INDICATED OTHERWISE ON PLAN.

METAL DECK MINIMUM REQUIREMENTS

DECK TYPE	MINIMUM SECTION PROPERTIES				MINIMUM CONNECTION		MINIMUM SHEAR VALUE (lb/ft)	REMARKS
	STEEL THICKNESS (in)*	I_p (in⁴)	I_n (in⁴)	S_n (in³)	AT SUPPORT	SIDE LAP		
2" FLOOR	0.036	0.445	0.397	0.411	4-1/2" DIA PUDDLE WELDS	BUTTON PUNCH@36" OC	1977	20 GA
1 1/2" ROOF	0.0478	0.302	0.322	0.336	7-1/2" DIA PUDDLE WELDS	BUTTON PUNCH@12" OC	930	18 GA

* MINIMUM STEEL THICKNESS SPECIFIED IS PRIOR TO GALVANIZING.

1 / S-007 METAL DECK MINIMUM SECTION PROPERTIES
SCALE: NONE

Floor decking not needed. Update detail to SLSH standards and edit to apply specifically for this project.

STRUCTURAL DRAWING ASSESMENT
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APRIL 2020

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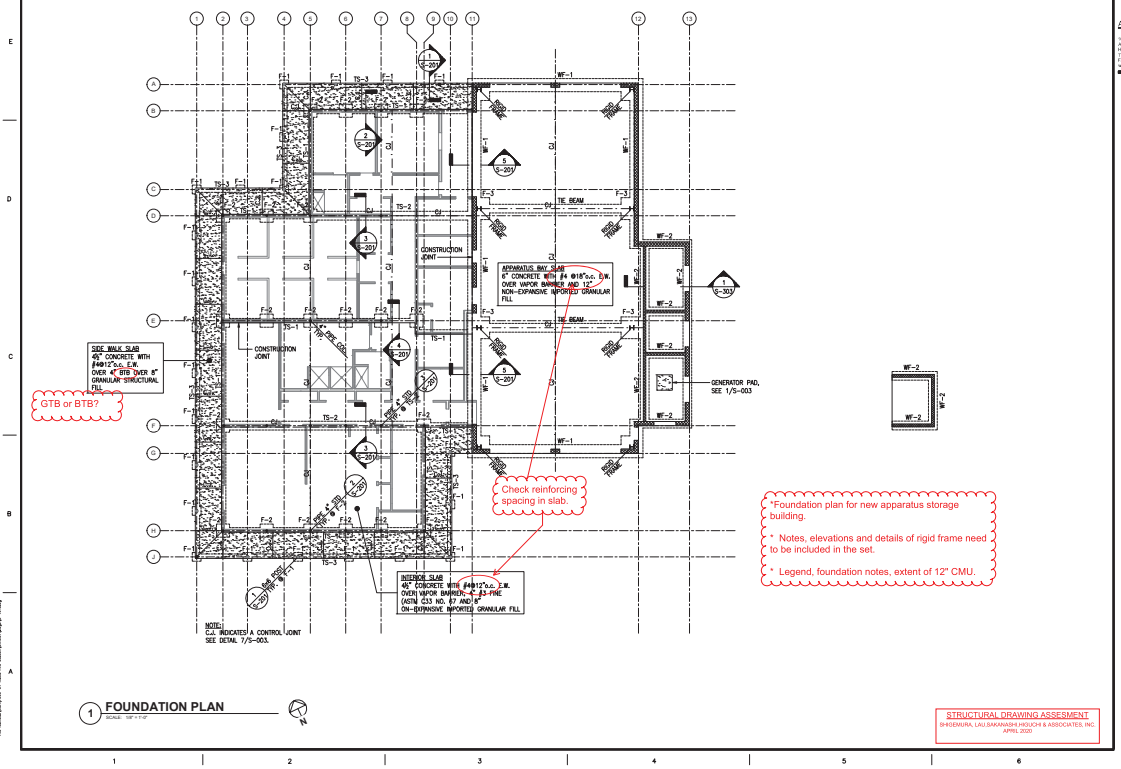
TYPICAL METAL DECKING DETAILS

NONE

PROJECT NO: 0898.001
DRAWN BY: WDC
DATE: 2011-04-15
DRAWING NO: S-007

Date Plotted: 26 Apr 2011 - 2:01pm
File Name(s):C:\Projects\0898.001 Haiku Fire Station\CAD\Arch\Dwgs\S-007.dwg



1 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

*Foundation plan for new apparatus storage building.

* Notes, elevations and details of rigid frame need to be included in the set.

* Legend, foundation notes, extent of 12" CMU.

STRUCTURAL DRAWING ASSESMENT
SHIGEMURA, LAU,SAKANASHI,HIGUCHI & ASSOCIATES, INC.
APRIL 2020

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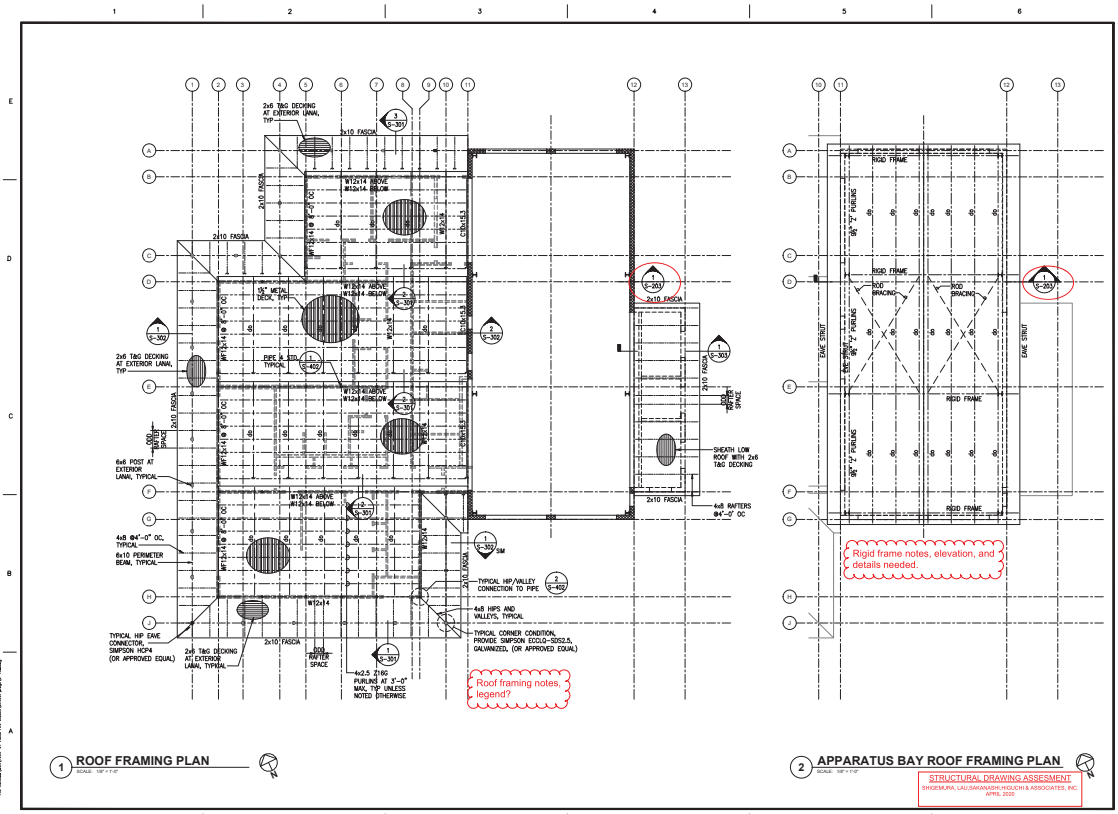
FOUNDATION PLAN

1/8" = 1'-0"

PROJECT NO: 0898.001
DRAWN BY: WDC
DATE: 2011-04-15
DRAWING NO: S-101

Date Plotted: 26 Apr 2011 - 2:01pm
File Name(s):C:\Projects\0898.001 Haiku Fire Station\CAD\Arch\Dwgs\S-101.dwg


2x6 T&G DECKING AT EXTERIOR LANAI, TYP.
2x10 FASCIA
W12x14 ABOVE W12x14 BELOW
W12x14 ABOVE W12x14 BELOW
W12x14 ABOVE W12x14 BELOW
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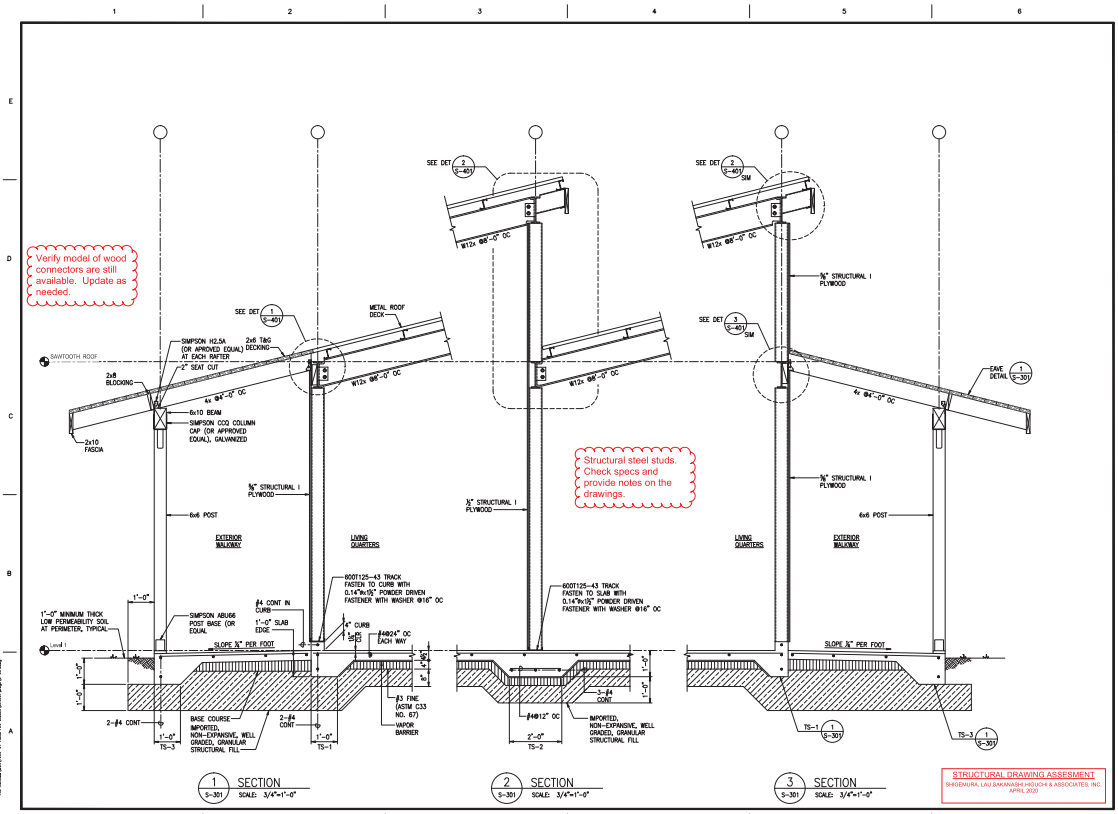

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3030 HANA HWY
HAIKU, MAUI

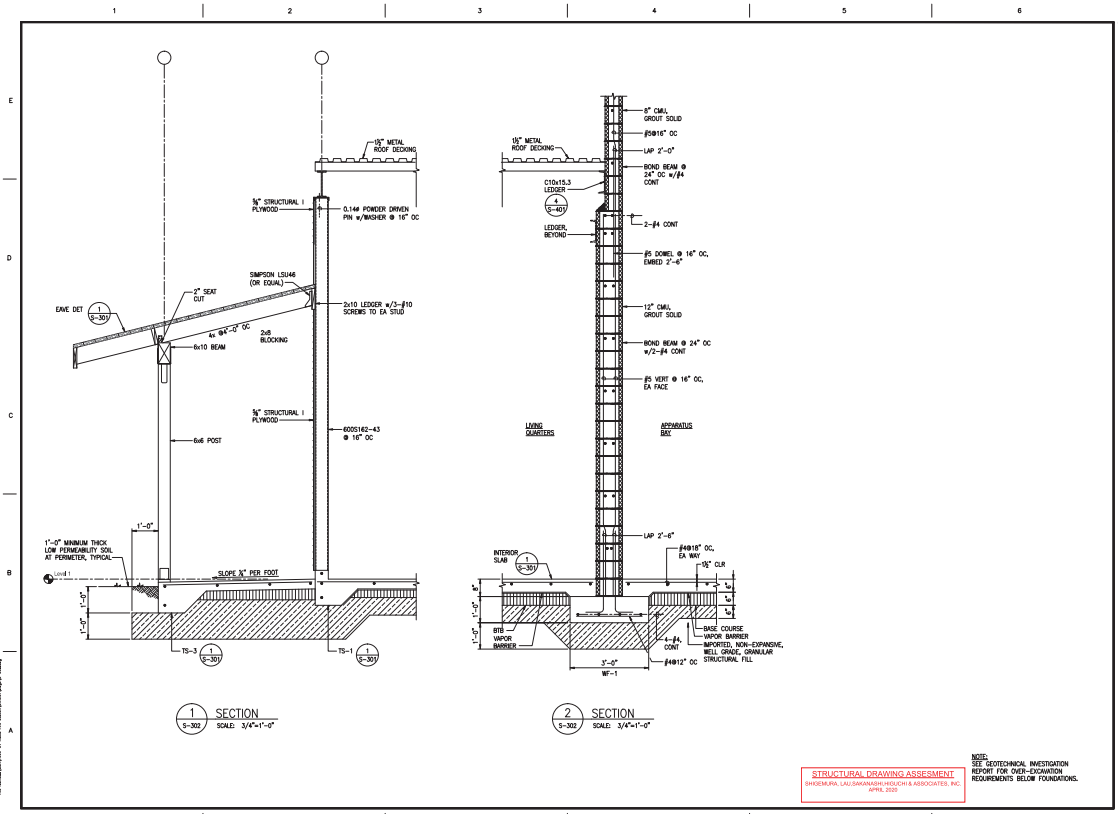
PERMIT SET :
APRIL 15, 2011

WALL SECTIONS

AS NOTED

PROJECT NO. 3898.001
DRAWN BY: WGC
DATE: 2011-04-15
DRAWING NO.

S-301



NOTE:
SEE GEOTECHNICAL INVESTIGATION REPORT FOR OVER-EXCAVATION REQUIREMENTS BELOW FOUNDATIONS.

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PERMIT SET :
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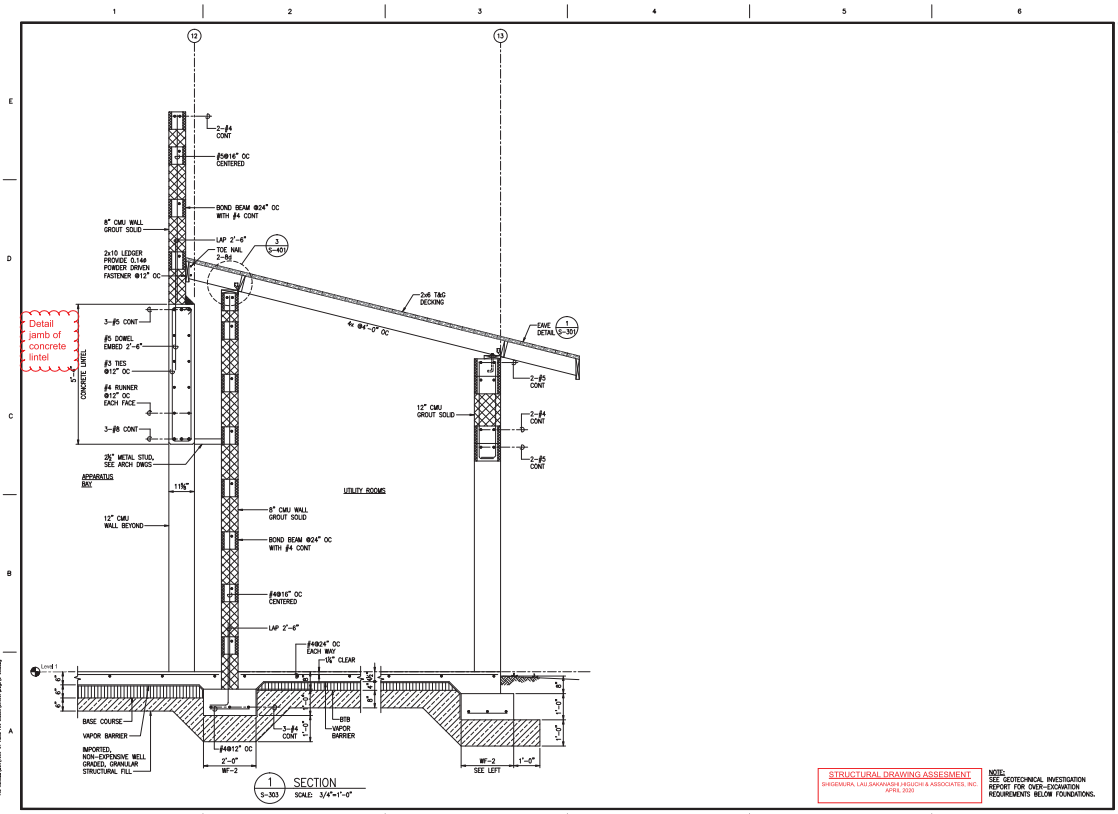
WALL SECTIONS

1/4" = 1'-0"

PROJECT NO. 3898.001
DRAWN BY: WGC
DATE: 2011-04-15
DRAWING NO.

S-302



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PERMIT SET :
APRIL 15, 2011

WALL SECTIONS

AS NOTED

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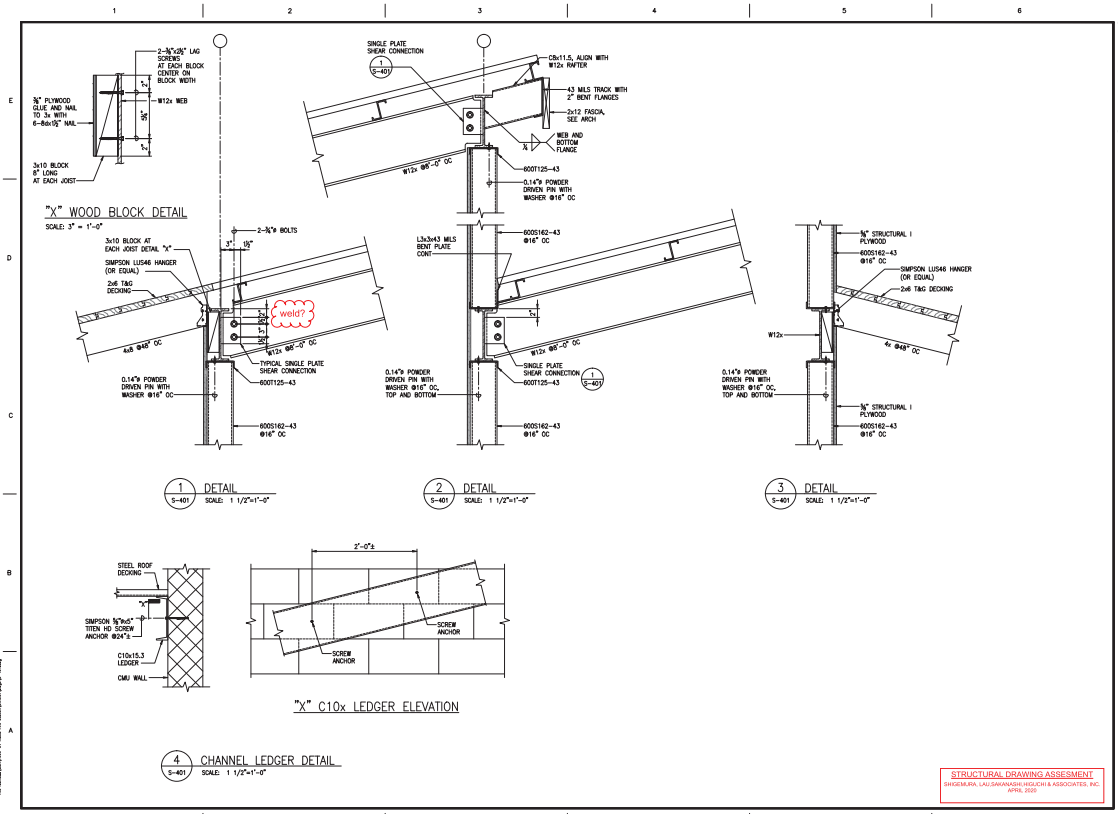
PROJECT NO.	0898.001
DRAWN BY:	WGC
DATE:	2011-04-15
DRAWING NO.	S-303



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PERMIT SET :
APRIL 15, 2011

DETAILS

AS NOTED

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PROJECT NO.	0898.001
DRAWN BY:	WGC
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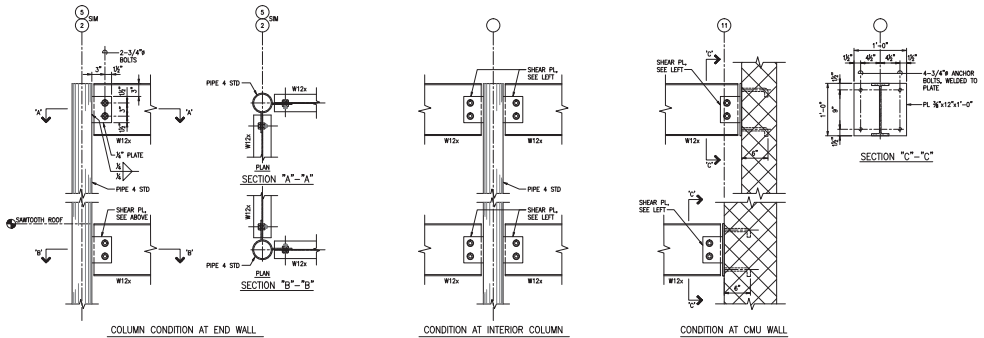
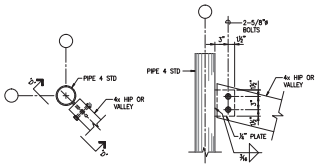
DRAWING NO.	S-401



COLUMN CONDITION AT END WALL | CONDITION AT INTERIOR COLUMN | CONDITION AT CMU WALL

1 S-402 PIPE COLUMN DETAIL
SCALE: 1 1/2"=1'-0"



2 S-402 HIP/VALLEY CONNECTION TO PIPE
SCALE: 1 1/2"=1'-0"

STRUCTURAL DRAWING ASSESMENT
SHIGEMURA, LAU,SAKANASHI,HIGUCHI & ASSOCIATES, INC.
APRIL 2020

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HAIKU FIRE STATION
3530 HAIKU HWY
HAIKU, MAUI

PERMIT SET - APRIL 15, 2011

DETAILS

AS NOTED

LICENSED PROFESSIONAL ENGINEER
No. 6954

PROJECT NO. 3898.001
DRAWN BY: WGC
DATE: 2011-04-15
DRAWING NO. S-402
Sheets

SYMBOLS

DOOR IDENTIFICATION
WINDOW IDENTIFICATION
ROOM NAME
ROOM NUMBER
SIGN IDENTIFICATION
CEILING HEIGHT
INTERIOR ELEV KEY
NORTH ARROW
PARTITION TYPE IDENTIFICATION
GRAPHIC SCALE
WALL SECTION (NB DETAIL INDICATED)
PLAN DETAIL REFERENCE
WORKING POINT, CONTROL POINT OR DATUM POINT
COLUMN GRID LINE
REVISION CLOUD AND NUMBER

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL VERIFY ALL CONDITIONS AND DIMENSIONS RELATING TO THIS PROJECT BEFORE COMMENCING WITH THE REQUIRED WORK. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY DISCREPANCIES, ERRORS OR CONFLICTS WHICH PREVENT HIM OR HER FROM FULFILLING THE TERMS OF THE CONTRACT, AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
2. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS BASED ON VISUAL OBSERVATIONS ONLY. THE CONTRACTOR SHALL VERIFY ACCURACY WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE OWNER SO THAT THE PROPER REVISIONS MAY BE MADE. MODIFICATION OF DETAILS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER.
3. ALL WORK SHOWN SHALL BE CONSIDERED AS NEW UNLESS INDICATED OTHERWISE.
4. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES INCURRED TO EXISTING WORK SCHEDULED TO REMAIN DURING THE CONSTRUCTION PERIOD WHICH SHALL BE REPAIRED AT NO ADDITIONAL COSTS TO THE OWNER.
6. WHEN CONNECTIONS OF NEW UTILITY LINES TO THE EXISTING SYSTEMS WILL CAUSE AN INTERRUPTION OF SERVICE, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR SUCH WORK, INCLUDING PROVISIONS TO TRAFFIC FLOW, AND EXCAVATION PERMIT 14 DAYS IN ADVANCE FOR APPROVAL.
7. THE EXISTANCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE FROM THE LATEST AVAILABLE RECORDS BUT ARE NOT GUARANTEED TO BE CORRECT OR COMPLETE. THE LOCATIONS OF SOME UTILITIES MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL PROCEED WITH EXCAVATION WORK WITH EXTREME CAUTION AND MUST EXERCISE PROPER CARE DURING EXCAVATION TO PREVENT DAMAGE TO UTILITIES. NOTIFY THE OWNER OF ANY UNDERGROUND UTILITIES IN THE WAY OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES AS A RESULT OF HIS WORK.
8. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES TO VERIFY THE ACTUAL LOCATION OF ALL UTILITIES IN THE PROJECT AREA PRIOR TO EXCAVATING. THE CONTRACTOR SHALL COORDINATE ALL WORK INVOLVING CONNECTIONS TO EXISTING UTILITIES WITH THE UTILITY AGENCIES ON THE PLANS. THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSE CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
9. CONTRACTOR SHALL PATCH ALL SURFACES EXPOSED FROM CUTTING, AND/OR REMOVAL WORK. PATCHING SHALL MATCH THE FINISH OF THE ADJACENT SURFACES.
10. ALL WORK SHALL CONFORM TO ALL APPLICABLE LAWS, CODES, REGULATIONS, AND ORDINANCES OF ALL GOVERNING AGENCIES. THIS WORK SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM WITH THE STANDARDS, REQUIREMENTS OF THIS AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG).
11. ALL WOOD SHALL BE NEW AND PRESSURE TREATED WITH PRESERVATIVE. CUT ENDS SHALL BE FIELD COATED WITH A COMPATIBLE PRESERVATIVE COATING. CONTRACTOR TO PROVIDE CERTIFICATION THAT PRESERVATIVE IS EPA REGISTERED AND THAT INSTALLATION IS IN STRICT ACCORDANCE WITH AWPA STANDARDS.
12. ALL DIMENSIONS SHOWN ON PLANS ARE TO FACE OF FINISH OF PARTITION, UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL, AT ALL TIMES, DURING THE COURSE OF WORK, KEEP THE CONSTRUCTION AREA, THE OWNER'S PREMISES, INCLUDING STREETS AND OTHER AREAS USED BY THE CONTRACTOR FREE FROM ACCUMULATION OF DEBRIS, WASTE MATERIALS AND RUBBISH. CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES AS REQUIRED.
14. COORDINATE ALL OPERATIONS WITH THE OWNER FOR MATERIALS STORAGE, DELIVERY ACCESS TO AND FROM WORK, SPECIAL NOISY OPERATIONS, TIMING OF WORK, SEQUENCE OF OPERATIONS, INTERRUPTION OF MECHANICAL AND ELECTRICAL UTILITIES, ETC.
15. CONTRACTOR SHALL PROVIDE BARRICADES, AS REQUIRED, AND ACCEPTABLE TO THE OWNER TO PREVENT PEOPLE FROM ENTERING THE PROJECT AREA AND TO PROTECT THE ENCLOSED PROPERTY. REMOVE BARRICADES AFTER COMPLETION OF THE PROJECT AND CLEAN THE PROJECT AREA OF ALL DEBRIS, RUBBISH AND CONSTRUCTION MATERIAL AT TIME OF FINAL ACCEPTANCE.
16. ALL MATERIALS REQUIRED TO BE DISPOSED OF IN THIS PROJECT UNLESS REQUIRED TO BE SALVAGED, BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF OUTSIDE THE SITE, UNLESS THE OWNERS PROPERTY IN ACCORDANCE WITH ALL LOCAL GOVERNING LAWS AND REGULATIONS

MATERIALS & PARTITIONS

GYPSUM BOARD (CEILING CONDITION)
CONCRETE
CONCRETE MASONRY UNIT
PLYWOOD
INSULATION
GYPSUM BOARD
FIBERGLASS REINFORCED POLYMER
EARTH
BASE COURSE
INSULATION (ROOF)
WOOD, FINISH
WOOD FRAMING, CONTINUOUS
WOOD FRAMING, BLOCKING

ABBREVIATIONS

A
@ AT
℄ CENTERLINE
" INCH
DIAMETER OR ROUND
% PERCENT
# POUND OR NUMBER
℄ PROPERTY LINE

AB ANCHOR BOLT
ABV ABOVE
A/C AIR CONDITIONING
ACOUS ACOUSTICAL
ACOUST ACOUSTICAL
ADA AMERICANS WITH DISABILITIES ACT
ADDM ADDENDUM
ADJ ADJACENT OR ADJACENT
AFF ABOVE FINISH FLOOR
AGGR AGGREGATE
ALT ALTERNATE
ALTS ALTERNATES
ANOD ANODIZED
APPROX APPROXIMATE
ARCH ARCHITECT(URAL)
ASPH ASPHALT

B
BD BOARD
BLDG BUILDING
BLKG BLOCKING
BM BEAM, BENCHMARK
BOT BOTTOM

C
CAB CABINET
CB CATCH BASIN
CCT CUBICLE CURTAIN TRACK
CFCI CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CT CERAMIC TILE
CTR CENTER, CENTERED
CI CAST IRON
CJ CONTROL JOINT
CLG CEILING
CLG CLOSET
CONC CONCRETE
CMU CONCRETE MASONRY UNIT(S)
CNTR COUNTER
CO CLEAN OUT
COL COLUMN
CONC CONCRETE
CONN CONNECTION
CONN CONNECTION
CONSTR CONSTRUCTION
CONT CONTINUOUS
CONTR CONTRACTOR
CPT CARPET
CORR CORRIDOR
CORR CORRUGATED
CPT CARPET
CTSK COUNTERSUNK, (SINK)

D
D DEEP, DEPTH
DA DOUBLE ACTING
DBL DOUBLE
DDFB DIRECT APPLIED EXTERIOR FINISH SYSTEM
DET DETAIL
DIA DIAMETER
DIAG DIAGONAL
DIM DIMENSION
DISP DISPENSER
DN DOWN
DO DOOR
DR DOOR
DS DOWNSPOUT
DSP DRY STANDPIPE
DWG DRAWING
DWR DRAWER

E
EA EACH
EIFS EXTERIOR INSULATION & FINISH SYSTEM
EJ EXPANSION JOINT
EL ELEVATION
ELEC ELECTRICAL
ELEV ELEVATOR
EMER EMERGENCY
ENCL ENCLOSURE
EPB ELECTRICAL PANEL BOARD
EQ EQUAL
EQUIP EQUIPMENT
ERC ELECTRIC WATER COOLER
EWH ELECTRIC WATER HEATER
EXH EXHAUST
EXP EXPANSION
EXIST EXISTING
EXT EXTERIOR

F
FA FIRE ALARM, FINISH AIR
FB FLAT BAR
FCU FAN COIL UNIT
FD FLOOR DRAIN
FE FIRE EXTINGUISHER
FEC FIRE EXTINGUISHER CABINET
FFGL FINISHED FLOOR GLASS
FIN FINISH(ED)
FL FLOOR
FLASH FLASHING
FLDG FOLDING
FLR FLOORING
FLUOR FLUORESCENT
FOF FACE OF FINISH
FOM FACE OF MASONRY(CMU)
FP FIREPROOF(ING)
FR FRAME
FRTW FIRE RETARDANT TREATED WOOD
FT FOOT, FEET
FTG FOOTING

G
GA GAUGE
GALV GALVANIZED
GB GRAB BAR
GL GLASS
GND GROUND
GR GRADE
GYP BD GYPSUM WALL BOARD

H
H HIGH
HB HOSE BIBB
HC HOLLOW CORE
HDWD HARDWOOD
HM HOLLOW METAL
HM HOLLOW METAL
HORIZ HORIZONTAL
HP HIGH POINT
HR HOUR
HT HEIGHT

I
ID INSIDE DIAMETER/ DIMENSION
INCL INCLUDE(S), (ING), (SIVE)
INSUL INSULATION
INT INTERIOR

J
JAN JANITOR
JT JOINT

K
KD KNOCKED DOWN
KIT KITCHEN
KO KNOCK-OUT

L
L LENGTH, LONG
LAB LABORATORY
LAM LAMINATE
LAV LAVATORY
LKR LOCKER
LPT LOW POINT
LT LIGHT

M
MAX MAXIMUM
MB MACHINE BOLT
MC MEDICINE CABINET
MECH MECHANICAL
MEZZ MEZZANINE
MFR MANUFACTURER
MIN MINIMUM
MIRR MIRROR
MISC MISCELLANEOUS
MO MASONRY OPENING
MOD MODIFIED
MR MOISTURE RESISTANT
MTD MOUNTED
MTG MOUNTING
MTL METAL
MULL MULLION

N
N NORTH
NIC NOT IN CONTRACT
NL NIGHT LIGHT
NO NUMBER
NOM NOMINAL
NPS NOMINAL PIPE SIZE
NTS NOT TO SCALE

O
OA OVERALL
OC ON CENTER
OD OUTSIDE DIAMETER/ DIMENSION
ORD OVERFLOW ROOF DRAIN
OFCI OWNER FURNISHED CONTRACTOR INSTALLED
OFOI OWNER FURNISHED OWNER INSTALLED
OFF OFFICE
OPNG OPENING
OPP OPPOSITE
OS OVERFLOW SCUPPER

P
PL PROPERTY LINE
PLAM PLASTIC LAMINATE
PLAS PLASTER
PLBG PLUMBING
PLYWD PLYWOOD
PNL PANEL
PR PAIR
PRCST PRECAST
PROP PROPERTY
PT POINT
PTD PAPER TOWEL DISPENSER
PTD/R COMBINATION PAPER TOWEL DISPENSER AND RECEPTACLE
PTN PARTITION
PTR PAPER TOWEL RECEPTACLE

Q
QT QUARRY TILE

R
R ROSER, RADIUS
RA RETURN AIR
RD ROOF DRAIN
REF REFERENCE, REFRIGERATOR
REFL REFLECTED
REINF REINFORCED, REINFORCING
REQD REQUIRED
RESIL RESILIENT
RM ROOM
RND ROUND
RO ROUGH OPENING
RWD REDWOOD

S
S SOUTH
SC SOLID CORE
SCD SOAP DISPENSER
SCR SHOWER CURTAIN ROD
SCHED SCHEDULE
SD SOAP DISPENSER
SECT SECTION
SFDI SOAP DISPENSER STATE INSTALLED
SHV SHELVING
SHR SHOWER
SHT SHEET
SIM SIMILAR
SL SLOPE
SLDG SLIDING
SLNT SEALANT
SPND SANITARY NAPKIN DISPOSAL
SNDU SANITARY NAPKIN DISPOSAL UNIT
SPEC SPECIFICATION
SQ SQUARE
SS STAINLESS SINK
SST STAINLESS STEEL
STA STATION
STC SOUND TRANSMISSION CLASS
STD STANDARD
STL STEEL
STOR STORAGE
STRUCT STRUCTURAL
SUSP SUSPENDED
SUSPD SUSPENDED
SYMM SYMMETRICAL

T
T TREAD
TB TOWEL BAR
TEL TELEPHONE
TEMPD TEMPERED
THK THICK
TOC TOP OF CURB
TOP TOP OF PAVEMENT
TOS TOP OF SLAB
TOW TOP OF WALL
TPD TOILET PAPER DISPENSER
TPH TOILET PAPER HOLDER
TS TOP OF STEEL
TV TELEVISION
TYP TYPICAL

U
UBC UNIFORM BUILDING CODE
UL UNDERWRITERS LABORATORIES
UNF UNFINISHED
UNO UNLESS NOTED OTHERWISE
UR URINAL

V
VERT VERTICAL
VEST VESTIBULE

W
W WIDE, WIDE, WIDTH
WC WITH
WC WATER CLOSET
WD WOOD
WDW WINDOW
WH WATER HEATER
WO WITHOUT
WP WATERPROOF (ING)
WR WATER RESISTANT GYPSUM WALLBOARD
WB WEATHER BARRIER
WSCT WAINSCOT
WT WEIGHT
WO WHERE OCCURS
WWF WELDED WIRE FABRIC

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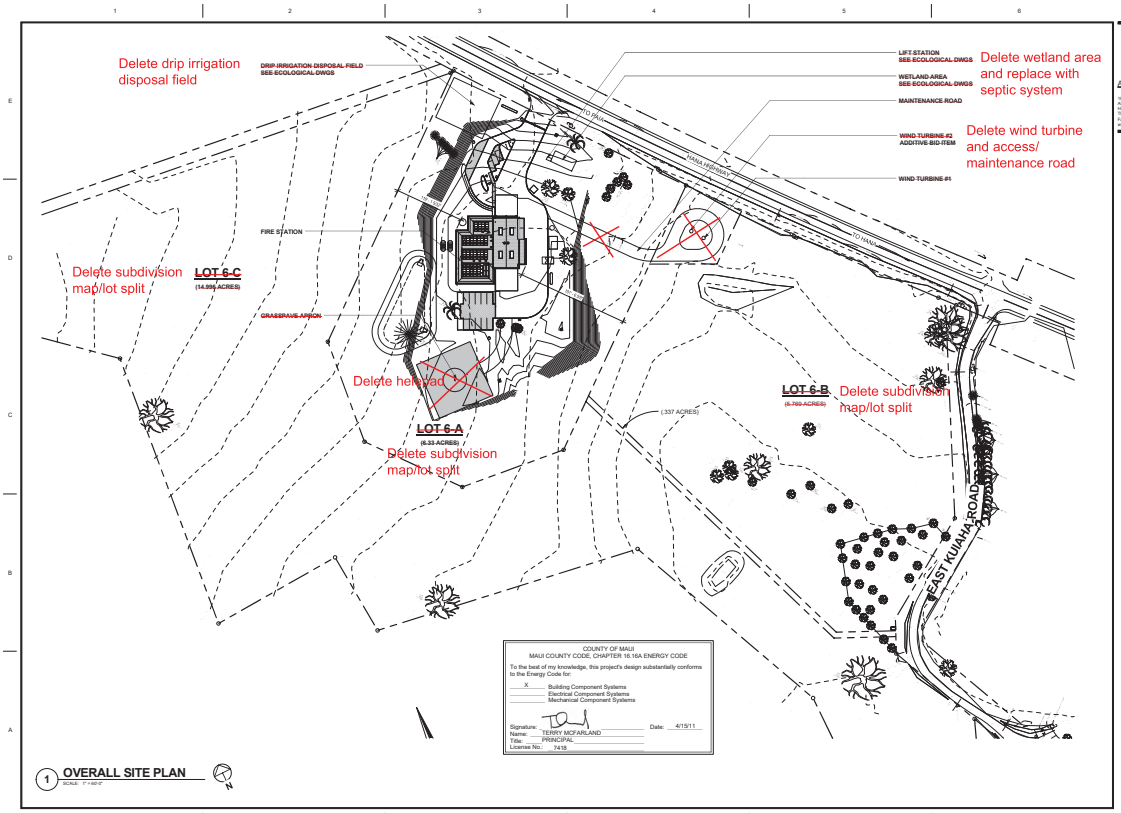
3530 HAIKU HWY
HAIKU, MAUI

PERMIT SET - APRIL 15, 2011

ARCHITECTURAL GENERAL NOTES

LICENSED PROFESSIONAL ARCHITECT
No. 7418

PROJECT NO. 3898.001
BM FILE
DRAWN BY: Author
DATE: APRIL 15, 2011
DRAWING NO. A-001
Sheets



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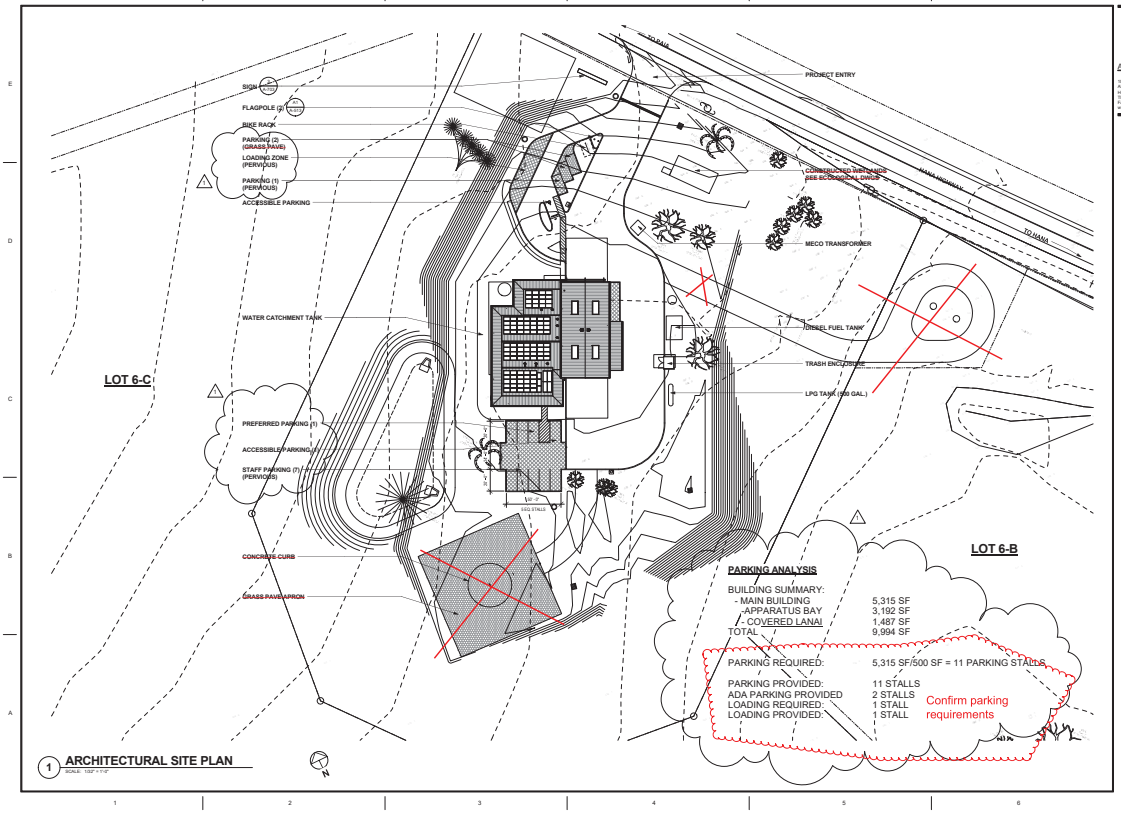
OVERALL SITE PLAN

As indicated

PROJECT NO: 5969.001
RM FILE:
DRAWN BY: AML
DATE: APRIL 15, 2011
DRAWING NO:

A-002



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ARCHITECTURAL SITE PLAN

As indicated

PROJECT NO: 5969.001
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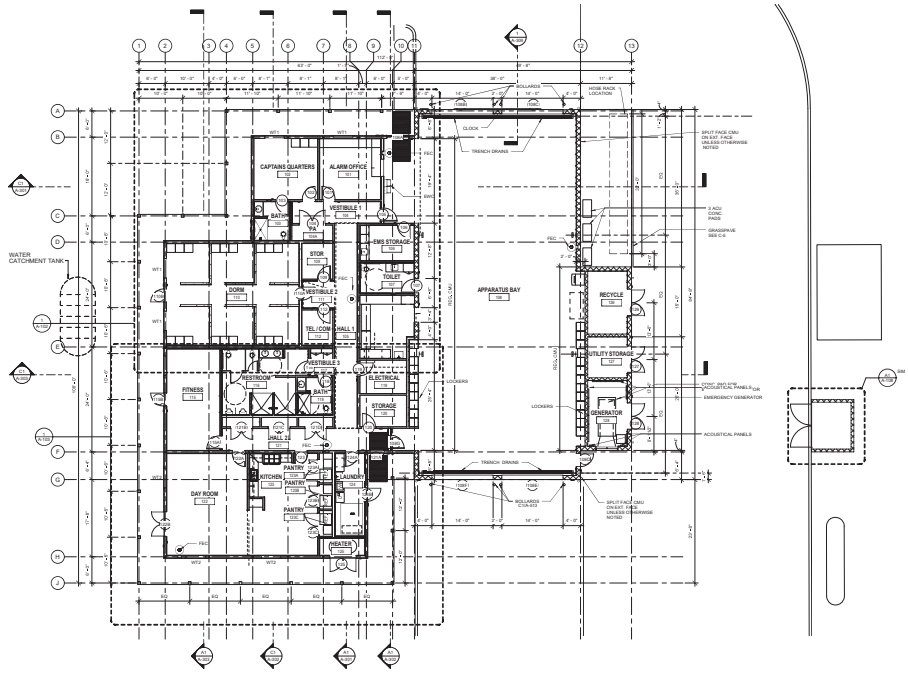
A-003



1 **FLOOR PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"

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FLOOR PLAN - LEVEL 1

1/8" = 1'-0"

PROJECT NO: 5869.001
BIM FILE:
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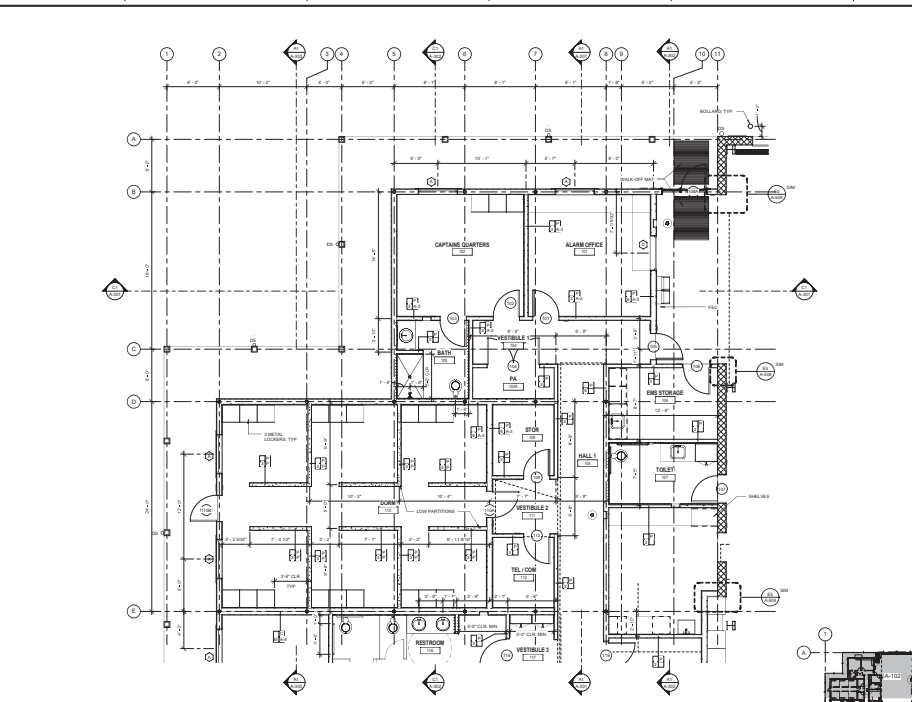
DATE: APRIL 15, 2011
DRAWING NO:

A-101



1 **ENLARGED FLOOR PLAN - AREA 1**
SCALE: 1/4" = 1'-0"

SEE SHEETS A-501 - A-505

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ENLARGED FLOOR PLAN

As indicated

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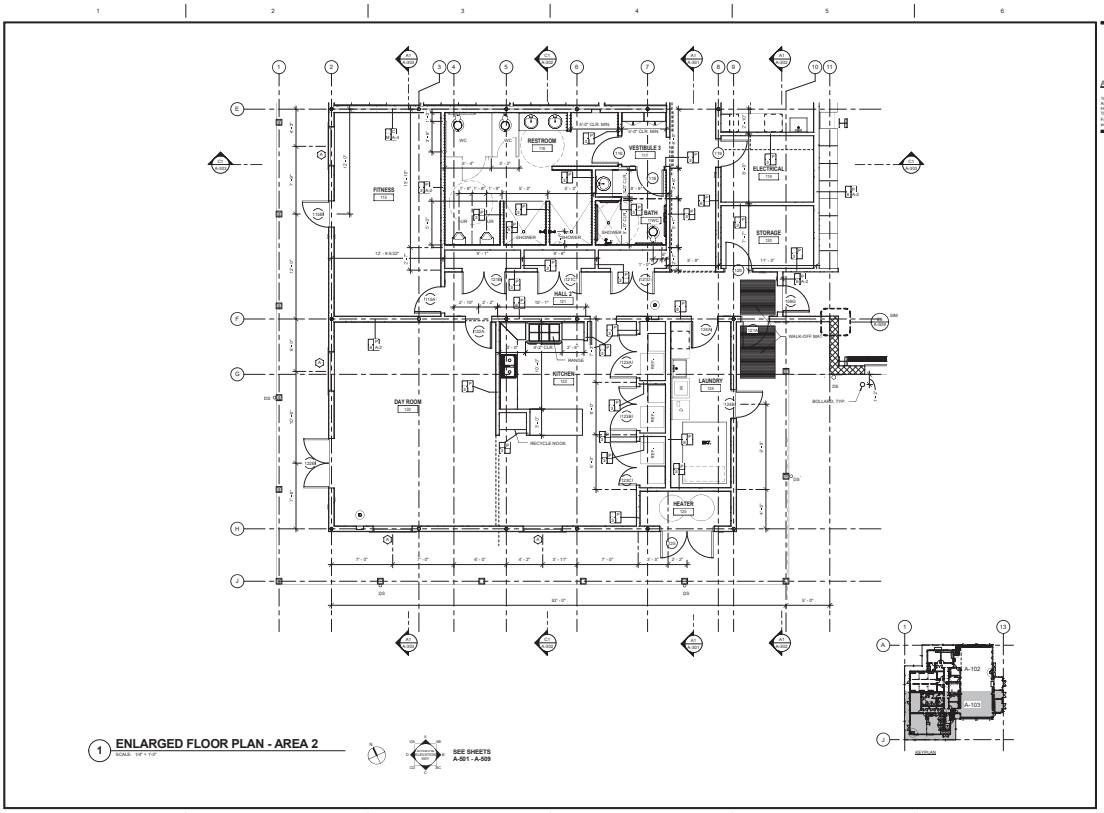
A-102



1 **ENLARGED FLOOR PLAN - AREA 2**
SCALE: 1/4" = 1'-0"

SEE SHEETS A-501 - A-509

KEYPLAN

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ENLARGED FLOOR PLAN

As indicated

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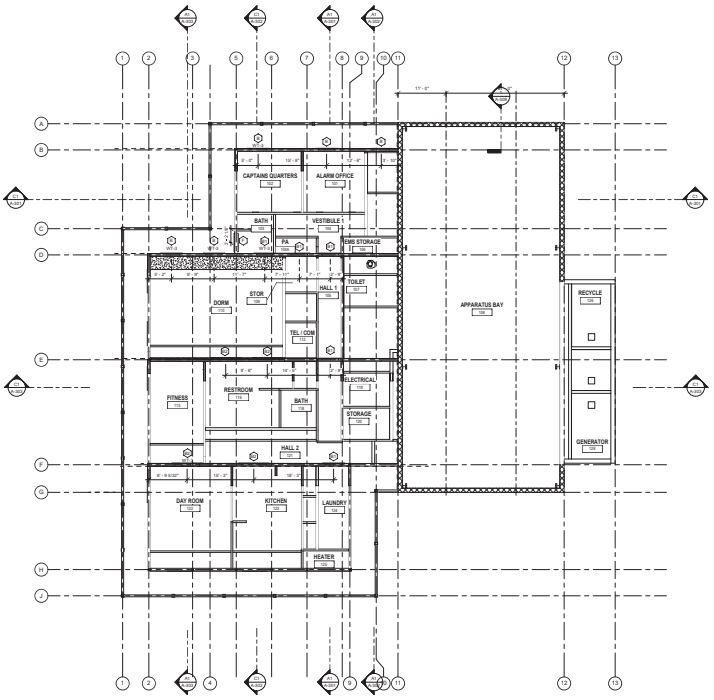
DRAWING NO

A-103

of Sheets



1 **FLOOR PLAN - CLERESTORY LEVEL**
SCALE: 1/8" = 1'-0"

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FLOOR PLAN - CLERESTORY LEVEL

1/8" = 1'-0"

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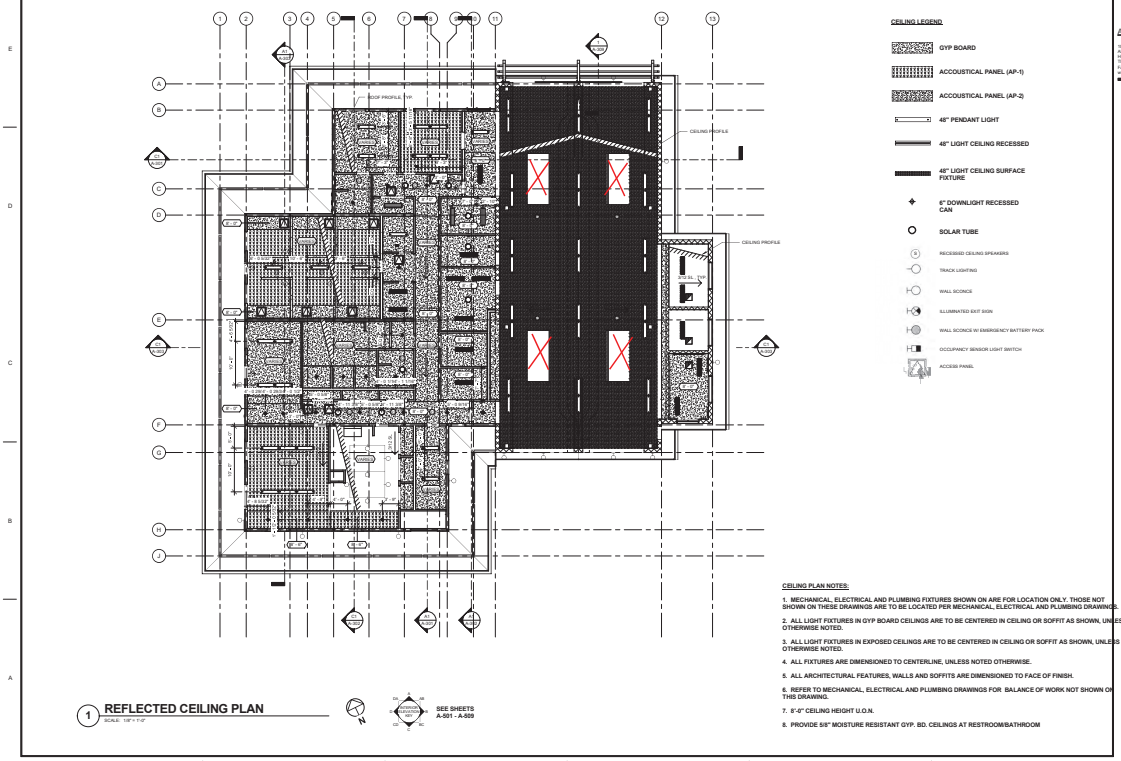
of Sheets



CEILING LEGEND:

- GYP BOARD
- ACCOUSTICAL PANEL (AP-1)
- ACCOUSTICAL PANEL (AP-2)
- 48" PENDANT LIGHT
- 48" LIGHT CEILING RECESSED
- 48" LIGHT CEILING SURFACE FIXTURE
- 6" DOWNLIGHT RECESSED CAN
- SOLAR TUBE
- RECESSED CEILING SPEAKERS
- TRACK LIGHTING
- WALL SCONCE
- ILLUMINATED EXIT SIGN
- WALL SCONCE W/ EMERGENCY BATTERY PACK
- OCCUPANCY SENSOR LIGHT SWITCH
- ACCESS PANEL

CEILING PLAN NOTES:

1. MECHANICAL, ELECTRICAL AND PLUMBING FIXTURES SHOWN ON ARE FOR LOCATION ONLY. THOSE NOT SHOWN ON THESE DRAWINGS ARE TO BE LOCATED PER MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
2. ALL LIGHT FIXTURES IN GYP BOARD CEILINGS ARE TO BE CENTERED IN CEILING OR SOFFIT AS SHOWN, UNLESS OTHERWISE NOTED.
3. ALL LIGHT FIXTURES IN EXPOSED CEILINGS ARE TO BE CENTERED IN CEILING OR SOFFIT AS SHOWN, UNLESS OTHERWISE NOTED.
4. ALL FIXTURES ARE DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
5. ALL ARCHITECTURAL FEATURES, WALLS AND SOFFITS ARE DIMENSIONED TO FACE OF FINISH.
6. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR BALANCE OF WORK NOT SHOWN ON THIS DRAWING.
7. 8'-0" CEILING HEIGHT U.O.N.
8. PROVIDE 5/8" MOISTURE RESISTANT GYP. BD. CEILINGS AT RESTROOM/BATHROOM

1 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

SEE SHEETS A-501 - A-509

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REFLECTED CEILING PLAN - LEVEL 1

As indicated

PROJECT NO: 5869.001
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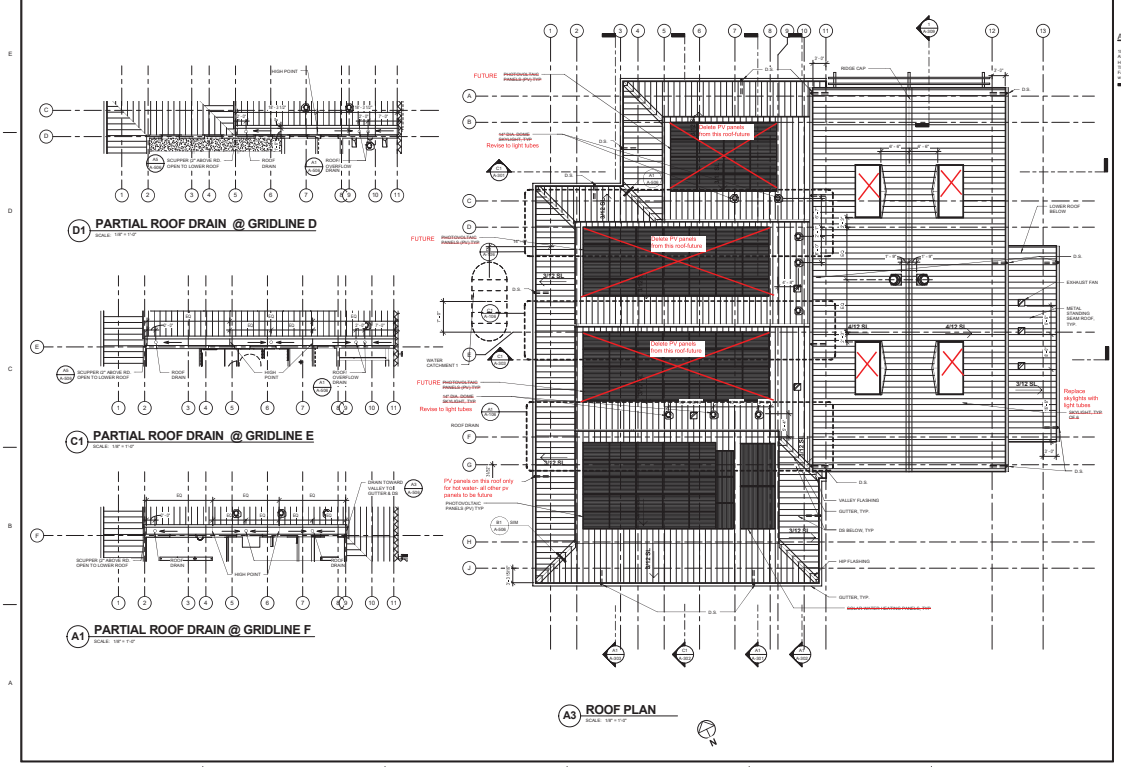
DRAWN BY: Author
DATE: APRIL 15, 2011
DRAWING NO

A-105



D1 PARTIAL ROOF DRAIN @ GRIDLINE D
SCALE: 1/8" = 1'-0"

C1 PARTIAL ROOF DRAIN @ GRIDLINE E
SCALE: 1/8" = 1'-0"

A1 PARTIAL ROOF DRAIN @ GRIDLINE F
SCALE: 1/8" = 1'-0"

A3 ROOF PLAN
SCALE: 1/8" = 1'-0"

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ROOF PLAN

1/8" = 1'-0"

PROJECT NO: 5869.001
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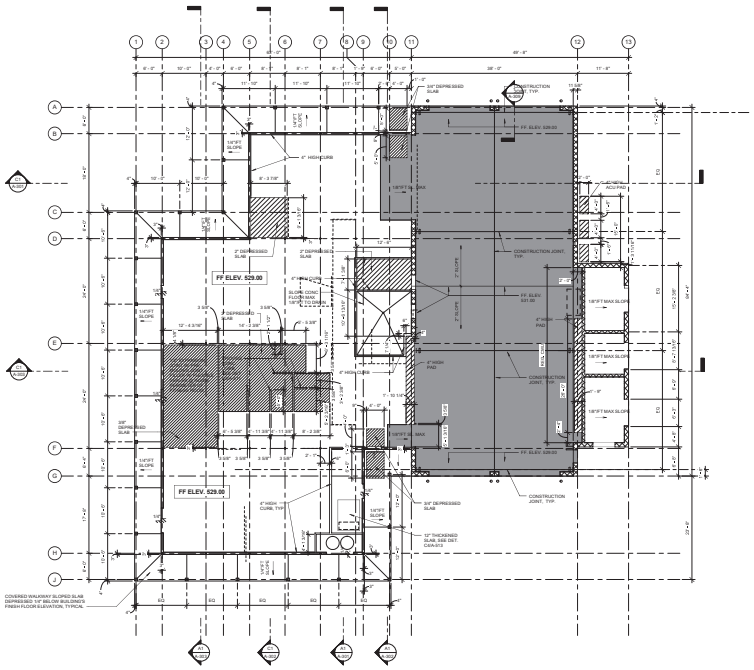
DATE: APRIL 15, 2011
DRAWING NO

A-106



1 **SLAB EDGE PLAN**
SCALE: 1/8" = 1'-0"

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SLAB EDGE PLAN

1/8" = 1'-0"

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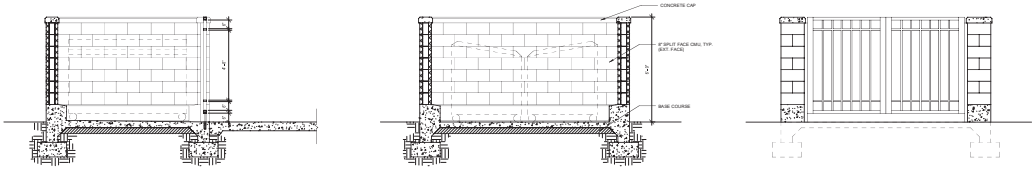
DATE: APRIL 15, 2011
DRAWING NO

A-107

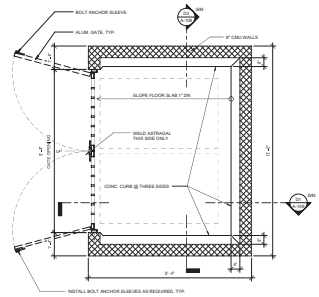
of Sheets



D1 **TRASH ENCLOSURE, SECTION RIGHT**
SCALE: 1/2" = 1'-0"

D3 **TRASH ENCLOSURE, SECTION FRONT**
SCALE: 1/2" = 1'-0"

D5 **TRASH ENCLOSURE, ELEVATION**
SCALE: 1/2" = 1'-0"



A1 **TRASH ENCLOSURE**
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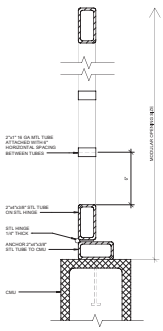

A3 **METAL GATE JAMB**
SCALE: 3" = 1'-0"

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TRASH ENCLOSURE

As indicated

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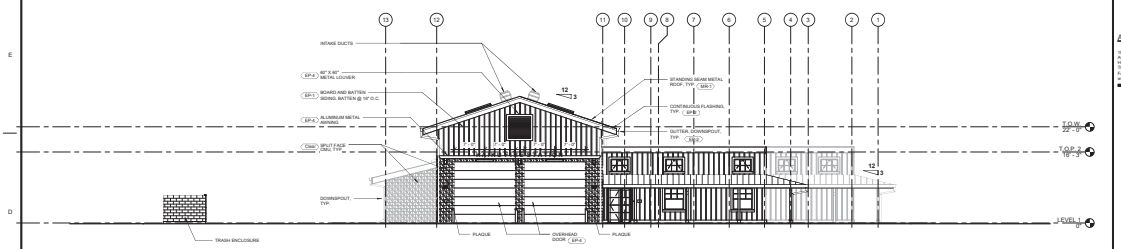
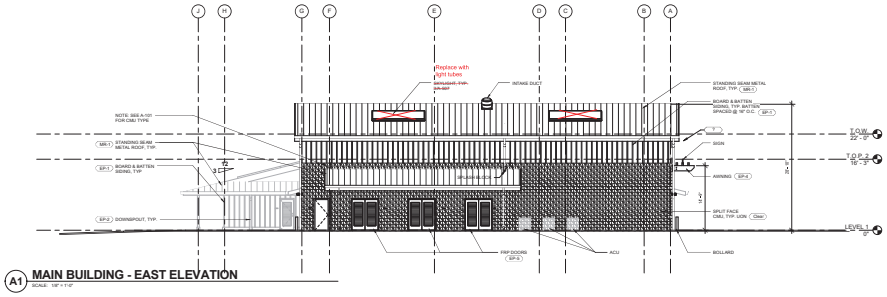


C1 **MAIN BUILDING - NORTH ELEVATION**
SCALE: 1/8" = 1'-0"



A1 **MAIN BUILDING - EAST ELEVATION**
SCALE: 1/8" = 1'-0"

EXTERIOR FINISHES						
Material: Name	CODE	DESCRIPTION	MANUFACTURER (OR APPROVED EQUAL)	PATTERN / STYLE / COLOR	Material: Comments	Material: Keynote
Exterior Paint, EP-1	EP-1	Fiber Reinforced Panels	James Hardie	Mountain Sage	Exterior	
Exterior Paint, EP-2	EP-2	Match Roof		Match MR-1	Exterior	
Exterior Paint, EP-3	EP-3	Manufacturer Accessories	James Hardie	Monterey Taupe	Exterior	
Exterior Paint, EP-4	EP-4	Match Accessories		Match EP-3	Exterior	
Masonry - Concrete Masonry Units, Split Face, CM1	Clear	Colorless masonry sealer			Exterior	
Roofing - Metal Standing Seam 12", MR1 104	MR-1	Standing Seam Metal Roof	Custombilt Metals	Parchment	Exterior	

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EXTERIOR ELEVATIONS

1/8" = 1'-0"

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REVISIONS	
NO.	DESCRIPTION
	Update Permit Set Issue

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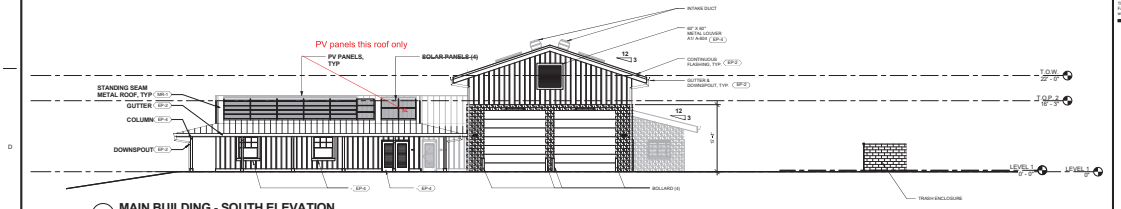
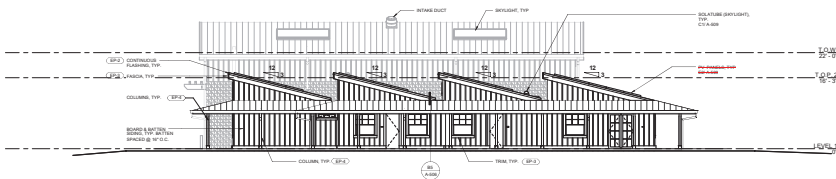


C1 **MAIN BUILDING - SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"



A1 **MAIN BUILDING - WEST ELEVATION**
SCALE: 1/8" = 1'-0"

EXTERIOR FINISHES						
Material: Name	CODE	DESCRIPTION	MANUFACTURER (OR APPROVED EQUAL)	PATTERN / STYLE / COLOR	Material: Comments	Material: Keynote
Exterior Paint, EP-1	EP-1	Fiber Reinforced Panels	James Hardie	Mountain Sage	Exterior	
Exterior Paint, EP-2	EP-2	Match Roof		Match MR-1	Exterior	
Exterior Paint, EP-3	EP-3	Manufacturer Accessories	James Hardie	Monterey Taupe	Exterior	
Exterior Paint, EP-4	EP-4	Match Accessories		Match EP-3	Exterior	
Masonry - Concrete Masonry Units, Split Face, CM1	Clear	Colorless masonry sealer			Exterior	
Roofing - Metal Standing Seam 12", MR1 104	MR-1	Standing Seam Metal Roof	Custombilt Metals	Parchment	Exterior	

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EXTERIOR ELEVATIONS

1/8" = 1'-0"

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REVISIONS	
NO.	DESCRIPTION
	Update Permit Set Issue

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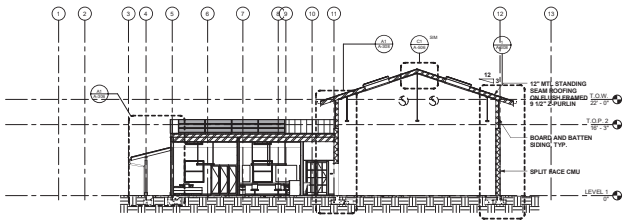
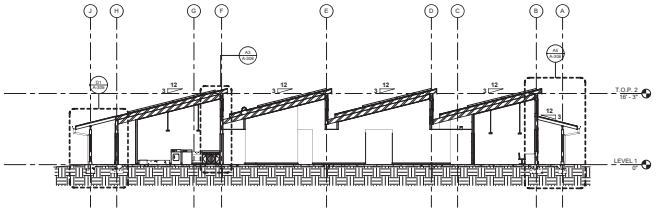


C1 **SECTION @ GRIDLINE B**
SCALE: 1/8" = 1'-0"



A1 **SECTION @ GRIDLINE 10**
SCALE: 1/8" = 1'-0"

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BUILDING SECTIONS

1/8" = 1'-0"

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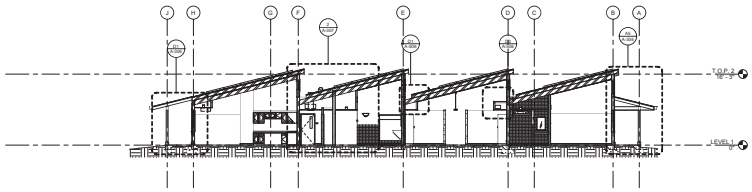
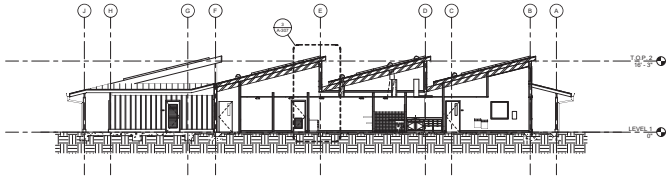


C1 **SECTION @ GRIDLINE 4**
SCALE: 1/8" = 1'-0"



A1 **SECTION @ GRIDLINE 7**
SCALE: 1/8" = 1'-0"

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BUILDING SECTIONS

1/8" = 1'-0"

PROJECT NO: 5869.001
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DRAWING NO

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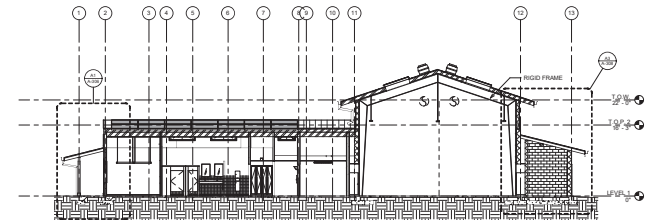
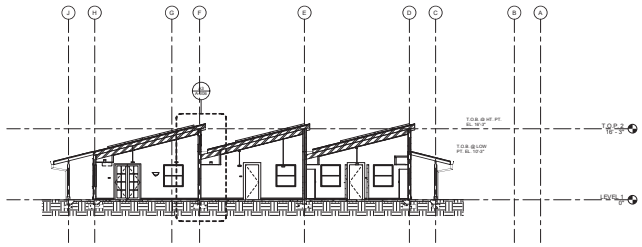
of Sheets



C1 SECTION @ GRIDLINE D
SCALE: 1/8" = 1'-0"



A1 SECTION @ GRIDLINE 3
SCALE: 1/8" = 1'-0"

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PERMIT SET - APRIL 15, 2011

BUILDING SECTIONS

1/8" = 1'-0"

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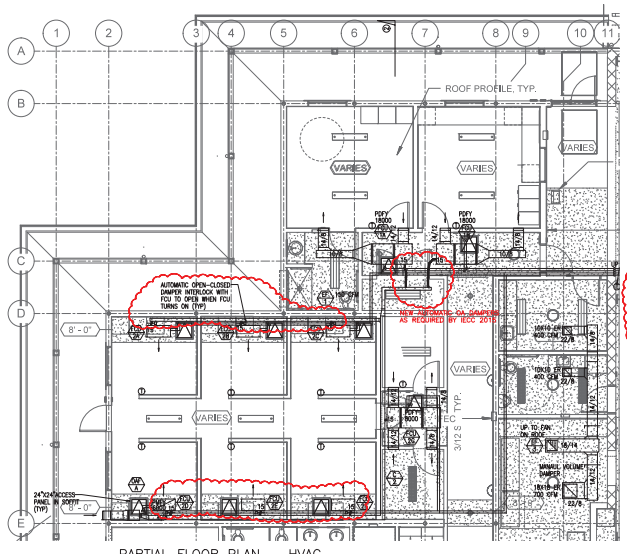

NEW MODEL NUMBERS ALL EQUIPMENT SHALL BE IN COMPLIANCE WITH IECC 2015

MECHANICAL EQUIPMENT SCHEDULE – HVAC:

ACU-1
MITSUBISHI PUMY P36NHMU, 3 TONS NOMINAL CAPACITY, VFD COMPRESSOR AND VFD FAN, 230V/1PH/60HZ, 26.0 MCA, 40A MOCP R-410A REFRIGERANT, 51 dBA MAX. PROVIDE SEA-COAST CORROSION PROJECTION ON ENTIRE UNIT INCLUDING TUBES AND FINS.

