

fences at this time. The current fencing will be maintained or replaced as appropriate. This work shall be done by HDOT based on the advice and input of LFA-AHLC. Stewards should record fence damage or suspected trespassing to HDOT when encountered.

4.6.4 Access and Practice

This section directly addresses the third and fifth Luluku Mitigation Objectives (Access & Educational Program) as outlined in section 4.4

4.6.4.1 Develop Facilities to Enhance Access

The Stewards will work to develop facilities and implement programs that provide access into the terraces and mauka stream system for individuals' (groups') to pursue knowledge and cultural practices.

4.6.4.1.1 Implement Feasibility Study

HLID, with approval from both HDOT and FHWA, procured Community Planning & Engineering, Inc. (CPE) to complete the "Hālawā-Luluku Development Feasibility Report" (See Appendix F, Community Planning and Engineering, Inc., 2019).

The purpose of the Hālawā-Luluku Development Feasibility Report was to investigate the feasibility of incorporating various elements within the project area to assist the working community group (Stewards) with their visions for the North Hālawā Valley and Luluku project area. The objective of this report was to provide site layout alternatives based on discussions with the Stewards and coordination with representatives from the FHWA, HDOT, and OHA. The project elements presented in this report are based off the IDP for their respective project site, with input from FHWA, HDOT and the Stewards. Each project element will be explored and options for implementing the element within the project site will be discussed. These various project elements are incorporated into different feasible site layouts, put together through consultations with the stakeholders on what elements are most desirable, the feasibility of implementing the project element, and the budgetary expenses for installation, operation, and maintenance of each element. The cost estimates presented in this report are based on rough budgetary estimates and are subject to change.

4.6.4.1.2 Implement Maintenance Plan

Stewards shall provide HDOT with a maintenance plan upon placement of any temporary or permanent facilities.

Maintenance site visits will be discussed in detail in the Maintenance Plan; however, are anticipated to be as frequent as 1-2 times per month and will have varying durations dependent on the specific reason for maintenance.

4.6.4.1.3 Design and Build Facilities for Program Use

The Stewards are requesting resources to build capacity and support programming.

Loop Area

The following are photos and specifications for the type of facilities the Stewards would like to have in the project area to help improve the safety and build capacity of the programs.

Immediate Needs	Long-Range Goals
1-2 Portable Toilets	1-2 Portable Toilets
Securable Storage Unit for Hand-tools	Securable Storage Unit for Hand-tools
Maintenance of Access Road for Vehicle Access	Maintenance of Access Road for Vehicle Access
	Possible Compost Toilet
	Traditional Hālau

Parcel 20

Immediate Needs	Long-Range Goals
1-2 Portable Toilets	1-2 Portable Toilets
Securable Storage Unit for Hand-tools	Securable Storage Unit for Hand-tools
Mobile Trailer	Access Road for Vehicle Access
	Gravel Parking Lot (10-15 vehicles, maximum load 15 passenger van)
	Possible Compost Toilet
	Traditional Hālau
	Utilities (Sewer, Water, Electricity)
	Mobile Unit with Restroom
	Outdoor Sink
	Outdoor Shower
	Hālau / Gathering Space

Mobile Trailer

The Stewards would like a temporary mobile unit to place on the eastern portion of Parcel 20, a traditional agricultural accessory structure. This will be used as an accessory structure to the traditional farming operations being conducted on the TMK. The Stewards grow and harvest kalo on Lot A of TMK [1] 4-5-041:017. As previously discussed, Parcel 20 was originally Lot B of [1] 4-5-041:017, which were all in agricultural use

