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IN REPLY REFER TO:

HWY-P 25-2.35122

September 12, 2025

VIA ELECTRONIC: https://planning.hawaii.gov/erp/submittal-form/

TO: JAMES KUNANE TOKIOKA, DIRECTOR
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM

THROUGH: MARY ALICE EVANS, DIRECTOR
OFFICE OF PLANNING AND SUSTAINABLE DEVELOPMENT

FROM: EDWIN H. SNIFFEN
DIRECTOR OF TRANSPORTATION

SUBJECT: FINAL ENVIRONMENTAL IMPACT STATEMENT FOR
HONOAPI'ILANI HIGHWAY IMPROVEMENTS, WEST MAUI,
UKUMEHAME TO LAUNIUPOKO
FEDERAL-AID PROJECT NO. RAEM-030-1(59)
AHUPUA'A OF LAUNIUPOKO, OLOWALU, AND UKUMEHAME,
DISTRICT (MOKU) OF LĀHAINĀ, ISLAND OF MAUI

The Hawai'i Department of Transportation, in coordination with the Federal Highway Administration, has completed a Final Environmental Impact Statement (EIS) for the proposed Honoapi'ilani Highway Improvements Project. The Draft EIS for the project was published in The Environmental Notice on January 8, 2025, and the Federal Register on January 10, 2025. An in-person Public Hearing was held on Thursday, January 23, 2025, at Lahainaluna High School. A virtual Public Hearing was held on January 28, 2025.

All public and agency comments received at the hearings as well as those received during the comment period have been incorporated into and are included with responses in the Final EIS.

Should you have any questions, please contact Ken Tatsuguchi, Engineering Program Manager at (808) 587-1830 or by email at ken.tatsuguchi@hawaii.gov.

c: Governor Josh Green

From: dbedt.opsd.erp@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Tuesday, September 16, 2025 1:07:34 PM

Action Name

Honoapiʻilani Highway Improvements, West Maui, Ukumehame to Launiupoko

Type of Document/Determination

Final environmental impact statement (FEIS)

HRS §343-5(a) Trigger(s)

- (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
- (3) Propose any use within a shoreline area
- (4) Propose any use within any historic site as designated in the National Register or Hawaiʻi Register

Judicial district

Lānaʻi, Maui

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

Portions of TMK Plats (2) 4-7-001, 4-8-001, 002, 003, 004, and Honoapiʻilani Highway Rights-of-Way

Action type

Agency

Other required permits and approvals

National Environmental Policy Act; US Army Corps of Engineers Section 404 Permit; Section 4(f) Evaluation; Endangered Species Act, Section 7 consultation; Department of Transportation Act of 1966, Farmland and Conversion Impact Rating, pursuant to the Farmland Protection Policy Act; Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat coordination; National Historic Preservation Act, Section 106 consultation; Section 309 of the Clean Air Act coordination; Section 309 of the Clean Air Act; Rivers and Harbors Act Section 10 Impacts to Navigable Waters; Flood Map Change Request (if no-rise condition cannot be achieved); Coastal Zone Management Act Consistency Determination; Clean Water Act, Section 401-Water Quality Certification; Clean Water Act, Section 402-National Pollutant Discharge Elimination System Permit; HRS Chapter 6E-8, State Historic Preservation review; HRS Chapter 195D, Conservation of Aquatic Life, Wildlife, and Land Plants; Stream Channel Alteration Permit; Conservation District Use Permit; Americans with Disabilities Act Accessibility; Community Noise Permit/Variance; Special Management Area Permit; Building and Grading Permits; and Maui County Ord. 5421 Compliance.

Proposing/determining agency

State of Hawaii, Department of Transportation, Highways Division

Agency jurisdiction

State of Hawaiʻi

Agency contact name

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Map It

Accepting authority

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Accepting authority contact name

Josh Green

Accepting authority contact email or URL

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Is there a consultant for this action?

Yes

Consultant

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Consultant address

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Honolulu, Hawaii 96813
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Map It

Action summary

Honoapi'ilani Highway (State Route 30) provides the main access between communities along the west coast of Maui and the rest of the island and is subject to periodic flooding and coastal erosion. The primary purpose of this project is to provide a reliable transportation facility in West Maui by reducing the highway's vulnerability to coastal hazards. Specifically, the project proposes to relocate about 6 miles of the highway away from the coastline from approximately milepost 11, in the vicinity of Pāpalaua Wayside Park to Launiupoko, at milepost 17, the existing southern terminus of Lāhainā Bypass.

Attached documents (signed agency letter & EA/EIS)

- HonoapiilaniHwyImp_FEIS_Vol5_Appx3.10-9_OCR.pdf
- HonoapiilaniHwyImp_FEIS_Vol4_Appx2-3.09_OCR.pdf
- HonoapiilaniHwyImp_FEIS_Vol3_Chptrs3.16-10_OCR.pdf
- HonoapiilaniHwyImp_FEIS_Vol2_Chptrs3.5-3.15_OCR.pdf
- HonoapiilaniHwyImp_FEIS_Vol1_Chptrs00-3.4_OCR.pdf
- HWY-P-25-2.35122-Honoapiilani-Highway-Improvements-EIS.pdf

ADA Compliance certification (HRS §368-1.5):

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

Shapefile

- The location map for this Final EIS is the same as the location map for the associated Draft EIS.

Action location map

- HonoapiilaniHwyImpProjArea1.zip

Authorized individual

Matthew Small

Authorized individual email

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Authorization

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

Honoapi'ilani Highway Improvements Project
West Maui: Ukumehame to Launiupoko

Final Environmental Impact Statement

Submitted Pursuant to Chapter 343, Hawaii Revised Statutes (HRS)

Hawaii Department of Transportation (HDOT)

September 2025

Honoapi'ilani Highway
Improvements

Honoapi‘ilani Highway Improvements Project, West Maui: Ukumehame to Launiupoko
Final Environmental Impact Statement

Chapter 343, Hawaii Revised Statutes (HRS)

Submitted by:

Hawai‘i Department of Transportation (HDOT)

In cooperation with:
U.S. Department of Transportation, Federal Highway Administration (FHWA)
National Marine Fisheries Service
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
Hawaii Department of Lands and Natural Resources
State Historic Preservation Division
Maui County Department of Planning and Permitting
Maui Planning Department of Parks and Recreation

APPROVALS

Ed Sniffen, Director
Hawai‘i Department of Transportation

09/12/2025
Date

The following people may be contacted for additional information concerning this document:

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September 2025

This Final Environmental Impact Statement (Final EIS) and Final Section 4(f) Determination have been prepared for the Honoapi‘ilani Highway Improvements Project (the Project) in West Maui, Hawai‘i. The Project’s primary purpose is to provide a reliable transportation facility in West Maui and improve Honoapi‘ilani Highway’s resilience by reducing its vulnerability to coastal hazards. The Preferred Alternative identified in the Draft EIS was based on the assessment of the No Build Alternative and four Build Alternatives within two distinct segments in Olowalu and Ukumehame. The potential effects of these alternatives on the natural and human environment resulted in the identification of the Preferred Alternative as a combination of Build Alternative 2 in Olowalu and Build Alternative 1 in Ukumehame along with additional refinements identified in this Final EIS. As presented in this Final EIS, HDOT has established that the Preferred Alternative is the Selected Alternative for the Project which is reflected in this Final EIS.

UPC: 111427
HDOT Project No.: RAEM-030-1(59)
FHWA Project No.: 0301059
FHWA-HI-EIS-23-01-D

FOREWORD

The Hawai'i Department of Transportation (HDOT) has completed this Final Environmental Impact Statement (Final EIS) for the Honoapi'ilani Highway Improvements Project (the Project). The Project's Draft EIS was released on December 20, 2024, starting a public review period that extended to February 24, 2025. Two public hearings were held: the first on January 23, 2025, which was an in-person hearing, and the second on January 28, 2025, which was a virtual public hearing. There were a variety of methods available for individuals to submit comments on the Draft EIS: via email, via online webform, via physical comment form, and verbally at the public hearings. All substantive comments received on the Draft EIS have been summarized and responded to in this Final EIS.

In the Draft EIS, FHWA and HDOT identified the Preferred Alternative. In this Final EIS, HDOT has selected the Preferred Alternative as the "Selected Alternative" for the Project which will be carried forward into the design build process. This determination is based on the impact assessment as presented in the Final EIS including consideration of public input and continued consultation with cooperating and participating agencies. Overall, there were few substantive changes to the impact assessment as presented in the Draft EIS. The entirety of the Draft EIS is available on the project website for the reader as a companion to this Final EIS. For the Final EIS, new or revised text is double-underlined while fully deleted text is shown with a ~~strike-through~~.

Substantive changes evaluated in this Final EIS are primarily based on design refinements to the Selected Alternative that include the following:

- Adding a shared-use pathway along the makai edge of the right-of-way
- Adding a second signalized intersection at Ehehene Street in Ukumehame
- Using a bridge crossing of the intermittent Awalua Stream rather than a culvert
- Modest shifts to the location or configuration of the alignment to optimize design and to avoid and minimize disturbance of archaeological resources

This Final EIS includes supplemental assessments associated with information not presented in the Draft EIS (including based on public comments on the Draft EIS and continued coordination with consulting agencies). These additional analyses did not result in new or different adverse effects of the Preferred Alternative as defined in the Draft EIS or the Selected Alternative as defined in the Final EIS. The Final EIS also includes the documentation of the Section 106 process with an executed Programmatic Agreement; the final Section 4(f) determination of a *de minimis* effect on the Ukumehame Firing Range and potential expanded historic district; and completion of a Biological Opinion by the U.S. Fish and Wildlife Service (USFWS).

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Abbreviations and Acronyms

ABBREVIATION/ ACRONYM	DEFINITION
AADT	annual average daily traffic
AASHTO	American Association of State Highway and Transportation Officials
ACB	asphalt concrete base
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
AIS	Archaeological Inventory Survey
ALISH	Agricultural Lands of Importance to the State of Hawai‘i
ANSI	American National Standard Institute
APE	Area of Potential Effects
AVE	Area of Visual Effect
BFE	base flood elevation
BGEPA	Bald and Golden Eagle Protection Act
BLNR	Board of Land and Natural Resources
BMP	best management practice
BSM	Blackburn’s sphinx moth
BWS	Board of Water Supply
CAAP	Hawai‘i Climate Adaption Action Plan
CAFE	Corporate Average Fuel Economy
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGG	Coastal Geology Group
CIA	Cultural Impact Assessment
CRESI	Coastal Road Erosion Susceptibility Index
CRC	Cultural Resource Commission
CSH	Cultural Surveys Hawai‘i, Inc.
CSS	Context Sensitive Solutions
CWA	Clean Water Act
DAR	Division of Aquatic Resources
DART	Deep-ocean Assessment and Reporting of Tsunamis
dB	decibel
dBA	A-weighted decibels
DBEDT	Department of Business Economic Development and Tourism
DHHL	Department of Hawaiian Home Lands
DLNR	Department of Land and Natural Resources
DOFAW	Division of Forestry and Wildlife

ABBREVIATION/ ACRONYM	DEFINITION
DPR	Department of Parks and Recreation
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement (Draft EIS, Final EIS)
EISPN	Environmental Impact Statement Preparation Notice
EJ	environmental justice
ENSO	El Niño–Southern Oscillation
EO	Executive Order
ERP	Environmental Review Program
ESA	Endangered Species Act
ETC	Estimated Time of Completion
°F	degrees Fahrenheit
FAST Act	Fixing America's Surface Transportation Act
FEA	Final Environmental Assessment
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
GHG	Greenhouse Gases
GIS	geographic information systems
GPS	Global Positioning System
HAR	Hawaiʻi Administrative Rules
HCCC	Hawaiʻi Climate Change Mitigation and Adaptation Commission
HDOA	Hawaiʻi Department of Agriculture
HDOH	State of Hawaiʻi Department of Health
HDOT	State of Hawaiʻi Department of Transportation
HEPA	Hawaiʻi Environmental Policy Act
HEPA	Hawaiʻi Revised Statutes, Chapter 343
HRHP	Hawai'i Register of Historic Places
HRS	Hawaiʻi Revised Statutes
HUI	Hui O Ka Wai Ola
HVO	Hawaiian Volcano Observatory
IBC	International Building Code
IRC	International Residential Code
IIJA	Infrastructure Investment and Jobs Act
IPaC	Information, Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
KVP	key viewpoints

ABBREVIATION/ ACRONYM	DEFINITION
LCA	Land Commission Award
LEP	Limited English Proficiency
L_{eq}	the energy average noise level, in dBA, for a specific period
LOS	Level of Service
LRFI	Literature Review and Field Inspection
MBTA	Migratory Bird Treaty Act
MECO	Maui Electric Company
MEMA	Maui Emergency Management Agency
MHHW	Mean higher high water
MMPO	Maui Metropolitan Planning Organization
mm/year	millimeter per year
MOU	Memorandum of Understanding
mph	miles per hour
MPO	Metropolitan Planning Organization
MSAT	mobile source air toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NGPC	Notice of General Permit Coverage
NHC	National Hurricane Center
NHO	Native Hawaiian Organization
NHOPI	Native Hawaiian or Other Pacific Islander
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent to Prepare an Environmental Impact Statement
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OHWM	ordinary high water mark
OPSD	Office of Planning and Sustainable Development
OSTP	Office of Science and Technology Policy
PA	Programmatic Agreement
PASH	Public Access Shoreline Highway
PCC	Portland Cement Concrete

ABBREVIATION/ ACRONYM	DEFINITION
PCB	polychlorinated biphenyl
PDO	Property Damage Only
PGA	peak ground acceleration
$PM_{2.5}$	particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
ppb	parts per billion
ppm	parts per million
Project	Honoapi'ilani Highway Improvements Project
PS&E	Plans, Specifications, and Estimate
PUC	Public Utilities Commission
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
RFP	Request for Proposal
RHA	Rivers and Harbors Act
ROD	Record of Decision
SAAQS	State Ambient Air Quality Standards
Sackett	*Sackett v. EPA*
SAFE	Safer Affordable Fuel-Efficient
SCHPR	Statewide Coastal Highway Program Report
SDC	seismic design category
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer
SIHP	State Inventory of Historic Places
SLOSH	Sea, Lake, and Overland Surges from Hurricanes
SLR-XA	Sea Level Rise Exposure Area
SMA	Special Management Area
SOEST	School of Ocean and Earth Science and Technology
SOI	Secretary of the Interior
STIP	Statewide Transportation Improvement Program
SWPPP	Storm Water Pollution Prevention Plan
Task Force	Sea Level Rise and Coastal Flood Hazard Scenarios and Tools Interagency Task Force
TAZ	traffic analysis zone
TDM	Transportation Demand Management
TDSR	Temporary Debris Staging and Reduction
TERC	Transportation Environmental Resource Council
TMDL	total maximum daily load
TMK	Tax Map Key
TNM	Traffic Noise Model

ABBREVIATION/ ACRONYM	DEFINITION
TSM	Transportation System Management
TSMO	Transportation System Management and Operations
TWSC	Two-way STOP-control
µg/m³	micrograms per cubic meter
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
Viewer	State of Hawai'i Sea Level Rise Viewer
VMT	vehicle miles traveled
WUI	Wildland-Urban Interface

Hawaiian Terms

TERMS	DEFINITION
‘ili	a subdivision or a smaller area of land within an ahupua‘a
ahupua‘a	A traditional land district that typically extends from the top of the mountains to the sea and includes a watershed
hoa ‘āina	Hawaiian native land tenants
ka‘ao	myths
kahakō	A macron indicating a long vowel sound in Hawaiian language (ā, ē, ī, ō, ū)
kalo	Taro (Colocasia escuelenta), a native plant critical to agriculture and for which its cultivation is at the core of Native Hawaiian culture and identity.
kuleana claim	Maka’ainana (native Tenant) Mahele land claim. Carved out of claims already made by the government and chiefs
Koe na Kuleana o Kanaka	Reserving the Rights of Native Tenants
konohiki	ahupua‘a managers
Māhele/māhele	The Māhele was a historical event in Hawaiian history that began in 1845 with the establishment of a Board of Commissioners to Quiet Land Titles, also known as the Land Commission; māhele means a share, portion, land division
mauka/makai	inland/seaward, which correspond to generally easterly/westerly directions
Mele	songs and chants
moku	traditional district
mo‘olelo	stories and history
nēnē	Hawaiian goose
‘okina	Symbol representing the glottal stop in Hawaiian language; used only in front of vowels
‘Ōlelo Hawai‘i Terminology	The Hawaiian language, ‘Ōlelo Hawai‘i, is an important source of knowledge and reference in establishing historical context as well as current definitions of location, setting, and lineage. See mauka/makai
pali	cliff, steep hill, or slope; also refers to a specific place of steep topography south of the project area
wahi pana	storied places

S. Summary

The State of Hawai‘i Department of Transportation (HDOT), as the project sponsor and lead agency, in coordination with the Federal Highway Administration (FHWA), the federal lead agency, has prepared this ~~Draft~~ Final Environmental Impact Statement (~~Draft~~ Final EIS) for the Honoapi‘ilani Highway Improvements Project (the Project) in accordance with the requirements of~~ the Council on Environmental Quality's regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and~~ the Hawaii Environmental Policy Act (HEPA) (HRS Chapter 343). Consistent with HRS 343-5(h), whenever an action is subject to both the National Environmental Policy Act (NEPA) and HRS 343, The State of Hawai‘i, Office of Planning and Sustainable Development, Environmental Review Program and State agencies will cooperate with federal agencies as much as possible, although it is noted that separate HEPA and NEPA Final EIS documents have been prepared for the Project based on new federal requirements and existing state requirements. ~~A single Draft EIS has been prepared jointly to satisfy the requirements of both the applicable federal and State of Hawai‘i environmental review regulations.~~

~~Consistent with the Council on Environmental Quality's regulations for the implementation of NEPA (2022 Phase One revisions to 2020 CEQ regulations, 40 CFR §1502.12), t~~This summary provides information regarding the major conclusions and issues considered in the Draft and Final EIS. Specifically, this summary discusses the purpose and need for the Project, the alternatives considered to address the purpose and need, the costs of the proposed improvements, the potential environmental effects, agency coordination, public involvement, and next steps. This summary is presented in a question-and-answer format and includes commonly asked questions. These questions are generally presented in the order in which a discussion of each topic is introduced in this document. ~~This Draft EIS has been prepared in compliance with the Environmental Review Process of 23 U.S.C. 139 and meets the criteria of a "major project" to apply One Federal Decision provisions.~~

WHAT IS AN EIS?

An EIS is a document required by NEPA and HEPA for projects that are likely to significantly affect the environment. The EIS includes both a Draft EIS which was released for public review and commentary followed by this Final EIS which incorporates a summary and response to comments and any updated information or analysis including identification of the Selected Alternative. An EIS considers the environmental effects of federal and State agency actions—in this case, the action is to approve and fund the Project. The Record of Decision, which is issued by the FHWA based on the NEPA Final EIS, memorializes the findings of the EIS, affirms the Selected Alternative, and delineates the environmental commitments and mitigation measures identified in the assessment.

What are the process milestones in creating an EIS?

Initiation and Scoping

After early project coordination with HDOT and FHWA, the environmental review process formally starts with ~~first step in the process is~~ publication of the NEPA Notice of Intent (NOI) and the HEPA EIS Preparation Notice, which provides an opportunity for the public and other agencies to review and provide comments on the Project and the federal and local actions necessary for implementation. Pursuant to NEPA regulations in effect at the time, the NOI was published in the *Federal Register* on November 23, 2022. In accordance with HEPA (HRS 343-5(a)(1) and HRS 343-5(b)), the environmental review process for the Project began with the publication of an EIS Preparation Notice, which was published in the Hawai'i Environmental Review Program's *The Environmental Notice* on November 24, 2022. Three public scoping meetings (one in-person, two virtual) were held in December 2022, and a final Scoping Report was issued in May 2023.

~~*What are the key milestones for an EIS?*~~ *Preparation and Release of the Draft EIS and Public Comment*

~~An EIS process has three milestones:~~ Based on the information presented during Scoping and input from public or agencies regarding the scope of work, the Draft EIS provides the core of the environmental impact assessment. For this project, the Draft EIS was completed on December 20, 2024, and made available to the public through the website on that date along with publication of the Notice of Availability in the *Federal Register* and *The Environmental Notice* in January 2025. This initiated a 45-day public review period extending to February 24, 2025. Two public hearings were held: an in-person hearing on January 23, 2025, and a virtual public hearing on January 28, 2025.

Preparation of the Final EIS and Completion of the Record of Decision

- All substantive comments received on the Draft EIS are summarized and responded to in the Final EIS. In addition, the Final EIS updates any new information or revised technical analyses based on public comment, updated site conditions, or ongoing consultation with regulatory agencies. Upon completion of the Final EIS, the NEPA lead agency memorializes its findings and decisions through the Record of Decision, For HEPA, the lead agency publishes the Final EIS in The Environmental Notice and the decision document is finalized as part of the Governor's acceptance of the Final EIS. ~~First, when the federal lead agency determines that the environmental document is sufficiently ready for public review and comment, the Draft EIS is published.~~

- ~~Next, upon completion of the public review period of 45 days, the lead agency will direct the preparation of a Final EIS, which provides any refinements to the impact assessment (or to a project itself) and responses to substantive public and agency comments on the Draft EIS.~~

- ~~Finally, the lead agency completes the Record of Decision (ROD), which memorializes the agency's evaluation of environmental considerations and is the basis for agency decision making on actions necessary to implement a project.~~

~~Consistent with NEPA regulations, the intent for the Project is to issue the Final EIS and ROD at the same time. For HEPA, HDOT will coordinate completion of the Final EIS and upon its acceptance by the governor, a notice of acceptance will be published in *The Environmental Notice*.~~

~~What are the key dates for this Draft EIS?~~

~~The joint Draft EIS public comment period extends to February 24, 2025, to provide a minimum 45-day public review period from both the January 3, 2025, Draft EIS Notice of Availability in the *Federal Register* and the January 8, 2025, publication in the State of Hawaii's *The Environmental Notice*. Two public hearings are scheduled to allow for one virtual public hearing on January 28, 2025, and one in person public hearing on January 23, 2025.~~

Project documents, a calendar of hearings~~,~~ and~~,~~ presentation materials~~, and a comment form~~ are available on the Project's website at https://www.honoapiilanihwyimprovements.com/.

WHO IS LEADING THE EIS?

The FHWA is responsible for authorizing federal funds to implement the Project and is therefore identified as the lead federal agency for NEPA. HDOT is the lead State agency and is responsible for administering federal funds for highway improvements in Hawaii. HDOT is also the lead agency coordinating the HEPA review. For the Final EIS, there are separate NEPA and HEPA documents.

WHAT OTHER AGENCIES ARE INVOLVED IN THIS EIS?