FCU-1A
MITSUBISHI PDFY P18NGMU-E, 18,000 BTUH NOMINAL CAPACITY, CONCEALED DUCTED HORIZONTAL, 4 FAN SPEEDS, 230V/1PH/60HZ, 0.77 FLA. 39 dBA MAX. 500 CFM SA.

FCU-1B
MITSUBISHI PDFY P18NGMU-E, 18,000 BTUH NOMINAL CAPACITY, CONCEALED DUCTED HORIZONTAL, 4 FAN SPEEDS, 230V/1PH/60HZ, 0.77 FLA. 39 dBA MAX. 500 CFM SA.

ACU-2
MITSUBISHI PUMY P36NHMU, 3 TONS NOMINAL CAPACITY, VFD COMPRESSOR AND VFD FAN, 230V/1PH/60HZ, 26.0 MCA, 40A MOCP R-410A REFRIGERANT, 51 dBA MAX. PROVIDE SEA-COAST CORROSION PROJECTION ON ENTIRE UNIT INCLUDING TUBES AND FINS.

FCU-2A, 2B, 2C, 2D, 2E, 2F
MITSUBISHI PMFY P06NBMU-E, 6,000 BTUH NOMINAL CAPACITY, ONE WAY CONCEALED CASSETTE, 4 FAN SPEEDS, 230V/1PH/60HZ, 0.20 FLA. 39 dBA MAX. CONDENSATE PUMP. 300 CFM SA

FCU-2G
MITSUBISHI PDFY P08NGMU-E, 8000 BTUH NOMINAL CAPACITY, CONCEALED DUCTED HORIZONTAL, 4 FAN SPEEDS, 230V/1PH/60HZ, 0.61 FLA. 36 dBA MAX.

ACU-3
MITSUBISHI PUMY P48NHMU, 4 TONS NOMINAL CAPACITY, VFD COMPRESSOR AND VFD FAN, 230V/1PH/60HZ, 24.0 RLA, R-410A REFRIGERANT, 52 dBA MAX. PROVIDE SEA-COAST CORROSION PROJECTION ON ENTIRE UNIT INCLUDING TUBES AND FINS.

FCU-3A
MITSUBISHI PDFY P18NGMU-E, 18,000 BTUH NOMINAL CAPACITY, CONCEALED DUCTED HORIZONTAL, 4 FAN SPEEDS, 230V/1PH/60HZ, 0.77 FLA. 39 dBA MAX. 500 CFM SA.

FCU-3B, 3C
MITSUBISHI PDFY P24NKMU-E, 2.0 TONS NOMINAL CAPACITY, CEILING SUSPENDED, OUTSIDE AIR DUCT CONNECTION, 4-FAN SPEEDS, ADJUSTABLE AIRFLOW ANGLE, 230V/1PH/60HZ, 0.41 FLA. 37 dBA MAX. 630 CFM SA.

NEW EQUIPMENT SHALL BE SELECTED TO SUIT 2015 MODELS

OAF-A
GREENHECK CSP-A190, 120 CFM AT 0.375" E.S.P. 115V/1PH/60HZ, 100 WATTS. PROVIDE VAR-GREEN DC MOTOR WITH VARIABLE SPEED CONTROLLER WITH INPUT SIGNAL FROM DUCT STATIC PRESSURE SENSOR.

OAF-B
GREENHECK CSP-A290, 250 CFM AT 0.375" E.S.P. 115V/1PH/60HZ, 61 WATTS. PROVIDE VAR-GREEN DC MOTOR WITH VARIABLE SPEED CONTROLLER WITH INPUT SIGNAL FROM DUCT STATIC PRESSURE SENSOR.

EF-1
GREENHECK SP-A190, 150 CFM AT 0.25" E.S.P. 115V/1PH/60HZ, 113 WATTS PROVIDE AND INTERFACE WITH ADJUSTABLE 115V OCCUPANCY SENSOR

EF-2
GREENHECK LB-14-4, 1400 CFM AT 0.375" E.S.P. 115V/1PH/60HZ, 1/4 HP. ROOF MOUNTED CENTRIFUGAL HOOD TYPE FAN WITH ALUMINUM CONSTRUCTION. PROVIDE AND INTERFACE WITH ADJUSTABLE 115V OCCUPANCY SENSORS BELT DRIVEN LOW PROFILE ROOF VENTILATOR. 6.9 SONES MAX.

EF-3
GREENHECK LB-14, 1500 CFM AT 0.375" E.S.P. 115V/1PH/60HZ, 1/4 HP. ROOF MOUNTED CENTRIFUGAL HOOD TYPE FAN WITH ALUMINUM CONSTRUCTION. PROVIDE AND INTERFACE WITH ADJUSTABLE 115V OCCUPANCY SENSORS BELT DRIVEN LOW PROFILE ROOF VENTILATOR. 6.9 SONES MAX.

EF-4
GREENHECK LD-80, 350 CFM AT 0.35" E.S.P. 115V/1PH/60HZ, 115 WATTS ROOF MOUNTED CENTRIFUGAL HOOD TYPE FAN WITH ALUMINUM CONSTRUCTION. PROVIDE AND INTERFACE WITH ADJUSTABLE THERMOSTATS. PROVIDE DC MOTOR W/VARIABLE SPEED CONTROLLER MOUNTED IN FAN HOUSING. DIRECT DRIVEN LOW PROFILE ROOF VENTILATOR. 7.1 SONES MAX.

EF-5
GREENHECK BSQ---, 700 CFM AT 0.35" E.S.P. 115V/1PH/60HZ, 1/3 HP CEILING SUSPENDED BELT DRIVEN CENTRIFUGAL, PROVIDE OSHA BELT GUARD. PROVIDE AND INTERFACE WITH ADJUSTABLE THERMOSTAT WITH OVER-RIDE SWITCH.

EF-G1, G2, G3, G4
4500 CFM AT 0.375" E.S.P. MIXED FLOW FAN. GREENHECK QEI-16, 230V/1PH/60HZ, 1-1/2 HP. INTERFACE WITH TIMECLOCK WITH MANUAL OVER-RIDE SWITCHES AND PILOT LIGHTS IN CONTROL PANEL ON WALL.

C-1, C-2
CONTROL PANEL IN NEMA-4X CABINET. 115V/1PH/60HZ.

NEED NEW IECC 2015 CERTIFICATION STAMP

COUNTY OF MAUI
MAUI COUNTY CODE
CHAPTER 16.16A ENERGY CODE

TO THE BEST OF MY KNOWLEDGE, THIS PROJECT'S DESIGN SUBSTANTIALLY CONFORMS TO THE ENERGY CODE FOR:

X BUILDING COMPONENT SYSTEMS
X ELECTRICAL COMPONENT SYSTEMS
X MECHANICAL COMPONENT SYSTEMS

SIGNATURE: DATE: 04/15/11
NAME: RANDOLPH MORIYAMA
TITLE: MECHANICAL ENGINEER
LICENSE NO.: 3404-M

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3550 HANA HWY
HAIKU, MAUI

PERMIT SET
APRIL 15, 2011

PARTIAL FLOOR PLAN
HVAC

RANDOLPH H. MORIYAMA
MECHANICAL ENGINEER
No. 3404-M
LICENSED PROFESSIONAL ENGINEER
HONOLULU, HAWAII, U.S.A.

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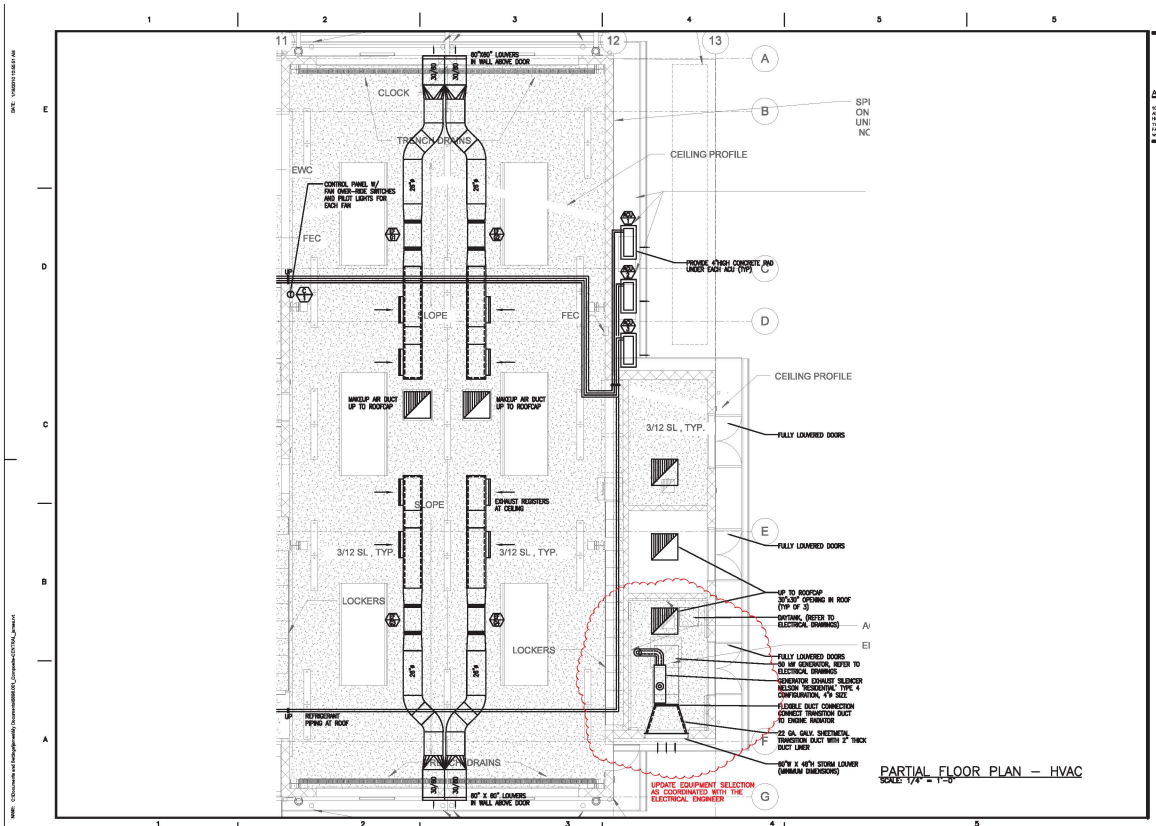

PARTIAL FLOOR PLAN – HVAC
SCALE: 1/4" = 1'-0"

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HAIKU, MAUI

PERMIT SET
APRIL 15, 2011

PARTIAL FLOOR PLAN
HVAC

RANDOLPH R. NEKOBA
LICENSED PROFESSIONAL ENGINEER
No. 9494-E
HAWAII, U.S.A.

PROJECT NO: 5808.301
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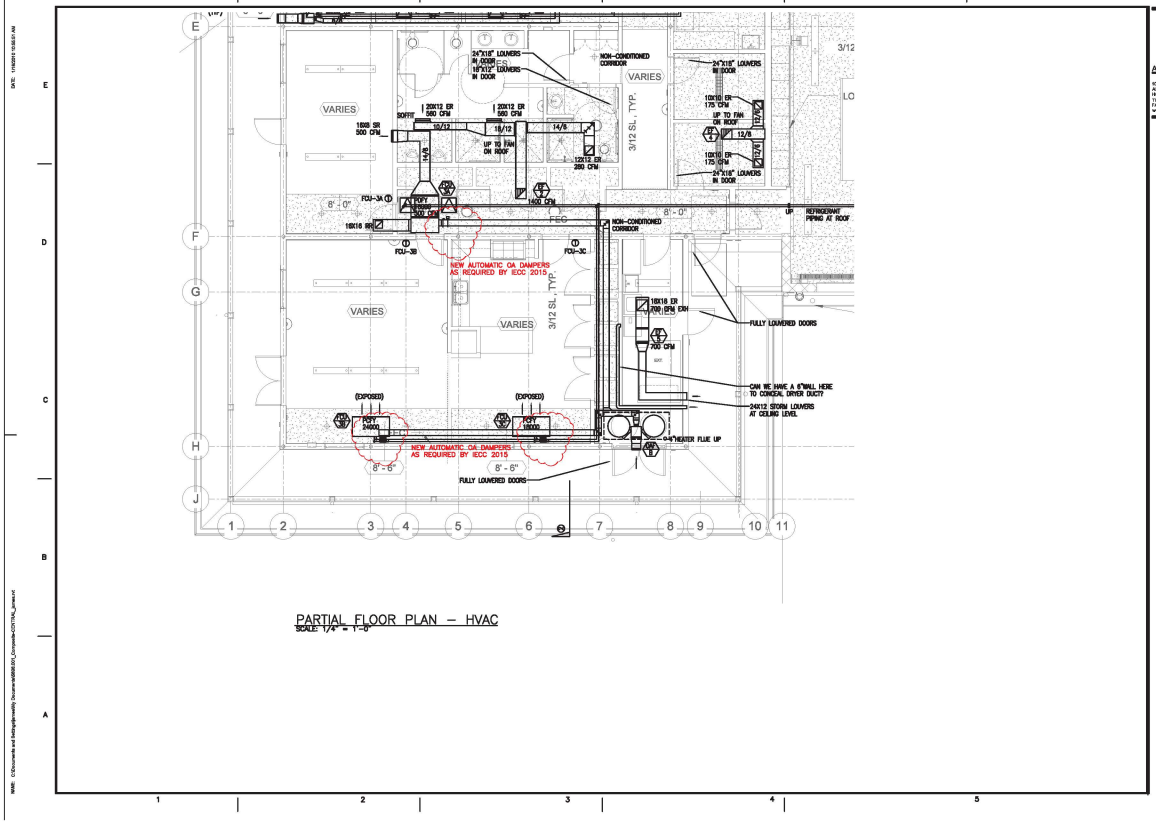

PARTIAL FLOOR PLAN – HVAC
SCALE: 1/4" = 1'-0"

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PERMIT SET
APRIL 15, 2011

PARTIAL FLOOR PLAN
HVAC

RANDOLPH R. NEKOBA
LICENSED PROFESSIONAL ENGINEER
No. 9494-E
HAWAII, U.S.A.

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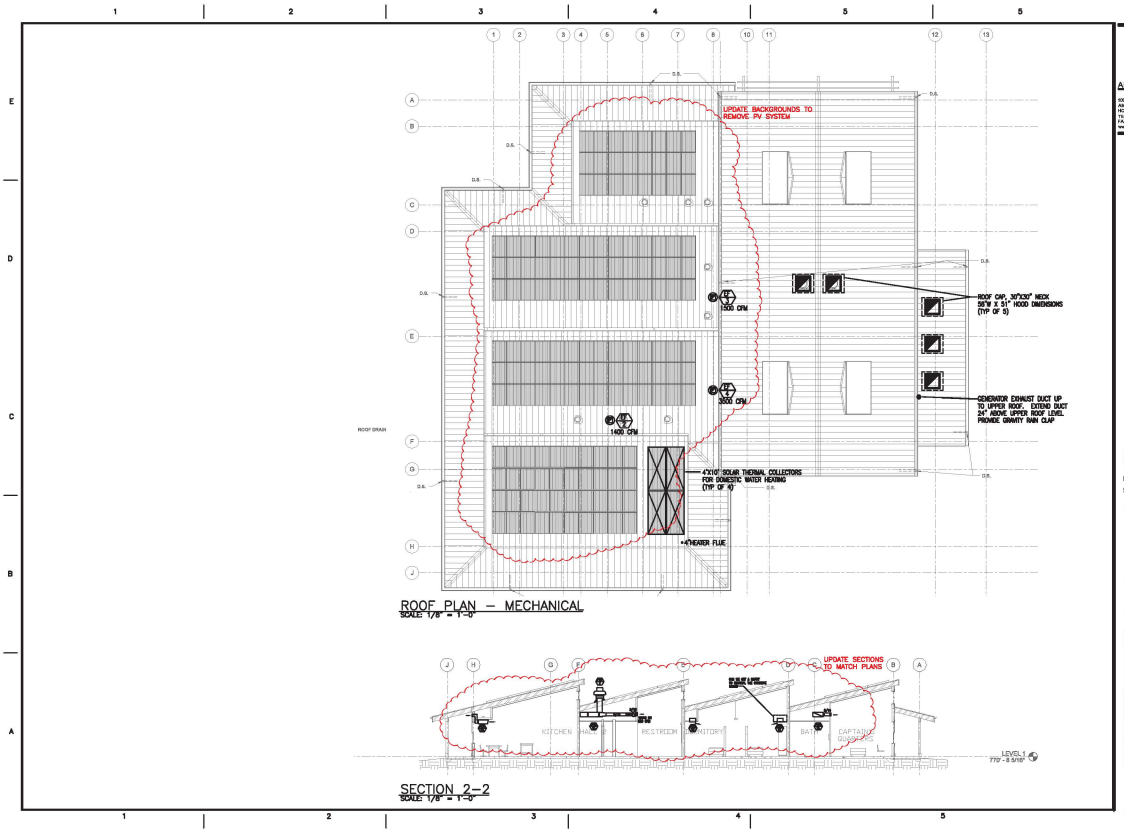

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ROOF PLAN – MECHANICAL
SECTION 2–2

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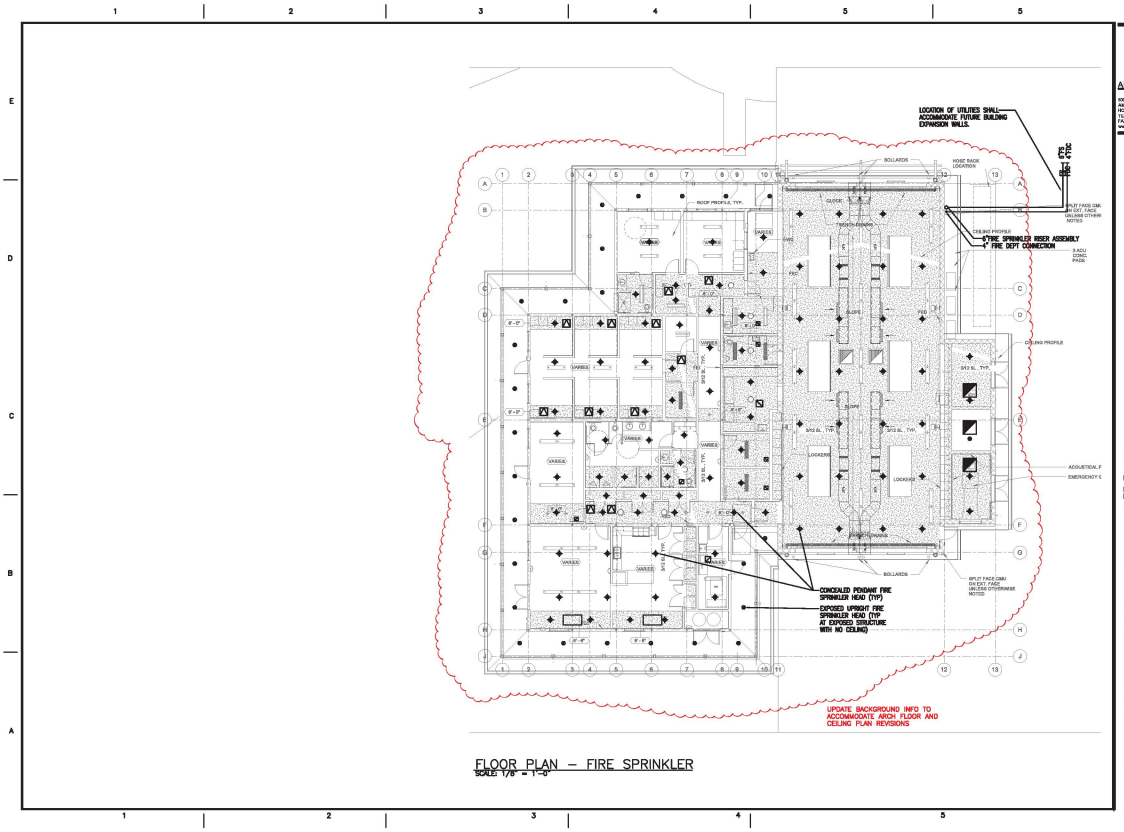

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FLOOR PLAN – PLUMBING
EQUIP. SCHEDULE – PLUMBING

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FS-1

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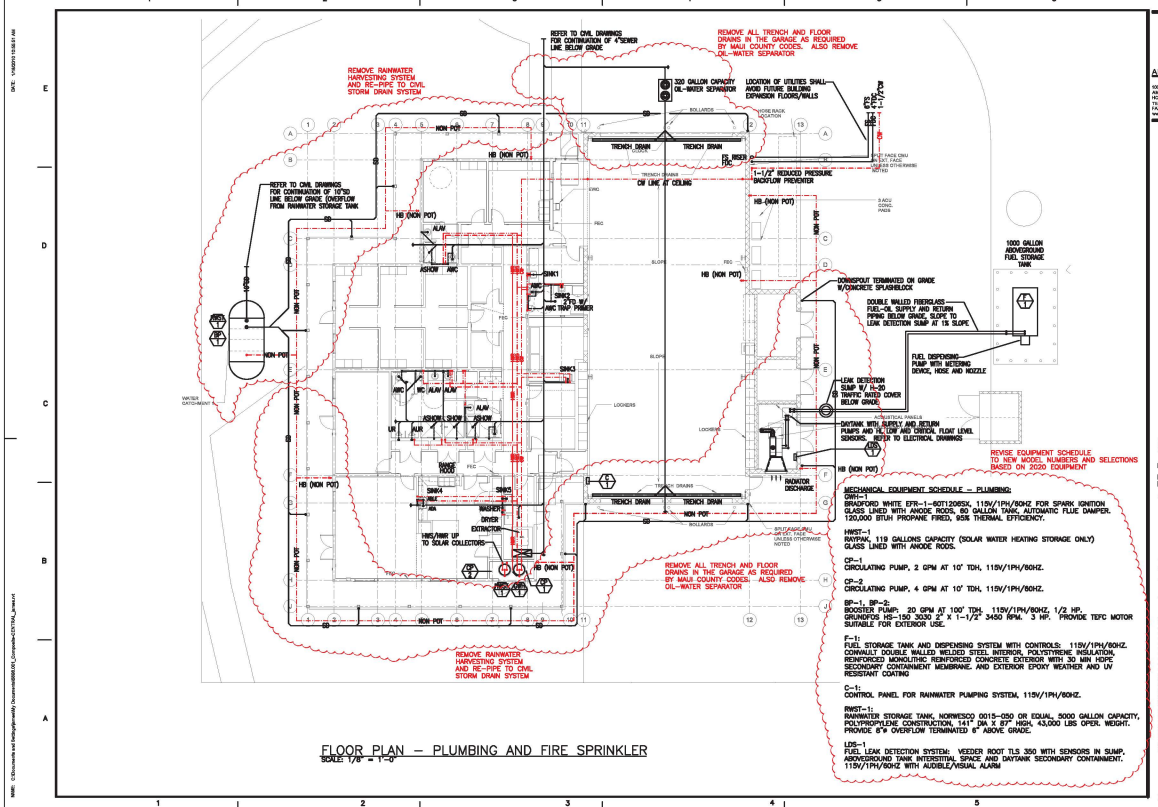

FLOOR PLAN – PLUMBING AND FIRE SPRINKLER
SCALE: 1/8" = 1'-0"

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APRIL 15, 2011

FLOOR PLAN – PLUMBING
EQUIP. SCHEDULE – PLUMBING

PROJECT NO: 5868.301
DWN BY:
DRAWN BY: Author
DATE: 04/15/11
DRAWING NO

P-1

of Sheets

ELECTRICAL SYMBOL LIST/MOUNTING HEIGHT SCHEDULE

(ALL ITEMS ARE NEW UNLESS OTHERWISE NOTED)

REVISE FLUORESCENT TO LED

MOUNTING HEIGHT FROM FLOOR TO: TOP	(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN) €	SYMBOL	DESCRIPTION
		(1)	FLUORESCENT LUMINAIRE (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
		(2)	FLUORESCENT LUMINAIRE WITH INTEGRAL EMERGENCY BATTERY PACK (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
		(3)	FLUORESCENT LUMINAIRE, CEILING/STEM MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
		(4)	FLUORESCENT LUMINAIRE, CEILING/STEM MOUNTED WITH INTEGRAL EMERGENCY BATTERY PACK (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
	AS NOTED	(5)	FLUORESCENT LUMINAIRE, WALL MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
	AS NOTED	(6)	FLUORESCENT LUMINAIRE, WALL MOUNTED WITH INTEGRAL EMERGENCY BATTERY PACK (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
			FLUORESCENT LUMINAIRE, SERVED THRU ADJOINING LUMINAIRE
		(7)	LUMINAIRE (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
	AS NOTED	(8)	LUMINAIRE, WALL MOUNTED (NUMERAL IN CIRCLE CORRESPONDS TO LUMINAIRE SCHEDULE)
	8'-0"		ILLUMINATED EXIT SIGN, WALL MOUNTED, DIRECTIONAL ARROWS AS INDICATED
			ILLUMINATED EXIT SIGN, CEILING MOUNTED, DIRECTIONAL ARROWS AS INDICATED, SHADING INDICATES FACES
			POLE MOUNTED LUMINAIRE
	46"	^{C}	LIGHT SWITCH, FLUSH WALL MOUNTED, 1P20A, 120/277V, (LOWER CASE LETTER INDICATES ALL LUMINAIRES CONTROLLED)
	46"	$_{2}$	DOUBLE POLE SINGLE THROW SWITCH, 20A, 120/277V
	46"	$_{3}$	THREE WAY SWITCH, 20A, 120/277V
	46"	$_{4}$	FOUR WAY SWITCH, 20A, 120/277V
	46"	$_{D}$	MANUAL FULL-RANGE DIMMER SWITCH, RATED FOR FLUORESCENT DIMMING
	46"		PUSHBUTTON SWITCH, WALL MOUNTED
	36"		PUSH BUTTON SWITCH, WALL MOUNTED
	46"		SWITCHBANK
	46"		OCCUPANCY SENSOR LIGHT SWITCH
	7'-0"		OCCUPANCY SENSOR HEAD, WALL MOUNTED
	18"		RECEPTACLE, DUPLEX, FLUSH WALL MOUNTED, GROUNDING TYPE, 2P15A 125V, NEMA TYPE 5-15R
	18"		RECEPTACLE, DUPLEX, ISOLATED GROUNDING TYPE, 125V, NEMA TYPE 5-20R
	18"		RECEPTACLE, DUPLEX, FLUSH WALL MOUNTED, G.F.C.I. TYPE, 2P20A, 125V, NEMA TYPE 5-20R
	18"		RECEPTACLE, QUADRUPLEX, GROUNDING TYPE, 125V, NEMA TYPE 5-20R
	18"		RECEPTACLE, SINGLE, FLUSH MOUNTED, SPECIAL PURPOSE, 125V, NEMA CONFIGURATION AS NOTED
	18"		RECEPTACLE, SINGLE, SPECIAL PURPOSE, 250V-1Ø, NEMA CONFIGURATION AS NOTED
			CABLE REEL, CEILING MOUNTED, 120V, 20A
			CONCEALED SERVICES FLUSH FLOOR BOX (POWER, SIGNAL, TELEPHONE)
	18"		JUNCTION BOX, WALL MOUNTED
			JUNCTION BOX, HORIZONTALLY MOUNTED
			EQUIPMENT CONNECTION
	5'-0"		NON-FUSED DISCONNECT SWITCH, 3P30A UNLESS OTHERWISE NOTED
	5'-0"		ENCLOSED CIRCUIT BREAKER
	3'-6"		MAGNETIC MOTOR STARTER, PROVIDED BY MECHANICAL CONTRACTOR & INSTALLED BY ELECTRICAL CONTRACTOR
	6'-6"		PANELBOARD
			PLYWOOD BACKBOARD, 3/4-INCH THICK, SIZE AS NOTED.
	6'-6"		SIGNAL CABINET FOR SYSTEM AS NOTED
	18"		TELEPHONE OUTLET BOX, FLUSH WALL MOUNTED, 4" SQUARE X 2-1/8"D OUTLET BOX WITH SINGLE GANG DEVICE PLATE AND RS-11 JACKS

MOUNTING HEIGHT FROM FLOOR TO: TOP	€	SYMBOL	DESCRIPTION
	18"	(D)	TELEPHONE/DATA OUTLET BOX, FLUSH WALL MOUNTED, 4"SQ. X 2-1/8"D OUTLET BOX WITH DOUBLE GANG DEVICE COVER AND TWO (2) RJ-45 AND ONE (1) RJ-11 JACKS
	18"	(V)	CATV OUTLET BOX, FLUSH WALL MOUNTED, 4-"SQ. X 2-1/8"D OUTLET BOX WITH SINGLE DEVICE COVER AND "F" CONNECTOR
			FIRE ALARM CONTROL PANEL
		(S)	SMOKE DETECTOR, STAND ALONE, CEILING MOUNTED
	6'-10"	(F)	FIRE ALARM AUDIO/VISUAL SIGNALLING DEVICE, SEMI – FLUSH MOUNTED
	6'-10"	(F)	FIRE ALARM VISUAL SIGNALLING DEVICE, SEMI – FLUSH MOUNTED
	46"	(F)	FIRE ALARM MANUAL PULL STATION
		(S)	FIRE SPRINKLER WATERFLOW ALARM SWITCH CONNECTION
		(S)	FIRE SPRINKLER TAMPER SWITCH CONNECTION
		(R)	CONTROL RELAY
			CONCEALED CONDUIT IN FINISHED FLOOR OR BELOW GRADE (NO HASHMARKS INDICATE 2-WIRES WITHIN)
			EXPOSED RACEWAY, PROVIDE STRAP 8'-0" ON CENTER MINIMUM
			CONCEALED CONDUIT IN CEILING OR WALLS, (HASHMARKS INDICATE 3-WIRES WITHIN, ALL OTHERS SIMILAR)
	A-1,3		HOMERUN ARROW TO PANELBOARD, LETTERS INDICATES PANELBOARD, NUMBERS INDICATES CIRCUITS.
			LIQUID-TIGHT FLEXIBLE CONDUIT
			CATV SYSTEM CONDUIT, 3/4"C MINIMUM, WITH CABLES AS INDICATED
			TELEPHONE SYSTEM CONDUIT, 3/4"C MINIMUM, WITH CABLES AS INDICATED
			TELEPHONE/DATA SYSTEM CONDUIT, 1"C MINIMUM, WITH CABLES AS INDICATED
			FIRE ALARM SYSTEM CONDUIT, 3/4"C MINIMUM, CONDUCTORS AS REQUIRED
			CONDUIT STUB, 1" CONDUIT MINIMUM WITH PULLWIRE UNLESS OTHERWISE NOTED
	+42"		DENOTES 42" ABOVE FINISHED FLOOR
		NL	DENOTES NIGHT LIGHT CIRCUIT
		CL	DENOTES CURFEW LIGHT CIRCUIT
		HHG	DENOTES HANDHOLE GROUP
		WP	WEATHERPROOF
		GFCI	GROUND FAULT CIRCUIT INTERRUPTER
		HP	HORSEPOWER
		KW	KILOWATT
		KVA	KILOVOLT-AMPERE
		(1)	DUCT SECTION INDICATOR
		(1)	NOTE INDICATOR
		(1 / E-2)	DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER
			POWER TRANSFORMER
			GROUND
			CIRCUIT BREAKER
			NON-FUSED DISCONNECT SWITCH
			FUSED DISCONNECT SWITCH
			TRANSFER SWITCH
			CURRENT TRANSFORMER
		(M)	METER SOCKET
	8'-10"	(A)	BLUE FLASHING LIGHT WITH WARNING HORN, WALL MOUNTED, 120V, EDWARDS #518-NS, APPROVED EQUIVALENT

ADD SYMBOL FOR DAYLIGHT SENSORS

REVISE SWITCHES TO LOW VOLTAGE TYPE SWITCHES TO MATCH NEW LIGHTING CONTROL SYSTEM

ADD CONDUIT FOR LOW VOLTAGE LIGHTING CONTROL WIRING

GENERAL NOTES:

1. PROVIDE JUNCTION BOXES AND FLEXIBLE CONDUIT CONNECTIONS AS REQUIRED FOR ALL LUMINAIRE INSTALLATIONS.
2. VERIFY RATINGS OF ALL ELECTRICALLY OPERATED OR CONTROLLED EQUIPMENT PROVIDED BY OTHER TRADES. COORDINATE RATINGS OF OVERCURRENT PROTECTIVE DEVICES, DISCONNECT SWITCHES, CONDUIT AND WIRING TO MATCH THE ACTUAL EQUIPMENT SUPPLIED AT NO ADDITIONAL COST TO THE COUNTY.
3. COORDINATE CONDUIT STUB-UP LOCATIONS FOR ALL EQUIPMENT WITH THE RESPECTIVE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN WORK.
4. FIRE ALARM AND SMOKE DETECTOR SYSTEM SHALL COMPLY WITH NFPA 2002 EDITION.

REVISE DATE

COUNTY OF MAUI
MAUI COUNTY CODE, CHAPTER 16.18A ENERGY CODE

To the best of my knowledge, this project's design substantially conforms to the Energy Code for:

___ Building Component Systems
X Electrical Component Systems
___ Mechanical Component Systems

Signature: [signature] Date: APRIL 15, 2011
Name: GLENN KARAMATSU
Title: ELECTRICAL ENGINEER
License No.: 4,368-E

REVISE TO MEET CURRENT ENERGY CODE REQUIREMENTS

REVISE TO TIM HIGA

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HAIKU FIRE STATION
3500 HANA HWY
HAIKU, MAUI

PROJECT NO: 5868.301
DWN BY:
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ELECTRICAL SYMBOL LIST

SCALE: NONE

E-1

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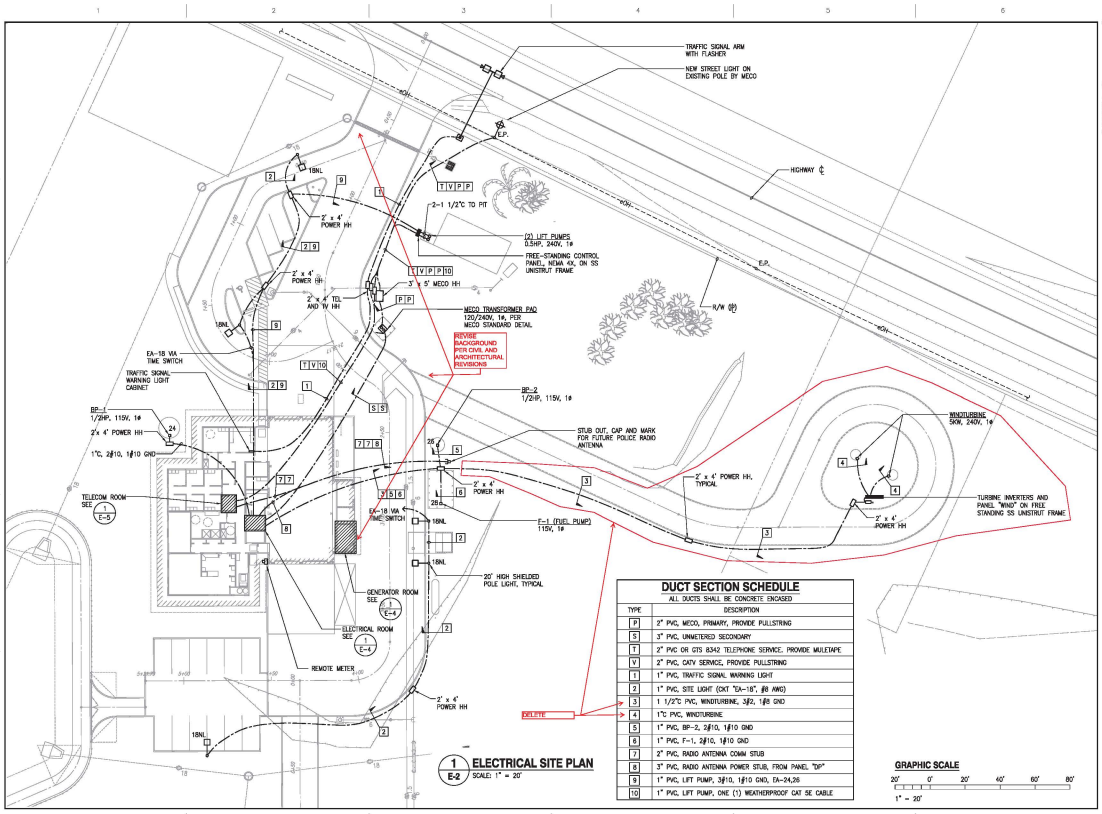

DUCT SECTION SCHEDULE

ALL DUCTS SHALL BE CONCRETE ENCASED

TYPE	DESCRIPTION
P	2" PVC, MECO, PRIMARY, PROVIDE PULLSTRING
S	3" PVC, UNMETERED SECONDARY
T	2" PVC OR GTS 8342 TELEPHONE SERVICE, PROVIDE MULETAPE
V	2" PVC, CATV SERVICE, PROVIDE PULLSTRING
1	1" PVC, TRAFFIC SIGNAL WARNING LIGHT
2	1" PVC, SITE LIGHT (CKT "EA-18", #8 AWG)
3	1 1/2"C PVC, WINDTURBINE, 3#2, 1#8 GND
4	1"C PVC, WINDTURBINE
5	1" PVC, BP-2, 2#10, 1#10 GND
6	1" PVC, F-1, 2#10, 1#10 GND
7	2" PVC, RADIO ANTENNA COMM STUB
8	3" PVC, RADIO ANTENNA POWER STUB, FROM PANEL "DP"
9	1" PVC, LIFT PUMP, 3#10, 1#10 GND, EA-24,26
10	1" PVC, LIFT PUMP, ONE (1) WEATHERPROOF CAT 5E CABLE

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SHEET NO.: ELECTRICAL SITE PLAN
SCALE: 1" = 20'

GLENN T. KAWAMOTO LICENSED PROFESSIONAL ENGINEER No. 4369-S HAWAII, USA

PROJECT NO.: 0906.001
ENG'RD.:
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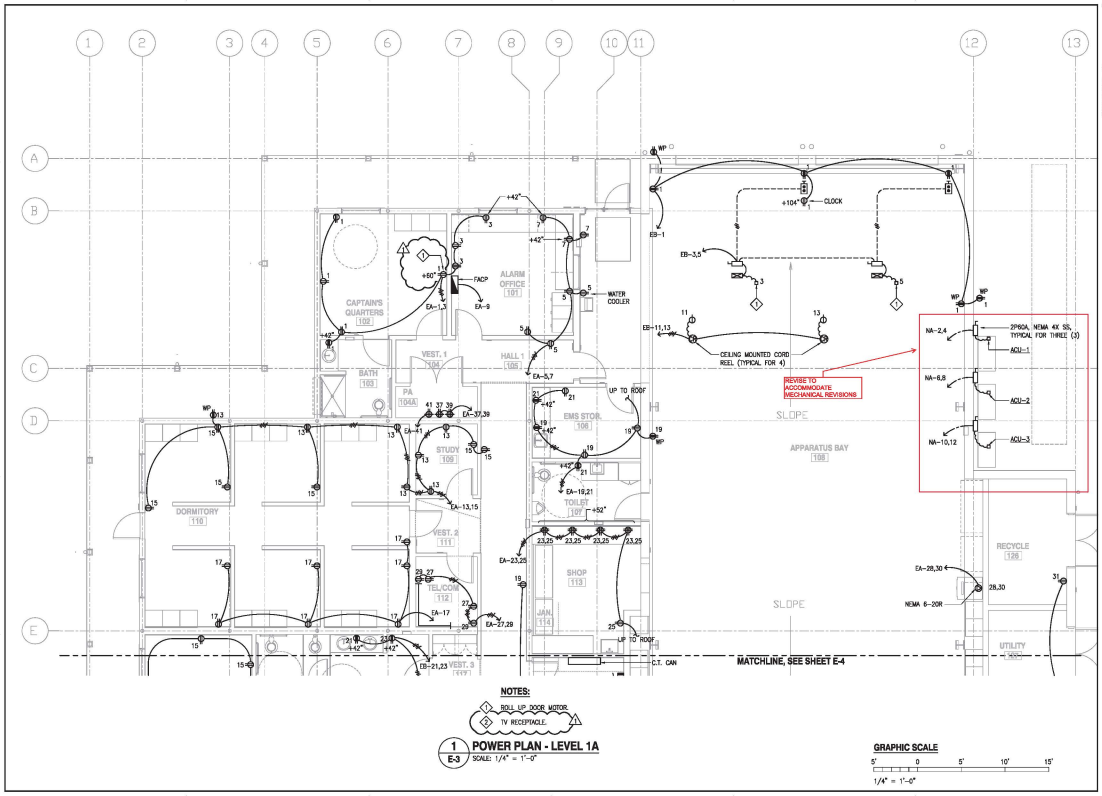

NOTES:
1. ROLL UP DOOR MOTOR.
2. TV RECEPTACLE.

1 POWER PLAN - LEVEL 1A
E-3 SCALE: 1/4" = 1'-0"

GRAPHIC SCALE
5' 0 5' 10' 15'
1/4" = 1'-0"

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SHEET NO.: POWER PLAN - LEVEL 1A
SCALE: 1/4" = 1'-0"

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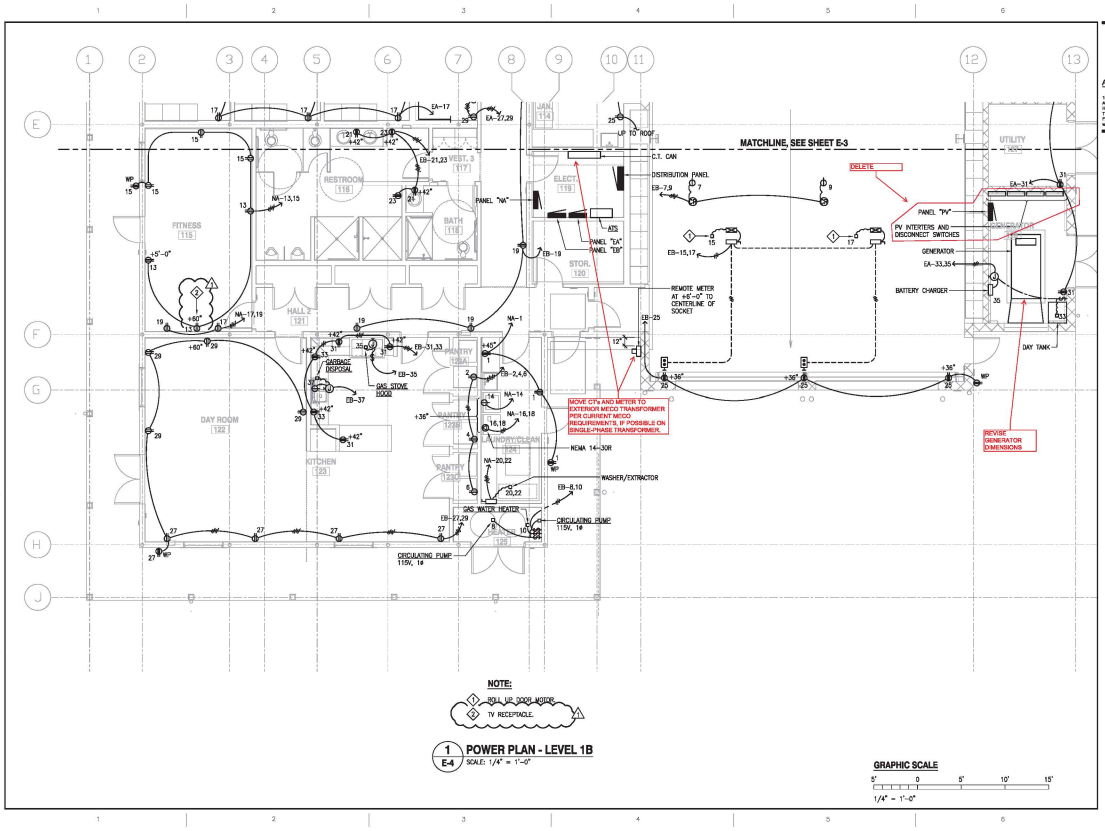

NOTE:
1. INCL. HR. DOOR MOTOR.
2. TV RECEPTACLE.

1 E-4 **POWER PLAN - LEVEL 1B**
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE
5' 0 5' 10' 15'
1/4" = 1'-0"

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POWER PLAN - LEVEL 1B

SCALE: 1/4" = 1'-0"

GLENN T. KARAMATSU LICENSED PROFESSIONAL ENGINEER No. 6368-S KAMUELA, USA

1 10/19/11
ADDED PV ETC.

⚠ TURNKEY 2, 90% C. BLDG. PERMIT SUBMITTAL

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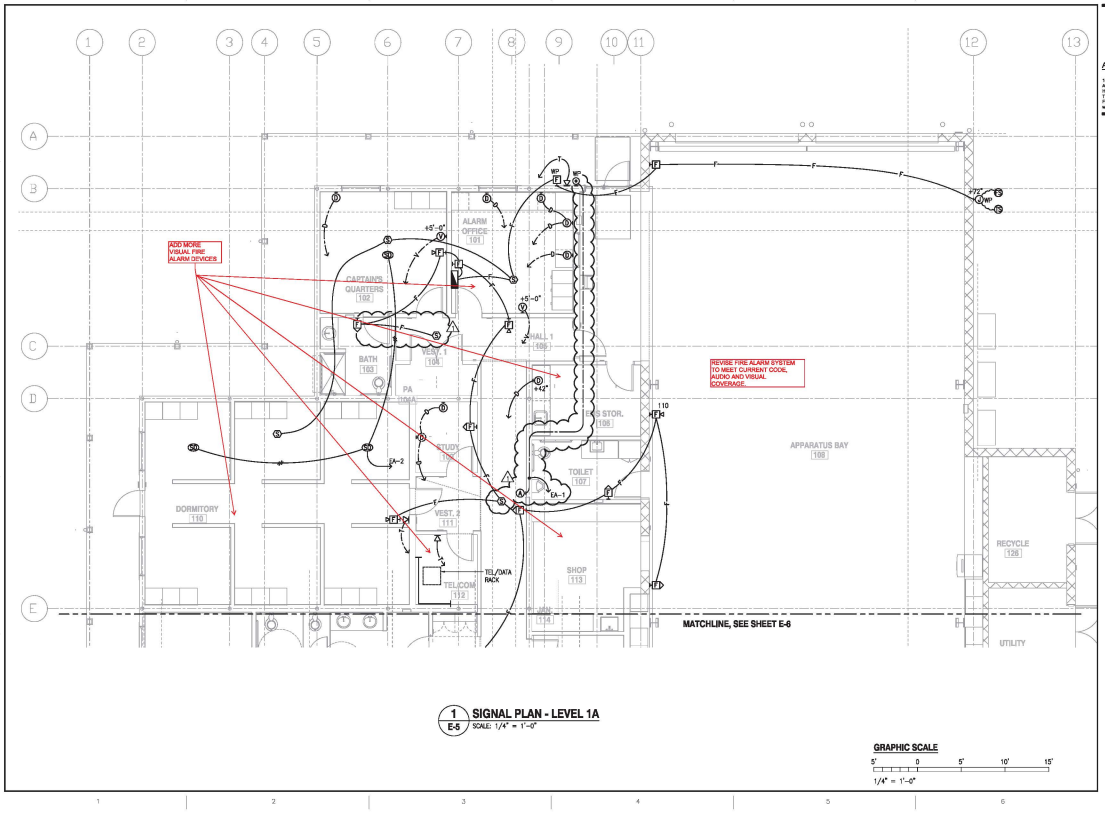

1 E-5 **SIGNAL PLAN - LEVEL 1A**
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE
5' 0 5' 10' 15'
1/4" = 1'-0"

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SIGNAL PLAN - LEVEL 1A

SCALE: 1/4" = 1'-0"

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1 10/19/11
ADDED PV ETC.

⚠ TURNKEY 2, 90% C. BLDG. PERMIT SUBMITTAL

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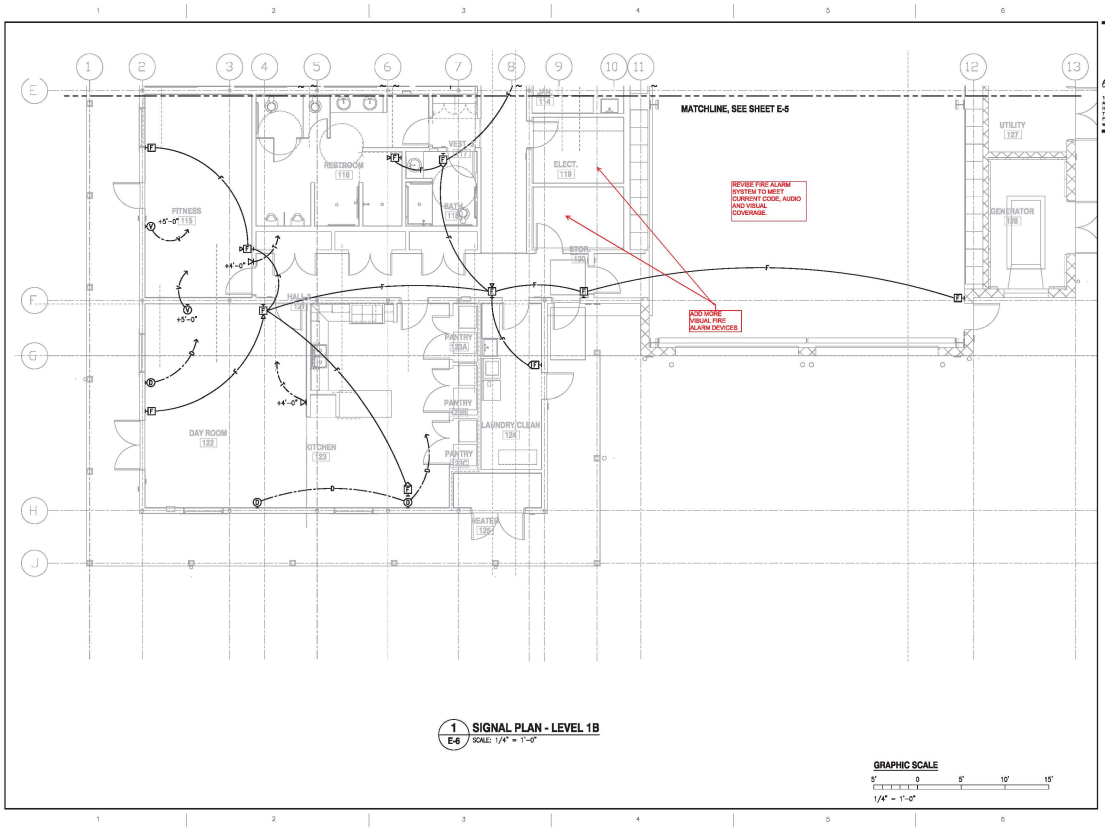

1 SIGNAL PLAN - LEVEL 1B
E-6 SCALE: 1/4" = 1'-0"

GRAPHIC SCALE
1/4" = 1'-0"

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SIGNAL PLAN - LEVEL 1B

SCALE: 1/4" = 1'-0"

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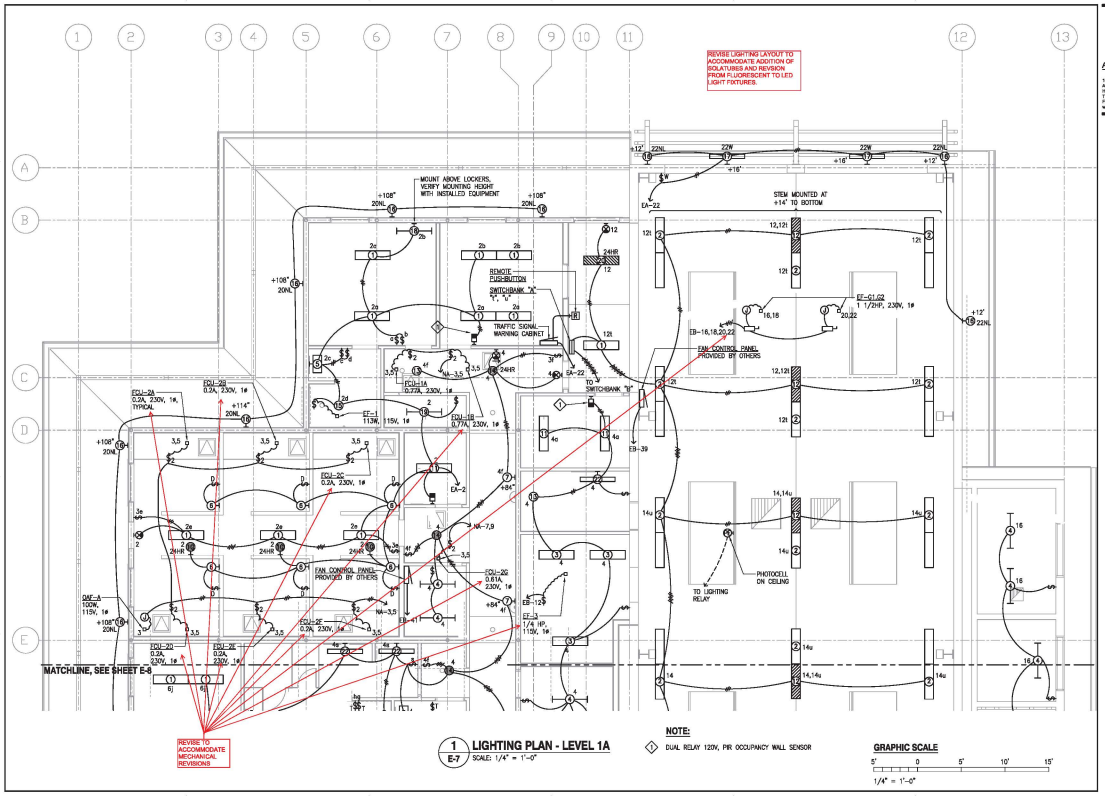

1 LIGHTING PLAN - LEVEL 1A
E-7 SCALE: 1/4" = 1'-0"

NOTE:
1 DUAL RELAY 120V, PIR OCCUPANCY WALL SENSOR

GRAPHIC SCALE
1/4" = 1'-0"

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LIGHTING PLAN - LEVEL 1A

SCALE: 1/4" = 1'-0"

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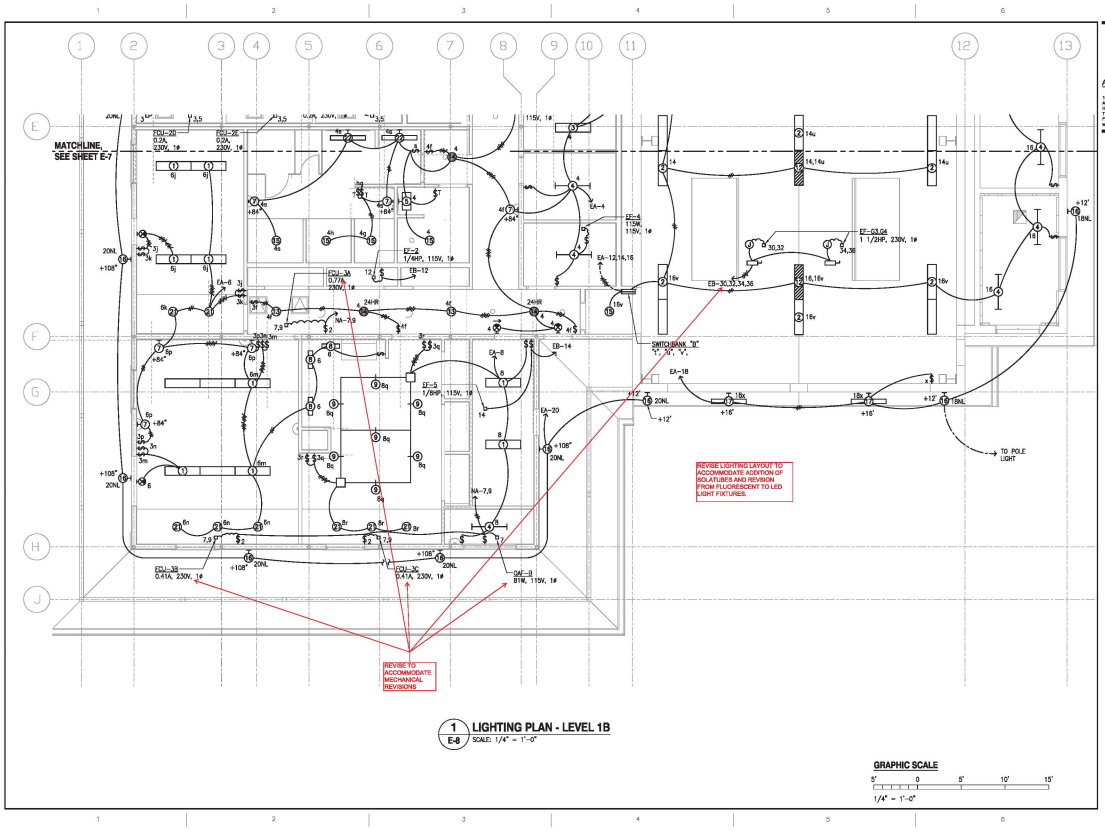

1 LIGHTING PLAN - LEVEL 1B
E-8 SCALE: 1/4" = 1'-0"

GRAPHIC SCALE
1/4" = 1'-0"

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LIGHTING PLAN - LEVEL 1B

SCALE: 1/4" = 1'-0"

GLADY C. KARAMATSU LICENSED PROFESSIONAL ENGINEER No. 6368-E HAWAII, USA

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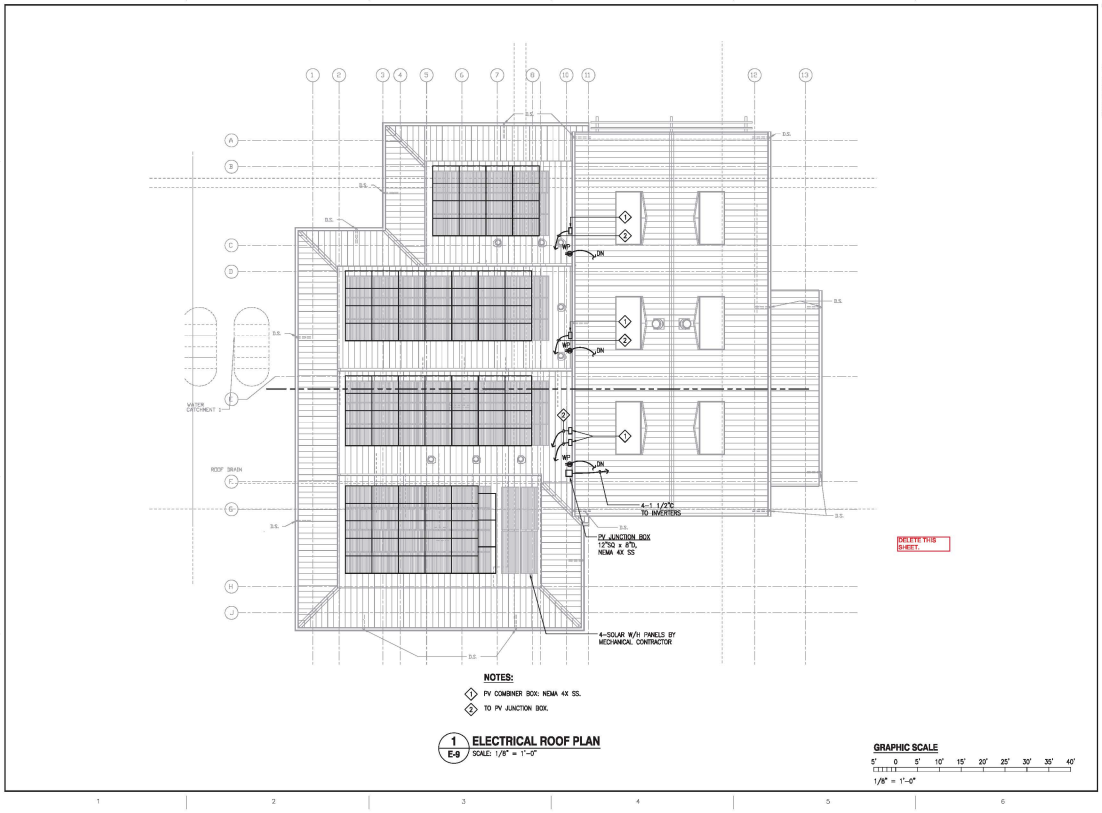

NOTES:
1. PV COMBINER BOX: NEMA 4X SS.
2. TO PV JUNCTION BOX.