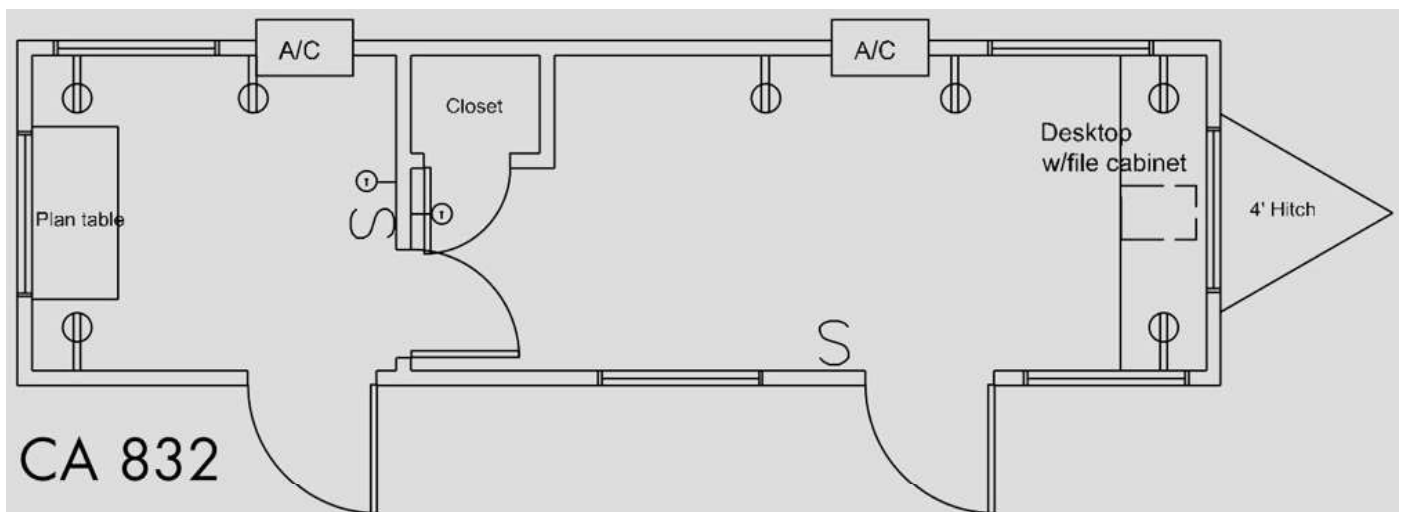


Illustration above is a general example of desired Mobile Trailer Floorplan. Actual Floorplan subject to change based on available options, cost, and manufacturer. Photo - <https://www.cassone.com/products/office-trailers>



Photo above is a general example of desired Mobile Trailer. Actual trailer subject to change based on available options, cost, and manufacturer. Photo- <https://www.cassone.com/products/office-trailers>

prior to the disruption of these activities caused by the H-3 construction. While Parcel 20 is now included in the HDOT ROW and no longer has a TMK designation (10.87 acres), the mobile unit would nonetheless be an accessory structure to the traditional agricultural activities that continue on the property.

Utility (Outdoor) Sink

The Stewards would like to install and use of an outdoor utility sink for the purpose of allowing program participants access to potable running water and to wash the kalo harvested from the land.



Photo is for illustrative purposes only. <https://www.stevewilliamskitchens.co.uk/stainless-steel-utility-sink-in-kitchen-design-ideas/stainless-steel-utility-sink-in-kitchen-commercial/>

Outdoor Shower

A modest outdoor shower is needed to allow program participants to properly rinse off after working in the lo'i in Parcel 20. Currently, there is no such facility and students are often having to ride back to school covered in dirt or mud. The following image provides low-cost options that serve the function needed.

The shower should have both hot and cold water and should have two shower heads: one that allows for a full-body shower and a lower one where participants can rise off their feet. It can be a stand-alone shower or attached to a structure. Regardless, it should be an outdoor shower. Based on the availability of funds, modest walls should be considered to allow for privacy.