Many local, state, and federal agencies participate and provide information and guidance as part of an EIS. For the Project, this includes two ~~various~~ agencies within Maui County (~~that is,~~ e.g., Planning~~, and~~ Parks and Recreation), Hawai‘i State agencies such as multiple divisions of the Department of Land and Natural Resources and the Department of Health, as well as key federal agencies with roles in the development of the EIS and the necessary permits required by the Project (the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, the National Oceanic and Atmospheric Administration, and the U.S. Fish and Wildlife Service). Chapter 8, Public Involvement and Agency Coordination, summarizes this agency coordination and public participation efforts. This outreach from the FHWA and HDOT was guided by the detailed *Coordination Plan for Public and Agency Participation* (published in November 2022) and was developed in compliance with applicable legislation and policies that guide public involvement in project development.

The roles of agencies involved in project consultation are described in 23 Code of Federal Regulations (CFR) 771 ~~23 United States Code 139~~ including the roles of lead agencies, cooperating agencies, and participating agencies. ~~According to the Council on Environmental Quality (40 Code of Federal Regulations Part 1508.1(e)),~~ “Cooperating agency” means any F~~f~~ederal State, Tribal, or local agency , ~~other than a lead agency, which~~ that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal~~ed~~ and has been designated as a cooperating agency by the lead agency. ~~project or project alternative~~ A participating agency is a F~~f~~ederal, State, local, or federally recognized Indian Tribal governmental unit ~~regional, or local government agency that has~~ with an interest in the proposed project and has ~~agreed~~ accepted an invitation to be a participating agency ~~to participate in the NEPA/HEPA and scoping processes~~.

TABLE S-1 identifies the federal, State of Hawai‘i, and County of Maui agencies and their roles in implementing the Project. These agencies were ~~have been~~ contacted early in the NEPA process and

accepted roles as cooperating and participating agencies (except the U.S. Coast Guard which determined there were no bridges with Coast Guard jurisdiction). Please note that the FHWA and HDOT will continue to consult with some agencies regardless of their status as a coordinating or participating agency.

TABLE S-1. **Anticipated Permits and Approvals and Cooperating Agencies**

PERMIT/APPROVAL	ISSUING/APPROVING AGENCY
FEDERAL	
National Environmental Policy Act	Federal Highway Administration (FHWA)
Department of Army Permit, Clean Water Act, Section 404	U.S. Army Corps of Engineers (USACE)
Department of Transportation Act of 1966, Section 4(f) Evaluation	~~Federal Highway Administration~~ FHWA
Endangered Species Act, Section 7 consultation	U.S. Fish and Wildlife Service; National Oceanic and Atmospheric Administration, National Marine Fisheries Service
Farmland and Conversion Impact Rating, pursuant to the Farmland Protection Policy Act	U.S. Department of Agriculture, Natural Resources Conservation Service
Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat coordination	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
National Historic Preservation Act Section 106 consultation	Advisory Council on Historic Preservation, State Historic Preservation Officer (SHPO)
Section 309 of the Clean Air Act	U.S. Environmental Protection Agency (USEPA)
Rivers and Harbors Act Section 10 Impacts to Navigable Waters (if applicable specific to tidal water influence)	~~U.S. Army Corps of Engineers~~ USACE
~~U.S. Coast Guard Bridge Permit Coordination~~	~~U.S. Coast Guard (USCG)~~
Flood Map Change Request (if no-rise condition cannot be achieved)	Federal Emergency Management Agency (FEMA), County of Maui Emergency Management Agency
STATE OF HAWAI'I	
Hawai'i Revised Statutes (HRS) Chapter 343, environmental review compliance	Governor, State of Hawai'i
Coastal Zone Management Act Consistency Determination	Department of Business, Economic Development and Tourism, Office of Planning and Sustainable Development, Coastal Zone Management Program (DBEDT-OPSD, CZM)
Clean Water Act, Section 401, Water Quality Certification	Department of Health (HDOH), Clean Water Branch
Clean Water Act, Section 402, National Pollutant Discharge Elimination System Permit	HDOH, Clean Water Branch
HRS Chapter 6E-8, State Historic Preservation review	Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD)
HRS Chapter 195D, Conservation of Aquatic Life, Wildlife, and Land Plants	DLNR, Division of Forestry and Wildlife and Division of Aquatic Resources
Stream Channel Alteration Permit	DLNR, Commission on Water Resource Management (CWRM)

PERMIT/APPROVAL	ISSUING/APPROVING AGENCY
Conservation District Use Permit	DLNR, Office of Conservation and Coastal Lands (OCCL)
Americans with Disabilities Act Accessibility Guidelines	HDOH, Disability and Communication Access Board (DCAB)
Community Noise Permit/Community Noise Variance	HDOH, Indoor and Radiological Health Branch
COUNTY OF MAUI	
Special Management Area Permit (modification for Olowalu subdivision existing permit; new permit for highway construction)	County of Maui Planning Department
Building and Grading Permits	County of Maui Planning Department
Maui County Ordinance 5421 Compliance (applicability to be determined in final design by design-build contractor and HDOT ROW in coordination with Maui County)	Maui County Council
Flood Map Change Request (if no-rise condition cannot be achieved)	County of Maui Emergency Management Agency, FEMA

WHERE IS THE PROJECT AREA?

As shown in FIGURE S-1, the Project is located in West Maui south of Lāhainā and generally within the ahupua‘a of Ukumehame and Olowalu. FIGURE S-2 provides a closer look at the project area between milepost 11 and milepost 17 on the existing Honoapi‘ilani Highway, which is from the point where the highway connects with the Pali portion of the existing highway towards Central Maui and where it reconnects with the existing Lāhainā Bypass to the north.

The proposed southern terminus of the Project at milepost 11 is in Ukumehame at the Pali connection and within the vicinity of Pāpalaua Wayside Park. The northern terminus of the Project is at milepost 17 in Launiupoko, where Honoapi‘ilani Highway intersects the southern terminus of Lāhainā Bypass. ~~FIGURE S-3 shows the approximately 6-mile-long and 0.75-mile-wide project area encompassing all of the Build Alternatives identified in FIGURE S-4~~.

FIGURE S-1. **Vicinity Map**

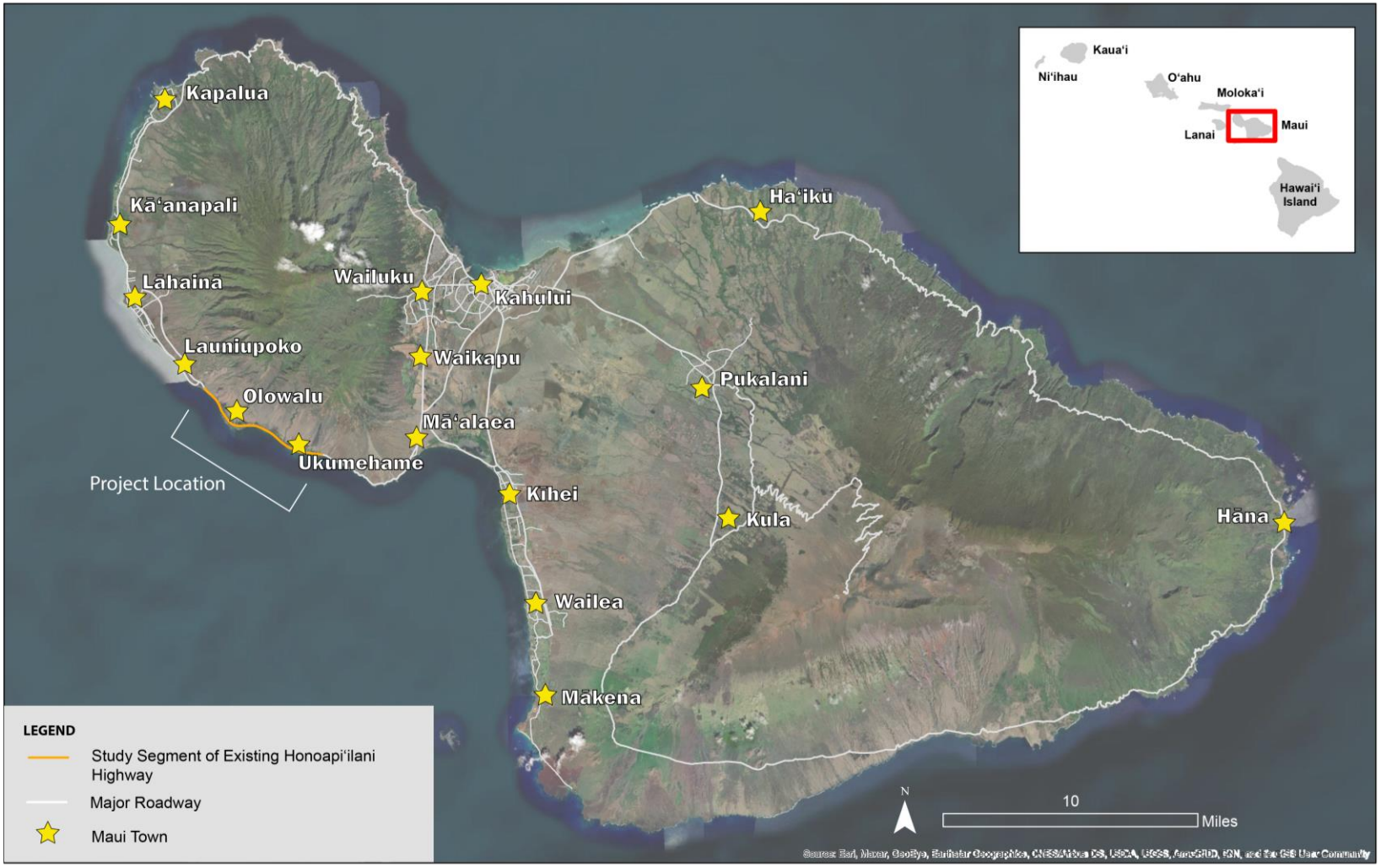
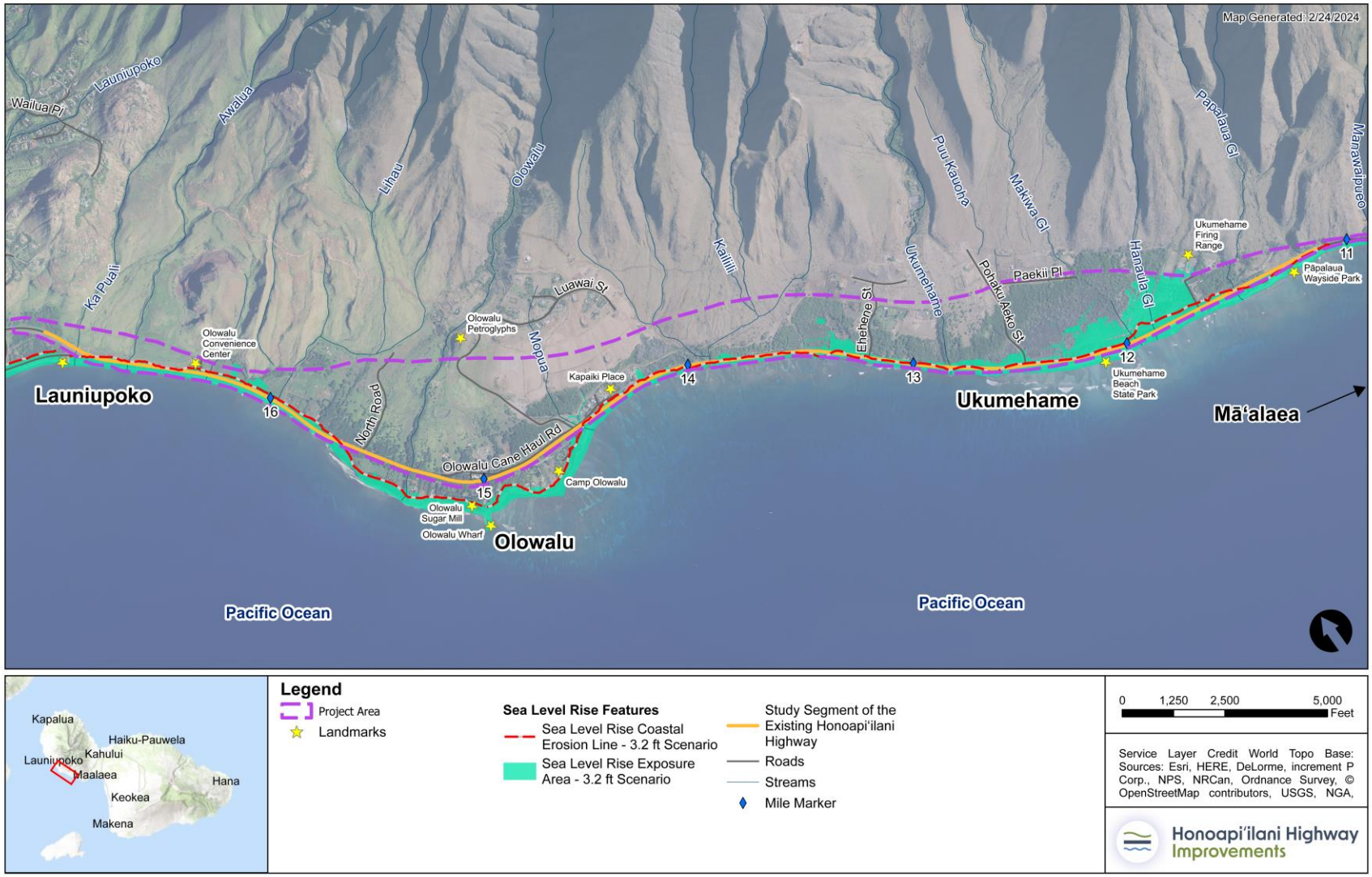


FIGURE S-2. **Project Area**



WHY IS THIS PROJECT IMPORTANT?

Honoapi‘ilani Highway is the primary transportation route for people and goods between West Maui and the rest of the island. As part of Maui’s Belt Road system, Honoapi‘ilani Highway is a two-lane principal arterial highway that provides the main access between communities along Maui’s west coast and the rest of the island. The highway connects West Maui to transportation hubs such as Kahului Airport and Kahului Harbor, hospital and medical services, and goods and services not readily available in West Maui. While its population is only about 15% of the island’s total population, West Maui is the second largest employment center. West Maui is a hub of tourism and many workers in the tourist industry travel from outside of West Maui. As the main access to this part of the island, roadway closures and delays carry severe consequences to West Maui’s economy and residents.

Over the past 10 years, Honoapi‘ilani Highway has been repaired three times after storm and high-wave events undermined pavement sections and overtopped the highway, making the roadway impassable. These projects are short-term fixes because they address only the most severe locations where Honoapi‘ilani Highway is already undermined. The need for the Project is directly tied with climate change and sea level rise and the harm it is already causing to the existing highway. A comprehensive model of predicted change developed by the Hawai‘i Climate Change Mitigation and Adaptation Commission, the Sea Level Rise Exposure Area (SLR-XA) confirms that road disruptions and emergency repairs will increase over time as a result of more frequent and severe flooding. The SLR-XA is a comprehensive model of the effects of sea level rise including passive flooding, coastal erosions, and high-wave flooding.

As presented in more detail in Chapters 1 and 2 of this ~~Draft~~ Final EIS, HDOT commissioned the *Statewide Coastal Highway Program Report* in 2019. The report utilized a scientifically rigorous methodology to assess and rank the susceptibility of Hawai‘i’s coastal roads to erosion and structural degradation caused by multiple ocean hazards (for example, waves, currents, tides, and sea level rise). The report evaluated over 300 individual coastal highway segments statewide that are threatened by coastal hazards and climate change and then prioritized these segments using a new ranking system called the Coastal Road Erosion Susceptibility Index. The report ranked a segment of Honoapi‘ilani Highway in Olowalu that is within the project area as second in priority statewide and recommended hardening or relocating the segment. Ukumehame is ranked 11th in priority with a recommendation to elevate or relocate this segment of Honoapi‘ilani Highway. The HDOT *Hawaii Highways Climate Adaptation Action Plan: Exposure Assessments* (2021) build on the *Statewide Coastal Highway Program Report* and further confirms the vulnerability of this segment of highway.

WHAT IS THE PURPOSE AND NEED OF THE PROJECT?

The Purpose and Need Statement establishes why a public agency is proposing a project and serves as the primary criteria in the alternatives screening process. In other words, project alternatives (that is, different approaches to designing and building a proposed project) are screened based on whether they align with the Purpose and Need Statement. As detailed in Chapter 1, Introduction, Purpose and Need, the Project’s purpose is to provide a reliable transportation facility in West Maui that can serve the community with increased reliability and safety to withstand coastal hazards.

Specifically, the Project is intended to address existing coastal erosion and flooding, as well as future coastal erosion and flooding caused by anticipated sea level rise. Much of existing Honoapi‘ilani Highway in the project area (51% in Olowalu and 73% in Ukumehame) is within the projected 3.2-foot SLR-XA as defined by the Hawai‘i Climate Change Mitigation and Adaptation Commission and the Hawai‘i Department of Land and Natural Resources.

In short, the primary purpose of the Project is to reduce the highway’s exposure to the SLR-XA, where feasible. Because there is no other route to central Maui, road closures, and even slowing traffic along this stretch can have significant effects on the movement of people and freight. Strengthening and reinforcing the highway’s reliability would improve the efficiency of daily travel demands important not only to Maui residents, businesses, and visitors, but also to critical emergency response services as it would provide a more reliable evacuation route from wildfires and other disaster situations.

Two secondary objectives support the overall purpose and need for the Project:

- Provide regional transportation system linkages that support safe movement of people and goods
- Conform with regional land use and transportation plans

WHAT OPTIONS OR ALTERNATIVES WERE EVALUATED?

Federal and State environmental laws (that is, NEPA and HEPA) require the evaluation of reasonable build alternatives. As summarized in the Scoping Report issued in May 2023, the Draft EIS has considered a No Build Alternative as well as four Build Alternatives. The Build Alternatives are essentially different ways of routing the new highway alignments within the project area and were originally developed and refined based on prior planning studies by both the State of Hawai‘i and Maui County (most notably the 2005 Maui County *Pali to Puamana Parkway Master Plan*) as well as early engagement with the community. Before the Draft EIS was started, the planning process identified additional alternatives and options to enhance the performance of the existing transportation network. But these alternatives were not considered further because they did not meet the Project’s purpose and need.

Makai (toward the sea) and mauka (toward the mountains), Hawaiian terms that are typically used to define geographic orientation, are used extensively to define and describe conditions in this ~~Draft~~ Final EIS. As described with more detail in Chapter 2, Alternatives, and as shown in FIGURE S-3, the Build Alternatives include highway alignments that reflect variations to provide makai, middle, and mauka options in order to evaluate the potential positive and negative environmental effects (typically referred to as beneficial or adverse effects). As shown in FIGURE S-4 and FIGURE S-5, during the development of the Draft EIS (and in response to public comments during scoping), the Build Alternatives were further refined to assess the best option in two distinct segments for Olowalu and Ukumehame. In certain areas at each end of the project area and in the middle, there is only one viable alignment option due to rugged terrain, feasibility/constructability, and significant adverse effects to both the natural and cultural environment.