1 ELECTRICAL ROOF PLAN
E-9 SCALE: 1/8" = 1'-0"

GRAPHIC SCALE
1/8" = 1'-0"

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ELECTRICAL ROOF PLAN

SCALE: 1/8" = 1'-0"

GLADY C. KARAMATSU LICENSED PROFESSIONAL ENGINEER No. 6368-E HAWAII, USA

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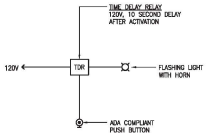
LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	LAMPS
1	CEILING PENDANT MOUNTED 4-FOOT FLUORESCENT WRAPAROUND, 4 1/4"H x 8 7/8"W NOMINAL DIMENSIONS, GASKETED HIGH IMPACT ACRYLIC LENS (PATTERN 12), DIE-FORMED HEAVY GAUGE STEEL HOUSING WITH MATTE WHITE POLYESTER POWDER COAT FINISH, DIFFUSER WITH SPRING LOADED LATCHES, HIGH POWER FACTOR ELECTRONIC BALLAST, 120, U.L. LISTED FOR DAMP LOCATION. PRUDENTIAL P-1600-2278-04-HPRA-TWH-SC-120-SSC-GL. LIGHTOLIER LSW4-2-32-120-SO OR APPROVED EQUIVALENT	2-32W T8 3500K
2	SIMILAR TO TYPE "1" EXCEPT FURNISHED WITH THREE LAMPS.	3-32W T8 3500K
3	CEILING SURFACE MOUNTED 4-FOOT FLUORESCENT WRAPAROUND, 4 1/2"H x 8 1/8"W NOMINAL DIMENSIONS, HIGH IMPACT ACRYLIC DIFFUSER, DIE-FORMED HEAVY GAUGE STEEL HOUSING WITH BAKED WHITE ENAMEL FINISH, DIFFUSER WITH SPRING LOADED LATCHES, HIGH POWER FACTOR ELECTRONIC BALLAST, 120V PRUDENTIAL P-1220-2TB-04-HPRA-YDW-120-SUR, LIGHTOLIER LSW4-2-32-120-SO OR APPROVED EQUIVALENT	2-32W T8 3500K
4	CEILING PENDANT MOUNTED, 4-FOOT FLUORESCENT STRIP LIGHT, DIE FORMED HEAVY GUAGE STEEL HOUSING, BAKED WHITE ENAMEL FINISH, ZINC COATED GALVANIZED WIRE GUARD, HIGH POWER FACTOR ELECTRONIC BALLAST COLUMBIA CS4-132-EBE-120-CSWG4, PRUDENTIAL P-102-WG-1TB-4FT-120, MERCURY MM-132-OCT-ELB-120-WG OR APPROVED EQUIVALENT	1-32W T8 3500K
5	WALL SURFACE MOUNTED, 2-FOOT FLUORESCENT UP, DOWN, AND FRONT LIGHT, ONE PIECE ACRYLIC DIFFUSER, HEAVY GAUGE STEEL HOUSING, BAKED WHITE ENAMEL FINISH, PAINTED AFTER FABRICATION, HIGH POWER FACTOR ELECTRONIC BALLAST, 120V COLUMBIA SA2-217-E120-PAF	2-17W T8 3500K
6	WALL-MOUNTED READING LIGHT, ALUMINUM BODY, 90° CUT-OFF WITH FLUSH CLEAR LENS, FULL 180° VERTICAL ADJUSTMENT, 3" NOMINAL BASE HEIGHT WITH ANCHOR BASE, 120V LINE VOLTAGE MR16 WITH 25° NARROW FLOOD. B-K LIGHTING AR-GU-163-WHP-9-F-3-WM	1-20W MR16/FL
7	SURFACE MOUNTED WALL SCONCE, LUMINOUS QUARTER SPHERE OPAL ACRYLIC DIFFUSER, 16-IN. NOMINAL DIAMETER, TEMPERED PRISMATIC TOP LENS, HPF ELECTRONIC BALLAST, 120V VSA CS3002-2F13-PT(WHITE)-TL1, SHAPER LIGHTING 642-A-CF2/13-120-L-BT/SC, OR APPROVED EQUIVALENT	2-13W PLC
8	FLUORESCENT, 2-FOOT LENGTH UNDER CABINET LIGHT, SOLID FRONT HOUSING, WHITE POWDER COAT PAINT AFTER FABRICATION, ACRYLIC LENS, HIGH POWER FACTOR ELECTRONIC BALLAST, 120V LITHONIA NZS 17 WHOLT GEB10IS OR APPROVED EQUIVALENT	1-17W T8 (24")
9	COMPACT FLUORESCENT TRACKLIGHT, EXTRUDED ALUMINUM BODY 12 1/4" LENGTH NOMINAL x 1 1/2" WIDTH NOMINAL, HORIZONTAL ROTATION OF 355° AND VERTICAL ROTATION OF 90°, LOUVERS WITH PARABOLIC BLADES SEMI-SPECULAR FINISH, MATTE WHITE FINISH, LIGHT TRACK SWIVEL STEM MOUNTED FOR SLOPED CEILINGS, LUMINAIRE MOUNTED +6'-0" FROM FLOOR TO CEILING, TWO LAMP HIGH POWER FACTOR ELECTRONIC BALLAST, 120V LIGHTOLIER 8276EWH OR APPROVED EQUIVALENT	2-18W TWIN TUBE CFL 3500K
10	RECESSED STEP LIGHT, DIE-CAST ALUMINUM HOUSING WITH WHITE BAKED ENAMEL FINISH, LOUVERED FACEPLATE, 120V PRESCOLITE 37CF13 120V LF WH OR APPROVED EQUIVALENT	1-13W TWIN TUBE CFL 3500K
11	SIMILAR TO TYPE "1", EXCEPT CEILING SURFACE MOUNTED	2-32W T8 3500K
12	SIMILAR TO TYPE "2" EXCEPT FURNISHED WITH INTERNAL MOUNTED EMERGENCY BATTERY PACK.	3-32W T8 3500K
13	RECESSED HORIZONTAL COMPACT FLUORESCENT, 6" DIAMETER, CLEAR ALZAK REFLECTOR, WHITE TRIM FINISH, HIGH POWER FACTOR ELECTRONIC BALLAST, 120V PRESCOLITE LF6CFH218EB 6CFH	2-18W QUAD TUBE 3500K
14	RECESSED HORIZONTAL COMPACT FLUORESCENT DOWNLIGHT, SIMILAR TO TYPE "13" EXCEPT FURNISHED WITH INTERNAL EMERGENCY BATTERY PACK PRESCOLITE LF6CFH218EB EMR6CFH	2-18W QUAD TUBE 3500K
15	RECESSED HORIZONTAL COMPACT FLUORESCENT DOWNLIGHT, SIMILAR TO TYPE "13" EXCEPT FURNISHED WITH GASKETED CLEAR LENS, U.L. LISTED FOR WET LOCATIONS PRESCOLITE LF6CFH218 6CFHCLTRG	2-18W QUAD TUBE LAMP
16	WALL-MOUNTED FULL CUT-OFF HID WALL PACK, RUGGED DIE-CAST ALUMINUM HOUSING, DARK BRONZE POWDER FINISH, U.L. LISTED FOR WET LOCATIONS, 120V LITHONIA TWF1-100S-120-L/LP	1-100W HPS
17	WALL-MOUNTED VANDAL RESISTANT FULL CUT-OFF FLUORESCENT, MARINE GRADE EXTRUDED ALUMINUM, POLYCARBONATE LENS, BRONZE POWDER COAT FINISH, U.L. LISTED FOR WET LOCATIONS, HIGH POWER FACTOR ELECTRONIC BALLAST, 120V AEL 48-154HO-120-CL-BZH	1-54W HO T5 3500K
18	SIMILAR TO TYPE "4", EXCEPT WALL MOUNTED	1-32W T8 3500K
19	SIMILAR TO TYPE "4", EXCEPT SURFACED MOUNTED	1-32W T8 3500K
20	SIMILAR TO TYPE "1", EXCEPT FURNISHED WITH INTERNAL MOUNTED EMERGENCY BATTERY PACK.	2-32W T8 3500K
21	SIMILAR TO TYPE "13", EXCEPT FURNISHED WITH 1-18W LAMP.	1-18W QUAD TUBE 3500K
22	SIMILAR TO TYPE "5", EXCEPT 4-FOOT FLUORESCENT UP, DOWN, AND FRONT LIGHT.	2-32W T8 3500K
EM	LENS TYPE, UNIVERSAL MOUNTING EXIT SIGN, 12"W x 10.5"H x 1.625"W, DIE CAST ALUMINUM HOUSING, UNIVERSAL ARROWS, RED LETTERS, 277V OPERATION WITH SELF-CONTAINED BATTERY PACK LITHONIA LES-S2-R-120/277 ELN, PRESCOLITE LED-1-R-NB-M, DUAL-LITE SERIWE, LIGHT ALARMS XLED-W-RW OR APPROVED EQUIVALENT	LED
	POLE MOUNTED FULL CUTOFF AREA LIGHT, ONE-PIECE DIE-CAST ALUMINUM HOUSING, TEMPERED GLASS LENS, FULLY GASKETED HOUSING WITH SPRING LOADED LATCH, ANODIZED ALUMINUM REFLECTOR WITH TYPE III DISTRIBUTION, 120V HPF BALLAST, 5-INCH SQUARE EXTRUDED ALUMINUM POLE WITH CAST ALUMINUM BASE, DARK BRONZE ANODIZED FINISH KIM 1A-AR3-150HPS120-DB, OR APPROVED EQUIVALENT POLE: KIM PSA20-5188/A/DB, OR APPROVED EQUIVALENT	150W HPS

REVISE FLUORESCENT AND HPS LIGHT FIXTURES TO LED LIGHT FIXTURES.



DOORBELL CONTROL DIAGRAM
NO SCALE

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3500 HANA HWY
HAIKU, MAUI

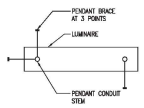
LUMINAIRE SCHEDULE AND DOORBELL CONTROL DIAGRAM

SCALE: NONE

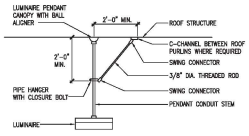
GLENN T. KAWAMOTO LICENSED PROFESSIONAL ENGINEER No. 6368-S HAWAII, USA

PROJECT NO.	0908.001
DWN TEC.	
DRAWN BY:	EP
DATE:	4/15/11
DRAWING NO	E-10

of Sheets



PLAN VIEW

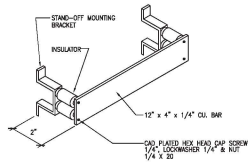


END VIEW

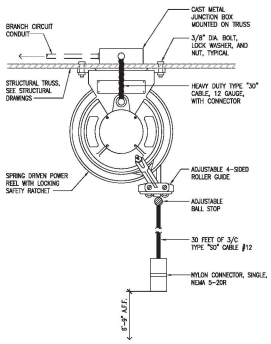
NOTE:

PROVIDE 3 POINT BRACING FOR ALL LUMINAIRES WITH PENDANT STEMS IN EXCESS OF 4 FEET.

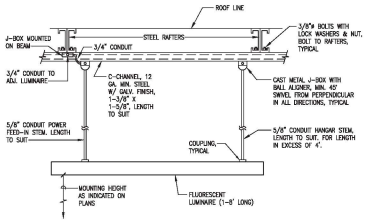
1 E-11 PENDANT LUMINAIRE BRACING DETAIL
NOT TO SCALE



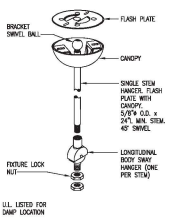
2 E-11 GROUND BUS DETAIL
NOT TO SCALE



5 E-11 CABLE REEL MOUNTING DETAIL
NOT TO SCALE



3 E-11 TYPICAL PENDANT FLUORESCENT MOUNTING DETAIL
NOT TO SCALE



U.L. LISTED FOR DAMP LOCATION

4 E-11 FIXTURE MOUNTING DETAIL
NOT TO SCALE

NO CHANGES TO THIS SHEET.

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HAIKU, MAUI

MISCELLANEOUS DETAILS

SCALE: NONE

GLENN T. KAWAMOTO LICENSED PROFESSIONAL ENGINEER No. 6368-S HAWAII, USA

PROJECT NO.	0908.001
DWN TEC.	
DRAWN BY:	EP
DATE:	4/15/11
DRAWING NO	E-11

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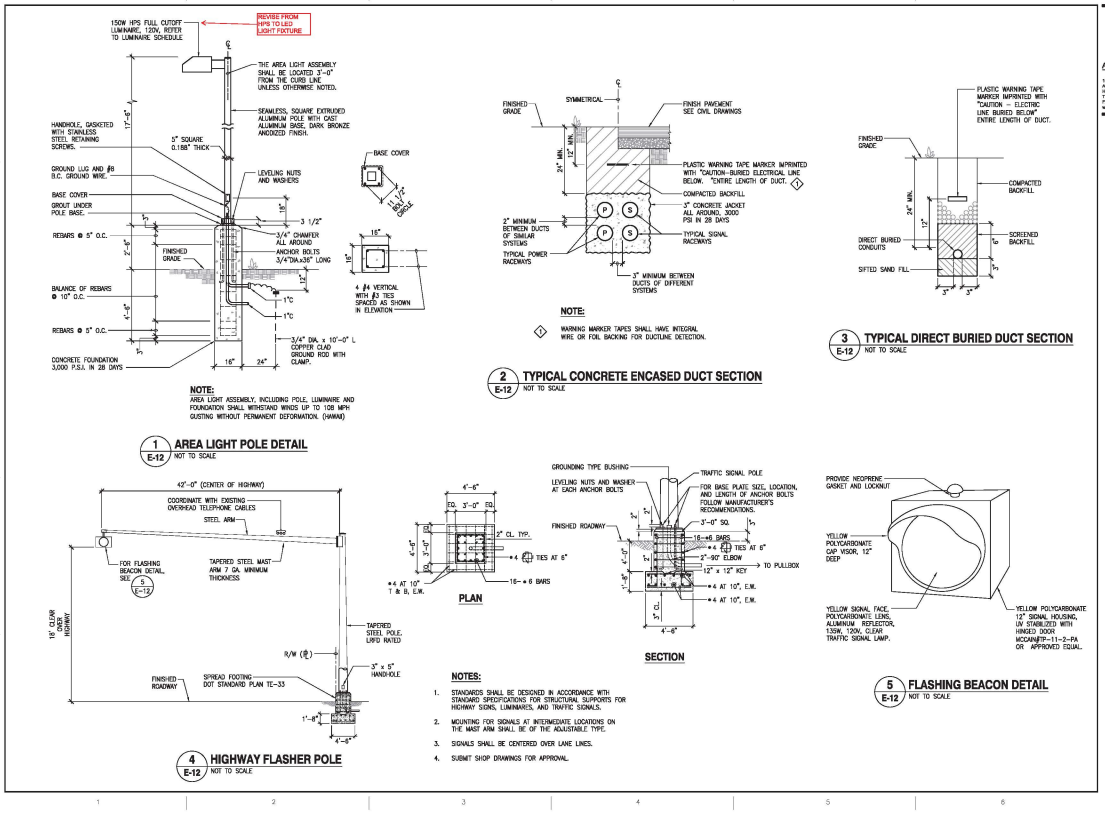

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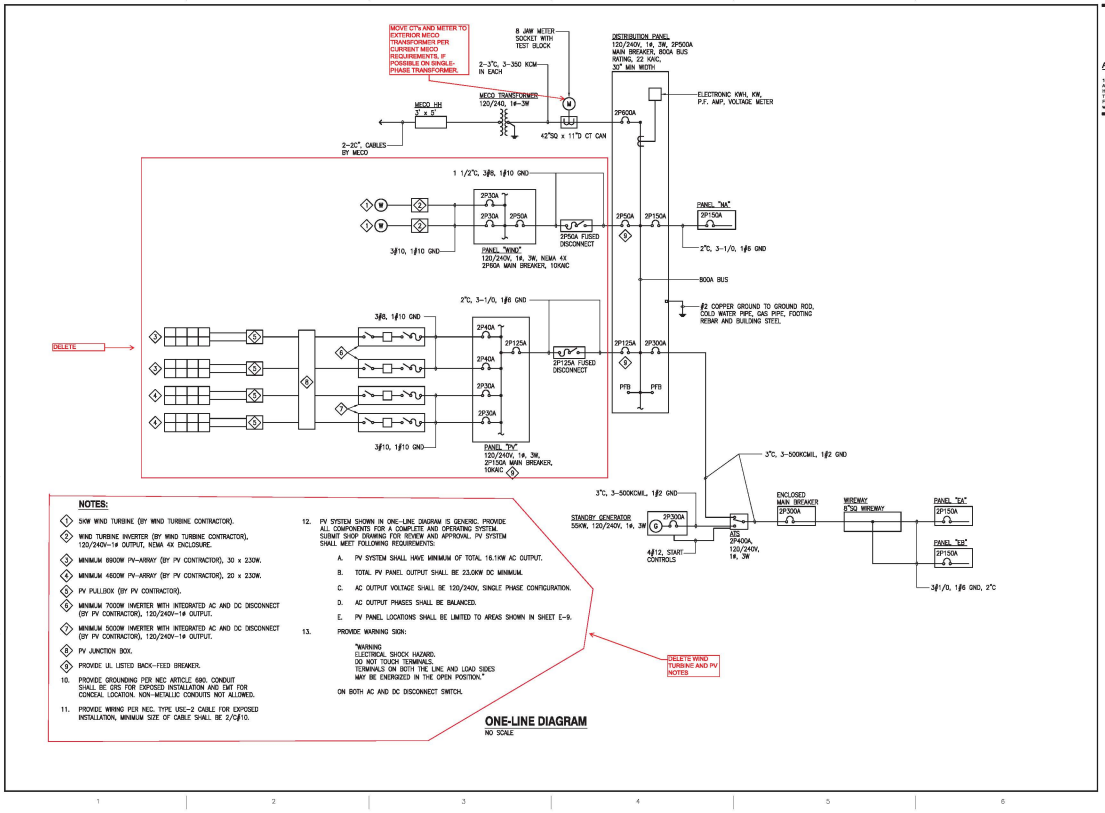
HAIKU FIRE STATION
3000 HANA HWY
HAIKU, MAUI

MISCELLANEOUS DETAILS

SCALE: NONE

PROJECT NO: 0908.001
DRAWN BY: EP
DATE: 4/13/11
DRAWING NO
E-12



NOTES:

1. 5KW WIND TURBINE (BY WIND TURBINE CONTRACTOR).
2. WIND TURBINE INVERTER (BY WIND TURBINE CONTRACTOR), 120/240V-1Φ OUTPUT, NEMA 4X ENCLOSURE.
3. MINIMUM 6900W PV-ARRAY (BY PV CONTRACTOR), 30 x 230W.
4. MINIMUM 4600W PV-ARRAY (BY PV CONTRACTOR), 20 x 230W.
5. PV PULLBOX (BY PV CONTRACTOR).
6. MINIMUM 7000W INVERTER WITH INTEGRATED AC AND DC DISCONNECT (BY PV CONTRACTOR), 120/240V-1Φ OUTPUT.
7. MINIMUM 5000W INVERTER WITH INTEGRATED AC AND DC DISCONNECT (BY PV CONTRACTOR), 120/240V-1Φ OUTPUT.
8. PV JUNCTION BOX.
9. PROVIDE UL LISTED BACK-FEED BREAKER.
10. PROVIDE GROUNDING PER NEC ARTICLE 690. CONDUIT SHALL BE GRS FOR EXPOSED INSTALLATION AND EMT FOR CONCEAL LOCATION. NON-METALLIC CONDUITS NOT ALLOWED.
11. PROVIDE WIRING PER NEC. TYPE USE-2 CABLE FOR EXPOSED INSTALLATION, MINIMUM SIZE OF CABLE SHALL BE 2/C#10.
12. PV SYSTEM SHOWN IN ONE-LINE DIAGRAM IS GENERIC. PROVIDE ALL COMPONENTS FOR A COMPLETE AND OPERATING SYSTEM. SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL. PV SYSTEM SHALL MEET FOLLOWING REQUIREMENTS:
    A. PV SYSTEM SHALL HAVE MINIMUM OF TOTAL 16.1KW AC OUTPUT.
    B. TOTAL PV PANEL OUTPUT SHALL BE 23.0KW DC MINIMUM.
    C. AC OUTPUT VOLTAGE SHALL BE 120/240V, SINGLE PHASE CONFIGURATION.
    D. AC OUTPUT PHASES SHALL BE BALANCED.
    E. PV PANEL LOCATIONS SHALL BE LIMITED TO AREAS SHOWN IN SHEET E-9.
13. PROVIDE WARNING SIGN:

"WARNING
ELECTRICAL SHOCK HAZARD.
DO NOT TOUCH TERMINALS.
TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION."

ON BOTH AC AND DC DISCONNECT SWITCH.

ONE-LINE DIAGRAM
NO SCALE

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HAIKU, MAUI

ONE-LINE DIAGRAM

SCALE: NONE

PROJECT NO: 0908.001
DRAWN BY: EP
DATE: 4/13/11
DRAWING NO
E-13

PANEL "EA"

120/240 VOLTS, 1 PHASE, 3 WIRE — MIN AIC: 10,000
150 AMP MAIN CIRCUIT BREAKER — MOUNTING: SURFACE
RECD OPTIONS: INDUSTRIAL–BOLTED TYPE

CKT WIRE SIZE (AWG)	USE: L–LTS, R–RECEP PYB–PROVISION FUTURE BKR, NO	S–SPARE/–FAN,W–WARMER	POLE	AMP	PHASE A	PHASE B	AMP	POLE	S–SPARE/–FAN,W–WARMER	USE: L–LTS, R–RECEP PYB–PROVISION FUTURE BKR, NO	CKT WIRE SIZE (AWG)
12	1	R–CAPT OFFS, DOORBELL	1	20	1.0	1.1	20	1	L–CAPT GR'LM,RM RM,STOR, DORM	2	12
12	3	R–ALM OFF	1	20	0.6	1.3	20	1	L–HALL,BATH,CL,PNT RM	4	12
12	5	R–ALM OFF	1	20	0.8	0.9	20	1	L–FITNES,DAYRM,MT	6	12
12	7	R–ALM OFF	1	20	0.6	1.0	20	1	L–KIT THNK, LAUNDRY,CF–5	8	12
12	9	FACP	1	20	1.4	1.0	20	1	SPARE	10	12
–	11	SPARE	1	20	1.0	1.3	20	1	L–APP BAY 1	12	12
12	13	R–STUDY/DORM	1	20	1.4	1.2	20	1	L–APP BAY 2	14	12
12	15	R–STUDY/DORM	1	20	1.2	1.0	20	1	L–APP BAY 3,UPL RMS	16	12
12	17	R–DORM	1	20	1.4	1.0	20	1	L–EXTR SOUTH, POLE LTS.	18	12
12	19	R–EMS STRG/APP BAY	1	20	0.8	1.3	20	1	L–EXTR WEST	20	10
12	21	R–EMS STRG/TOILET	1	20	0.4	1.0	20	1	L–EXTR NORTH, TRAFFIC SIGNAL	22	12
12	23	R–SHOP	1	20	1.2	1.2	20	2	LIFT STATION PUMP	24	10
12	25	R–SHOP	1	20	1.4	1.2	30			26	10
12	27	R–TEL/COM	1	20	2.0	1.0	20	2	R–ICE MACHINE	28	12
12	29	R–TEL/COM	1	20	2.0	1.0	20			30	12
12	31	R–REC/UTL/GEN	1	20	0.6	1.0	20	1	SPARE	32	–
12	33	DAY TANK	1	20	1.0	1.0	20	1	SPARE	34	–
12	35	BATTERY CHARGER	1	20	1.0	–	–	1	PFB	36	–
12	37	R–PA SYSTEM	1	20	1.0	–	–	1	PFB	38	–
12	39	R–PA SYSTEM	1	20	–	1.0	–	1	PFB	40	–
12	41	R–PA SYSTEM	1	20	1.0	–	–	1	PFB	42	–
		CONNECTED LOAD/PHASE			20.7	20.1					
		TOTAL CONNECTED LOAD			40.8 KVA						
		DEMAND FACTOR			0.6						
		TOTAL DEMAND LOAD			24.5 KVA = 102.0 AMPS						

PANEL "EB"

120/240 VOLTS, 1 PHASE, 3 WIRE — MIN AIC: 10,000
150 AMP MAIN CIRCUIT BREAKER — MOUNTING: SURFACE
RECD OPTIONS: INDUSTRIAL–BOLTED TYPE

CKT WIRE SIZE (AWG)	USE: L–LTS, R–RECEP PYB–PROVISION FUTURE BKR, NO	S–SPARE/–FAN,W–WARMER	POLE	AMP	PHASE A	PHASE B	AMP	POLE	S–SPARE/–FAN,W–WARMER	USE: L–LTS, R–RECEP PYB–PROVISION FUTURE BKR, NO	CKT WIRE SIZE (AWG)
12	1	R–APP BAY	1	20	1.0	1.2					
12	3	R–APP BAY DOOR	1	20		1.6	1.2	20	1	R–ROTRG A	4	12
12	5	R–APP BAY DOOR	1	20	1.6	1.2				R–ROTRG B	4	12
12	7	R–APP BAY CORD REEL	1	20			1.2	1.0	20	1	R–ROTRG C	6	12
12	9	R–APP BAY CORD REEL	1	20	1.2	1.0				GAS WTR HTR	8	12
12	11	R–APP BAY CORD REEL	1	20			1.2	1.3	20	1	CIRC PUMP	10	12
12	13	R–APP BAY CORD REEL	1	20	1.2	0.5				EF–2,3	12	12
12	15	R–APP BAY DOOR	1	20			1.6	1.2	20	1	EF–5	14	12
12	17	R–APP BAY DOOR	1	20	1.6	1.2				EF–C1	16	12
12	19	R–HALL 2	1	20			0.8	1.2	20	1	EF–C2	18	12
12	21	R–RESTROOM	1	20	0.6	1.2					20	12
12	23	R–RESTROOM	1	20		0.6	1.2	20	1	BP–1 PUMP	22	12
12	25	R–APP BAY	1	20	0.6	1.2				BP–2 PUMP	24	12
12	27	R–DAYROOM	1	20			1.2	1.0	20	F–1 (DIESEL PUMP)	26	12
12	29	R–DAYROOM	1	20	1.0	1.2				EF–G3	28	12
12	31	R–KITCHEN COMTR	1	20		1.0	1.2	20	1		30	12
12	33	R–KITCHEN COMTR	1	20	1.0	1.2				EF–G4	32	12
12	35	R–STOVE/HOOD	1	20			1.2	1.2	20	1		34	12
12	37	GARBAGE DISP	1	20	1.2	1.0					36	–
12	39	FAN CONTROL PANEL	1	20			1.0	1.0	20	1	SPARE	38	–
12	41	FAN CONTROL PANEL	1	20	1.0	–				–	1	SPARE	40	–
		CONNECTED LOAD/PHASE			21.7	21.7					1	PFB	42	–
		TOTAL CONNECTED LOAD			43.4 KVA									
		DEMAND FACTOR			0.6									
		TOTAL DEMAND LOAD			26.0 KVA = 108.5 AMPS									

PANEL "NA"

120/240 VOLTS, 1 PHASE, 3 WIRE — MIN AIC: 10,000
150 AMP MAIN CIRCUIT BREAKER — MOUNTING: SURFACE
RECD OPTIONS: INDUSTRIAL–BOLTED TYPE

CKT WIRE SIZE (AWG)	NO	USE: L–LTS, R–RECEP PYB–PROVISION FUTURE BKR, S–SPARE/–FAN,W–WARMER	POLE	AMP	PHASE A	PHASE B	AMP	POLE	USE: L–LTS, R–RECEP PYB–PROVISION FUTURE BKR, S–SPARE/–FAN,W–WARMER	NO	CKT WIRE SIZE (AWG)
–	1	SPARE	1	20	1.0	2.7				2	ACU–1	2	10
12	3	FCU–1A,1B,DORM	2				1.0	2.7	40			4	10
12	5			15	1.0	2.7				2	ACU–2	6	10
12	7	FCU–2C,3A,3B,3C,DAY–2	2				1.0	2.7	40			8	10
12	9			15	1.0	2.7				2	ACU–3	10	10
–	11	SPARE	1	20			1.0	2.7	40			12	10
–	13	SPARE	1	20	1.0	2.0				1	R–WASHER	14	12
–	15	SPARE	1	20			1.0	1.5	30	2	R–DRYER	16	10
–	17	SPARE	1	20	1.0	2.5						18	10
–	19	SPARE	1	20			1.0	1.5	30	2	EXTRACTOR	20	10
–	21	SPARE	1	20	1.0	1.5						22	10
–	23	SPARE	1	20			1.0	–	–	1	PFB	24	–
–	25	PFB	1	–	–	–			–	1	PFB	26	–
–	27	PFB	1	–			–	–	–	1	PFB	28	–
–	29	PFB	1	–	–	–			–	1	PFB	30	–
		CONNECTED LOAD/PHASE			20.1	18.1							
		TOTAL CONNECTED LOAD			38.2 KVA								
		DEMAND FACTOR			0.7								
		TOTAL DEMAND LOAD			26.7 KVA = 111.4 AMPS								

REVISE LOADS PER REVISION FROM FLUORESCENT TO LED FIXTURES.

REVISE TO ACCOMMODATE MECHANICAL REVISIONS

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www.ahlimited.com

HAIKU FIRE STATION
3595 HANA HWY
HAIKU, MAUI

PANEL SCHEDULE

SCALE: NONE

GLENN T. KAWAMOTO — LICENSED PROFESSIONAL ENGINEER — No. 4360-E

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NO	DESCRIPTION	DATE
System	modified HA_ETS System	

NOTE: Redrawn to show as-built with all revisions, all systems shown by HA only.

PROJECT NO: 0908R.001
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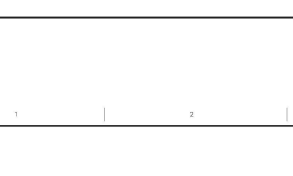
DATE: 4/13/11
DRAWING NO: E-14
of Sheets

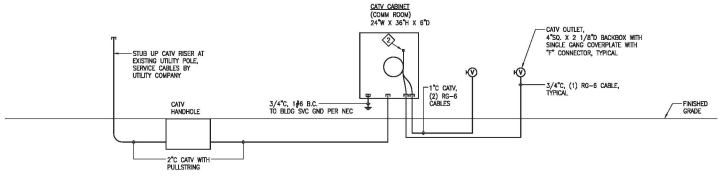


NOTE:

ALL TEL/DATA SYSTEM CONDUITS SHALL BE 1"C MINIMUM WITH PULLSTRING UNLESS OTHERWISE NOTED.

1 TEL/DATA SYSTEM RISER DIAGRAM (E-15) NO SCALE

NO CHANGES TO THIS SHEET



NOTES:

1. ALL CATV SYSTEM CONDUITS SHALL BE 3/4"C MINIMUM UNLESS OTHERWISE NOTED.

2 TERMINATE CABLES WITH "F" CONNECTOR. COIL AND STOW 5–FT OF SLACK CABLE WITHIN CATV CABINET.

2 CATV SYSTEM RISER DIAGRAM (E-15) NO SCALE

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HAIKU FIRE STATION
3595 HANA HWY
HAIKU, MAUI

TEL/DATA SYSTEM RISER AND CATV SYSTEM RISER DIAGRAM

SCALE: NONE

GLENN T. KAWAMOTO — LICENSED PROFESSIONAL ENGINEER — No. 4360-E

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NO	DESCRIPTION	DATE
System	modified HA_ETS System	

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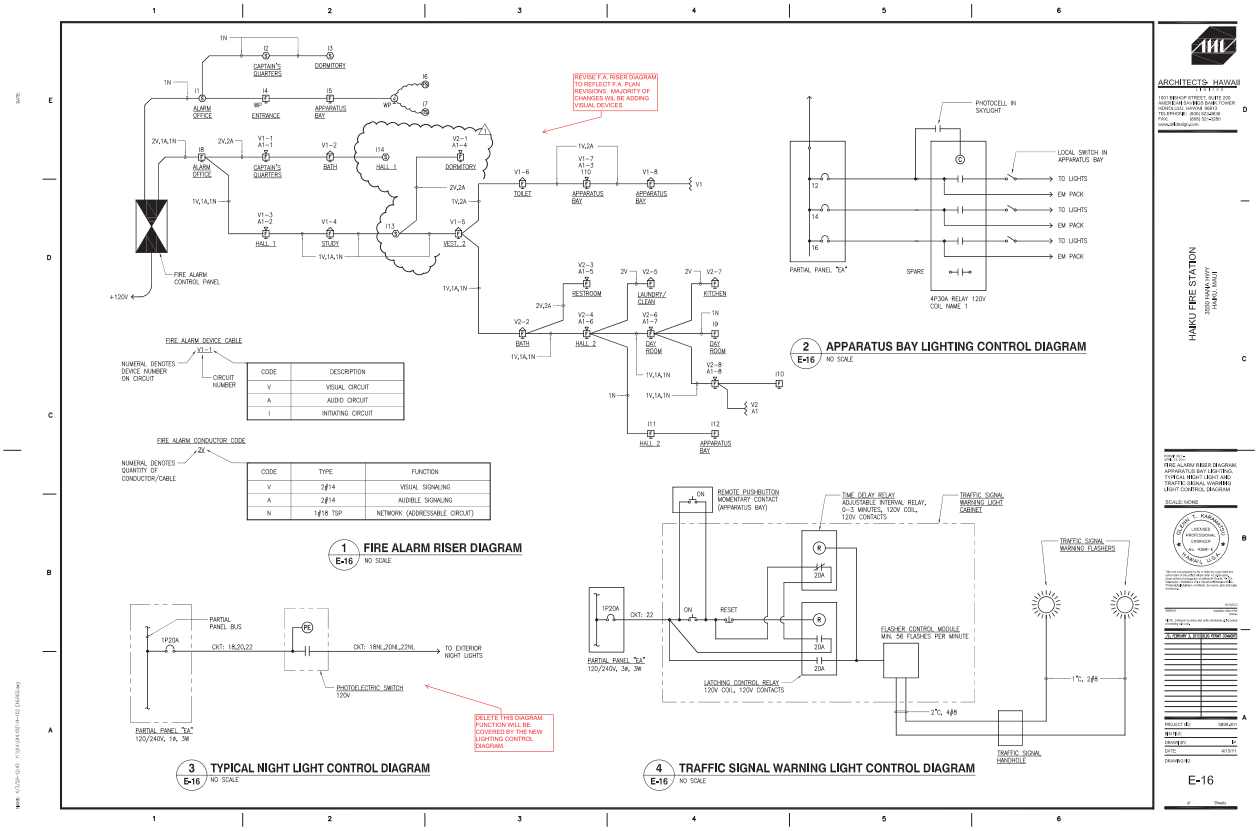
DRAWN BY: BP
DATE: 4/13/11
DRAWING NO: E-15
of Sheets



UPDATED CONSTRUCTION COST ESTIMATE

EXHIBIT C

ahl.

Haiku Fire Station
Construction Budget Estimate

ITEM	ESTIMATED COST
Existing Conditions	$ 81,430
Concrete	$ 160,600
Masonry	$ 140,490
Metals	$ 316,730
Wood, Plastics, Composites	$ 101,850
Thermal & Moisture Protection	$ 259,275
Openings	$ 243,775
Finishings	$ 254,450
Equipment	$ 47,170
Furnishings	$ 2,000
Fire Sprinkler	$ 176,000
Plumbing	$ 208,250
HVAC	$ 458,500
Electrical	$ 846,480
Earthwork	$ 1,269,600
New Appartatus Storage Building:	
Assume 1,600 sf @ $550/SF	$ 880,000
Exterior Improvements (On Site):	
Civil Site Work	$ 457,370
Landscape	$ 322,135
Storm Drainage	$ 226,150
Water	$ 510,700
Sewer	$ 59,550
Exterior Improvements (Off Site):	
Water	$ 1,193,000
TOTAL NET COST	$ 8,215,505
Margins & Adjustments (Estimated at 33% of Net)	$ 2,711,117
Estimated Total Cost (2012 $)	$ 10,926,622
Mark Up to 2021 $ (23% Cost Increase)	$ 13,439,745
Design Contingency at 10%	$ 14,783,719
TOTAL ESTIMATED BUDGET	**$ 14,783,719**
Not included in above budget estimate:	
East Kuiaha Road Widening	$ 2,650,000

ALTERNATIVE SITES ASSESSMENT MEMORANDUM AND SUMMARY MATRIX

EXHIBIT

D

MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Michael T. Munekiyo
CHAIRMAN
Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy
VICE PRESIDENT
Tessa Munekiyo Ng
VICE PRESIDENT

February 8, 2021
(Revised June 4, 2021)

MEMORANDUM

To: Rylan Yatsushiro, Fire Services Chief
Department of Fire and Public Safety

From: Kauanoe Batangan, Senior Associate
Munekiyo Hiraga

Subject: Haiku Fire Station Site Alternatives Assessment

I. SITE ALTERNATIVES ASSESSMENT

A. Background

After receiving input from public officials and members of the community, the County of Maui, Department of Fire and Public Safety (DF&PS) decided that there may be value-added to the Haiku Fire Station (HFS) design and development process if alternative sites are investigated. This site alternatives assessment considers the potential viability of three (3) alternate locations for the proposed fire station based on the same land entitlement and design factors used evaluate the feasibility of developing TMK (2) 2-7-007:008, the originally proposed location at the intersection of Hana Highway and East Kuiaha Road. To provide a baseline for the comparative analysis, the originally proposed location will be included in the site alternatives assessment.

The four (4) sites analyzed in this alternatives assessment are listed below, identified by their cross streets and Tax Map Key (TMK) Number. Sites are referenced alphabetically from west to east. See **Figure 1**.

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729
Oahu: 735 Bishop Street, Suite 321 • Honolulu, Hawaii 96813 • Tel: 808.983.1233
www.munekiyohiraga.com

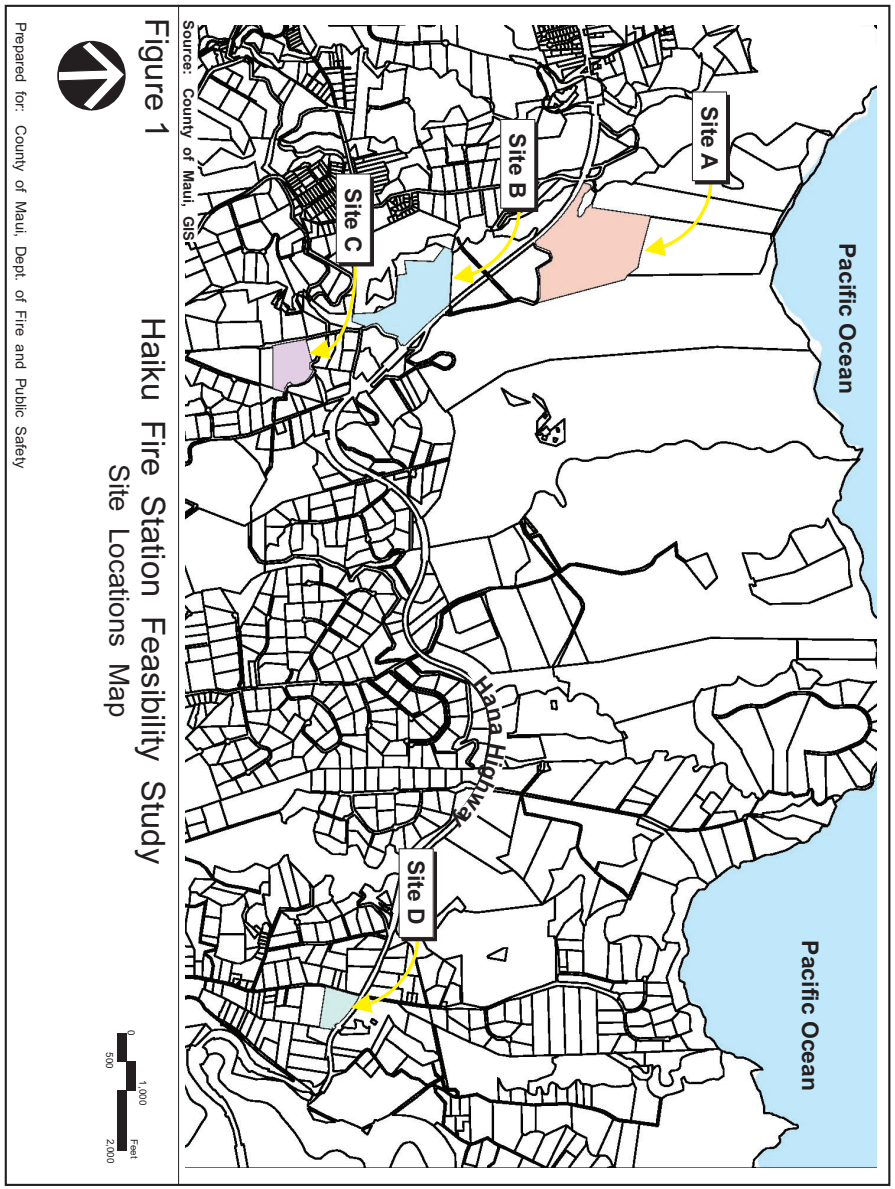


Figure 1
Haiku Fire Station Feasibility Study
Site Locations Map

Prepared for: County of Maui, Dept. of Fire and Public Safety

K:\COM\DFire Haiku Feasibility Study\Application\Figures\Site Locations Map

Reference	Cross Streets	TMK No.
Site A	Hana Hwy. and Nahele Rd.	TMK (2) 2-7-007:005
Site B	Hana Hwy. and E. Kuiaha Rd.*	TMK (2) 2-7-007:008*
Site C	E. Kuiaha Rd	TMK (2)2-7-013:013
Site D	North/South Holokai Rd	TMK (2) 2-8-006:037
*Indicates the originally proposed site		

B. Alternative Site Selection Process

Site A and Site D, identified by TMK (2)2-7-007:005 and (2)2-8-006:037, had been suggested by the Haiku Community Association as potential alternatives to the originally proposed location.

The third alternative site was selected following a Geographic Information Systems (GIS) analysis by utilizing the following property assessment considerations provided by DF&PS:

1. Land entitlements
2. Coverage area
3. Proximity to nearby stations
4. Proposed location proximity to designated growth areas
5. Proximity to current and historic incident locations (FireRMS)
6. Ingress/egress to major response routes
7. Availability and cost of necessary utilities
8. Earthwork and site engineering requirements
9. Environmental considerations
10. Site acquisition considerations
11. Community receptiveness (noise and light disturbances to neighbors)
12. Future expansion potential

A search was conducted to identify potential properties that took into account the abovementioned considerations. TMKs within the Haiku area were analyzed for the following characteristics: located within 0.25 miles of Hāna Highway, located between Haiku Road and Kaupakalua Road, located outside of the Special Management Area, located within Flood Zone X, and sized between seven (7) acres and fifteen (15) acres. These search parameters ensure that the proposed HFS would be located within the desired coverage area, have access to major response routes, reduce the risk of natural hazards, and would provide adequate expansion potential.

While selecting the third alternative site, it was assumed that all parcels in the area would require utility and infrastructure improvements. Additionally, since every parcel that met this search criteria is designated “Agriculture” by the State Land Use Commission, is classified as “Agriculture” within the Paia-Haiku Community Plan, and is identified as

“Agriculture” by Maui County zoning, land entitlements were not considered in the selection process.

The search resulted in four (4) potential properties being identified as candidates for the third site: TMK Nos. (2)2-7-003:007, (2)2-7-007:006, (2)2-7-007:037, and (2)2-7-013:013. This list was given to DF&PS for review. The third and final alternative site, referred to as Site C and identified by TMK (2)2-7-013:013, was chosen by DF&PS because it was the least developed lot and contained an open space buffer from residential areas for the potential HFS.

The purpose of selecting a third alternative site was to determine whether a property that was not already under consideration was worth further evaluation. It is noted that the landowner of Site C was not contacted as a part of this analysis.

A summary of the findings of the alternative sites evaluation process is provided below:

II. LAND USE ENTITLEMENT ASSESSMENT

A. State Land Use District

All four (4) sites are located in the State’s “Agricultural” land use district. See **Exhibit 1**. The proposed HFS is not permitted in this land use designation and, as such, a District Boundary Amendment (DBA) to change the land use designation from the “Agricultural” to “Rural” district will be required prior to plan implementation.

Inasmuch as the required project area on each of the sites would be less than 15-acres in area, the Maui County Council would be the final approving authority for the DBA request.

B. Maui Island Plan

The Maui Island Plan (MIP) has three (3) growth boundary categories: “Urban”, “Small Town”, and “Rural”. The originally proposed project area, Site B, is located within the Rural Growth Boundary (RGB) and is therefore consistent with the directed growth strategy defined through the growth maps adopted in the MIP. The three (3) alternative locations are all located outside of MIP growth boundaries. As such, the proposed HFS is inconsistent with the MIP’s directed growth strategy at these locations. Refer to **Exhibit 1**.

If the proposed HFS is built at Site B, no modification to the MIP is necessary. Developing the HFS at any of the alternative sites would require amending the MIP so that the subject parcel is within the RGB.

C. *Paia-Haiku Community Plan*

All four (4) sites are designated "Agricultural" by the Paia-Haiku Community Plan. Refer to **Exhibit 1**. The proposed HFS is not consistent with this underlying land use designation. As such, a Community Plan Amendment (CPA) would be required to change the community plan land use designation from "Agricultural" to "Public/Quasi-Public" prior to project implementation.

D. *Maui County Zoning*

All four (4) sites are zoned "Agricultural" district by the County of Maui. Refer to **Exhibit 1**. The proposed HFS is not permitted and not consistent with this underlying County zoning designation. As such, a Change of Zoning (COZ) from "Agricultural" district to "Public/Quasi-Public" district would be required prior to plan implementation. Coordination would need to be undertaken during the entitlement processing phase to confirm whether the project would seek a "P-1" or "P-2" zoning designation.

E. *Special Management Area*

The County of Maui's Special Management Area (SMA) regulatory regime is founded in the State of Hawai'i's Coastal Zone Management Program, as set forth in Chapter 205A, Hawai'i Revised Statutes (HRS). The County of Maui Department of Planning administers SMA permitting in accordance with Chapter 202, SMA Rules for the Maui Planning Commission (MPC).

Site A is located within the SMA, so development there would require a SMA Use Permit. Site B, Site C, and Site D are all located outside of the SMA so developing the HFS at one of these three (3) sites would not require a SMA Use Permit. Refer to **Exhibit 1**.

F. *Special Flood Hazard Area*

The Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA) are utilized by the County to identify areas prone to flooding in the event of the base flood, which is a flood having a one (1) percent chance of occurring in any given year (also known as a hundred-year flood). These flood prone areas are identified as special flood hazard areas. A Special Flood Hazard Area Development Permit is required for any development within a special flood hazard area.

All four (4) sites are located within Zone X, the minimal flood hazard zone. As such, a Special Flood Hazard Area Development Permit would not be required. Refer to **Exhibit 1**.

III. *CIVIL ENGINEERING CONSIDERATIONS*

An evaluation of the needed improvements to each property for access, water, wastewater, and drainage was conducted by AECOM. See **Exhibit 2**.

A. *Access*

Site A: The project site is bordered by Hāna Highway and Valley Isle Memorial Park & Cemetery. The site does not appear to have any access off an interior road makai (north) of Hāna Highway. The State of Hawai'i, Department of Transportation (SDOT) would need to be consulted to approve access off Hāna Highway.

Site B: There is an existing driveway entrance off East Kuiaha Street and a driveway off of Hāna Highway for Emergency Use. The County of Maui, Department of Transportation (DOT) has approved access to this property with a flashing light for Fire Trucks to access the roadway when emergencies arise. No other offsite improvements are required to provide access for fire trucks.

Site C: This site is located 0.4 miles from Hāna Highway, off of East Kuiaha Road. East Kuiaha Road is available for access to the proposed HFS.

Site D: This site is located at the corner of Hana Highway and South Holokai Road. The project site will be able to have access off South Holokai Road, while SDOT would need to be consulted to determine feasibility of access off of Hāna Highway.

B. *Water*

Site A: There are no waterlines within the area.

Site B: Property has a water meter and 2.5-inch waterline, however, offsite waterline improvements will be required as current water flow is below the minimum required for development. An approximately 4,200-foot waterline improvement is proposed to connect the facility to an existing waterline at the West Kuiaha Road and Haiku Road intersection.

Site C: This site has a 2.5-inch waterline on East Kuiaha Road. The flow and pressure are not known at this time and the Department of Water Supply may require offsite waterline improvements to this area for a proposed fire station.

Site D: There is an existing 6-inch waterline within South Holokai Road. However, the property does not yet have a water meter for domestic service. As of May 5, 2021, the TMK is number 31 on the Upcountry Priority List for a water meter. Based on input received in May 2021 from the Department of Water Supply, required improvements are anticipated

to include, but are not limited to: demolish the existing 40,000 gallon Upper Holokai Tank; construct a new 100,000 gallon Upper Holokai Tank at the same elevation (will need fee simple land for the new tank, if applicable); upgrade approximately 2,230 lineal feet of existing 6" and 4" pipe to new 8" pipe along Holokai Road and Hana Highway; construct, at minimum, two (2) new fire hydrants along Holokai Road and Hana Highway; transfer any existing domestic services to the new 8" pipe; transfer any standpipes to the new 8" pipe.

C. ***Wastewater***

All four (4) sites will require a wastewater disposal system as County wastewater services do not extend to the Haiku area.

The originally proposed location, Site B, had a private wastewater treatment system designed for the property by Roth Ecological Design International, LLC. The wastewater treatment facility, lift station, wetland area and disposal field that made up this private wastewater treatment system were removed from the project plans as a part of the proposed design modifications. The current proposal is to utilize a septic system.

It is recommended that Site A, Site C, and Site D utilize a septic system, as well.

D. ***Drainage***

There are no existing drainage system improvements on any of the four (4) alternative sites. A drainage system would, therefore, need to be designed and the design would need to capture any runoff caused by the HFS in accordance with the County's drainage rules.

IV. ***ARCHITECTURAL CONSIDERATIONS***

AHL reviewed the four (4) sites from an architectural perspective. The sites were evaluated based on appropriate lot size, topography, access to the main roads, code and zoning requirements and other natural and man-made obstructions. Refer to **Exhibit "1"**.

In general, all sites appear to be suitable for construction of a new HFS. As previously discussed, all sites currently fall under agricultural zoning which does not allow for the proposed use. As a result, the properties would need to be rezoned to "Public/Quasi-Public". A P-1 or P-2 public/quasi-public district classification should be sought, and each will have different restrictions on what can be built.

- Obtaining a P-1 district classification will restrict the current and future structures to height of 40 feet under existing code and will allow the DF&PS the flexibility to build closer to the lot line than a P-2 classification.

- Obtaining a P-2 classification will allow current and future structures to a height of 90 feet under existing code, however it will require the DF&PS to build further from the lot lines. This classification should be considered if further upward expansion, towers, or windmills are expected to be included in the improvements now or in the future.

Due to the program of the proposed improvements, a site with minimum grade change would be most suitable. Site D currently shows the most favorable conditions as it will require the least grading work for the intended use.

Upon final site selection, the building orientation will need to be evaluated to determine proper placement to minimize solar gain, so that cooling loads can be minimized, and for optimized efficiency of solar panels and natural ventilation.

It is noted that the existing plans are designed for Site B, the originally considered location. Altering those plans for a different location will take additional time and incur additional costs.

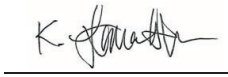
V. ***LIMITATIONS OF THIS EVALUATION***

It is noted that there are limitations to this evaluation given the difficulties encountered in obtaining raw data to analyze each of the site alternatives. The project civil engineer could not make definitive conclusions on the need for offsite waterline improvements without detailed information from the Department of Water Supply on existing water infrastructure near the subject properties. Similarly, the need for roadway widening improvements to County roads could not be made without as-built specifications of Nahele Road, East Kuiaha Road, and South Holokai Road.

VI. ***SITE ALTERNATIVE ASSESSMENTS SUMMARY***

As mentioned at the beginning of this memorandum, other potential sites were analyzed to determine whether or not there is a more feasible location for the proposed fire station in the Haiku area (beyond the originally proposed site). Three (3) additional properties were identified and compared against the originally considered site to determine if there are considerations, in location, permitting, or design, which would warrant relocating the proposed fire station.

The analysis concluded that the originally considered site offers substantial advantages over the other three (3) alternative sites in that it is already owned by the County of Maui, requires the least amount of entitlements, and has architectural and engineering plans that are already tailored to the specific property. All of the other properties have similar infrastructure constraints and no significant advantages to overcome the investments already made at the originally considered site.



Kauanoe Batangan
Senior Associate

KB:yp
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EXHIBIT 1

Alternative Sites Comparison Matrix

ALTERNATIVE SITES COMPARISON MATRIX
For
Revised Haiku Fire Station Project

	SITE A Hana Hwy. and Nahele Rd. TMK (2) 2-7-007:005	SITE B Hana Hwy. and E. Kuiaha Rd. TMK (2) 2-7-007:008 (por.)	SITE C E. Kuiaha Rd TMK (2)2-7-013:013	SITE D North/South Holokai Rd. TMK (2) 2-8-006:037
Size and Valuation:	**Size:** 48.77 Acres **Expansion Potential:** Yes **Ownership:** County of Maui **RPT Assessed Land Value:** $1,632,600	**Size:** 27.90 Acres **Expansion Potential:** Yes **Ownership:** County of Maui **Land Value:** $1,100,000	**Size:** 10.13 acres **Expansion Potential:** Yes **Ownership:** Private **Land Value: $**668,800	**Size:** 6.28 Acres **Expansion Potential:** Yes **Ownership:** State of Hawaii **Land Value:** $1,004,500
Entitlements:	**State Land Use:** Agricultural **Maui Island Plan:** Outside of growth boundaries **Community Plan:** Agricultural **Zoning:** Agricultural **Special Management Area:** Within SMA **Flood District:** Zone X **Required Land Use and Regulatory Permits:** District Boundary Amendment, Special Management Area Use Permit, Maui Island Plan Amendment, Community Plan Amendment, Change of Zoning	**State Land Use:** Agricultural **Maui Island Plan:** Within Rural Growth Boundary **Community Plan:** Agricultural **Zoning:** Agriculture **Special Management Area:** Outside of SMA **Flood District:** Zone X **Required Land Use and Regulatory Permits:** District Boundary Amendment, Community Plan Amendment, Change of Zoning	**State Land Use:** Agricultural **Maui Island Plan:** Outside of growth boundaries **Community Plan:** Agricultural **Zoning:** Agricultural **Special Management Area:** Outside of SMA **Flood District:** Zone X **Required Land Use and Regulatory Permits:** District Boundary Amendment, Maui Island Plan Amendment, Community Plan Amendment, Change of Zoning	**State Land Use:** Agricultural **Maui Island Plan:** Outside of growth boundaries **Community Plan:** Agricultural **Zoning:** Agricultural **Special Management Area:** Outside of SMA **Flood District:** Zone X **Required Land Use and Regulatory Permits:** District Boundary Amendment, Maui Island Plan Amendment, Community Plan Amendment, Change of Zoning
Access:	**Distance to Hana Hwy:** Off of Hana Hwy **Main:** Hana Highway - Will need State DOT approval. State DOT has indicated that they do not want the main access to this facility along Hana Hwy.	**Distance to Hana Hwy:** Off of Hana Hwy **Main:** East Kuiaha Road - No improvements necessary **Secondary:** Hana Highway - Would need to comply with State DOT requirements.	**Distance to Hana Hwy:** 0.4 Miles **Main:** East Kuiaha Road **Secondary:** None	**Distance to Hana Hwy:** Off of Hana Hwy **Main:** South Holokai Road **Secondary:** Hana Highway - Will need to comply with State DOT requirements.
Water:	This property and surrounding area does not have any County water lines.	Property has a water meter, but offsite waterline improvements will be required as current flow is below minimum required.	East Kuiaha Road has an existing 2.5" waterline in the proximity of the site. Offsite waterline improvements will likely need to be made. Pending Department of Water Supply comments regarding what offsite improvements will be required.	Holokai Road has an existing 6" waterline. Property does not have a water meter but is on the Upcountry Priority List. Offiste waterline improvements will be required as current flow is below minimum required by law.

	SITE A Hana Hwy. and Nahele Rd. TMK (2) 2-7-007:005	SITE B Hana Hwy. and E. Kuiaha Rd. TMK (2) 2-7-007:008 (por.)	SITE C E. Kuiaha Rd TMK (2)2-7-013:013	SITE D North/South Holokai Rd. TMK (2) 2-8-006:037
Wastewater:	Facility will require a wastewater disposal system.	Facility will require a wastewater disposal system.	Facility will require a wastewater disposal system.	Facility will require a wastewater disposal system.
Drainage:	No existing drainage system. Improvements system would be required that complies with the County's drainage rules.	No existing drainage system. Improvements system would be required that complies with the County's drainage rules. A drainage system design has already been completed for this site.	No existing drainage system. Improvements system would be required that complies with the County's drainage rules.	No existing drainage system. Improvements system would be required that complies with the County's drainage rules.
Soil:	Haiku clay, with slopes of 7 to 15 percent (soil classification HbC), 3 to 7 percent slopes HbB soil classification. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate.	Haiku clay, with slopes of 7 to 15 percent (soil classification HbC), 3 to 7 percent slopes HbB soil classification. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate.	Haiku clay, with slopes of 7 to 15 percent (soil classification HbC), and 3 to 7 percent slopes HbB soil classification. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate.	Pauwela clay, with slopes of 7 to 15 percent (soil classification PfC), and 3 to 7 percent slopes PfB soil classification. Permeability is well drained. Runoff is slow to medium, and the erosion hazard is slight to moderate.
Topography:	The project site generally slopes from an elevation of approximately 400 feet above sea level at its highest point to approximately 300 feet at its lowest. The drainage generally flows in a north-westerly direction.	The project site generally slopes from an elevation of approximately 540 feet above sea level at its highest point to approximately 400 feet at its lowest. The drainage generally flows in a north-westerly direction.	The project site generally slopes from an elevation of approximately 620 feet above sea level at its highest point to approximately 560 feet at its lowest. The drainage generally flows from the south to the north direction.	The project site generally slopes from an elevation of approximately 620 feet above sea level at its highest point to approximately 590 feet at its lowest. The drainage generally flows from the south to the north direction.
Lot Coverage/Size:	Approximately 7 percent will be disturbed by the proposed improvements. This site provides the largest amount land for possible subdivision or other municipal uses, however, road frontage is limited.	Approximately 13 percent will be disturbed by the proposed improvements. This site has existing structures which will be demolished. The balance of the lot may be subdivided or allocated for other municipal uses.	Approximately 36 percent will be disturbed by the proposed improvements. This site has additional acreage for possible subdivision or other municipal uses.	Approximately 57 percent will be disturbed by the proposed improvements. This site appears to have a sufficient amount of land for site improvements and to provide a buffer to the neighbors to the east.
Cut/Fill:	Balanced	Moderate	Balanced	Minimal
Setbacks(based on future rezoning):	**P-1:** Front – 15 Feet and Side/Rear – 10 Feet. **P-2:** Front – 30 Feet and Side/Rear – 15 Feet.	**P-1:** Front – 15 Feet and Side/Rear – 10 Feet. **P-2:** Front – 30 Feet and Side/Rear – 15 Feet.	**P-1:** Front – 15 Feet and Side/Rear – 10 Feet. **P-2:** Front – 30 Feet and Side/Rear – 15 Feet.	**P-1:** Front – 15 Feet and Side/Rear – 10 Feet. **P-2:** Front – 30 Feet and Side/Rear – 15 Feet.
Building Heights (based on future rezoning):	**P-1:** 40 Feet, 50 Feet maximum for antennae, etc.	**P-1:** 40 Feet, 50 Feet maximum for antennae, etc.	**P-1:** 40 Feet, 50 Feet maximum for antennae, etc.	**P-1:** 40 Feet, 50 Feet maximum for antennae, etc.

	SITE A Hana Hwy. and Nahele Rd. TMK (2) 2-7-007:005	SITE B Hana Hwy. and E. Kuiaha Rd. TMK (2) 2-7-007:008 (por.)	SITE C E. Kuiaha Rd TMK (2)2-7-013:013	SITE D North/South Holokai Rd. TMK (2) 2-8-006:037
	P-2: 90 Feet, 50 Feet maximum for antennae, etc.	**P-2:** 90 Feet, 50 Feet maximum for antennae, etc.	**P-2:** 90 Feet, 50 Feet maximum for antennae, etc.	**P-2:** 90 Feet, 50 Feet maximum for antennae, etc.
Electrical, Tel, Comm:	Electrical service to the area is provided by Hawaiian Electric Company. Telephone and cable service in the area is available from a variety of providers, including Spectrum. Project will require coordination to connect respective utility services from existing overhead distribution systems along Hana Hwy to project site.	Electrical service to the area is provided by Hawaiian Electric Company. Telephone and cable service in the area is available from a variety of providers, including Spectrum. Project will require coordination to connect respective utility services from existing overhead distribution systems along Hana Hwy to project site.	Electrical service to the area is provided by Hawaiian Electric Company. Telephone and cable service in the area is available from a variety of providers, including Spectrum. Project will require coordination to connect respective utility services from existing overhead distribution systems along Hana Hwy to project site.	Electrical service to the area is provided by Hawaiian Electric Company. Telephone and cable service in the area is available from a variety of providers, including Spectrum. Project will require coordination to connect respective utility services from existing overhead distribution systems along Hana Hwy to project site.
Community Considerations:	Larger lot provides buffer from anticipated noise	Located near some residences	Located near some residences	Located closer to Hana which would allow faster response to residents in East Maui.
Site Notes:	It is recommended that the proposed improvements be located the southeast corner of road frontage of the parcel to avoid wooded ravine areas and allow minimal cut and fill. This site requires direct exiting to Hana Highway which will require additional review by SDOT. There is no county waterline in the area.	Proposed improvements will fit easily at the central portion of the site which currently has existing structures that will need to be demolished. The balance of the lot may be subdivided or allocated for other municipal uses.	This lot is located furthest from Hana Highway. It is recommended that the proposed improvements be located at the southwest portion of the parcel to avoid the stream at the rear of the property and allow minimal cut and fill.	It is recommended that the existing vegetation be removed at the relatively flat northwest corner of the parcel so that proposed improvements could be located with access to South Holokai Road.

EXHIBIT 2.

Preliminary Engineering Report

Haiku Fire Station

Haiku, Maui, Hawai‘i

Alternative Site Analysis

December 2020

Prepared by:
AECOM
American Savings Bank Tower, Suite 1600
1001 Bishop Street
Honolulu, Hawai‘i 96813

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SECTION 1

INTRODUCTION

1.1 PURPOSE

The objective of this Preliminary Engineering Report (PER) is to provide a brief description and evaluation of the physical characteristics of the alternative proposed site for the Haiku Fire Station project.

1.2 GENERAL INFORMATION

Owner: County of Maui
Department of Fire & Public Safety
200 Dairy Road
Kahului, Maui, Hawai‘i 96733
Contact: Rylan Yatsushiro, Fire Services Chief
Phone: (808) 270-5542
Cell: (808)281-4861
Email: Rylan.Yatsushiro@co.maui.hi.us

The Haiku Fire Station is being developed by the County of Maui, Department of Fire & Public Safety. The proposed improvements include a main building housing sleeping quarters, crew quarters, food preparation, dining, training and exercise facilities, diesel fuel storage, a grassed helicopter landing zone, parking lot, and utilities. The location to construct the facility is not yet known. However, four sites were identified as a proposed alternative location. See figure 1 Vicinity Map for the location of each site.

SECTION 2

PHYSICAL ENVIRONMENT

2.1 SITE A

TMK: (2)2-7-007:005
District: Haiku-Pauwela
Parcel Area: 48.774 Acres
Mailing Address: County of Maui, 20 S High St, Wailuku HI 96793
Property Owner: County of Maui
(*Reference-County of Maui Parcel Information)*

This site provides several areas for siting and future expansion. The property lot sits next to the Valley Isle Memorial Park and Cemetery.

TOPOGRAPHY

The project site generally slopes from an elevation of approximately 400 feet above sea level at its highest point to approximately 300 feet at its lowest. The drainage generally flows in a north-westerly direction. See figure 2 to view the topographic map of the vicinity. (*ESRI ArcGIS, USGS)*

SOIL

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref. D) by the United States Department of Agriculture, Soil Conservation Service, the soil at the project site is Haiku clay, with slopes of 7 to 15 percent (soil classification HbC), 3 to 7 percent slopes HbB soil classification and 3 to 7 percent slopes HaB soil classification. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate. For more information see figure 3 USDA Soil Classification.

DRAINAGE/FLOODING

The site location falls under Zone X within the minimal flood hazard zone. This means that is it outside the 0.2% annual chance floodplain. See figure 4 FEMA flood zone map (*Department of Land and Natural Resources, National Flood Insurance Program*)

RAINFALL

The mean annual precipitation is 50inches to 80 inches. (*USDA Web Soil Survey).* Following the State of Hawaii design guidelines for hydrologic criteria for obtaining the flow rate for a site run off. We can make an interpolation using the map on figure 12 which is based on a 10 year-1-hour storm. The rain fall intensity on site A is approximately I=2.57. (*Title MC-15 Department of Public Works and Waste Management, Chapter 4, County of Maui) (Ref. G)*

ACCESS

The project site is bordered by Hana Highway and the cemetery. The site does not appear to have any access off any interior road makai of Hana Highway. DOT may not allow an access off Hana Highway. The TMK does show Kahu Road on the perimeter of the property however Google Earth shows that there is a ditch between Site A and Kahu Road.

2.2 SITE B

TMK: (2)2-7-007:008
District: Haiku-Pauwela
Parcel Area: 27.90 Acres
Mailing Address: 3550 Hana Hwy
Property Owner: County of Maui
(*Reference-County of Maui Parcel Information)*

This site has road access to East Kuiaha Roads and Hana Highway. The site currently has existing structures, offering redevelopment or subdivision options.

TOPOGRAPHY

The project site generally slopes from an elevation of approximately 540 feet above sea level at its highest point to approximately 400 feet at its lowest. The drainage generally flows in a north-westerly direction. See figure 5 to view the topographic map of the vicinity. (*ESRI ArcGIS, USGS)*

SOIL

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref. D) by the United States Department of Agriculture, Soil Conservation Service, the soil at the project site is Haiku clay, with slopes of 7 to 15 percent (soil classification HbC), 3 to 7 percent slopes HbB soil classification. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate. For more information see figure 6 USDA Soil Classification.

DRAINAGE/FLOODING

The site location falls under Zone X within the minimal flood hazard zone. This means that is it outside the 0.2% annual chance floodplain. (*Department of Land and Natural Resources, National Flood Insurance Program*)

RAINFALL

The mean annual precipitation is 50inches to 80 inches. (*USDA Web Soil Survey).* Following the State of Hawaii design guidelines for hydrologic criteria for obtaining the flow rate for a site run off. We can make an interpolation using the map on figure 12 which is based on a 10 year-1-hour storm. The rain fall intensity on site B is approximately I=2.60. (*Title MC-15 Department of Public Works and Waste Management, Chapter 4, County of Maui) (Ref. G)*

ACCESS

Site B has a driveway entrance off East Kuiaha Street and a driveway off of Hana Highway for Emergency Use. DOT approved the access with a flashing light for Fire Trucks to access the roadway when emergencies arise.

2.3 SITE C

TMK: (2)2-7-013:013
District: Haiku-Pauwela
Parcel Area: 10.134 Acres
Address: East Kuiaha Rd, Haiku HI 96708
Property Owner: Private
(*Reference-County of Maui Parcel Information)*

This site provides several areas for sitting and future expansion. This site located within the neighborhood of East Kuiaha Rd and it is about 0.4miles south of Hana Hwy.

TOPOGRAPHY

The project site generally slopes from an elevation of approximately 620 feet above sea level at its highest point to approximately 560 feet at its lowest. The drainage generally flows from the south to the north direction. See figure 7 to view the topographic map of the vicinity. (*ESRI ArcGIS, USGS)*

SOIL

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref. D) by the United States Department of Agriculture, Soil Conservation Service, the soil at the project site is Haiku clay, with slopes of 7 to 15 percent (soil classification HbC), and 3 to 7 percent slopes HbB soil classification. Permeability is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate. For more information see figure 8 USDA Soil Classification.

DRAINAGE/FLOODING

The site location falls under Zone X within the minimal flood hazard zone. This means that is it outside the 0.2% annual chance floodplain. (*Department of Land and Natural Resources, National Flood Insurance Program*)

RAINFALL

According to the map on figure 12 the rainfall intensity for site C is approximately I=2.72. (*Title MC-15 Department of Public Works and Waste Management, Chapter 4, County of Maui) (Ref. G)* The map is based on a 10 year-1-hour storm which follows the State of Hawaii design criteria needed for hydrologic calculation.

ACCESS

Site C is located off of East Kuiaha Road and the road is available for access.

2.4 SITE D

TMK: (2)2-8-006:037
District: Haiku-Pauwela
Parcel Area: 6.28 Acres
Address: 5040 Hana Hwy
Property Owner: State of Hawaii
(*Reference-County of Maui Parcel Information)*

This site has access to both Hana Highway and North/ South Holokai Roads. The easternmost site has limited areas for siting and expansion and is outside of the Maui Island plan growth boundaries.

TOPOGRAPHY

The project site generally slopes from an elevation of approximately 620 feet above sea level at its highest point to approximately 590 feet at its lowest. The drainage generally flows from the south to the north direction. See figure 9 to view the topographic map of the vicinity. (*ESRI ArcGIS, USGS)*

SOIL

According to the August 1972 publication *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Ref. D) by the United States Department of Agriculture, Soil Conservation Service, the soil at the project site is Pauwela clay, with slopes of 7 to 15 percent (soil classification PfC), and 3 to 7 percent slopes PfB soil classification. Permeability is well drained. Runoff is slow to medium, and the erosion hazard is slight to moderate. For more information see figure 10 USDA Soil Classification.

DRAINAGE/FLOODING

The site location falls under Zone X within the minimal flood hazard zone. This means that is it outside the 0.2% annual chance floodplain. See figure 11 FEMA flood zone map (*Department of Land and Natural Resources, National Flood Insurance Program*)

RAINFALL

According to the map on figure 12 the rainfall intensity for site C is approximately I=2.93. (*Title MC-15 Department of Public Works and Waste Management, Chapter 4, County of Maui) (Ref. G)* The map is based on a 10 year-1-hour storm which follows the State of Hawaii design criteria needed for hydrologic calculation.

ACCESS

Site D is located on the corner of Hana Highway and South Holokai Road. The project site will be able to have access off South Holokai Road. DOT may not allow access off of Hana Highway.

SECTION 3

UTILITIES

3.1 WATER SYSTEM

SITE A

Site A does not have any waterlines within the area.

SITE B

Site B was the original Haiku Fire Station Site and required Offsite Waterline Improvements to provide adequate flow and pressure to the proposed fire station. The existing waterline in that area was a 2.5" waterline.

SITE C

Site C has a 2.5" waterline on East Kuiaha Road. The flow and pressure are not known at this time and the Department of Water Supply may require offsite waterline improvements to this area for the proposed fire station

SITE D

Site D has a 6" waterline within South Hookai Road. The flow and pressure are not known at this time and the Department of Water Supply may require offsite waterline improvements to this area for the proposed fire station

3.2 SEWER SYSTEM

According to the County of Maui Wastewater GIS website, the Haiku area does not have any County sewer system.

For areas without a sewer system, the U. S. Environmental Protection Agency (EPA) has relinquished authority to the State Department of Health (DOH) for the regulation, overseeing, and enforcement of Individual Wastewater Systems (IWS), planning, design, construction, inspection, and maintenance in Hawaii. The State of Hawaii, Department of Health (DOH) regulates IWS in Hawaii.

The proposed IWS for the project will require permitting and approval by DOH.

According to the Onsite Wastewater Treatment Survey and Assessment (Ref. J), when choosing a wastewater system, the following site conditions should be investigated:

- Depth to water table (both potable and non-potable – e.g., high water table);

- Impermeable soil or rock formation;
- Steep terrain;
- Flood zones;
- Proximity to inland surface waters (both streams and other bodies of water);
- Protection of coastal waters from excessive nutrient inputs;
- Areas with high density of cesspools and/or areas with high rates of cesspool failures; • Protection of groundwater resources; and
- Hydrogeology.

Refer to the Appendix for the Requirements for Review Process of Individual Wastewater Systems (IWS).

The Underground Injection Control (UIC) Line is shown for each island on the maps provided by the DOH. This UIC line is part of the State of Hawaii, Hawaii Administrative Rules, Title 11, Chapter 23, "Underground Injection Control" (HAR 11-23) regulations, which protect drinking water aquifers from potential contamination by discharges of wastewater and other fluids. This aquifer designation line is subject to review and revision every 3 years. Discharge of treated or untreated wastewater mauka (inland) side of this line is prohibited. Any injection well, including all subsurface disposal options listed in Chapter 4 of this report, unless otherwise noted, shall be sited makai (toward the ocean) of the UIC line and 50 feet above the contact between the artesian volcanic aquifer and the overlying confining material where there is an artesian aquifer. Additionally, any new injection well shall be at least ¼ mile from any part of a drinking water source. Additional construction and operational requirements are outlined in HAR 11-23, including UIC permit application requirements. These permits are good for up to 5 years and require wastewater monitoring and reporting. I.