Photo of outdoor shower is for illustrative purposes only. Image: LaGuardia Design Group
<https://freshome.com/inspiration/outdoor-shower-ideas/>

4.6.4.2 Programs to Enhance Cultural Practices

During the seventeen years LFA-AHLC farmed in Luluku, they have seen the potential of Luluku to transform the lives of broken families and incarcerated or at risk youth, while restoring the once thriving agricultural community of Kāneʻohe. The continuation of agriculture in Luluku is not only crucial for the future of Kāneʻohe but also for the surrounding communities within Koʻolaupoko. The organization is grateful for the opportunity to continue stewardship of Luluku in partnership with governmental agencies and the community.

4.6.4.2.1 Cultural Heritage Capacity Building

LFA-AHLC will offer programming for both students and community members regarding the cultural practices that necessitate managing a wahi kapu (sacred place). Elements of this include:

- Understanding Hawaiian cultural heritage values
- Managing cultural heritage within the natural resource management system

The goal of this programming will be to ensure that all individuals understand how to behave in a pono and respectful manner when in a wahi kapu.

5. GRAPHIC MASTER PLAN, FEDERAL REGULATIONS, AND PERMITTING REQUIREMENTS

5.1 Intro

The built environment includes both facilities and actions on the property that will physically alter the site in some way. These are reflected in the priorities listed in the three Priority tables outlined in section 4.7. Actions and facilities that both HDOT and LFA-AHLC will be responsible for are illustrated in Figure 9 below; and for the duration of the HLID project, actions and facilities that HLID will be responsible for are also indicated. Depending on the implementation of any proposed development (actions or facilities) certain Federal regulations may apply. Furthermore, a variety of permits may be required prior to the commencement of any construction/alteration activities. The following section provides information regarding these items.

5.2 Facilities, Infrastructure, and Access

Facilities such as the portable toilet and storage unit articulated in the Loop Area will be to support the immediate Trench Remediation work set to begin early 2020. Eventually, as the active preservation of the historic features begins, these facilities will then support these activities. Once this work is completed, the facilities are intended to either move to Parcel 20 or be removed.

The (2) portable toilets and storage unit lower in Parcel 20 are to support the current stewardship programming. As the programming expands, these facilities will eventually be replaced with semi-permanent facilities to include a parking lot, (2) compost toilets, a securable hālau with a sink and outdoor shower, and a mobile office trailer with electricity.

To provide infrastructure for the semi-permanent facilities, the implementation phase of the HLID project will focus on installation of the utility connection to include sewer, water and electricity. A feasibility study was done by CPE (See Appendix F), a contractor of the HLID project that assessed various alternatives for support facilities that would best serve the needs of the selected Stewards and their programming. This study helped to inform the short and long term planning for the site and it was determined that the most effective use of HLID project funds and resources would be to pursue utility installation. CPE will provide the design and permitting for the utilities connection installation.

With regard to accessways, traversing between Parcel 20 and the Loop Area poses a significant and regular challenge for the Stewards. Various options are being proposed with consideration for the limitations of each. The trails currently utilized by the Stewards are only accessible by foot traffic. As the work load in the Loop Area increases, this will become increasingly more inefficient. Fortifying it to be accessible for elderly that traverse the site or for vehicles carrying equipment to the site would be very costly. The dirt road that leads from Parcel 20 onto the adjacent property to the south has previously been used by HECO to service the conductor towers that run through Luluku valley. An agreement with KLP would be required for this as an accessway and is not necessarily preferable. Another proposed alternative is a road on Ho'omaluhia Botanical Gardens property that has previously been used by HLID with permission from the Gardens to access the Loop Area. An easement agreement with the Gardens would be required for this option as well.

5.3 Agricultural Plan

As mentioned in section 4.6 regarding program activities, a significant part of LFA-AHLC programming will be centered on agriculture. While certain agricultural spaces are already functioning, the intention is to eventually expand these activities by restoring the agricultural terraces and activating a comprehensive lo'i system that extends from the Loop Area, down into Parcel 20, and into adjacent KLP properties.