FIGURE S-3. **Build Alternatives: Full Project Area**

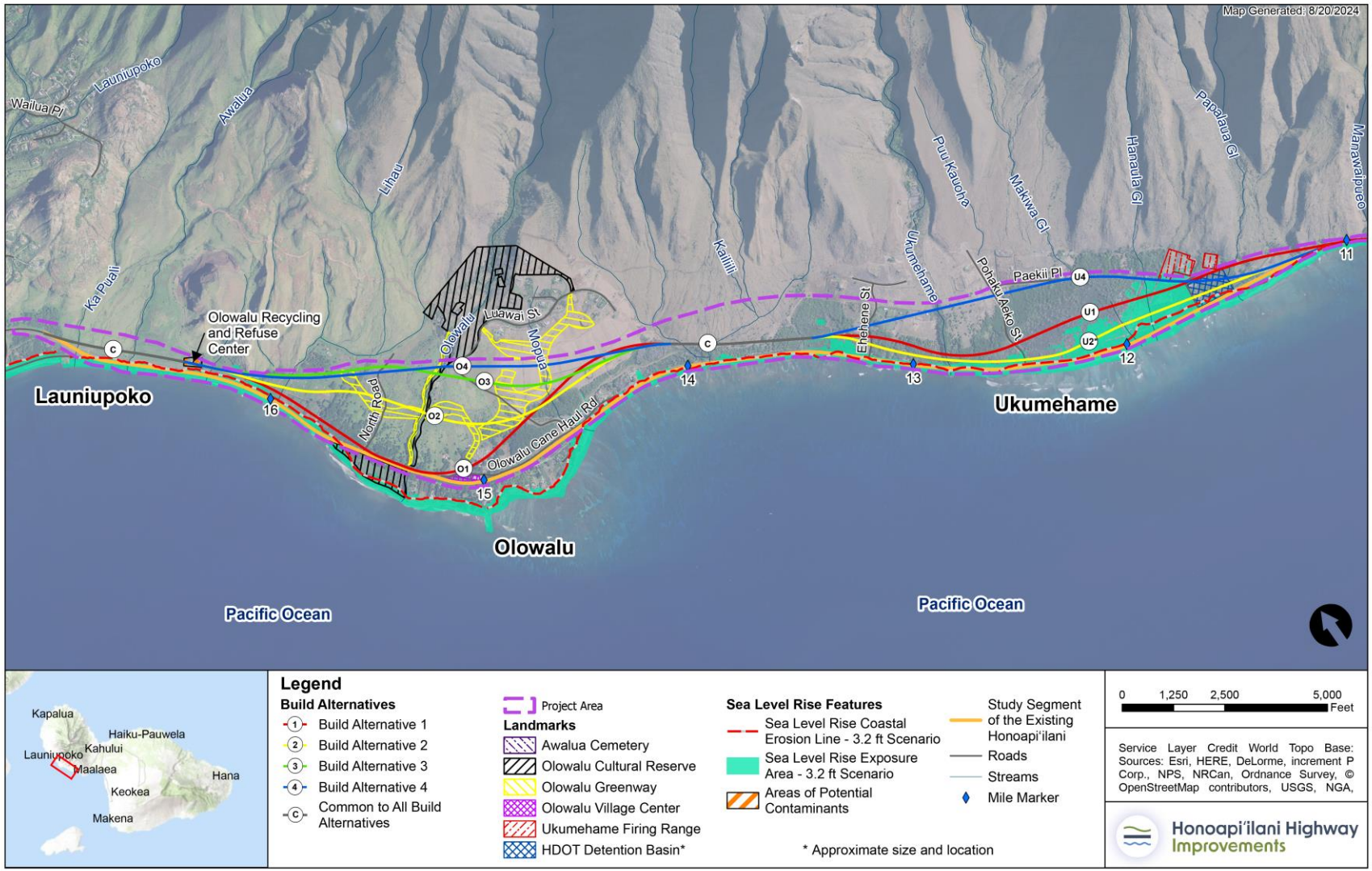


FIGURE S-4. **Build Alternatives: Olowalu**

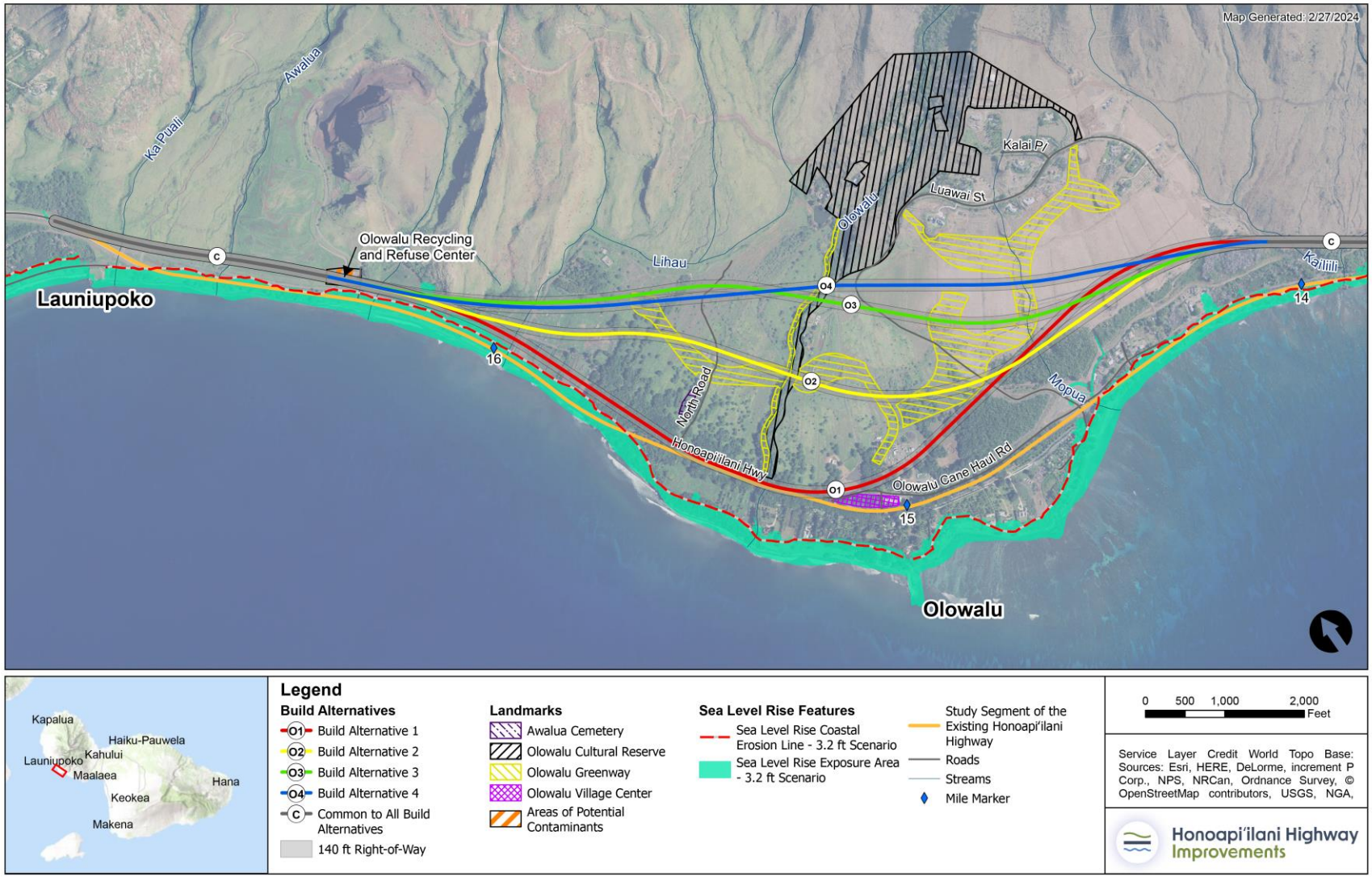
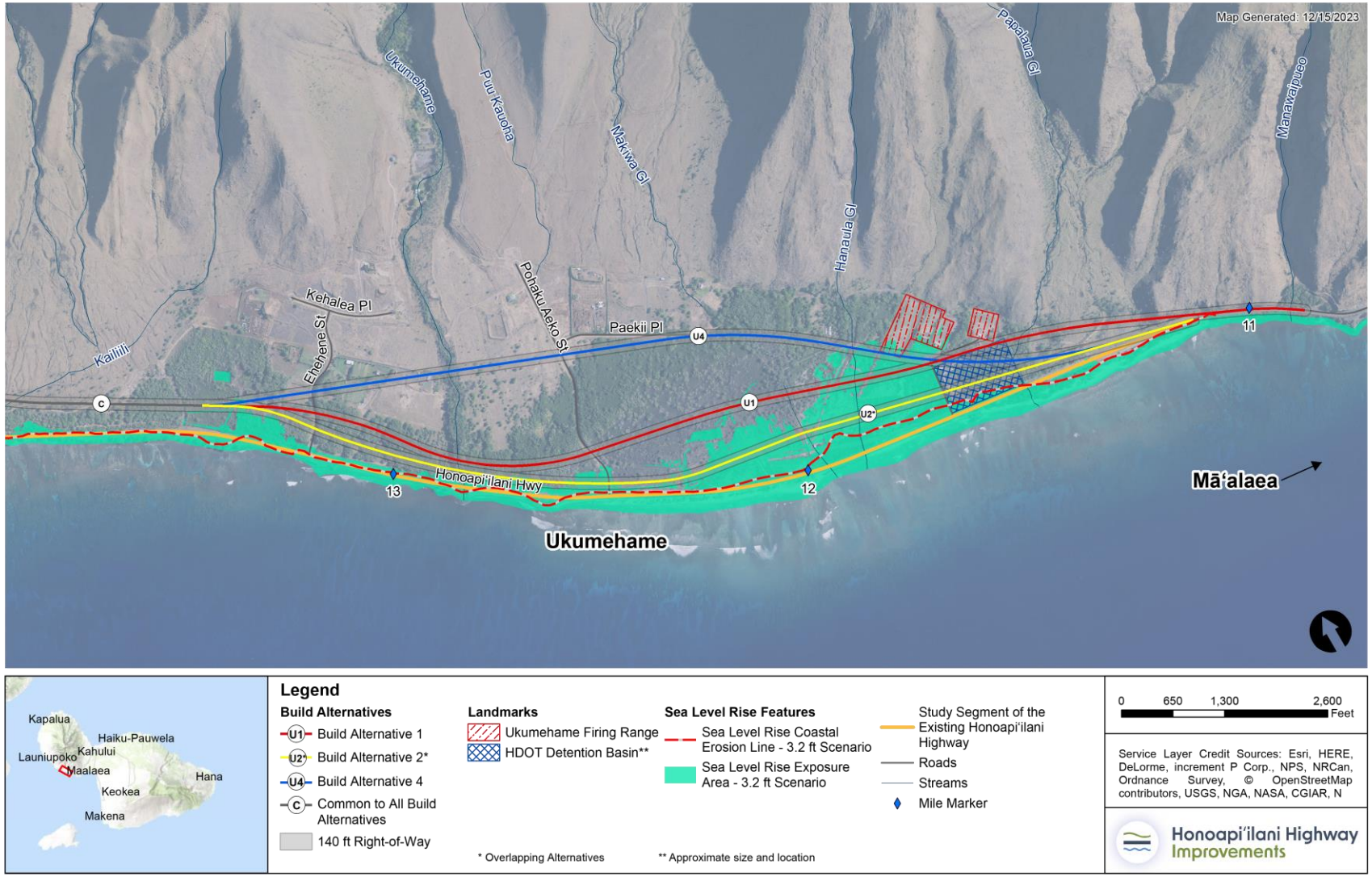


FIGURE S-5. **Build Alternatives: Ukumehame**



Over the last decade, the transportation network just north of the Project’s limits has changed. HDOT constructed Lāhainā Bypass Phase 1A from the Keawe Street Extension to Lāhaināluna Road in 2012; Phase 1B-1 from Lāhaināluna Road to Hōkiokio Place was completed in 2013; and Phase 1B-2 from Hōkiokio Place to the southern terminus of the Lāhainā Bypass was completed in 2018. These improvements are currently functioning as a two-lane highway but grading, drainage, and structures were designed to be fully built out to four lanes (two travel lanes in each direction), if the need arises and funding is available.

To invest in a new highway alignment that is consistent with these recent highway improvements, the Build Alternatives would have an average right-of-way width of approximately 140 feet with additional area required for intersections and stormwater management infrastructure. The full right-of-way would be cleared and graded but only two lanes (one moving lane in each direction) would be constructed. Other than intersections with existing cross streets that in turn provide access to the existing Honoapi‘ilani Highway—which is proposed to become a local Maui County road to provide continued access to homes, business, parks, and a publicly accessible shoreline—the new highway would be limited-access with no driveways or access points to adjacent uses. Should HDOT pursue completion of a four-lane configuration in the future, a supplemental NEPA/HEPA environmental assessment would ~~will~~ be undertaken.

~~This Draft EIS assessment is based on preliminary concept designs that implement the Build Alternatives as established during the scoping process. Refinements will be made to the Preferred Alternative design during the Final EIS and effects from refined design will be documented in the Final EIS/ROD.~~ For all Build Alternatives, permanent stormwater best management practice (permanent BMP) structures would include grassed swales located in the median and on the outside edges of the pavement structure as well as detention ponds situated at low points along the roadway profile that would collect and detain roadway stormwater. In addition, concept design includes the use of culverts, bridges, and viaducts (that is, longer multispan bridges) that allow for stream crossings or to avoid and minimize potential adverse effects with a Build Alternative.

All Build Alternatives in the Ukumehame segment would be on viaduct through environmentally sensitive areas. A roadway on embankment would harden the shoreline and not meet the Project’s need to reduce roadway exposure to sea level rise. Viaduct would avoid new shoreline hardening and reduce effects to sensitive environmental areas. See Chapter 3, Affected Environment and Environmental Consequences, for details on environmental resources. And see Chapter 2, Alternatives, and Appendix 5.1 for more information on viaduct considerations.

~~The ultimate determination of culvert and bridge specifications, or the use of viaducts to span larger areas, would be based on the selected Preferred Alternative and the length of the span required. Environmental effects, constructability, and costs would also be considered. This will be further evaluated as part of the Final EIS but would be completed during the development of final design documents in the design build process.~~

WHAT ARE THE POTENTIAL IMPACTS OF THE PROJECT AND IS THERE A SELECTED ~~PREFERRED~~ ALTERNATIVE?

How are the alternatives ~~are~~ evaluated?

Based on a comprehensive evaluation of the Project's Build Alternatives in the Draft EIS, the FHWA and HDOT have identified a Preferred Alternative that comprises Build Alternative 2 in Olowalu and Build Alternative 1 in Ukumehame (FIGURE S-6).~~While the Preferred Alternative would provide the best overall alignment, this Draft EIS identified certain adverse effects on cultural resources. In identifying the Preferred Alternative, HDOT and the FHWA~~ HDOT has selected the Preferred Alternative (now the Selected Alternative) and, as presented in this Final EIS, have incorporated refinements that would avoid and minimize ~~these~~ adverse effects (Chapter 5, Selected ~~Preferred~~ Alternative, provides a more detailed description). ~~The final design during the design-build process may provide additional opportunities to further refine the Preferred Alternative to optimize constructability, lower costs, and minimize environmental effects.~~

The comprehensive assessment of the Build Alternatives is presented in Chapter 3, Affected Environment and Environmental Consequences. FIGURE S-6 identifies the Draft EIS determination of the Preferred Alternative. FIGURE S-7 presents the Selected Alternative for Olowalu and TABLE S-2 provides a summary of the environmental effects of the Build Alternatives and the Selected ~~Preferred~~ Alternative for Olowalu. FIGURE S-8 and TABLE S-3 provide the same information for ~~and~~ Ukumehame~~, respectively~~. TABLE S-4 and TABLE S-5 provide a high-level characterization of the impact assessment leading to the identification of the Preferred Alternative for Olowalu and Ukumehame.

The ~~refined Preferred~~ Selected Alternative as presented in this Final EIS (FIGURE S-7 and FIGURE S-8 for Olowalu and Ukumehame, respectively) has been refined and adjusted in response to public comments, continued agency coordination and completion of concurrent required processes, most notably including:

- Design modifications including addition of a shared-use pathway within the new right-of-way, intersection refinements including a second signalized intersection, alignment design modifications at the Awalua Stream crossing and at Luawai Street and in Ukumehame near the Ukumehame Stream.

- Archaeological and architectural resource considerations in compliance with Section 106 of the National Historic Preservation Act including execution of a Programmatic Agreement that outlines additional assessment and mitigation commitments (see Chapter 3.6).

- Endangered Species Act Section 7 consultation resulting in a Biological Opinion issued by the U.S. Fish and Wildlife Service which summarizes the environmental commitments to avoid and minimize potential adverse effects on threatened and endangered species. ~~will be assessed through the development of the Final EIS as well as the Section 106 Programmatic Agreement. This agreement will govern archaeological and architectural reviews through the Final EIS/ROD into final design for the Project, including the identification of archaeological resources and historic properties for the complete Preferred Alternative.~~

What is the design-build construction process?

Based on the selected Preferred Alternativeis determined, HDOT uses a design-build construction process to implement major capital projects. With design-build, HDOT procures a contractor through a competitive review of proposals that are submitted in response to a public request for proposals (RFP). The RFP delineates the project area, provides a detailed conceptual engineering package for a Preferred Alternative (as determined through the NEPA process), and identifies the environmental commitments and mitigation that must be incorporated into the contractor's scope and bid. Finally, the private construction team completes final design and construction documents, obtains final approvals and permits, and builds the project for HDOT.

Contractors who submit proposals for a project may identify additional or alternative measures to meet the RFP design or environmental mitigation requirements—measures which may or may not match the completed environmental findings. Such measures may identify ways to complete the work more efficiently (affecting price and schedule) or to more effectively mitigate or meet environmental compliance requirements and reflect the contractor's past experience and approach to design, construction, and project management. These changes may require a new assessment to ensure that the Project remains in conformance with the environmental findings of the ROD. This may require the contractor to complete a NEPA or HEPA reevaluation of the environmental findings and commitments (once the new design is finalized and before construction can begin).

Overall, HDOT design-build projects have shown to be an effective way to procure large capital projects that can result in cost and time savings.