3.3 DRAINAGE CONDITIONS

The project site will be graded to promote positive drainage of storm water runoff away from the proposed buildings. Storm water runoff quantities for the project site should be determined using the proposed site layout and the County of Maui Storm Drainage Standards (Ref G). The stormwater from the site should be collected and flow to a permanent BMP before being discharged into a natural drainage course.

The method utilized in this drainage report is the Rational Method. The County of Maui *Rules for the Design of Storm Water Treatment Best Management Practices* (November 2012, Chapter

15-111) (Ref. G). states that for drainage areas of 100 acres or less, the Rational Method shall be used.

The following hydrologic criteria used to obtain peak discharges are summarized as follows:

Criteria

Recurrence Interval:	Tm = 10 years (based on 1 hour storm for drainage areas of 100 acres or less) (Ref. G)
Intensity and Rainfall Duration	Intensity of 1-hr Rainfall
Peak Discharges	Rational Method
Runoff Coefficient C	Weighted average for each drainage area using the following C values: • Streets (asphalt, concrete), C=0.95 (Table 2, Ref 4) • Lawns (sandy, soil, steep, 7%), C=0.20

Upon development of the project, it is anticipated that there will be an increase in storm water runoff peak discharge rate when compared to the existing condition as the bare land will be improved with impervious material. The proposed onsite storm drainage system will be comprised of a system of drainage inlet structures, manholes, and underground piping. Line sizes and drainage inlet structure locations should be finalized during the design phase of the project.

Due to the proposed development being greater than one acre in size, the site will comply with applicable storm water quality standards. Management practices in compliance with storm water quality criteria includes the incorporation of appropriate Low Impact Development (LID) site design standards to the maximum extent technically feasible (METF) to minimize runoff of pollutants from the project site. Pollutants include hydrocarbons (oil from vehicles) and soil sediment runoff from rainfall events.

Compliance would include incorporating appropriate source control best management practices to the project site, and unless determined to be infeasible during design, onsite infiltration and/or retention systems to capture site-generated pollutants and overall runoff increase. Site landscaping features would assist with providing some onsite runoff infiltration.

The proposed development will be required to apply for a general National Pollutant Discharge Elimination System (NPDES) permit regulating storm water discharges during construction

activities per HAR 11-55, Appendix C. This is a federal permit administered by the State Department of Health, Clean Water Branch. The purpose of this permit is to regulate and monitor discharge of pollutants from the project site to State waters.

REFERENCES

A. State of Hawaii, Department of Land and Natural Resources, *National Flood Insurance Program-Hawaii State, http://gis.hawaiinfip.org/fhat/,* December 08, 2011.

B. *Rainfall-Frequency Atlas of the Hawaiian Islands for Areas to 200 Square Miles, Durations to 24 Hours, and Return Periods from 1 to 100 Years*, Technical Paper No. 43, US Department of Commerce, Weather Bureau, 1962.

C. *Real Estate Handbook, Zones 1 Thru 6, State of Hawaii, Second Tax Division, Counties of Maui & Kalawao*, First American Real Estate Solutions, Realty Directory, Property Data, 33rd Edition, 1999.

D. *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*, United States Department of Agriculture (USDA), Soil Conservation Service, August 1972.

E. *Uniform Plumbing Code*, International Association of Plumbing and Mechanical Officials, 1997.

F. *Water System Standards*, Department of Water Supply, County of Hawai'i, Board of Water Supply, City and County of Honolulu, Department of Water, County of Kaua'i, and Department of Water Supply, County of Maui, State of Hawai'i, 2002.

G. *Title MC-15 Department of Public Works and Water Management,* Subtitle 01 Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui effective November 12, 1995.

H. USDA. *USDA Web Soil Survey*. July 31, 2019. <https://websoilsurvey.sc.egov.usda.gov/>.

I. FEMA. *FEMA Flood Map Service Center*. n.d. <https://msc.fema.gov/portal/search?AddressQuery=maui#searchresultsanchor>.

K. “ONSITE WASTEWATER TREATMENT SURVEY AND ASSESSMENT”, March 2008 Prepared For: State of Hawaii Department of Business, Economic Development and Tourism Office of Planning, Hawaii Coastal Zone Management Program Department of Health, Prepared By: Water Resources Research Center Engineering Solutions, Inc. University of Hawaii-Manoa 98-1268 Kaahumanu Street, Suite C-7 2540 Dole Street, Holmes Hall 283 Pearl City, Hawaii 96782 Honolulu, Hawaii 96822

FIGURES

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:
EMD / WB

DEPARTMENT OF HEALTH - WASTEWATER BRANCH REQUIREMENTS FOR REVIEW PROCESS OF INDIVIDUAL WASTEWATER SYSTEMS (IWS)

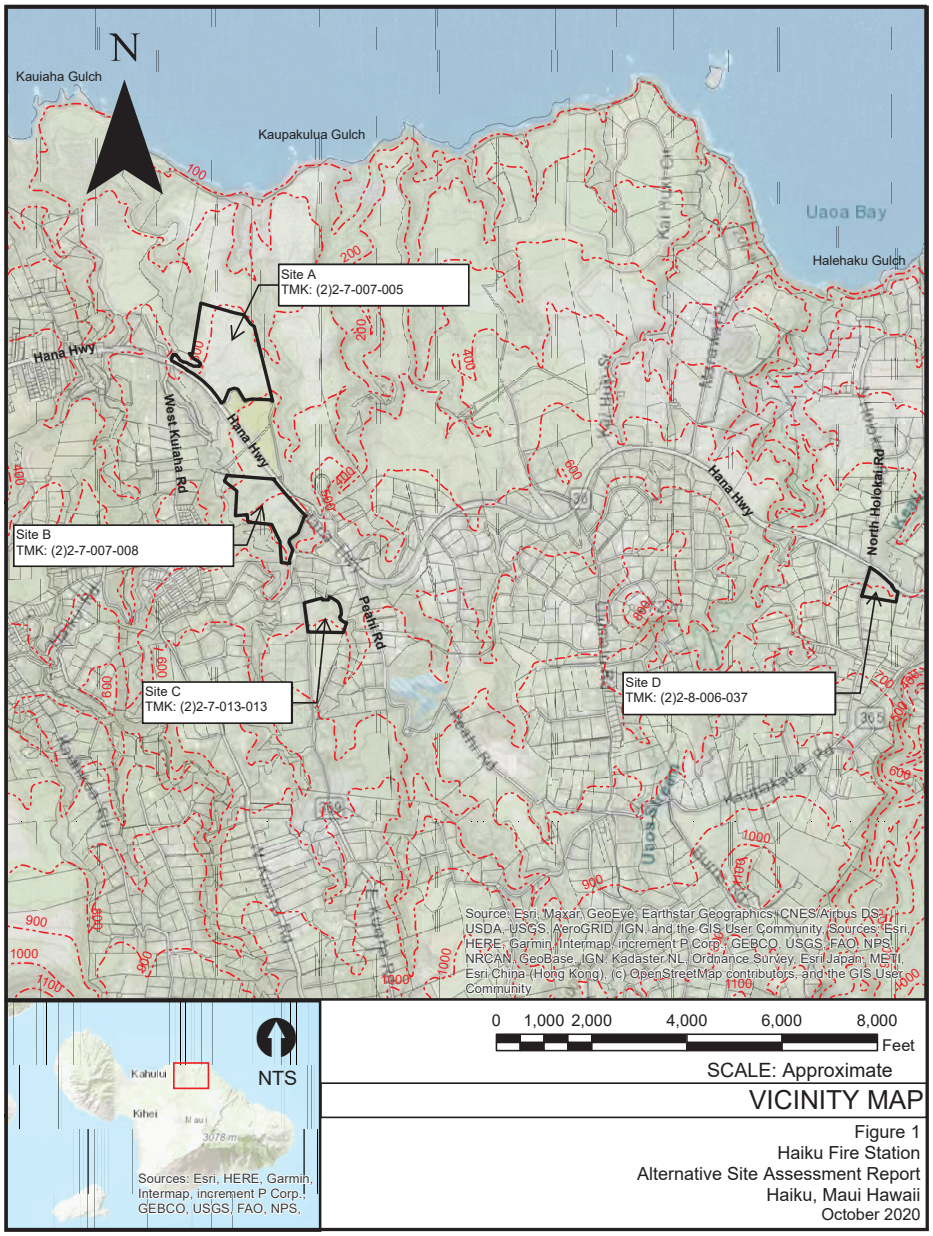
The following items must be submitted to the Department of Health, Wastewater Branch for the review of building permit applications (BPAs):

1. Completed Application Form;
2. Construction plans of the IWS prepared by a licensed engineer;
3. Site plan;
4. Floor plans for the dwelling unit(s);
5. Owner's Certification Form;
6. Site Evaluation Form;
7. Operation and Maintenance manual;
8. Sludge Disposal Plan; and
9. Maintenance contracts for aerobic units.
10. Application Fee of $100 - check payable to **STATE OF HAWAII**.

The review process could take approximately two days to two weeks, depending on the completeness of the submitted paperwork. You will be informed in writing of the approval of your system.

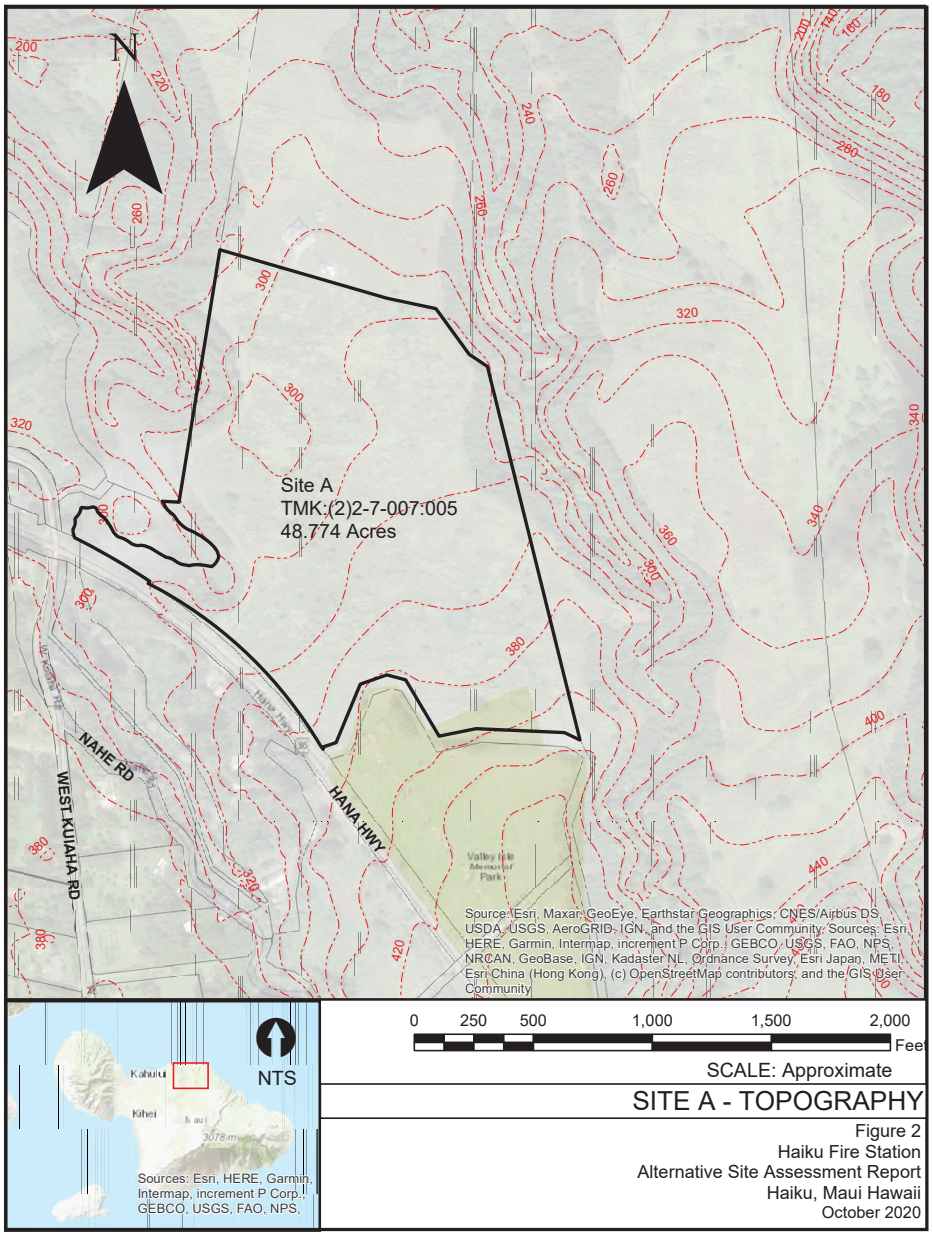
Should you have any questions, please call the Wastewater Branch's Planning & Design Section Engineer at telephone (808) 586-4294. We are located at:

919 Ala Moana Blvd. Room 309
Honolulu, Hawaii 96814-4920
Phone (808) 586-4294 Fax (808) 586-4300



VICINITY MAP

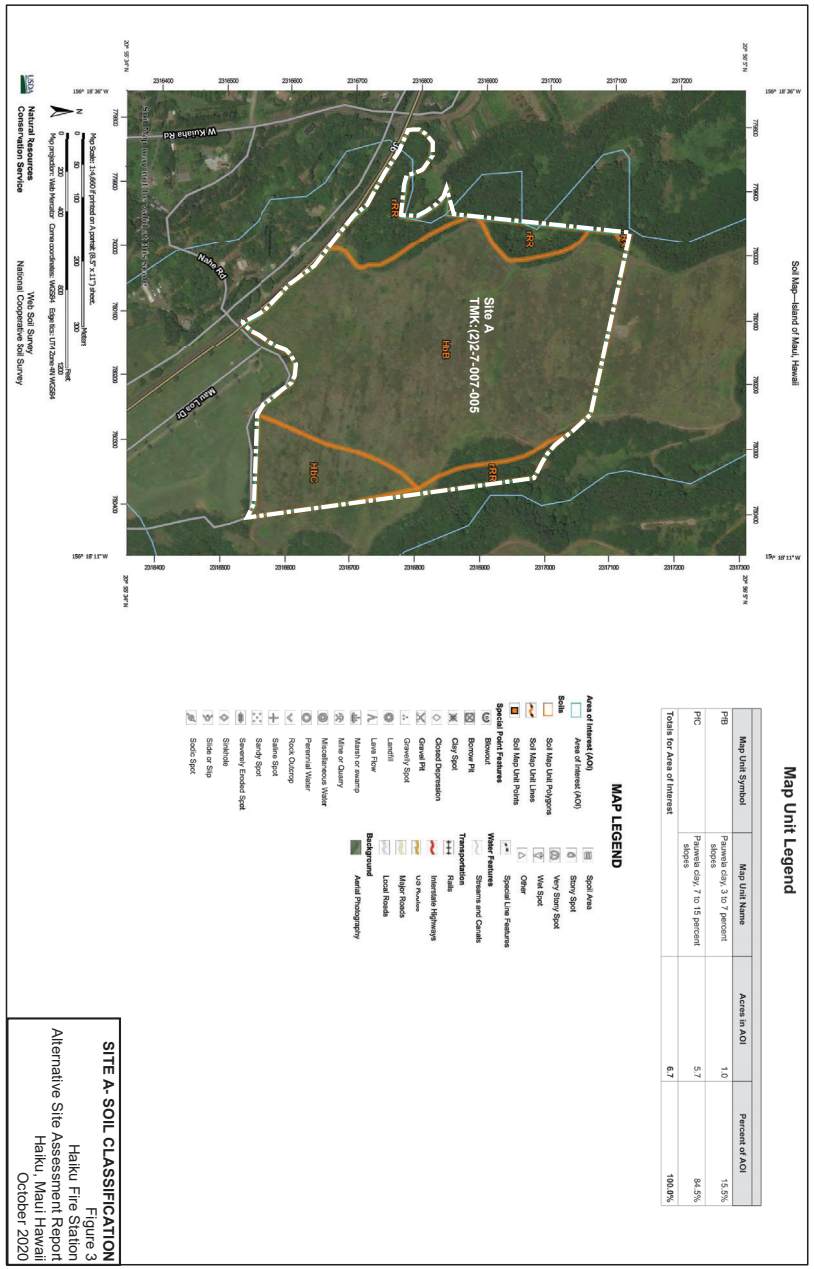
Figure 1
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020



SCALE: Approximate

SITE A - TOPOGRAPHY

Figure 2
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020

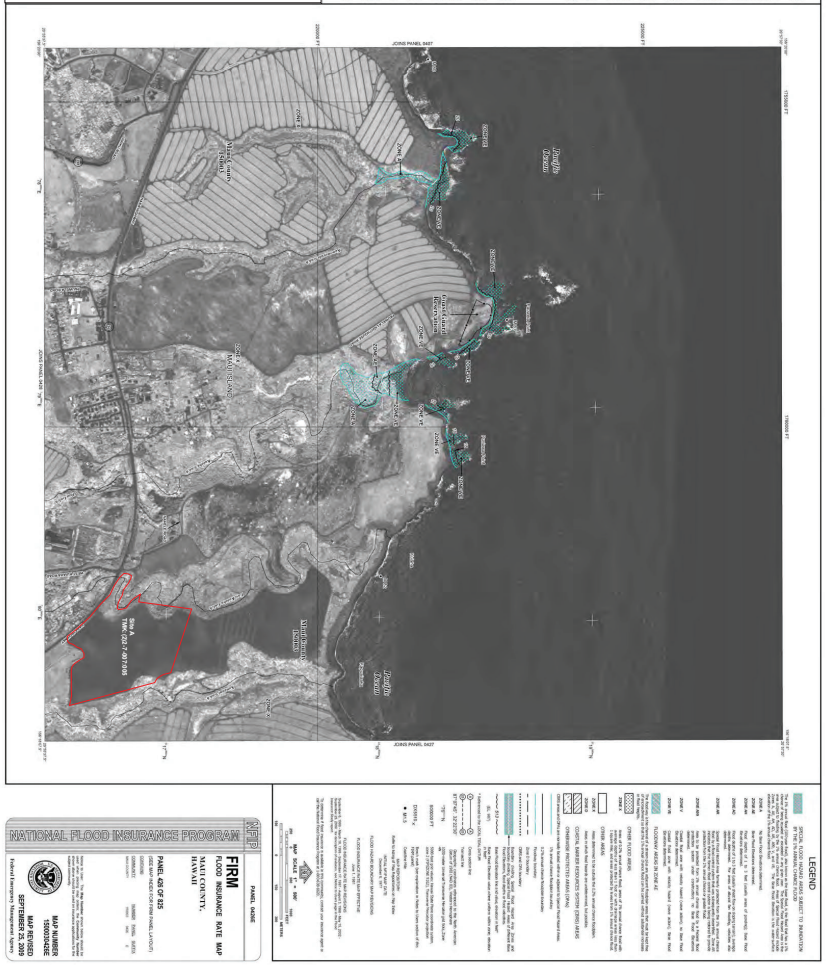


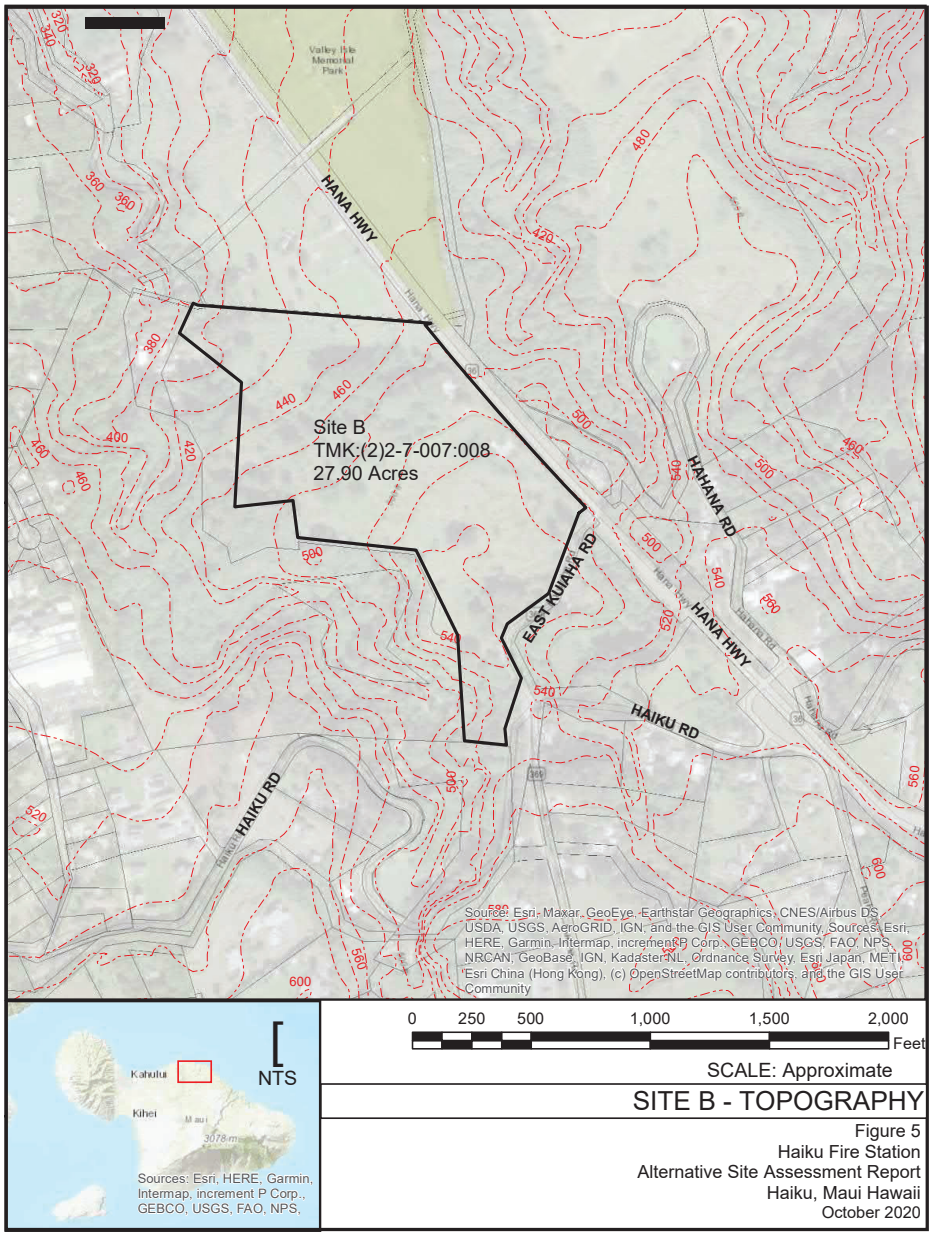
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PtB	Pauwela clay, 3 to 7 percent slopes	1.0	15.5%
PtC	Pauwela clay, 7 to 15 percent slopes	5.7	84.5%
Totals for Area of Interest		6.7	100.0%

SITE A- SOIL CLASSIFICATION

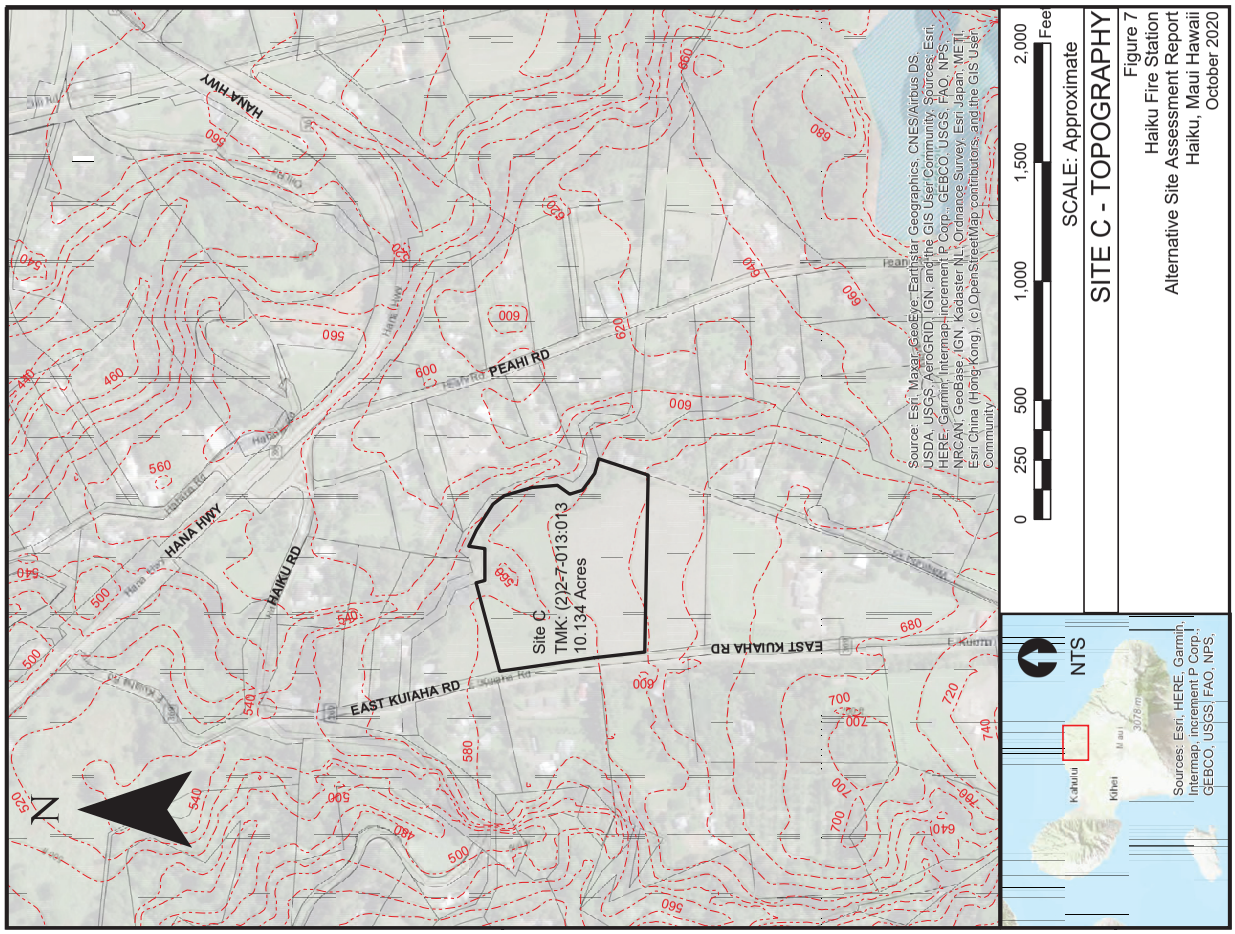
Figure 3
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020

SITE A - FLOOD MAP
Figure 4
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020

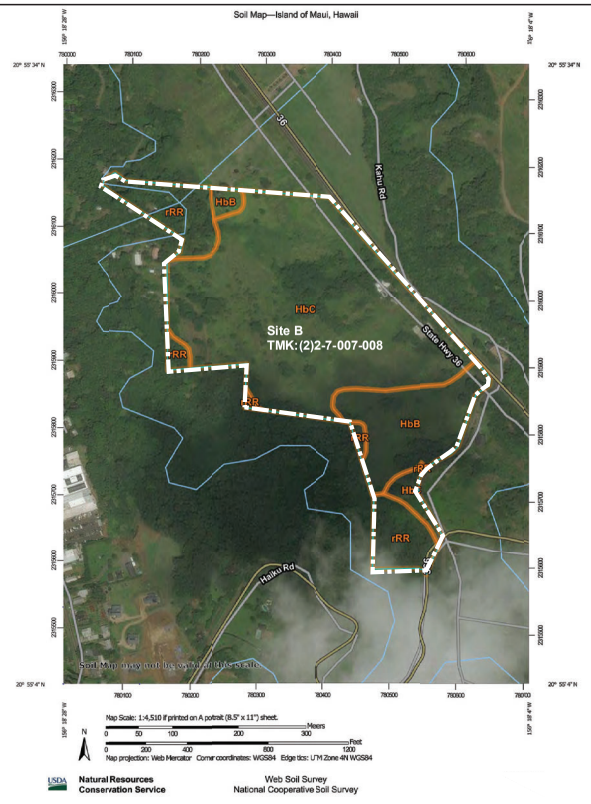




SITE B - TOPOGRAPHY
Figure 5
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020



SITE C - TOPOGRAPHY
Figure 7
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HbC	Haiku clay, 7 to 15 percent slopes	11.1	96.5%
rRR	Rough broken land	0.4	3.5%
Totals for Area of Interest		11.5	100.0%

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

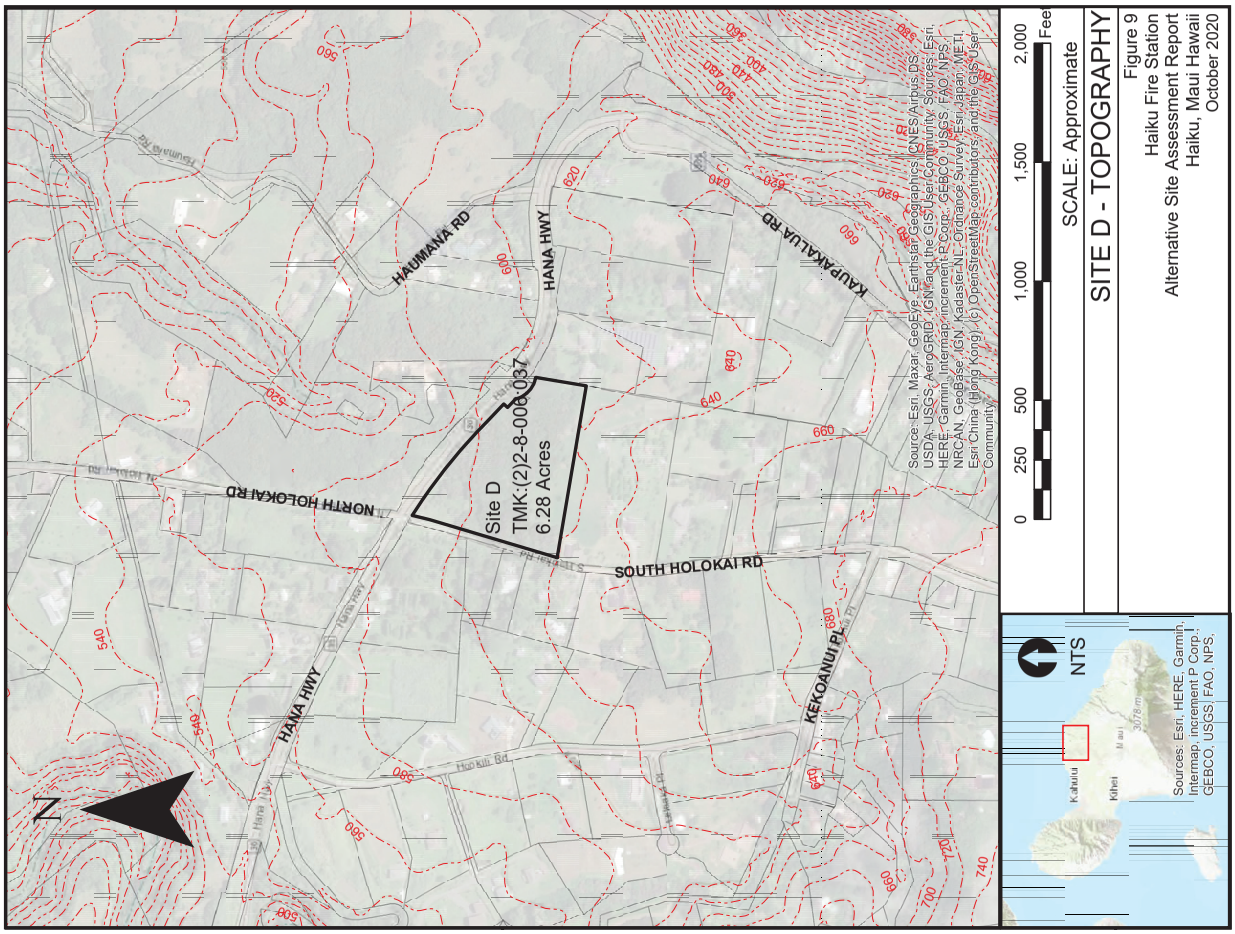
Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

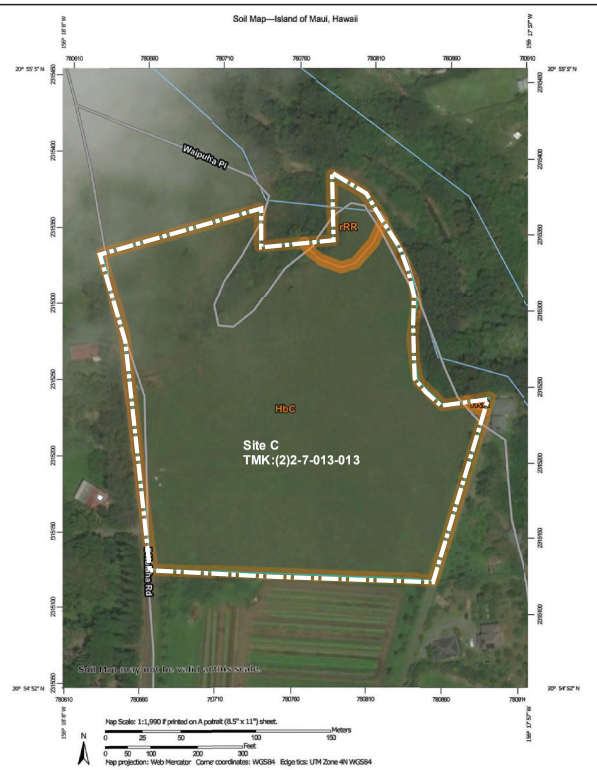
Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

SITE B - SOIL CLASSIFICATION
Figure 6
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020





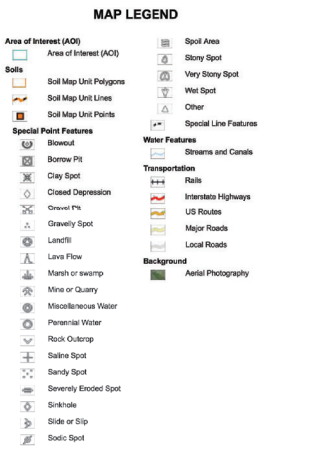
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HbB	Haiku clay, 3 to 7 percent slopes	40.0	75.8%
HbC	Haiku clay, 7 to 15 percent slopes	5.5	10.3%
rRR	Rough broken land	7.3	13.9%
Totals for Area of Interest		52.8	100.0%

MAP LEGEND

- **Area of Interest (AOI)**
  - Area of Interest (AOI)
- **Soils**
  - Soil Map Unit Polygons
  - Soil Map Unit Lines
  - Soil Map Unit Points
- **Special Point Features**
  - Blowout
  - Borrow Pit
  - Clay Spot
  - Closed Depression
  - Gravel Pit
  - Gravelly Spot
  - Landfill
  - Lava Flow
  - Marsh or swamp
  - Mine or Quarry
  - Miscellaneous Water
  - Perennial Water
  - Rock Outcrop
  - Saline Spot
  - Sandy Spot
  - Severely Eroded Spot
  - Sinkhole
  - Slide or Slip
  - Sodic Spot
  - Spoil Area
  - Stony Spot
  - Very Stony Spot
  - Wet Spot
  - Other
  - Special Line Features
- **Water Features**
  - Streams and Canals
- **Transportation**
  - Rails
  - Interstate Highways
  - US Routes
  - Major Roads
  - Local Roads
- **Background**
  - Aerial Photography

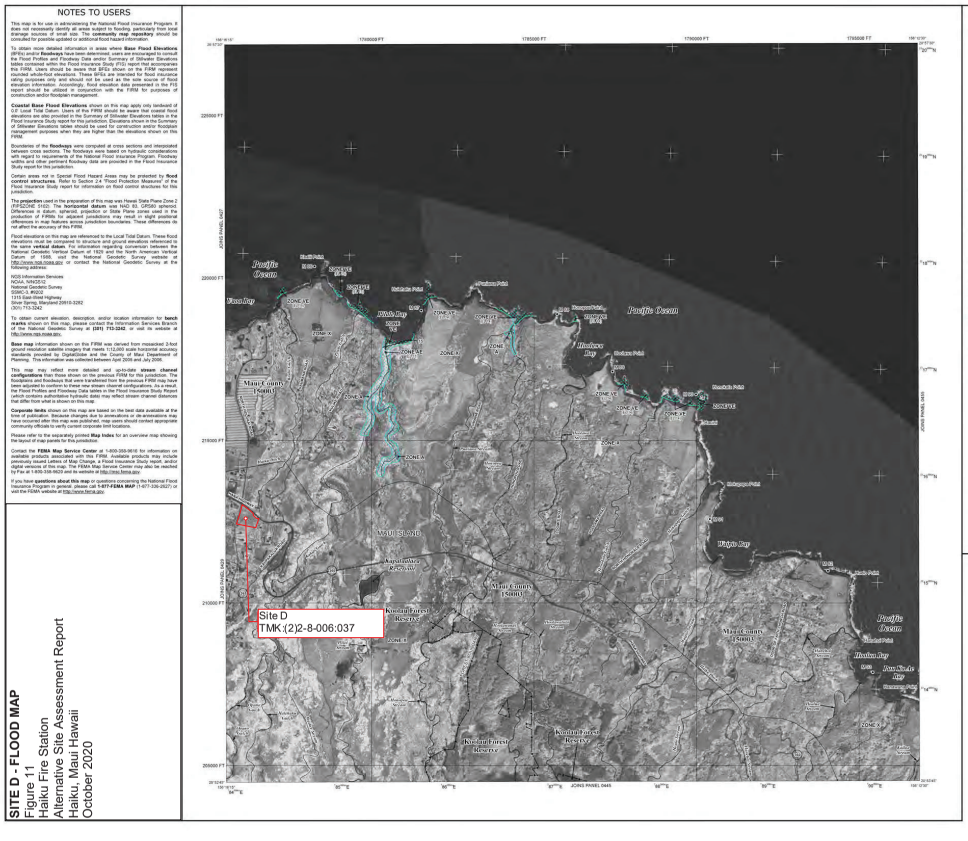
SITE C - SOIL CLASSIFICATION
Figure 8
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PfB	Pauwela clay, 3 to 7 percent slopes	1.0	15.5%
PfC	Pauwela clay, 7 to 15 percent slopes	5.7	84.5%
Totals for Area of Interest		**6.7**	**100.0%**

SITE D - SOIL CLASSIFICATION
Figure 10
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020



SITE D - FLOOD MAP
Figure 11
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020

10 YEAR-1 HOUR-RAINFALL ISLAND MAP
Figure 12
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui Hawaii
October 2020

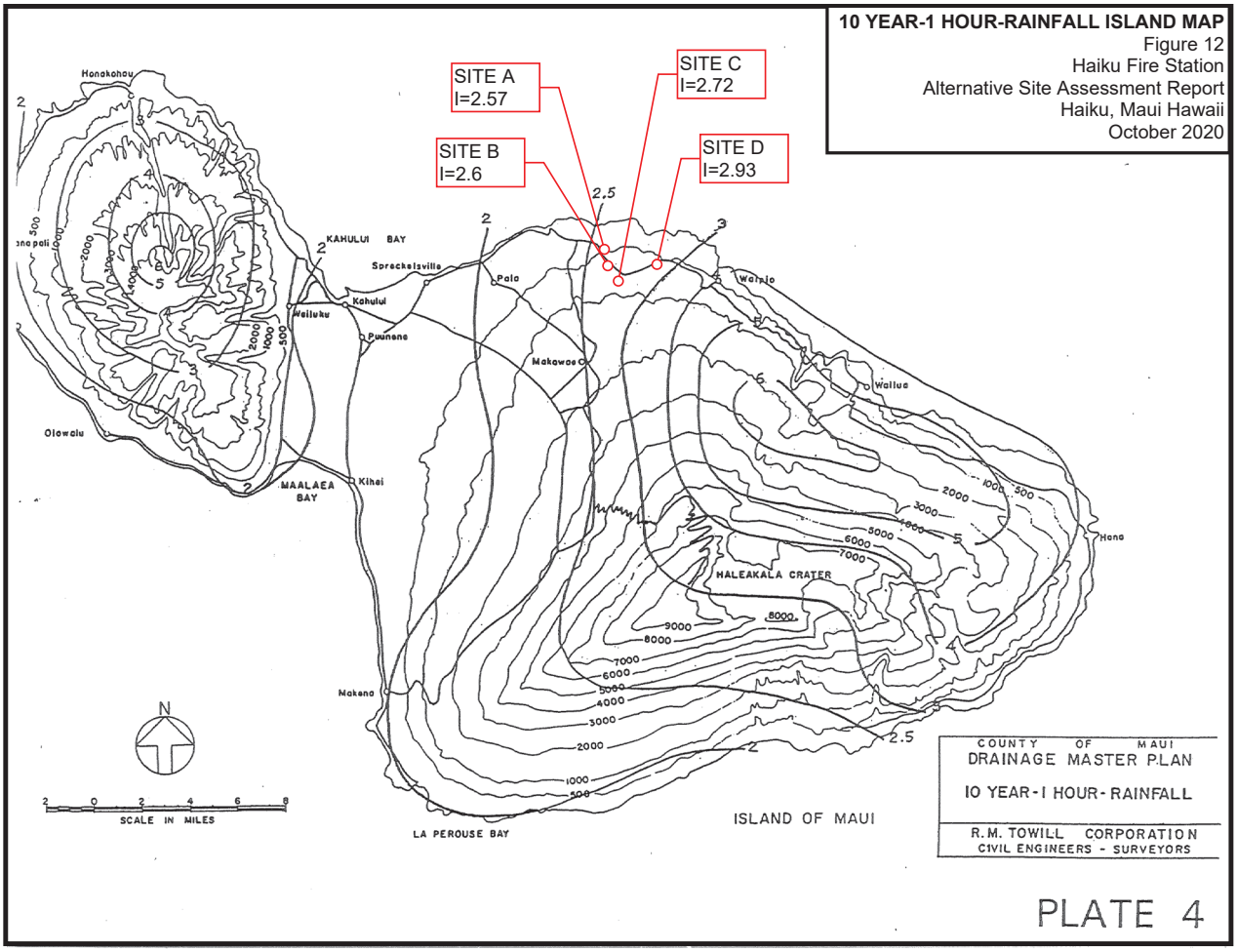
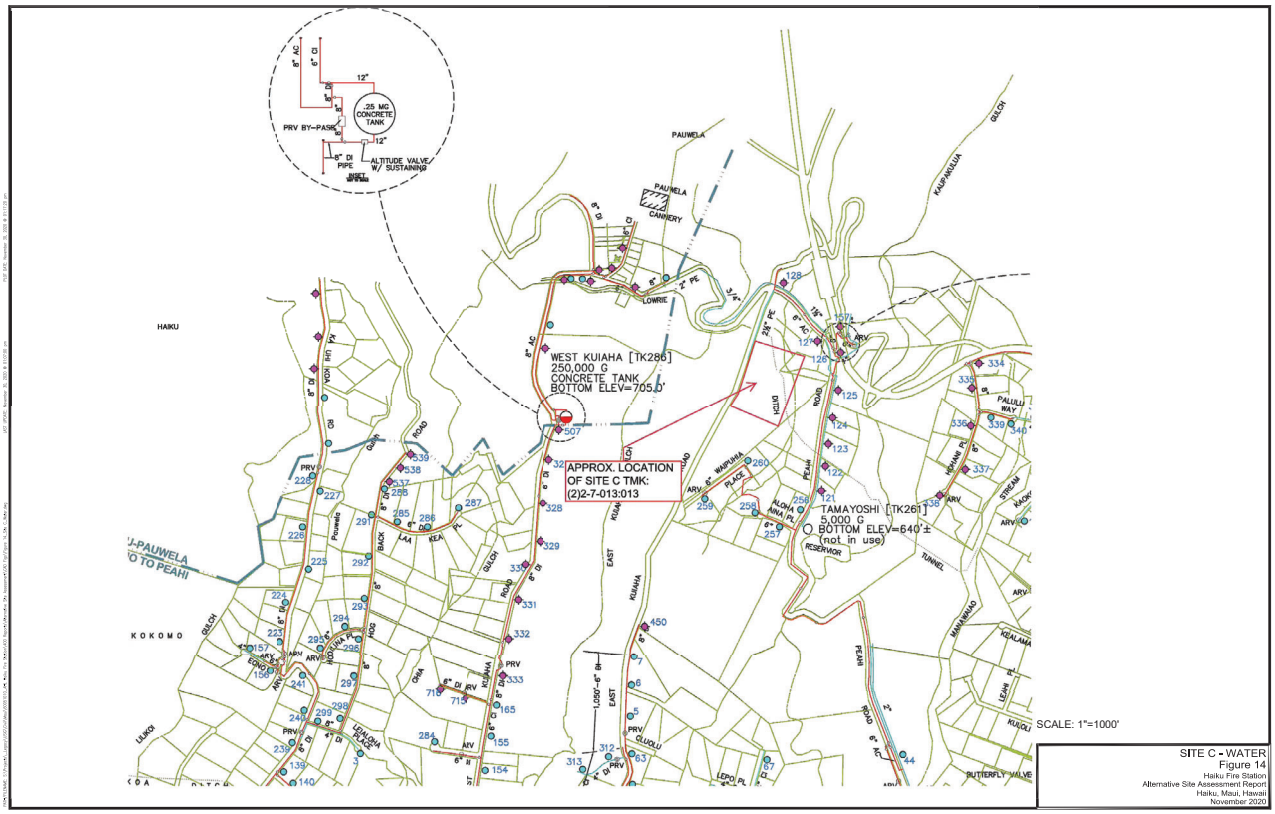


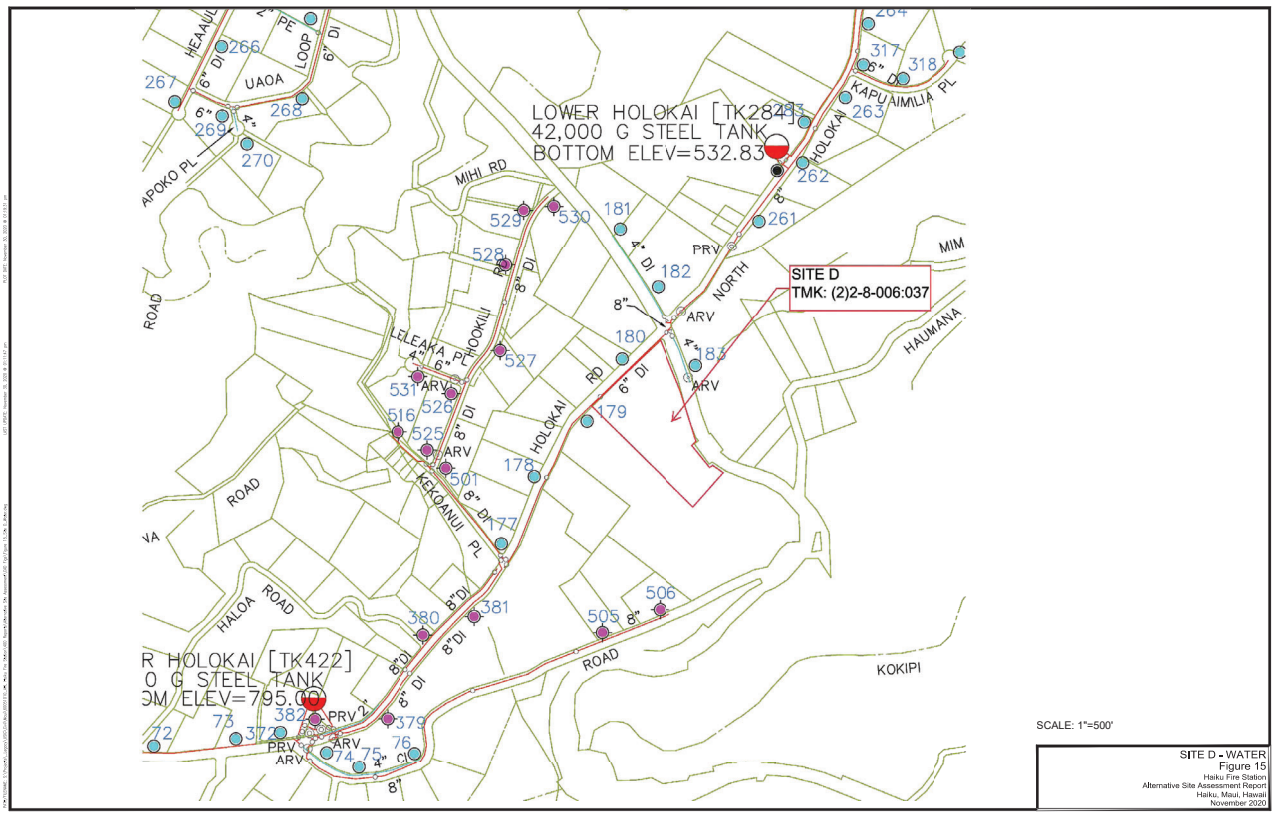
PLATE 4

SCALE: 1"=500'

SITE A - WATER
Figure 13
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui, Hawaii
November 2020



SITE C - WATER
Figure 14
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui, Hawaii
November 2020



SITE D - WATER
Figure 15
Haiku Fire Station
Alternative Site Assessment Report
Haiku, Maui, Hawaii
November 2020

MUNEKIYO HIRAGA

Planning. Project Management. Sustainable Solutions.

Zone-specific Native and Polynesian plants for Maui County

Zone 2

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Santalum ellipticum	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Sophora chrysophylla	mamane	15'	15'	1,000' to 3,000'	Medium
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 3

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	Eragrostis variabilis	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u'aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Boerhavia repens	alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	Chamaesyce celastroides var. laehiensis	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Cressa truxillensis	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Heliotropium anomalum var. argenteum	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicensis	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr	Sesuvium portulacastrum	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta succulenta	nehe	2'	5'	sea to 1,000'	Dry to Wet
Gr - Sh	Lycium sandwicense	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Bidens mauiensis	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	Bidens menziesii ssp. menziesii	ko'oko'olau	1'	3'		
Sh	Bidens micrantha ssp. micrantha	ko'oko'olau	1'	3'		
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Gossypium tomentosum	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium
Sh	Hedyotis spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Solanum nelsonii	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Styphelia tameiameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Molokai osmanthus				
Sh - Tr	Broussonetia papyrifera	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Canthium odoratum	Alahe'e, 'ohe'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Diospyros sandwicensis	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	Erythrina sandwicensis	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Nesoluma polynesicum	keahi	15'	15'	sea to 3,00'	Dry
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Reynoldsia sandwicensis	'ohe makai	20'	20'	1,000' to 3,000'	Dry
Tr	Santalum ellipticum	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 4

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	Eragrostis variabilis	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u'aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Chamaesyce celastroides var. laehiensis	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicensis	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta succulenta	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia arecina	lo'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	Pritchardia forbesiana	lo'ulu	15'			
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia australis	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	Artemisia mauiensis var. diffusa	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Bidens menziesii ssp. menziesii	ko'oko'olau	1'	3'		
Sh	Bidens micrantha ssp. micrantha	ko'oko'olau	1'	3'		
Sh	Cordyline fruticosa	ti, ki	6			
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Solanum nelsonii	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Styphelia tameiameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Molokai osmanthus				
Sh - Tr	Broussonetia papyrifera	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Canthium odoratum	Alahe'e, 'ohe'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	Charpentiera obovata		15'			
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Diospyros sandwicensis	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	Hibiscus furcellatus	'akiohala, hau-hele	8'			
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	Morinda citrifolia	Indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Santalum ellipticum	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Sophora chrysophylla	mamane	15'	15'	1,000' to 3,000'	Medium
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 5

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
G	Colubrina asiatica	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	Eragrostis variabilis	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	Fimbristylis cymosa ssp. spathacea	mau'u aki'aki fimbristylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Boerhavia repens	'alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	Chamaesyce celastroides var. laehiensis	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	Cressa truxillensis	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	Heliotropium anomalum var. argenteum	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	Jacquemontia ovalifolia ssp. sandwicensis	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	Lipochaeta integrifolia	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	Sesuvium portulacastrum	'akulikuli sea purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	Sida fallax	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	Tephrosia purpurea var. purpurea	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lycium sandwicense	ohelo kai, ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	Cocos nucifera	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	Pritchardia hillebrandii	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	Mariscus javanicus	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia australis	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium
Sh	Bidens hillebrandiana ssp. hillebrandiana	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	Bidens mauiensis	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Gossypium tomentosum	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium

Zone-specific Native and Polynesian plants for Maui County

Zone 5

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	Hedyotis spp.	ae, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Scaevola sericea	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Solanum nelsonii	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	Wikstroemia uva-ursi kauaiensis kauaiensis	'akia, Molokai osmanthus				
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Aleurites moluccana	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	Calophyllum inophyllum	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	Cordia subcordata	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	Hibiscus furcellatus	'akiohala, hau-hele	8'			
Tr	Morinda citrifolia	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	Pandanus tectorius	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	Thespesia populnea	milo	30'	30'	sea to 3,000'	Dry to Wet
V	Ipomoea pes-caprae	beach morning glory, pohuehue	1'			

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
black wattle	Acacia mearnsii	Mimosaceae
blackberry	Rubus argutus	Rosaceae
blue gum	Eucalyptus globulus	Myrtaceae
bocconia	Bocconia frutescens	Papaveraceae
broad-leaved cordia	Cordia glabra	Boraginaceae
broomsedge, yellow bluestem	Andropogon virginicus	Poaceae
buffelgrass	Cenchrus ciliaris	Poaceae
butterfly bush, smoke bush	Buddleja madagascariensis	Buddlejaceae
cats claw, Mysore thorn, wait-a-bit	Caesalpinia decapetala	Caesalpiniaceae
common ironwood	Casuarina equisetifolia	Casuarinaceae
common velvet grass, Yorkshire fog	Holcus lanatus	Poaceae
fiddlewood	Citharexylum spinosum	Verbenaceae
fire tree, faya tree	Myrica faya	Myricaceae
glorybower	Clerodendrum laponicum	Verbenaceae
hairy cat's ear, gosmore	Hypochoeris radicata	Asteraceae
haole koa	Leucaena leucocephala	Fabaceae
ivy gourd, scarlet-fruited gourd	Coccinia grandis	Cucurbitaceae
juniper berry	Citharexylum caudatum	Verbenaceae
kahili flower	Grevillea banksii	Proteaceae
klu, popinac	Acacia farnesiana	Mimosaceae
logwood, bloodwood tree	Haematoxylon campechianum	Caesalpiniaceae
loquat	Eriobotrya japonica	Rosaceae
meadow ricegrass	Ehrharta stipoides	Poaceae
melaleuca	Melaleuca quinquenervia	Myrtaceae
miconia, velvet leaf	Miconia calvescens	Melastomataceae
narrow-leaved carpetgrass	Axonopus fissifolius	Poaceae
oleaster	Elaeagnus umbellata	Elaeagnaceae
oriental mangrove	Bruguiera gymnorrhiza	Rhizophoraceae
padang cassia	Cinnamomum burmanii	Lauraceae
palmgrass	Setaria palmifolia	Poaceae
pearl flower	Heterocentron subtriplinervium	Melastomataceae
quinine tree	Cinchona pubesens	Rubiaceae
satin leaf, caimitillo	Chrysophyllum oliviforme	Sapotaceae
silkwood, Queensland maple	Flindersia brayleyana	Rutaceae
silky oak, silver oak	Grevillea robusta	Proteaceae
strawberry guava	Psidium cattleianum	Myrtaceae
swamp oak, saltmarsh, longleaf ironwood	Casuarina glauca	Casuarinaceae
sweet vernalgrass	Anthoxanthum odoratum	Poaceae
tree of heaven	Ailanthus altissima	Simaroubaceae
trumpet tree, guarumo	Cecropia obtusifolia	Cecropiaceae
white ginger	Hedychium coronarium	Zingiberaceae
white moho	Heliocarpus popayanensis	Tiliaceae
yellow ginger	Hedychium flavescens	Zingiberaceae

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
	Jasminum fluminense	Oleaceae
	Arthrostema ciliatum	Melastomataceae
	Dissotis rotundifolia	Melastomataceae
	Erigeron karvinskianus	Asteraceae
	Eucalyptus robusta	Myrtaceae
	Hedychium gardnerianum	Zingiberaceae
	Juncus planifolius	Juncaceae
	Lophostemon confertus	Myrtaceae
	Medinilla cumingii	Melastomataceae
	Medinilla magnifica	Melastomataceae
	Medinilla venosa	Melastomataceae
	Melastoma candidum	Melastomataceae
	Melinis minutiflora	Poaceae
	Olea europaea	
	Oxyspora paniculata	Melastomataceae
	Panicum maximum	Poaceae
	Paspalum urvillei	Poaceae
	Passiflora edulis	Passifloraceae
	Phormium tenax	Agavaceae
	Pinus taeda	Pinaceae
	Prosopis pallida	Fabaceae
	Pterolepis glomerata	Melastomataceae
	Rhodomyrtus tomentosa	Myrtaceae
	Schefflera actinophylla	Araliaceae
	Syzygium jambos	Myrtaceae
Australian blackwood	Acacia melanoxylon	Mimosaceae
Australian tree fern	Cyathea cooperi	Cyatheaceae
Australian tree fern	Sphaeropteris cooperi	Cyatheaceae
Beggar's tick, Spanish needle	Bidens pilosa	Asteraceae
California grass	Brachiaria mutica	Poaceae
Chinese banyon, Maylayan banyon	Ficus mirocarpa	Moraceae
Chinese violet	Asystasia gangetica	Acanthaceae
Christmasberry, Brazilian pepper	Schinus terebinthifolius	Anacardiaceae
Formosan koa	Acacia confusa	Mimosaceae
German ivy	Senecio mikanioides	Asteraceae
Japanese honeysuckle	Lonicera japonica	Caprifoliaceae
Koster's curse	Clidemia hirta	Melastomataceae
Lantana	Lantana camara	Verbenaceae
Mauritius hemp	Furcraea foetida	Agavaceae
Mexican ash, tropical ash	Fraxinus uhdei	Oleaceae
Mexican tulip poppy	Hunnemannia fumariifolia	Papaveraceae
Mules foot, Madagascar tree fern	Angiopteris evecta	Marattiaceae
New Zealand laurel, karakaranut	Corynocarpus laevigatus	Corynocarpaceae
New Zealand tea	Leptospermum scoparium	Myrtaceae
Pampas grass	Cortaderia jubata	Poaceae
Panama rubber tree, Mexican rubber tree	Castilloa elastica	Moraceae
Shoebutton ardisia	Ardisia elliptica	Myrsinaceae
banana poka	Passiflora mollissima	Passifloraceae

Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.[1] When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porus soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.[2] Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, it's canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.[3] Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- collect sparingly from each plant or area.
- some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

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[1] K. Nagata, P.6

[2] K. Nagata, P.9

[3] Nagata, P.9

Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which preform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.[4] A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.[5]

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.[6] Well-drained soil is one of the most important things when planting natives as you will see in the next section.

Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

WATER REQUIREMENT	WATERING FREQUENCY
Heavy	3x / week
Moderate	2x / week
Light	1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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[4] Nagata, p. 6

[5] Nagata, p. 8

[6] Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.[7]

Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.[8]

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

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[7] Bornhorst, p. 19-20

[8] Nagata, p. 6

Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thourough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants.* The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ½ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trimm off some of the leaves to compensate for the loss.[9]

Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

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[9] Bornhorst, p.20-21

coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole.

The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.[10] Macadamia nut hulls are also easy to find and can make a nice mulch.[11]

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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[10] Bornhorst, p. 24

[11] Nagata, p. 7

ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

Zone 1:
Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

Zone 2:
Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

Zone 3:
Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

Zone 4:
Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

Zone 5:
Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

PLACES TO SEE NATIVES ON MAUI:

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

1.	Hoolawa Farms P O Box 731 Haiku HI 96708	575-5099
2.	The Hawaiian Collection 1127 Manu Street Kula HI 96790	878-1701
3.	Kula Botanical Gardens RR4, Box 228 Kula HI 96790	878-1715
4.	Maui Botanical Gardens Kanaloa Avenue, Kahului across from stadium	249-2798
5.	Kula Forest Reserve access road at the end of Waipoli Rd Call the Maui District Office	984-8100
6.	Wailea Point, Private Condominium residence 4000 Wailea Alanui, Kihei public access points at Four Seasons Resort or Polo Beach	875-9557
7.	Kahanu Gardens, National Tropical Botanical Garden Alau Place, Hana HI 96713	248-8912
8.	Kahului Library Courtyard 20 School Street Kahului HI 96732	873-3097

PLACES TO BUY NATIVE PLANTS ON MAUI

1. Ho'olawa Farms
   Anna Palomino
   P O Box 731
   Haiku HI 96708
   575-5099

   * The largest and best collection of natives in the state. They will deliver, but worth the drive to go and see! Will propagate upon request

2. Kahanu Gardens
   National Tropical Botanical Garden
   Alau Place, Hana
   248-8912

3. Kihana Nursery
   1708 South Kihei Road
   Kihei HI 96753
   879-1165

4. Kihei Garden and Landscape
   Waiko Road, Wailuku
   P O Box 1058
   Puunene HI 96784
   244-3804

5. Kula Ace Hardware and Nursery
   3600 Lower Kula Road
   Kula HI 96790
   876-0734
   * many natives in stock
   * get most of their plants from Ho'olawa Farms
   * they take special requests

6. Kulamanu Farms - Ann Carter
   Kula HI 96790
   878-1801

7. Maui Nui Botanical Gardens
   Kanaloa Avenue
   (Across from stadium)
   Kahului HI 96732
   249-2798

8. Native Gardenscapes
   Robin McMillan
   1330 Lower Kimo Drive
   Kula HI 96790
   870-1421

   * grows native plants and installs landscapes including irrigation.

9. Native Hawaiian Tree Source
   1630 Piiholo Road
   Makawao HI 96768
   572-6180

10. Native Nursery, LLC
    Jonathan Keyser
    250-3341

11. New Moon Enterprises - Pat Bily
    47 Kahoea Place
    Kula HI 96790
    878-2441

12. Waiakoa Tree Farm - Kua Rogoff
    Pukalani HI 96768
    Cell - 264-4166

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Jeffrey K. Eng, Director
Department of Water Supply
County of Maui
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Mr. Eng:

Thank you for your letter dated December 4, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1 (Source Availability and Consumption):

The project site is within the Department of Water Supply's Haiku service area.

The project site covers approximately 6.1 acres located within a County property of 27.9 acres. One 5/8-inch water meter is located on the property. The property also has water meter reservations for 3 (three) 5/8-inch water meters for a subdivision.

Response: We note the information provided on source availability and consumption, and that the subject property currently possesses water meter reservations for three (3) 5/8-inch water meters.

Comment No. 2 (System Infrastructure):

There is a 6-inch waterline and a fire hydrant located more than 1,000 feet from the project site on East Kuiaha Road near the east end of the County property. Storage is provided by the 0.5 million gallon (MG) Kaupakalua tank. These are inadequate for the proposed project.

The project scope proposes the installation of approximately 4,200 feet of waterline, beginning at a location approximately 2,300 feet south of the project site, to address domestic use and fire protection concerns.

During the building permit process, the applicant will be required to submit domestic, irrigation and fire flow calculations to determine water meter capacity and adequate fire protection. Approved fire flow calculation methods currently used by the Department of Water Supply are the "Guidance for Determination of Required Fire Flow" as published by the Insurance Services Office in 1974, 2001 and 2006, or "Fire Flow" as published by the Hawaii Insurance Bureau in 1991. Also required is the installation of a reduced pressure back-flow prevention device, approved by the DWS. For more information or clarification on the device, please contact our Engineering Division at 270-7835 or our Backflow and Cross-Connection Control Section at 270-6132.

Response: We note your comment regarding system infrastructure. The applicant will coordinate with your Department during the building permit application process to address water meter capacity and fire protection requirements for the site, as well as the installation of a reduced pressure back-flow prevention device for the project.

Comment No. 3 (Pollution Prevention):

The site overlies the Haiku aquifer which has a sustainable yield of 27 million gallons per day. The Department of Water Supply's goal is to protect the integrity of surface and groundwater resources. To achieve this, mitigation measures must be implemented to prevent any water pollution related impacts. Best management practices for construction should, therefore, be applied.

Response: We note your comment regarding pollution prevention. A program of Best Management Practices (BMPs) will be implemented for the project and will be discussed in the Draft Environmental Assessment (EA).

Comment No. 4 (Conservation Measures):

The Department of Water Supply encourages the applicant to consider the following conservation measures in the project design, as well as during construction:

1. *Utilize reclaimed or non-potable water for dust control, irrigation and other non-potable uses.*
2. *Water after 7:00 p.m. at night and before 10:00 a.m. in the morning.*
3. *Utilize low-flow fixtures and devices - Maui County Code Subsection 16.20A.680 requires the use of low-flow fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Even more efficient and consumer tested models are available. Check WaterSense listings at http://www.epa.gov/watersense/pp/index.htm for efficient fixture listings when buying or replacing fixtures.*
4. *Prevent over-Watering by automated systems - Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evaporation rates at the site. As an alternative, provide more automated, soil-moisture sensors on controllers.*
5. *Maintain fixtures to prevent leaks - A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons per day.*
6. *Limit irrigated turf - Low-water use shrubs and ground cover can be equally attractive and require substantially less water than turf.*
7. *Select climate adapted native plant species for landscaping - Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species.*
8. *Look for opportunities to conserve water - Here are a few samples: 1) When clearing debris, use a broom instead of a hose and water; 2) Check for leaks in pipes, faucets and toilets.*

Response: The suggested water conservation measures will be forwarded to the applicant for the review and possible incorporation into the design of the project, as applicable. We also note that the proposed project aims to undergo certification by the Leadership in Energy and Environmental Design (LEED) green building rating system. Proposed water conservation measures for the project will include water use reduction measures, water efficient landscaping, and innovative wastewater technologies.

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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Ken Fukuoka

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.mauicounty.gov/council

November 20, 2009

Munekiyo & Hiraga, Inc.
Mark Alexander Roy, AICP, Project Manager
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Mr. Roy:

SUBJECT: **HAIKU FIRE STATION AND RELATED IMPROVEMENTS**

I am happy to see that LEED certification will be sought and of all the water conservation planning. The proposed new waterlines are also reassuring.

The unanswered question that remains for me and my Upcountry constituents is "where will the water come from" for this project.

Please be sure that the Draft EA adequately addresses this issue. Thank you for the opportunity to provide some input.

Aloha and mahalo,

Gladys C. Baisa

GLADYS C. BAISA
Council Member

GCB:amm

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Honorable Gladys Baisa
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Councilmember Baisa:

Thank you for your letter dated November 20, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

I am happy to see that LEED certification will be sought and of all the water conservation planning. The proposed new waterlines are also reassuring.

Response: We appreciate your support for the Leadership in Energy and Environmental Design (LEED) certification process and water conservation planning aspects for the proposed project. We look forward to your continued support in completion of this project.

Comment No. 2:

The unanswered question that remains for me and my Upcountry constituents is "where will the water come from" for this project.

Please be sure that the Draft EA adequately addresses this issue. Thank you for the opportunity to provide some input

Response: Based on information provided by the County of Maui, Department of Water Supply, the subject property currently possesses a water meter reservation for three (3) 5/8-inch water meters. A 4,200 feet waterline will connect the project site to an existing waterline approximately 2,300 feet south of the project site. A description of the water system requirements for the proposed project will be included in the Draft Environmental Assessment (EA).

We appreciate the input provided by your office and will include a copy of your letter in the Draft EA for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
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COUNTY OF MAUI
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www.mauicounty.gov/council

Director of Council Services
Ken Fukuoka

December 7, 2009

Munekiyo and Hiraga, Inc.
Attention: Mark Alexander Roy, Project Manager
305 High Street, Suite 104
Wailuku, HI 96793

SUBJECT: EARLY CONSULTATION COMMENTS FOR PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS at TMK (2) 2-7-007:008 (Por.), HAIKU, MAUI, HAWAII

Dear Mr. Roy:

Thank you for the opportunity to provide early comments in preparation for the Draft Environmental Assessment for the Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008 (Por.), HAIKU, MAUI, HAWAII.

After review of the information presented, I have no specific comments at this time.

Sincerely,

Joseph Pontanilla

JOSEPH PONTANILLA,
COUNCIL MEMBER

DEC 0 1 2009

Hawaiian Telcom

November 30, 2009

Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

ATTN: Mark Alexander Roy, AICP, Project Manager

SUBJECT: PROPOSED HAIKU FIRE STATION; HAIKU, ISLAND OF MAUI
EARLY CONSULTATION REQUEST AND RELATED IMPROVEMENTS AT
TMK: (2) 2-7-007:009 (POR), HAIKU, MAUI, HAWAII
COUNTY OF MAUI, DEPT. OF FIRE AND PUBLIC SAFETY (applicant)

Dear Mr. Roy:

Thank you for providing Hawaiian Telcom Incorporated, the opportunity to comment on the Early Consultation and Related Improvements for the Proposed Haiku Fire Station off of Hana Hwy., Haiku, on the Island of Maui.