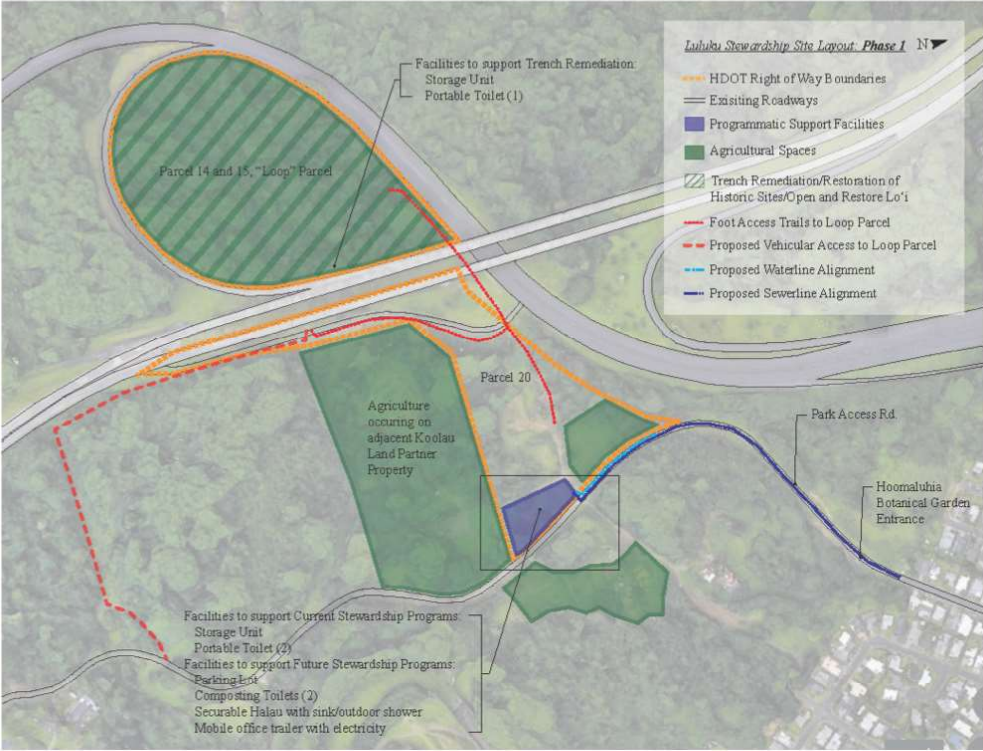


Figure 9: Luluku Graphic Master Plan for the Built Environment

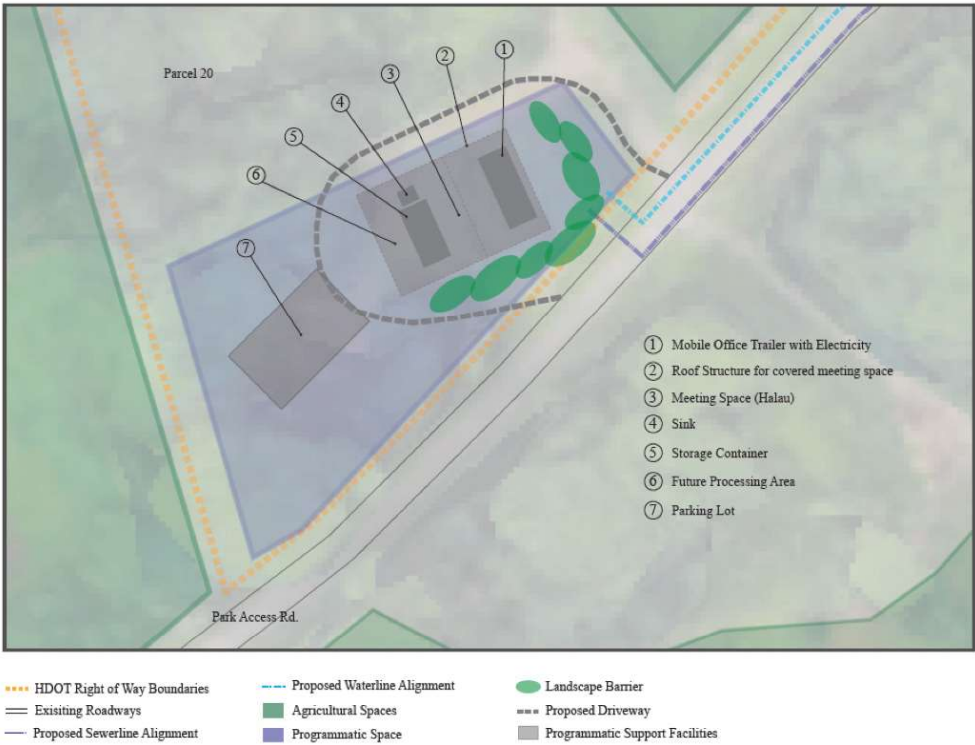


Figure 10: Conceptual Layout for Support Facilities, Parcel 20

5.4 Permitting Requirements

Based on the Feasibility Study completed by CPE there may possibly be several Federal, State, and City and County of Honolulu permits and approvals that need to be obtained to complete different elements of the work envisioned for the property area. The permits and approvals listed below may be required for the proposed project and have also been listed in the Feasibility Study completed by CPE (Community Planning and Engineering, Inc., 2019). Further consultation with the permitting agencies will be done in the design phase to determine if the permit/approval is required based on the chosen site layout and project elements. It is assumed that the nearby streams would not be altered. However, if the streams are altered, additional federal and local permits would be required.

The intent of this section is to articulate regulations and permitting requirements that may be applicable to the project.

5.5 Federal Regulations

Federal regulations are not always applicable to a project. A “federal nexus” is required before federal regulations need be applied to an individual project activity. While the original H-3 project was completed with federal funding, not all of the activities to be completed under this SMP will require the use of federal funds.

Unless a specific activity falls under the jurisdiction of a specific federal agency, the activity may not trigger federal review if no federal funds are utilized. Therefore, it is prudent to review activities on a case-by-case basis to determine exactly which regulations apply. The following section provides a comprehensive listing of regulations that may be applicable to program activities.

5.5.1 Clean Water Act