FIGURE S-6. **Preferred Alternative Selected from Draft EIS Alternatives**

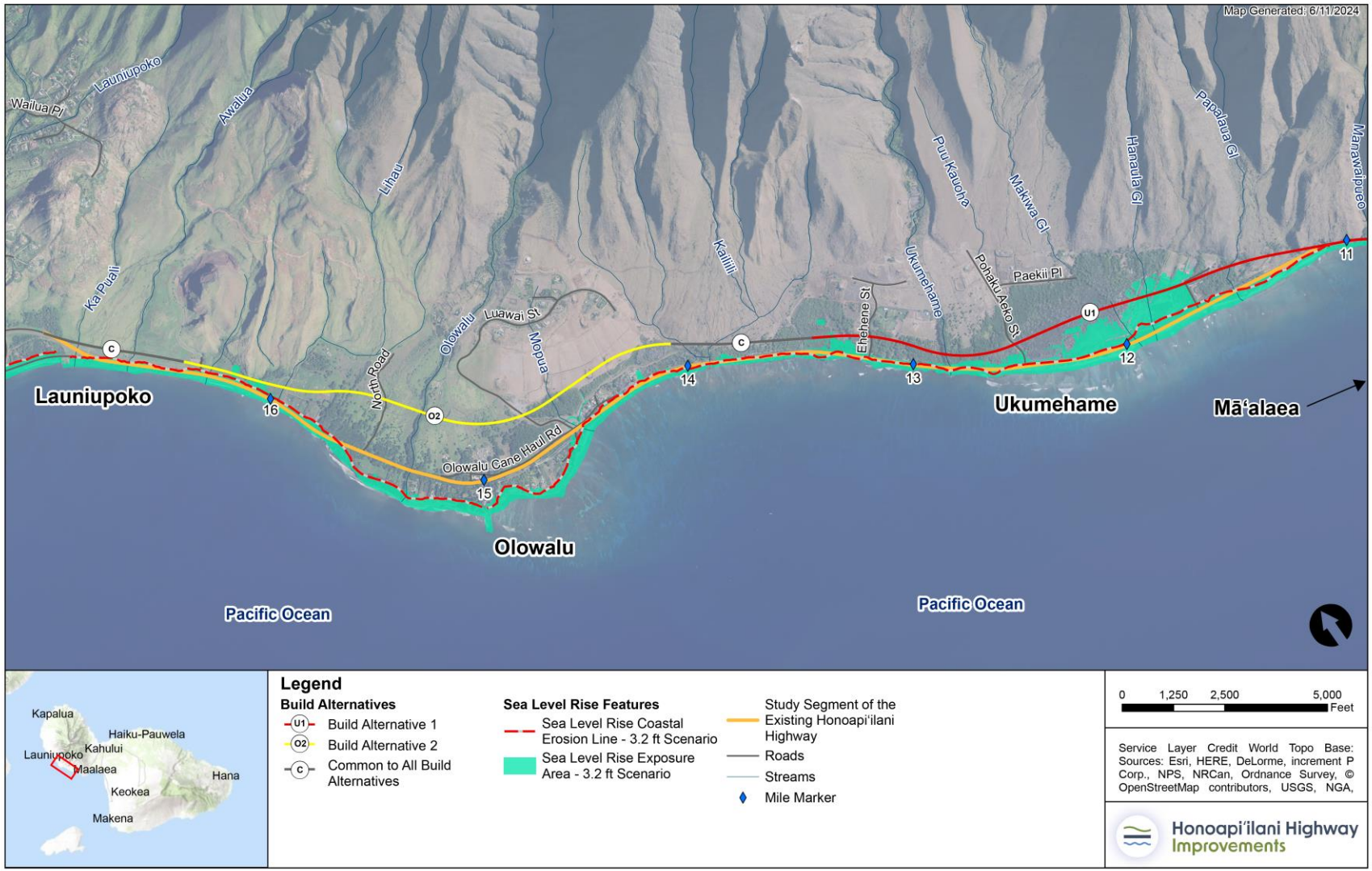


FIGURE S-7. **Selected Alternative – Olowalu**

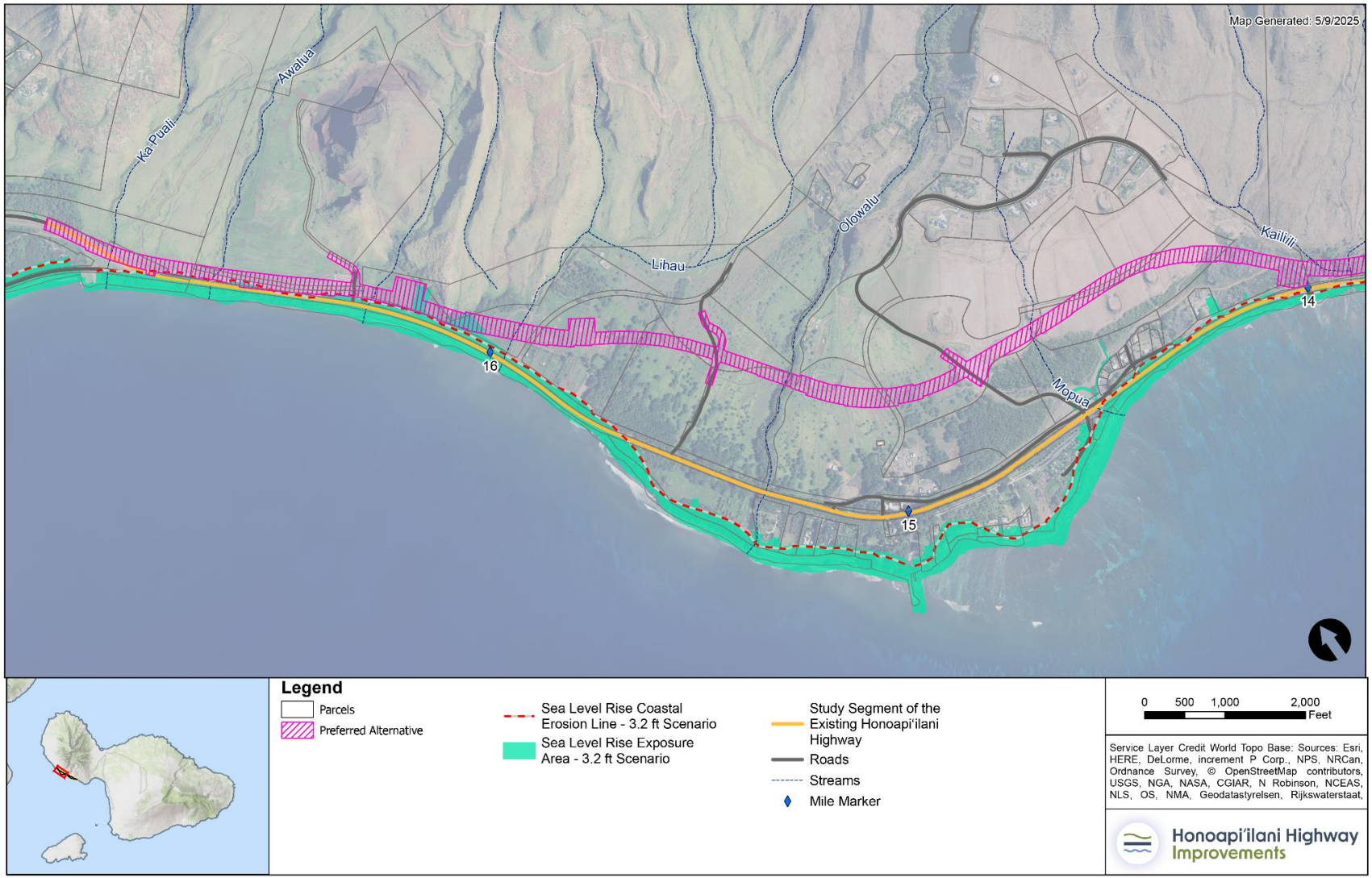


FIGURE S-8. **Selected Alternative – Ukumehame**

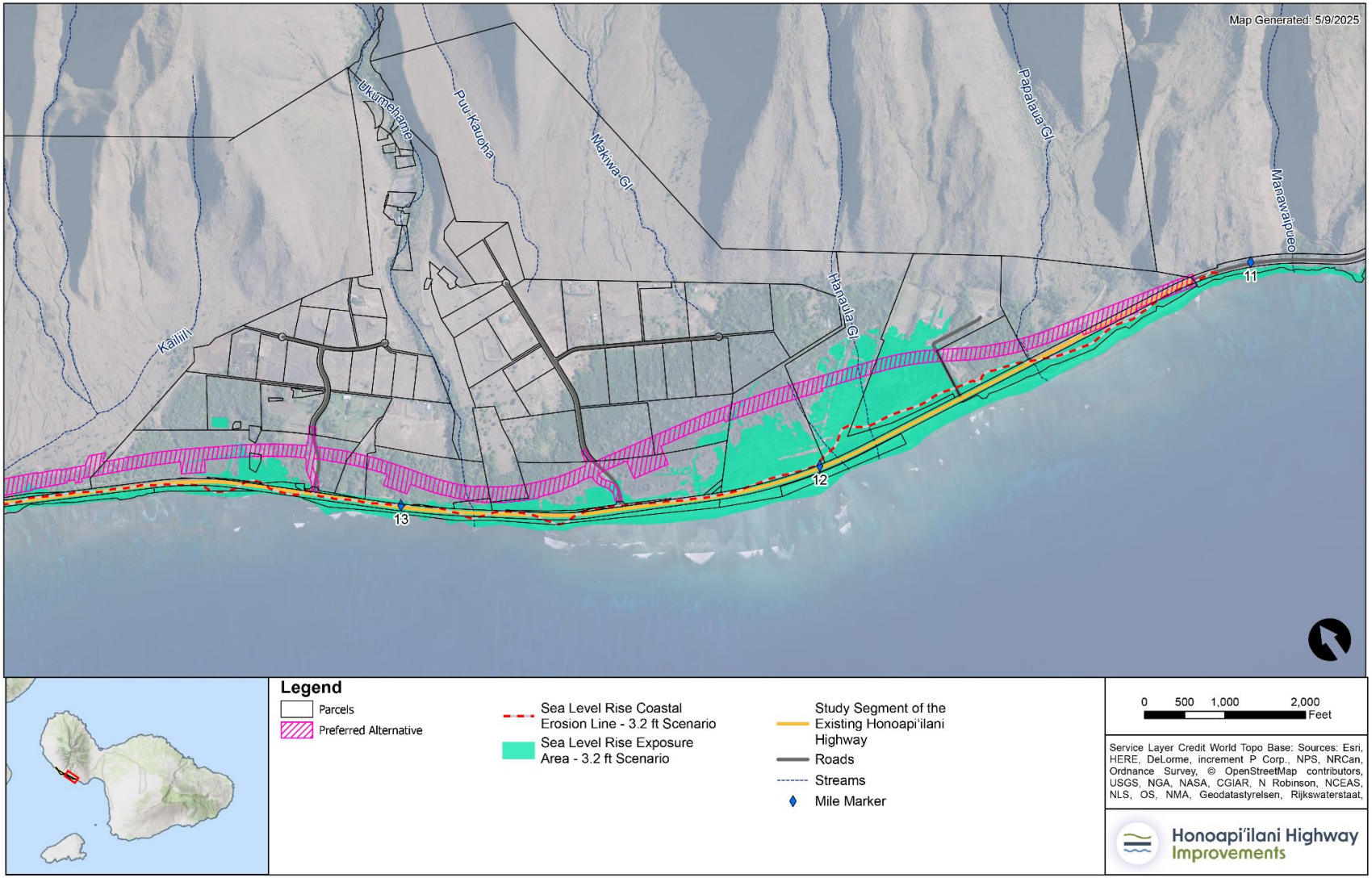


TABLE S-2. **Environmental Effects in Olowalu**

IMPACT ASSESSMENT	NO BUILD ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4	~~PREFERRED~~ SELECTED
Number of Private Tax Map Key Properties Affected	0	15	15	15	16	16
Number of Kuleana Properties Affected[3][1]	0	3	5	8	5	5
Potential Residential Relocation[2]	0	0	0	11	11	0
Potential Commercial/Agricultural Relocation	0	1	1	1	1	1
Community Facilities Relocation	0	0	0	0	0	0
Parks and Recreation Facilities Relocation	0	0	0	0	0	0
Historic Archaeological Resources (Adverse Effects)	0	2	2	2	2	2
Historic Architectural Resources (Adverse Effects)	0	0	0	0	0	0
Traffic Intersection Level of Service	F	A	A	A	A	A
Traffic Impacts	NA	0	0	0	0	0
Air Quality Impacts	0	0	0	0	0	0
Noise Impacts	0	0	0	0	1	0
Visual and Scenic Character Effects (High, Medium, Low)	Medium	Medium	Low	Medium	High	Low
Wetlands and Other Waters (acres)	0.0	0.7	0.5	0.5	0.6	0.6
Flora and Fauna, Endangered Species (High, Medium, Low)	Low	Low	Low	Low	Low	Low
Sea Level Rise Exposure (percent within SLR-XA)[2]	51%	3%	2%	1%	1%	2%
Hazardous Materials Sites, Low Risk	0	2	1	1	1	1
~~Environmental Justice – Likely Disproportionate~~ Socioeconomic Adverse Effect	No	No	No	No	No	No

[1] Kuleana properties are Land Commission Awards rights granted by the Hawaiian monarchy in the 19th Century
[2] Overall property is affected by Build Alternative but may not require relocation of the residential use and would be determined during right-of-way acquisition negotiation
[3] ~~61% of the No Build Alternative is within the SLR-XA~~

TABLE S-3. **Environmental Effects in Ukumehame**

IMPACT ASSESSMENT	NO BUILD ALTERNATIVE	BUILD ALTERNATIVE 1	BUILD ALTERNATIVES 2 AND 3	BUILD ALTERNATIVE 4	~~PREFERRED~~ SELECTED ALTERNATIVE
Number of Private Tax Map Key Properties Affected	0	3	1	20	3
Number of Kuleana Properties Affected[1]	0	5	6	7	5
Potential Residential Relocation	0	0	0	2	0
Potential Commercial/Agricultural Relocation	0	1	0	2	1
Community Facilities Relocation	0	0	0	0	0
Parks and Recreation Facilities Relocation	0	0	0	0	0
Historic Archaeological Resources (Adverse Effects)	0	6	2	2	2
Historic Architectural Resources (Adverse Effects)	0	0	0	0	0
Traffic Intersection Level of Service	E	A	A	A	A
Traffic Impacts	NA	0	0	0	0
Air Quality Impacts	0	0	0	0	0
Noise Impacts	0	0	0	0	0
Visual and Scenic Character Effects (High, Medium, Low)	Medium	Low	Low	High	Low
Wetlands and Other Waters (acres)	0.0	6.4	15.9	2.0	4.9
Flora and Fauna, Endangered Species (High, Medium, Low)	Low	Low	Low	Low	Low
Sea Level Rise Exposure (percent within SLR-XA)[~~1~~]	73%	12%	35%	8%	12%
Hazardous Materials Sites, Low Risk	0	1	0	1	1
~~Environmental Justice – Likely Disproportionate~~ Socioeconomic Adverse Effect	No	No	No	No	No

[1] Kuleana properties are Land Commission Awards rights granted by the Hawaiian monarchy in the 19th Century
[2] ~~100% of the No Build Alternative is within the SLR XA~~

TABLE S-4. **Evaluation of No Build Alternative and Build Alternatives in Olowalu**

TOPIC	NO BUILD ALTERNATIVE	BUILD ALTERNATIVE 1	BUILD ALTERNATIVE 2	BUILD ALTERNATIVE 3	BUILD ALTERNATIVE 4	~~PREFERRED~~ SELECTED ALTERNATIVE
Preliminary Construction Cost Estimates	◕	◑	◑	◑	◑	◑
Land Use and Zoning	◑	◕	●	◕	◕	●
Agriculture and Farmlands	◕	◕	◕	◑	◑	◕
Community Services	◕	●	●	●	●	●
Land Acquisition, Displacement, and Relocation	●	◑	◑	◔	◔	◑
Parklands and Recreational Resources	●	◕	●	●	●	●
Archaeological and Architectural Historic Properties	●	◕	◕	◕	◔	●
Cultural Resources	●	◑	◕	◑	◔	●
Visual and Scenic Character	◑	◑	◕	◑	◔	◕
Water Resources, Wetlands, and Floodplains	○	◕	◕	◕	◕	◕
Flora and Fauna, Endangered Species	◑	◕	◕	◕	◕	◕
Geology, Soils, and Natural Hazards	◔	◕	●	●	●	●
Coastal Zone Management/Hawai'i Special Management Areas	○	◕	●	●	●	●
Climate Change and Sea Level Rise	○	●	●	●	●	●
Transportation	○	◕	●	●	●	●
Air Quality and Energy	◕	●	●	●	●	●
Noise	◑	●	●	●	◔	●
Infrastructure and Utilities	◕	●	●	●	●	●
Hazardous Materials	●	◕	●	●	●	●
Socioeconomic Conditions/Environmental Justice	◕	●	●	●	●	●
OLOWALU OVERALL ASSESSMENT	◔	◕	●	◕	◑	●

○ = Worst; ◔ = Poor; ◑ = Neutral; ◕ = Good; ● = Best

TABLE S-5. **Evaluation of No Build Alternative and Build Alternatives in Ukumehame**

TOPIC	NO BUILD ALTERNATIVE	BUILD ALTERNATIVE 1	BUILD ALTERNATIVES 2 AND 3	BUILD ALTERNATIVE 4	~~PREFERRED~~ SELECTED ALTERNATIVE
Preliminary Construction Cost Estimates	◕	◑	◑	◑	◑
Land Use and Zoning	◑	●	●	◔	●
Agriculture and Farmlands	◕	◕	●	◔	◕
Community Services	◑	●	●	●	●
Land Acquisition, Displacement, and Relocation	●	◕	◕	○	◕
Parklands and Recreational Resources	◕	●	●	●	●
Archaeological and Architectural Historic Properties	●	◔	◑	◑	●
Cultural Resources	●	◔	◑	◑	●
Visual and Scenic Character	◑	◕	◕	◔	◕
Water Resources, Wetlands, and Floodplains	◔	◑	○	◕	◑
Flora and Fauna, Endangered Species	◕	●	●	●	●
Geology, Soils, and Natural Hazards	◔	◕	●	●	●
Coastal Zone Management/Hawai'i Special Management Areas	○	●	◕	●	●
Climate Change and Sea Level Rise	○	◕	◔	◕	◕
Transportation	○	●	●	●	●
Air Quality and Energy	◕	●	●	●	●
Noise	◕	●	●	◕	●
Infrastructure and Utilities	◕	●	●	●	●
Hazardous Materials	●	●	●	●	●
Socioeconomic Conditions/Environmental Justice	◑	●	●	●	●
UKUMEHAME OVERALL ASSESSMENT	◔	●	◕	◑	●

○ = Worst; ◔ = Poor; ◑ = Neutral; ◕ = Good; ● = Best

What is the design-build construction process?

Based on the Selected ~~Once a Preferred~~ Alternative ~~is determined~~, HDOT uses a design-build construction process to implement major capital projects. With design-build, HDOT procures a contractor through a competitive review of proposals that are submitted in response to a public request for proposals (RFP). The RFP delineates the project area, provides a detailed conceptual engineering package for a Selected ~~Preferred~~ Alternative ~~(as determined through the NEPA process)~~, and identifies the environmental commitments and mitigation that must be incorporated into the contractor's scope and bid. Finally, the private construction team completes final design and construction documents, obtains final approvals and permits, and builds the project for HDOT.

Contractors who submit proposals for a project may identify additional or alternative measures to meet the RFP design or environmental mitigation requirements—measures which may or may not match the completed environmental findings. Such measures may identify ways to complete the work more efficiently (affecting price and schedule) or to more effectively mitigate or meet environmental compliance requirements and reflect the contractor's past experience and approach to design, construction, and project management. These changes may require a new assessment to ensure that the Project remains in conformance with the environmental findings of the ROD. This may require the contractor to complete a NEPA or HEPA reevaluation of the environmental findings and commitments (once the new design is finalized and before construction can begin).

Overall, HDOT design–build projects have shown to be an effective way to procure large capital projects that can result in cost and time savings.

WHAT ARE THE PRELIMINARY COST ESTIMATES FOR THE SELECTED ALTERNATIVE ~~PROJECT~~?

The initial construction costs (exclusive of property acquisition and other non-construction costs) presented in the Draft EIS for the Preferred Alternative $160.8 million. In finalizing the Selected Alternative in the Final EIS, the current construction estimate is $298 million. This increase of $138 million is primarily to accommodate the addition of the shared-use path, the second signalized intersection at Ehehene Street, potential passing lanes between Ehehene and Luawai Streets, adding a culvert to maintain access to a kuleana parcel in Ukumehame, and the switch from a culvert to a bridge across the Awalua Stream. In addition, continued refinement of the cost estimate has advanced other costs including mobilization, labor costs, materials (actual costs and transportation costs to import materials and equipment to Maui), as well as escalation and contingencies. Initial property acquisition for Right-of-Way is estimated at $18 million but would not be finalized until the final alignment is established during the design build process, overall project construction costs and other project costs such as right-of-way acquisition will be finalized.

~~The Project has a preliminary construction cost estimate of about $160 million. TABLE S-6 presents a preliminary construction cost estimate for the Project broken down by the Olowalu and Ukumehame segments for each of the Build Alternatives. Because each segment would be selected independently, there is no single total per alternative. Therefore, the range in preliminary construction costs are from $151.1 million (Olowalu Build Alternative 3 plus Ukumehame Build Alternative 4) to $159.5 million~~

~~(Olowalu Build Alternative 2 plus Ukumehame Build Alternatives 2 and 3). TABLE S-7 summarizes the preliminary cost estimate for the Preferred Alternative, which is estimated at about $160.8 million including the refinements to the alignment described in Chapter 5, Preferred Alternative.~~

TABLE S-6. **~~Preliminary Cost Estimate (Build Alternatives)~~**

~~SEGMENT~~	~~BUILD ALTERNATIVE 1 (MILLIONS)~~	~~BUILD ALTERNATIVE 2 (MILLIONS)~~	~~BUILD ALTERNATIVE 3 (MILLIONS)~~	~~BUILD ALTERNATIVE 4 (MILLIONS)~~
~~Olowalu~~	~~$63.8~~	~~$68.2~~	~~$62.9~~	~~$64.0~~
~~Ukumehame~~	~~$90.6~~	~~$91.3~~	~~$91.3~~	~~$88.2~~

TABLE S-7. **~~Preliminary Cost Estimate for the Preferred Alternative~~**

~~SEGMENT~~	~~PREFERRED ALTERNATIVE (MILLIONS)~~
~~Olowalu~~	~~$71.1~~
~~Ukumehame~~	~~$89.7~~
~~Total~~	~~$160.8~~

WHEN WILL THE SELECTED ~~PREFERRED~~ ALTERNATIVE BE CONSTRUCTED?

~~The project sponsors anticipate a combined Final EIS/ROD in 2025.~~ As noted above, HDOT will ~~would then~~ commence a design-build contractor selection process in September 2025, that would allow for construction to start about a year later. In short, HDOT anticipates that project construction would take approximately four years and the Project could potentially be complete and operational by 2030.

HOW HAS THE PUBLIC BEEN INVOLVED IN THE PROJECT?

The Project has offered the public ongoing opportunities to get involved and provide input on project planning and scoping. In 2022, the year prior to starting the EIS, a series of community meetings were held to inform the public about the Project and provide opportunities for early input. ~~Formal scoping meetings on the Draft EIS were held in December 2022.~~ Three public scoping meetings (one in-person, two virtual) were held in December 2022, and a final Scoping Report was issued in May 2023.

With completion of the Draft EIS in December 20, 2024, a 45-day public review period (through February 24, 2025) was initiated which included two public hearings: an in-person hearing on January 23, 2025, and a virtual public hearing on January 28, 2025. There were a variety of methods available for individuals to submit comments on the Draft EIS: email, online form, printed form, and verbally at the public hearings.

~~Additional meetings continue to be held with the community, including outreach to Native Hawaiian organizations, business and community leaders. And the Project continues to share documents and other important information at key milestones through its website at https://www.honoapiilanihwyimprovements.com/.~~

Chapter 8, Public Involvement and Agency Coordination, summarizes the Project’s agency coordination and public participation efforts. Chapter 9, Response to Comments provides a summary of public comments and lead agency responses to substantive comments.

Public comments and continued agency coordination were considered by HDOT in the evaluation, refinement, and decision to move forward with the Selected Alternative.

WILL THERE BE ADDITIONAL OPPORTUNITIES FOR PUBLIC PARTICIPATION?

As with all large-scale construction projects, as HDOT initiates the design-build contractor process and through project construction, there will a continued dialogue with the public and information will continue to be shared on the project website.

~~There are additional opportunities for public participation in the EIS process and in the implementation of the Project leading into construction activities. Specifically related to the publication of the Draft EIS, the public comment period has the following timeline:~~

- ~~Publication of this Draft EIS starts a formal public review and comment period that lasts for 45 days.~~
- ~~Within this timeframe, the FHWA and HDOT will accept written comments on the Project and will hold three public hearings where the public can provide their comments on this Draft EIS. Comments provided at the public hearing will be recorded, and written comments can be submitted by email, through the Project’s website, or by traditional mail addressed to the people listed below.~~
- ~~The Final EIS will summarize and respond to all substantive comments on this Draft EIS that are submitted during the 45-day comment period.~~

WHO CAN I CONTACT FOR FURTHER INFORMATION OR TO SUBMIT COMMENTS ON COMPLETION OF THE FINAL EIS AND RECORD OF DECISION?

For more information, please visit the Project’s website at www.Honoapiilanihwyimprovements.com or contact:

Ken Tatsuguchi, PE
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1. Introduction, Purpose and Need

1.1 INTRODUCTION

The Hawaiʻi Department of Transportation (HDOT), as the state project sponsor and lead agency, in coordination with the Federal Highway Administration (FHWA), the federal lead agency, has prepared this ~~Draft~~ Final Environmental Impact Statement (EIS) for the Honoapiʻilani Highway Improvements Project (the Project) in accordance with the following requirements:

- ~~The Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) (2022 Phase One revisions to 2020 CEQ regulations, 40 Code of Federal Regulations [CFR] 1500 to 1508)~~
- FHWA regulations implementing NEPA ~~(~~23 CFR 771.~~101 to 771.139)~~
- FHWA guidance provided in its Environmental Review Toolkit
- ~~23 United States Code (U.S.C.) 139 regarding efficient environmental reviews for project decision-making, including the following:~~
  - ~~Section 139(d)(8), where the lead agency will develop a single environmental document sufficient to satisfy the requirements for any federal approval or other federal action required for the Project~~
  - ~~Section 139(d)(10), which provides for timely authorizations such that all authorization decisions necessary for the construction of the Project will be completed no later than 90 days after the issuance of the Record of Decision (ROD)~~
  - ~~Section 139(n)(2), which requires a combined Final EIS and ROD although the USACE may not be able to join the ROD if they have to issue an individual permit, which would occur later in the design-build process~~
- The Hawaii Environmental Policy Act/Hawaii Revised Statutes (HRS) Chapter 343

~~The Project is classified as a NEPA Class I project in accordance with 23 CFR 771.115(a). NEPA Class I projects are actions that significantly affect the environment and require the preparation of an EIS to evaluate the potential impacts that a project's alternatives would have on the environment. The FHWA and HDOT prepared a Notice of Intent announcing that an EIS would be prepared for the Project. Pursuant to NEPA regulations, the Notice of Intent was published in the *Federal Register* on November 23, 2022.~~

~~In accordance with the Hawaii Environmental Policy Act, HRS 343-5(a)(1) and HRS 343-5(b), the environmental review process for the Project began with the publication of an EIS Preparation Notice,~~

~~which was published in the State of Hawai'i, Office of Planning and Sustainable Development, Hawai'i Environmental Review Program's (ERP's) *The Environmental Notice* on November 24, 2022.~~

Consistent with HRS 343-5(h), whenever an action is subject to both NEPA and HRS 343, the ERP and State of Hawai'i agencies will cooperate with federal agencies to reduce the duplication of requirements. This cooperation will include a joint EIS with concurrent public review and processing at both levels of government, although it is noted that separate HEPA and NEPA Final EIS documents have been prepared for the Project based on new federal requirements and existing state requirements[1]. ~~Accordingly, a single Draft EIS has been jointly prepared to satisfy the requirements of both the applicable federal and State of Hawai'i environmental review regulations.~~

~~This joint Draft EIS is available to the public over a 45-day public review period that extends through February 24, 2025. The Draft EIS Notice of Availability was published in both the *Federal Register* and *The Environmental Notice* in January 2025. Two public hearings are scheduled to allow for one virtual public hearing on January 28, 2025, and one in person public hearing on January 23, 2025. All substantive comments received on the Draft EIS would be summarized and responded to in the Final EIS. As set forth in 23 U.S.C. 139(n) and 23 CFR 771.124, the project sponsors (HDOT and the FHWA) intend to prepare a combined Final EIS/ROD if the Project satisfies the conditions defined in the USDOT *Guidance on the Use of Combined Final Environmental Impact Statements/Records of Decision and Errata Sheets in National Environmental Policy Act* (April 2019). All project documents and a calendar of hearings can be found on the Project's website at https://www.honoapiilanihwyimprovements.com/.~~

~~The CEQ and~~ HRS 343 implementing rules, Chapter 11-200 State of Hawai'i Administrative Rules regulations (Hawai'i Administrative Rules 11-200.1-24(f)), require an EIS to specify the purpose and need that an agency is responding to in developing alternatives for a proposed project. The purpose and need statement is critical to the environmental review process because it establishes the reason an agency is proposing a project. In addition, the purpose and need statement justifies the expected outcome of public spending and provides the basis for agency decision-making.

This chapter describes tangible and fact-based evidence of the problems that the Project is intended to address and explains the underlying causes of those problems. Section 1.3 states the Project's purpose, and Section 1.4 provides the need or factual foundation for the statement of the Project's purpose. Additionally, Section 1.5 identifies secondary objectives that factored into evaluating reasonable alternatives.

[1] Since publication of the Draft EIS, President Trump signed Executive Order (EO) 14154 – Unleashing American Energy – which, among other things, required the Council on Environmental Quality (CEQ) to issue guidance on implementing the National Environmental Policy Act (NEPA) and propose rescinding its NEPA regulations at 40 CFR 1500 et seq. Subsequently, on February 25, 2025, CEQ published an Interim Final Rule (IFR) removing the CEQ NEPA implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). Additional NEPA policy directives have resulted in changes that alter impact assessment methodology (Reasonably Foreseeable Effects) and limit assessment of Greenhouse Gas and Climate Change, Cumulative Effects and Environmental Justice.

1.1.1 Hawaiian Language Terminology

The Hawaiian language, ‘Ōlelo Hawai‘i, is an important source of knowledge and reference in establishing historical context as well as current definitions of location, setting, and lineage. Consistent with CEQ Guidance for Federal Departments and Agencies on Indigenous Knowledge (November 2022), this Draft EIS incorporates numerous conventions and terminology used in ‘Ōlelo Hawai‘i, most notably the following:

- “Makai” (seaward) and “mauka” (inland) generally correspond to the project area’s easterly/westerly directions, respectively.
- “Pali” is generally the term for cliff but also refers to a specific place of steep topography south of the project area.
- “Ahupua‘a” is a traditional land division that typically extends from the top of a mountain along its ridges to the shoreline and into the ocean. An ahupua‘a generally includes a watershed. Each ahupua‘a consists of numerous different ecosystems and habitats that contain all the resources needed for a population to survive.

These terms may be used interchangeably to provide clarity and convenience in describing a direction or location. Other words or phrases may be used as appropriate and are defined accordingly. Terms that are used more frequently in this Draft EIS are summarized just after the list of abbreviations and acronyms (before the Summary).