With regards to Figure 4, specifically the proposed placement of the Wind Turbines, please note that the proximity of the placement of the proposed turbines with relation to the existing aerial telephone facilities along Hana Highway must take into consideration OSHA regulations.

If there are any questions, please call Sheri Tihada at (808) 242-5258.

Sincerely,

Lynette Yoshida
Senior Manager –
Network Engineering & Planning

C: File (3005 0911-085)
S. Tihada

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Lynette Yoshida, Senior Manager
Network Engineering & Planning
Hawaiian Telcom
1177 Bishop Street
Honolulu, Hawaii 96813

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Ms. Yoshida:

Thank you for your letter dated November 30, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

With regards to Figure 4, specifically the proposed placement of the Wind Turbines, please note that the proximity of the placement of the proposed turbines with relation to the existing aerial telephone facilities along Hana Highway must take into consideration OSHA regulations.

Response: The National Electrical Safety Code (NESC) and Occupational Safety and Health Administration (OSHA) codes require that equipment energized at 50 kV or less (such as the proposed wind turbines) be placed a minimum of ten (10) feet away from electrically charged power lines. As the current design plans of the proposed project place the wind turbines are approximately thirty (30) feet away from the existing aerial telephone facilities along Hana Highway, the conditions of the NESC and OSHA codes are satisfied.

We also note that the proposed wind turbines will utilize a vertical axis design instead of the conventional horizontal axis (windmill/propeller) design. These turbines will have the capability to utilize wind from any direction.

We appreciate the input provided by your office and will include a copy of your letter in the Draft Environmental Assessment (EA) for the project.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
Diane Kodama, AECOM Pacific, Inc.
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Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

November 20, 2009

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: Early Consultation for the Proposed Haiku Fire Station and Related Improvements
Hana Highway
Haiku, Maui, Hawaii
Tax Map Key: (2) 2-7-007: 008 (por.)

Dear Mr. Roy,

Thank you for allowing us to comment on the early consultation for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) has no objection to the subject project at this time. However, we highly encourage the customer's
1 electrical consultant to submit an electrical service request so that any service can be provided on a timely basis.

2 We also suggest that the customer or their consultant make contact with our Renewable Energy Department at 871-8461 for the installation of the wind turbine system.

Should you have any questions or concerns, please call me at 871-2340.

Sincerely,

Ray Okazaki
Staff Engineer

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY

December 7, 2010

Ray Okazaki
Maui Electric Company, Ltd.
P. O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: Proposed Haiku Fire Station and Related Improvements at TMK (2)2-7-007:008 (por.), Haiku, Maui

Dear Mr. Okazaki:

Thank you for your letter dated November 20, 2009, responding to our Chapter 343, Hawaii Revised Statutes (HRS) early consultation request for the subject project. On behalf of the applicant, the County of Maui, Department of Fire and Public Safety, we offer the following information in response to the comments noted in your letter:

Comment No. 1:

In reviewing our records and the information received, Maui Electric Company (MECO) has no objection to the subject project at this time. However, we highly encourage the customer's electrical consultant to submit an electrical service request so that any service can be provided on a timely basis.

Response: The applicant notes that MECO has no objection to the proposed project. The project's electrical consultant will coordinate with MECO to submit an electrical service request so that service can be provided on a timely basis.

Comment No. 2:

We also suggest that the customer or their consultant make contact with our Renewable Energy Department at 871-8461 for the installation of the wind turbine system.

Response: The applicant acknowledges your comment and will consult with MECO's Renewable Energy Department regarding installation of the wind turbine system.

We appreciate the input provided by your office and will include a copy of your letter in the Draft Environmental Assessment (EA) for the project.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Mark Alexander Roy, AICP
Program Manager

MAR:yp
cc: Lee Mainaga, County of Maui, Department of Fire and Public Safety
Wendy Taomoto, County of Maui, Department of Management
Kathleen Aoki, County of Maui, Department of Planning
Terry McFarland, Architects Hawaii Limited
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LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD; AND RESPONSES TO SUBSTANTIVE COMMENTS

X

X. LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD; AND RESPONSES TO SUBSTANTIVE COMMENTS

A Draft Environmental Assessment (EA) for the subject action was filed and published in the Office of Environmental Quality Control's The Environmental Notice on January 8, 2011.

The following agencies and individuals were sent a copy of the DEA. Comments on the D EA were received during the 30-day public comment period. Letters received, as well as responses to substantive comments, are included in this chapter.

FEDERAL

1. Larry Yamamoto, State Conservationist
   U.S. Department of Agriculture
   Natural Resources Conservation Service
   P.O. Box 50004
   Honolulu, Hawai'i 96850-0001

2. Ranae Ganske-Cerizo, Soil Conservationist
   U.S. Department of Agriculture
   Natural Resources Conservation Service
   77 Hookele Street, Suite 202
   Kahului, Hawai'i 96732

3. George Young
   Chief, Regulatory Branch
   U.S. Department of the Army
   U.S. Army Engineer District, Honolulu
   Regulatory Branch
   Building 230
   Fort Shafter, Hawai'i 96858-5440

4. Dave Wesley, Deputy Regional Director
   U. S. Fish and Wildlife Service
   Pacific Region
   911 NE 11th Avenue
   Portland, Oregon 97232

5. Loyal A. Mehrhoff
   Field Supervisor
   U. S. Fish and Wildlife Service
   300 Ala Moana Blvd., Rm. 3-122
   Box 50088
   Honolulu, Hawai'i 96813

STATE AGENCIES

6. Bruce A. Coppa, State Comptroller
   Department of Accounting and General Services
   1151 Punchbowl Street, #426
   Honolulu, Hawai'i 96813

7. Russell Kokubun, Chair
   Department of Agriculture
   1428 South King Street
   Honolulu, Hawai'i 96814-2512

8. Richard C. Kim, Interim Director
   State of Hawai'i
   Department of Business, Economic Development & Tourism
   P.O. Box 2359
   Honolulu, Hawai'i 96804

9. Kathryn Matayoshi, Superintendent
   State of Hawai'i
   Department of Education
   P.O. Box 2360
   Honolulu, Hawai'i 96804

10. Heidi Meeker
    Planning Division
    Office of Business Services
    Department of Education
    c/o Kalani High School
    4680 Kalanianaole Highway, #T-B1A
    Honolulu, Hawai'i 96821

    cc: Bruce Anderson, Complex Area Superintendent (Central/ Upcountry Maui)

11. Alapaki Nahale-a, Chairman
Department of Hawaiian Home Lands
P. O. Box 1879
Honolulu, Hawai'i 96805

12. Dr. Neal Palafox, Director
State of Hawai'i
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawai'i 96814

13. Alec Wong, P.E., Chief
Clean Water Branch
State of Hawai'i
Department of Health
919 Ala Moana Blvd., Room 300
Honolulu, Hawai'i 96814

14. Patti Kitkowski
Acting District Environmental Health
Program Chief
State of Hawai'i
Department of Health
54 High Street
Wailuku, Hawai'i 96793

15. William J. Aia, Jr., Interim Chairperson
State of Hawai'i
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawai'i 96809

16. Administrator
State of Hawai'i
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawai'i 96707

17. Glenn Okimoto, Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813

cc: Fred Cajigal

18. Major General Robert G.S. Lee, Director
Hawai'i State Civil Defense
3949 Diamond Head Road
Honolulu, Hawai'i 96816-4495

19. Gary Gill, Director
Office Of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, Hawai'i 9681

20. Clyde Nāmu`o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawai'i 96813

21. Office of the Director
State of Hawai'i
Office of Planning
P.O. Box 2359
Honolulu, Hawai'i 96804

22. Dan Davidson, Executive Officer
State of Hawai'i
State Land Use Commission
P.O. Box 2359
Honolulu, Hawai'i 96804

COUNTY AGENCIES

23. Alan Arakawa, Mayor
County of Maui
200 South High Street
Wailuku, Hawai'i 96793

24. Teena Rasmussen, Director
County of Maui
Office of Economic Development
2200 Main Street, Suite 305
Wailuku, Hawai'i 96793

25. Rebecca Lauricella, Acting Administrator
Maui Civil Defense Agency
200 South High Street
Wailuku, Hawai'i 96793

26. Jo-Ann Ridao, Director
County of Maui
Department of Housing and Human Concerns
One Main Plaza
2200 Main Street, Suite 546
Wailuku, Hawai'i 96793

27. Glenn Correa, Director
County of Maui
Department of Parks and Recreation
700 Halia Nakoa Street, Unit 2
Wailuku, Hawai'i 96793

28. William Spence, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawai'i 96793

29. Gary Yabuta, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawai'i 96793

30. David Goode, Director
County of Maui
Department of Public Works
200 South High Street
Wailuku, Hawai'i 96793

31. Kyle Ginoza, Director
County of Maui
Department of Environmental Management
One Main Plaza
2200 Main Street, Suite 100
Wailuku, Hawai'i 96793

32. Jo Anne Johnson, Director
County of Maui
Department of Transportation
200 South High Street
Wailuku, Hawai'i 96793

33. David Taylor, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawai'i 96793

34. Danny Mateo, Council Chair
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

35. Joseph Pontanilla, Council Vice Chair
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

36. Councilmember Gladys Baisa
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

37. Councilmember Robert Carroll
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

38. Councilmember Elle Cochran
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

39. Councilmember Don Couch
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

40. Councilmember Riki Hokama
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

41. Councilmember Mike White
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

42. Councilmember Michael Victorino
Maui County Council
200 South High Street
Wailuku, Hawai'i 96793

43. **Hawaiian Telcom**
60 South Church Street
Wailuku, Hawai'i 96793

44. Greg Kauhi, Manager, Customer Operations
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawai'i 96733

45. **Ha'ikū Community Association**
P. O. Box 1036
Ha'ikū, Hawai'i 96708

46. **Pa'ia Main Street Association**
c/o Jocelyn Perreira, Executive Director
Wailuku Main Street Association
1942 Main Street, Unit 101
Wailuku, Hawai'i 96793

47. **Makawao Public Library**
1159 Makawao Avenue
Makawao, Hawai'i 96768

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

JAN 18 2011

REPLY TO
ATTENTION OF:

January 12, 2011

Regulatory Branch

File No. POH-2009-00341

Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Mr. Roy:

This is in response to your January 6, 2011 transmittal of the draft Environmental Assessment (dEA) for the proposed Haiku Fire Station and Related improvements located adjacent to, and above, Kui`aha Gulch, Haiku, Maui Island.

Your proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a Department of Army (DA) permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

Based on our review of the information you furnished by Mr. Farley Watanabe of my staff, we have determined the following:

1. The parcel upon which the Haiku Fire Station is to be constructed is an UPLAND location not subject to DA permit regulation.

2. The location of a proposed off-site waterline crossing is proposed to be placed above the OHWM of Kui`aha Gulch and supported on a 20-foot beam clear span with foundation supports. No discharge of fill material associated with the waterline structure is proposed

within the bed of Kui`aha Gulch. Therefore, DA authorization is not required pursuant to Section 404, Clean Water Act.

3. Kui`aha Gulch at the proposed waterline crossing location is not influenced by the ebb and flow of the tide. The navigable capacity of the Pacific Ocean will not be affected as no changes to the course, location, or condition of the tributary Kui`aha Gulch are proposed. Therefore, DA authorization is also not required pursuant to Section 10, Rivers and Harbors Act of 1899 for the proposed crossing and work.

5. The proposed artificial wetland to be constructed from UPLANDS between the fire station and Hana Highway will not be subject to Section 404, Clean Water Act, unless, and until, a surface water connection to Kuiaha Gulch is established for the discharge of artificial wetland waters.

If the Department of Fire and Public Safety, Maui County, anticipates discharging any dredged or fill material in Kui`aha Gulch as a result of a change in the waterline location, design, or mechanical construction access/egress, they will need to apply for and receive authorization from the Corps prior to starting such work. Our website can be accessed at http://www.poh.usace.army.mil/EC-R/EC-R.htm to download copies of the DA permit application materials that will be needed to completed and submitted to us in order to request authorization to perform any activities falling under the Corps' jurisdiction. As described in the application materials, plan and cross-section view drawings of proposed work will need to be included in 8 1/2 x 11 inch format.

This letter contains an approved JD for Kui`aha Gulch. If your client, Department of Fire and Public Safety, Maui County, objects to this determination, an Administrative Appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331 can be requested. We have enclosed a Notification of Appeal Process and Request For Appeal (NAP/RFA) form for Kuiaha Gulch. If you request to appeal the jurisdictional determination you must submit a completed NAP/RFA form to the Corps' Pacific Ocean Division office at the following address:

Thom Lichte, Appeals Review Officer
U.S. Army Corps of Engineers
Pacific Ocean Division, ATTN: CEPOD-PDC
Building 525
Fort Shafter, HI 96858-5440

In order for an NAP/RFA to be accepted by the Corps, the Corps must determine that the RFA is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the NAP/RFA sheet. If you decide to submit an NAP/RFA form, it must be received at the above address by March 12, 2011. It is not necessary to submit an NAP/RFA form to the Division office if you do not object to the determination in this letter. You may contact Mr. Lichte at (808) 438-0397.

This jurisdictional determination is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

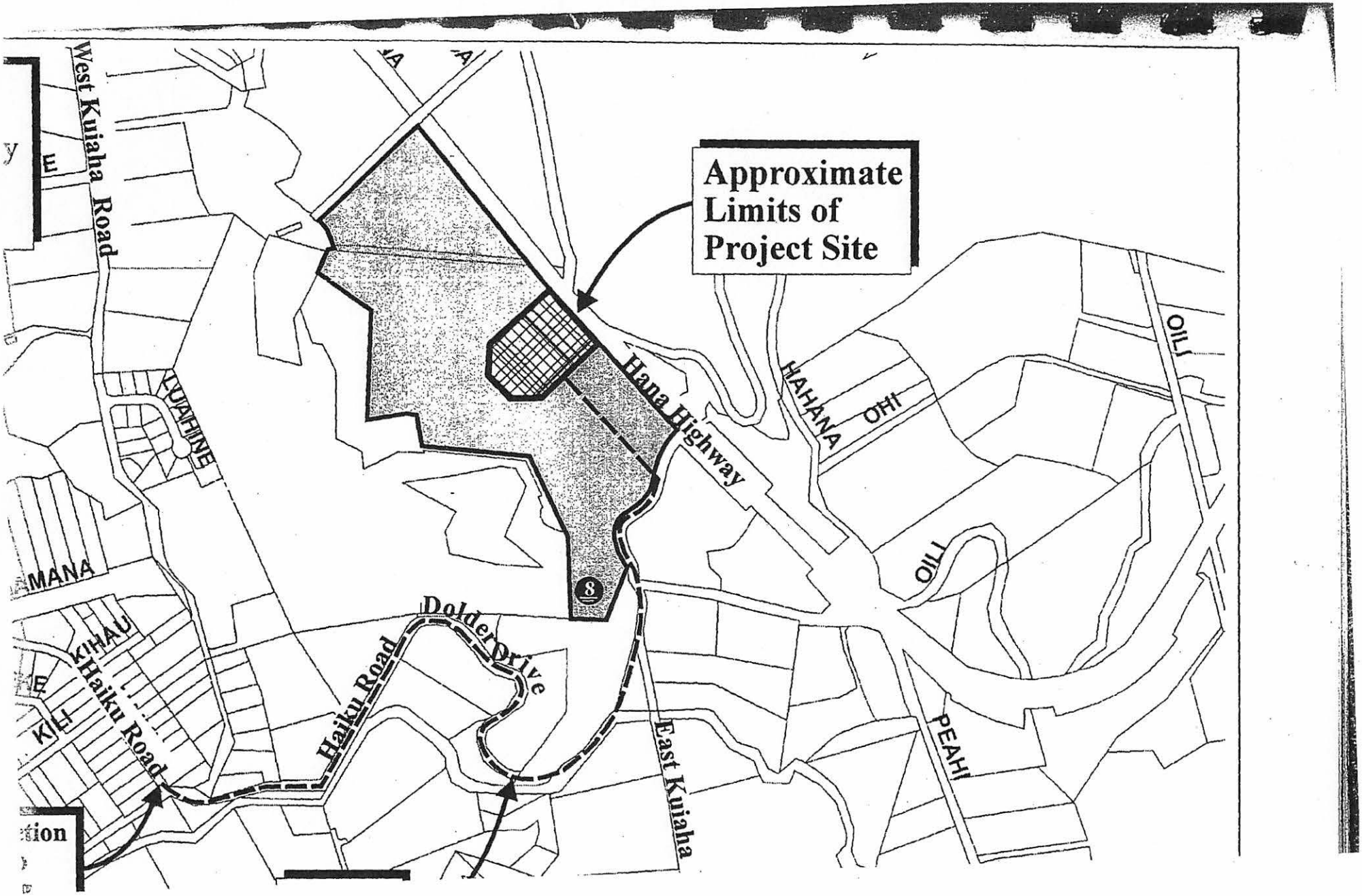
Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Mr. Farley Watanabe of this office at the above address, by telephone 808-438-7701 (FAX: 808-438-4060), or by E-Mail at Farley.K.Watanabe@usace.army.mil. Please refer to File No. POH-2009-00341 in all future communications with this office regarding this or other projects at this location.

Sincerely,

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

Attachments
Complete Project Location
Jurisdictional Determination
Flowchart
NAP/RFA


Approximate Limits of Project Site
West Kuiaha Road
Hana Highway
Haiku Road
Dolder Drive
East Kuiaha
HAHANA
OHI
OILI
TIIO
PEAHI
LUATHINE
MANA
KIHAU
KHaiku Road
KILI
8

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 11January 2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:Construct NewHaiku Fire Station Project, POH-2009-00341, Maui

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:HI County/parish/borough: Maui City: Haiku
Center coordinates of site (lat/long in degree decimal format): Lat. 20.91783° N, Long. -156.303619° W.
Universal Transverse Mercator:
Name of nearest waterbody: Kuiaha Stream
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): COWRM 6028-Kuiaha
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 11 Jan 2011
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** *"waters of the U.S."* within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☒ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: 0.0 linear feet: 0.0width (ft) and/or 0.0 acres.
   Wetlands: 0.0 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not established at this time.**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain:

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. **Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.**

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**
Watershed size: 5.7 **square miles**
Drainage area: 5.7 **square miles**
Average annual rainfall: 30 inches
Average annual snowfall: inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **2-5** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **2-5** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW[5]: East Kuiaha to Kuiaha to PAcific Ocean.
Tributary stream order, if known: 2.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain:
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: 40 feet
Average depth: feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☐ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☒ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain: at lower perennial reaches.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 10 %

(c) Flow:

Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: flashy.
Other information on duration and volume:

Surface flow is: **Discrete and confined.** Characteristics:

Subsurface flow: **Pick List.** Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☒ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: tannin-clear.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**
- ☒ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☒ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**
Characteristics:

Subsurface flow: **Pick List**. Explain findings:
- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain: reservoir is artificial wetland.

(d) Proximity (Relationship) to TNW
Project wetlands are **Pick List** river miles from TNW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **2**
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: water and sediment retention.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:NON-RPW has capacity to carry pollutants(ag pesticides/herbicides) and suspended nutrients and organic carbon in flood waters to TNW (Pacific Ocean) or to reduce same to TNW; .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: artificial impoundment has potential to release excess waters to RPW tributaries.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☒ Tributary waters: **40** linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters:

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain:
☐ Other factors. Explain:

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

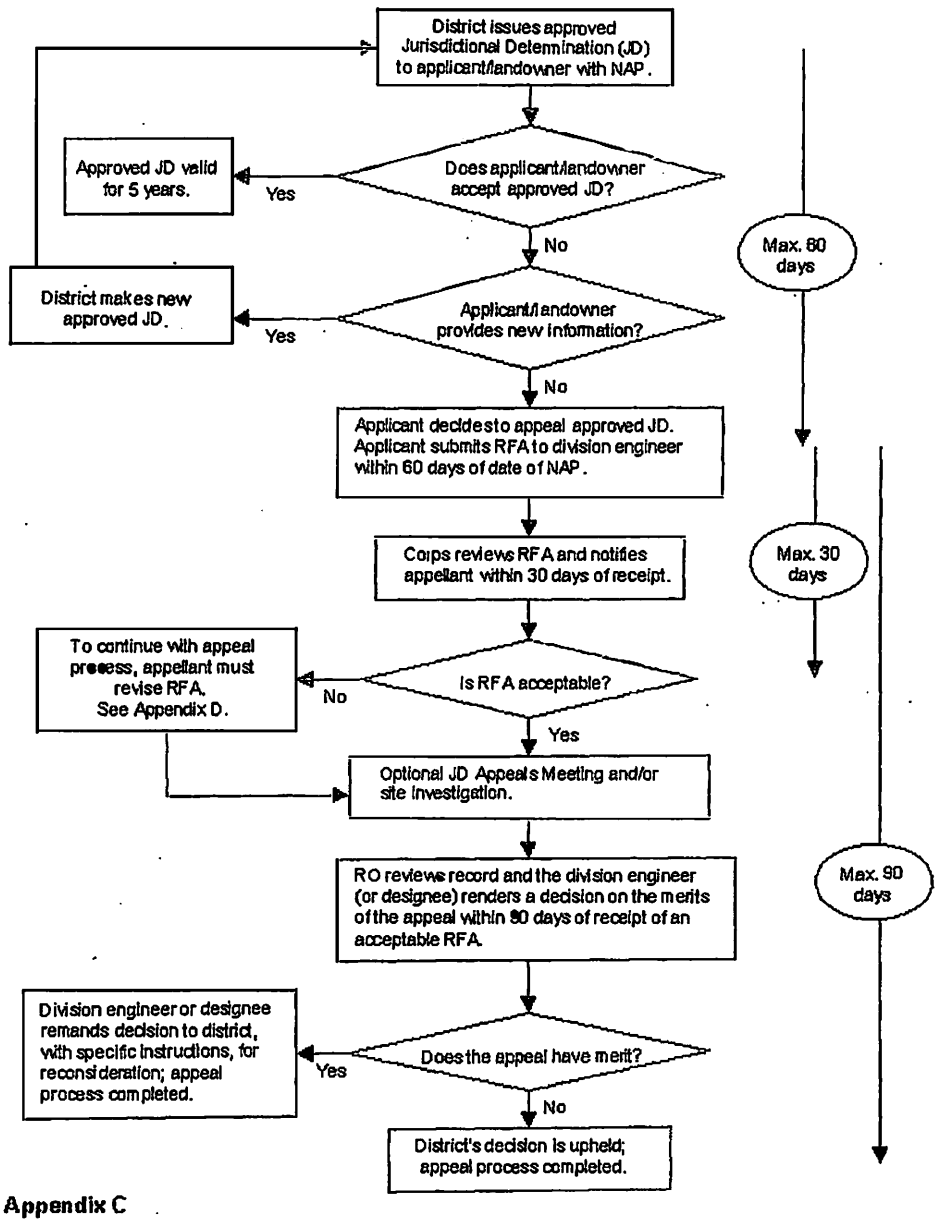
Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: 15+acres. List type of aquatic resource: none.
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. **SUPPORTING DATA. Data reviewed for JD (check all that apply** - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:1:24000.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☐ Photographs: ☐ Aerial (Name & Date):
  - or ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☐ Applicable/supporting scientific literature:
- ☐ Other information (please specify):DAR & COWRM, DLNR dBases.

B. **ADDITIONAL COMMENTS TO SUPPORT JD:**

Administrative Appeal Process for Approved Jurisdictional Determinations



Appendix C

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant:Dept. Fire & Public Safety, County of Maui	File Number: POH-2009-00341	Date: 11 Jan 2011
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
XX	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: Farley K. Watanabe (808)438-7701 U.S. Army Corps of Engineers, Honolulu District CEPOH-EC-R, Bldg 230 Fort Shafter, HI 96858-5440	If you only have questions regarding the appeal process you may also contact: Thom Lichte (808) 438-0397 U.S. Army Corps of Engineers CEPOD-RBT, Bldg 525 Fort Shafter, HI 96858-5440

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Via email: CEPOH-RO@usace.army.mila

Leah Fisher, Interim Chief
U.S. Army Corps of Engineers, Honolulu
District Regulatory Branch
Building 230
Fort Shafter, Hawai'i 96858-5440

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i (File No. POH-2009-00341)

Dear Ms. Fisher:

Thank you for your department's letter dated January 12, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide

additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note the determination that the project site is situated in an upland location and is not subject to regulation by the Department of Army (DA).

2. We thank you for providing a copy of the Jurisdictional Determination for Kuiaha Gulch as an attachment to your comment letter. We further note and acknowledge that review by your office of the proposed offsite waterline crossing over Kuiaha Gulch has resulted in a determination that DA authorization (Section 404 and Section 10) is not required for this particular project component. Since the project scope has been altered, the project no longer necessitates the waterline to cross over the Kuiaha Gulch.

3. We also note your office's determination that there are no Section 404 DA permitting requirements for the ecological wastewater system component of the project. The ecological wastewater system is no longer proposed for this project.

4. Based on the foregoing determinations, it is our understanding that there are no Section 404 or Section 10 DA permitting requirements triggered by the proposed Ha'ikū Fire Station Project and related improvements.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\Army.docx

EXHIBIT A.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

JAN 18 2011

REPLY TO
ATTENTION OF:

January 12, 2011

Regulatory Branch

File No. POH-2009-00341

Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

Dear Mr. Roy:

This is in response to your January 6, 2011 transmittal of the draft Environmental Assessment (dEA) for the proposed Haiku Fire Station and Related improvements located adjacent to, and above, Kui`aha Gulch, Haiku, Maui Island.

Your proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a Department of Army (DA) permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

Based on our review of the information you furnished by Mr. Farley Watanabe of my staff, we have determined the following:

1. The parcel upon which the Haiku Fire Station is to be constructed is an UPLAND location not subject to DA permit regulation.

2. The location of a proposed off-site waterline crossing is proposed to be placed above the OHWM of Kui`aha Gulch and supported on a 20-foot beam clear span with foundation supports. No discharge of fill material associated with the waterline structure is proposed

within the bed of Kui`aha Gulch. Therefore, DA authorization is not required pursuant to Section 404, Clean Water Act.

3. Kui`aha Gulch at the proposed waterline crossing location is not influenced by the ebb and flow of the tide. The navigable capacity of the Pacific Ocean will not be affected as no changes to the course, location, or condition of the tributary Kui`aha Gulch are proposed. Therefore, DA authorization is also not required pursuant to Section 10, Rivers and Harbors Act of 1899 for the proposed crossing and work.

5. The proposed artificial wetland to be constructed from UPLANDS between the fire station and Hana Highway will not be subject to Section 404, Clean Water Act, unless, and until, a surface water connection to Kuiaha Gulch is established for the discharge of artificial wetland waters.

If the Department of Fire and Public Safety, Maui County, anticipates discharging any dredged or fill material in Kui`aha Gulch as a result of a change in the waterline location, design, or mechanical construction access/egress, they will need to apply for and receive authorization from the Corps prior to starting such work. Our website can be accessed at http://www.poh.usace.army.mil/EC-R/EC-R.htm to download copies of the DA permit application materials that will be needed to completed and submitted to us in order to request authorization to perform any activities falling under the Corps' jurisdiction. As described in the application materials, plan and cross-section view drawings of proposed work will need to be included in 8 1/2 x 11 inch format.

This letter contains an approved JD for Kui`aha Gulch. If your client, Department of Fire and Public Safety, Maui County, objects to this determination, an Administrative Appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331 can be requested. We have enclosed a Notification of Appeal Process and Request For Appeal (NAP/RFA) form for Kuiaha Gulch. If you request to appeal the jurisdictional determination you must submit a completed NAP/RFA form to the Corps' Pacific Ocean Division office at the following address:

Thom Lichte, Appeals Review Officer
U.S. Army Corps of Engineers
Pacific Ocean Division, ATTN: CEPOD-PDC
Building 525
Fort Shafter, HI 96858-5440

In order for an NAP/RFA to be accepted by the Corps, the Corps must determine that the RFA is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the NAP/RFA sheet. If you decide to submit an NAP/RFA form, it must be received at the above address by March 12, 2011. It is not necessary to submit an NAP/RFA form to the Division office if you do not object to the determination in this letter. You may contact Mr. Lichte at (808) 438-0397.

This jurisdictional determination is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

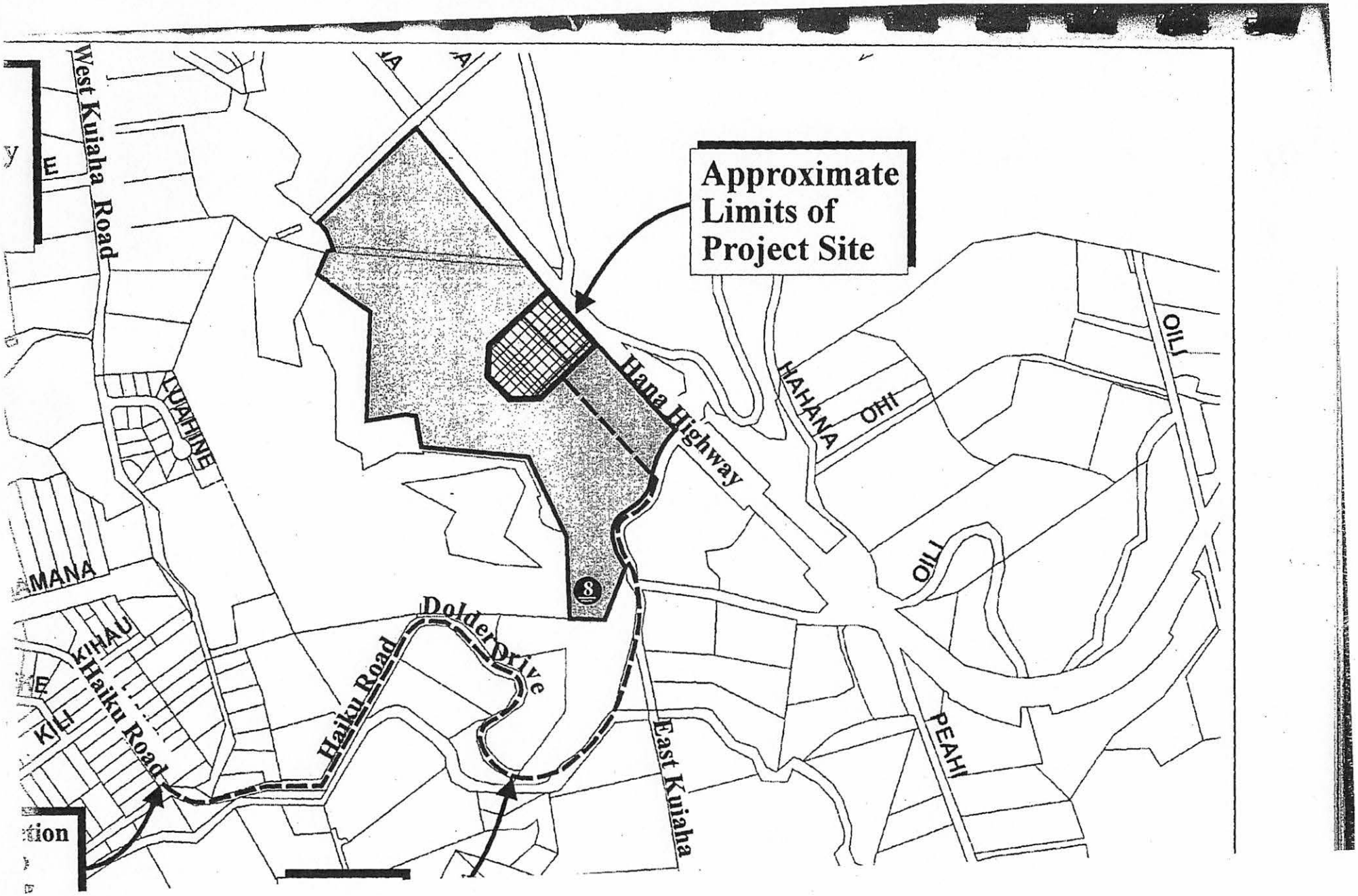
Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Mr. Farley Watanabe of this office at the above address, by telephone 808-438-7701 (FAX: 808-438-4060), or by E-Mail at Farley.K.Watanabe@usace.army.mil. Please refer to File No. POH-2009-00341 in all future communications with this office regarding this or other projects at this location.

Sincerely,

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

Attachments
Complete Project Location
Jurisdictional Determination
Flowchart
NAP/RFA


Approximate Limits of Project Site
West Kuiaha Road
Hana Highway
HAHANA
OHI
OILI
LUAHINE
MANA
KIHAU
Haiku Road
Dolder Drive
East Kuiaha
PEAHI
8

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 11January 2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:Construct NewHaiku Fire Station Project, POH-2009-00341, Maui

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:HI County/parish/borough: Maui City: Haiku
Center coordinates of site (lat/long in degree decimal format): Lat. 20.91783° N, Long. -156.303619° W.
Universal Transverse Mercator:
Name of nearest waterbody: Kuiaha Stream
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): COWRM 6028-Kuiaha
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 11 Jan 2011
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are *"waters of the U.S."* within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☒ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: 0.0 linear feet: 0.0width (ft) and/or 0.0 acres.
   Wetlands: 0.0 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not established at this time.**
   Elevation of established OHWM (if known):

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain:

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW:

Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. **Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.**

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**
Watershed size: 5.7 **square miles**
Drainage area: 5.7 **square miles**
Average annual rainfall: 30 inches
Average annual snowfall: inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **2-5** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **2-5** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW[5]: East Kuiaha to Kuiaha to PAcific Ocean.
Tributary stream order, if known: 2.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain:
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: 40 feet
Average depth: feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☐ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☒ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain: at lower perennial reaches.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 10 %

(c) Flow:

Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: flashy.
Other information on duration and volume:

Surface flow is: **Discrete and confined.** Characteristics:

Subsurface flow: **Pick List.** Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☒ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: tannin-clear.
Identify specific pollutants, if known:

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**
- ☒ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☒ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**
Characteristics:

Subsurface flow: **Pick List**. Explain findings:
- ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:
  - ☐ Ecological connection. Explain:
  - ☐ Separated by berm/barrier. Explain: reservoir is artificial wetland.

(d) Proximity (Relationship) to TNW
Project wetlands are **Pick List** river miles from TNW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**
- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ Other environmentally-sensitive species. Explain findings:
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
All wetland(s) being considered in the cumulative analysis: **2**
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: water and sediment retention.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:NON-RPW has capacity to carry pollutants(ag pesticides/herbicides) and suspended nutrients and organic carbon in flood waters to TNW (Pacific Ocean) or to reduce same to TNW; .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: artificial impoundment has potential to release excess waters to RPW tributaries.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☒ Tributary waters: **40** linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters:
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource:
- ☐ Wetlands: acres.

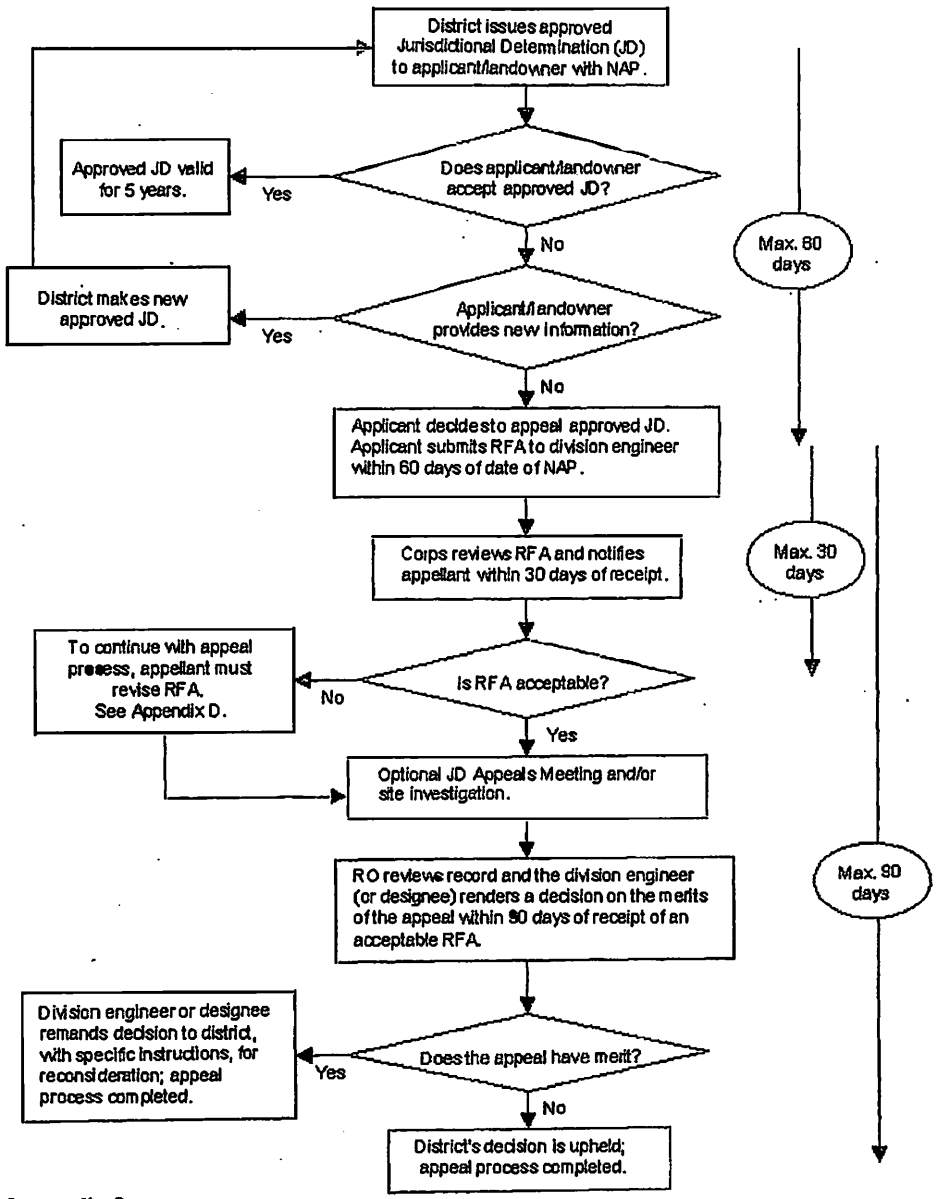
Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: 15+acres. List type of aquatic resource: none.
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. **SUPPORTING DATA. Data reviewed for JD (check all that apply** - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:1:24000.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☒ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☐ Photographs: ☐ Aerial (Name & Date):
  - or ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Applicable/supporting case law:
- ☐ Applicable/supporting scientific literature:
- ☐ Other information (please specify):DAR & COWRM, DLNR dBases.

B. **ADDITIONAL COMMENTS TO SUPPORT JD:**

Administrative Appeal Process for Approved Jurisdictional Determinations



Appendix C

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant:Dept. Fire & Public Safety, County of Maui	File Number: POH-2009-00341	Date: 11 Jan 2011
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
XX	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: Farley K. Watanabe (808)438-7701 U.S. Army Corps of Engineers, Honolulu District CEPOH-EC-R, Bldg 230 Fort Shafter, HI 96858-5440	If you only have questions regarding the appeal process you may also contact: Thom Lichte (808) 438-0397 U.S. Army Corps of Engineers CEPOD-RBT, Bldg 525 Fort Shafter, HI 96858-5440

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

JAN 26 2011

NEIL ABERCROMBIE
GOVERNOR

BRUCE A. COPPA
COMPTROLLER

RYAN T. OKAHARA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

JAN 25 2011

(P)1006.1

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Draft Environmental Assessment and Land Use Entitlement Applications
Haiku Fire Station and Related Improvements
Haiku, Island of Maui, Hawaii TMK: (2) 2-7-007:008

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time.

If you have any questions, please call me at 586-0400 or have your staff call Mr. David DePonte of the Public Works Division at 586-0492.

Sincerely,

BRUCE A COPPA
State Comptroller

c: Mr. Lee Mainaga, County of Maui Department of Fire and Public Safety
Mr. Kurt Wollenhaupt, Department of Planning

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Keith Regan, Comptroller
Department of Accounting
and General Services
State of Hawai'i
1151 Punchbowl Street, #426
Honolulu, Hawai'i 96813

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Mr. Regan:

Thank you for your department's letter dated January 25, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32. Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We thank you for confirming that the proposed project does not impact any of the Department of Accounting and General Services' (DAGS) projects or existing facilities. We acknowledge that the DAGS has no comments to offer at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\DAGS.docx

EXHIBIT A.

JAN 26 2011

NEIL ABERCROMBIE
GOVERNOR

BRUCE A. COPPA
COMPTROLLER

RYAN T. OKAHARA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

JAN 25 2011

(P)1006.1

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Draft Environmental Assessment and Land Use Entitlement Applications
Haiku Fire Station and Related Improvements
Haiku, Island of Maui, Hawaii TMK: (2) 2-7-007:008

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time.

If you have any questions, please call me at 586-0400 or have your staff call Mr. David DePonte of the Public Works Division at 586-0492.

Sincerely,

BRUCE A COPPA
State Comptroller

c: Mr. Lee Mainaga, County of Maui Department of Fire and Public Safety
Mr. Kurt Wollenhaupt, Department of Planning

JAN 14 2011

NEIL ABERCROMBIE
GOVERNOR

KATHRYN S. MATAYOSHI
SUPERINTENDENT

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

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

January 13, 2011

Mr. Mark Alexander Roy, AICP, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Mr. Roy:

SUBJECT: Draft Environmental Assessment (EA) and Land Use Entitlement Applications for the Proposed Haiku Fire Station and Related Improvements, TMK (2) 2-7-007:008 (por.), Haiku, Maui, Hawaii

The Department of Education (DOE) has reviewed the Draft EA for the proposed Haiku Fire Station.

The DOE has no comment to offer.

Thank you for the opportunity to comment. Should you have any questions, please call Jeremy Kwock of the Facilities Development Branch at (808) 377-8301.

Sincerely yours,

Duane Y. Kashiwai
Public Works Administrator
Facilities Development Branch

DYK:jmb

c: Bruce Anderson, CAS, Baldwin/Kekaulike/Maui Complex Areas
Lee Mainaga, Fire Services Officer, Department of Fire and Public Safety
Kurt Wollenhaupt, Staff Planner, Department of Planning

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Keith Hayashi, Superintendent
Department of Education
State of Hawai'i
P. O. Box 2360
Honolulu, Hawai'i 96804

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawaii

Dear Mr. Hayashi:

Thank you for your department's letter dated January 13, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments – prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

Maui: 305 High Street, Suite 104 • Wailuku, Hawaii 96793 • Tel: 808.244.2015 • Fax: 808.244.8729
Oahu: 735 Bishop Street, Suite 412 • Honolulu, Hawaii 96813 • Tel: 808.983.1233
www.munekiyohiraga.com

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We acknowledge that the Department of Education has no comments to offer at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\DOE.docx

EXHIBIT A.

JAN 14 2011

NEIL ABERCROMBIE
GOVERNOR

KATHRYN S. MATAYOSHI
SUPERINTENDENT

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

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

January 13, 2011

Mr. Mark Alexander Roy, AICP, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Mr. Roy:

SUBJECT: Draft Environmental Assessment (EA) and Land Use Entitlement Applications for the Proposed Haiku Fire Station and Related Improvements, TMK (2) 2-7-007:008 (por.), Haiku, Maui, Hawaii

The Department of Education (DOE) has reviewed the Draft EA for the proposed Haiku Fire Station.

The DOE has no comment to offer.

Thank you for the opportunity to comment. Should you have any questions, please call Jeremy Kwock of the Facilities Development Branch at (808) 377-8301.

Sincerely yours,

Duane Y. Kashiwai
Public Works Administrator
Facilities Development Branch

DYK:jmb

c: Bruce Anderson, CAS, Baldwin/Kekaulike/Maui Complex Areas
Lee Mainaga, Fire Services Officer, Department of Fire and Public Safety
Kurt Wollenhaupt, Staff Planner, Department of Planning

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

FEB 01 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
ACTING DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

January 31, 2011

TO: Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.

FROM: Jeffrey M. Eckerd, Acting Program Manager
Indoor and Radiological Health Branch

SUBJECT: Draft Environmental Assessment (EA), and Land Use Entitlement Applications for the Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008
Haiku, Maui, Hawaii

Our comments should be printed as follows:

"Project activities shall comply with the Administrative Rules of the Department of Health:

- Chapter 11-39 Air Conditioning & Ventilating
- Chapter 11-46 Community Noise Control
- Chapter 11-501 Asbestos Requirements
- Chapter 11-503 Fees for Asbestos Removal & Certification
- Chapter 11-504 Asbestos Abatement Certification Program

Should there be any questions, please contact me at 586-4701.

cc: Lee Mainaga, County of Maui Department of Fire and Public Safety
Kurt Wollenhaupt, Department of Planning

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Indoor and Radiological Health Branch
Department of Health
State of Hawai'i
P.O. Box 3378
Honolulu, Hawai'i 96801-3378

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Sir or Madame:

Thank you for your department's letter dated January 31, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. The project will comply with applicable requirements of Chapter 11-39 (Air Conditioning & Ventilating), 11-46 (Community Noise Control), 11-501 (Asbestos Requirements), 11-503 (Fees for Asbestos Removal & Certification), and Chapter 11-504 (Asbestos Abatement Certification Program) of the HAR of the Department of Health.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\DOH I&R.docx

EXHIBIT A.

FEB 01 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
ACTING DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

January 31, 2011

TO: Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.

FROM: Jeffrey M. Eckerd, Acting Program Manager
Indoor and Radiological Health Branch

SUBJECT: Draft Environmental Assessment (EA), and Land Use Entitlement Applications for the Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008 Haiku, Maui, Hawaii

Our comments should be printed as follows:

"Project activities shall comply with the Administrative Rules of the Department of Health:

- Chapter 11-39 Air Conditioning & Ventilating
- Chapter 11-46 Community Noise Control
- Chapter 11-501 Asbestos Requirements
- Chapter 11-503 Fees for Asbestos Removal & Certification
- Chapter 11-504 Asbestos Abatement Certification Program

Should there be any questions, please contact me at 586-4701.

cc: Lee Mainaga, County of Maui Department of Fire and Public Safety
Kurt Wollenhaupt, Department of Planning

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

JAN 27 2011

NEAL A. PALAFOX, M.D., M.P.H.
INTERIM DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.
DISTRICT HEALTH OFFICER

In reply, please refer to:
File:

STATE OF HAWAII
DEPARTMENT OF HEALTH
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

January 26, 2011

Mr. Mark Alexander Roy
AICP, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: **Draft Environmental Assessment and Land Use Entitlement Applications (District Boundary Amendment, Community Plan Amendment and Change in Zoning) for the Proposed Haiku Fire Station and Related Improvements, Haiku, Maui, Hawaii (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006) TMK: (2) 2-7-007:008 (por.)**

Thank you for the opportunity to review this project. We have the following comments to offer:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage maybe required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work.

3. All the requirements of HAR, Chapter 11-62, "Wastewater Systems" must be complied with.

It is strongly recommended that the Standard Comments found at the Department's website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or E-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Patti Kitkowski
District Environmental Health Program Chief

c Lee Mainaga, Fire Services Officer
Kurt Wollenhaupt, Staff Planner
EPO

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Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Patti Kitkowski, District Environmental
Health Program Chief
Maui Sanitation Branch
Department of Health
State of Hawai'i
54 High Street, Room 300
Wailuku, Hawai'i 96793-2102

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawaii

Dear Ms. Kitkowski:

Thank you for your letter dated January 26, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (District Boundary Amendment, Community Plan Amendment, Change of Zoning) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. The Clean Water Branch will be contacted and a National Pollutant Discharge Elimination System (NPDES) permit will be obtained for the project, as applicable.

2. The proposed project will comply with applicable requirements of HAR, Chapter 11-46, "Community Noise Control" and a noise permit, if required, will be obtained prior to the commencement of construction work for the project.

3. The project will comply with all applicable requirements set forth in Chapter 11-62, HAR (Wastewater Systems).

4. The standard comments found at the Department's website will be reviewed by DF&PS and all applicable requirements complied with as part of the construction plans preparation phase of the project.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\DOH.Mau.docx

EXHIBIT A.

JAN 27 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

NEAL A. PALAFOX, M.D., M.P.H.
INTERIM DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.
DISTRICT HEALTH OFFICER

In reply, please refer to:
File:

STATE OF HAWAII
DEPARTMENT OF HEALTH
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

January 26, 2011

Mr. Mark Alexander Roy
AICP, Project Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: **Draft Environmental Assessment and Land Use Entitlement Applications (District Boundary Amendment, Community Plan Amendment and Change in Zoning) for the Proposed Haiku Fire Station and Related Improvements, Haiku, Maui, Hawaii (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006) TMK: (2) 2-7-007:008 (por.)**

Thank you for the opportunity to review this project. We have the following comments to offer:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage maybe required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work.

3. All the requirements of HAR, Chapter 11-62, "Wastewater Systems" must be complied with.

It is strongly recommended that the Standard Comments found at the Department's website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or E-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Patti Kitkowski
District Environmental Health Program Chief

c Lee Mainaga, Fire Services Officer
Kurt Wollenhaupt, Staff Planner
EPO

FEB 1 1 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 10, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Draft Environmental Assessment and Land Use Entitlement Applications (District Boundary Amendment, Community Plan Amendment and Change in Zoning) for the Proposed Haiku Fire Station and Related Improvements

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Aquatic Resources, Division of Forestry & Wildlife, Engineering Division, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

ABERCROMBIE
ERNOR OF HAWAII

LD

WILLIAM J. AILA, JR.
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2011 FEB 10 P 12:08
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

Amv
5Lt

DAR 3617

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
Phone: (808) 587-0433
Fax: (808) 587-0455

January 18, 2011

MEMORANDUM

TO: ~~DLNR~~ Agencies:
x Div. of Aquatic Resources
~~Div. of Boating & Ocean~~ Recreation
x Engineering Division
x Div. of Forestry & Wildlife
Div. of State Parks
x Commission on Water Resource Management
Office of Conservation & Coastal Lands
Land Division –
x Historic Preservation

RECEIVED
JAN 18 2011
AQUATIC RESOURCES

Charlene

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 6, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed:
Date: 2/8/2011

RECEIVED
JAN 21 2011
Div. of Aquatic Resources

4

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 Mahalani Street
Wailuku, Hawai'i 96793
February 8, 2010

To: Alton Miyasaka, Aquatic Biologist

From: Skippy Hau, Aquatic Biologist

Subject: Draft EA for Proposed Haiku Fire Station and Related Improvements (DAR 3617)
(Due February 6, 2011 Charlene Unoki, Land)

(P.43) The summary refers to Appendix H. It concludes that the sedimentation basin will be able to handle the total drainage runoff for the property estimated for a one-hour, fifty-year storm.

Appendix H.

After Appendix F, Drainage Design Calculations Detention Pond Sizing, there are "two pages that are unreadable."

I have no objections, but please verify the drainage calculations and the proposed detention basin size.

NEIL ABERCROMBIE
Ggovernor of Hawaii

WILLIAM J. AILA, JR.
Interim Chairperson
Commission on Water Resource Management

'11 JAN 18 PM02:04

RECEIVED
LAND DIVISION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

2011 FEB -7 A 9:36

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
Phone: (808) 587-0433
Fax: (808) 587-0455

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

January 18, 2011

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

Charlene

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 6, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed: _____
Date: 2/3/11

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/CharleneUnoki
RE:DEAHaikuFireStation
Maui.531

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

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

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Carter Romero at (808) 961-8943 of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) dditional Comments: _____

_____

( ) Other: _____

_____

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

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: _____

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

Wayne C.

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2011 JAN 24 P 2:30
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
Phone: (808) 587-0433
Fax: (808) 587-0455

January 18, 2011

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
~~x Engineering Division~~
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
_Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

Charlene

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 6, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed: Paul Conry
Date: 1/21/11

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Via email: dlnr@hawaii.gov and dlnr.land@hawaii.gov

Dawn N. S. Chang, Chairperson
Department of Land and Natural Resources
State of Hawai'i
P. O. Box 621
Honolulu, Hawai'i 96809

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Ms. Chang:

Thank you for your department's letter dated February 10, 2011 providing comments from the Division of Aquatic Resources, Engineering Division and Division of Forestry & Wildlife on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (District Boundary Amendment, Community Plan Amendment, Change of Zoning) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide

additional comments, prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

LAND DIVISION

1. We note that the Land Division does not have any objections with regards to the proposed project.

DIVISION OF AQUATIC RESOURCES

1. We note that the Division of Aquatic Resources does not have any objections with regards to the proposed project.

2. We apologize for the poor quality of the pages presented in Appendix "F" of the Preliminary Drainage Report. Given the project design refinements, an updated drainage report providing the drainage design calculations information for the project will be included in the Updated DEA.

ENGINEERING DIVISION

1. We appreciate the information provided confirming that the project site is located within Flood Zone X, an area of minimal flooding risk in which there are no regulations regarding development set forth by the National Flood Insurance Program.

DIVISION OF FORESTRY AND WILDLIFE

1. We note that the Division of Forestry and Wildlife does not have any objections to the proposed project.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\DLNR.docx

EXHIBIT A.

FEB 1 1 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 10, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Draft Environmental Assessment and Land Use Entitlement Applications (District Boundary Amendment, Community Plan Amendment and Change in Zoning) for the Proposed Haiku Fire Station and Related Improvements

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Aquatic Resources, Division of Forestry & Wildlife, Engineering Division, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

ABERCROMBIE
ERNOR OF HAWAII

LD

WILLIAM J. AILA, JR.
[illegible]

RECEIVED
LAND DIVISION
2011 FEB 10 P 12:08
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

Amy
SLH

DAR 3617

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
Phone: (808) 587-0433
Fax: (808) 587-0455

January 18, 2011

MEMORANDUM

TO: ~~DLNR~~ Agencies:
x Div. of Aquatic Resources
~~Div. of Boating & Ocean~~ Recreation
x Engineering Division
x Div. of Forestry & Wildlife
Div. of State Parks
x Commission on Water Resource Management
Office of Conservation & Coastal Lands
Land Division –
x Historic Preservation

RECEIVED
JAN 18 2011
AQUATIC RESOURCES

Charlene

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 6, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

(x) We have no objections.
( ) We have no comments.
(x) Comments are attached.

Signed:
Date: 2/8/2011

RECEIVED
JAN 21 2011
Div. of Aquatic Resources

269

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 Mahalani Street
Wailuku, Hawai'i 96793
February 8, 2010

To: Alton Miyasaka, Aquatic Biologist

From: Skippy Hau, Aquatic Biologist

Subject: Draft EA for Proposed Haiku Fire Station and Related Improvements (DAR 3617)
(Due February 6, 2011 Charlene Unoki, Land)

(P.43) The summary refers to Appendix H. It concludes that the sedimentation basin will be able to handle the total drainage runoff for the property estimated for a one-hour, fifty-year storm.

Appendix H.

After Appendix F, Drainage Design Calculations Detention Pond Sizing, there are "two pages that are unreadable."

I have no objections, but please verify the drainage calculations and the proposed detention basin size.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

'11 JAN 18 PM02:24

RECEIVED
LAND DIVISION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

2011 FEB -7 A 9:36

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
Phone: (808) 587-0433
Fax: (808) 587-0455

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

January 18, 2011

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

Charlene

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 6, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed: _____
Date: 2/3/11

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/CharlenaUnoki
RE:DEAHaikuFireStation
Maui.531

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

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

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Carter Romero at (808) 961-8943 of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) dditional Comments: _____

_____

( ) Other: _____

_____

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

Signed:_____
CARTY S. CHANG, CHIEF ENGINEER

Date:_____

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2011 JAN 24 P 2:20
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
Phone: (808) 587-0433
Fax: (808) 587-0455

January 18, 2011

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
~~x Engineering Division~~
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division –
x Historic Preservation

Charlene

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Haiku Fire Station and Related Improvements
LOCATION: Island of Maui
APPLICANT: Munekiyo & Hiraga, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 6, 2011.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

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

Signed: Paul Conry
Date: 1/21/11

FEB 14 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

GUY KAULUKUKUI
INTERIM FIRST DEPUTY

WILLIAM M. TAM
INTERIM DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

February 7, 2011

Mark Alexander Roy, AICP, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

LOG NO: 2011.0033
DOC NO: 1101MD43
Archaeology

Dear Mr. Roy:

SUBJECT: Chapter 6E-8 Historic Preservation Review –
Draft Environmental Assessment and Land Use Entitlement Applications for the Proposed Ha'iku Fire Station (DBA 2010/0002, CIZ 2010/0008 & CPA 2010/0006)
Pa'uwela Ahupua'a, Makawao District, Island of Maui
TMK: (2) 2-7-007:008

Thank you for the opportunity to comment on the aforementioned project, which we received on January 7, 2011. This parcel has undergone an archaeological inventory survey in preparation of its proposed development as a new fire station (Perzinski and Dega August 2010). The new fire station will include driveways, a helipad and a waterline extending 1280 meters along Haiku, East Kuiaha and West Kuiaha Roads. One new site was documented, SIHP 50-50-06-6678, rock alignments built by previous residents of the existing vacant house which were used to line the driveway and create a planting area in the 1950s. SIHP 6678 was recommended as significant under criterion "d" and we agreed that no further work is required at this site.

Archaeological monitoring is recommended for selected portions of the waterline, within those areas of Haiku Road which are not within the cut slope. To date we have not received an archaeological monitoring plan for this portion of the project. An archaeological monitoring plan should be submitted to SHPD for review and approval pursuant to HAR §13-279 prior to the start of any ground-altering construction.

If you have questions about this letter please contact Morgan Davis at (808) 243-5169 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

Theresa K. Donham
Acting Archaeology Branch Chief
State Historic Preservation Division

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Alan Downer, Ph.D., Administrator
State Historic Preservation Division
Department of Land and Natural Resources
601 Kamokila Boulevard, Room 555
Kapolei, Hawai'i 96707

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i (Log No: 2011.0033; Doc No: 1101MD43)

Dear Dr. Downer:

Thank you for the letter from your office dated February 7, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We appreciate your review of the 2010 Archaeological Inventory Survey (AIS) and note the determination from your office that no further archaeological work is required within the project site.

2. Based on community and agency review comments and additional community consultation, studies and agency coordination that were carried out following the publication of the proposed project's 2011 DEA, the scope of the proposed offsite water infrastructure, which involved the installation of a 4,200-foot waterline to connect the facility to an existing waterline at the West Kuiaha Road and Ha'ikū Road Intersection has been significantly reduced. The proposed offsite waterline improvements are now confined to just installation of 300 feet of 8-inch waterline along East Kuiaha Road. As such, it is anticipated that archaeological monitoring will no longer be required for this action based on the AIS acceptance letter from your office (dated February 7, 2011) which determined that monitoring should be confined to just portions of Ha'ikū Road.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Michael Dega and David Perzinski, Scientific Consultant Services, Inc.
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EXHIBIT A.

FEB 14 2011

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

GUY KAULUKUKUI
INTERIM FIRST DEPUTY

WILLIAM M. TAM
INTERIM DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

February 7, 2011

Mark Alexander Roy, AICP, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

LOG NO: 2011.0033
DOC NO: 1101MD43
Archaeology

Dear Mr. Roy:

SUBJECT: Chapter 6E-8 Historic Preservation Review –
Draft Environmental Assessment and Land Use Entitlement Applications for the Proposed Ha'iku Fire Station (DBA 2010/0002, CIZ 2010/0008 & CPA 2010/0006)
Pa'uwela Ahupua'a, Makawao District, Island of Maui
TMK: (2) 2-7-007:008

Thank you for the opportunity to comment on the aforementioned project, which we received on January 7, 2011. This parcel has undergone an archaeological inventory survey in preparation of its proposed development as a new fire station (Perzinski and Dega August 2010). The new fire station will include driveways, a helipad and a waterline extending 1280 meters along Haiku, East Kuiaha and West Kuiaha Roads. One new site was documented, SIHP 50-50-06-6678, rock alignments built by previous residents of the existing vacant house which were used to line the driveway and create a planting area in the 1950s. SIHP 6678 was recommended as significant under criterion "d" and we agreed that no further work is required at this site.

Archaeological monitoring is recommended for selected portions of the waterline, within those areas of Haiku Road which are not within the cut slope. To date we have not received an archaeological monitoring plan for this portion of the project. An archaeological monitoring plan should be submitted to SHPD for review and approval pursuant to HAR §13-279 prior to the start of any ground-altering construction.

If you have questions about this letter please contact Morgan Davis at (808) 243-5169 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

Theresa K. Donham
Acting Archaeology Branch Chief
State Historic Preservation Division

NEIL ABERCROMBIE
GOVERNOR

MAR 07 2011

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
Ford N. Fuchigami
Jan S. Gouveia
Randy Grune
Jadine Urasaki

IN REPLY REFER TO:

STP 8.0364

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 28, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Haiku Fire Station and Related Improvements
Draft Environmental Assessment (DEA)

Thank you for requesting the Department of Transportation's (DOT) review of the subject Maui County project. DOT's comments are as follows:

1. DOT understands the County has agreed to work with DOT Highways Division to assure that the concerns contained in DOT letter STP 8.3479 dated December 18, 2010 (in Section VIII of the DEA) are fully addressed and that all necessary permits and approvals will be acquired.

2. While a preliminary drainage report was included in the DEA, DOT will defer commenting until the report is formally submitted for DOT's review and approval.

3. While the finding in the preliminary Traffic Impact Analysis Report (TIAR) appear reasonable, DOT recommends that further coordination be conducted with the DOT Highways Division to address access requirements and any other mitigation measures necessary to assure the safe entry and exit of emergency and non-emergency vehicles, as well as maintaining the operations and safety of Hana Highway.

If there are any questions or the need to meet with DOT Highway staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Lee Mainaga, County of Maui, Department of Fire and Public Safety

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Ed Sniffen, Director
Department of Transportation
State of Hawai'i
869 Punchbowl Street, Room 509
Honolulu, Hawai'i 96813-5097

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i (STP 8.0364)

Dear Mr. Sniffen:

Thank you for your department's letter dated February 28, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. DF&PS will work alongside your office prior to initiation of construction to obtain all necessary Hawai'i Department of Transportation (HDOT) related permits and approvals for the project.

2. We acknowledge that your office has elected to defer review of the Drainage Report at this time. Please note that the drainage system has been designed in accordance with the Rules for the Design of Stormwater Drainage Facilities in the County of Maui to retain all (100 percent) project-related increases in runoff. As such, there will be no drainage impacts on downstream properties generated by implementation of the proposed project. A copy of the drainage report will be provided to the HDOT during the construction plans review phase for the project.

3. We acknowledge the determination from your office that the findings of the Traffic Impact Analysis Report (TIAR) are reasonable. The DF&PS will continue to coordinate with the HDOT Highways Division as project planning progresses to ensure that the project is developed (1) to assure the safe entry and exit of emergency and non-emergency vehicles to and from the site; and, (2) to maintain current levels of operations and safety along this particular section of Hāna Highway.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
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EXHIBIT A.

NEIL ABERCROMBIE
GOVERNOR

MAR 07 2011

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
Ford N. Fuchigami
Jan S. Gouveia
Randy Grune
Jadine Urasaki

IN REPLY REFER TO:

STP 8.0364

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 28, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Haiku Fire Station and Related Improvements
Draft Environmental Assessment (DEA)

Thank you for requesting the Department of Transportation's (DOT) review of the subject Maui County project. DOT's comments are as follows:

1. DOT understands the County has agreed to work with DOT Highways Division to assure that the concerns contained in DOT letter STP 8.3479 dated December 18, 2010 (in Section VIII of the DEA) are fully addressed and that all necessary permits and approvals will be acquired.

2. While a preliminary drainage report was included in the DEA, DOT will defer commenting until the report is formally submitted for DOT's review and approval.

3. While the finding in the preliminary Traffic Impact Analysis Report (TIAR) appear reasonable, DOT recommends that further coordination be conducted with the DOT Highways Division to address access requirements and any other mitigation measures necessary to assure the safe entry and exit of emergency and non-emergency vehicles, as well as maintaining the operations and safety of Hana Highway.

If there are any questions or the need to meet with DOT Highway staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Lee Mainaga, County of Maui, Department of Fire and Public Safety

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

FEB 17 2011

HRD11/4142D

February 3, 2011

Mark Alexander Roy
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

RE: Draft Environmental Assessment
Haiku Fire Station Project
Haiku, Island of Maui

Aloha e Mark Alexander Roy,

The Office of Hawaiian Affairs (OHA) is in receipt of your January 6, 2011 request for comments on a Draft Environmental Assessment (DEA) for the Haiku Fire Station and related improvements (project) proposed by the County of Maui-Department of Fire and Public Safety (DF&PS) on approximately 6.1 acres of land in Haiku on the Island of Maui. This DEA will support the use of County of Maui lands and funds, a Land Use Commission District Boundary Amendment Petition (Agriculture to Rural), County of Maui subdivision application, County of Maui Change in Zoning (Agriculture to Public/Quasi-Public) and a Paia-Haiku Community Plan Amendment. The DF&PS will be the approving authority for the Final Environmental Assessment.

The project is intended to improve emergency services and response times for rural communities such as Haiku, Pauwela and Peahi which are currently served by the Paia Fire Station (6 miles west of the project) and Makawao Fire Station (8 miles south of the project). The fire station facility (station) will consist of administrative, vehicle storage and utility buildings to support the five personal who will be assigned to the station. Infrastructure improvements will be required.

OHA appreciates that Leadership in Energy and Environmental Design concepts will be used in the planning of the station. We concur with the County of Maui-Department of Water Supply recommendations that native plant species adapted to the project area be considered in landscaping designs. An archaeological inventory survey (AIS) was conducted in the project area and identified one historic property consisting of two component features. The Department of Land and Natural Resources-State Historic Preservation Division (SHPD) has reviewed and approved the AIS. The one historic property assigned significance criteria "D" and no further work or mitigation is required.

We concur with the anticipated "finding of no significant impact" determination in the DEA and applaud the efforts of the County of Maui to improve emergency services in Haiku. We look forward to seeing the project completed. Should you have any questions, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

C: OHA- Maui Community Outreach Coordinator

Lee Mainaga- County of Maui-DF&PS
200 Dairy Road
Wailuku, Hawaii 96793

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Stacy Kealohalani Ferreira, Chief
Executive Officer
Office of Hawaiian Affairs
State of Hawai'i
560 N. Nimitz Highway, Suite 200
Honolulu, Hawai'i 96717

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Dr. Hussey:

Thank you for your office's letter dated February 3, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (District Boundary Amendment, Community Plan Amendment, Change of Zoning) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note that the Office of Hawaii Affairs (OHA) is in support of the project's commitment to Leadership in Energy and Environmental Design (LEED) certification. However, due to cost considerations, the project scope is no longer able to include LEED certification.

2. We note that OHA concurs with the Department of Water Supply's recommendation that appropriate native species be considered for use in the landscaping design for the project.

3. We note that OHA concurs with the Anticipated Finding of No Significant Impact (AFNSI) determination as contained in the DEA.

4. We thank OHA for its statement in support of the County of Maui's efforts to improve emergency service provision in the Haʻikū area.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
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EXHIBIT A.

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

FEB 17 2011

HRD11/4142D

February 3, 2011

Mark Alexander Roy
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawai'i 96793

RE: Draft Environmental Assessment
Haiku Fire Station Project
Haiku, Island of Maui

Aloha e Mark Alexander Roy,

The Office of Hawaiian Affairs (OHA) is in receipt of your January 6, 2011 request for comments on a Draft Environmental Assessment (DEA) for the Haiku Fire Station and related improvements (project) proposed by the County of Maui-Department of Fire and Public Safety (DF&PS) on approximately 6.1 acres of land in Haiku on the Island of Maui. This DEA will support the use of County of Maui lands and funds, a Land Use Commission District Boundary Amendment Petition (Agriculture to Rural), County of Maui subdivision application, County of Maui Change in Zoning (Agriculture to Public/Quasi-Public) and a Paia-Haiku Community Plan Amendment. The DF&PS will be the approving authority for the Final Environmental Assessment.

The project is intended to improve emergency services and response times for rural communities such as Haiku, Pauwela and Peahi which are currently served by the Paia Fire Station (6 miles west of the project) and Makawao Fire Station (8 miles south of the project). The fire station facility (station) will consist of administrative, vehicle storage and utility buildings to support the five personal who will be assigned to the station. Infrastructure improvements will be required.

OHA appreciates that Leadership in Energy and Environmental Design concepts will be used in the planning of the station. We concur with the County of Maui-Department of Water Supply recommendations that native plant species adapted to the project area be considered in landscaping designs. An archaeological inventory survey (AIS) was conducted in the project area and identified one historic property consisting of two component features. The Department of Land and Natural Resources-State Historic Preservation Division (SHPD) has reviewed and approved the AIS. The one historic property assigned significance criteria "D" and no further work or mitigation is required.

We concur with the anticipated "finding of no significant impact" determination in the DEA and applaud the efforts of the County of Maui to improve emergency services in Haiku. We look forward to seeing the project completed. Should you have any questions, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

C: OHA- Maui Community Outreach Coordinator

Lee Mainaga- County of Maui-DF&PS
200 Dairy Road
Wailuku, Hawaii 96793

ALAN M. ARAKAWA
Mayor

KYLE K. GINOZA, P.E.
Director

MICHAEL M. MIYAMOTO
Deputy Director

JAN 25 2011

TRACY TAKAMINE, P.E.
Solid Waste Division

Wastewater Reclamation Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

January 21, 2011

Mr. Mark Alexander Roy
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: HAIKU FIRE STATION AND RELATED IMPROVEMENTS
DRAFT ENVIRONMENTAL ASSESSMENT
TMK (2) 2-7-007:008 (POR.), HAIKU

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments:

   a. No further comments..