Section 301(a) of the Clean Water Act (CWA) prohibits the discharge of pollutants into “navigable waters” except in compliance with sections 402, 404, and certain other provisions. Navigable waters are defined in section 502(7) as “waters of the United States, including the territorial seas.” “Waters of the United States” are in turn defined as regulation to include wetlands which are adjacent to water bodies which are themselves waters of the United States (e.g., wetlands adjacent to tidal waters, wetlands adjacent to traditionally navigable waters, wetlands adjacent to tributaries of those waters, etc.) and isolated wetlands whose use, destruction, or degradation could affect interstate commerce (40 CFR §230.3(s)). The term “wetlands” is defined by regulation to mean “those areas which are inundated or saturated at a sufficiency and duration to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions” (40 CFR §230.3(t)).

In addition to the prohibition of section 301(a), other CWA requirements application to “navigable waters,” like the development of water quality standards under section 303, water quality management planning under sections 208 and 303(e), enforcement under section 309, etc., also apply to those wetlands which are “waters of the United States.”

Section 101(a) of the CWA defined the national goal of restoring and maintaining the chemical, physical and biological integrity of the Nation’s waters. Section 303(a)(4) of the CWA explicitly refers to satisfaction of the antidegradation requirements of 40 CFR 131.21 prior to taking various actions, which would lower water quality. The Environmental Protection Agency (EPA) Region 9 antidegradation guidance specifies: “The first step in any antidegradation analysis is to determine whether or not the proposed action will lower water quality... If the action will not lower water quality, no further analysis is needed, and EPA considers 40 CFR 131.12 to be satisfied.”