Finally, this ~~Draft~~ Final EIS is written with diacritical punctuation, including the ‘okina (‘) and kahako (ā, ē, ī, ō, or ū).

1.2 PROJECT AREA LOCATION AND CONTEXT

1.2.1 Project Area Location

FIGURE 1-1 locates the Project in West Maui and FIGURE 1-2 zooms in to show the project area and the existing Honoapi‘ilani Highway between milepost 11 and milepost 17. As a part of Maui’s Belt Road system, Honoapi‘ilani Highway is a two-lane principal arterial highway that provides the main access between communities along Maui’s west coast and the rest of the island. The southeastern terminus of the Project is at milepost 11 in Ukumehame, within the vicinity of Pāpalaua Wayside Park. The northwestern terminus of the Project is at milepost 17 in Launiupoko, where Honoapi‘ilani Highway intersects the southern terminus of Lāhainā Bypass.

Because realigning the highway is among the alternatives considered, the project area extends from the mountains to the sea along this corridor, from the base of the West Maui Mountains to the existing highway along the coastline. A coastal plain that includes the ahupua‘a of Ukumehame, Olowalu, and Launiupoko predominately comprises the approximately 6-mile-long and 0.75-mile-wide project area.

1.2.2 Project Context

Honoapi‘ilani Highway is the main travel way for people and goods between West Maui and the rest of the island. It connects West Maui to transportation hubs (such as Kahului Airport and Kahului Harbor), critical medical services, and other goods and services that are not readily available in West Maui. About 15% of the island’s population lives in the region and it is the second-largest employment center.[2] With popular beaches, West Maui is a hub of tourism, and many industry workers commute from outside the area. As the main access to this part of the island, closures and delays on Honoapi‘ilani Highway can severely affect West Maui’s economy.

Honoapi‘ilani Highway is part of the National Highway System and Primary Highway Freight System. The *Hawaii Statewide Freight Plan* (2018) identified the top 10 truck count locations on each island.[3] On Maui, Honoapi‘ilani Highway is one of the highest-ranked routes for freight truck volumes, with four distinct segments along its route from Central Maui to the far end of West Maui ranked in the island’s top 10. Honoapi‘ilani Highway is the primary and most direct route to West Maui. Therefore, even minor traffic congestion along this stretch of highway can cause significant effects to the movement of people and freight. These effects include travel delays, missed flights, and reduced access for emergency vehicles.

2 Department of Business Economic Development & Tourism. 2019. State of Hawai‘i Data Book (2022 and 2018). Accessed May 2023.

3 https://hidot.hawaii.gov/highways/files/2019/03/HDOT_FreightPlan_FINAL.pdf. Accessed May 2023.

FIGURE 1-1. **Vicinity Map**

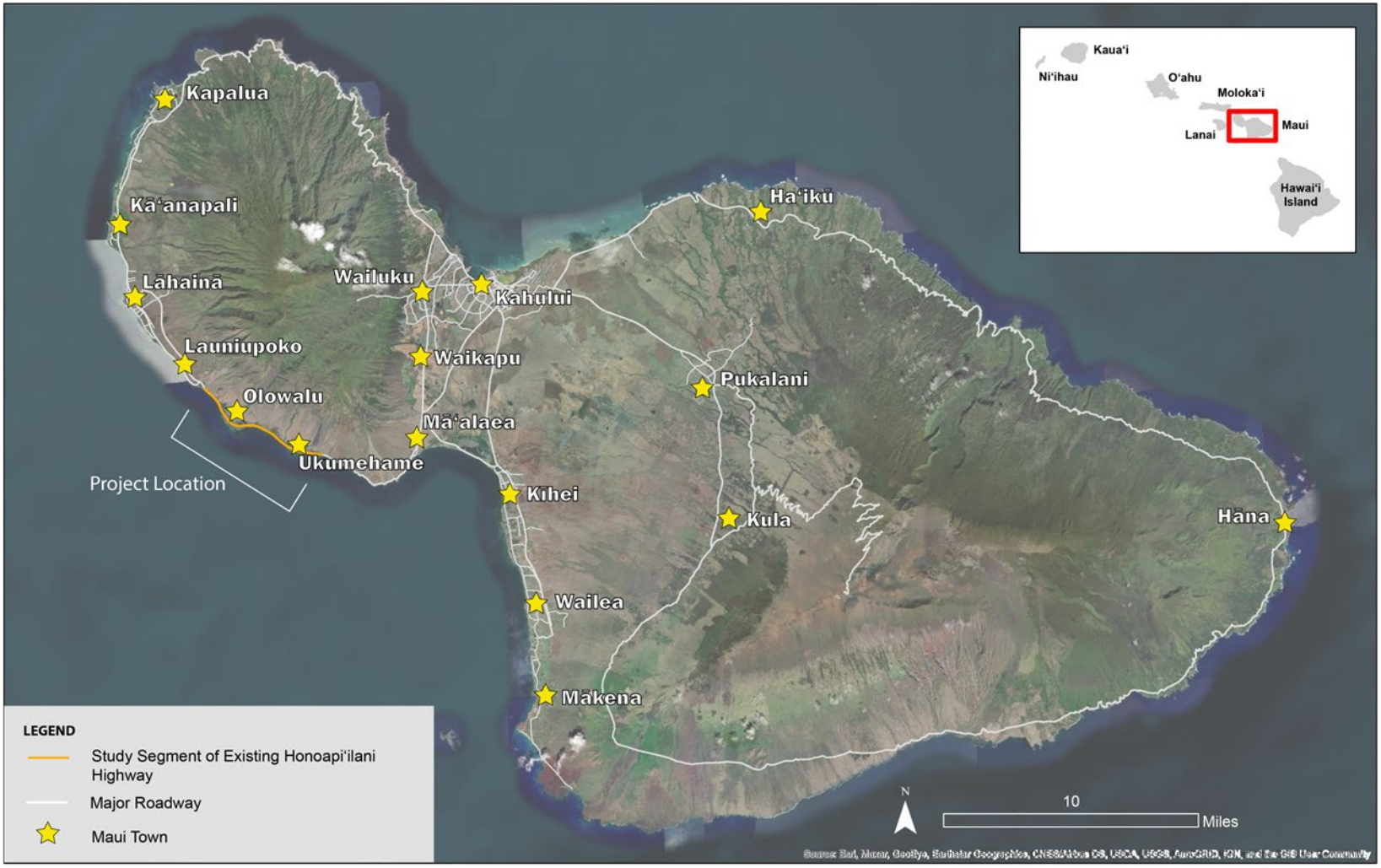
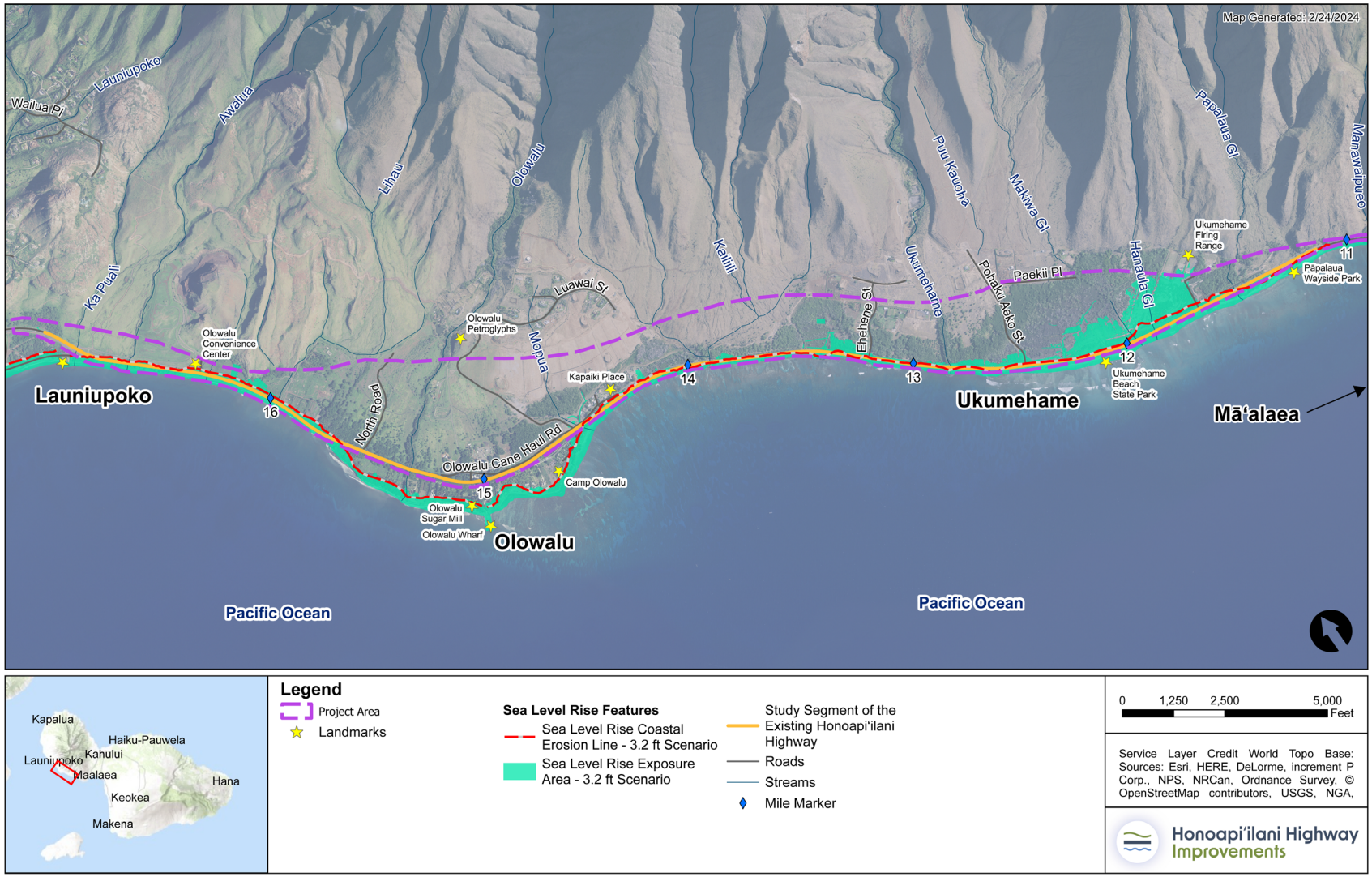


FIGURE 1-2. **Project Area**



Over the past 10 years, Honoapiʻilani Highway has been repaired three times after storm and high-wave events undermined pavement sections, overtopped the highway, and rendered it impassable. An independent repair project is being developed to address erosion where 4,100 feet of highway fronting Ukumehame and 1,000 feet of highway fronting Olowalu would be shifted 8 to 12 feet inland within the existing right-of-way. But these are short-term fixes because they only address the most severe locations where Honoapiʻilani Highway is already undermined.

Federal regulations require that state departments of transportation evaluate locations in the transportation network that are subject to frequent emergency events—like the coastal segment of Honoapiʻilani Highway—and address them in agency plans for long-term transportation improvements (23 CFR Part 667). In addition, much of Honoapiʻilani Highway in the project area is within the projected Sea Level Rise Exposure Area (SLR-XA)[4] (FIGURE 1-3). As described below, this is critical to the Project's purpose and need. SLR-XA, as defined by the Hawaiʻi Climate Change Mitigation and Adaptation Commission and the Hawaiʻi Department of Land and Natural Resources, establishes a comprehensive model of sea level rise effects including passive flooding, coastal erosions, and high-wave flooding. It also establishes the planning and public policy basis for defining areas of greatest vulnerability and increasing investments in resilient infrastructure in Hawaiʻi.

The 3.2-foot SLR-XA incorporates a future-year coastal erosion line (essentially the model's prediction of a new coastline) as well as areas of flooding inundation based on wave action from the sea or from water mauka of the coastline. Where Honoapiʻilani Highway is within the project area, SLR-XA coastal erosion modeling indicates that the number of emergency repairs and service disruptions would increase because the effects of climate change and sea level rise exacerbate the frequency and severity of flooding.

1.3 PROJECT PURPOSE

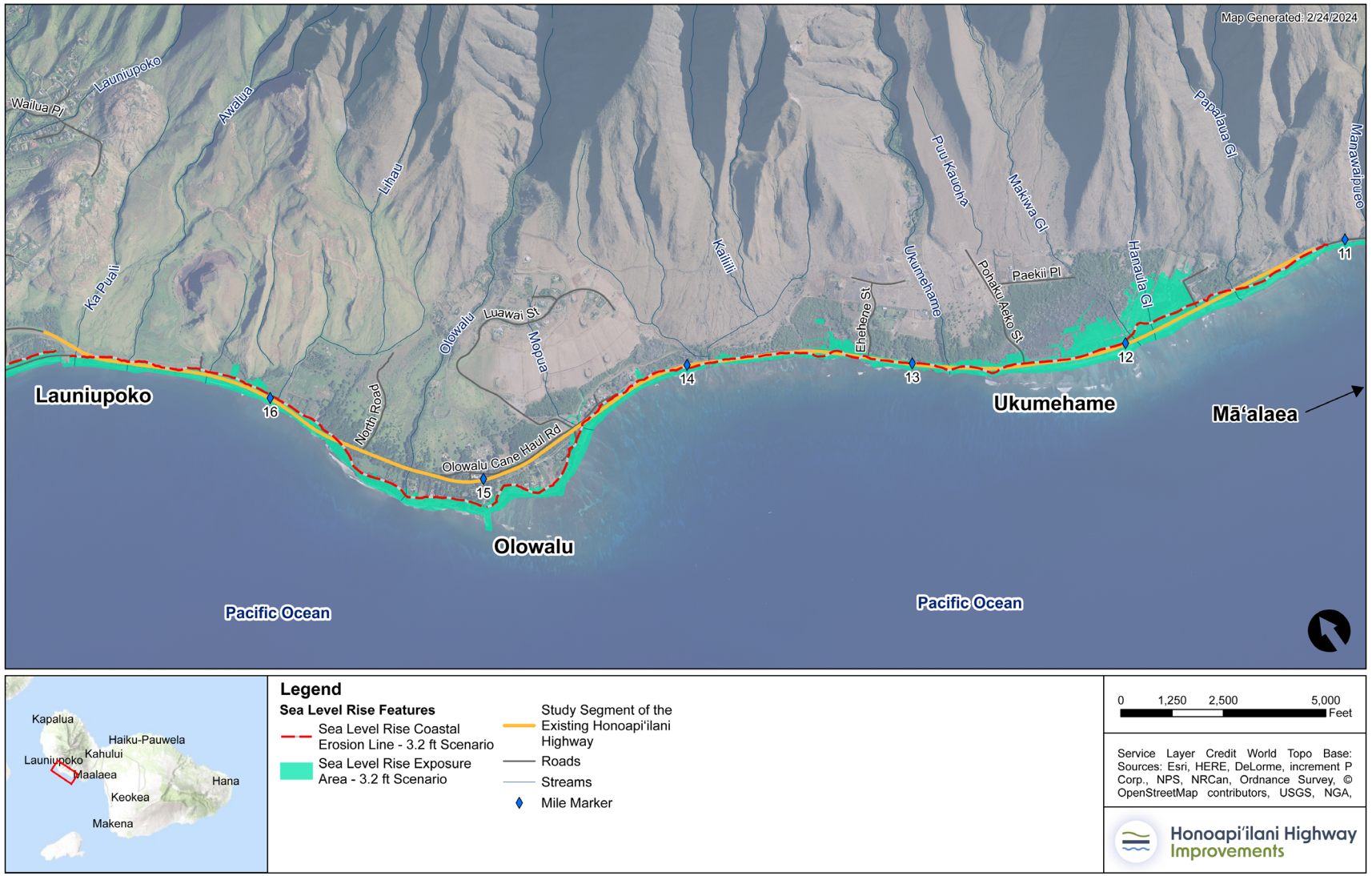
The Project's primary purpose is to provide a reliable transportation facility in West Maui and improve Honoapiʻilani Highway's resilience by reducing its vulnerability to coastal hazards. Specifically, the Project is intended to address existing coastal erosion and flooding vulnerabilities as well as future coastal erosion and flooding caused by anticipated sea level rise (FIGURE 1-3). Areas within the SLR-XA boundary, including Honoapiʻilani Highway, are considered exposed and potentially vulnerable to sea level rise. Approximately 4 of the 6 miles of existing Honoapiʻilani Highway in the project area are within the projected 3.2-foot SLR-XA.

To summarize, the Project's primary purpose is to reduce the highway's exposure to the SLR-XA, where feasible. Because there is no other route to central Maui, road closures, and even slowing traffic along this stretch can have significant effects on the movement of people and freight. Strengthening and reinforcing the highway's reliability would improve the efficiency of daily travel for Maui residents,

[4] Hawaiʻi Climate Change Mitigation and Adaptation Commission. 2021. State *of Hawaiʻi Sea Level Rise Viewer*. Version 1.11. Prepared by the Pacific Islands Ocean Observing System (PacIOOS) for the University of Hawaiʻi Sea Grant College Program and the State of Hawaiʻi Department of Land and Natural Resources, Office of Conservation and Coastal Lands, with funding from National Oceanic and Atmospheric Administration Office for Coastal Management Award No. NA16NOS4730016 and under the State of Hawaiʻi Department of Land and Natural Resources Contract No. 64064. http://hawaiisealevelriseviewer.org. Accessed February 2023.

businesses, visitors, and critical emergency response providers. A more resilient Honoapi‘ilani Highway would be an important resource in providing evacuation routes and access for emergency services resulting from wildfires or other disasters.

FIGURE 1-3. **Sea Level Rise Exposure Areas**



1.4 PROJECT NEED

HDOT has several reports and a data-driven web-based platform that document the climate hazards its facilities are exposed to statewide:

- Hawaii Highways Climate Adaptation Action Plan Exposure Assessment[5]
- HDOT Asset and Hazard Assessment – Hazard Viewer[6]
- HDOT Climate Insights for Infrastructure Platform[7]
- Statewide Coastal Highway Program Report[8]

The *Hawaii Highways Climate Adaptation Action Plan* identifies strategies to create a more resilient transportation system. This plan included an assessment of the exposure of highway infrastructure to rockfall and landslides, sea level rise, storm surges from Category 1 through Category 4 hurricanes, tsunamis, wildfires, and lava flow. Of these potential hazards, the most urgent need in West Maui is sea level rise (combining passive flooding, annual high-wave flooding, and coastal erosion) based on the history of storm events as described in Section 1.2. Further, other vulnerabilities in West Maui are increasingly recognized as related to climate change, including its association with the increased severity or frequency of storm events. While wildfires are a long-recognized hazard in the area, the 2023 Lāhainā wildfire and its devastating consequences accentuate the ongoing changes to the area's weather and storm patterns.

The University of Hawai'i at Mānoa School of Ocean and Earth Science and Technology (SOEST) Coastal Geology Group (CGG) has studied statewide shoreline erosion trends by evaluating mosaics of aerial photography that date back to 1912.[9] SOEST CGG study areas that are relevant to the Project from north to south are identified as Launiupoko, Awalua, Olowalu, Hekili, Ukumehame, and Pāpalaua. In general, portions of the shoreline areas abutting the existing Honoapi'ilani Highway near Launiupoko and between Ukumehame Beach Park and Pāpalaua Wayside Park are experiencing significant erosion at an average of -1.4 feet per year and -1.9 feet per year, respectively. For comparison, adjacent transects within the same study areas are losing roughly -0.3 foot per year and -0.7 foot per year.

5 https://hidot.hawaii.gov/wp-content/uploads/2021/07/HDOT-Climate-Resilience-Action-Plan-Exposure-Assessments-April-2021.pdf. Accessed May 2023. The *Hawaii Highways Climate Adaptation Action Plan: Exposure Assessments* is a supporting technical document to the *Hawaii Highways Climate Adaptation Action Plan*.

6 Department of Transportation | Resilience (hawaii.gov). Accessed September 2023.

7 https://climateresilience.hidot.hawaii.gov/map/information/info

8 https://hidot.hawaii.gov/highways/files/2019/09/State-of-Hawaii-Statewide-Coastal-Highway-Program-Report_Final_2019.pdf. Accessed May 2023.

9 http://www.soest.hawaii.edu/crc/index.php/resources-2/historical-mosaics/. Accessed November 4, 2022.

Recognizing the effects of climate change across the state, HDOT commissioned a *Statewide Coastal Highway Program Report*[10] to develop a scientifically rigorous methodology to assess and rank the susceptibility of Hawaiʻi's coastal roads to erosion and structural degradation caused by multiple ocean hazards such as waves, currents, tides, and sea level rise. One component of this report evaluated over 300 discrete coastal highway segments statewide that are threatened by coastal hazards and climate change. The segments were then prioritized using a new ranking system called the Coastal Road Erosion Susceptibility Index. A section of Olowalu within the project area known as Mōpua (in the northwestern portion of the SOEST CGG Hekili study area) was ranked second in priority statewide with the recommendation to harden or relocate this portion of Honoapiʻilani Highway. A segment of Honoapiʻilani Highway in Ukumehame is ranked 11th in priority with a recommendation to elevate or relocate the segment. The *Statewide Coastal Highway Program Report* findings are consistent with the *Hawaii Highways Climate Adaptation Action Plan: Exposure Assessments* (2021).

As the effects of climate change and sea level rise exacerbate the frequency and severity of flooding, highway service disruptions are expected to increase. The Hawaiʻi Climate Change Mitigation and Adaptation Commission's SLR-XA boundary delineates the statewide footprint where passive flooding, annual high-wave flooding, and coastal erosion have been modeled for the 0.5-foot, 1.1-foot, 2.0-foot, and 3.2-foot sea level rise scenarios. Unless otherwise noted, references to the SLR-XA boundary throughout project documentation describe the 3.2-foot sea level rise scenario, which is consistent with the recommendations of the Hawaiʻi Climate Change Mitigation and Adaptation Commission.[11] Areas and assets within the 3.2-foot SLR-XA boundary, including Honoapiʻilani Highway, are considered exposed and potentially vulnerable to sea level rise.

To summarize, the Project is needed to reduce Honoapiʻilani Highway's exposure to the SLR-XA due to the relationship between the SLR-XA boundary and highway reliability. The Hawaiʻi Climate Change Mitigation and Adaptation Commission's models used for analyses in this environmental review are consistent with the *Hawaii Highways Climate Adaptation Action Plan*.

1.5 SECONDARY OBJECTIVES

1.5.1 Provide Regional Transportation System Linkages that Support Safe Movement of People and Goods

Over the last decade, the transportation network just north of the project area has changed significantly. HDOT improved a portion of Honoapiʻilani Highway that passes through the town of Lāhainā and constructed a portion of Lāhainā Bypass, mauka of Lāhainā. Lāhainā Bypass Phase 1A from the Keawe Street Extension to Lāhaināluna Road was completed in 2012; Phase 1B-1 from Lāhaināluna Road to Hōkiokio Place was completed in 2013; and Phase 1B-2 from Hōkiokio Place to the southern terminus of Lāhainā Bypass was completed in 2018.

10 https://hidot.hawaii.gov/highways/files/2019/09/State-of-Hawaii-Statewide-Coastal-Highway-Program-Report_Final_2019.pdf. Accessed May 2023.