2. Wastewater Reclamation Division (WWRD) comments:

   a. None. There is no County wastewater system in the area of the subject project.

If you have any questions regarding this memorandum, please contact Michael Miyamoto at 270-8230.

Sincerely,

KYLE K. GINOZA, P.E.
Director of Environmental Management

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Shayne Agawa, P.E., Director
Department of Environmental Management
County of Maui
200 S. High Street
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Mr. Agawa:

Thank you for your department's letter dated January 21, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

SOLID WASTE DIVISION

1. We acknowledge that the Solid Waste Division has no further comments at this time.

WASTEWATER RECLAMATION DIVISION (WWRD)

1. We thank you for confirming that there is no County wastewater system in the area of the proposed project. We acknowledge that the WWRD has no further comments at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
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EXHIBIT A.

ALAN M. ARAKAWA
Mayor

KYLE K. GINOZA, P.E.
Director

MICHAEL M. MIYAMOTO
Deputy Director

JAN 25 2011

TRACY TAKAMINE, P.E.
Solid Waste Division

Wastewater Reclamation Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

January 21, 2011

Mr. Mark Alexander Roy
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: HAIKU FIRE STATION AND RELATED IMPROVEMENTS
DRAFT ENVIRONMENTAL ASSESSMENT
TMK (2) 2-7-007:008 (POR.), HAIKU

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments:

   a. No further comments..

2. Wastewater Reclamation Division (WWRD) comments:

   a. None. There is no County wastewater system in the area of the subject project.

If you have any questions regarding this memorandum, please contact Michael Miyamoto at 270-8230.

Sincerely,

KYLE K. GINOZA, P.E.
Director of Environmental Management

DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

FEB 02 2011

ALAN M. ARAKAWA
Mayor
JO-ANN T. RIDAO
Director
JAN SHISHIDO
Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

January 27, 2011

Mr. Lee Mainaga, Fire Services Officer
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Wailuku, Hawaii 96793

Dear Mr. Mainaga:

Subject: **Draft Environmental Assessment (EA) and Land Use Entitlement Applications (District Boundary Amendment, Community Plan Amendment and Change in Zoning) for the Proposed Haiku Fire Station and Related Improvements located at Haiku, Maui, Hawaii (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006). TMK (2)2-7-007:008 (por.)**

The Department has reviewed the Draft Environmental Assessment for the above subject project. Based on our review, we have determined that the subject project is not subject to Chapter 2.96, Maui County Code. At the present time, the Department has no additional comments to offer.

Please call Mr. Buddy Almeida of our Housing Division at (808) 270-7356 if you have any questions.

Sincerely,

Wayde T. Oshiro

WAYDE T. OSHIRO
Housing Administrator

cc: Director of Housing and Human Concerns
Kurt Wollenhaupt, Department of Planning
✓Mark Alexander, Munekiyo & Hiraga, Inc.

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Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Lori Tsuhako, Director
Department of Housing and Human Concerns
County of Maui
2200 Main Street, Suite 546
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Ms. Tsuhako:

Thank you for your department's letter dated January 27, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

We appreciate your confirmation that the subject project is not subject to Chapter 2.96, Maui County Code (Residential Workforce Housing Policy).

1. We note that the Department has no additional comments to offer on the project.

We appreciate the input provided by your office. A copy of your letter and this response letter will be included in the Updated DEA. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
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EXHIBIT A.

DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
HOUSING DIVISION
COUNTY OF MAUI

FEB 02 2011

ALAN M. ARAKAWA
Mayor
JO-ANN T. RIDAO
Director
JAN SHISHIDO
Deputy Director

35 LUNALILO STREET, SUITE 102 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7351 • FAX (808) 270-6284

January 27, 2011

Mr. Lee Mainaga, Fire Services Officer
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Wailuku, Hawaii 96793

Dear Mr. Mainaga:

Subject: **Draft Environmental Assessment (EA) and Land Use Entitlement Applications (District Boundary Amendment, Community Plan Amendment and Change in Zoning) for the Proposed Haiku Fire Station and Related Improvements located at Haiku, Maui, Hawaii (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006). TMK (2)2-7-007:008 (por.)**

The Department has reviewed the Draft Environmental Assessment for the above subject project. Based on our review, we have determined that the subject project is not subject to Chapter 2.96, Maui County Code. At the present time, the Department has no additional comments to offer.

Please call Mr. Buddy Almeida of our Housing Division at (808) 270-7356 if you have any questions.

Sincerely,

Wayde T. Oshiro

WAYDE T. OSHIRO
Housing Administrator

cc: Director of Housing and Human Concerns
Kurt Wollenhaupt, Department of Planning
✓Mark Alexander, Munekiyo & Hiraga, Inc.

FEB 11 2011

ALAN M. ARAKAWA
Mayor

GLENN T. CORREA
Director

PATRICK T. MATSUI
Deputy Director

(808) 270-7230
FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION
700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

February 7, 2011

Mark Alexander Roy, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT AND LAND USE ENTITLEMENT APPLICATIONS (DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS AT TMK (2)2-7-007:008 (por.) HAIKU, MAUI, HAWAII (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006)

Dear Mr. Roy:

Our department has reviewed the reference project Draft Environmental Assessment and we have no comment or objection to this project at this time.

Should you have any questions or concerns, please feel free to contact me or Steve Grogan, Capital Improvements Project Coordinator, at 270-6158.

Sincerely,

GLENN T. CORREA
Director of Parks & Recreation

c: Robert Halvorson, Chief of Planning and Development Division, TA

GTC:RH:sg

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MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Patrick McCall, Director
Department of Parks and Recreation
County of Maui
700 Halia Nakoa Street, Unit 2F
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawaii

Dear Mr. McCall:

Thank you for your department's letter dated February 7, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note that the Department has no objections to the project at this time.

We appreciate the input provided by your office. A copy of your comment letter and response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
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EXHIBIT A.

FEB 11 2011

ALAN M. ARAKAWA
Mayor

GLENN T. CORREA
Director

PATRICK T. MATSUI
Deputy Director

(808) 270-7230
FAX (808) 270-7934

DEPARTMENT OF PARKS & RECREATION
700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

February 7, 2011

Mark Alexander Roy, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT AND LAND USE ENTITLEMENT APPLICATIONS (DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS AT TMK (2)2-7-007:008 (por.) HAIKU, MAUI, HAWAII (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006)

Dear Mr. Roy:

Our department has reviewed the reference project Draft Environmental Assessment and we have no comment or objection to this project at this time.

Should you have any questions or concerns, please feel free to contact me or Steve Grogan, Capital Improvements Project Coordinator, at 270-6158.

Sincerely,

GLENN T. CORREA
Director of Parks & Recreation

c: Robert Halvorson, Chief of Planning and Development Division, TA

GTC:RH:sg

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ALAN M. ARAKAWA
Mayor
WILLIAM R. SPENCE
Director
MICHELE CHOUTEAU McLEAN
Deputy Director

FEB 08 2011

COUNTY OF MAUI

DEPARTMENT OF PLANNING

February 7, 2011

Mr. Mark Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

SUBJECT: COMMENTS ON A DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS LOCATED MAUKA OF HANA HIGHWAY, AT EAST KUIAHA ROAD, HAIKU, MAUI, HAWAII; TMK: (2) 2-7-007:008 (POR.) (EAC 2011/0001)

The Department of Planning (Department) is in receipt of the above-referenced request for comments on the Haiku Fire Station Draft EA. The Department understands the proposed action includes the following:

- The Applicant is the County of Maui Department of Fire and Public Safety, and the project is proposed on land owned by the County of Maui;
- The project will consist of administrative, vehicle storage, and utility buildings on approximately 6.1 acres; and
- The fire station will be designed to U.S. Green Building Council's LEED green building rating system.

Based on the foregoing, the Department provides the following comments on the Draft EA:

1. The land use designations for the project area are as follows:

   - State Land Use: Agricultural
   - Paia-Haiku Community Plan: Agriculture
   - County Zoning: Agricultural
   - Other: Outside the Special Management Area (SMA)

   These designations have been confirmed through the Department's Zoning Administration and Enforcement Division (ZAED) via a Zoning and Flood Confirmation Form dated February 7, 2011.

2. Please provide the level of LEED certification you plan to pursue and describe in detail how you plan to achieve this level. This will prove helpful when your project goes before the Urban Design Review Board (UDRB) and the Maui Planning Commission (Commission);

3. Please note that the Department is currently revising Chapter 19.31, Public/Quasi-Public Districts of the Maui County Code. It may prove prudent to contact the Department's Administrative Planning Officer Joseph Alueta at (808) 270-7743 to obtain a draft copy of the proposed revisions. It is likely the code revisions will be processed before your proposal is processed and you would be subject to these revisions; and

4. Fifteen (15) hard copies of the Final Environmental Document will be required for distribution to the Commission prior to entitlement applications being scheduled before the Commission.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch by email at joseph.prutch@mauicounty.gov or by phone at (808) 270-7512. Please note that Mr. Prutch has taken over this project from Staff Planner Kurt Wollenhaupt and will be the planner processing the land use entitlements.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for WILLIAM SPENCE
Planning Director

xc: Joseph M. Prutch, Staff Planner
Joseph W. Alueta, Administrative Planning Officer
Lee Mainaga, Fire Services Officer, Department of Fire and Public Safety
EAC File
General File

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MUNEKIYO HIRAGA
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Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Garrett Smith, Acting Director
Department of Planning
County of Maui
2200 Main Street, Suite 315
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Ms. Blystone:

Thank you for your department's letter dated February 7, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We appreciate the confirmation of the land use designations for the subject property from the Department's Zoning, Administration and Enforcement Division.

2. Due to cost considerations, Leadership in Energy and Environmental Design (LEED) certification is no longer being pursued for the project.

3. We note the County Council approved amendments to Chapter 19.31, Public/Quasi-Public Districts of the Maui County Code (Ordinance 4048, June 2013). We also acknowledge that Ordinance 5372 recently amended section 19.31.050, Development standards in 2022. Copies of Ordinances 4048 and 5372 will be reviewed as part of the ongoing project planning process.

4. Should the Department of Fire & Public Safety issue a Finding of No Significant Impact (FONSI) for the project, fifteen (15) copies of the Final EA will be provided to the Department as requested for distribution to the Maui Planning Commission as part of the Planning Director-initiated land use entitlement application review process.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
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EXHIBIT A.

ALAN M. ARAKAWA
Mayor
WILLIAM R. SPENCE
Director
MICHELE CHOUTEAU McLEAN
Deputy Director

FEB 08 2011

COUNTY OF MAUI

DEPARTMENT OF PLANNING

February 7, 2011

Mr. Mark Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

SUBJECT: COMMENTS ON A DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS LOCATED MAUKA OF HANA HIGHWAY, AT EAST KUIAHA ROAD, HAIKU, MAUI, HAWAII; TMK: (2) 2-7-007:008 (POR.) (EAC 2011/0001)

The Department of Planning (Department) is in receipt of the above-referenced request for comments on the Haiku Fire Station Draft EA. The Department understands the proposed action includes the following:

- The Applicant is the County of Maui Department of Fire and Public Safety, and the project is proposed on land owned by the County of Maui;
- The project will consist of administrative, vehicle storage, and utility buildings on approximately 6.1 acres; and
- The fire station will be designed to U.S. Green Building Council's LEED green building rating system.

Based on the foregoing, the Department provides the following comments on the Draft EA:

1. The land use designations for the project area are as follows:

   - State Land Use: Agricultural
   - Paia-Haiku Community Plan: Agriculture
   - County Zoning: Agricultural
   - Other: Outside the Special Management Area (SMA)

   These designations have been confirmed through the Department's Zoning Administration and Enforcement Division (ZAED) via a Zoning and Flood Confirmation Form dated February 7, 2011.

2. Please provide the level of LEED certification you plan to pursue and describe in detail how you plan to achieve this level. This will prove helpful when your project goes before the Urban Design Review Board (UDRB) and the Maui Planning Commission (Commission);

3. Please note that the Department is currently revising Chapter 19.31, Public/Quasi-Public Districts of the Maui County Code. It may prove prudent to contact the Department's Administrative Planning Officer Joseph Alueta at (808) 270-7743 to obtain a draft copy of the proposed revisions. It is likely the code revisions will be processed before your proposal is processed and you would be subject to these revisions; and

4. Fifteen (15) hard copies of the Final Environmental Document will be required for distribution to the Commission prior to entitlement applications being scheduled before the Commission.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch by email at joseph.prutch@mauicounty.gov or by phone at (808) 270-7512. Please note that Mr. Prutch has taken over this project from Staff Planner Kurt Wollenhaupt and will be the planner processing the land use entitlements.

Sincerely,

CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for WILLIAM SPENCE
Planning Director

xc: Joseph M. Prutch, Staff Planner
Joseph W. Alueta, Administrative Planning Officer
Lee Mainaga, Fire Services Officer, Department of Fire and Public Safety
EAC File
General File

WRS:CIY:JMP:vb
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JAN 18 2011

POLICE DEPARTMENT

COUNTY OF MAUI

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE

YOUR REFERENCE

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

GARY A. YABUTA
CHIEF OF POLICE

CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

January 13, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Mr. Roy:

SUBJECT: Draft EA and Land Use Entitlement Applications for the Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008 (por.) (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006)

This is in response to the request for comments on the above subject.

We have reviewed the information submitted for this project and have submitted our comments and/or recommendations. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

ACD. Matsuura

Assistant Chief Danny Matsuura
for: Gary A. Yabuta
Chief of Police

c: William Spence, Planning Department

COPY

TO : GARY YABUTA, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS

FROM : BARRY KUBO, SERGEANT, S.R.O. SUPERVISOR, WAILUKU PATROL

SUBJECT : RESPONSE TO A DRAFT ENVIRONMENTAL ASSESSMENT (EA), AND LAND USE ENTITLEMENT APPLICATIONS (DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS

This communication is submitted as a response to a request for pre-consultation comments by Munekiyo and Hiraga, Inc., Project Manager Mark Alexander ROY, regarding:

SUBJECT : RESPONSE TO A DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS

RESPONSE:

In review of the submitted documents, concerns from the police perspective are upon the safety of pedestrian and vehicular movement.

This project entails the construction of a new Haiku Fire Station as well as other related improvements upon 6.1 acres of property owned by the County of Maui.

EXISTING ROADWAY CONDITION:

The project site is located adjacent to Hana Highway, a State of Hawaii roadway that serves as the main access road along the northern coast of Maui. It is a predominantly two-lane, two-way roadway generally oriented in the east-west direction. Southeast of the project site, Hana Highway intersects with East Kuiaha Road at an unsignaled intersection. East Kuiaha Road is a two-lane, two-way County owned roadway generally oriented in the north-south direction. At the intersection with Hana Highway, the East Kuiaha Road approach has one stop controlled northbound lane that serves all traffic movements. The southbound approach of the intersection is comprised of a driveway serving an adjacent parcel.

The proposed waterline corridor extends east of the project site and follows East Kuiaha Road through Dolder Drive and Haiku Road, eventually ending at a connection to an existing waterline, at the southern intersection of Haiku Road and West Kuiaha Road.

Much of Haiku is composed of rural residential and agricultural areas. Due to the rural nature of the area, traffic is generally light and with minimal traffic congestion.

Suggest a traffic study be conducted for the areas affected.

RECOMMEND TRAFFIC STUDY BE CONDUCTED TO DETERMINE ACTUAL IMPACT AND SAME.
1/12/11

Respectfully submitted,

Sgt. Barry KUBO #9956
Patrol Division/Wailuku District
01/11/11 @ 1430hours

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

John Pelletier, Chief
Maui Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Chief Pelletier:

Thank you for your department's letter dated January 13, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note the Department's concerns regarding potential impacts on vehicular and pedestrian movements generated by the subject project. As recommended in your letter, a Traffic Impact Analysis Report (TIAR) was prepared for the project, a copy of which was presented in Appendix "E" of the 2011 Draft EA. Because a number of years have passed since the TIAR had been completed, a supplemental TIAR was conducted. It is included in the Updated Draft EA as Appendix "E-2". The supplemental TIAR determines that, although some years have passed since the preparation of the 2015 TIAR, the conclusions in that TIAR are still applicable. Given the small number of personnel expected to be assigned to the new fire station and low trip generation associated with the facility, the updated project is not anticipated to present significant adverse impacts on Hāna Highway and other roadways serving the Ha'ikū area.

We appreciate the input provided by the Police Department. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
Cathy Leong, Wilson Okamoto Corporation
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EXHIBIT A.

JAN 18 2011

POLICE DEPARTMENT

COUNTY OF MAUI

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE

YOUR REFERENCE

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

GARY A. YABUTA
CHIEF OF POLICE

CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

January 13, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Mr. Roy:

SUBJECT: Draft EA and Land Use Entitlement Applications for the Proposed Haiku Fire Station and Related Improvements at TMK (2) 2-7-007:008 (por.) (DBA 2010/0002) (CIZ 2010/0008) (CPA 2010/0006)

This is in response to the request for comments on the above subject.

We have reviewed the information submitted for this project and have submitted our comments and/or recommendations. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Danny Matsuura
for: Gary A. Yabuta
Chief of Police

c: William Spence, Planning Department

COPY

TO : GARY YABUTA, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS

FROM : BARRY KUBO, SERGEANT, S.R.O. SUPERVISOR, WAILUKU PATROL

SUBJECT : RESPONSE TO A DRAFT ENVIRONMENTAL ASSESSMENT (EA), AND LAND USE ENTITLEMENT APPLICATIONS (DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS

This communication is submitted as a response to a request for pre-consultation comments by Munekiyo and Hiraga, Inc., Project Manager Mark Alexander ROY, regarding:

SUBJECT : RESPONSE TO A DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS

RESPONSE:

In review of the submitted documents, concerns from the police perspective are upon the safety of pedestrian and vehicular movement.

This project entails the construction of a new Haiku Fire Station as well as other related improvements upon 6.1 acres of property owned by the County of Maui.

EXISTING ROADWAY CONDITION:

The project site is located adjacent to Hana Highway, a State of Hawaii roadway that serves as the main access road along the northern coast of Maui. It is a predominantly two-lane, two-way roadway generally oriented in the east-west direction. Southeast of the project site, Hana Highway intersects with East Kuiaha Road at an unsignaled intersection. East Kuiaha Road is a two-lane, two-way County owned roadway generally oriented in the north-south direction. At the intersection with Hana Highway, the East Kuiaha Road approach has one stop controlled northbound lane that serves all traffic movements. The southbound approach of the intersection is comprised of a driveway serving an adjacent parcel.

The proposed waterline corridor extends east of the project site and follows East Kuiaha Road through Dolder Drive and Haiku Road, eventually ending at a connection to an existing waterline, at the southern intersection of Haiku Road and West Kuiaha Road.

Much of Haiku is composed of rural residential and agricultural areas. Due to the rural nature of the area, traffic is generally light and with minimal traffic congestion.

Suggest a traffic study be conducted for the areas affected.

RECOMMEND TRAFFIC STUDY BE CONDUCTED TO DETERMINE ACTUAL IMPACT AND SAME.
1/12/11

Respectfully submitted,

Sgt. Barry KUBO #9956
Patrol Division/Wailuku District
01/11/11 @ 1430hours

FEB 17 2011

ALAN M. ARAKAWA
Mayor

DAVID C. GOODE
Director

ROWENA M. DAGDAG-ANDAYA
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

February 9, 2011

Mr. Mark Alexander Roy, AICP
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Mr. Roy:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA), AND LAND USE ENTITLEMENT APPLICATIONS FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS; TMK: (2) 2-7-007:008 (POR.) DBA 2010/0002; CIZ 2010/0008; CPA 2010/0006

We reviewed the subject application and have the following comments:

Development Services Administration Comments:

1. The plans submitted for this project do not adequately show sufficient details to determine whether the project is compliant with the Building Code. We will review the project for Building Code requirements during the building permit application process.

2. When a project is financed with State or County funds, the requirements of Hawaii Revised Statutes, Section 103-50 regarding access for individuals with disabilities will apply.

Engineering Division Comments:

3. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.

4. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.

5. As applicable, worksite traffic-control plans/devices shall conform to "Manual on Uniform Traffic Control Devices for Streets and Highways", 2003.

Please call Rowena M. Dagdag-Andaya at 270-7845 if you have any questions regarding this letter.

Sincerely,

for DAVID C. GOODE
Director of Public Works

DCG:RMDA:ls
xc: Highways Division
Engineering Division
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MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Jordan Molina, Director
Department of Public Works
200 South High Street, 4th Floor
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Mr. Molina:

Thank you for your department's letter dated February 9, 2011 providing comments from the Department of Public Works (DPW) on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (District Boundary Amendment, Community Plan Amendment, Change of Zoning) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Haiku Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawaii Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new EIS rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final EA to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

Development Services Administration (DSA) Comments

1. We note that DSA will review the proposed project for compliance with building code requirements during the building permit application process.

2. The proposed project will be designed to comply with Section 103-50, Hawaii Revised Statutes regarding access for individuals with disabilities as well as applicable Americans with Disabilities Act (ADA) requirements.

Engineering Division Comments

3. We acknowledge that certain infrastructure improvements as may be required by Hawaii Revised Statutes, Maui County Code and the DPW rules and regulations will need to be completed as part of the project.

4. Construction plans for the project will be designed in conformance with applicable requirements of the 'Hawaii Standard Specifications for Road and Bridge Construction' (2005) and the 'Standard Details for Public Works Construction' (1984, as amended).

5. Worksite traffic control plans/devices utilized for the project will conform to applicable requirements of the 'Manual on Uniform Traffic Control Devices for Streets and Highways' (2003).

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
Diane Kodama, AECOM
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EXHIBIT A.

FEB 17 2011

ALAN M. ARAKAWA
Mayor

DAVID C. GOODE
Director

ROWENA M. DAGDAG-ANDAYA
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

February 9, 2011

Mr. Mark Alexander Roy, AICP
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Mr. Roy:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA), AND LAND USE ENTITLEMENT APPLICATIONS FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS; TMK: (2) 2-7-007:008 (POR.) DBA 2010/0002; CIZ 2010/0008; CPA 2010/0006

We reviewed the subject application and have the following comments:

Development Services Administration Comments:

1. The plans submitted for this project do not adequately show sufficient details to determine whether the project is compliant with the Building Code. We will review the project for Building Code requirements during the building permit application process.

2. When a project is financed with State or County funds, the requirements of Hawaii Revised Statutes, Section 103-50 regarding access for individuals with disabilities will apply.

Engineering Division Comments:

3. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.

4. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.

5. As applicable, worksite traffic-control plans/devices shall conform to "Manual on Uniform Traffic Control Devices for Streets and Highways", 2003.

Please call Rowena M. Dagdag-Andaya at 270-7845 if you have any questions regarding this letter.

Sincerely,

for DAVID C. GOODE
Director of Public Works

DCG:RMDA:ls
xc: Highways Division
Engineering Division
S:\LUCA\CZM\prop_haiku_fire_station_dba_ciz_cpa_27007007_ls.wpd

JAN 25 2011

ALAN M. ARAKAWA
MAYOR

JO ANNE JOHNSON
Director
MARC I. TAKAMORI
Deputy Director
Telephone (808) 270-7511

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

January 20, 2011

Mr. Mark Alexander Roy
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: EA for the Haiku Fire Station

Dear Mr. Roy,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Jo Anne Johnson
Director

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Marc Takamori, Director
Department of Transportation
County of Maui
110 Ala'ihi Street, Suite 210
Kahului, Hawai'i 96732

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Mr. Takamori:

Thank you for your department's letter dated January 20, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note that the County of Maui, Department of Transportation has no comments to make at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
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EXHIBIT A.

JAN 25 2011

ALAN M. ARAKAWA
MAYOR

JO ANNE JOHNSON
Director
MARC I. TAKAMORI
Deputy Director
Telephone (808) 270-7511

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI
200 South High Street
Wailuku, Hawaii, USA 96793-2155

January 20, 2011

Mr. Mark Alexander Roy
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: EA for the Haiku Fire Station

Dear Mr. Roy,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Jo Anne Johnson
Director

JAN 26 2011

ALAN M. ARAKAWA
Mayor

DAVID TAYLOR, P.E.
Director

PAUL J. MEYER
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

January 20, 2011

Mr. Mark Alexander Roy, AICP, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

RE: Project Name: Proposed Haiku Fire Station and Related Improvements
Applicant: Department of Fire and Public Safety, County of Maui
Permit I.D.: Draft Environmental Assessment, DBA 2010/0002, CIZ 2010/0008, and CPA 2010/0006
TMK: (2) 2-7-007:008 (por.)

Thank you for the opportunity to comment on these applications.

In a letter dated December 4, 2009, the Department of Water Supply made comments on the proposed project; attached is the letter. We have no additional comments at this time.

Should you have any questions, please contact our Water Resources & Planning Division at 244-8550.

Sincerely,

David Taylor, P.E., Director
ayi
attachment: comment letter dated December 4, 2009
c: Lee Mainaga, Fire Services Officer, Department of Fire and Public Safety
Kurt Wollenhaupt, Staff Planner, Department of Planning
DWS Engineering Division
DWS Files

"By Water All Things Find Life"

Printed on recycled paper

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

December 4, 2009

Munekiyo & Hiraga, Inc.
Mr. Mark Alexander Roy, AICP, Project Manager
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

RE: Project Name: Proposed Haiku Fire Station and Related Improvements
Applicant: Department of Fire and Public Safety, County of Maui
Permit I.D.: Early Consultation Request
TMK: (2) 2-7-007:008 (por.)

Thank you for the opportunity to comment on this early consultation request.

Source Availability and Consumption
The project site is within the Department of Water Supply's Haiku service area.

The project site covers approximately 6.1 acres located within a County property of 27.9 acres. One 5/8-inch water meter is located on the property. The property also has water meter reservations for 3 (three) 5/8-inch water meters for a subdivision.

System Infrastructure
There is a 6-inch waterline and a fire hydrant located more than 1,000 feet from the project site on East Kuiaha Road near the east end of the County property. Storage is provided by the 0.5 million gallon (MG) Kaupakalua tank. These are inadequate for the proposed project.

The project scope proposes the installation of approximately 4,200 feet of waterline, beginning at a location approximately 2,300 feet south of the project site, to address domestic use and fire protection concerns.

During the building permit process, the applicant will be required to submit domestic, irrigation and fire flow calculations to determine water meter capacity and adequate fire protection. Approved fire flow calculation methods currently used by the Department of

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

335 270
Printed on recycled paper

Water Supply are the "Guidance for Determination of Required Fire Flow" as published by the Insurance Services Office in 1974, 2001 and 2006, or "Fire Flow" as published by the Hawaii Insurance Bureau in 1991. Also required is the installation of a reduced pressure back-flow prevention device, approved by the DWS. For more information or clarification on the device, please contact our Engineering Division at 270-7835 or our Backflow and Cross-Connection Control Section at 270-6132.

Pollution Prevention
The site overlies the Haiku aquifer which has a sustainable yield of 27 million gallons per day. The Department of Water Supply's goal is to protect the integrity of surface and groundwater resources. To achieve this, mitigation measures must be implemented to prevent any water pollution related impacts. Best management practices for construction should, therefore, be applied.

Conservation Measures
The Department of Water Supply encourages the applicant to consider the following conservation measures in the project design, as well as during construction:

1. Utilize reclaimed or non-potable water for dust control, irrigation and other non-potable uses.
2. Water after 7:00 p.m. at night and before 10:00 a.m. in the morning.
3. Utilize low-flow fixtures and devices - Maui County Code Subsection 16.20A.680 requires the use of low-flow fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Even more efficient and consumer tested models are available. Check WaterSense listings at http://www.epa.gov/watersense/pp/index.htm for efficient fixture listings when buying or replacing fixtures.
4. Prevent over-Watering by automated systems - Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evaporation rates at the site. As an alternative, provide more automated, soil-moisture sensors on controllers.
5. Maintain fixtures to prevent leaks - A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons per day.
6. Limit irrigated turf - Low-water use shrubs and ground cover can be equally attractive and require substantially less water than turf.
7. Select climate adapted native plant species for landscaping - Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species.
8. Look for opportunities to conserve water - Here are a few samples: 1) When clearing debris, use a broom instead of a hose and water; 2) Check for leaks in pipes, faucets and toilets.

Should you have any questions, please contact our Water Resources & Planning Division at 244-8550.

Sincerely,

JEFFREY K. ENG, DIRECTOR
ayi
Enclosures: Maui County Planting Plan - Saving Water in the Yard - What and How to Plant in your Area
c: DWS Engineering Division
WRPD Project File
WRPD Reading File

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

John Stufflebean, P.E., Director
Department of Water Supply
County of Maui
200 S. High Street, 5th Floor
Wailuku, Hawai'i 96793

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Mr. Stufflebean:

Thank you for your department's letter dated January 20, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawaii Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant

to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We thank you for the inclusion of the Department of Water Supply's letter dated December 4, 2009 providing comments on the proposed project. We note that the Department of Water Supply has no additional comments at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\DWS.docx

EXHIBIT A.

JAN 26 2011

ALAN M. ARAKAWA
Mayor

DAVID TAYLOR, P.E.
Director

PAUL J. MEYER
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

January 20, 2011

Mr. Mark Alexander Roy, AICP, Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

RE: Project Name: Proposed Haiku Fire Station and Related Improvements
Applicant: Department of Fire and Public Safety, County of Maui
Permit I.D.: Draft Environmental Assessment, DBA 2010/0002, CIZ 2010/0008, and CPA 2010/0006
TMK: (2) 2-7-007:008 (por.)

Thank you for the opportunity to comment on these applications.

In a letter dated December 4, 2009, the Department of Water Supply made comments on the proposed project; attached is the letter. We have no additional comments at this time.

Should you have any questions, please contact our Water Resources & Planning Division at 244-8550.

Sincerely,

David Taylor, P.E., Director
ayi
attachment: comment letter dated December 4, 2009
c: Lee Mainaga, Fire Services Officer, Department of Fire and Public Safety
Kurt Wollenhaupt, Staff Planner, Department of Planning
DWS Engineering Division
DWS Files

"By Water All Things Find Life"

Printed on recycled paper

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

December 4, 2009

Munekiyo & Hiraga, Inc.
Mr. Mark Alexander Roy, AICP, Project Manager
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

RE: Project Name: Proposed Haiku Fire Station and Related Improvements
Applicant: Department of Fire and Public Safety, County of Maui
Permit I.D.: Early Consultation Request
TMK: (2) 2-7-007:008 (por.)

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Water Supply are the "Guidance for Determination of Required Fire Flow" as published by the Insurance Services Office in 1974, 2001 and 2006, or "Fire Flow" as published by the Hawaii Insurance Bureau in 1991. Also required is the installation of a reduced pressure back-flow prevention device, approved by the DWS. For more information or clarification on the device, please contact our Engineering Division at 270-7835 or our Backflow and Cross-Connection Control Section at 270-6132.

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Should you have any questions, please contact our Water Resources & Planning Division at 244-8550.

Sincerely,

JEFFREY K. ENG, DIRECTOR
ayi
Enclosures: Maui County Planting Plan - Saving Water in the Yard - What and How to Plant in your Area
c: DWS Engineering Division
WRPD Project File
WRPD Reading File

Hawaiian Telcom ●
February 4, 2011

Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

ATTN: Mark Alexander Roy, AICP, Project Manager

SUBJECT: PROPOSED HAIKU FIRE STATION; HAIKU, ISLAND OF MAUI
DRAFT ENVIRONMENTAL ASSESSMENT (EA), AND LAND USE ENTITLEMENT APPLICATIONS (DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS AT TMK: (2) 2-7-007:008 (POR), HAIKU, MAUI, HAWAII
DBA 2010/0002
CIZ 2010/0008
CPA 2010/0006
COUNTY OF MAUI, DEPT. OF FIRE AND PUBLIC SAFETY AND
THE COUNTY OF MAUI, DEPT. OF PLANNING (applicant)

Dear Mr. Roy:

Thank you for providing Hawaiian Telcom Incorporated, the opportunity to comment on the Draft Environmental assessment and land use entitlement applications for the proposed Haiku Fire Station and Related Improvements off of Hana Hwy., Haiku, on the Island of Maui.

Hawaiian Telcom has no comments on this project at this time.

If there are any questions, please call Sheri Tihada at (808) 242-5258.

Sincerely,

for

Lynette Yoshida
Senior Manager –
Network Engineering & Planning

C: Lee Maniaga, Fire Services Officer, County of Maui, Dept. of Fire and Public Safety,
200 Dairy Road, Wailuku, HI 96793
Kurt Wollenhaupt, Staff Planner, Dept. of Planning,
2200 Main Street, Suite 619, Wailuku, HI 96793
File (3005 0911-085)
S. Tihada

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Ron Beerman, Vice President – Network Operations
Hawaiian Telcom
1177 Bishop Street
Honolulu, Hawai'i 96813

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Mr. Beerman:

Thank you for your company's letter dated February 4, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note that Hawaiian Telcom has no comments at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\HawnTel.docx

EXHIBIT A.

Hawaiian Telcom
February 4, 2011

Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

ATTN: Mark Alexander Roy, AICP, Project Manager

SUBJECT: PROPOSED HAIKU FIRE STATION; HAIKU, ISLAND OF MAUI
DRAFT ENVIRONMENTAL ASSESSMENT (EA), AND LAND USE ENTITLEMENT APPLICATIONS (DISTRICT BOUNDARY AMENDMENT, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING) FOR THE PROPOSED HAIKU FIRE STATION AND RELATED IMPROVEMENTS AT TMK: (2) 2-7-007:008 (POR), HAIKU, MAUI, HAWAII
DBA 2010/0002
CIZ 2010/0008
CPA 2010/0006
COUNTY OF MAUI, DEPT. OF FIRE AND PUBLIC SAFETY AND
THE COUNTY OF MAUI, DEPT. OF PLANNING (applicant)

Dear Mr. Roy:

Thank you for providing Hawaiian Telcom Incorporated, the opportunity to comment on the Draft Environmental assessment and land use entitlement applications for the proposed Haiku Fire Station and Related Improvements off of Hana Hwy., Haiku, on the Island of Maui.

Hawaiian Telcom has no comments on this project at this time.

If there are any questions, please call Sheri Tihada at (808) 242-5258.

Sincerely,

for

Lynette Yoshida
Senior Manager –
Network Engineering & Planning

C: Lee Maniaga, Fire Services Officer, County of Maui, Dept. of Fire and Public Safety,
200 Dairy Road, Wailuku, HI 96793
Kurt Wollenhaupt, Staff Planner, Dept. of Planning,
2200 Main Street, Suite 619, Wailuku, HI 96793
File (3005 0911-085)
S. Tihada

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

January 10, 2011

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: Proposed Haiku Fire Station and Related Improvements – Draft Environmental Assessment, District Boundary Amendment, Change in Zoning, and Community Plan Amendment
(DBA 2010/0002, CIZ 2010/0008, & CPA 2010/0006)
Hana Highway
Haiku, Maui, Hawaii
Tax Map Key: (2) 2-7-007: 008 (por.)

Dear Mr. Roy,

Thank you for allowing us to comment on the Draft Environmental Assessment, District Boundary Amendment, Change in Zoning, and Community Plan Amendment for the subject project.

In reviewing our records and the information received, Maui Electric Company has no additional comments to the subject project at this time.

Should you have any questions or concerns, please call me at 871-2341.

Sincerely,

Kyle Tamori
Staff Engineer

c: Mr. Lee Mainaga – County of Maui, Department of Fire and Public Safety
Mr. Kurt Wollenhaupt – County of Maui, Department of Planning

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Hawaiian Electric Company, Inc.
1001 Bishop Street
Honolulu, Hawai'i 96813

SUBJECT: Proposed Ha'ikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawai'i

Dear Sir or Madam:

Thank you for your company's letter dated January 10, 2011 providing comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the proposed Ha'ikū Fire Station Project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

1. We note that Hawaiian Electric Company has no additional comments at this time.

We appreciate the input provided by your office. A copy of your comment letter and this response letter will be included in the Updated DEA. Should you have any questions or require additional information, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:yp
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety
Terry McFarland, Architects Hawaii, Ltd.
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Draft EA Res\HECO.docx

EXHIBIT A.

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

January 10, 2011

Mr. Mark Alexander Roy, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Subject: Proposed Haiku Fire Station and Related Improvements – Draft Environmental Assessment, District Boundary Amendment, Change in Zoning, and Community Plan Amendment
(DBA 2010/0002, CIZ 2010/0008, & CPA 2010/0006)
Hana Highway
Haiku, Maui, Hawaii
Tax Map Key: (2) 2-7-007: 008 (por.)

Dear Mr. Roy,

Thank you for allowing us to comment on the Draft Environmental Assessment, District Boundary Amendment, Change in Zoning, and Community Plan Amendment for the subject project.

In reviewing our records and the information received, Maui Electric Company has no additional comments to the subject project at this time.

Should you have any questions or concerns, please call me at 871-2341.

Sincerely,

Kyle Tamori
Staff Engineer

c: Mr. Lee Mainaga – County of Maui, Department of Fire and Public Safety
Mr. Kurt Wollenhaupt – County of Maui, Department of Planning

FEB 04 2011

ISAAC DAVIS HALL
ATTORNEY AT LAW
2087 WELLS STREET
WAILUKU, MAUI, HAWAII 96793
(808) 244-9017
FAX (808) 244-6775

February 4, 2011

Mr. Lee Mainaga
Fire Services Officer
Dept of Fire and Public Safety
200 Dairy Road
Kahului, HI 96732

Re: The DEA for the Proposed Haiku Fire Station and Related Improvements is Inadequate and, Because the Project May Cause Significant Adverse Impacts, an EIS Is Required

Dear Lee Mainaga:

This letter is written on behalf of the undersigned who reside in the agricultural and rural neighborhood that surrounds the proposed site for the Haiku Fire Station and who would be adversely affected if the Station were constructed as proposed in the Draft Environmental Assessment ("DEA").

I. THE DEA IS INADEQUATE AND AN EIS IS REQUIRED

The DEA for the proposed Haiku Fire Station is inadequate. The DEA does **not** demonstrate that the proposed project will not have any significant adverse impacts on the environment. Instead, it is plainly evident that this project, as described in the DEA, may cause significant adverse impacts and, more likely, will cause significant adverse impacts to the environment.

As such, a FONSI cannot be supported for this project as a matter of fact and law. An Environmental Impact Statement ("EIS") preparation notice must be issued and the impacts of this project must be thoroughly addressed in a full and complete EIS.

The applications for a District Boundary Amendment ("DBA") from Agriculture to Rural, for a Community Plan Amendment ("CPA") from Agriculture to Public/Quasi/Public and a Change in Zoning ("CIZ") from

Agriculture to Public/Quasi/Public cannot be processed until a lawful EIS is completed.

II. STANDARD OF REVIEW

An Environmental Assessment ("EA") is admittedly required here. The purpose of preparing an EA is to "determine to whether an environmental impact statement ("EIS") shall be required." HRS § 343-5(b)(1)(D) provides that:

> A statement [EIS] shall be required if the agency finds that the proposed action **may** have a significant effect on the environment. (Emphasis added.)

Hawaii's "Environmental Impact Statement Rules" in HAR § 11-200-12 entitled "Significance Criteria" set out criteria for determining "whether an action **may** have a significant effect on the environment." (Emphasis added.) Subsection B. states:

> In determining whether an action may have a significant effect on the environment, the agency shall consider every phase of a proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short-term and long-term effects of the action. In most instances, an action shall be determined to have a significant effect on the environment if it:
>
> 1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
> 2. Curtails the range of beneficial uses of the environment;
> 3. Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;
> 4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;
> 5. Substantially affects public health;
> 6. Involves substantial secondary impacts, such as population changes or effects on public facilities;
> 7. Involves a substantial degradation of environmental quality;
> 8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
> 9. Substantially affects a rare, threatened, or endangered species, or its habitat;

10. Detrimentally affects air or water quality or ambient noise levels;

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

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

13. Requires substantial energy consumption.

If the agency reviewing the EA determines that the proposed action may have a significant effect on the environment, an EIS must be prepared. *Kepoo v. Watson*, 87 Hawai`i 91, 952 P. 2d 379 (1998), *Molokai Homesteaders Co-Op. Ass'n v. Cobb*, 63 Haw. 453, 629 P. 2d 1134 (1981).

III. FAILURE TO CONSULT

We made it clear to the Department of Fire and Public Safety, County of Maui and the Administration at least five years ago that we had serious concerns about the adverse impacts in purchasing this property and locating a Fire Station with a helipad component on this particular property. HAR §11-200-9, entitled "Assessment of Agency Actions and Applicant Actions" provides, in subsection A, that:

> For agency actions, except those actions exempt from the preparation of an environmental assessment pursuant to section 343-5, HRS, or section 11-200-8, **the proposing agency shall**:
>
> 1. Seek, at the earliest practicable time, the advice and input of the county agency responsible for implementing the county's general plan for each county in which the proposed action is to occur, and **consult with** other agencies having jurisdiction or expertise as well as those citizen groups and **individuals which the proposing agency reasonably believes to be affected**;

Neither the Fire Department nor the Administration nor Munekiyo & Hiraga have consulted with us regarding this project or about this DEA. The first time we heard about this DEA was when we read a newspaper article about it in the Saturday, January 22, 2011 edition of the Maui News. The proposing agency has violated the mandatory procedural requirements for the preparation of this DEA.

IV. AN EIS IS REQUIRED TO STUDY THE NOISE IMPACTS OF THE PROPOSED HELICOPTER FACILITY

The County is proposing to construct a "helicopter facility" as one component of this local Fire Station. The DEA states in § I.B on p.6:

> **A helipad will also be implemented as part of the project to facilitate civil defense, training, rescue and firefighting operations in Central Maui and the surrounding areas.** (Emphasis added.)

Figure 4 in the DEA shows the location of the "Helicopter Landing Pad." See p.5 of the DEA.

Helicopter facilities are recognized as individualized triggering events for EAs in Chapter 343 because of the adverse noise impacts generated by helicopters. HRS § 343-2 defines a "Helicopter facility" as:

> ..... any area of land or water which is used, or intended for use for the landing or takeoff of helicopters; and any appurtenant areas which are used, or intended for use for helicopter related activities or rights-of-way.

These helicopters will fly over conservation lands at times.

Helicopter facilities are not permitted uses in the state rural or county public/quasi-public districts. They are urban uses. Federal Aviation Administration ("FAA") approval is required before operating helicopters from this facility. See MCC § 16.26.311.10.5.

The DEA fails to list this federal approval as a regulatory requirement for this project. See DEA, § D., pp. 12-13. This federal permit is a triggering event for a federal EA. The proposing agency has failed to concurrently prepare a federal EA for this project pursuant to NEPA. See HRS § 343-5(f).

The noise impacts of this helicopter facility will be immediately imposed on the existing surrounding residents in this now quiet rural neighborhood. The DEA is wholly inadequate in describing the "helicopter facility."

One of the "significance criteria" is whether a proposed action may detrimentally affect "ambient noise levels." What are the "ambient noise levels" at the "helicopter facility" site? No helicopter noise impact study

has been prepared to first determine what the actual ambient noise levels are in this agricultural and rural area and on this undeveloped site.

How often is it expected that helicopters will take off and land at the "Helicopter Landing Pad." At what times are the helicopter operations expected to take place? What are the anticipated flight paths or tracks for these helicopters? In what directions will they take off? From what directions will they approach the "Helicopter Landing Pad" when they land. Over what neighboring properties will these helicopters be flying? The Department of Fire and Public Safety, County of Maui possesses records regarding the use of the helicopter facilities it operates in Kahului and in Wailea that can provide a basis for further estimates of the amounts of use of a helicopter facility anticipated in Haiku. No helicopter noise impact study has been prepared as part of this DEA addressing all of these issues. It is likely that the adverse noise impacts of these helicopters may detrimentally affect "ambient noise levels."

The DEA concludes only that "construction of the new fire station and new water line may cause short-term impacts to noise quality. No effort has been made to address the serious and adverse short and long-term noise impacts caused by operating helicopters at the proposed Haiku Fire Station.

There is a broader issue as well. The "helicopter facility" is not limited to local Haiku emergency service. It is intended **"to facilitate civil defense, training, rescue and firefighting operations in Central Maui** and the surrounding areas. How many of these operations are for local Haiku purposes and how many of these operations are for civil defense, training, rescue and firefighting operations in Central Maui and areas other than Haiku? It is one matter to impose upon Haiku residents the adverse noise impacts of helicopters on occasional rescue missions in the Haiku area. It is another matter to impose upon Haiku residents the adverse noise impacts of helicopters at a training facility for Central Maui. Alternative locations on the island of Maui for a "helicopter facility" serving more than the Haiku community should be addressed in a larger EIS.

V. FAILURE TO ADDRESS IMPACTS OF OFF-SITE WIND TURBINES

The DEA wholly fails to address the environmental impacts of the two (2) offsite wind turbines that are proposed to be constructed as components of this project. There are no plans or specifications attached to the DEA showing the appearance and height of the wind generating turbines. There is no analysis of available wind at the proposed site.

There is no analysis of the environmental impacts of wind turbines at that particular site.

If a utility facility is a minor facility it is a permitted use in the agricultural district. If a utility facility is a major facility it is a special use in the agricultural district. Among the primary dividing lines between "major" and "minor" utility facilities are whether these facilities "have [a] potential major impact, by virtue of their appearance, noise, size, traffic generation, or other operational characteristics...." See MCC §§ 19.04.040, 19.30A.050 and 19.30A.060.

The purpose of the DEA is to address the environmental characteristics of the particular wind generating facilities proposed here. The Zoning Determination dated December 24, 2009 attached to the DEA does not study any of the characteristics of the wind generating facilities proposed here. This determination cannot substitute for the study of these characteristics that is required to be included with the DEA. The DEA is inadequate because it fails to address the environmental impacts of the wind generating facilities.

VI. THESE AGRICULTURAL LANDS MUST BE PROTECTED

These are "prime" agricultural lands. MCC §19.68.040 states that:

> .... lands identified by the state as important agricultural lands needed to fulfill the purposes of conserving and protecting agricultural lands, promoting diversified agriculture, increasing agricultural self-sufficiency and assuring the availability of agriculturally suitable lands, shall not be reclassified without meeting the standards and criteria established by the legislature and enactment of an ordinance approving the reclassification of such lands by an affirmative vote of at least two-thirds of the council's membership rather than the usual majority.

At a minimum, a vote by two-thirds of the Maui County Council's membership is required to reclassify these "prime" agricultural lands.

More importantly, Maui County's "Agriculture District" Zoning Ordinance provides standards for those lands that should be retained in the agriculture district, in Section 19.30A.020, as follows:

> Agricultural lands that meet at least two of the following criteria should be given the highest priority for retention in the agricultural district:

A. Agricultural Lands of Importance to the State of Hawai'i (ALISH);

B. Lands not classified by the ALISH system whose agricultural land suitability, based on soil, topographic, and climatic conditions, supports the production of agricultural commodities, including but not limited to coffee, taro, watercress, ginger, orchard and flower crops and non-irrigated pineapple. In addition, these lands shall include lands used for intensive animal husbandry, and lands in agricultural cultivation in five of the ten years immediately preceding the date of approval of this chapter; and

C. Lands which have seventy-five percent or more of their boundaries contiguous to lands within the agricultural district.

In this instance, Tests A, B and C are satisfied. These lands are classified "prime" in the ALISH system. (Test A). These lands were in cultivation through the early 2000's. (Test B; Ordinance 2749 was originally enacted in 1998). Seventy-five percent of the lands surrounding this parcel are in the agriculture district. (Test C).

These lands do not qualify under any circumstances for reclassification or rezoning out of the Agriculture District. The Maui County Council has a regulatory duty, as a matter of law, to protect this parcel for agricultural uses. The applications for a DBA and CIZ must be denied on these grounds alone.

VII. INCONSISTENCY WITH GENERAL AND COMMUNITY PLAN

The Paia-Haiku Community Plan, as a "Planning Standard," states on p. 36:

> All zoning applications and/or proposed land uses and developments shall be consistent with the Land Use Map and Objectives and Policies of the Paia-Haiku Community Plan.

The Paia-Haiku Community Plan requires, as a Land Use Goal, the protection of "prime" agricultural lands. See Part III. B. 1. (p.15); See also Part II.B.2.f. (p.12). It is an "Objective and Policy of the Paia-Haiku Plan to "Maintain agriculture as the primary economic activity." (p.22).

The proposed new growth boundaries place the 29 acre parcel within a "rural service center." The "characteristics" of a "rural service center" are

> Small cluster of goods/services to support surrounding rural residential uses and agricultural communities. Facilities are generally limited and many essential goods and services are located in a larger town. Employment is generally a function of nearby urban areas or Country Towns. (e.g. Ha`iku, Waiakoa, Keokea)

These uses are for small stores, like Fukushima's, in outlying areas. These uses must be permitted in the Rural District. The uses proposed here are not permitted in the County Rural District.

This proposed Fire Station constitutes illegal "spot" zoning. *Lum Yip Kee, Ltd. v. City and County of Honolulu*, 767 P. 2d 815 (1989) (spot zoning is an arbitrary zoning action by which a small area within a large area is singled out and specially zoned for a use classification different from and inconsistent with the classification of the surrounding area and not in accord with comprehensive plan). The proposal injects urban-like uses into an area completely surrounded by prime agricultural lands and is inconsistent with the applicable plans. This is the wrong location for this project.

The DBA and CIZ applications are inconsistent with these objectives and policies in the Paia-Haiku Community Plan and must be denied as a matter of law. *Gatri v. Blane*, 88 Haw. 108, 962 P. 2d 367 (1998).

VIII. THE STUDY OF ALTERNATIVES IS INADEQUATE

The study of alternatives in the DEA is inadequate. The DEA addresses (1) the Preferred Alternative, (2) a No Action Alternative and (3) a Deferred Action Alternative in one and one-half pages. DEA, pp. 75-76.

The study of alternatives in this DEA is virtually meaningless for environmental purposes. It has been judicially determined that the "heart" of environmental analysis is the study of alternatives to the proposed action. *Friends of the Bitterroot v. U.S. Forest Service*, 900 F. Supp. 1368 (D.C. Mont. 1994); *Conner v. Burford*, 836 F. 2d 1521 (9th Cir. 1988).

HAR § 11-200-17(f), with respect to the study of alternatives, requires a description of all "alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected." HAR § 11-200-17(f) continues:

The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. **Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks.** (Emphasis added). Examples of alternatives include:

1. The alternative of no action;
2. Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;
3. Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;
4. The alternative of postponing action pending further study; and,
5. Alternative locations for the proposed project.

In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency.

No EA was prepared when the property was purchased. Maps were prepared and distributed at one time comparing different potential locations for a Fire Station in Haiku based upon fire insurance coverage that would be made available. This is purely an economic factor.

The Department of Fire and Public Safety, County of Maui allegedly has a site selection process that evaluates the benefits and detriments of various alternative locations. There is no evidence in this DEA that alternative locations in the Haiku Region have been evaluated based upon their comparative environmental impacts.

This site requires the County taxpayers to expend millions of dollars in off-site water improvements just to bring water to the property. The DEA should study alternative locations, closer to existing sources of water, that would not require the expenditure large sums of taxpayer monies for off-site infrastructural improvements.

Alternative sites closer to Haiku's existing urban core that will not cause the loss of prime agricultural lands and are closer to existing sources of water must be examined.

The study of alternatives is even more important in this case because a helicopter facility is proposed as a component of this project. The DEA contains no analysis of different locations for a helicopter facility. This failure is even more egregious because what is being proposed is a regional training center for Central Maui. The DEA must contain a comparative analysis of different locations that might be available for a helicopter facility that could serve as a regional training center for Central Maui. Among the sites that should be studied are the Kahului Airport and the helicopter facility that already exists at the Kahului Fire Station.

IX. FAILURE TO ADDRESS COST OF WATER PIPELINE AND WATER ISSUES

A. This Property Has An Inadequate Source of Water Without Extensive Off-Site Water Improvements From a Distant Purported Source

This property has one 5/8th inch meter and allegedly also has a "reservation" for three additional meters. But the water demand for the Fire Station cannot be satisfied by water supplied by the 5/8th inch meter. The Department of Water Supply has stated that existing water systems are inadequate for this project.

The average potable water demand created by the Fire Station is stated to be 1,186 gpd. The total fire flow demand is stated to be 1,500 gpm for a two hour duration. These water demands require the construction of a new 12 inch in diameter water line that is 4,200 linear feet long, from the project site to West Kuiaha Road. There the pipe connects to a 6 inch in diameter pipeline which then connects to the .5 million gallon ("MG") Kaupakalua Tank that is 5,000 feet to the south of the Fire Station Site.

The cost of the total project is 11.2 million dollars. There is no separate break out of the cost for these extensive off-site improvements just to bring water from a distant location to the project site. This cost data should have been included. That a project with water demands this great is proposed such a distance from a source that can purportedly supply enough water to the site demonstrates that the site itself is not appropriate. A site closer to a satisfactory water source should be studied as an alternative.

B. This Is An Illegal Implementation of the EM Plan

The Kaupakalua Tank is alleged to supply water to West Kuiaha Road via a six inch in diameter pipeline. This pipeline connects to a proposed pipeline between West Kuiaha Road and East Kuiaha Road that is planned to be 12 inches in diameter and 4,200 linear feet long. The capacity of the pipeline increases significantly even though the amount that can be supplied is well below this capacity because of the six inch size.

The DEA should have disclosed the amount of water that a 12 inch in diameter pipeline is capable of transmitting. It is likely that the 12 inch in diameter water transmission pipeline has the capacity to transmit far more water than is required by a Fire Station. If so it has been sized for additional growth. The growth induced by this transmission line is a secondary or cumulative impact that should have been addressed in the DEA.

It further appears that the 12-inch diameter water transmission pipeline has been sized to meet the needs of the East Maui Water Development Plan ("EM Plan"). One component of the EM Plan is the construction of a water transmission line in the Haiku Road right of way between West Kuiaha Roads and East Kuiaha Roads. See Phase 4 of the EM Plan. The 12 inch diameter water transmission line is proposed to be constructed in the same location as Phase 4 of the EM Plan.

The County is a party to a Consent Decree filed on December 22, 2003 in *The Coalition to Protect East Maui Water Resources et al., v. the Department of Water Supply et al.,* Civil No. 03-1-0008(3) in the Circuit Court of the Second Circuit by which the County is forbidden from implementing any component of the EM Plan until a Supplemental EIS is prepared. For this additional reason an EIS is required.

C. The County Declaration That the Upcountry Water System Is Inadequate to Supply Water for Domestic or Fire Flow Purposes

Water cannot be supplied to this parcel without violating Chapters 14.12 and 14.13 of the Maui County Code. These issues have not been addressed in the DEA.

The County of Maui has declared, from 1994 to the present, that the Upcountry water system is inadequate to supply additional water for domestic and fire flow purposes without detriment to those already being served on the system. This declaration includes the County water system in Haiku.

The Maui County Council has enacted the "Water Meter Issuance Provisions for the Upcountry Water System" law. MCC § 14.13.020, entitled "Purpose" states:

> The purpose of this chapter is to provide uniform handling of applications for water service from the priority list.

The "Priority list" is defined as:

> [T]he compilation of premises in the order received by the department pursuant to a legal notice published in The Maui News, November 2, 1994, for applicants denied new or additional water service.

The "Upcountry water system" is defined as:

> [A]ll water improvements associated with the department's Upper Kula, Lower Kula, Makawao (including Pukalani, Haliimaile and Maunaolu College area) and Haiku water systems.

MCC § 14.13.040, entitled "Water service requests" states:

> A. On March 16, 1993, the upcountry water system was found to have insufficient water supply developed for fire protection, domestic, and irrigation purposes to take on new or additional water services without detriment to those already served in the regulated area. Since November 2, 1994, the department has maintained a priority list of premises, organized by the date applications for new or additional water service were received for such premises.
> B. The director shall continue to maintain the priority list of premises applying for new or additional water service from the upcountry water system.

This law forbids the Director from providing new water service, except "in the order of the priority list" and then only "if additional source for the upcountry water system becomes available." MCC § 14.13.060. The Director can only "waive or modify" the mandatory requirements of this law as provided in MCC §14.13.080 which states:

> The director may waive or modify the provisions of this chapter when not contrary to the public's health, safety or welfare, and when the director finds:

1. Strict application of the provisions of this chapter would cause an absurd, unfair, or unreasonably harsh result;

2. The director finds the circumstance or condition is unique or exceptional, and the director would grant the same request if made by every similarly situated applicant; and

3. The resulting action of the director will be without detriment to existing users.

The Director has not done so in this case. The Maui County Council has declared the Makawao and Haiku Water systems to **"have insufficient water supply developed for fire protection, domestic, and irrigation purposes to take on new or additional water services without detriment to those already served in the regulated area."** (Emphasis added) MCC § 14.13.040.A. Residents in the surrounding area who now receive water service from the County of Maui, by this provision, may be detrimentally affected by the provision water to this property.

C. Maui County Code Chapter 14.12

The Maui County Council has also enacted a law entitled "Water Availability" in MCC Chapter 14.12. MCC § 14.12.040, entitled "Written verification of long term, reliable supply of water" requires in Section A that:

> No subdivision shall be approved, unless prior to submittal of subdivision construction plans pursuant to section 18.20.160 of this code, the director shall provide written verification of a long term, reliable supply of water.

MCC § 14.12.050 further provides, in pertinent part, that:

> The director shall review and comment on engineering reports during the department of health's inter-agency review period. In reviewing and commenting on an engineering report, the director shall consider all of the following factors:
>
> A. The cumulative impacts;
>
> D. The general plan and relevant community plans;
>
> G. **The adverse impacts on the water needs of residents currently being served and projected to be served by the department;**
>
> M. **The adverse impacts to the water needs of residents currently on a County "wait list" for water meters;**

The DEA fails to address these issues.

X. THE STUDY OF ARCHAEOLOGICAL AND CULTURAL RESOURCES IS INADEQUATE

The DEA includes in Appendix C "An Archaeological Inventory Survey for the Proposed Ha'iku Fire Station and Waterline Corridor in Pa'uwela Ahupua'a [TMK 2-7-007:008]" ("AIS") prepared by Scientific Consultant Services Inc. ("SCS") and dated June 2010. Also included is a letter from the State Historic Preservation Division ("SHPD") dated November 12, 2010 which states: "We previously reviewed a draft of this report (Perzinski and Dega June 2010) and requested changes/clarifications. Although SHPD's 11/12/10 letter appears to accept a final version of the AIS, this final version is not included in the DEA, only the unapproved draft.

SHPD's rules require notice to the public of its receipt of archaeological reports and plans by weekly postings on its website and its office, however, no notice was ever given. This AIS – whether in draft or final form – was never made available to interested persons for the 30-day review and comment period afforded by §13-275-3 (f) HAR.

This is the first opportunity we have had to comment on the AIS since we became aware of the existence of the DEA approximately two weeks ago. Our comments are as follows.

First, the proposed Fire Station is in the ahupua'a of Kuiaha, not Pa'uwela ahupua'a which is located to the south of the project parcel. This is a basic and important error which must be corrected especially since the AIS (SCS Project Number 1012-1) is a companion to a purported "Cultural Impact Assessment for the Proposed Development of a Haiku Fire Station " ("CIA") also by SCS dated May 2009 (sic) (SCS Project Number 1013-CIA-1). The USGS Quadrangle Map included as a figure in both the AIS and the CIS indicates that the parcel is in Kuiaha and not Pa'uwela.

The limited archival and documentary research conducted for the proposed project consisted of a review of commonly consulted sources (i.e. Beckwith, Daws, Fornander, Handy, Kamakau, etc.). The bulk of the general information contained in both the AIS and CIS is identical.

A. The AIS

The Predictive Model section of the AIS on page 14 states:

> Historically, the project area was used for large scale pineapple cultivation and pasture and later as a house site that would have likely destroyed any traditional Hawaiian sites or features. Along the waterline corridor the road has been cut to 15-feet into the slope effectively eliminating any possibility of encountering subsurface deposits. Thus, it is believed that any sites encountered will likely be of an historic nature related to agriculture, animal husbandry or recent habitation within the project area.

What is the basis for the statement that the project area was used for large-scale pineapple cultivation and pasture? Information contained in the Methods section on page 15 states that eleven backhoe trenches were excavated in the southern portion of the project area only, due to the "extremely uneven terrain in the eastern portion of the project area and the presence of several concrete pads and pre-existing structures in the northern portion."

Consisting of two features, SIHP 50-50-06-6678 is identified in the northwest portion of the project area next to a vacant cottage and a driveway. The site is described as being in fair to good condition. Site type is listed as retaining wall/terrace constructed of traditional material (dry-stacked basalt). Despite the traditional material and traditional construction, the AIS reports "it is believed that the features are associated with the current or possibly former residents." The features of the site are estimated to have been constructed in the 1950s.

The AIS speculates that the Feature B terrace was constructed by the former house occupants. Figure 9 on page 21 depicts Site 6678 in relation to the Ha'iku Fire Station and accessory structures. Site 6678 is well to the north of the proposed buildings. Figures 11 and 12 on page 23 show features A and B respectively. On page 24, under Significance Assessments, it is noted that "one shovel test unit was excavated adjacent to the platform." Is the terrace now a platform? Although the AIS recommended that Site 6678 was significant under criterion D, we believe that there is insufficient information to assess this site as significant for criterion D only. For instance, due to the good condition of the features, as evidenced by the photos on page 23, they may be worthy of preservation under criterion C as an excellent example of a modern historic use of traditional materials and construction. This is particularly important because there are so few examples of traditional stone work in the modern historic period in the immediate area.

B. The CIA

The CIA fails to document any interviews or consultation with individuals or organizations knowledgeable about the project area. SCS merely sent out two rounds of letters, primarily to government agencies. Of the two non-governmental agencies to whom a letter was sent, the Central Maui Hawaiian Civic Club is too general an entity to contact (in that they have no procedure for getting a request for cultural practices information out to their members) and Na Kupuna o Maui is an ad hoc group whose members are not known (a group with this name was involuntarily dissolved by the State of Hawaii's Department of Commerce & Consumer Affairs several years ago).

The authors of the CIS, Leann McGerty and Robert Spear, have failed to produce an adequate or credible CIS. The authors did not even bother to interview the neighbors in the rural/agricultural community near the project area, many of whom are long-time kama'aina residents. These neighbors very likely know the history of the project area in their lifetimes. They would be able to shed some light on the agricultural and other uses of the parcel.

Instead the CIS contains a two-sentence section entitled "Project Area and Vicinity" on page 8, the second sentence of which is not altogether accurate: "Most of the land in the vicinity of the project area has long been planted in sugar cane or pineapple." While this statement may be true for some areas of Ha'iku and, more particularly Pa'uwela, it does not take into account specific land uses and practices in close proximity to the project area including, but not limited to, lo'i kalo. Not all of the land in the vicinity of the project area had been planted in sugar cane or pineapple. SCS failed to dig very deep.

Finally, because the parcel area terrain is so uneven as evidenced by the topographical lines shown on Figure 5 of the AIS, there was no actual testing of the majority of the parcel. We believe that ground disturbing activities at Parcel 008 should be monitored.

XI. FAILURE TO ADDRESS CUMULATIVE AND SECONDARY IMPACTS

The DEA does not include any review of the secondary or cumulative impacts of this project. The DEA is inadequate on these grounds alone. The construction of a twelve-inch in diameter water line to this property will induce further growth on this 29 acre parcel and in the surrounding area. This induced growth is unexamined.

The Haiku Fire Station parcel is part of a three-lot subdivision of a County-owned 29 acre parcel. The DEA declines to provide any information at all on what the County plans to do with the other two lots. Are all 29 acres planned to be reclassified from agriculture and will all 29 acres be lost? The DEA states that the County Planning Department is processing the DBA, CPA and CIZ applications on behalf of the County. It is unreasonable to believe that the County has no idea at all for planned uses of the remaining two parcels. The Administration must state in this DEA what these anticipated uses are and study the secondary and cumulative impacts of these uses now and not later.

XII. APPLICATION OF SIGNIFICANCE CRITERIA REQUIRES PREPARATION OF EIS

The analysis of the "significance criteria" in the DEA is superficial and self-serving.

Plainly, this project represents an irrevocable commitment to loss of agricultural resources, namely prime agricultural lands.

The project also involves unexamined secondary and cumulative impacts. The project may be individually limited but cumulatively it involves a commitment for larger actions.

The proposed project involves a substantial degradation of environmental quality and detrimentally affects ambient noise levels due to the helicopter noise it will impose on surrounding residents.

An honest review of many of these criteria can only lead to the conclusion that this project may cause significant adverse effects to the environment such that a FONSI is inappropriate and an EIS must be prepared.

XIII. INCORPORATION OF OTHER COMMENTS

We incorporate by reference all other comments submitted by all others who commented on this DEA, in particular, all other comments tending to indicate how the DEA is inadequate and that demonstrate that an EIS is required.

XIV. CONCLUSION/THIS DEA MUST BE WITHDRAWN OR AN EIS MUST BE PREPARED

The inadequacies of this DEA are so severe that the document must be withdrawn, rewritten, republished as a Draft EIS, prepared pursuant to Chapter 343, and public review recommenced.

We trust that you will take seriously your responsibility to enforce the environmental laws of our state, and refuse to accept or approve this document by issuing a FONSI. Because the proposed project may cause significant adverse impacts, an EIS is required.

Thank you for the opportunity to comment on this DEA.

Sincerely yours,

Isaac Hall

Dana Naone Hall

IH/gr
cc: Munekiyo & Hiraga

RICHARD T. BISSEN, JR.
Mayor

JOSIAH K. NISHITA
Managing Director

BRADFORD K. VENTURA
Fire Chief

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February 5, 2024

VIA EMAIL: idhall@maui.net

Isaac and Dana Hall
2087 Wells Street
Wailuku, Hawai'i 96793

SUBJECT: PROPOSED HA'IKŪ FIRE STATION PROJECT AND RELATED IMPROVEMENTS AT TMK (2) 2-7-007:008(por.), MAUI, HAWAI'I

Dear Mr. and Mrs. Hall,

Thank you for your letter dated February 4, 2011 providing comments on the Draft Environmental Assessment (2011 DEA) for the subject project. See **Exhibit "A"**.

We are writing to you today on behalf of the County of Maui, Department of Fire & Public Safety (DF&PS) to provide you with an update on the status of the proposed Ha'ikū Fire Station project. Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawai'i Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200. In light of the project resuming, we offer the following information in response to the comments presented in your 2011 letter:

I. ADEQUACY OF DRAFT ENVIRONMENTAL ASSESSMENT

A preliminary analysis of the significance criteria, as set forth in the EIS Rules, was presented in the 2011 DEA. The analysis indicated that there are no significant adverse environmental impacts anticipated with implementation of the project. Further review of the significance criteria will be undertaken following review of all comments received during the re-published DEA review period. The land use entitlement applications (to be initiated by the Planning Director) for the proposed project will move forward once the Chapter 343, Hawai'i Revised Statutes (HRS) process for the project is completed.

II. STANDARD OF REVIEW

The DF&PS is the Approving Agency for the Chapter 343 EA Process. Once completed, the Final EA will be reviewed by the DF&PS and a determination rendered as to whether (1) a Finding of No Significant Impact (FONSI) can be issued for the project or if (2) preparation of an EIS is warranted following review of the project in the context of the significance criteria.

III. CONSULTATION

Early consultation with the community surrounding the project site was conducted during the County of Maui's initial site selection process for the proposed project. As part of this process, the DF&PS held a community meeting at Hā'ikū Elementary School on April 10, 2007. The purpose of this meeting was to (1) inform the community as to the need for an additional fire service facility in the Hā'ikū region; (2) provide an overview on the criteria evaluated during the review of potential alternative sites for the project; and (3) to receive comments on the preferred site that was being recommended as a result of the site selection analysis. A copy of the PowerPoint presentation delivered at this meeting is attached for your reference as **Exhibit "B"**. The DF&PS reviewed all comments that were received from the public during the hosting of this public meeting. While we recognize that you may not be entirely in favor of the site selected for the proposed project, the County of Maui did conduct consultation with the community ahead of proceeding with the publication of the initial DEA for the proposed Hā'ikū Fire Station on the subject property. Indeed, as a result of concerns aired during the site selection process regarding the location of the facility on the subject property, the DF&PS has chosen to proceed with development of the proposed fire station on a portion of the property situated at a lower elevation than the original site that was initially being explored. While there are distinct operational advantages associated with locating a fire station at the highest possible elevation on a piece of property, the DF&PS felt that it was necessary in this particular instance to minimize the extent to which the facility can be observed from surrounding residential areas.

In addition, to solicit additional input on the proposed action prior to the publication of the DEA, the DF&PS issued an early consultation letter to agencies and community groups on November 17, 2009. The Ha'ikū Community Association was included in this early consultation distribution list to notify area residents of the initiation of the Chapter 343 process and to invite comments from this community group on the proposed project. Meetings have been conducted with the Ha'ikū Community Association in the last few years as part of DF&PS' process of re-evaluating the feasibility of the selected site, making refinements to the plans and moving forward again with the project.

IV. PROPOSED EMERGENCY HELIPAD LANDING AREA

As mentioned above, the scope of the proposed project has been reduced to no longer include an emergency helipad landing area.

V. OFF-SITE WIND TURBINE FACILITIES

As mentioned previously, the scope of the proposed project has been reduced to no longer include offsite wind turbines.

VI. IMPACT ON AVAILABILITY OF PRODUCTIVE AGRICULTURAL LANDS

A description of the Agricultural Lands of Importance to the State of Hawai'i (ALISH) and Land Study Bureau productivity ratings for the subject property was presented in the Climate, Topography and Soils Section of the 2011 DEA.

We note your comments on the various sections of the Maui County Code (MCC) that relate both to the definition of "Prime" agricultural lands and the standards that have been established to guide the reclassification of such lands throughout Maui County. A new section will be incorporated into the Updated DEA to assess the potential impact of the proposed Ha'ikū Fire Station Project on the availability of agricultural lands. An evaluation of the criteria identified in Section 19.30A.020, MCC was provided on page 62 and 63 of the 2011 DEA. For your reference, this section of the DEA is provided as **Exhibit "C"**.

VII. CONSISTENCY WITH MAUI GENERAL PLAN AND PA'IA-HA'IKU COMMUNITY PLAN

As was discussed in Chapter I of the 2011 DEA, the DF&PS has identified that a new fire station is necessary to ensure that adequate fire protection service is provided to the growing resident and commercial population throughout the Ha'ikū region. The subject property was selected following completion of a site selection process by the County of Maui. The subject property was recommended for purchase by the County as being the most suitable site in terms of meeting the

needs of the local community. The subject property was purchased on a basis of this recommendation on December 14, 2007, by the County of Maui.

To allow for implementation of the proposed Ha'ikū Fire Station on a portion of the subject property, the following land use amendments reflected in **Table 1** will be requested as part of the entitlement application process for the proposed project:

Table 1. Summary of Current and Proposed Land Use Designations

	CURRENT	PROPOSED
State Land Use Commission	Agricultural	Rural
Pa'ia-Ha'iku Community Plan	AG, Agriculture	Public/Quasi-Public
County Zoning	Agricultural	Public/Quasi-Public (P-1)

In terms of the Pa'ia-Ha'iku Community Plan, an analysis of the project's consistency with the goals, objectives, and policies of this important community planning document was provided on Pages 57 through 64 of the 2011 DEA.

In recognition of the intended use, the subject property has also been identified as a rural growth area in the proposed Maui Island Plan that was adopted on December 28, 2012 by the Maui County Council. The Maui Island Plan reflects the latest input from the community on the desired land uses for the area, as the Pa'ia-Ha'iku Community Plan was adopted in 1995, seventeen (17) years previously.

The proposed project is following the established procedures by law to allow a use that would otherwise not be permissible. The exercise of such power by the County Council in approving the land use entitlements would be related to, and reasonably necessary for, the health, safety, morals, and general welfare of the public. Therefore, our understanding is that this does not constitute "spot zoning," and the action will be consistent with the comprehensive plans after the land use entitlements have been approved.

In light of the foregoing and given the operational necessity of enhancing fire services in the Ha'ikū area, the proposed site is considered an appropriate location for a rural fire station.

VIII. ALTERNATIVES ANALYSIS

We note your comment that there was no environmental review documentation prepared during the process of acquiring the subject property. As set forth in Section 343-5, HRS, the use of County funds to purchase unimproved land does not trigger the requirements Chapter 343, HRS. As noted previously, the subject property was acquired following completion of a site selection process that evaluated the viability of three (3) different properties throughout the Ha'ikū area for development of a fire station in addition to the subject property. The subject

property was recommended as the preferred location for the fire station following evaluation of various operational, infrastructure, and land use criteria.

Additionally, in response to the feedback generated by the 2011 DEA and prior to moving forward, a Feasibility Study was conducted in 2021 by DF&PS. Three (3) additional properties were identified and compared against the originally considered site to determine if there are considerations in location, permitting or design that would warrant relocating the proposed fire station. The analysis concluded that the originally considered site offers substantial advantages over the other potential site alternatives in that it is already owned by the County of Maui, requires the fewest entitlements (given its location within a Rural Growth Boundary), has architectural and engineering plans that are already tailored to the specific property, and is located near the Ha'ikū community's historic incident locations. All of the other properties have similar infrastructure constraints, such as the need for offsite waterline upgrades and potential for roadway improvements, and no significant advantages to overcome the investments already made at the originally considered site.

In response to your specific comment on the level of the information provided in the alternatives section of the Draft EA, a site location alternative will be discussed in the Updated DEA. This alternative will include a description of the site selection processes that were undertaken by the County of Maui and the various criteria that were evaluated prior to the acquisition of the subject property as the preferred location for the proposed Ha'ikū Fire Station Project and while deciding whether to move forward with the subject property during the project's redesign. A discussion on alternative designs for the proposed project will also be included in the Alternatives Section of the Updated DEA.

IX. WATER INFRASTRUCTURE

A. Offsite Water System Improvements

As noted previously, a site selection process was completed by the County of Maui prior to the acquisition of the subject property on December 14, 2007. A number of criteria, including water infrastructure requirements, were analyzed during this site selection process. The culmination of this site selection process resulted in the subject property being recommended as the preferred location for a new fire station in the Ha'ikū area. The site selection analysis conducted in 2021 as part of the Feasibility Study resulted in the same conclusion. Design work for the proposed fire station was initiated following the purchase of the site, and has included the engineering of the water infrastructure improvements necessary to deliver the appropriate level of service to the property.

An assessment of both existing water infrastructure conditions surrounding the project site and the anticipated water service requirements associated with the proposed fire station was provided on Pages 39 to 40 of the 2011 DEA. As part of the plans refinement process, the DWS has recently accepted an alternative from what was originally stated in the published DEA to install 300 feet of 8-inch water main along the edge of the subject parcel within East Kuiaha Road until its intersection with Haʻikū Road. The new fire station will connect to this water main via two (2) existing and one (1) reserved water meter. With the installation of the proposed improvements, DWS will have the capacity to adequately meet the water usage requirements for the revised scope of work. A separate onsite water storage tank will be dedicated to accommodate the fire suppression needs for the facility. As such, the estimated costs for the originally proposed offsite water infrastructure improvements have been substantially reduced for this project. The water infrastructure discussion will be revised in the Updated DEA to reflect this new information.

B. <u>East Maui Water Development Plan</u>

The scope of the proposed offsite waterline improvements has been revised so that DF&PS no longer proposes to install a waterline within Haʻikū Road between West Kuiaha Road and East Kuiaha Road. Instead, in order to accommodate the water supply needs of the new fire station, DWS has required DF&PS to install 300 feet of 8-inch water main along the edge of the subject property in East Kuiaha Road between the project's water meters and the East Kuiaha-Haʻikū Road intersection. As such, the proposed water infrastructure improvements for the project are not anticipated to represent a violation of the East Maui Water Development Plan or the 2003 Consent Decree identified in your letter.

C. <u>Upcountry Water Meter List</u>

We note your comments regarding the upcountry water meter list. There are two (2) existing 5/8-inch water meters located on the project site. DWS has confirmed that the subject property possesses one (1) existing water meter reservation. The reserved water meter installation will be completed in compliance with the applicable provisions of Chapter 14.13, MCC (Water Meter Provisions for Upcountry Water System). The projected usage from the water meters has already been accounted for by the DWS and would not compromise the ability of the upcountry water system to provide service to existing area residents with the installation of the 8-inch water meter.

D. Water Availability Ordinance

The proposed project possesses two (2) water meters and one (1) water meter reservation. As such, the proposed project will comply with applicable provisions of Chapter 14.12 relating to Water Availability.

X. ARCHAEOLOGICAL AND CULTURAL RESOURCES

A. Archaeological Inventory Survey

A letter responding to your comments on the Archaeological Inventory Survey for the project has been prepared by the project's archaeologist, Mr. Mike Dega of Scientific Consultant Services, Inc. See **Exhibit "D"**. In relation to the Archaeological Inventory Survey, a copy of the final report as approved by the State Historic Preservation Division will be included in the DEA.

B. Cultural Impact Assessment Report

A letter responding to your comments on the Cultural Impact Assessment Report for the project has been prepared by the project's cultural consultant, Ms. Leann McGerty of Scientific Consultant Services, Inc. See **Exhibit "E"**.

XI. CUMULATIVE AND SECONDARY IMPACTS

The secondary and cumulative impact analysis section of the DEA was prepared in accordance with the administrative rules (EIS rules) that guide the preparation of environmental review documents in the State of Hawai'i and, as such, provides an assessment of those impacts that are "reasonably foreseeable". The scope of the proposed offsite water infrastructure has been substantially reduced. As such, it is unlikely to induce any population growth in the surrounding area. The project area will also utilize a portion of a single 27.9-acre property, which it no longer intends to subdivide. The County of Maui does not currently have any plans to develop the remaining portions of the subject property. The secondary and cumulative impact analysis section does not, therefore, assess impacts associated with the potential development of these neighboring lands.

XII. SIGNIFICANCE CRITERIA ASSESSMENT

We respectfully disagree with your opinion that the analysis of the significance criteria that was provided on Pages 77 through 81 of the 2011 DEA is "superficial and self-serving". This fact-based analysis was prepared following review of the environmental impact analysis (and all accompanying studies) that was provided in Chapter II and Chapter III of the document.

As noted in response to your Comment No. VI above, additional discussion will be incorporated into the revised DEA to provide an assessment of the potential impact of the proposed project on the availability of agricultural lands in Maui County. The helipad is no longer proposed for this project. The significance criteria assessment provided in the DEA will be updated where appropriate, to reflect any significant findings of this additional analysis.

As noted in our previous response, the cumulative and secondary impact assessment provided in the 2011 DEA is based, on "reasonably foreseeable" actions, and is, therefore, in accordance with the EIS rules.

Once complete, the Final EA will be reviewed by the DF&PS and a determination issued as to the acceptability of the environmental review document. If deemed acceptable, a Finding of No Significant Impact (FONSI) determination (negative declaration) will be issued for the project and subsequently published in the Environmental Review Program's (ERP's) Environmental Notice. Should review of the Final EA document, however, indicate that implementation of the project is likely to generate significant adverse impacts, the DF&PS will require that an EIS be prepared before the project can proceed to construction.

XIII. INCORPORATION OF OTHER COMMENTS

We note your comment regarding incorporation of other comments received during the review of the 2011 DEA. We have reviewed all letters received during the public review period and can inform you that there have been no comments received by any other agency, community group, or individual suggesting or explicitly stating that an EIS is appropriate. Copies of all comment letters received during the 2011 DEA review period will be included in the Updated DEA, as well as responses to any substantive comments.

XIV. CHAPTER 343 PROCESSING REQUIREMENTS

The EA for the project is being prepared in accordance with applicable requirements set forth by Chapter 343, HRS and the EIS Rules.

In specific regards to your comment, the decision as to whether or not an EIS is warranted is considered premature at this time given that a revised DEA will be re-published and a Final EA is still yet to be prepared for the proposed project. As noted previously, once a Final EA has been prepared, the DF&PS will review the document in relation to the significance criteria and will make a formal determination as to whether the proposed action qualifies as a FONSI (negative declaration). If a FONSI cannot be issued, DF&PS will require that an EIS be prepared prior to implementation of the project.

As an area resident, we very much appreciate your continued input on the proposed Ha'ikū Fire Station project. A copy of your comment letter and this response letter will be included in the Updated DEA for the project. Should you have any questions, please do not hesitate to contact our planning consultants Mark Alexander Roy or Hoku Krueger of Munekiyo Hiraga at (808) 244-2015.

Sincerely,

BRADFORD VENTURA
FIRE CHIEF

BV
Enclosures
cc: Bradford Ventura, County of Maui, Department of Fire and Public Safety (w/enclosures)
Rylan Yatsushiro, County of Maui, Department of Fire and Public Safety (w/enclosures)
Terry McFarland, Architects Hawaii, Ltd. (w/enclosures)
Diane Kodama, AECOM (w/enclosures)
Mike Dega, Scientific Consultant Services, Inc. (w/enclosures)
Mark Alexander Roy, Munekiyo Hiraga (w/enclosures)

EXHIBIT A.

FEB 04 2011

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February 4, 2011

Mr. Lee Mainaga
Fire Services Officer
Dept of Fire and Public Safety
200 Dairy Road
Kahului, HI 96732

Re: The DEA for the Proposed Haiku Fire Station and Related Improvements is Inadequate and, Because the Project May Cause Significant Adverse Impacts, an EIS Is Required

Dear Lee Mainaga:

This letter is written on behalf of the undersigned who reside in the agricultural and rural neighborhood that surrounds the proposed site for the Haiku Fire Station and who would be adversely affected if the Station were constructed as proposed in the Draft Environmental Assessment ("DEA").

I. THE DEA IS INADEQUATE AND AN EIS IS REQUIRED

The DEA for the proposed Haiku Fire Station is inadequate. The DEA does **not** demonstrate that the proposed project will not have any significant adverse impacts on the environment. Instead, it is plainly evident that this project, as described in the DEA, may cause significant adverse impacts and, more likely, will cause significant adverse impacts to the environment.

As such, a FONSI cannot be supported for this project as a matter of fact and law. An Environmental Impact Statement ("EIS") preparation notice must be issued and the impacts of this project must be thoroughly addressed in a full and complete EIS.

The applications for a District Boundary Amendment ("DBA") from Agriculture to Rural, for a Community Plan Amendment ("CPA") from Agriculture to Public/Quasi/Public and a Change in Zoning ("CIZ") from

Agriculture to Public/Quasi/Public cannot be processed until a lawful EIS is completed.

II. STANDARD OF REVIEW

An Environmental Assessment ("EA") is admittedly required here. The purpose of preparing an EA is to "determine to whether an environmental impact statement ("EIS") shall be required." HRS § 343-5(b)(1)(D) provides that:

> A statement [EIS] shall be required if the agency finds that the proposed action **may** have a significant effect on the environment. (Emphasis added.)

Hawaii's "Environmental Impact Statement Rules" in HAR § 11-200-12 entitled "Significance Criteria" set out criteria for determining "whether an action **may** have a significant effect on the environment." (Emphasis added.) Subsection B. states:

> In determining whether an action may have a significant effect on the environment, the agency shall consider every phase of a proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short-term and long-term effects of the action. In most instances, an action shall be determined to have a significant effect on the environment if it:
>
> 1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
> 2. Curtails the range of beneficial uses of the environment;
> 3. Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;
> 4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;
> 5. Substantially affects public health;
> 6. Involves substantial secondary impacts, such as population changes or effects on public facilities;
> 7. Involves a substantial degradation of environmental quality;
> 8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
> 9. Substantially affects a rare, threatened, or endangered species, or its habitat;

10. Detrimentally affects air or water quality or ambient noise levels;

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

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

13. Requires substantial energy consumption.

If the agency reviewing the EA determines that the proposed action may have a significant effect on the environment, an EIS must be prepared. *Kepoo v. Watson*, 87 Hawai`i 91, 952 P. 2d 379 (1998), *Molokai Homesteaders Co-Op. Ass'n v. Cobb*, 63 Haw. 453, 629 P. 2d 1134 (1981).

III. FAILURE TO CONSULT

We made it clear to the Department of Fire and Public Safety, County of Maui and the Administration at least five years ago that we had serious concerns about the adverse impacts in purchasing this property and locating a Fire Station with a helipad component on this particular property. HAR §11-200-9, entitled "Assessment of Agency Actions and Applicant Actions" provides, in subsection A, that:

> For agency actions, except those actions exempt from the preparation of an environmental assessment pursuant to section 343-5, HRS, or section 11-200-8, **the proposing agency shall**:
>
> 1. Seek, at the earliest practicable time, the advice and input of the county agency responsible for implementing the county's general plan for each county in which the proposed action is to occur, and **consult with** other agencies having jurisdiction or expertise as well as those citizen groups and **individuals which the proposing agency reasonably believes to be affected**;

Neither the Fire Department nor the Administration nor Munekiyo & Hiraga have consulted with us regarding this project or about this DEA. The first time we heard about this DEA was when we read a newspaper article about it in the Saturday, January 22, 2011 edition of the Maui News. The proposing agency has violated the mandatory procedural requirements for the preparation of this DEA.

IV. AN EIS IS REQUIRED TO STUDY THE NOISE IMPACTS OF THE PROPOSED HELICOPTER FACILITY

The County is proposing to construct a "helicopter facility" as one component of this local Fire Station. The DEA states in § I.B on p.6:

> **A helipad will also be implemented as part of the project to facilitate civil defense, training, rescue and firefighting operations in Central Maui and the surrounding areas.** (Emphasis added.)

Figure 4 in the DEA shows the location of the "Helicopter Landing Pad." See p.5 of the DEA.

Helicopter facilities are recognized as individualized triggering events for EAs in Chapter 343 because of the adverse noise impacts generated by helicopters. HRS § 343-2 defines a "Helicopter facility" as:

> ..... any area of land or water which is used, or intended for use for the landing or takeoff of helicopters; and any appurtenant areas which are used, or intended for use for helicopter related activities or rights-of-way.

These helicopters will fly over conservation lands at times.

Helicopter facilities are not permitted uses in the state rural or county public/quasi-public districts. They are urban uses. Federal Aviation Administration ("FAA") approval is required before operating helicopters from this facility. See MCC § 16.26.311.10.5.

The DEA fails to list this federal approval as a regulatory requirement for this project. See DEA, § D., pp. 12-13. This federal permit is a triggering event for a federal EA. The proposing agency has failed to concurrently prepare a federal EA for this project pursuant to NEPA. See HRS § 343-5(f).

The noise impacts of this helicopter facility will be immediately imposed on the existing surrounding residents in this now quiet rural neighborhood. The DEA is wholly inadequate in describing the "helicopter facility."

One of the "significance criteria" is whether a proposed action may detrimentally affect "ambient noise levels." What are the "ambient noise levels" at the "helicopter facility" site? No helicopter noise impact study

has been prepared to first determine what the actual ambient noise levels are in this agricultural and rural area and on this undeveloped site.

How often is it expected that helicopters will take off and land at the "Helicopter Landing Pad." At what times are the helicopter operations expected to take place? What are the anticipated flight paths or tracks for these helicopters? In what directions will they take off? From what directions will they approach the "Helicopter Landing Pad" when they land. Over what neighboring properties will these helicopters be flying? The Department of Fire and Public Safety, County of Maui possesses records regarding the use of the helicopter facilities it operates in Kahului and in Wailea that can provide a basis for further estimates of the amounts of use of a helicopter facility anticipated in Haiku. No helicopter noise impact study has been prepared as part of this DEA addressing all of these issues. It is likely that the adverse noise impacts of these helicopters may detrimentally affect "ambient noise levels."

The DEA concludes only that "construction of the new fire station and new water line may cause short-term impacts to noise quality. No effort has been made to address the serious and adverse short and long-term noise impacts caused by operating helicopters at the proposed Haiku Fire Station.

There is a broader issue as well. The "helicopter facility" is not limited to local Haiku emergency service. It is intended **"to facilitate civil defense, training, rescue and firefighting operations in Central Maui** and the surrounding areas. How many of these operations are for local Haiku purposes and how many of these operations are for civil defense, training, rescue and firefighting operations in Central Maui and areas other than Haiku? It is one matter to impose upon Haiku residents the adverse noise impacts of helicopters on occasional rescue missions in the Haiku area. It is another matter to impose upon Haiku residents the adverse noise impacts of helicopters at a training facility for Central Maui. Alternative locations on the island of Maui for a "helicopter facility" serving more than the Haiku community should be addressed in a larger EIS.

V. FAILURE TO ADDRESS IMPACTS OF OFF-SITE WIND TURBINES

The DEA wholly fails to address the environmental impacts of the two (2) offsite wind turbines that are proposed to be constructed as components of this project. There are no plans or specifications attached to the DEA showing the appearance and height of the wind generating turbines. There is no analysis of available wind at the proposed site.

There is no analysis of the environmental impacts of wind turbines at that particular site.

If a utility facility is a minor facility it is a permitted use in the agricultural district. If a utility facility is a major facility it is a special use in the agricultural district. Among the primary dividing lines between "major" and "minor" utility facilities are whether these facilities "have [a} potential major impact, by virtue of their appearance, noise, size, traffic generation, or other operational characteristics...." See MCC §§ 19.04.040, 19.30A.050 and 19.30A.060.

The purpose of the DEA is to address the environmental characteristics of the particular wind generating facilities proposed here. The Zoning Determination dated December 24, 2009 attached to the DEA does not study any of the characteristics of the wind generating facilities proposed here. This determination cannot substitute for the study of these characteristics that is required to be included with the DEA. The DEA is inadequate because it fails to address the environmental impacts of the wind generating facilities.

VI. THESE AGRICULTURAL LANDS MUST BE PROTECTED

These are "prime" agricultural lands. MCC §19.68.040 states that:

> .... lands identified by the state as important agricultural lands needed to fulfill the purposes of conserving and protecting agricultural lands, promoting diversified agriculture, increasing agricultural self-sufficiency and assuring the availability of agriculturally suitable lands, shall not be reclassified without meeting the standards and criteria established by the legislature and enactment of an ordinance approving the reclassification of such lands by an affirmative vote of at least two-thirds of the council's membership rather than the usual majority.

At a minimum, a vote by two-thirds of the Maui County Council's membership is required to reclassify these "prime" agricultural lands.

More importantly, Maui County's "Agriculture District" Zoning Ordinance provides standards for those lands that should be retained in the agriculture district, in Section 19.30A.020, as follows:

> Agricultural lands that meet at least two of the following criteria should be given the highest priority for retention in the agricultural district:

A. Agricultural Lands of Importance to the State of Hawai'i (ALISH);

B. Lands not classified by the ALISH system whose agricultural land suitability, based on soil, topographic, and climatic conditions, supports the production of agricultural commodities, including but not limited to coffee, taro, watercress, ginger, orchard and flower crops and non-irrigated pineapple. In addition, these lands shall include lands used for intensive animal husbandry, and lands in agricultural cultivation in five of the ten years immediately preceding the date of approval of this chapter; and

C. Lands which have seventy-five percent or more of their boundaries contiguous to lands within the agricultural district.

In this instance, Tests A, B and C are satisfied. These lands are classified "prime" in the ALISH system. (Test A). These lands were in cultivation through the early 2000's. (Test B; Ordinance 2749 was originally enacted in 1998). Seventy-five percent of the lands surrounding this parcel are in the agriculture district. (Test C).

These lands do not qualify under any circumstances for reclassification or rezoning out of the Agriculture District. The Maui County Council has a regulatory duty, as a matter of law, to protect this parcel for agricultural uses. The applications for a DBA and CIZ must be denied on these grounds alone.

VII. INCONSISTENCY WITH GENERAL AND COMMUNITY PLAN

The Paia-Haiku Community Plan, as a "Planning Standard," states on p. 36:

> All zoning applications and/or proposed land uses and developments shall be consistent with the Land Use Map and Objectives and Policies of the Paia-Haiku Community Plan.

The Paia-Haiku Community Plan requires, as a Land Use Goal, the protection of "prime" agricultural lands. See Part III. B. 1. (p.15); See also Part II.B.2.f. (p.12). It is an "Objective and Policy of the Paia-Haiku Plan to "Maintain agriculture as the primary economic activity." (p.22).

The proposed new growth boundaries place the 29 acre parcel within a "rural service center." The "characteristics" of a "rural service center" are

> Small cluster of goods/services to support surrounding rural residential uses and agricultural communities. Facilities are generally limited and many essential goods and services are located in a larger town. Employment is generally a function of nearby urban areas or Country Towns. (e.g. Ha`iku, Waiakoa, Keokea)

These uses are for small stores, like Fukushima's, in outlying areas. These uses must be permitted in the Rural District. The uses proposed here are not permitted in the County Rural District.

This proposed Fire Station constitutes illegal "spot" zoning. *Lum Yip Kee, Ltd. v. City and County of Honolulu*, 767 P. 2d 815 (1989) (spot zoning is an arbitrary zoning action by which a small area within a large area is singled out and specially zoned for a use classification different from and inconsistent with the classification of the surrounding area and not in accord with comprehensive plan). The proposal injects urban-like uses into an area completely surrounded by prime agricultural lands and is inconsistent with the applicable plans. This is the wrong location for this project.

The DBA and CIZ applications are inconsistent with these objectives and policies in the Paia-Haiku Community Plan and must be denied as a matter of law. *Gatri v. Blane*, 88 Haw. 108, 962 P. 2d 367 (1998).

VIII. THE STUDY OF ALTERNATIVES IS INADEQUATE

The study of alternatives in the DEA is inadequate. The DEA addresses (1) the Preferred Alternative, (2) a No Action Alternative and (3) a Deferred Action Alternative in one and one-half pages. DEA, pp. 75-76.

The study of alternatives in this DEA is virtually meaningless for environmental purposes. It has been judicially determined that the "heart" of environmental analysis is the study of alternatives to the proposed action. *Friends of the Bitterroot v. U.S. Forest Service*, 900 F. Supp. 1368 (D.C. Mont. 1994); *Conner v. Burford*, 836 F. 2d 1521 (9th Cir. 1988).

HAR § 11-200-17(f), with respect to the study of alternatives, requires a description of all "alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected." HAR § 11-200-17(f) continues:

The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. **Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks.** (Emphasis added). Examples of alternatives include:

1. The alternative of no action;
2. Alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts;
3. Alternatives related to different designs or details of the proposed actions which would present different environmental impacts;
4. The alternative of postponing action pending further study; and,
5. Alternative locations for the proposed project.

In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency.

No EA was prepared when the property was purchased. Maps were prepared and distributed at one time comparing different potential locations for a Fire Station in Haiku based upon fire insurance coverage that would be made available. This is purely an economic factor.

The Department of Fire and Public Safety, County of Maui allegedly has a site selection process that evaluates the benefits and detriments of various alternative locations. There is no evidence in this DEA that alternative locations in the Haiku Region have been evaluated based upon their comparative environmental impacts.

This site requires the County taxpayers to expend millions of dollars in off-site water improvements just to bring water to the property. The DEA should study alternative locations, closer to existing sources of water, that would not require the expenditure large sums of taxpayer monies for off-site infrastructural improvements.

Alternative sites closer to Haiku's existing urban core that will not cause the loss of prime agricultural lands and are closer to existing sources of water must be examined.

The study of alternatives is even more important in this case because a helicopter facility is proposed as a component of this project. The DEA contains no analysis of different locations for a helicopter facility. This failure is even more egregious because what is being proposed is a regional training center for Central Maui. The DEA must contain a comparative analysis of different locations that might be available for a helicopter facility that could serve as a regional training center for Central Maui. Among the sites that should be studied are the Kahului Airport and the helicopter facility that already exists at the Kahului Fire Station.

IX. FAILURE TO ADDRESS COST OF WATER PIPELINE AND WATER ISSUES

A. This Property Has An Inadequate Source of Water Without Extensive Off-Site Water Improvements From a Distant Purported Source

This property has one 5/8th inch meter and allegedly also has a "reservation" for three additional meters. But the water demand for the Fire Station cannot be satisfied by water supplied by the 5/8th inch meter. The Department of Water Supply has stated that existing water systems are inadequate for this project.

The average potable water demand created by the Fire Station is stated to be 1,186 gpd. The total fire flow demand is stated to be 1,500 gpm for a two hour duration. These water demands require the construction of a new 12 inch in diameter water line that is 4,200 linear feet long, from the project site to West Kuiaha Road. There the pipe connects to a 6 inch in diameter pipeline which then connects to the .5 million gallon ("MG") Kaupakalua Tank that is 5,000 feet to the south of the Fire Station Site.

The cost of the total project is 11.2 million dollars. There is no separate break out of the cost for these extensive off-site improvements just to bring water from a distant location to the project site. This cost data should have been included. That a project with water demands this great is proposed such a distance from a source that can purportedly supply enough water to the site demonstrates that the site itself is not appropriate. A site closer to a satisfactory water source should be studied as an alternative.

B. This Is An Illegal Implementation of the EM Plan

The Kaupakalua Tank is alleged to supply water to West Kuiaha Road via a six inch in diameter pipeline. This pipeline connects to a proposed pipeline between West Kuiaha Road and East Kuiaha Road that is planned to be 12 inches in diameter and 4,200 linear feet long. The capacity of the pipeline increases significantly even though the amount that can be supplied is well below this capacity because of the six inch size.

The DEA should have disclosed the amount of water that a 12 inch in diameter pipeline is capable of transmitting. It is likely that the 12 inch in diameter water transmission pipeline has the capacity to transmit far more water than is required by a Fire Station. If so it has been sized for additional growth. The growth induced by this transmission line is a secondary or cumulative impact that should have been addressed in the DEA.

It further appears that the 12-inch diameter water transmission pipeline has been sized to meet the needs of the East Maui Water Development Plan ("EM Plan"). One component of the EM Plan is the construction of a water transmission line in the Haiku Road right of way between West Kuiaha Roads and East Kuiaha Roads. See Phase 4 of the EM Plan. The 12 inch diameter water transmission line is proposed to be constructed in the same location as Phase 4 of the EM Plan.

The County is a party to a Consent Decree filed on December 22, 2003 in *The Coalition to Protect East Maui Water Resources et al., v. the Department of Water Supply et al.,* Civil No. 03-1-0008(3) in the Circuit Court of the Second Circuit by which the County is forbidden from implementing any component of the EM Plan until a Supplemental EIS is prepared. For this additional reason an EIS is required.

C. The County Declaration That the Upcountry Water System Is Inadequate to Supply Water for Domestic or Fire Flow Purposes

Water cannot be supplied to this parcel without violating Chapters 14.12 and 14.13 of the Maui County Code. These issues have not been addressed in the DEA.

The County of Maui has declared, from 1994 to the present, that the Upcountry water system is inadequate to supply additional water for domestic and fire flow purposes without detriment to those already being served on the system. This declaration includes the County water system in Haiku.

The Maui County Council has enacted the "Water Meter Issuance Provisions for the Upcountry Water System" law. MCC § 14.13.020, entitled "Purpose" states:

> The purpose of this chapter is to provide uniform handling of applications for water service from the priority list.

The "Priority list" is defined as:

> [T]he compilation of premises in the order received by the department pursuant to a legal notice published in The Maui News, November 2, 1994, for applicants denied new or additional water service.

The "Upcountry water system" is defined as:

> [A]ll water improvements associated with the department's Upper Kula, Lower Kula, Makawao (including Pukalani, Haliimaile and Maunaolu College area) and Haiku water systems.

MCC § 14.13.040, entitled "Water service requests" states:

> A. On March 16, 1993, the upcountry water system was found to have insufficient water supply developed for fire protection, domestic, and irrigation purposes to take on new or additional water services without detriment to those already served in the regulated area. Since November 2, 1994, the department has maintained a priority list of premises, organized by the date applications for new or additional water service were received for such premises.
> B. The director shall continue to maintain the priority list of premises applying for new or additional water service from the upcountry water system.

This law forbids the Director from providing new water service, except "in the order of the priority list" and then only "if additional source for the upcountry water system becomes available." MCC § 14.13.060. The Director can only "waive or modify" the mandatory requirements of this law as provided in MCC §14.13.080 which states:

> The director may waive or modify the provisions of this chapter when not contrary to the public's health, safety or welfare, and when the director finds:

1. Strict application of the provisions of this chapter would cause an absurd, unfair, or unreasonably harsh result;

2. The director finds the circumstance or condition is unique or exceptional, and the director would grant the same request if made by every similarly situated applicant; and

3. The resulting action of the director will be without detriment to existing users.

The Director has not done so in this case. The Maui County Council has declared the Makawao and Haiku Water systems to **"have insufficient water supply developed for fire protection, domestic, and irrigation purposes to take on new or additional water services without detriment to those already served in the regulated area."** (Emphasis added) MCC § 14.13.040.A. Residents in the surrounding area who now receive water service from the County of Maui, by this provision, may be detrimentally affected by the provision water to this property.

C. Maui County Code Chapter 14.12

The Maui County Council has also enacted a law entitled "Water Availability" in MCC Chapter 14.12. MCC § 14.12.040, entitled "Written verification of long term, reliable supply of water" requires in Section A that:

> No subdivision shall be approved, unless prior to submittal of subdivision construction plans pursuant to section 18.20.160 of this code, the director shall provide written verification of a long term, reliable supply of water.

MCC § 14.12.050 further provides, in pertinent part, that:

> The director shall review and comment on engineering reports during the department of health's inter-agency review period. In reviewing and commenting on an engineering report, the director shall consider all of the following factors:
>
> A. The cumulative impacts;
>
> D. The general plan and relevant community plans;
>
> G. **The adverse impacts on the water needs of residents currently being served and projected to be served by the department;**
>
> M. **The adverse impacts to the water needs of residents currently on a County "wait list" for water meters;**

The DEA fails to address these issues.

X. THE STUDY OF ARCHAEOLOGICAL AND CULTURAL RESOURCES IS INADEQUATE

The DEA includes in Appendix C "An Archaeological Inventory Survey for the Proposed Ha'iku Fire Station and Waterline Corridor in Pa'uwela Ahupua'a [TMK 2-7-007:008]" ("AIS") prepared by Scientific Consultant Services Inc. ("SCS") and dated June 2010. Also included is a letter from the State Historic Preservation Division ("SHPD") dated November 12, 2010 which states: "We previously reviewed a draft of this report (Perzinski and Dega June 2010) and requested changes/clarifications. Although SHPD's 11/12/10 letter appears to accept a final version of the AIS, this final version is not included in the DEA, only the unapproved draft.

SHPD's rules require notice to the public of its receipt of archaeological reports and plans by weekly postings on its website and its office, however, no notice was ever given. This AIS – whether in draft or final form – was never made available to interested persons for the 30-day review and comment period afforded by §13-275-3 (f) HAR.

This is the first opportunity we have had to comment on the AIS since we became aware of the existence of the DEA approximately two weeks ago. Our comments are as follows.

First, the proposed Fire Station is in the ahupua'a of Kuiaha, not Pa'uwela ahupua'a which is located to the south of the project parcel. This is a basic and important error which must be corrected especially since the AIS (SCS Project Number 1012-1) is a companion to a purported "Cultural Impact Assessment for the Proposed Development of a Haiku Fire Station " ("CIA") also by SCS dated May 2009 (sic) (SCS Project Number 1013-CIA-1). The USGS Quadrangle Map included as a figure in both the AIS and the CIS indicates that the parcel is in Kuiaha and not Pa'uwela.

The limited archival and documentary research conducted for the proposed project consisted of a review of commonly consulted sources (i.e. Beckwith, Daws, Fornander, Handy, Kamakau, etc.). The bulk of the general information contained in both the AIS and CIS is identical.

A. The AIS

The Predictive Model section of the AIS on page 14 states:

> Historically, the project area was used for large scale pineapple cultivation and pasture and later as a house site that would have likely destroyed any traditional Hawaiian sites or features. Along the waterline corridor the road has been cut to 15-feet into the slope effectively eliminating any possibility of encountering subsurface deposits. Thus, it is believed that any sites encountered will likely be of an historic nature related to agriculture, animal husbandry or recent habitation within the project area.

What is the basis for the statement that the project area was used for large-scale pineapple cultivation and pasture? Information contained in the Methods section on page 15 states that eleven backhoe trenches were excavated in the southern portion of the project area only, due to the "extremely uneven terrain in the eastern portion of the project area and the presence of several concrete pads and pre-existing structures in the northern portion."

Consisting of two features, SIHP 50-50-06-6678 is identified in the northwest portion of the project area next to a vacant cottage and a driveway. The site is described as being in fair to good condition. Site type is listed as retaining wall/terrace constructed of traditional material (dry-stacked basalt). Despite the traditional material and traditional construction, the AIS reports "it is believed that the features are associated with the current or possibly former residents." The features of the site are estimated to have been constructed in the 1950s.

The AIS speculates that the Feature B terrace was constructed by the former house occupants. Figure 9 on page 21 depicts Site 6678 in relation to the Ha'iku Fire Station and accessory structures. Site 6678 is well to the north of the proposed buildings. Figures 11 and 12 on page 23 show features A and B respectively. On page 24, under Significance Assessments, it is noted that "one shovel test unit was excavated adjacent to the platform." Is the terrace now a platform? Although the AIS recommended that Site 6678 was significant under criterion D, we believe that there is insufficient information to assess this site as significant for criterion D only. For instance, due to the good condition of the features, as evidenced by the photos on page 23, they may be worthy of preservation under criterion C as an excellent example of a modern historic use of traditional materials and construction. This is particularly important because there are so few examples of traditional stone work in the modern historic period in the immediate area.

B. The CIA

The CIA fails to document any interviews or consultation with individuals or organizations knowledgeable about the project area. SCS merely sent out two rounds of letters, primarily to government agencies. Of the two non-governmental agencies to whom a letter was sent, the Central Maui Hawaiian Civic Club is too general an entity to contact (in that they have no procedure for getting a request for cultural practices information out to their members) and Na Kupuna o Maui is an ad hoc group whose members are not known (a group with this name was involuntarily dissolved by the State of Hawaii's Department of Commerce & Consumer Affairs several years ago).

The authors of the CIS, Leann McGerty and Robert Spear, have failed to produce an adequate or credible CIS. The authors did not even bother to interview the neighbors in the rural/agricultural community near the project area, many of whom are long-time kama'aina residents. These neighbors very likely know the history of the project area in their lifetimes. They would be able to shed some light on the agricultural and other uses of the parcel.

Instead the CIS contains a two-sentence section entitled "Project Area and Vicinity" on page 8, the second sentence of which is not altogether accurate: "Most of the land in the vicinity of the project area has long been planted in sugar cane or pineapple." While this statement may be true for some areas of Ha'iku and, more particularly Pa'uwela, it does not take into account specific land uses and practices in close proximity to the project area including, but not limited to, lo'i kalo. Not all of the land in the vicinity of the project area had been planted in sugar cane or pineapple. SCS failed to dig very deep.

Finally, because the parcel area terrain is so uneven as evidenced by the topographical lines shown on Figure 5 of the AIS, there was no actual testing of the majority of the parcel. We believe that ground disturbing activities at Parcel 008 should be monitored.

XI. FAILURE TO ADDRESS CUMULATIVE AND SECONDARY IMPACTS

The DEA does not include any review of the secondary or cumulative impacts of this project. The DEA is inadequate on these grounds alone. The construction of a twelve-inch in diameter water line to this property will induce further growth on this 29 acre parcel and in the surrounding area. This induced growth is unexamined.

The Haiku Fire Station parcel is part of a three-lot subdivision of a County-owned 29 acre parcel. The DEA declines to provide any information at all on what the County plans to do with the other two lots. Are all 29 acres planned to be reclassified from agriculture and will all 29 acres be lost? The DEA states that the County Planning Department is processing the DBA, CPA and CIZ applications on behalf of the County. It is unreasonable to believe that the County has no idea at all for planned uses of the remaining two parcels. The Administration must state in this DEA what these anticipated uses are and study the secondary and cumulative impacts of these uses now and not later.

XII. APPLICATION OF SIGNIFICANCE CRITERIA REQUIRES PREPARATION OF EIS

The analysis of the "significance criteria" in the DEA is superficial and self-serving.

Plainly, this project represents an irrevocable commitment to loss of agricultural resources, namely prime agricultural lands.

The project also involves unexamined secondary and cumulative impacts. The project may be individually limited but cumulatively it involves a commitment for larger actions.

The proposed project involves a substantial degradation of environmental quality and detrimentally affects ambient noise levels due to the helicopter noise it will impose on surrounding residents.

An honest review of many of these criteria can only lead to the conclusion that this project may cause significant adverse effects to the environment such that a FONSI is inappropriate and an EIS must be prepared.

XIII. INCORPORATION OF OTHER COMMENTS

We incorporate by reference all other comments submitted by all others who commented on this DEA, in particular, all other comments tending to indicate how the DEA is inadequate and that demonstrate that an EIS is required.

XIV. CONCLUSION/THIS DEA MUST BE WITHDRAWN OR AN EIS MUST BE PREPARED

The inadequacies of this DEA are so severe that the document must be withdrawn, rewritten, republished as a Draft EIS, prepared pursuant to Chapter 343, and public review recommenced.

We trust that you will take seriously your responsibility to enforce the environmental laws of our state, and refuse to accept or approve this document by issuing a FONSI. Because the proposed project may cause significant adverse impacts, an EIS is required.

Thank you for the opportunity to comment on this DEA.

Sincerely yours,

Isaac Hall

Dana Naone Hall

IH/gr
cc: Munekiyo & Hiraga

EXHIBIT B.

ALOHA

Tuesday, April 10, 2007
Haiku Elementary School

Maui County
Fire & Public Safety Department
is dedicated to protect and preserve
life, environment, and property.

Specific Goals

- Suppress and extinguish all hostile fires
- Improve the department's response time performance to emergencies
- Increase response resources in rural areas
- Improve the department's emergency medical services capability
- Develop a plan to improve the community's fire protection insurance rating

3

Planning Process

Documents that assist the Fire Department in the decision-making process:

- National Fire Protection Association Standards
- Paia/Haiku Community Plan
- Maui County – 2007 Public Facilities Update
- Hawaii Insurance Rating Bureau guidelines

4

Site Selection

Based on the following:

1. National Fire Protection Association Standards
2. Fire/Rescue Operations within the district
3. Fire Department's Strategic Plan

5

Criteria

Location
- Specific area needs
  - Historical data (Response calls)
  - Critical areas (Schools, Community Center, Recreation attractions: i.e. Twin Falls, Kapualaaka)
- Five-Mile, Five-Minute Response
- District overlap with existing stations

6

Criteria

Fire Operations
- Access to critical areas
- Road Safety
  - Ingress/Egress
  - Sight Distance
- Coverage Overlap (Personnel & Apparatus)

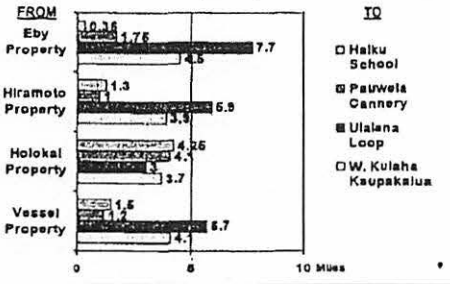
7

Planning Process

Maps

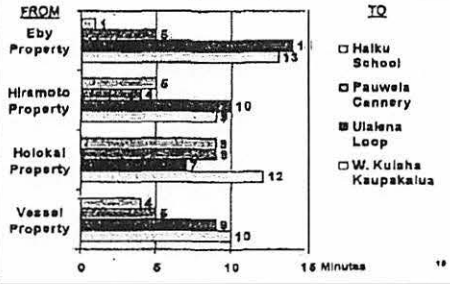
8

Response Distances
(Miles)



9

Response Times
(Minutes)



10

Criteria

Infrastructure
- Water
  - Meter on property
  - Hydrant distance
- Power
- Sewer
- Drainage

Other Considerations
- Zoning
- Land Availability
- Price

11

Assessment

Site	Location	Fire Operations	Infrastructure	Zoning	Acres Available	Price / Price Acre
Eby Property	3rd	3rd	2nd	Ag	21.7	$3.5 M / $161,290
Hiramoto Property	1st	2nd	4th	Ag	5.9	$1.3 M / $220,340
Holokai Property	4th	4th	3rd	Ag	6.3	State Owned
Vessel Property	1st	1st	1st	Ag	27.8	$3.2 M / $114,695

12

Department Recommendation

Based on the goals and objectives of the Department of Fire and Public Safety and the assessment process, the Department recommends the Vessel property located at 3550 Hana Highway for the Haiku Fire Station.

Next Steps

1. Property appraisal
2. Council approval for land purchase
3. Land acquisition
4. Preliminary planning with the community through public meetings
5. Funding for construction fire station in Fiscal Year 2009

Community Questions & Comments

MAHALO & ALOHA

EXHIBIT C.

Health and Public Safety

Goal A sense of security for all residents and visitors, and aid in the protection of life and property.

Objectives and Policies

- Improve fire protection capabilities in the Ha'iku area and ensure adequate water pressure for fire protection, particularly in urban and rural areas.

GOVERNMENT

Goal Government that demonstrates the highest standards of fairness and is responsive to the needs of the community, fiscally responsible and prudent, effective in planning and implementing programs to accommodate anticipated growth, fair and equitable in taxation, strict in the implementation of the Community Plan, and managed efficiently to provide coordinated and timely responses and the delivery of necessary services and programs to the public.

Objectives and Policies

- Coordinate, direct and manage future development, and provide for necessary public services and infrastructure in a more effective and timely fashion.

- Require that actions taken by public officials, boards or commissions of the County of Maui be in compliance with the goals, objectives and policies of the Community Plan.

F. ZONING

Enactment of Chapter 19.30A Agricultural Districts, Maui County Code (MCC) on December 31, 1998 also zoned lands designated as "Agriculture" by the Maui County General Plan and community plans. The Paia-Haiku Community Plan adopted on May 17, 1995 designated the subject property as "Agricultural". As such, the subject property is zoned "Agricultural". A County-initiated Change in Zoning (CIZ) application will be processed for the proposed project to redesignate the 6.1-acre project site as "Public/Quasi-Public".

Pursuant to Section 19.30A.020 District criteria, agricultural lands that meet two (2) of three (3) criteria should be given the highest priority for retention in the Agricultural district. The subject property meets the following two (2) criteria for retention:

1. Agricultural Lands of Importance to the State of Hawaii (ALISH) designates the property as "Prime" agricultural lands; and

2. Lands which have seventy-five (75) percent or more of their boundaries contiguous to lands within the Agricultural district.

Although the subject property meets the highest priority for retention in the Agricultural district, it is important to note that based on a site selection study conducted by the Department of Fire and Public Safety in 2007, the subject property was selected as the best site for a new fire station to serve Haiku and the surrounding areas. The construction of a new fire station on the subject property will provide a greater public benefit to the community than retention of vacant agricultural land. As noted above, the County of Maui, Department of Planning will initiate a CIZ application to redesignate the 6.1-acre project site as "P-1, Public/Quasi-Public" so that the proposed action is a compatible use.

It is noted that the proposed Haiku Fire Station has been designed to be architecturally compatible with the Paia-Haiku Country Town Design Guidelines. Some examples of key design considerations from the Paia-Haiku County Town Design Guidelines are provided below:

Architectural Compatibility and Regional Sensitivity:

- The building design will be fit into the context of the surrounding environment while drawing inspiration from the architecture in the Paia-Haiku region.

Building Scale:

- The new fire station facility will be human scaled to fit into the rural setting of Haiku.

Roofs:

- A white metal standing seam roof with slopes of 3/12 will be incorporated to facilitate sustainable building strategies. Two (2) major roof forms make up the entire facility. The first is a large front gable roof over the apparatus bay. The second is a series of saw tooth roofs over the living quarters.

Facades:

- The new facility will utilize a false front (facade) at the living quarters area of the fire station.

EXHIBIT D.

SCIENTIFIC CONSULTANT SERVICES, Inc.
711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Mark Alexander Roy, AICP, LEED AP May 3, 2011
Munekiyo and Hiraga, Inc.
305 High Street, Ste. 104
Wailuku, HI 96793

RE: Response to Archaeological Inventory Survey Comments for the Haiku Fire Station and Waterline Corridor.

Mr. Roy:

This letter provides responses to several concerns expressed by Hall in a letter dated February 4, 2011 and pertaining to the Archaeological Inventory Survey (AIS) of the proposed Haiku Fire Station and Waterline Corridor. A total of eight (8) comments are addressed below, with excerpts from the Hall letter shown in bold, italicized text.

1. ***Although SHPD's 11/12/10 letter appears to accept a final version of the AIS, this final version is not included in the DEA, only the unapproved draft.***

Response: The final, SHPD accepted version of the AIS will be included in the EA, along with the SHPD acceptance letter.

2. ***The USGS Quadrangle Map included as a figure in both the AIS and CIA indicates that the parcel is in Kuiaha and not Pauwela.***

Response: The proposed Fire Station does occur in the *ahupua`a* of Kuiaha, not Pa'uwela. The comment is correct. We have changed the *ahupua`a* from Pa'uwela to Kuiaha in text and the USGS map.

3. ***What is the basis for the statement that the project area was used for large-scale pineapple cultivation and pasture?***

Response: A 1965 aerial photograph in Foote *et al.* 1972 (Map 112) clearly shows agricultural fields covering the project area.

4. ***Page 15 states that eleven backhoe trenches were excavated in the southern portion of the project area only, due to the "extremely uneven terrain in the eastern portion of the project area and the presence of several concrete pads and pre-existing structures in the northern portion".***

Response: Portions of the project area were not subjected to subsurface testing (*e.g.* in the uneven terrain and concrete house pads) because backhoe access was extremely difficult (due to topography) and after thorough survey, the area did not yield any information suggesting excavation would reveal significant sites.

5. ***Is the terrace now a platform?***

Response: No. The primary author could not find such reference and it is unclear where "platform" was used for SIHP No. -6678. We maintain Site -6678 as a "terrace". Perhaps the reviewer had looked at a first draft copy of the report. The SHPD accepted copy maintains no reference to the site as a platform. As noted above, a copy of the final accepted AIS report will be included in the Final EA.

6. ***Despite the traditional material and traditional construction, the AIS reports "it is believed that the features are associated with the current or possibly former residents." The features of the site are estimated to have been constructed in the 1950's."***

Response: Yes. The construction materials are of a traditional material (basalt) and are dry-stacked. However, due to the prior existence of agricultural fields in that portion of the project area, it is maintained that the terraces and retaining wall were likely constructed in the 1960's. The function of the features was for a small house garden and soil retention for the former occupants of the existing dwelling. The walls are not historically significant.

7. ***Should Site -6678 be 'worthy of preservation under criterion C as an excellent example of a modern historic use of traditional materials and construction?'***

Response: No. Despite the "Fair/Good" condition of the site, it is not believed to be an "an excellent site type; embody distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possess high artistic value." The SHPD concurred with this assessment.

8. ***We believe that ground disturbing activities at Parcel 008 should be monitored.***

Response: Monitoring was recommended for portions of the waterline within the Haiku Road corridor, but not along the cut slope. The SHPD concurred with this recommendation.

Thank you for the opportunity to comment. Please contact either of us (597-1182) should you have additional comments or concerns.

Regards,

Dave Perzinski, B.A.,
Michael Dega, Ph.D.
Scientific Consultant Services, Inc.

EXHIBIT E.

SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Ms Yolanda Poouahi
c/o Munekiyo & Hiraga
305 High Street, Suite 104
Wailuku, Hawai'i 96793

February 25, 2011

Dear Ms. Poouahi:

Thank you for forwarding the letter sent to you by Dana Hall regarding the Cultural Impact Assessment (CIA) for the Ha'ikū Fire Station. Please keep in mind that the purpose of a CIA is to identify ongoing cultural activities and resources in a particular area (project area and nearby vicinity) that may possibly be impacted by the project. In this way, the activities, or resources can be protected and provided for. The CIA is not intended to be a document of in-depth archival-historical land research, or a record of oral family histories, unless these records contain information about specific ongoing cultural resources that might be impacted by a proposed project.

The CIA is not meant to address archaeological matters, as this is done through the archaeological documents and reports. We do include a brief synopsis of the archaeology as part of the project background. Because of this, the CIA information should be the same as what is presented in the archaeology report, but does not go into deep archaeological analysis.

There are suggested guidelines for CIA, but they are suggested guide lines only. Interviews are desirable if there are on-going cultural activities or resources to report. Many times, our documents do not have interviews because there are no on-going cultural activities, or resources to report, especially on lands that have been in agriculture for up to 100 years or more. It may be true that some parcels in the vicinity of the project area were used for other purposes, however, unless this project will negatively impact cultural activities, or resources taking place on those parcels, it is a mute point, from the perspective of the CIA. If objections or additional information concerning the project area is known by the *kama`āina* residents, the public meeting held at the Ha'ikū Elementary School on April 10, 2007, was the perfect opportunity to introduce such knowledge. It is our understanding that several locations for the fire station were discussed with the community that evening.

An important objective of the CIA is to maintain access and availability to important cultural sites and resources, and to bring attention to these areas before any impact has occurred so that consultation can result and mitigation can take place.

The letters of inquiry that were sent out for this project covered individuals and organizations with a broad spectrum of expertise in the local community: Consultation was sought from Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; the Maui Planning Department,

Cultural Resources Commission; Kamika Kepa'a of the Native Hawaiian Preservation Council, Coochie Cayan, History and Culture Branch Chief at SHPD; Les Kuloloilo at the time on the Maui Burial Council; Ke'eaumoku Kapu; Charles Maxwell, and Nā Kupuna O Maui (which as far as we knew was still functioning when this report originally was completed in 2009).

In addition, a Cultural Impact Assessment Notice was published on January 11, 14, 15, 2009 in *The Honolulu Advertiser* and *The Maui News*, on January 11, 14, 15 2009. These notices requested information of cultural resources, or activities in the area of the proposed project, gave the TMK number and where to respond with information. SCS feels that the public notices and the individuals and organizations that were contacted were sufficient to receive a response or additional source suggestions, if there was something to report.

Best Wishes,

Leann McGerty

Senior Archaeologist, SCS, Inc.

FEB 22 2011

Wailuku Main Street Association, Inc.
Tri-Isle Main Street Resource Center
A Non-Profit Organization
1942 Main Street, Unit 101 • Wailuku, Maui, HI 96793
Tel (808) 244-3888 • Fax (808) 242-2710

To: Mark Alexander Roy, Munekiyo and Hiraga
Re: Haiku Fire Station Draft Environmental Assessment
Date: February 15, 2011

-Project Review -

The Wailuku Main Street Association, Inc. /Tri-Isle Main Street Resource Center's Structure and Design Committee reviewed the Draft Environmental Assessment for the Haiku Fire Station as requested by Mark Alexander Roy associate with Munekiyo and Hiraga Inc. and prepared by the same.

The review is based on the blueprint and information submittals received by the County of Maui Department of Fire and Public Safety dated December 2010 by Munekiyo and Hiraga Inc. and other information by Architects Hawaii contained with the submittals forwarded to the WMSA in order to provide comments on the project as requested by the same as above. The Committee makes the following comments.

The Committee expressed concerns regarding the roof sloping back to the wall as illustrated on exterior elevations on A2D2 and also as noted in Figure 3 as problematic. Roofs sloping back to the wall is inappropriate for the Haiku area that has lots of rain. This design of the roof will result in heavy maintenance.

The Committee felt that it seems strange to us that this project is not being located in one of the more urban areas centered around Pawela and Haiku canneries. This would enable the fire station to interact with the daily activity going on in the community.

We realize and note for the record that we do support having a fire station located in Haiku which will serve a large population base. However, it would make more sense to us to have a fire station more centrally located where other people come to work and live everyday. We appreciate the work that has gone into the process leading up to fulfilling this important community need.

Sincerely,
WAILUKU MAIN STREET ASSOCIATION, INC.
-Tri-Isle Main Street Resource Center-

Anthony Riecke-Gonzales AIA
Vice-Chairman, Structure & Design Committee

Jocelyn A. Perreira, Executive Director
Tri-Isle Main Street Program Coordinator

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

February 5, 2024

Response to comment from
Wailuku Main Street Association Inc. letter dated February 15, 2011.

(NOTE: Wailuku Main Street Association dissolved in September 2013.)

SUBJECT: Proposed Haʻikū Fire Station Project and Related Improvements at TMK (2) 2-7-007:008(por.), Maui, Hawaiʻi (File No. POH-2009-00341)

In a letter dated on February 15, 2011, the Wailuku Main Street Association (WMSA) provided comments on the 2011 Draft Environmental Assessment (DEA) and land use entitlement requests (State Land Use Commission District Boundary Amendment, Community Plan Amendment, and Change of Zoning) for the subject project.

Following comments received from both agencies and the public on the DEA that was published in 2011, the project had been paused to allow for review of the input received. This review process has culminated in some important refinements being made to the plans for the project to address specific considerations regarding items such as the offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. DF&PS is now ready to move forward with the project again with an updated site plan that has the wind turbines and helipad eliminated from the scope of the project. The refined site plan also provides for the addition of a small apparatus building next to the main fire station building to accommodate the updated equipment storage needs of DF&PS and a significant reduction in the scope of the proposed offsite water infrastructure. DF&PS will now be proceeding to re-publish an updated version of the DEA (under the Hawaiʻi Administrative Rules (HAR), Chapter 11-200.1-32, Retroactivity provisions of the new Environmental Impact Statement (EIS) rules) so that agencies and the public can have an opportunity to review the updated scope of the project and provide additional comments prior to DF&PS proceeding with the preparation of the Final Environmental Assessment (EA) to complete the environmental review process pursuant to HAR, Chapter 11-200.

The WMSA's letter will be included in the revised DEA. However, we could not provide a response letter to the WMSA because it had been dissolved in 2013.

In light of the project resuming, we offer the following information in response to those comments presented in their letter:

ROOF DESIGN COMMENT

We note that the Structures & Design Committee felt that there could be a potential for increased maintenance costs associated with the proposed saw-tooth roof design that has been selected for the living quarters/administrative building of the new fire station. This design element was specifically chosen over more conventional roof designs following review of the architectural and land use objectives set forth in both the Pā'ia-Ha'ikū County Town Design Guidelines and the Pa'ia-Ha'iku Community Plan. These important planning documents are intended to guide future development in the area to ensure that new projects fit in with and are consistent with the history and overall unique characteristics of the community. In evaluating alternative roof designs for the proposed facility, the Department of Fire and Public Safety (DF&PS) decided that the current roof design would allow the fire station to take on a more human scale and also for it to blend in more appropriately with Ha'ikū's rural surroundings. The saw-tooth design is a characteristic design element reminiscent of when the region was used by plantations for large-scale agricultural crop cultivation such as pineapple. Ha'ikū Cannery and the Kahului Cannery represent good examples of prominent buildings that incorporated these kinds of roof designs when they were first developed back in the plantation days. The DF&PS feels that the benefits associated with the aesthetic qualities of a saw-tooth roof design outweigh potential drawbacks such as higher maintenance costs.

SITE SUITABILITY COMMENT

We appreciate the comment supporting the need for a new fire station to service the growing Ha'ikū community. As discussed in Chapter I of the 2011 DEA, the DF&PS has identified that a new fire station is necessary to ensure that adequate fire protection service is provided to the growing resident and commercial population throughout the Ha'ikū region. The subject property was selected following completion a site selection process by the County of Maui in 2007.

Early consultation with the community surrounding the project site was conducted during the County of Maui's initial site selection process for the project. As part of this process, the DF&PS held a community meeting at Ha'ikū Elementary School on April 10, 2007. The purpose of this meeting was to (1) inform the community as to the need for an additional fire service facility in the Ha'ikū region; (2) provide an overview on the criteria evaluated during the review of potential alternative sites for the project; and, (3) to receive comments on the preferred site that was being recommended as a result of the site selection analysis. The DF&PS reviewed all comments that were received from the public as a result of this public meeting. The subject property was recommended for purchase by the County as being the most suitable site in terms of meeting the needs of the local community, as well as the operational requirements of the DF&PS. The subject property was purchased on a basis of this recommendation on December 14, 2007.

To allow for implementation of the proposed Ha'ikū Fire Station on a portion of the subject property, the following land use amendments will be requested as part of the entitlement application process for the proposed project. See **Table 1**.

Table 1

LAND USE AMENDMENT	CURRENT	PROPOSED
State Land Use Commission	Agricultural	Rural
Paia-Haiku Community Plan	AG, Agriculture	Public/Quasi-Public
County Zoning	Agricultural	Public/Quasi-Public (P-1)

In recognition of the intended use, the subject property has also been identified as a rural growth area in the Maui Island Plan adopted December 28, 2012 as Ordinance No. 4004 by the Maui County Council. Ordinance No. 4004 does not address the component relating to the implementation program. Chapter 2.80B of the Maui County Code, relating to the General Plan was amended via Ordinance No. 3979, October 5, 2012, to provide that the implementation component be adopted no later than one (1) year following the effective date of Ordinance No. 4004. After several time extensions to adopt the implementation program, this component was approved by the County of Maui, effective May 29, 2014 via Ordinance No. 4126.

While we recognize that the comments recommend reconsidering the location in favor of a site that is more centrally located in Ha'ikū, the County of Maui conducted an additional evaluation of potential alternative sites throughout the region, ultimately selecting the proposed project site. As a result of concerns aired during the site selection process regarding the need to separate the fire station use from other uses in the area, the DF&PS chose to proceed with development of the proposed fire station on a portion of the property situated at a lower elevation than the original site that was initially being explored. While there are distinct operational advantages associated with locating a fire station at the highest possible elevation on a piece of property, the DF&PS felt that it was necessary in this particular instance to minimize noise impacts on its rural neighbors and the extent to which the facility can be observed from surrounding residential areas. This degree of separation would not be able to be achieved with a more central location in the midst of the Ha'ikū and Pauwela canneries where there are numerous neighboring businesses and residences.

A copy of the WMSA letter and this response memo will be included in the Final EA for the project.

LETTERS RECEIVED DURING THE UPDATED DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD; AND RESPONSES TO SUBSTANTIVE COMMENTS

XI

XI. LETTERS RECEIVED DURING THE UPDATED DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD; AND RESPONSES TO SUBSTANTIVE COMMENTS

Federal Agencies

1. Mr. Gerald Gregory, District Conservationist
   Natural Resources Conservation Service
   U.S. Department of Agriculture-NRCS
   77 Ho'okele Street, Suite 202
   Kahului, HI 96732

2. Ms. Jen Martin, Interim Chief
   U.S. Army Corps of Engineers, Honolulu District
   U.S. Department of the Army,
   Regulatory Branch
   Regulatory Branch, Building 230
   Fort Shafter, HI 96858-5440
   Via email: ***CEPOH-O@usace.army.mil***

3. Mr. Dave Wesley, Deputy Regional Director
   Pacific Region Headquarters
   U.S. Fish and Wildlife Service - Pacific Region Headquarters
   911 NE 11th Avenue
   Portland, OR 97232

State Agencies

4. Mr. Keith Regan, Comptroller
   State of Hawai'i
   Department of Accounting and General Services
   1151 Punchbowl Street, #426
   Honolulu, HI 96813

5. Ms. Sharon Hurd, Chair
   State of Hawai'i
   Department of Agriculture
   1428 South King Street
   Honolulu, HI 96814-2512

6. Mr. James Kunane Tokioka, Director
   State of Hawai'i
   Department of Business, Economic Development & Tourism (DBEDT)
   P.O. Box 2359
   Honolulu, HI 96804

7. Mr. Keith Hayashi, Superintendent
   State of Hawai'i
   Department of Education
   P. O. Box 2360
   Honolulu, HI 96804

8. Ms. Heidi Meeker
   State of Hawai'i
   Department of Education, Office of Business Services
   3633 Waialae Avenue, Room C-209
   Honolulu, HI 96816

9. Mr. Kali Watson, Chair
   State of Hawai'i
   Department of Hawaiian Home Lands
   P. O. Box 1879
   Honolulu, HI 96805

10. Dr. Kenneth S. Fink, MD, MGA, MPH, Director
    State of Hawai'i
    Department of Health
    1250 Punchbowl St., Room 325
    Honolulu, HI 96813

11. Mr. Alec Wong, P.E., Chief
    State of Hawai'i
    Environmental Management Division
    Department of Health, Clean Water Branch
    Hale Ola, Room 225
    2827 Waimano Home Road
    Pearl City, HI 96782

12. Ms. Patti Kitkowski, District
Environmental Health Program Chief
State of Hawai'i
Department of Health, Maui Sanitation Branch
Environmental Health Service Division (EHSD)
54 South High Street, Room 301
Wailuku, HI 96793

13. Ms. Dawn N. S. Chang, Chairperson
State of Hawai'i
Department of Land and Natural Resources
P. O. Box 621
Honolulu, HI 96809
Via email: ***dlnr@hawaii.gov*** and ***dlnr.land@hawaii.gov***

14. Dr. Alan Downer, Ph.D., Administrator
State of Hawai'i
Department of Land and Natural Resources,
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, HI 96707

15. Mr. Ed Sniffen, Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street, Room 509
Honolulu, HI 96813-5097

16. Major General Kenneth Hara, Adjutant General
State of Hawai'i
Department of Defense
3949 Diamond Head Road
Honolulu, HI 96816

17. State of Hawai'i
Environmental Review Program
235 S. Beretania Street, Suite 702
Honolulu, HI 96813

18. Ms. Stacy Kealohalani Ferreira, Chief Executive Officer (Ka Pouhana)
State of Hawai'i
Office of Hawaiian Affairs
560 N. Nimitz Highway, Suite 200
Honolulu, HI 96817

19. Ms. Mary Alice Evans, Director
State of Hawai'i
Office of Planning and Sustainable Development
P. O. Box 2359
Honolulu, HI 96804-2359

20. Mr. Dan Orodenker, Executive Officer
State of Hawai'i
Land Use Commission, DBEDT
P.O. Box 2359
Honolulu, HI 96804

County of Maui Agenices

21. Mr. Shayne Agawa, P.E., Director
County of Maui
Department of Environmental Management
200 S. High Street
Wailuku, HI 96793
Via email: ***Tammy.Yeh@co.maui.hi.us*** and ***via MAPPS***

22. Ms. Lori Tsuhako, Director
County of Maui
Department of Housing and Human Concerns
2200 Main Street, Suite 546
Wailuku, HI 96793

23. Mr. Patrick McCall, Director
County of Maui
Department of Parks and Recreation
700 Halia Nakoa Street, Unit 2F
Wailuku, HI 96793

24. Mr. Garrett Smith, Acting Director
County of Maui
Department of Planning
2200 Main Street, Suite 315
Wailuku, HI 96793

25. Mr. Jordan Molina, Director
County of Maui
Department of Public Works
200 S. High Street, 4th Floor
Wailuku, HI 96793

26. Mr. Marc Takamori, Director
County of Maui
Department of Transportation
110 Ala'ihi Street, Suite 210
Kahului, HI 96732

27. Mr. John Stufflebean, P.E., Director
County of Maui
Department of Water Supply
200 S. High Street, 5th Floor
Wailuku, HI 96793

28. Mr. Amos Lonokailua-Hewett, MEMA Administrator
County of Maui
Maui Emergency Management Agency
200 S. High Street, 1st Floor
Wailuku, HI 96793

29. Chief John Pelletier, Chief
County of Maui
Maui Police Department
55 Mahalani Street
Wailuku, HI 96793

30. Ms. Luana Mahi, Director
County of Maui
Office of Economic Development
2200 Main Street, Suite 305
Wailuku, HI 96793

31. Honorable Richard T. Bissen, Jr., Mayor
County of Maui
Mayor's Office
200 S. High Street, 9th Floor
Wailuku, HI 96793

32. Ms. Tasha Kama, Councilmember
County of Maui (Kahului)
Maui County Council - Kama
200 S. High Street, 8th Floor
Wailuku, HI 96793

33. Ms. Alice Lee, Council Chair
County of Maui (Wailuku-Waihee-Waikapu)
Maui County Council - Lee
200 S. High Street, 8th Floor
Wailuku, HI 96793

34. Ms. Keani Rawlins-Fernandez, Council Vice Chair
County of Maui (Moloka'i)
Maui County Council - Rawlins-Fernandez
200 S. High Street, 8th Floor
Wailuku, HI 96793

35. Mr. Shane Sinenci, Councilmember
County of Maui (East Maui)
Maui County Council - Sinenci
200 S. High Street, 8th Floor
Wailuku, HI 96793

36. Mr. Gabe Johnson, Councilmember
County of Maui (Lana'i)
Maui County Council - Johnson
200 S. High Street, 8th Floor
Wailuku, HI 96793

37. Ms. Nohe U'u-Hodgins, Councilmember
County of Maui (Makawao-Ha'ikū-Pā'ia)
Maui County Council - U'u-Hodgins
200 S. High Street, 8th Floor
Wailuku, HI 96793

38. Mr. Thomas Cook, Councilmember
County of Maui (South Maui)
Maui County Council - Cook
200 S. High Street, 8th Floor
Wailuku, HI 96793

39. Ms. Yuki Lei Sugimura, Councilmember
County of Maui (Upcountry)
Maui County Council - Sugimura
200 S. High Street, 8th Floor
Wailuku, HI 96793

40. Ms. Tamara Paltin, Councilmember
County of Maui (West Maui)
Maui County Council - Paltin
200 S. High Street, 8th Floor
Wailuku, HI 96793

County of Maui Organizations

41. Hawaiian Telcom
Plan Review Department
Via email: HT-PlanReviews@hawaiiantel.com

42. Mr. Marc Grider, Manager, Engineering
Hawaiian Electric Company, Inc.
P. O. Box 398
Kahului, HI 96733

43. Isaac and Dana Hall
2087 Wells Street
Wailuku, HI 96793

44. Makawao Public Library
1159 Makawao Avenue
Makawao, HI 96768

45. Ha'ikū Community Association
P.O. Box 1036
Ha'ikū, HI 96708

From: Lara, Kirsten F CIV USARMY CEPOH (USA) <Kirsten.F.Lara@usace.army.mil>
Sent: Monday, March 25, 2024 3:37 PM
To: bradford.ventura@co.maui.hi.us
Cc: General eMail <planning@munekiyohiraga.com>
Subject: POH-2009-00341, Ha`iku Fire Station, Maui

Aloha Mr. Ventura,

The US Army Corps of Engineers (Corps) received your request for comments on the proposed County of Maui, Department of Fire & Public Safety Ha'iku Fire Station and Related Improvements Project at Ha'iku, Maui, Hawai'i.

The Corps' regulatory authorities are based on Section 10 of the Rivers and Harbors Act (RHA) of 1899 and Section 404 of the Clean Water Act. Section 10 of the RHA of 1899 prohibits the obstruction or alteration of any navigable water of the U.S. (WOTUS) without a Department of the Army (DA) permit. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into WOTUS without a DA permit. For projects that are being developed, we ask that you identify areas that may fall within the Corps jurisdiction as WOTUS such as streams, rivers, and wetlands.

If you determine that your project would need a permit from the Corps, then we would require an application to be provided. We must also evaluate the project for any impacts to resources such as threatened or endangered species, historic properties, and/or essential fish habitat, and consult if necessary. If applying for a permit, include detailed plans/drawings of the proposed project where streams or wetlands are present. Include a clear line indicating the ordinary high water mark (OHWM) in your plans and also include the amount and type of fill that would be placed below the OHWM.