11 Department of Land and Natural Resources. 2018. State Climate Commission Adopts Recommendations for Countering Impacts of Sea Level Rise. https://climate.hawaii.gov/wp-content/uploads/2018/09/NR-State-Climate-Commission-Adopts-Recommendations-MIssion-Statement-Sept.-5-2018.pdf. Accessed May 2023.

While these improvements have resulted in a two-lane highway, grading, drainage, and structures were designed to accommodate four lanes if the need arises and funding is available (with additional NEPA/HEPA environmental assessment as required). In considering long-term solutions, consistent roadway system linkages are needed to connect with these recent inland highway improvements, which are located beyond the SLR-XA and north of the project area. These improvements would also ensure that the new highway meets or exceeds current design standards.

1.5.2 Consistency with Regional Land Use and Transportation Plans

Regional land use and transportation plans support improvements to Honoapi'ilani Highway as an opportunity to enhance multimodal transportation and access to recreational resources along the coast:

- The Maui Metropolitan Planning Organization (Maui MPO) *Hele Mai Maui Long-Range Transportation Plan 2040*[12] identifies the proposed improvements as "critical to preserve the shoreline for public use."

- The County of Maui's *West Maui Community Plan*[13] (January 2022 update) and the *Pali to Puamana Parkway Master Plan*[14] envision improvements to Honoapi'ilani Highway that would allow "open space and park to buffer against the effects of sea level rise and climate change while providing recreational opportunities."

The Maui MPO also completed the *West Maui Greenway Plan*,[15] which includes paths for biking and pedestrian use from Ukumehame to Līpoa Point at the northern tip of West Maui.

In short, the interaction between Honoapi'ilani Highway and public shoreline access and open space must be thoughtfully integrated with regional transportation uses to be consistent with existing plans for West Maui.

1.6 ANTICIPATED PERMITS AND APPROVALS

TABLE 1-1 identifies the permits, approvals, and coordination/consultation anticipated for the Project.

12 https://issuu.com/mauimpo/docs/hele_mai_maui_final_plan_2019_final_for_print?fr=sOTg0YTUyMTAyOO. Accessed May 2023.

13 https://www.mauicounty.gov/DocumentCenter/View/131915/West-Maui-Community-Plan-January-2022. Accessed May 2023.

14 https://www.mauicounty.gov/DocumentCenter/View/83453/Pali-to-Puamana-Parkway-Master-Plan-Feb-2005?bidId=. Accessed May 2023.

15 https://issuu.com/mauimpo/docs/220920_wmg_final_report?fr=sNGIwNTMwNzgwNTg. Accessed May 2023.

TABLE 1-1. **Potential Permits and Approvals**

PERMIT/APPROVAL	ISSUING/APPROVING AGENCY
FEDERAL	
National Environmental Policy Act	Federal Highway Administration (FHWA)
Department of Army Permit, Clean Water Act, Section 404	U.S. Army Corps of Engineers (USACE)
Department of Transportation Act of 1966, Section 4(f) Evaluation	FHWA ~~Federal Highway Administration~~
Endangered Species Act, Section 7 consultation	U.S. Fish and Wildlife Service; National Oceanic and Atmospheric Administration, National Marine Fisheries Service
Farmland and Conversion Impact Rating, pursuant to the Farmland Protection Policy Act	U.S. Department of Agriculture, Natural Resources Conservation Service
Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat coordination	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
National Historic Preservation Act Section 106 consultation	Advisory Council on Historic Preservation, State Historic Preservation Officer (SHPO)
Section 309 of the Clean Air Act	U.S. Environmental Protection Agency (USEPA)
Rivers and Harbors Act Section 10 Impacts to Navigable Waters (if applicable specific to tidal water influence)	USACE ~~U.S. Army Corps of Engineers~~
~~U.S. Coast Guard Bridge Permit Coordination~~	~~U.S. Coast Guard (USCG)~~
Flood Map Change Request (if no-rise condition cannot be achieved)	Federal Emergency Management Agency (FEMA), County of Maui Emergency Management Agency
STATE OF HAWAI'I	
Hawai'i Revised Statutes (HRS) Chapter 343, environmental review compliance	Governor, State of Hawai'i
Coastal Zone Management Act Consistency Determination	Department of Business, Economic Development and Tourism, Office of Planning and Sustainable Development, Coastal Zone Management Program (DBEDT-OPSD, CZM)
Clean Water Act, Section 401, Water Quality Certification	Department of Health (HDOH), Clean Water Branch
Clean Water Act, Section 402, National Pollutant Discharge Elimination System Permit	HDOH, Clean Water Branch
HRS Chapter 6E-8, State Historic Preservation review	Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD)
HRS Chapter 195D, Conservation of Aquatic Life, Wildlife, and Land Plants	DLNR, Division of Forestry and Wildlife and Division of Aquatic Resources
Stream Channel Alteration Permit	DLNR, Commission on Water Resource Management (CWRM)
Conservation District Use Permit	DLNR, Office of Conservation and Coastal Lands (OCCL)
Americans with Disabilities Act Accessibility Guidelines	HDOH, Disability and Communication Access Board (DCAB)

PERMIT/APPROVAL	ISSUING/APPROVING AGENCY
Community Noise Permit/Community Noise Variance	HDOH, Indoor and Radiological Health Branch
COUNTY OF MAUI	
Special Management Area Permit (modification for Olowalu subdivision existing ~~SMA~~ permit; new permit for highway construction ~~within the SLR-XA Erosion Line~~)	County of Maui Planning Department
Building and Grading Permits	County of Maui Planning Department
Maui County Ordinance 5421 Compliance (applicability to be determined in final design by design-build contractor and HDOT ROW in coordination with Maui County)	Maui County Council
Flood Map Change Request (if no-rise condition cannot be achieved)	County of Maui Emergency Management Agency, FEMA

1.7 ENVIRONMENTAL IMPACT STATEMENT FRAMEWORK, PROCESS, AND PROJECT SCHEDULE

1.7.1 Environmental Impact Statement Framework

The Draft EIS described ~~describes~~ the potential environmental effects of the Build Alternatives compared to the No Build Alternative. It evaluated ~~evaluates~~ and compared ~~compares~~ the Build Alternatives to allow HDOT and the FHWA to recommend the Preferred Alternative for the Project.

The Final EIS presents the following:

- A summary of comments received on the Draft EIS and agency responses to substantive comments.
- Updated analyses based on new information or ongoing agency consultation between Draft and Final EIS.
- Determination of the Preferred Alternative as the Selected Alternative.
- Summary of refinements incorporated between the Draft and Final EIS to the Selected Alternative and an evaluation of their potential environmental effects, and
- A revised statement of environmental commitments and mitigation.

1.7.1.1 Project and Study Areas

Each technical chapter of the ~~Draft~~ Final EIS identifies its method for analysis. While each technical assessment defines a specific study area that is appropriate for the analysis, the ~~Draft~~ Final EIS uses an overall defined project area (Section 1.2) where the Build Alternatives are located. As needed within any specific chapter, a larger regional study area surrounding the Project is defined as West Maui or all of Maui County.

1.7.1.2 2045 Analysis Year

The analysis year guiding the ~~Draft~~ Final EIS is 2045 (often referred to as Future Year 2045), which is a roughly 15-year post-construction horizon year if a Build Alternative (or a combination of Build Alternatives) is selected. The 2045 analysis year is tied to the long-term forecast for travel demand as available through the Maui MPO. The analysis year defines the transportation analyses and generally guides the evaluation of other technical chapters. This includes the assessment of the cumulative impact of the Project along with other known projects and developments within the project area or larger region.

1.7.1.3 Evaluation of the No Build Alternative and the Build Alternatives

Each technical chapter presents and summarizes the following:

- Regulatory context and methodology underlying the impact assessment
- The affected environment, which provides background and existing baseline conditions
- Environmental consequences, which evaluate the potential effects of the No Build Alternative and the Build Alternatives
- Mitigation for identified adverse effects
- Comparative assessment of the Build Alternatives to each other and the No-Build Alternative

Technical conclusions have not substantively changed between the Draft and Final EIS and any updates with new text or data are presented in double-underline while deleted text is shown with a ~~strikeout.~~

1.7.1.4 Environmental Impact Statement Format

To optimize the length and improve the understanding and readability of the main document of the EIS (draft and final), and to adhere to statutory and regulatory requirements on page limits, many technical assessments are summarized in the main document. As needed, the appendices provide comprehensive technical evaluations and supporting data.

1.7.2 Environmental Impact Statement Process

The NEPA Final EIS and this HEPA Final EIS are the last step in the NEPA and HEPA processes, respectively, leading to a decision by HDOT as the HEPA lead agency (see FIGURE 1-4). The NEPA Record of Decision (ROD) will memorialize the findings and decision of the NEPA lead agency and provide the environmental mitigation and commitments that will be required as part of project implementation. The decision document memorializing findings and commitments for the HEPA process will occur when the Final EIS is accepted by the Governor of the State of Hawaii after Final EIS publication.

Efforts to inform federal and state decision-making for the Project began with early public outreach, which happened before initiation of the NEPA and HEPA process. The formal stat of the process occurred with the publication of the EIS Preparation Notice in the State of Hawai‘i, Office of Planning and Sustainable Development, Hawai‘i Environmental Review Program’s (ERP’s) *The Environmental Notice* on November 24, 2022 and the NEPA Notice of Intent (NOI) was published in the Federal

Register on in November 23, 2022. Scoping activities provided the public an opportunity to give input on the Project. The public provided feedback on the four Build Alternatives that the lead agencies proposed to analyze in the Draft EIS, and the analysis's scope of environmental studies. The results from the public scoping period are documented in a Scoping Report that the lead agencies released in May 2023 and is available on the project website at www.honoapiilanihwyimprovements.com. Concurrently with the release of the NOI, the FHWA and HDOT implemented a coordination plan to collaborate with external participating and cooperating agencies from federal, State, and County governments.

The Draft EIS presented the Project's Purpose and Need and the impact assessment conducted for the No Build and four Build Alternatives. Further, it identified a Preferred Alternative that best balanced meeting the purpose and need for the Project with the opportunity to minimize and avoid adverse environmental effects. On December 20, 2024, the Draft EIS was completed and made available to the public through the Project's website. The lead agencies notified the public about releasing the Draft EIS by publishing the Notice of Availability in the *Federal Register* and in the State of Hawai'i, Office of Planning and Sustainable Development, Environmental Review Program's *The Environmental Notice* in January 2025. These publications initiated a 45-day public review period extending to February 24, 2025. During this period, two public hearings were held: an in-person hearing on January 23, 2025, and a virtual public meeting on January 28, 2025.

This Final EIS summarizes and responds to the public comments on the Draft EIS through testimony at the public hearings or written submissions as described in Chapter 9, Public Comments and Responses. The Final EIS also summarizes the refinement of the Preferred Alternative based on public input, continued agency coordination, and review of ongoing design considerations.

~~Title 23 U.S.C. 139(n)(2) provides for a combined Final EIS/ROD. Therefore, the FHWA intends to issue a single document that consists of the Final EIS/ROD consistent with Title 23 U.S.C. 139(n)(2); unless the agency determines that statutory criteria or practicability considerations preclude issuance of such a combined document. Pursuant to HRS Chapter 343, upon acceptance by the governor of Hawai'i of the Final EIS, a notice of acceptance of the Final EIS would be published in *The Environmental Notice*, which would initiate a 60-day challenge period.~~

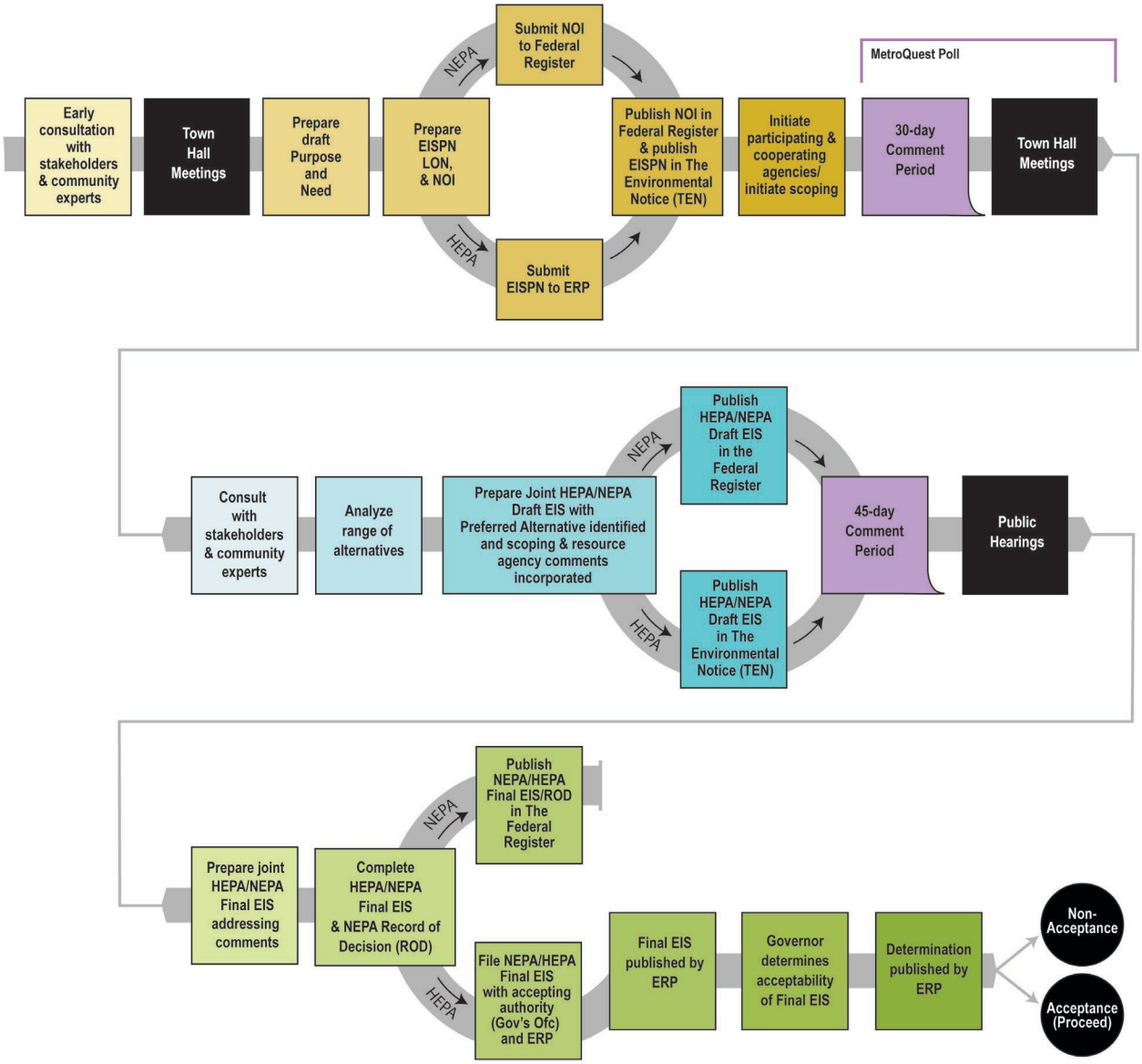
~~In conjunction with the publication of this Draft EIS (FIGURE 1-4), a Notice of Availability would be published in the State's ERP publication, *The Environmental Notice*, and a Notice of Availability would be published in the *Federal Register*. The ERP notice initiates a 45-day public review period under HRS Chapter 343, and the *Federal Register* notice also initiates a 45-day public review period under NEPA. All comments received by the later deadline would be considered. Draft EIS public hearings would be conducted during the public review period, and the Final EIS will consider and respond to public comments on this Draft EIS.~~

~~Pursuant to HRS Chapter 343, upon acceptance by the governor of Hawai'i of the Final EIS, a notice of acceptance of the Final EIS would be published in *The Environmental Notice*, which would initiate a 60-day challenge period.~~

~~Title 23 U.S.C. 139(n)(2) provides for a combined Final EIS/ROD. Therefore, the FHWA intends to issue a single document that consists of the Final EIS/ROD consistent with Title 23 USC 139(n)(2); unless~~

~~the agency determines that statutory criteria or practicability considerations preclude issuance of such a combined document.~~

FIGURE 1-4. **Environmental Impact Statement Process Chart**



1.7.3 Environmental Impact Statement Schedule

With completion of the NEPA and HEPA review process, HDOT will procure a design-build contractor and construction would be anticipated to begin in 2026, about a year from the contractor award. With anticipated construction schedule of ~~A combined Final EIS/ROD is anticipated in 2025. HDOT anticipates that project construction would take~~ approximately four years, the Project could potentially be complete and operational by 2030.

1.8 PROJECT CONTACT INFORMATION

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2. Alternatives

2.1 INTRODUCTION

The ~~National Environmental Policy Act (NEPA) and the~~ Hawaiʻi Environmental Policy Act (HEPA) and the National Environmental Policy Act (NEPA) require the evaluation of reasonable alternatives[1] as a core principle of an environmental impact assessment.[2] This chapter describes the No Build Alternative and the Build Alternatives that ~~are~~ were evaluated in ~~this~~ the Draft Environmental Impact Statement (EIS). It also describes ~~potential~~ alternatives that were considered but determined unreasonable and therefore excluded from further evaluation. Chapter 5, Selected ~~Preferred~~ Alternative, summarizes the Federal Highway Administration (FHWA) and Hawaiʻi Department of Transportation (HDOT) evaluation and the identification of the Selected ~~Preferred~~ Alternative with consideration of public comments provided on the Draft EIS and including refinements between the Draft EIS and this Final EIS. ~~This was based on the impact assessment presented in Chapter 3, Affected Environment and Environmental Consequences.~~

The Build Alternatives summarized in this chapter were originally developed and refined based on prior planning studies by both the State of Hawaiʻi and Maui County—most notably the *Maui County 2005 Pali to Puamana Parkway Master Plan*. The alternatives are also based on early engagement with the community during pre-NEPA outreach for the Notice of Intent (NOI) and HEPA Environmental Impact Statement Preparation Notice (EISPN). As presented in the Scoping Report issued in May 2023, the FHWA and HDOT considered all comments received during the NOI and EISPN statutory public comment period—as well as information obtained during pre-NOI and EISPN scoping—in finalizing the alternatives analyzed in this Draft EIS.

2.2 NO BUILD ALTERNATIVE

In accordance with ~~the Council on Environmental Quality's regulations implementing NEPA (40 CFR Part 1502.14(c)) and~~ the requirements in HEPA (Hawaii Administrative Rules 11-200. 1.24), ~~this~~ the Draft EIS ~~analyzes~~ analyzed the No Build Alternative as a benchmark of comparison with the Build Alternatives considered for the Project.

The No Build Alternative reflects future conditions if the Project were not constructed. In the No Build Alternative, Honoapiʻilani Highway would remain in its current alignment and configuration. As noted in Chapter 1, Introduction, Purpose and Need, this would result in a future condition where the vulnerabilities from coastal hazards remain a threat to the highway's reliability as a critical link between West and Central Maui. As established by the Sea Level Rise Exposure Area (SLR-XA)

~~[1] As defined in 40 Code of Federal Regulations (CFR) 1508.1(z), "reasonable alternatives" are technically and economically feasible alternatives that meet the purpose and need of a project.~~

~~[2] See Council on Environmental Quality 40 CFR Parts 1500 to 1508 and Federal Highway Administration's Environmental Impact and Related Procedures (23 CFR Part 771) and Hawaiʻi Environmental Policy Act (Hawaii Revised Statutes 343 and Hawaii Administrative Rules 11-200.1).~~

assessment of a 3.2-feet sea level rise, approximately 4 of the 6 miles of the existing Honoapi‘ilani Highway would be located within the SLR-XA, which includes passive flooding, annual high-wave flooding, and a modeled coastal erosion line representing a potential future coastline (Section 3.13, Climate Change and Sea Level Rise).

In the No Build Alternative, with no alignment changes, HDOT would be required to undertake frequent interventions and repairs to maintain the existing highway. Soft protections (for example, nature-based solutions), hard protections (for example, revetments and seawalls), or a combination of protections and elevating the road are short- to mid-term fixes that would be needed continually to address the chronic impacts from coastal hazards. Over the long term, the highway would be less reliable with anticipated closures and restrictions on its full use.

2.3 BUILD ALTERNATIVES

~~This~~ The Draft EIS ~~considers~~ considered four Build Alternatives (FIGURE 2-1).[3] To the north, all Build Alternatives would connect to the existing Lāhainā Bypass in the same way. To the south, all Build Alternatives would connect with the existing Honoapi‘ilani Highway toward the Pali (the steep terrain at the southernmost end of the project area)—although Build Alternative 1 would connect farther to the south. FIGURE 2-2 shows these northern and southern terminus points and, for context, the areas beyond these points along the existing highway. In addition, all Build Alternatives would share a common alignment in the area roughly between Olowalu and Ukumehame (between mile marker 13 and 14).

The greatest degree of differentiation among the Build Alternatives would be within Olowalu and Ukumehame, where they would have varying levels of potential environmental and cultural effects (as evaluated in the technical chapters of the ~~this~~ Draft EIS and updated in this Final EIS). For this reason, Chapter 3, Affected Environment and Environmental Consequences, considers segments in Olowalu and Ukumehame independently; it is noted that ~~because~~ the Preferred Alternative was ~~could~~ ultimately based on a ~~be a~~ combination of Build Alternative 1 in Ukumehame and Build Alternative 2 in Olowalu. ~~s selected for each segment.~~

~~It is anticipated that any Build Alternative corridor that could be identified as the Preferred Alternative in Chapter 5, Preferred Alternative, may be further refined during the development of the Final EIS. Design refinements and any associated potential effects would be documented in the Final EIS and ROD.~~

[3] https://www.honoapiilanihwyimprovements.com/media/pdnbyflc/honoapiilani_scoping-report_may-2023.pdf.