A permit is not required if all work being done is located in uplands.

Please visit https://www.poh.usace.army.mil/Missions/Regulatory/Permits/Nationwide-Permits/ to find more information about our program and to apply for a permit. Email permit applications to CEPOH-RO@usace.army.mil, as we have gone paperless.

Feel free to contact me with any further questions.

Mahalo,

Kirsten Lara
Biologist/Regulatory Specialist
U.S. Army Corps of Engineers
Honolulu District
Building 252, Fort Shafter, Hawai'i
96858
Email kirsten.f.lara@usace.army.mil
Phone 808-835-4307

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Karlynn K. Fukuda
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Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Via email: Kirsten.F.Lara@usace.army.mil

Kristen Lara, Biologist/Regulatory Specialist
U.S. Army Corps of Engineers
Honolulu District
Building 252
Fort Shafter, Hawai'i 96858

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Ms. Lara:

Thank you for your email dated March 25, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

Comment:

The Corps' regulatory authorities are based on Section 10 of the Rivers and Harbors Act (RHA) of 1899 and Section 404 of the Clean Water Act. Section 10 of the RHA of 1899 prohibits the obstruction or alteration of any navigable waters of the U.S. (WOTUS) without a Department of the Army (DA) permit. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into WOTUS without a DA permit. For projects that are being developed, we ask that you identify areas that may fall within the Corps jurisdiction as WOTUS such as streams, riviers, and wetlands.

If you determine that your project would need a permit from the Corps, then we would require an application to be provided. We must also evaluate the project for any impacts to resources such as threatened or endangered species, historic properties, and/or essential fish habitat, and consult if necessary. If applying for a permit, include detailed plans/drawings of the proposed project where streams or wetlands are present. Include a clear line indicating the ordinary high water mater (OHWM) in your plans and also include the amount and type of fill that would be placed below the OHWM.

Response: Coordination has been undertaken during the Environmental Assessment process with the U.S. Army Corps of Engineers (USACE) to ascertain applicable Department of Army (DA) permit requirements for the project. By way of letter dated January 12, 2011 from USACE it was confirmed by USACE that the project parcel is located on uplands and, as such, that there are no DA permits required for the proposed fire station. See letter from the U.S. Army Corps of Engineers, Honolulu District, Regulatory Branch, Chapter X of the Updated Draft EA, Letters Received During the Draft Environmental Assessment Review Period; and Responses to Substantive Comments. Further, as noted in our February 5, 2024 response letter to your office, due to the substantial reduction in the scope of the offsite waterline improvements, there is no longer any work proposed within Kuiaha Gulch.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Sincerely,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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FEB 2 6 2024

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)24.028

FEB 2 1 2024

Bradford Ventura, Fire Chief
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawaii 96732

Dear Bradford Ventura:

Subject: Updated Draft Environmental Assessment for the Proposed Fire Station and Related Improvements
Haiku, Maui, Hawaii
TMK: (2) 2-7-007:008 (por.)

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
Acting Public Works Administrator

DC:mc
c: Hoku Krueger, Munekiyo Hiraga
Jeff Pearson, MDO

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Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Gordon Wood, Acting Public Works Administrator
State of Hawai'i
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawai'i 96810

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Wood:

Thank you for your letter dated February 21, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We appreciate your confirmation that your Department has 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.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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JOSH GREEN, M.D.
GOVERNOR

KEITH T. HAYASHI
SUPERINTENDENT

STATE OF HAWAI'I
DEPARTMENT OF EDUCATION
KA 'OIHANA HO'ONA'AUAO
P.O. BOX 2360
HONOLULU, HAWAI'I 96804

OFFICE OF FACILITIES AND OPERATIONS

March 5, 2024

Hoku Krueger, Associate
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Re: Updated Draft Environmental Assessment for the Proposed Haiku Fire Station and Related Improvements Project; TMK (2)2-7-007:008(por.), Haiku, Maui, Hawaii

Dear Ms. Krueger:

Thank you for your letter dated February 6, 2024. Based on the information provided, the proposed project will not impact the facilities of the Hawaii State Department of Education.

Should you have any questions, please contact Cori China of the Facilities Development Branch, Planning Section, at (808) 784-5080 or via email at cori.china@k12.hi.us.

We appreciate the opportunity to comment.

Sincerely,

Roy Ikeda
Interim Public Works Manager
Planning Section

RI:ctc

c: Bradford Ventura, Fire Chief, County of Maui, Department of Fire and Public Safety
Facilities Development Branch

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Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Roy Ikeda, Interim Public Works Manager
State of Hawai'i
Department of Education
Office of Facilities and Operations
P.O. Box 2630
Honolulu, Hawai'i 96804

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Ikeda:

Thank you for your letter dated March 5, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We appreciate your confirmation that the proposed project will not impact the facilities of the Hawai'i State Department of Education.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Sincerely,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
K:\DATA\AHL\Haiku Fire Stn Update\Applications\Draft EA\Updated Draft EA Res Letters\DOE.docx

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

March 8, 2024

Munekiyo Hiraga
Attn: Ms. Hoku Krueger, Associate
305 High Street, Suite 104
Wailuku, Hawaii 96793

via email: planning@munekiyohiraga.com

Dear Ms. Krueger:

SUBJECT: Updated Draft Environmental Assessment for the Proposed **Haiku Fire Station and Related Improvements Project** located at 3550 Hana Highway, Makawao, Island of Maui; TMK: (2) 2-7-007:008 (por.) on behalf of the County of Maui, Department of Fire & Public Safety

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

At this time, the DLNR has no comments to offer on the subject matter. Should you have any questions, please feel free to contact Darlene Nakamura at (808) 587-0417 or email: darlene.k.nakamura@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

April 10, 2024

Munekiyo Hiraga
Attn: Ms. Hoku Krueger, Associate
305 High Street, Suite 104
Wailuku, Hawaii 96793

via email: planning@munekiyohiraga.com

Dear Ms. Krueger:

SUBJECT: Updated Draft Environmental Assessment for the Proposed **Haiku Fire Station and Related Improvements Project** located at 3550 Hana Highway, Makawao, Island of Maui; TMK: (2) 2-7-007:008 (por.) on behalf of the County of Maui, Department of Fire & Public Safety

Thank you for the opportunity to review and comment on the subject matter. In addition to our previous comments dated March 8, 2024, enclosed are comments from the Division of Forestry & Wildlife on the subject matter. Should you have any questions, please feel free to contact Darlene Nakamura at (808) 587-0417 or email: darlene.k.nakamura@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

cc: Central Files

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Russell Tsuji, Land Administrator
State of Hawai'i
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawai'i 96809

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Tsuji:

Thank you for your letter dated March 8, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We acknowledge your statement that the Department of Land and Natural Resources has no comments on the Updated Draft Environmental Assessment (EA). We note, however, receipt of a comment letter from the Division of Forestry and Wildlife (DOFAW) dated April 10, 2024. We have provided responses to DOFAW's comments in a separate response letter that will be included in the Final EA.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final EA for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Sincerely,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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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

February 9, 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 – Maui District (daniel.l.ornellas@hawaii.gov)
_X_ Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: Russell Y. Tsuji, Land Administrator *Russell Tsuji*
SUBJECT: Updated Draft Environmental Assessment for the Proposed **Haiku Fire Station and Related Improvements Project**
LOCATION: 3550 Hana Highway, Makawao, Island of Maui; TMK: (2) 2-7-007:008 (por.)
APPLICANT: Munekiyo Hiraga on behalf of the County of Maui, Department of Fire & Public Safety

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit any comments by **March 8, 2024.**

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Darlene Nakamura at darlene.k.nakamura@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed: _____
Print Name: Jason D. Omick, Acting Wildlife Prog. Mgr.
Division: Forestry and Wildlife
Date: Apr 10, 2024

Attachments
cc: Central File

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

DEAN D. UYENO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

April 10, 2024

Log no. 4422

MEMORANDUM

TO: RUSSELL Y. TSUJI, Administrator
Land Division

FROM: JASON OMICK, Acting Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: Updated Draft Environmental Assessment for the Proposed Ha'ikū Fire Station and Related Improvements Project TMK (2) 2-7007:008(por.), Ha'ikū, Maui, Hawai'i.

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received the HRS Chapter 343 Updated Draft Environmental Assessment (DEA) for the Proposed Ha'ikū Fire Station and Related Improvements Project in Ha'ikū, Maui, Hawai'i; TMK: (2) 2-7007:008 (por.). The County of Maui, Department of Fire and Public Safety (DF&PS) is proposing to construct a new fire station and related improvements on an approximately 6.1-acre portion of land owned by the County of Maui, located at the intersection of East Kuiaha Road and Hāna Highway. The proposed fire station will be developed on the project site as a low-rise facility and will use plantation design themes similar to that of other commercial/industrial structures located throughout the Pa'ia-Ha'ikū region. The fire station facility will consist of administrative, vehicle storage, and utility buildings. The main single-story administrative building (approximately 10,360 square feet, including covered exterior walkways) will provide offices, sleeping quarters, crew quarters, training and exercise facilities, dining and kitchen facilities, and other support functions necessary for the estimated 15 personnel that will be assigned to the station. Various other related improvements will be completed as part of project implementation, including the demolition of an abandoned residential building and old slabs; the construction of an approximately 1,600 square foot storage building and a parking lot; the installation of a 40,000-gallon water storage tank, a septic tank, a drainage field, drainage facilities, and utilities; site grading and grubbing; and landscaping. The project will also involve the construction of an access driveway off of Hāna Highway.

DOFAW concurs with the measures included in the DEA intended to avoid construction and operational impacts to State-listed seabirds. 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 the dark, starry skies of Hawai'i please visit https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf We also appreciate the use of native plant species in landscaping. DOFAW provides the following additional comments regarding the potential for the proposed work to affect listed species in the vicinity of the project area.

The State listed 'ōpe'ape'a or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided for any construction because bats can become ensnared and killed by such fencing material during flight.

State-listed waterbirds such as ae'o or Hawaiian stilt (*Himantopus mexicanus knudseni*), 'alae ke'oke'o or Hawaiian coot (*Fulica alai*), and nēnē or Hawaiian Goose (*Branta sandvicensis*) could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any of these species are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the Maui Branch DOFAW Office at (808) 984-8116 and establish a buffer zone around the nest.

The endemic pueo or Hawaiian Short-Eared Owl (*Asio flammeus sandwichensis*) could potentially nest in the project area. Before any potential vegetative alteration, especially ground-based disturbance, we recommend that line transect surveys are conducted during crepuscular hours through the project area. If a pueo nest is discovered, a minimum buffer distance of 100 meters from the nest should be established until chicks are capable of flight.

The project area is within the range of the State listed Blackburn's Sphinx Moth (*Manduca blackburni*) or BSM. Larvae of BSM feed on many nonnative hostplants, which includes tree tobacco (Nicotiana glauca), that grow in disturbed soil. We recommend contacting the Maui Island Branch DOFAW office at (808) 984-8116 for further information about where BSM may be present and whether a vegetation survey should be conducted to determine the presence of plants preferred by BSM. DOFAW recommends removing plants less than one meter in height or during the dry season to avoid harm to BSM. If you intend to either remove tree tobacco over one meter in height or to disturb the ground around or within several meters of these plants, they must be thoroughly inspected by a qualified entomologist for the presence of BSM eggs and larvae.

The invasive Coconut Rhinoceros Beetle (CRB) or Oryctes rhinoceros is found on the islands of O'ahu, Hawai'i Island, Maui and Kaua'i. On July 1, 2022, the Hawai'i Department of Agriculture (HDOA) approved Plant Quarantine Interim Rule 22-1. This rule restricts the movement of CRB-host material within or to and from the island of O'ahu, which is defined as

the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes a) entire dead trees, b) mulch, compost, trimmings, fruit and vegetative scraps, and c) decaying stumps. CRB host plants include the live palm plants in the following genera: Washingtonia, Livistona, and Pritchardia (all commonly known as fan palms), Cocos (coconut palms), Phoenix (date palms), and Roystonea (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage. For more information regarding CRB, please visit https://dlnr.hawaii.gov/hisc/info/invasive-species-profiles/coconut-rhinoceros-beetle/.

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., Coqui Frogs, Little Fire Ants, etc.), or invasive plant parts (e.g., Miconia, Mullein, etc.) that could harm our native species and ecosystems. We recommend consulting the Maui Invasive Species Committee (MISC) at (808) 573-6472 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.

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Katherine Cullison, Habitat Conservation Planning Coordinator, at katherine.cullison@hawaii.gov.

Sincerely,

JASON OMICK
Acting Wildlife Program Manager

MUNEKIYO HIRAGA
Planning. Project Management. Sustainable Solutions.

Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Jason Omick, Acting Wildlife Program Manager
State of Hawai'i
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, Hawai'i 96813

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Omick:

Thank you for your letter dated April 10, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

Comment 1:

DOFAW concurs with the measures included in the DEA intended to avoid construction and operational impacts to State-listed seabirds. 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-falloutseason/ 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 the dark, starry skies of Hawai'i please visit https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf We also appreciate the use of native plant species in landscaping.

Response: DF&PS will review DOFAW's recommended best management practices (BMPs) and implement measures, as feasible and appropriate, to prevent adverse impacts to seabirds. We appreciate your provision of information on seabird-friendly light styles that also protect dark skies.

Comment 2:

The State listed ʻōpeʻapeʻa or Hawaiian Hoary Bat (Lasiurus cinereus semotus) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided for any construction because bats can become ensnared and killed by such fencing material during flight.

Response: DF&PS appreciates these recommendations and will implement the above BMPs to avoid impacts to the State-listed ʻōpeʻapeʻa.

Comment 3:

State-listed waterbirds such as aeʻo or Hawaiian stilt (Himantopus mexicanus knudseni), ʻalae keʻokeʻo or Hawaiian coot (Fulica alai), and nēnē or Hawaiian Goose (Branta sandvicensis) could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any of these species are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the Maui Branch DOFAW Office at (808) 984-8116 and establish a buffer zone around the nest.

Response: If any State-listed waterbirds are present during construction, all activities within 100 feet will cease and the bird or birds will not be approached. If a nest is discovered, the project contractor will contact the Maui Branch DOFAW Office and establish a buffer zone around the nest.

Comment 4:

The endemic pueo or Hawaiian Short-Eared Owl (Asio flammeus sandwichensis) could potentially nest in the project area. Before any potential vegetative alteration, especially groundbased disturbance, we recommend that line transect surveys are conducted during crepuscular hours through the project area. If a pueo nest is discovered, a minimum buffer distance of 100 meters from the nest should be established until chicks are capable of flight.

Response: We note your comment that the pueo could potentially nest in the project area. DF&PS will hire a qualified professional to conduct a survey of the project area prior to the start of construction. If a pueo nest is discovered, a minimum buffer distance of 100 meters from the nest will be established until chicks are capable of flight.

Comment 5:

The project area is within the range of the State listed Blackburn's Sphinx Moth (Manduca blackburni) or BSM. Larvae of BSM feed on many nonnative hostplants, which includes tree tobacco (Nicotiana glauca), that grow in disturbed soil. We recommend contacting the Maui Island Branch DOFAW office at (808) 984-8116 for further information about where BSM may be present and whether a vegetation survey should be conducted to determine the presence of plants preferred by BSM. DOFAW recommends removing plants less than one meter in height or during the dry season to avoid harm to BSM. If you intend to either remove tree tobacco over one meter in height or to disturb the ground around or within several meters of these plants, they must be thoroughly inspected by a qualified entomologist for the presence of BSM eggs and larvae.

Response: DF&PS will review these recommendations and implement BMPs, as may be appropriate, to prevent harm to potential BSM.

Comment 6:

The invasive Coconut Rhinoceros Beetle (CRB) or Oryctes rhinoceros is found on the islands of O'ahu, Hawai'i Island, Maui and Kaua'i. On July 1, 2022, the Hawai'i Department of Agriculture (HDOA) approved Plant Quarantine Interim Rule 22-1. This rule restricts the movement of CRB-host material within or to and from the island of O'ahu, which is defined as 432the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes a) entire dead trees, b) mulch, compost, trimmings, fruit and vegetative scraps, and c) decaying stumps. CRB host plants include the live palm plants in the following genera: Washingtonia, Livistona, and Pritchardia (all commonly known as fan palms), Cocos (coconut palms), Phoenix (date palms), and Roystonea (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage. For more information regarding CRB, please visit https://dlnr.hawaii.gov/hisc/info/invasive-speciesprofiles/coconut-rhinoceros-beetle/.

Response: The Applicant appreciates the information provided by your Division regarding the invasive Coconut Rhinoceros Beetle and will comply with Plant Quarantine Interim Rule 22-1.

Comment 7:

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., Coqui Frogs, Little Fire Ants, etc.), or invasive plant parts (e.g., Miconia, Mullein, etc.) that could harm our native species and ecosystems. We recommend consulting the Maui Invasive Species Committee (MISC) at (808) 573-6472 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.

Response: The project contractor will implement BMPs to minimize the risk of spreading invasive species, and consult the MISC if additional information/guidance is needed.

Comment 8:

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

Response: The project site is located mauka of the County of Maui's Special Management area and over 5,000 feet from the shoreline. Nevertheless, the Applicant will implement BMPs to prevent potential adverse impacts to near-shore waters and marine ecosystems.

Dust may be generated during site preparation and construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented as needed to minimize wind-blown emissions.

With respect to long-term impacts, onsite drainage mitigation measures will be implemented to address the increase in stormwater runoff associated with the development of the proposed new fire station. These improvements, coupled with the proposed grading plan, will ensure that near-shore waters and marine ecosystems are not impacted by project implementation.

Comment 9:

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible.

Response: The Applicant acknowledges this comment. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, DF&PS will contact DOFAW staff, as soon as possible.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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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
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:

DIR 0000051
DIR 0000052
HWY-PL 24-2.35043

March 15, 2024

Mr. Bradford Ventura, Fire Chief
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawaii 96732

Dear Chief Ventura:

Subject: Request for Comment on Updated Draft Environmental Assessment (DEA)
Haiku Fire Station and Related Improvements
Haiku, Maui
Tax Map Key No. (2) 2-7-007:008 (por.)

Thank you for your letter requesting our comments on the updated DEA. We apologize for the delay in response. The Hawaii Department of Transportation (HDOT) has the following comments:

1. Based on the updated DEA, the proposed project does not appear to have any significant impact to the state highway system.

2. We appreciate your letter dated February 5, 2024, which addressed the HDOT's prior comments mentioned in our letter (STP 8.0364) dated February 28, 2011.

If you have any questions, please contact Jeyan Thirugnanam, Land Use Planning Engineer, Planning Branch at (808) 587-6366 or by email at jeyan.thirugnanam@hawaii.gov. Please reference file review number PL 2024-011.

Sincerely,

EDWIN H. SNIFFEN
Director of Transportation

Attachments

c: Munekiya Hiraga

NEIL ABERCROMBIE
GOVERNOR

MAR 0 7 2011

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
Ford N. Fuchigami
Jan S. Gouveia
Randy Grune
Jadine Urasaki

IN REPLY REFER TO

STP 8.0364

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 28, 2011

Mr. Mark Alexander Roy, AICP
Program Manager
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Roy:

Subject: Haiku Fire Station and Related Improvements
Draft Environmental Assessment (DEA)

Thank you for requesting the Department of Transportation's (DOT) review of the subject Maui County project. DOT's comments are as follows:

1. DOT understands the County has agreed to work with DOT Highways Division to assure that the concerns contained in DOT letter STP 8.3479 dated December 18, 2010 (in Section VIII of the DEA) are fully addressed and that all necessary permits and approvals will be acquired.

2. While a preliminary drainage report was included in the DEA, DOT will defer commenting until the report is formally submitted for DOT's review and approval.

3. While the finding in the preliminary Traffic Impact Analysis Report (TIAR) appear reasonable, DOT recommends that further coordination be conducted with the DOT Highways Division to address access requirements and any other mitigation measures necessary to assure the safe entry and exit of emergency and non-emergency vehicles, as well as maintaining the operations and safety of Hana Highway.

If there are any questions or the need to meet with DOT Highway staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Lee Mainaga, County of Maui, Department of Fire and Public Safety

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Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Edwin H. Sniffen, Director of Transportation
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Sniffen:

Thank you for your letter dated March 15, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We appreciate your confirmation that the proposed project will not have a significant impact on the State highway system and acknowledge that the State of Hawai'i, Department of Transportation has no comments on the Updated Draft Environmental Assessment (EA).

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final EA for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

KENNETH S. HARA
MAJOR GENERAL
ADJUTANT GENERAL
KA 'AKUKANA KENELALA

STEPHEN F. LOGAN
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL
KA HOPE 'AKUKANA KENELALA

STATE OF HAWAI'I
KA MOKU'ĀINA O HAWAI'I
DEPARTMENT OF DEFENSE
KA 'OIHANA PILI KAUA
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAI'I 96816-4495

February 26, 2024

Mr. Bradford Ventura, Fire Chief
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawaii 96732

Subject: Draft Environmental Assessment for the Proposed Haiku Fire Station and Related Improvements, Haiku, Maui, Hawaii TMK (2) 2-7-007:008 (portion)

Dear Mr. Ventura:

Thank you for the opportunity to comment on the above project. The State of Hawaii Department of Defense would like to comment that the proposed fire station location is outside the audible range of the closest Emergency Warning Siren (Haiku Siren MA131). Please consult with the Maui Emergency Management Agency for further information.

If you have any questions or concerns, please have your staff contact Mr. Wade Ishii, Assistant Chief Engineering Officer at (808) 369-3484.

Sincerely,

KENNETH S. HARA
Major General
Hawaii National Guard
Adjutant General

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VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Kenneth S. Hara, Major General
State of Hawai'i
Department of Defense
3949 Diamond Head Road
Honolulu, Hawai'i 96816

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Hara:

Thank you for your letter dated February 26, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

Comment:

The State of Hawaii Department of Defense would like to comment that the proposed fire station location is outside of the audible range of the closest Emergency Warning Siren (Haiku Siren MA131). Please consult with the Maui Energency Management Agency for further information.

Response: We acknowledge your comment that the proposed fire station location is outside of the audible range of the nearest Emergency Warning Siren. We sent a letter to the Maui Emergency Management Agency on February 6, 2024 containing a link to the Updated Draft Environmental Assessment (EA) and requesting their comments.

The proposed fire station will be an emergency response facility and will not involve residential use. DF&PS confirms that the Emergency Warning Sirens are not a critical resource for preparation and response capability. We acknowledge the value of having a siren near the fire station in the future if the Department of Defense were to expand siren coverage.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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From: Kamakana Ferreira <kamakanaf@oha.org>
Sent: Friday, February 23, 2024 2:22 PM
To: bradford.ventura@co.maui.hi.us; General eMail <planning@munekiyohiraga.com>
Subject: OHA Comment Re: DEA for Haiku Fire Station

Aloha,

The Office of Hawaiian Affairs (OHA) is in receipt of your letter dated February 6, 2024, notifying us of the release of the updated draft environmental assessment (DEA) for the proposed Ha'iku Fire Station and Related Improvements projects at 3550 Hana Highway, Maui. Munekiyo Hiraga completed the DEA on behalf of the County of Maui, Department of Fire & Public Safety, pursuant to HRS Chapter 343. Originally, a DEA was published in January 2011; however, the plan drew some community criticism and additional consultation was recommended. The project has since been refined and evaluated via this updated DEA. Aside from construction of the 10,360 sq. ft. fire station building, various other improvements include demolition of an abandoned residential building and old slabs; construction of a 1600 sq. ft. storage building and a parking lot; the installation of a 40,000 gallon water storage tank, a septic tank, a drainage field, drainage facilities, and utilities; site grading and grubbing; and, landscaping.

OHA offers the following comments on archaeological and cultural resources:

Archaeological Resources

OHA observes that an archaeological inventory survey (AIS) was done in 2009 for the original 2011 DEA. With only 1 historic era site identified, no further archaeological work was recommended for it. The AIS was accepted by the State Historic Preservation Division (SHPD) in 2010. While archaeological monitoring was originally recommended, the monitoring appears to be no longer recommended as the DEA claims the scope of work has been substantially reduced and now does not include removal of offsite waterline improvements.

OHA recommends that SHPD be consulted again for the updated scope of work and to ensure full compliance with HRS 6E-8. This will further allow SHPD to assess the current footprint and re-evaluate the project to see if any further work is needed.

Cultural Resources

OHA observes that a cultural impact assessment (CIA) was done in 2009 for the original 2011 DEA. It appears that outreach did occur for the CIA following recommendations from OHA. However, ultimately it was determined that no cultural practices were present and that there would be no impacts. The CIA appears to not have been updated for the current DEA.

OHA recommends that consultation be re-initiated for the CIA as over a decade has passed since the original was done. We note that some of the interviewees have now passed away and that the community landscape may have changed. In addition to individuals on the list, you or your contractor should reach out to Manny Kuloloio and Dane Maxwell.

Closing Remarks

Mahalo for the opportunity to comment. We look forward to seeing our comments taken into consideration. Please let me know if you have any questions.

Mahalo,

Kamakana C. Ferreira, M.A.
Lead Compliance Specialist
Office of Hawaiian Affairs
560 N. Nimitz Hwy
Honolulu, Hi. 96817

(808)594-0227

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VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Via email: kamakanaf@oha.org

Kamakana C. Ferreira, M.A., Lead Compliance Specialist
State of Hawai'i
Office of Hawaiian Affairs
560 North Nimitz Highway
Honolulu, Hawai'i 96817

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Ferreira:

Thank you for your email dated February 23, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

1. As you noted in your comment, an Archaeological Inventory Survey (AIS) for this project was accepted by the State Historic Preservation Division (SHPD) on November 12, 2010. Correspondence was submitted to SHPD on February 5, 2024 providing an update on the project including confirming that the scope of the offsite waterline improvements have been substantially reduced. A copy of the Updated Draft EA was also provided to SHPD for review. To confirm that historic review requirements have been sufficiently addressed, DF&PS will be undertaking further consultation with SHPD following completion of the EA process and as part of the District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ), and construction permitting processes for the project.

2. Thank you for your suggestions relating to the Cultural Impact Assessment (CIA) Report that was prepared for this project. The DF&PS does not feel that the modifications to the scope of this project necessitate the updating of the CIA as the project area remains the same size and the proposed primary use (as a fire station) unchanged. Notwithstanding, DF&PS will be conducting some additional outreach to knowledgeable individuals in the Hai'kū area as part of the District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ) processes for the proposed project.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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STATE OF HAWAI'I
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

235 South Beretania Street, 6th Floor, Honolulu, Hawai'i 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawai'i 96804

JOSH GREEN, M.D.
GOVERNOR

SYLVIA LUKE
LT. GOVERNOR

MARY ALICE EVANS
INTERIM DIRECTOR

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Branch

DTS 202402091017NA

March 6, 2024

Bradford Ventura, Fire Chief
County of Maui
Department of Fire and Public Safety
200 Dairy Road
Kahului, Hawai'i 96732
Bradford.Ventura@co.maui.hi.us

Dear Fire Chief Ventura,

Subject: Updated Draft Environmental Assessment for the Proposed Ha'ikū Fire Station and Related Improvements Project
TMK: (2) 2-7-007:008(por.)
Ha'ikū, Maui, Hawai'i

Thank you for the opportunity to provide comments on the updated Draft Environmental Assessment (EA) for the proposed Ha'ikū Fire Station and Related Improvements Project (Project). It is our understanding a Draft EA for the Project was published in 2011. The Project has since been refined to address community concerns regarding offsite water infrastructure, as well as the proposed ancillary helipad and wind turbine facilities. The updated Draft EA is being republished to conform to provisions of the new Environmental Impact Statement rules and to give agencies and the public the opportunity to review and comment on the updated Project in preparation of the Final EA with an anticipated finding of no significant impact.

The proposed Project involves the construction of a new 10,360-square-foot fire station and related improvements in the vicinity of the Hāna Highway and East Kuiaha Road Intersection in Ha'ikū on a 6.1-acre portion of a 27.9-acre parcel of land. The Project site is designated for agricultural use by the State Land Use designation, the Pa'ia-Ha'ikū Community Plan, and Maui County zoning. To enable project implementation, Maui County will be initiating a Zoning Plan Amendment (ZPA) application, requesting a District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ) for the 6.1-acre project site.

OPSD Comments

The Office of Planning and Sustainable Development (OPSD) offers the following comments:

1. OPSD recognizes the need for public facilities and infrastructure to service the Hai'kū community. The Project will maintain the rural character of the area by incorporating rural design elements, and by reducing the original project scope to better align with community and agency desires.

2. A fire station is not a permitted use within the State Agricultural District and a DBA to the State Rural or Urban District is required to implement the Project. As recognized in Ka Pa'akai O Ka'Aina v. Land Use Commission, 94 Hawai'i 31, 7 P.3d 1068 (2000), as amended (Jan. 18, 2001), the Consitution of the State of Hawai'i places an affirmative duty on the State and its agencies to preserve and protect traditional customary native Hawaiian rights during contested case hearings. Given that the DBA will be conducted through contested case proceedings, OPSD recommends the Final EA include a discussion on how the Project likely satisfies the three points of analysis articulated in the Ka Pa'akai case.

Should you have any questions regarding the comments provided, please contact Brandon Soo at brandon.a.soo@hawaii.gov. If you wish to respond to this comment letter, please include DTS 202402091017NA in the subject line.

Mahalo,

Mary Alice Evans

Mary Alice Evans
Interim Director

c: Hoku Krueger, Munekiyo Hiraga

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VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Mary Alice Evans, Director
State of Hawai'i
Office of Planning & Sustainable Development
P.O. Box 2359
Honolulu, Hawai'i 96804

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Ms. Evans:

Thank you for your letter dated March 6, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

1. We appreciate your Office's recognition of the need for public facilities and infrastructure to service the Hai'kū community, and acknowledgement that the project as described will maintain the rural character of the area.

2. The DF&PS will retain a qualified professional to undertake a Ka Pa'akai Analysis. This analysis will be prepared as part of the District Boundary Amendment (DBA), Community Plan Amendment (CPA), and Change of Zoning (COZ) application processes that will follow completion of the environmental review process for the project.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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RICHARD T. BISSEN, JR.
Mayor

SHAYNE R. AGAWA, P.E.
Director

ROBERT SCHMIDT
Deputy Director

MICHAEL KEHANO, P.E.
Solid Waste Division

ERIC A. NAKAGAWA, P.E.
Wastewater Reclamation Division

Environmental Protection &
Sustainability Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2145 KAOHU STREET, SUITE 102
WAILUKU, MAUI, HAWAI'I 96793

February 9, 2024

Bradford Ventura, Fire Chief
County of Maui
Department of Fire & Public Safety
via email: bradford.ventura@co.maui.hi.us

Hoku Krueger, Associate
Munekiyo Hiraga
via email: planning@munekiyohiraga.com

SUBJECT: Updated Draft Environmental Assessment (EA) for the Proposed Haiku Fire Station and Related Improvements Project
TMK: (2) 2-7-007:008 (por), Haiku, Maui

Dear Bradford Ventura and Hoku Krueger:

Thank you for the opportunity to comment on the Updated Draft EA for the proposed Haiku Fire Station and Related Improvements Project. According to the report, any wastewater generated will be treated and disposed of via a Department of Health approved Individual Wastewater System (IWS). Therefore, since the project is not within the County's sewer service area and will be privately treated and disposed, the Department of Environmental Management's Wastewater Reclamation Division has no comments on the Updated Draft EA.

Sincerely,

Scott R. Rollins Digitally signed by Scott R. Rollins Date: 2024.02.21 16:42:15 -10'00'

for ERIC A. NAKAGAWA, P.E.
Division Chief

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VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Via email: Tammy.Yeh@co.maui.hi.us

Eric A. Nakagawa, P.E., Division Chief
County of Maui
Department of Enviromental Management
Wastewater Reclamation Division
200 S. High Street
Wailuku, Hawai'i 96793

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Nakagawa:

Thank you for your letter dated February 9, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We acknowledge that your division has no comments on the Updated Draft Environmental Assessment (EA).

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final EA for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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RICHARD T. BISSEN, JR.
Mayor

LORI TSUHAKO
Director

SAUMALU MATA'AFA
Deputy Director

DEPARTMENT OF HOUSING
& HUMAN CONCERNS
COUNTY OF MAUI
2200 MAIN STREET, SUITE 546
WAILUKU, MAUI, HAWAI'I 96793
PHONE: (808) 270-7805

February 13, 2024

Bradford Ventura, Fire Chief
County of Maui
Department of Fire & Public Safety
200 Dairy Road
Kahului, Hawaii 96732

Dear Chief Ventura:

SUBJECT: UPDATED DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED HA`IKŪ FIRE STATION AND RELATED IMPROVEMENTS PROJECT, TAX MAP KEY: (2) 2-7-007:008 (POR.), HA`IKŪ, MAUI, HAWAI`I

The Department has reviewed the information submitted for the above subject project. Based on our review, we have determined that the project is not subject to Chapter 2.96, Maui County Code, and does not require a residential workforce housing agreement. At the present time, the Department has no additional comments to offer.

Please contact Mr. Buddy Almeida, Housing Administrator, at (808) 270-7351 if you have any questions.

Sincerely,

LORI TSUHAKO, LSW, ACSW
Director of Housing and Human Concerns

cc: Hoku Krueger, Associate, Munekiyo Hiraga
Buddy Almeida, Housing Administrator

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Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Lori Tsuhako, LSW, ACSW, Director
County of Maui
Department of Housing & Human Concerns
2200 Main Street, Suite 546
Wailuku, Hawai'i 96793

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Ms. Tsuhako:

Thank you for your letter dated February 13, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We appreciate your Department's confirmation that the proposed project is not subject to Chapter 2.96, Maui County Code, and does not require a workforce housing agreement.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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RICHARD T. BISSEN, JR.
Mayor

JOSIAH K. NISHITA
Managing Director

PATRICK S. MCCALL
Director

SHANE T. DUDOIT
Deputy Director

DEPARTMENT OF PARKS AND RECREATION
COUNTY OF MAUI
700 HALI'A NAKOA STREET, UNIT 2
WAILUKU, MAUI, HAWAI'I 96793
www.mauicounty.gov

February 29, 2024

Bradford Ventura, Fire Chief
County of Maui
Department of Fire & Public Safety
200 Dairy Road
Kahului, HI 96732

AND

Hoku Krueger, Associate
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, HI 96793

Dear Chief Ventura and Ms. Krueger:

SUBJECT: CHAPTER 343, HAWAI'I REVISED STATUTES (HRS) UPDATED DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED HA'IKŪ FIRE STATION AND RELATED IMPROVEMENTS, TMK: (2) 2-7-007:008 (POR.), HA'IKŪ, MAUI, HAWAI'I

Thank you for the opportunity to review and comment on the subject project. The Department of Parks and Recreation has no comment at this time.

Should you have any questions, please feel free to contact me or Samual Marvel, Chief of Planning and Development, at samual.marvel@co.maui.hi.us or (808) 270-6173.

Sincerely,

PATRICK S. MCCALL
Director of Parks and Recreation

c: Samual A. Marvel, Chief of Planning and Development

PSM:SAM:as

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Tessa Munekiyo Ng AICP
VICE PRESIDENT
Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

Patrick S. McCall, Director
County of Maui
Department of Parks and Recreation
700 Hali'a Nakoa Street, Unit 2
Wailuku, Hawai'i 96793

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. McCall:

Thank you for your letter dated February 29, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

We acknowledge that your department has no comments on the Updated Draft Environmental Assessment (EA).

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final EA for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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FEB 2 6 2024

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, MAUI, HAWAII 96793
TELEPHONE: (808) 244-6400
FAX: (808) 244-6411

RICHARD T. BISSEN, JR.
MAYOR

JOHN PELLETIER
CHIEF OF POLICE

WADE M. MAEDA
DEPUTY CHIEF OF POLICE

OUR REFERENCE

YOUR REFERENCE

February 21, 2024

Ms. Hoku Krueger, Associate
Munekiyo Hiraga
305 High Street, Suite 104
Wailuku, Hawaii 96793

Re: Updated Draft Environmental Assessment for the Proposed Haiku Fire Station and Related Improvements Project, TMK (2) 2-7-007:008 (por.), Haiku, Maui, Hawaii

Dear Ms. Krueger:

This is in response to your letter dated February 6, 2024 requesting comments on the Updated Draft Environmental Assessment (EA) for the Proposed Haiku Fire Station and Related Improvements Project.

In review of the submitted documents, we have no objections to the upcoming construction project if it meets the minimal standards set forth by county codes and state laws. Thank you for giving us the opportunity to comment on this project.

Sincerely,

Assistant Chief Keola Tom
for: JOHN PELLETIER
Chief of Police

c: Fire Chief Bradford Ventura – Dept. of Fire & Public Safety

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Karlynn K. Fukuda
PRESIDENT
Mark Alexander Roy AICP, LEED AP
VICE PRESIDENT
Tessa Munekiyo Ng AICP
VICE PRESIDENT

Michael T. Munekiyo AICP
FOUNDER

July 05, 2024

John Pelletier, Chief of Police
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawai'i 96793

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. Pelletier:

Thank you for your letter dated February 21, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

1. We appreciate your confirmation that the Police Department has no objections to the proposed project. The proposed project will comply with all standards set forth by County codes and State laws.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final Environmental Assessment for this project. Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Very truly yours,

Hoku Krueger
Associate

HK:de
cc: Bradford Ventura, County of Maui, Department of Fire & Public Safety
Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
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March 8, 2024

VIA HAND DELIVERY/EMAIL
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Proposing/Determining Agency

VIA EMAIL
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Consultant

Re: Comments on the Updated DEA for the Proposed Haiku Fire Station and Related Improvements

Dear Bradford Ventura and Cathleen Krueger:

This letter is written on behalf of the undersigned who reside in the agricultural and rural neighborhood that surrounds the proposed site for the Haiku Fire Station and who would be adversely affected if the Station were implemented as proposed in the Updated Draft Environmental Assessment ("Updated DEA").

1.0 INTRODUCTION

The proposed Haiku Fire Station is a public/quasi-public function, however many of its components are urban and industrial in nature. This is one reason why it is recommended in the Paia-Haiku Community Plan – still in effect – to be located next to the Haiku Community Center and within the core of the Haiku town. See Figure 9 in Vol I of the Updated DEA. This location had the benefit of affording mauka access, when necessary, on wider and safer roads in the region, namely Pauwela and then Kokomo roads.

Instead, the alternative location proposed for the Haiku Fire Station in the Updated DEA is one and one-half miles away from the Paia-Haiku Community Plan location, on prime agricultural land, across the street from a large cemetery. Mauka access, here, would be on East Kuiaha Road which contains segments that would be unsafe for fire trucks going mauka while other vehicles are traveling makai.

While the deletion of some components of the original plan for the Haiku Fire Station is appreciated, that is the deletion of the helipad, the wind turbines and other components, the

remaining elements of the plan are still incompatible with the area and violative of land use principles. The Updated DEA still relies largely on the documents prepared for the DEA published in 2011. See Appendices, attached to Vol II of the Updated DEA, "B," the Biological Report (2009), "C-1," the AIS, as revised (2011), "C-2," SHPD Acceptance of the AIS (2010), "D," the Cultural Impact Study (2009), "E-1," the Traffic Impact Study (2010) which was amended by 2023 letter as "E-2,"and "H-1," the Site Selection Power Point. As such, for the sake of efficiency, we restate and incorporate by reference our original comments dated February 4, 2011 to the DEA (beginning on p. 354 of Vol I the Updated DEA) as they apply with equal force to this Updated DEA, minus the helipad, the wind turbines and other components.

2.0 SEGMENTS OF THE SUBSTANDARD EAST KUIAHA ROAD ARE UNSAFE FOR USE BY FIRE TRUCKS

2.1 Introduction

County Fire Department ("DF&PS") representatives have disclosed that fire trucks and vehicles will not just be using Hana Highway and that they will also be using roadways providing access mauka of the proposed Fire Station to attend to fires above the Fire Station and up and down Kaupakalua Road. The roadway nearest the proposed Haiku Fire Station is East Kuiaha Road. The use of certain segments of this road by fire trucks would likely cause traffic related disasters while the DF&PS vehicles are on their way to attending to potential fire related disasters.

The use of East Kuiaha Road by fire trucks is not analyzed anywhere in the original DEA or the Updated DEA. The segment of East Kuiaha Road from Hana Highway to Haiku Road was the subject of a Variance Application filed by DF&PS on March 2, 2015 as Docket No.: BVAV 2015/0006.

East Kuiaha Road is a substandard county road. East Kuiaha Road is classified by the County as a "**minor rural collector road**" and hence:

> The minimum RoW width for public health and safety is 50 feet.
> The minimum pavement width for public health and safety is 24 feet.
> See §18.16.050 of the Code

2.2 The Segment of East Kuiaha Road above where the proposed water lines enter the 27.9 acre parcel and the junction with Haiku Road

The existing pavement width of East Kuiaha Road above where the proposed water lines enter the 27.9 acre parcel to the junction with Haiku Road is 12 feet, even less. Thus, mauka of where the proposed water lines enter the parcel to the junction with Haiku Road, the pavement width is now **only one-half of what is required for minimum health and safety** (24-12= 12). See Sheet C-4 to Appendix A to Vol II of the Updated DEA and Figure 2 to Appendix F-1 to Vol II of the Updated DEA.

In addition, the portion of East Kuiaha Road above where the proposed water lines enter

the 27.9 acre parcel and the junction with Haiku Road, has no shoulders on either side and drops off on both sides approximately two hundred feet into gulches and is, therefore, not safe. There are risks to the public health, safety and welfare in allowing fire trucks to use this segment of East Kuiaha Road. The pavement width of this segment of East Kuiaha Road is only twelve feet (12'). Two cars can only barely pass each other – by driving very slowly and carefully. There is no room to pull over on the side of this segment of East Kuiaha Road to allow a fire truck, which is wider than most vehicles, to pass.

When the substandard pavement width is combined with the lack of shoulders and the drop offs on two sides approximately two hundred feet into gulches, the curves, the lack of sight distance, the additional Haiku Fire Station Project traffic, including large fire trucks, a much more dangerous traffic situation exists, potentially threatening my health and safety as well as the health and safety of many other regular and intermittent (tourists) users of East Kuiaha Road.

2.3 The Segment of East Kuiaha Road below where the proposed water lines enter the 27.9 acre parcel and the junction with Hana Highway

The existing pavement width of East Kuiaha Road from the junction of Hana Highway and East Kuiaha Road and where the proposed water lines enter the 27.9 acre parcel is only 15 feet. Thus, makai of where the proposed water lines enter the 27.9 acre parcel, the pavement width is now **nine feet less than what is required for minimum health and safety** (24-15= 9).

In addition, in the portion of East Kuiaha Road from the junction of Hana Highway and East Kuiaha Road and where the proposed water lines enter the 27.9 acre parcel, there are tall banks and many curves that make it difficult to see approaching vehicles. When the substandard pavement width is combined with the tall embankments, alleged by the County to be 15 to 20 feet high, the curves, the lack of sight distance, the additional Haiku Fire Station Project traffic, including large fire trucks, a much more dangerous traffic situation exists, potentially threatening my health and safety as well as the health and safety of many other regular users of East Kuiaha Road.

To permit fire trucks to use these two segments of East Kuiaha Road is to place the lives and property of those using East Kuiaha Road at risk.

2.4 Potential Mitigation

2.4.1 Failure to Study These Issues

It is unfortunate that these issues were not addressed in the original DEA or in the Updated DEA. These issues should also have been addressed in the Traffic Impact Analyses, Appendices E-1 and E-2. They also should have been addressed in the Alternative Site Assessment (Exhibit D), the Site Selection Power Point (Appendix H-1) and the 2021 Feasibility Study (Appendix H-2). This are deficiencies of this Updated DEA.

DF&PS has represented that mauka access is important for the new Haiku Fire Station. It is likely that other alternative locations afford superior mauka access. This is true of a location

by the Haiku Community Center, as recommended in the Haiku Community Plan and may be true for the other alternatives.

2.4.2 Potential for Mitigation and Avoidance

Drivers of large trucks and vehicles, the same size as fire trucks, seeking to travel mauka on East Kuiaha Road, apparently recognize the danger caused by their use of the significantly substandard segment of East Kuiaha Road between Hana Highway and Haiku Road and, therefore, avoid using it. Instead, they depart from Hana Highway on to Peahi Road and turn left on to Haiku Road until they reach the four-way intersection with Haiku Road and East Kuiaha Road, where they then turn left and proceed mauka on East Kuiaha Road – thus avoiding the dangerous segment of East Kuiaha Road between Hana Highway and Haiku Road.

This could be common sense mitigation measure to be applied by DF&PS particularly to roadway use by fire trucks located at the proposed Haiku Fire Station. By imposing this condition, the lives and property of surrounding Haiku residents can be protected and DF&PS will not be interrupted from its primary mission of attending to fires and other matters within its purview. While this issue could easily be sufficient on its own to reguire further updating or a full EIS, a reasonable solution to it could be the foregoing if DF&PS is willing to impose it in some satisfactory, binding manner.

3.0 COMMENTS IN ADDITION TO EARLIER COMMENTS

3.1 MODIFIED DEVELOPMENT PLAN

The Updated DEA presents an Updated Development Plan. As previously stated, the helipad, the wind turbines and other components, have been deleted. On 6.1 acres:

> The proposed improvements include a main building housing sleeping quarters, crew quarters, food preparation, dining, training and exercise facilities, storage building, parking lot, and utilities.

See p. 1 of Appendix F-1, the Preliminary Engineering Report. The project can house 15 firemen and store 2 firetrucks. The wastewater system is designed to industrial water system standards. Likewise, the water supply system is sized to urban standards with three 5/8th inch water meters supplying water through one 8" waterline, along with two additional one and one-half inch waterlines. See Appendices A, F-1 and F-2. A fire hydrant is required that is sized for industrial areas. See p. 47 of Vol I of the Updated DEA. The proposed project is estimated to require a 40,000 gallon holding tank to service project needs. What is proposed on 6.1 acres is urban-like even if a fire station has a public/ quasi-public function.

3.2 THE EXTENT OF THE INCOMPATIBILTIES

3.2.1 Protected Prime Agricultural Land

The Updated DEA admits that this project is proposed to take place on "prime" agricultural lands. Not only are the 6.1 acres designated "prime" but the entire 27.9 acre parcel is designated "prime" as are other surrounding agricultural lands. See Figure 7 attached to Vol I of the updated DEA. Prime agricultural lands are this State's best agricultural lands.

MCC §19.68.040 states that:

> .... lands identified by the state as important agricultural lands needed to fulfill the purposes of conserving and protecting agricultural lands, promoting diversified agriculture, increasing agricultural self-sufficiency and assuring the availability of agriculturally suitable lands, shall not be reclassified without meeting the standards and criteria established by the legislature and enactment of an ordinance approving the reclassification of such lands by an affirmative vote of at least two-thirds of the council's membership rather than the usual majority.

At a minimum, a vote by two-thirds of the Maui County Council's membership is required to reclassify these "prime" agricultural lands.

More importantly, Maui County's "Agriculture District" Zoning Ordinance provides standards for those lands that should be retained in the agriculture district, in Section 19.30A.020, as follows:

> Agricultural lands that meet at least two of the following criteria should be given the highest priority for retention in the agricultural district:
>
> A. Agricultural Lands of Importance to the State of Hawai'i (ALISH);
>
> B. Lands not classified by the ALISH system whose agricultural land suitability, based on soil, topographic, and climatic conditions, supports the production of agricultural commodities, including but not limited to coffee, taro, watercress, ginger, orchard and flower crops and nonirrigated pineapple. In addition, these lands shall include lands used for intensive animal husbandry, and lands in agricultural cultivation in five of the ten years immediately preceding the date of approval of this chapter; and
>
> C. Lands which have seventy-five percent or more of their boundaries contiguous to lands within the agricultural district.

In this instance, Tests A, B and C are satisfied. These lands are classified "prime" in the ALISH system. (Test A). These lands were in cultivation through the early 2000's. (Test B; Ordinance 2749 was originally enacted in 1998). Seventy-five percent of the lands surrounding this parcel are in the agriculture district. (Test C).

These lands do not qualify under any circumstances for reclassification or rezoning out of the Agriculture District. The Maui County Council has a regulatory duty, as a matter of law, to protect this parcel for agricultural uses. The applications for a DBA and CIZ must be denied on these grounds alone.

3.2.2 The Updated DEA is Wrong About the Agricultural Use of the Parcel

In a disingenuous attempt to justify reclassifying or rezoning these "prime" agricultural lands, the authors of the Updated DEA state in Vol I on p.19:

> As noted previously, the project site has been utilized in the past for pineapple cultivation, and more recently as a nursery operation. **There, however, have been no other agricultural pursuits taking place on the property since the closure of the former nursery operation years ago.** (Emphasis added)

These "prime" agricultural lands were used for agricultural purposes continuously for many, many years prior to the County purchase of this property. The property was bought in a fire sale first in 2005 by a small time Maui developer who flipped the property to the County of Maui in 2007. The County has had every opportunity to continue the agricultural use of these "prime" lands through lease or license from 2007 until the present. For whatever reason, the County has not done so. The County's inaction in putting the property to agricultural use for 17 years cannot, in good faith, provide a justification, for rezoning or reclassifying these "prime" agricultural lands.

3.2.3 Cumulative and Secondary Impacts

The 6.1 acres are a portion of a 27.9 acre parcel of land. It strains credulity to allege, as is done in the Updated DEA, that the County of Maui has absolutely no plans for the remaining 21.8 acres constituting this parcel of land. In order to meet its obligation to disclose cumulative and secondary impacts something must be said about use of these remaining acres.

3.2.4 The Extent of the Incompatibility of this Fire Station is Indicated by The Number of Changes in Discretionary Land Use Entitlements That Are Required Before this Project Can be Implemented

The Updated DEA discloses that the property is designated "Agriculture" by:

(1) The State Land Use Commission; and
(2) the Pa'ia-Ha'iku Community Plan, and
(3) Maui County Zoning.

These are State agency, County Council and Haiku Community determinations that this agricultural land should be used for agricultural purposes. To implement this project, the County must seek major discretionary approvals that all three of these determinations should be changed. In each case, laws and regulations circumscribe what the State Agency and what the County Council can do.

To enable project implementation and ensure consistency between land use designations and the community's vision as reflected in the 2030 General Plan process:
-a District Boundary Amendment (DBA) from "agriculture" to "rural," and
-a Community Plan Amendment (CPA)from "agriculture" to "public/quasi/public," and

-a Change of Zoning (COZ), from "agriculture" to "public/quasi/public,"
using a Zoning Plan Amendment (ZPA) application which will be initiated and processed by the Department of Planning for the 6.1-acre project site.

The fact that this new proposed use requires so many major changes in land designations only emphasizes the extent to which this project is inconsistent and incompatible with the area in which it is located.

This proposed Fire Station constitutes illegal "spot" zoning. *Lum Yip Kee, Ltd. v. City and County of Honolulu*, 767 P. 2d 815 (1989) (spot zoning is an arbitrary zoning action by which a small area within a large area is singled out and specially zoned for a use classification different from and inconsistent with the classification of the surrounding area and not in accord with comprehensive plan). The proposal injects urban-like uses into an area completely surrounded by prime agricultural lands and is inconsistent with the applicable plans. This is the wrong location for this project.

The DBA and CIZ applications are inconsistent with these objectives and policies in the Paia-Haiku Community Plan and must be denied as a matter of law. *Gatri v. Blane*, 88 Haw. 108, 962 P. 2d 367 (1998).

3.2.5 Inconsistency with the Paia-Haiku Community Plan

The Paia-Haiku Community Plan, as a "Planning Standard," states on p. 36:

> All zoning applications and/or proposed land uses and developments shall be consistent with the Land Use Map and Objectives and Policies of the Paia-Haiku Community Plan.

As an "Implementing Action" to the "Health and Public Safety" Goal in the Paia-Haiku Community Plan, on p. 33, is the following:

> 1. **Provide a fire station or sub-station in Ha`iku in the vicinity of Ha`iku Elementary School and near Hana Highway**. (Emphasis added)

The location of the Fire Station a mile and one half away from the Haiku Elementary School is inconsistent with this implementing action.

The Paia-Haiku Community Plan requires, as a Land Use Goal, the protection of "prime" agricultural lands. See Part III. B. 1. (p.15); See also Part II.B.2.f. (p.12). It is an "Objective and Policy of the Paia-Haiku Plan to "Maintain agriculture as the primary economic activity." (p.22).

The proposed new growth boundaries placed the 27.9 acre parcel within a "rural service center." The "characteristics" of a "rural service center" are:

> Small cluster of goods/services to support surrounding rural residential uses and agricultural communities. Facilities are generally limited and many essential

goods and services are located in a larger town. Employment is generally a function of nearby urban areas or Country Towns. (e.g. Ha'iku, Waiakoa, Keokea)

These uses are for small stores, like Fukushima's, in outlying areas, not Fire Stations with urban and industrial characteristics.

3.2.6 Impact Upon Surrounding Lands

The Updated DEA fails to identify properties surrounding the 6.1 acre project area and the impacts that this proposed project may have on these properties. A large Valley Isle Memorial Cemetery is situated across Hana Highway from the 6.1 acre parcel. Having fire trucks emerge from the Fire Station with sirens blaring, even periodically, is inconsistent with the peace and solitude that is expected by those who come to visit those who are interred there or those who come to attend funerals that take place there. We are unaware of any consultation by the DF&PS with the Valley Isle Memorial Park about the selection of this site for a Fire Station.

In addition, we are unaware of the identification of adjoining landowners or of any efforts to contact them, in particular, to determine how they feel about this particular site for a Fire Station.

4.0 CONCLUSION

We trust that you will take seriously your responsibility to enforce the environmental laws of our state. Please transmit a copy of your determination and a complete application for a District Boundary Amendment (DBA), a Community Plan Amendment (CPA) and a Change of Zoning (COZ).

Thank you for the opportunity to comment on this Updated DEA.

Sincerely yours,

Dana Naone Hall

Isaac Hall

Dana Naone Hall

RICHARD T. BISSEN, JR.
Mayor

JOSIAH NISHITA
Managing Director

BRADFORD K. VENTURA
Fire Chief

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Deputy Fire Chief

DEPARTMENT OF FIRE & PUBLIC SAFETY
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July 05, 2024

Isaac and Dana Hall
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Ha'ikū, Hawai'i 96708

SUBJECT: Updated Draft Environmental Assessment for Proposed Ha'ikū Fire Station and Related Improvements Project at TMK: (2)2-7-007:008 (por.), Ha'ikū, Maui, Hawai'i 96708

Dear Mr. and Mrs. Hall:

Thank you for your letter dated March 8, 2024 providing comments on the Proposed Department of Fire & Public Safety (DF&PS) Ha'ikū Fire Station and Related Improvements Project. On behalf of DF&PS, we offer the following information in response to the comments provided in your letter.

East Kuiaha Road and Site Selection Comments:

Pursuant to the DF&PS Standard Operating Guidelines (SOG), which comply with National Fire Protection Association (NFPA) 1451 (Standard for a Fire and Emergency Service Vehicle Operations Training Program) and NFPA 1500 (Standard on Fire Department Occupational Safety, Health, and Wellness Program), for incidents occurring mauka of Hāna Highway along Kaupakalua Road, fire trucks and vehicles will typically take routes that will minimize response times and allow personnel to safely get to the scene of an emergency. Sometimes that would mean choosing a longer-distanced route along Hāna Highway to avoid traversing sections of roadway that would lead to a longer response time. The goal is to safely get to the emergency scene in as short a time as possible.

Throughout the years, DF&PS fire trucks have traversed East Kuiaha Road. Due to its size and handling, a fire truck will most likely be traveling at or below posted speed limits on narrow winding roads such as East Kuiaha Road for everyone's safety.

During emergency response, no fire vehicle should exceed 10 miles per hour (mph) above the posted speed limit. Emergency lights shall be illuminated and audible sirens on (with the exception of late-night hours to avoid disturbing the community). If the roadway will not allow a fire apparatus to safely traverse, the roadway will be avoided. If the roadway can be safely

traversed, the fire apparatus will proceed at a speed that will provide safety for both firefighters and the public. These points are all considered when deciding on the best route to an emergency scene (DF&PS SOG).
A Traffic Impact Analysis Report (TIAR) was completed by Wilson Okamoto Corporation for the proposed project. See Appendix "E-1" of the Updated Draft EA. Because a number of years have passed since the TIAR had been completed, a TIAR update letter was prepared. See Appendix "E-2" of the Updated Draft EA. The TIAR update letter determines that, although some years have passed since the preparation of the TIAR, the conclusions in that TIAR are still applicable. The TIAR update letter reviews the data against the updated 2025 project completion year and the projected traffic for that time period.

Project-related peak hour vehicle trips are expected to primarily be comprised of employee-related trips. The fire station will be staffed by 15 personnel (five (5) people during each 24-hour shift). The shift changes occur daily between 7:00 a.m. and 7:30 a.m. Given the low number of vehicle trips to and from the station and the capacity of Hāna Highway, the TIAR concluded that traffic operations in the vicinity of the subject parcel are expected to remain similar to existing conditions. As such, the proposed project is not anticipated to result in any substantive, adverse impacts to traffic. Being able to respond to local emergencies from a fire station in Ha'ikū versus the Pā'ia or Makawao fire stations would shorten response times and distances, providing for a decrease in regional traffic.

DF&PS notes that the variance application referenced in your letter was withdrawn. Additionally, Maui County Code, Title 18, Subsection 16.050 pertains to standards written into adopted business country town design guidelines and conditions of Zoning adopted by the Council or as approved by the Planning Department pursuant to Subsection 20.105 of that title and consistent with the Maui County general plan and community plans. It is not intended to regulate the use of roadways by emergency response vehicles, government personnel, or the general public.

DF&PS will coordinate with the Hawai'i Department of Transportation, Highways Division as project planning progresses to ensure that the project is developed to ensure the safe entry and exit of emergency and non-emergency vehicles to and from the site. Based on the foregoing, the proposed Ha'ikū Fire Station project is not expected to have a significant impact on traffic operations in the project vicinity.

In response to the feedback generated by the 2011 Draft Environmental Assessment (EA) and prior to moving forward, a Feasibility Study was conducted in 2021 by DF&PS. Three (3) additional properties were identified and compared against the originally considered site to determine if there are considerations in location, permitting, or design that would warrant relocating the proposed fire station. The analysis concluded that the originally considered site offers substantial advantages over the other potential site alternatives in that it is already owned by the County of Maui, requires the fewest entitlements (given its location within a Rural Growth Boundary), has architectural and engineering plans that are already tailored to the specific property, and is located near the Ha'ikū community's historic incident locations. All of the other properties have similar infrastructure constraints, such as the need for offsite waterline upgrades and potential for roadway improvements, and no significant advantages to overcome the investments already made at the originally considered site.

The only recommendation related to the location of the Ha'ikū Fire Station in the Pa'ia-Ha'iku Community Plan is found in Implementing Action 1 under the Health and Public Safety Goal: *"Provide a fire station or sub-station in Ha'ikū in the vicinity of Ha'ikū Elementary School and near Hana Highway"*. The proposed fire station will be located on Hana Highway approximately one (1) and a half miles from Ha'ikū Elementary School. There is no language in the Pa'ia-Ha'iku Community Plan that suggests or requires that the fire station be located near the Ha'ikū Community Center. Nevertheless, the proposed fire station will be located less than two (2) miles from the Ha'ikū Community Center.

DF&PS will not agree to a condition restricting the use of East Kuiaha Road for emergency response, as doing so would inhibit its mission to protect and preserve life, environment, and property.

Modified Development Plan Requirements Comments:

All proposed utilities are sized and designed to meet County and State standards. The Individual Wastewater System Standards from the State of Hawai'i, Department of Health are based on occupancy of the building.

The proposed water storage tank that will supplement fire protection capacity is sized in accordance with National Fire Protection Association 1142, Standard on Water Supplies for Suburban and Rural Firefighting.

Waterline sizes are based on required pressure and flow at the proposed fire station building. Because water meters have a maximum flow allowance, the building requires two (2) residential-sized domestic meters and one (1) fire meter in addition to the water tank to provide the flow required for domestic and fire flow.

The *Water System Standards* calls for a maximum fire hydrant spacing of 250 feet for industrial areas. Fire flow (FF) requirements for the site include 600 gallons per minute (gpm) per the Fire Department and a 2-hour duration. Calculations are based on the NFPA-1, 2018 Edition, 18.4.5.3.3.

Use and Loss of Agricultural Lands Comments:

The subject parcel does not contain lands that are designated Important Agricultural Lands, pursuant to Hawai'i Revised Statutes, Chapter 205-42. The proposed project will require County Council approval in order to amend its land use designations. Because no lands within the subject parcel are designated IAL, a majority vote will suffice to enact an ordinance to amend the project site's state land use, community plan and zoning districts.

The subject property meets the two (2) of the three (3) criteria for retention listed in MCC, Section 19.30A.020: Those listed as Criteria "A" and "C" in your letter.
Although the subject property meets the highest priority for retention in the Agricultural district, it is important to note that based on Site Selection and Feasibility Studies conducted by the DF&PS in 2007 and 2021, the subject property was selected as the best site for a new fire station to serve Ha'ikū and the surrounding areas. See Appendix "H-1" and Appendix "H-2" of the Updated Draft EA. The construction of a new fire station on the subject

property will provide a greater public benefit to the community than the retention of vacant agricultural land. Ultimately, the County Council will decide whether to maintain the project site's land use designations or amend them.

The proposed project involves the reclassification of approximately 6.1 acres of land from the "Agricultural" to "Rural" State Land Use designations. The proposed reclassification of these "Agricultural" lands represents approximately 0.003 percent of the State "Agricultural" designated lands on the island of Maui.

The project will result in the loss of agricultural lands that could be used for diversified agriculture. However, the decline of plantation agriculture on Maui and statewide has made additional land available for diversified agriculture. The amount of land released from plantation agriculture has exceeded the demand for diversified agriculture lands. The closure of Maui Land & Pineapple Company's pineapple growing business in 2009, and more recently, the closure of A&B's sugar operations in Central Maui in 2016, have resulted in thousands of acres of land being released from plantation agriculture. While some of these former plantation lands have been developed, converted to other uses, or used to cultivate other crops, much of it has remained fallow or been used for grazing. See Chapter II, Section 3, Agriculture of the Updated Draft EA. As such, the proposed reclassification of 6.1 acres of "Agricultural" lands will likely not significantly impact diversified agriculture opportunities on Maui or in the state as a whole.

According to the Hawai'i Wildfire Management Organization (HWMO), undeveloped, vegetated land within a community increases wildfire hazard risk as a potential source of fuel (HWMO, 2023). As such, the development of a portion of agricultural land that had been cleared for previous uses but left uncultivated for many years could mitigate wildfire risk in the project area.

Cumulative and Secondary Impacts Comments:

The 21.8-acre portion of the subject parcel not involved in the proposed project will maintain its State Land Use, Pa'ia-Ha'iku Community Plan and Maui County Zoning agricultural designations, and no improvements are envisioned for that portion of the subject parcel at this time.

Land Use Entitlements and Community Plan Comments:

As was discussed in Chapter I of the Updated Draft EA, the DF&PS has identified that a new fire station is necessary to ensure that adequate fire protection service is provided to the growing resident and commercial population throughout the Ha'ikū region. The subject property was selected following completion of a site selection process by the County of Maui. The subject property was recommended for purchase by the County as being the most suitable site in terms of meeting the needs of the local community. The subject property was purchased based on this recommendation on December 14, 2007, by the County.

To allow for implementation of the proposed Ha'ikū Fire Station on a portion of the subject property, the following land use amendments reflected in **Table 1** will be requested as part of the entitlement application process for the proposed project:

Table 1. Summary of Current and Proposed Land Use Designations

	Current	Proposed
State Land Use Commission	Agricultural	Rural
Pa'ia-Ha'iku Community Plan	AG, Agriculture	Public/Quasi-Public
County Zoning	Agricultural	Public/Quasi-Public (P-1)

In terms of the Pa'ia-Ha'iku Community Plan, an analysis of the project's consistency with applicable goals, objectives, and policies of this important community planning document was provided on Pages 69 through 74 of the Updated Draft EA.

In recognition of the intended use, the subject property has also been identified as a rural growth area in the proposed Maui Island Plan that was adopted on December 28, 2012 by the Maui County Council. The Maui Island Plan reflects the latest input from the community on the desired land uses for the area, as the Pa'ia-Ha'iku Community Plan was adopted in 1995, seventeen (17) years previously.

The proposed project is following the established procedures by law to allow a use that would otherwise not be permissible. The exercise of such power by the County Council in approving the land use entitlements would be related to, and reasonably necessary for, the health, safety, morals, and general welfare of the public. Therefore, our understanding is that this does not constitute "spot zoning," and the action will be consistent with the Maui Island Plan after the land use entitlements have been approved.

Lastly, the proposed fire station would be located 1.5 miles from Hā'iku Elementary School. A 1.5-mile distance demonstrates DF&PS's intention to provide a station in proximity to Ha'ikū Elementary School and Hāna Highway.

In light of the foregoing and given the operational necessity of enhancing fire services in the Ha'ikū area, the proposed site is considered an appropriate location for a rural fire station.

Surrounding Land Uses Comments:

A discussion on surrounding land uses and potential impacts to those uses, along with proposed mitigation measures, is included in Chapter II of the Updated Draft EA (page 10, A.1.a Surrounding Land Uses, Existing Conditions and A.1.b Surrounding Land Uses, Potential Impacts and Mitigation Measures).
The subject project is not anticipated to adversely impact surrounding land uses. The proposed project was assessed across a variety of impact areas in Chapter II of the Updated Draft EA, including physical setting, the socio-economic environment, public services, and infrastructure. Also included in the Updated Draft EA is an analysis of noise and air quality impacts.

Ambient noise conditions will be temporarily impacted by construction activities. Heavy construction equipment, such as bulldozers, front end loaders, and dump trucks and trailers will be the dominant source of noise during site construction. Construction-generated noise will be mitigated through Best Management Practices (BMPs). The contractor will coordinate with the State Department of Health to ensure that noise permits are obtained, as appropriate.

During the operational phase of the project, noise will be generated by emergency vehicles and sirens, however, such instances will be intermittent in frequency. Additionally, the construction of a fire station in the project area will not increase the incidence of fire in the region. Therefore, the frequency of siren use will remain the same as that under existing conditions due to the fact that responses to emergency calls are currently undertaken by other fire stations in the region. As stipulated by law, use of the sirens and air horns by emergency vehicles will be limited to roadway clearing activity. The use of sirens and air horns will be limited to those instances where the maintenance of public safety is essential.

In summary, due to the intermittent nature of noise generators at the project site, construction and operation of the proposed fire station and its related facilities is not anticipated to present significant adverse impacts on the surrounding agricultural community.

Onsite drainage mitigation measures will be implemented to address the increase in stormwater runoff associated with the development of the fire station. These improvements, coupled with the proposed grading plan, will ensure that downstream or adjacent properties are not affected by the project. Furthermore, with the implementation of the mitigation measures and Best Management Practices (BMPs) described throughout Chapter II, the proposed project is not anticipated to have any negative impacts on surrounding land uses.

Early consultation with the community surrounding the project site was conducted during the County of Maui's initial site selection process for the proposed project. As part of this process, the DF&PS held a community meeting at Ha'ikū Elementary School on April 10, 2007. The purpose of this meeting was to (1) inform the community as to the need for an additional fire service facility in the Ha'ikū region; (2) provide an overview on the criteria evaluated during the review of potential alternative sites for the project; and (3) to receive comments on the preferred site that was being recommended as a result of the site selection analysis. The DF&PS reviewed all comments that were received from the public during this public meeting. While we recognize that you may not be entirely in favor of the site selected for the proposed project, the County of Maui did conduct consultation with the community ahead of proceeding with the publication of the initial DEA for the proposed Ha'ikū Fire Station on the subject property. Indeed, as a result of concerns aired during the site selection process regarding the location of the facility on the subject property, the DF&PS has chosen to proceed with development of the proposed fire station on a portion of the property situated at a lower elevation than the original site that was initially being explored. While there are distinct operational advantages associated with locating a fire station at the highest possible elevation on a piece of property, the DF&PS felt that it was necessary in this particular instance to minimize the extent to which the facility can be observed from surrounding residential areas.

In addition, to solicit additional input on the proposed action prior to the publication of the DEA, the DF&PS issued an early consultation letter to agencies and community groups on November 17, 2009. The Ha'ikū Community Association was included in this early consultation distribution list to notify area residents of the initiation of the Chapter 343 process and to invite comments from this community group on the proposed project. Meetings have been conducted with the Ha'ikū Community Association in the last few years

as part of DF&PS' process of reevaluating the feasibility of the selected site, making refinements to the plans and moving forward again with the project.

Thank you for your participation in the Chapter 343, Hawai'i Revised Statutes environmental review process. A copy of your letter and this response will be included in the Final EA for this project. Should a Finding of No Significant Impact (FONSI) determination be issued by DF&PS following review of the Final EA document, a copy of the Final EA and FONSI determination letter will be published and made publically available in The Environmental Notice. The land use entitlement applications will be submitted to the Department of Planning following completion of the Chapter 343 environmental review process.

Should you have any questions or require additional information, please feel free to contact me at (808) 244-2015.

Sincerely,

Bradford Ventura
Fire Chief

BV

cc: Rylan Yatsushiro, County of Maui, Department of Fire & Public Safety
Dan Sullivan, AHL
Arthur Watrous, AHL
Mark Alexander Roy, Munekiyo Hiraga
Hoku Krueger, Munekiyo Hiraga
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