FIGURE 2-1. **Build Alternatives**

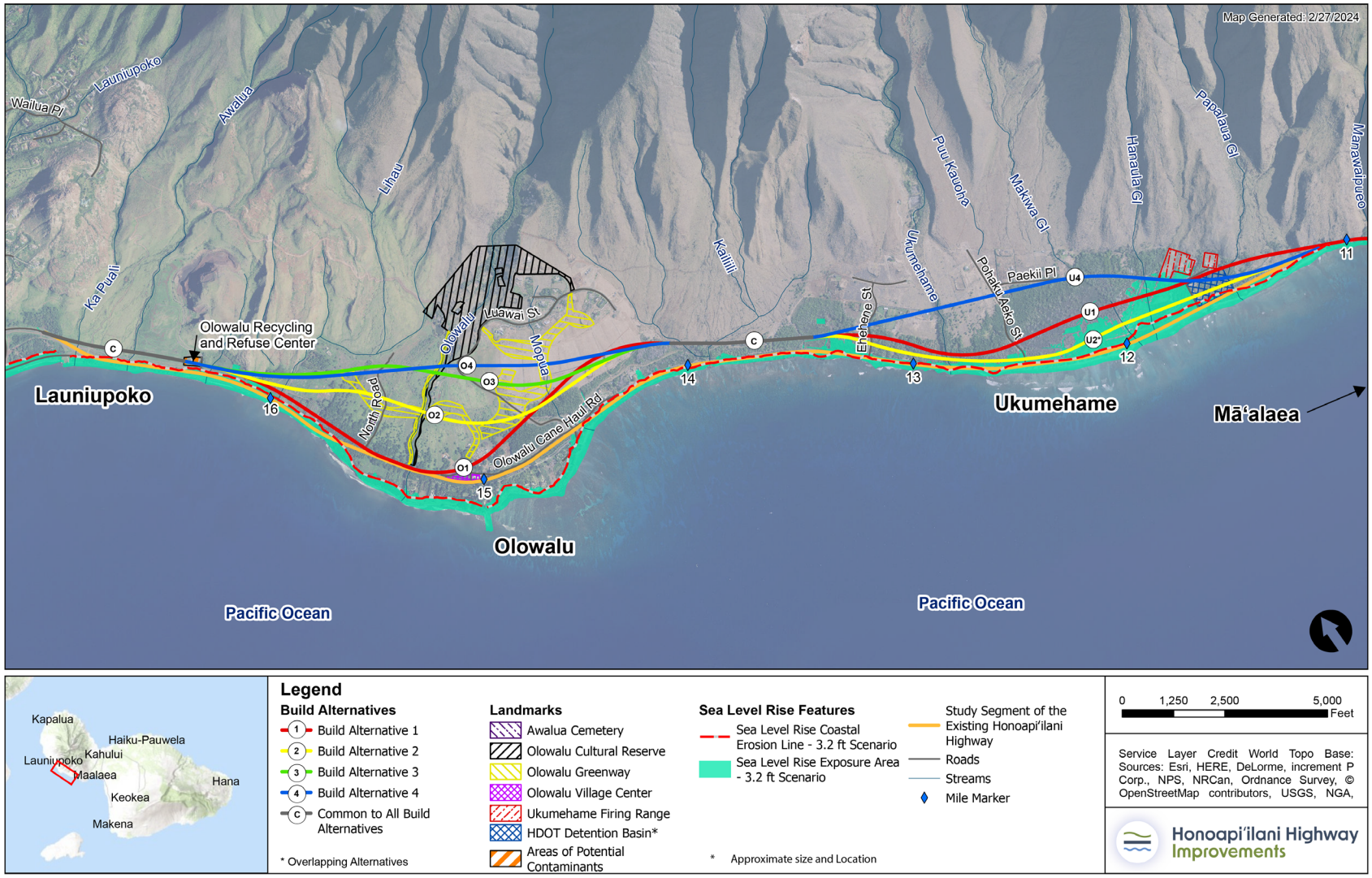
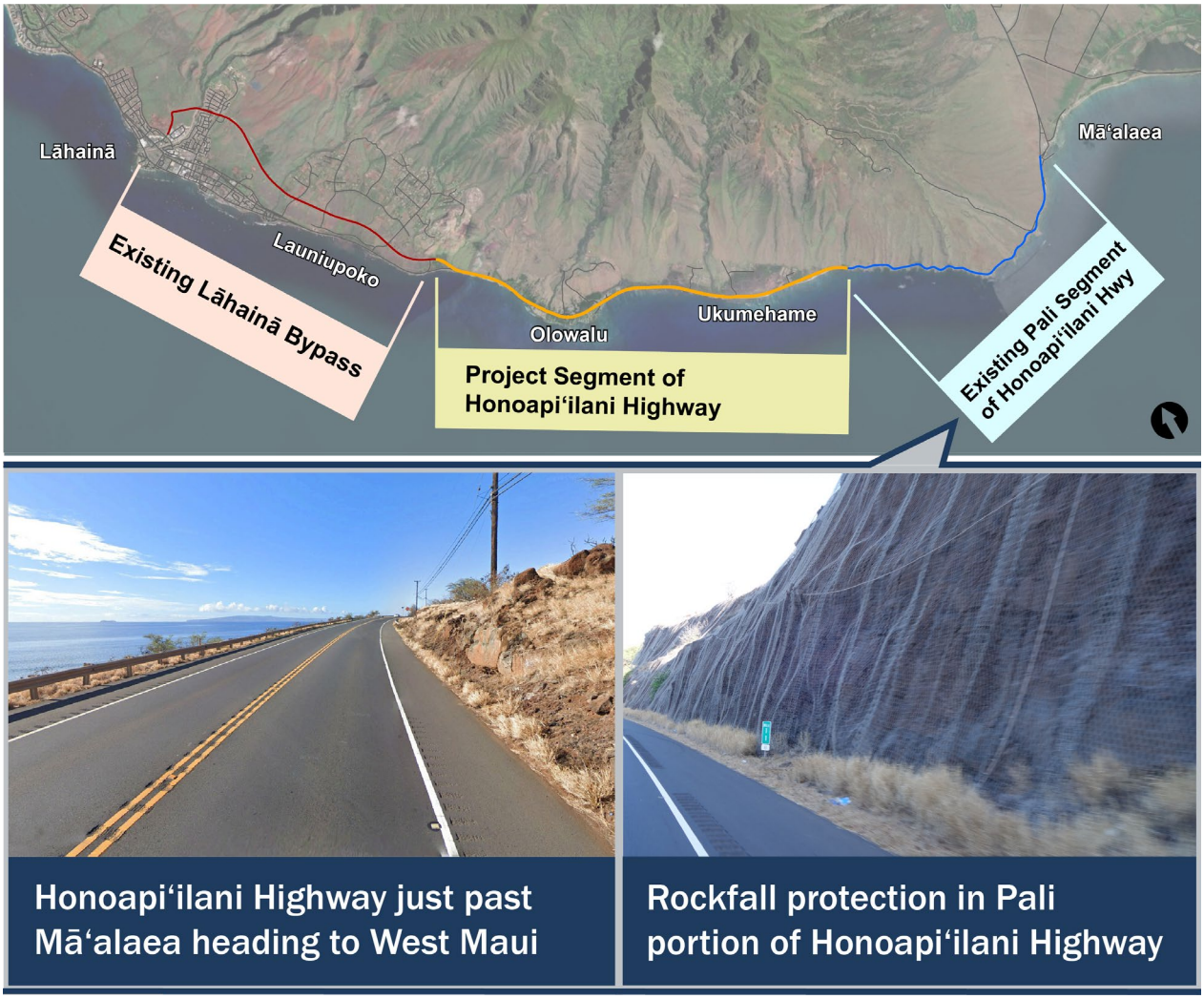


FIGURE 2-2. **Project End Points (and Adjacent Areas) at Launiupoko and the Pali**



2.3.1 Design Assumptions Common to All Build Alternatives

2.3.1.1 At-Grade Right-of-Way

In order to invest in a new highway alignment that is consistent with recent regional improvements and considers long-term growth forecasts established by the Maui Metropolitan Planning Organization (Maui MPO), the Build Alternatives have been considered based on a right-of-way width of 140 feet to accommodate inbound and outbound 11-foot-wide travel lanes, 8-foot-wide outer shoulders and 4-foot-wide inner shoulders, and a 42-foot-wide median that is sufficient to accommodate a four-lane highway (two travel lanes in each direction) should the need and funding become available in the future.

Therefore, while the Project would develop a two-lane highway, all Build Alternatives would have a general or average right-of-way width of approximately 140 feet with additional area required for intersections, stormwater management, and other infrastructure. HDOT intends for the full right-of-

way to be cleared and graded but that only one travel lane in each direction would be constructed until traffic demand requires and funding allows for a future project to build the additional lanes.

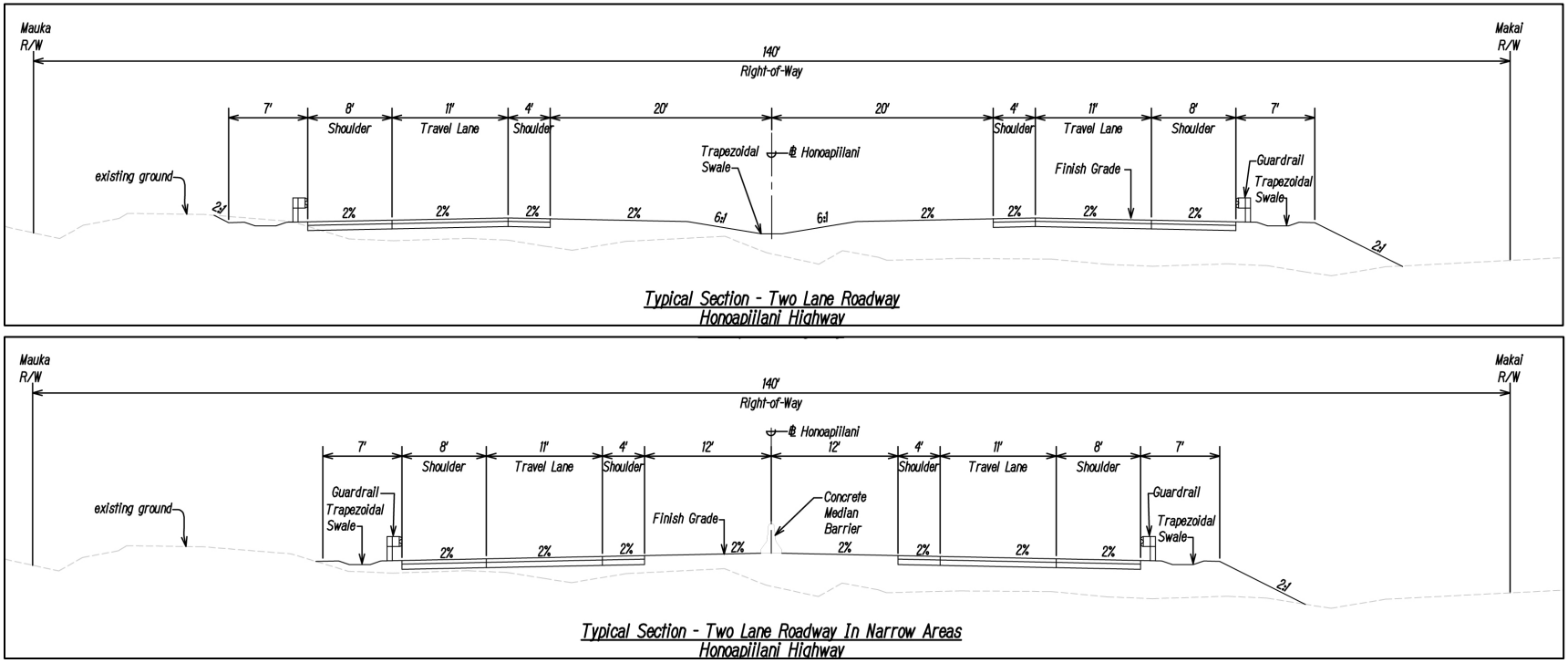
Each Build Alternative would set aside additional right-of-way at several natural low points close to proposed alignments for permanent stormwater best management practices (permanent BMPs) with an average size of about 1 acre. ~~Between the Draft and Final EIS, additional design considerations will be assessed for the Preferred Alternative, including potential additional effects of using additional right-of-way for permanent BMPs (if not previously evaluated).~~ These set-asides are conservatively sized for a maximum potential area of disturbance and the final number, locations, and size of the infrastructure may vary depending on the treatment strategies as established through final design as part of the design-build process. The NEPA Record of Decision (ROD) establishes this environmental footprint that the design-build team must stay within.

Other than intersections with existing cross streets that in turn provide access to the existing Honoapi‘ilani Highway, all of the Build Alternatives would be limited-access and driveways or access points to adjacent uses would be avoided (Build Alternatives 2 and 3, which have the same alignment in Ukumehame, do include a driveway to the Ukumehame Firing Range). FIGURE 2-3 provides typical two- and four-lane sections as well as a two- or four-lane narrow sections that could be utilized to minimize or avoid adverse effects at specific locations (pinch points) along one or more of the Build Alternatives.

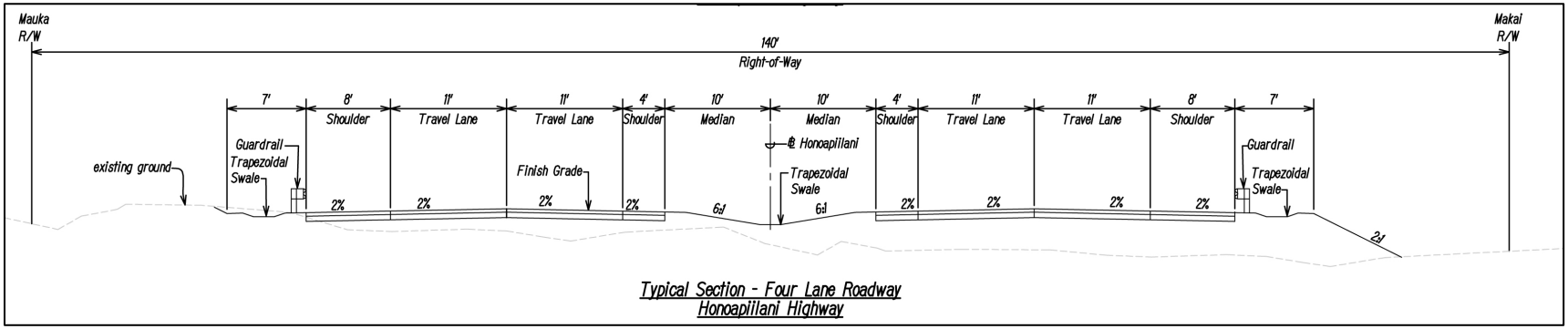
Chapter 5, Selected Alternative, presents the Selected Alternative and the design refinements incorporated between the Draft and Final EIS, in addition during the design-build process, these typical sections may have some adjustments within the Preferred Alternative roadway footprint established for this Final EIS. If design adjustments occur beyond the Final EIS roadway footprint, effects of the changes must be assessed through NEPA re-evaluation during design-build.

FIGURE 2-3. **Typical Right-of-Way Section with Two or Four Lanes and Narrow Right-of-Way Section**

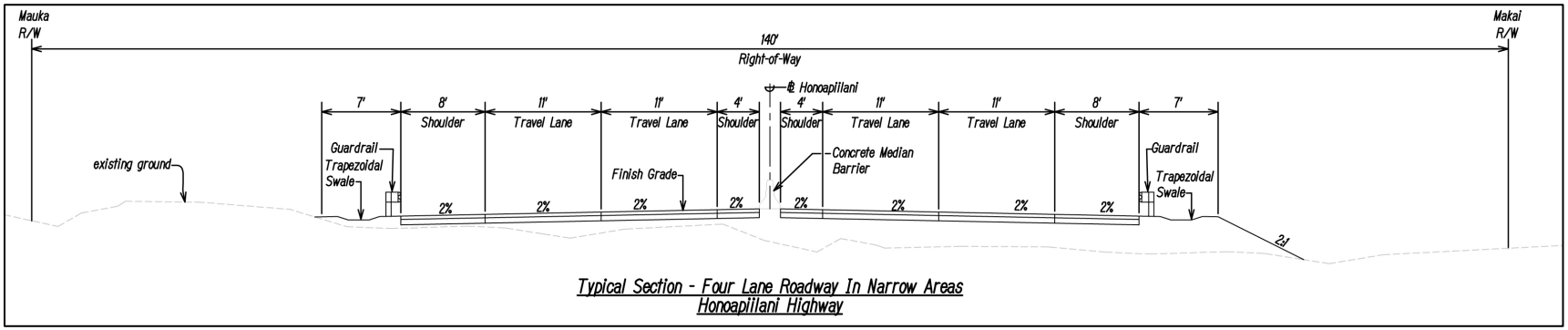
Typical Right-of-Way Sections with Two Lanes



Typical Right-of-Way Sections with Four Lanes



Typical Section - Four Lane Roadway
Honoapiilani Highway



Typical Section - Four Lane Roadway In Narrow Areas
Honoapiilani Highway

2.3.1.2 Culverts, Bridge and Viaduct Structures

The ~~Draft~~ EIS evaluations are based on preliminary conceptual designs as identified during the scoping process. This includes the use of culverts, bridges, and viaduct (a viaduct is a longer multispan bridge) that allow for stream crossings or to avoid and minimize potential adverse effects with a Build Alternative. The ultimate determination of culvert and bridge specifications, or the use of viaducts to span larger areas, would be based on identification of the Preferred Alternative, the length of the span required, environmental effects, constructability, and cost. This is evaluated in Chapter 5, Preferred Alternative ~~, and then would be further evaluated as part of the Final EIS and completed~~ and would be finalized during the development of final ~~design~~ construction documents ~~in~~ as part of the design-build process.

Culverts

Concrete box, open bottom, or pipe culverts would allow for the flow of water under the highway and to convey stormwater at various locations. Box culverts may also be used to allow for grade separation of local cane haul roads or driveways as appropriate.

Bridges

Bridge structures would be required to span over the two perennial streams (Olowalu and Ukumehame Streams) and other streams based on the required span length. Each crossing would have a separate bridge crossing per two-lane segments and a typical elevation and section (which would vary by span length and height) as shown in FIGURE 2-4 for a short-span bridge and FIGURE 2-5 for a long-span bridge. Conceptual design includes all abutments (the supporting structures at the ends of the bridge) outside of the ordinary high water mark to ensure that the critical structural components of the bridge are not intruding into the stream's natural course.

Viaducts

In the Ukumehame segment, conceptual design has incorporated a viaduct element for each of the Build Alternatives as described below. The Project would include a two-lane viaduct with the potential to add a parallel viaduct for a future four-lane scenario based on traffic demand and funding availability. The addition of a new parallel viaduct structure would require additional NEPA/HEPA environmental review. Viaduct height above existing ground may vary between alternatives based on the need for clearance over ground-level uses. Span lengths between foundations may also vary based on the need to minimize ground disturbance. The conceptual design viaduct for the Build Alternatives ranges from approximately 3100 feet long to 3700 feet long with approximate varying elevations of 10 feet near take-off and up to 20 feet. FIGURE 2-6 provides a section and schematic example of viaduct structures as they may be utilized in the Project.

All Build Alternatives in the Ukumehame segment would be on viaduct through environmentally sensitive areas. A roadway on embankment was evaluated because it would be less expensive to construct than a roadway on viaduct. However, a roadway on embankment would harden the shoreline and not meet the Project's need to reduce roadway exposure to the SLR-XA. Viaduct would be used to avoid new shoreline hardening and to reduce effects to sensitive environmental areas. Appendix 5.1 presents relevant evaluations for viaduct and embankment options. Chapter 3, Affected Environment and Environmental Consequences, provides details on environmental resources with respect to viaduct considerations.

FIGURE 2-4. **Typical Short Span Bridge Elevation and Section**

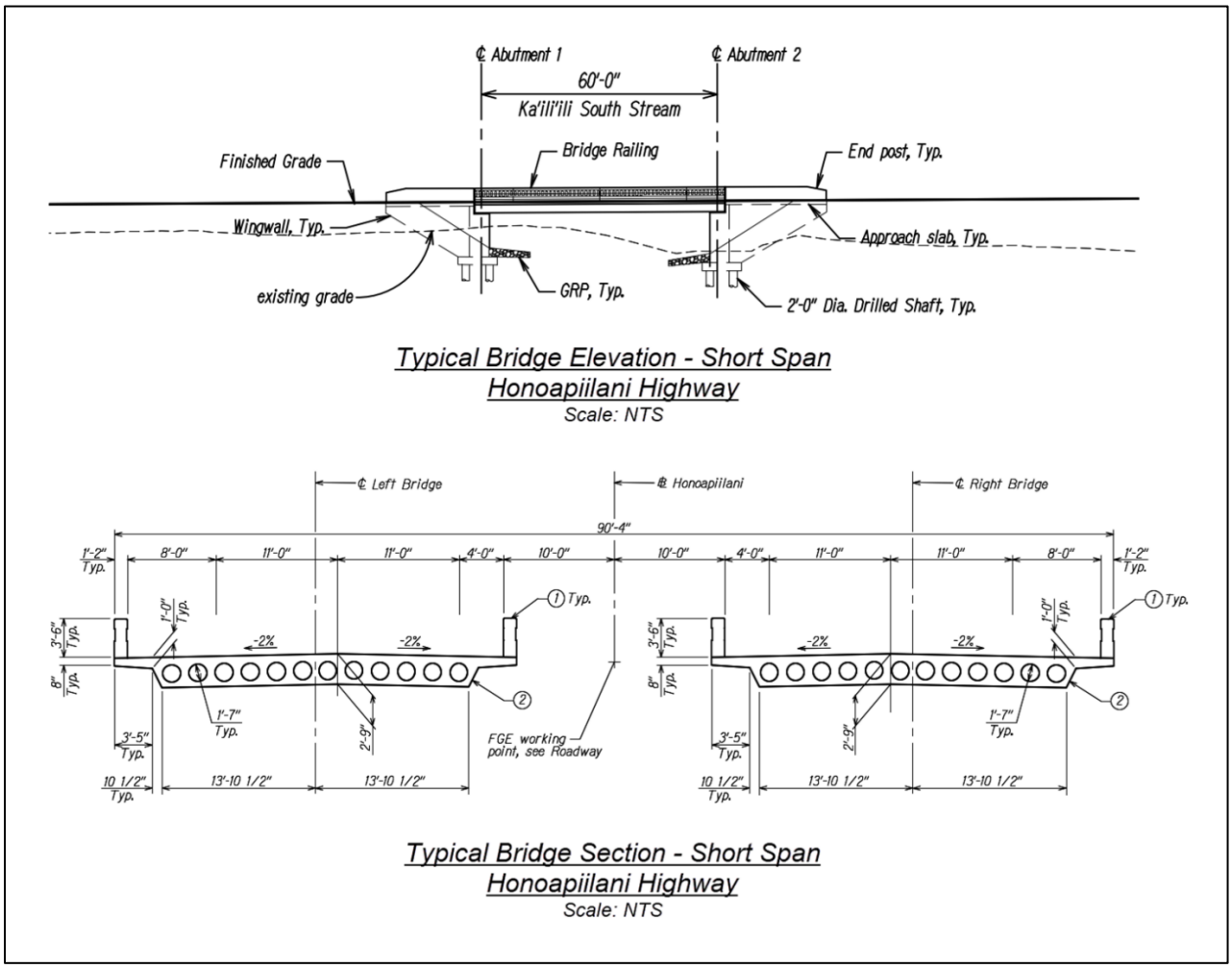


FIGURE 2-5. **Typical Long Span Bridge Elevation and Section**

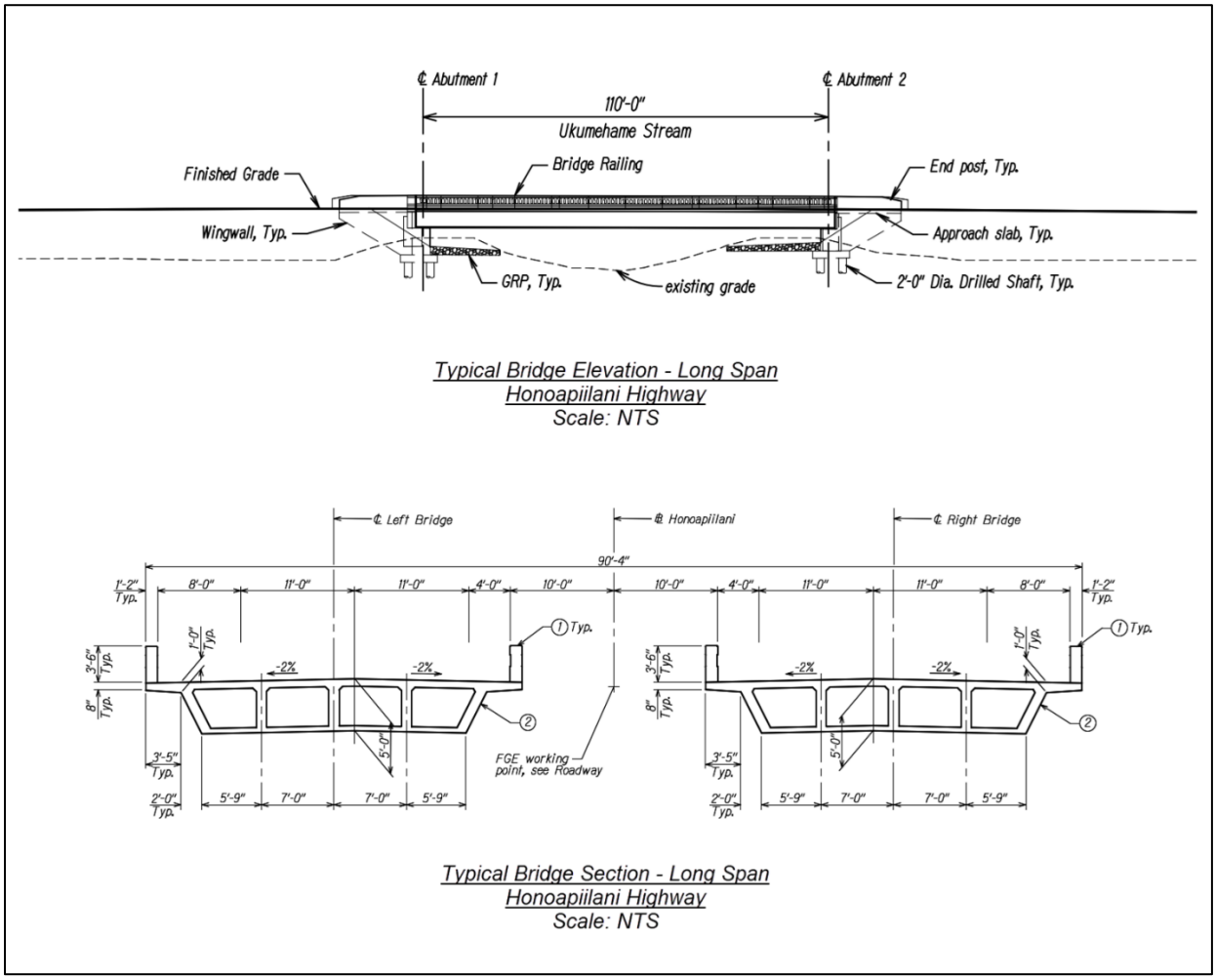
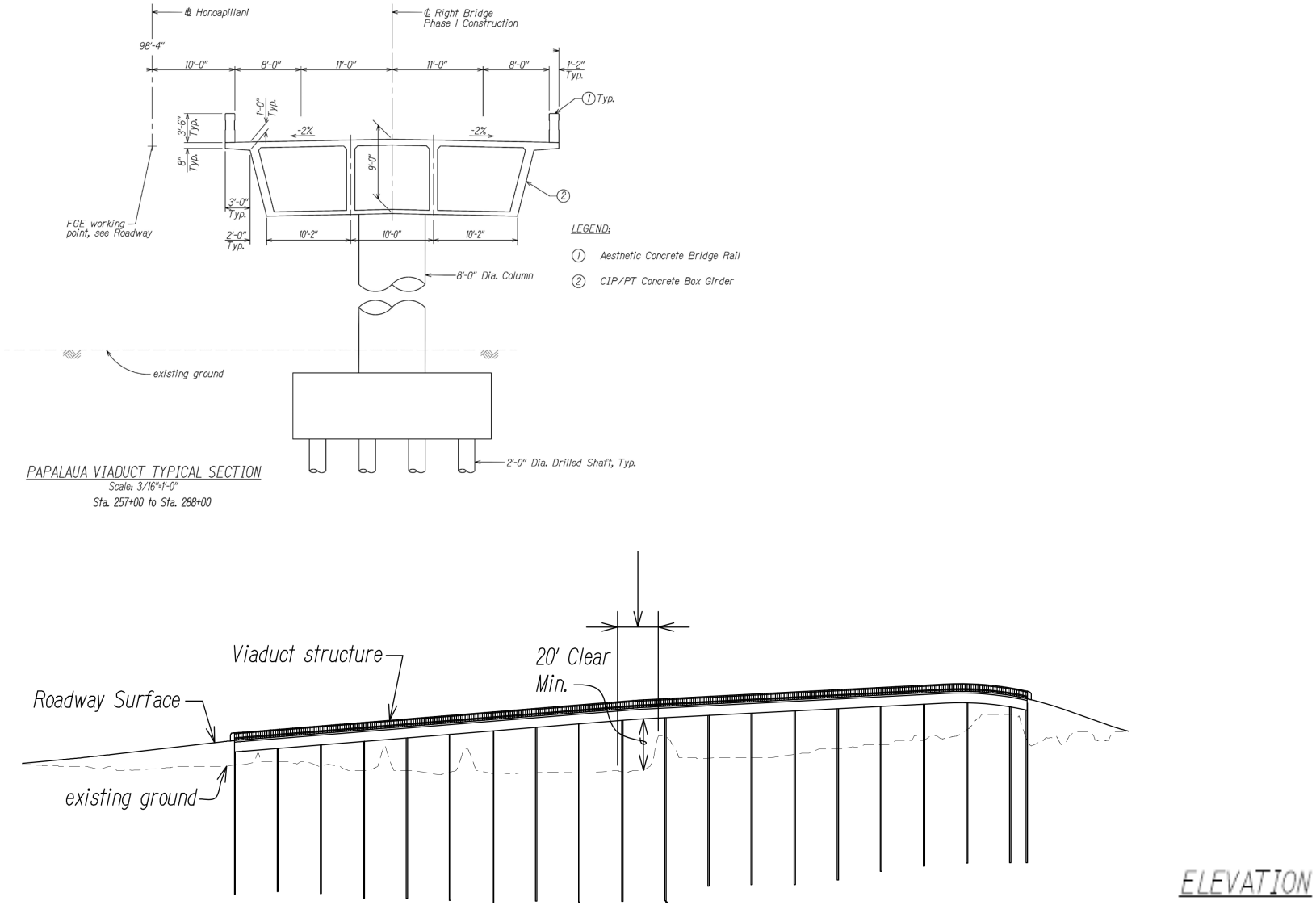


FIGURE 2-6. **Typical Viaduct Section and Elevation**



2.3.1.3 Existing Honoapi'ilani Highway in Project Area

All the Build Alternatives keep the existing Honoapi'ilani Highway, although it is proposed to become a local road under the jurisdiction of Maui County. To advance this jurisdictional transfer, and once a final design is determined, HDOT will collaborate with the County of Maui Department of Public Works, Engineering Division regarding ~~related to~~ inspection, improvements, and/or needed repairs prior to the jurisdictional changeover (see Chapter 7, Unresolved Issues and Unresolvable/Unavoidable Effects). As a local road, the existing highway would continue to provide access to public parks and beaches along the coast as well as residences, businesses, and cultural resources in the project area. The relocation of the highway would also allow the County of Maui to continue to develop its ~~their~~ plans for open space in the area consistent with the *Pali to Puamana Parkway Master Plan*.

Each Build Alternative assumes the existing highway would become a local access road. However, portions of the existing highway located makai of the 3.2-foot SLR-XA would be at risk for continued damage due to sea level rise. To avoid new shoreline hardening, there may be future local decisions to close damaged sections of the existing highway that cannot be resolved using nature-based solutions. If local jurisdictional agencies determine sections of the existing highway cannot be safely utilized, the existing highway could exist in small sections for local access only and may not be a continuous roadway from the Lāhainā Bypass to Pāpalaua Wayside Beach.

As a separate project, The Nature Conservancy is researching nature-based solutions that could be implemented along the existing Honoapi'ilani highway. This could inform the County on potential uses of the existing highway and also methods to preserve wetlands and water resources in the area.

Relinquishment is the process for changing the jurisdiction and classification of a roadway from the State to the County. As described in the HDOT Right-of-Way Manual[4], the procedures for relinquishment are applicable in circumstances where sections of a State highway are superseded by construction of a new location, are removed from the federal-aid system, and the replaced section is approved by the FHWA.[5] Revised right-of-way maps would be prepared and shared with ~~the appropriate~~ Maui County where the relinquishment is to take place. Upon approval by Maui County, the HDOT Right-of-Way Branch would prepare a written request (including maps and metes and bounds descriptions) to the Department of Land and Natural Resources to complete the relinquishment. The relinquishment process is anticipated to occur following completion of the Project.

2.3.1.4 Conversion of Private Road Connecting Segments

As part of the Project, segments of connecting streets that are currently privately owned as part of the Olowalu and Ukumehame Subdivisions would become local Maui County streets for the lengths between the new highway alignment and the existing highway. From north to south, this would include the lower or makai portions of the new North Road under construction, Luawai Street in Olowalu, and Ehehene and Pōhaku Aeko Streets in Ukumehame.

[4] https://hidot.hawaii.gov/highways/files/2012/10/ROW-MANUAL-2011.pdf. Accessed February 2024.

[5] As part of the relinquishment process, HDOT and the FHWA must concur that the land is not needed for federal-aid Highway purposes in the foreseeable future, that the new roadway segment and its traffic operations would not be adversely affected by relinquishments, and that the lands are not suitable to restore, preserve, or improve the scenic beauty of the new roadway.

As described in the Hawaii Revised Statues Chapter 264,[6] highways, roads, alleys, streets, ways, lanes, bikeways, bridges, and trails in the state that are, opened, laid out, or built by private parties can be dedicated or condemned to the public use. Dedication of such facilities would occur through a deed of conveyance naming either the State or County as the grantee. This deed would be accepted by the director of transportation or by the legislative body of the State or County.

2.3.2 Olowalu Build Alternatives

FIGURE 2-7 presents the four Build Alternatives evaluated for this segment of the Project. The figure also indicates the areas where the four alternatives share a common alignment.

2.3.2.1 Common to All Build Alternatives

All the Build Alternatives would be located mauka of the modeled 3.2-foot sea level rise coastal erosion line but do cross two small areas (each less than 0.5 acre) of the 3.2-foot SLR-XA in small low-lying areas south of the Olowalu Residential Recycling and Refuse Convenience Center (Section 3.13, Climate Change and Sea Level Rise, provides additional information).

All the Build Alternatives would include intersections with the Olowalu Residential Recycling and Refuse Convenience Center access road, North Road (a new road under construction as part of the Olowalu Subdivision), and Luawai Street. These roads would provide connections to the existing Honoapi‘ilani Highway and local roads serving homes and businesses. Continued use of a mauka to makai dirt cane haul road ensures access to residences and cultural sites not directly accessible from Luawai Street.

For all Build Alternatives, conceptual designs of permanent BMPs at natural low points along the roadway profile to collect and treat roadway stormwater are identified in the individual alternative figures presented below. An evaluation of how stormwater infrastructure would be incorporated to minimize adverse water quality effects is found in Section 3.9, Water Resources, Wetlands, and Floodplains. Final design completed as part of the design-build process will determine the design, size, and location of permanent BMPs, including conceptual detention ponds to promote infiltration and treatment of stormwater generated on-site, and incorporation of Low Impact Development strategies, such as vegetated swales in the median and on the outside edges of the pavement structure to the maximum extent practicable. Concrete box, open bottom, and pipe culverts would convey off-site stormwater under any Build Alternative at various locations, as needed.

A long span bridge structure over the perennial Olowalu Stream (with abutments and piers outside the ordinary high water mark elevation) and bridges/culverts would be required for crossing another five non-perennial streams and ditches. Per HDOT drainage design standards, during the design-build phase of the Project, all culverts and bridges would be designed for a 50-year storm. And a 100-year storm would be used to analyze crossings within floodways on FEMA Flood Insurance Rate Maps.

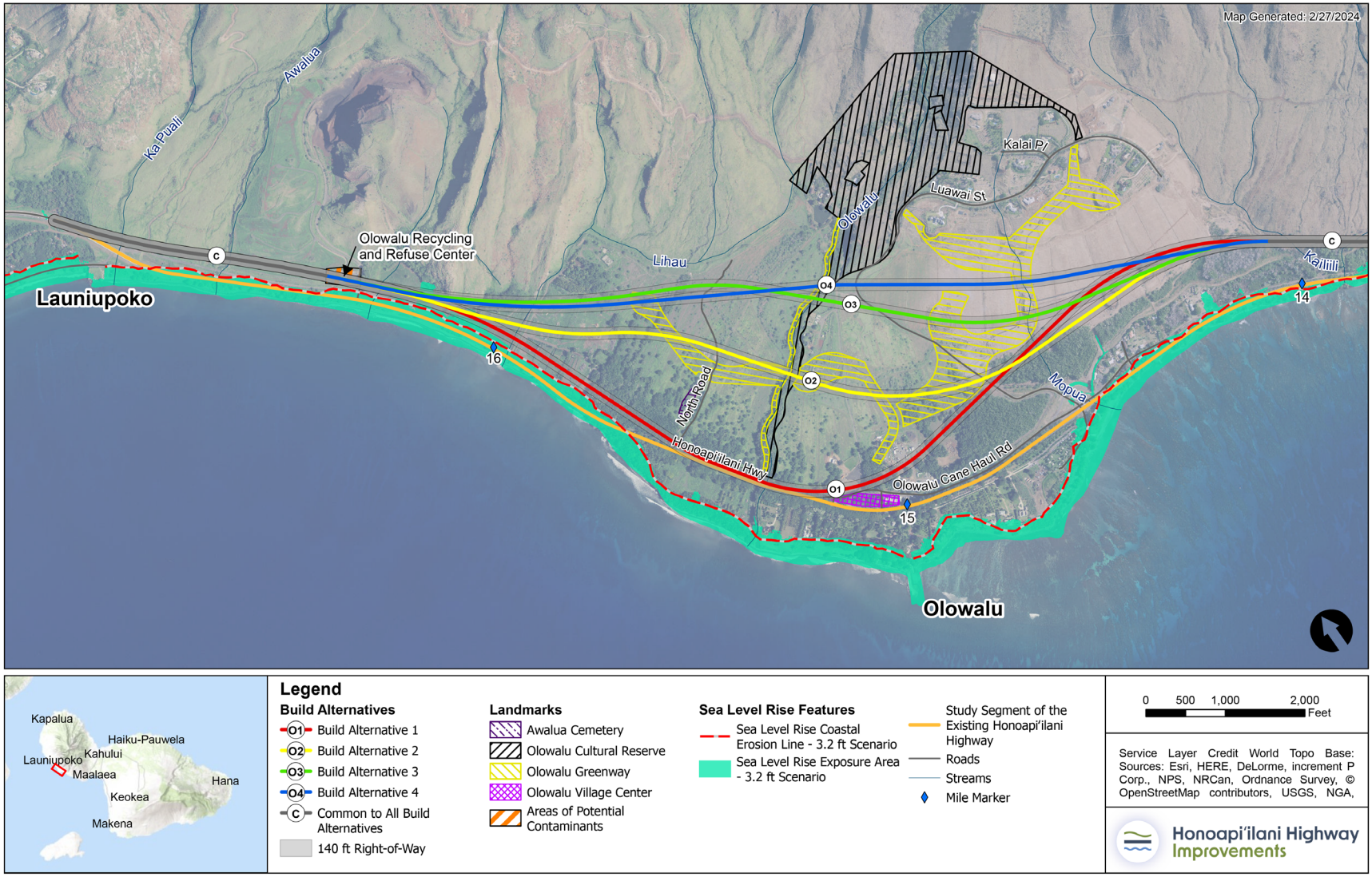
[6] https://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0264/HRS_0264-0001.htm. Accessed February 2024.

Based on early community input, all the Build Alternatives were modified to move mauka of the Kapāiki Place neighborhood on Olowalu Village Road and to increase the horizontal separation from about 15 residences and avoid cultural resources.

Between the tie-in with Lāhainā Bypass to just north of the Olowalu Residential Recycling and Refuse Convenience Center driveway, all the Build Alternatives share an approximately 0.6-mile common alignment. All Build Alternatives are proposed approximately 235 feet mauka and generally parallel with the existing highway, although the final design alignment could be modified within this narrow area to avoid or minimize adverse effects. To improve local access and in coordination with Maui County, it is proposed to connect the old Honoapi‘ilani Highway from Launiupoko to the remaining existing highway.

All Olowalu segment Build Alternatives would require land acquisitions of approximately 15 to 16 private property parcels, one County-owned parcel, and two to three State-owned parcels. All Build Alternatives would cross the Olowalu Residential Recycling and Refuse Convenience Center and its driveway as well as the Living Earth Systems farm facility. See Chapters 3.1 Land Use and Zoning and 3.4 Land Acquisition, Displacement, and Relocation, for additional information.

FIGURE 2-7. **Olowalu Build Alternatives**



2.3.2.2 Build Alternative 1

FIGURE 2-8 shows Build Alternative 1 from its tie-in point with Lāhainā Bypass through the Olowalu Peninsula (about 3 miles). In addition to the common elements described above, key characteristics of Build Alternative 1 include the following:

- It is the most makai alignment in Olowalu and would be closer in proximity to (and partially overlap with) the existing highway before moving mauka behind existing businesses and residences to the south and east.

- Based on early community input, the Olowalu segment of Build Alternative 1 was modified during scoping and assessed in the Draft EIS to move Honoapi'ilani Highway farther mauka of the Kapāiki Place neighborhood on Olowalu Village Road.

- It would be the farthest distance from cultural resources mauka of the project area (most notably, the Olowalu Petroglyphs) as well as existing mauka residences off Luawai Street.

- Build Alternative 1 would have an intersection behind the village center commercial area, providing more direct access. This would also result in a cul-de-sac allowing a connection with the Upper Olowalu Access Road, providing access to mauka kuleana parcels and the Olowalu Petroglyphs. (FIGURE 2-8).

- A cul-de-sac would be required where the existing highway would be interrupted, based on the overlap with the new highway alignment (FIGURE 2-9). This would provide vehicles using the existing highway with sufficient space to turn around where the highway ends.

  For Build Alternative 1, there are 19 tax map key (TMK) parcels that would be affected: 15 privately owned TMK parcels, one County-owned parcel, and three State-owned parcels. Three kuleana parcels would be affected and Build Alternative 1 would displace a portion of an existing storage yard facility rented to the Mauna Kahālāwai Watershed Partnership and the makai frontage of the Maui Paintball facility located north of the Olowalu village center.

FIGURE 2-8. **Build Alternative 1: Olowalu**

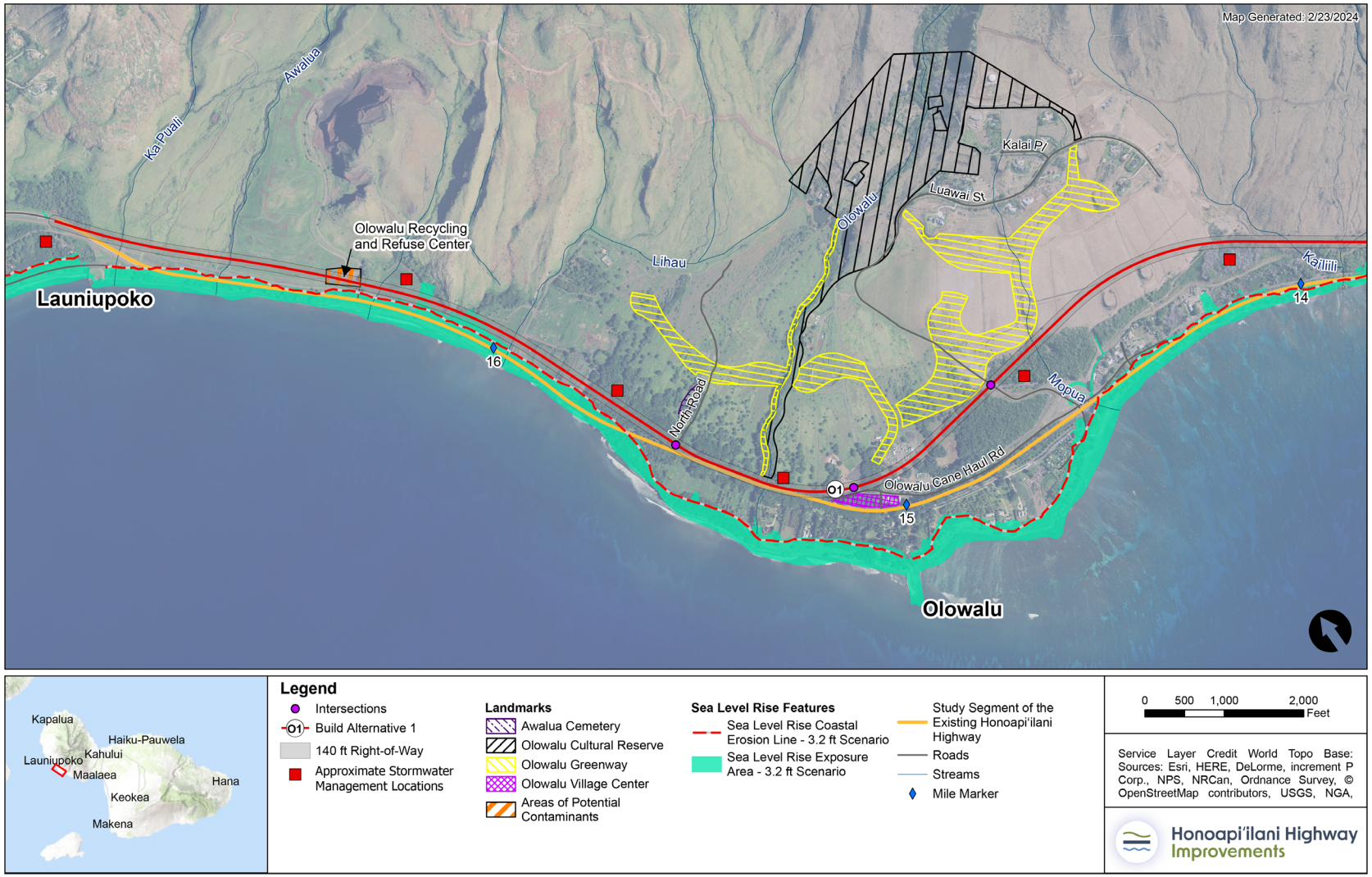
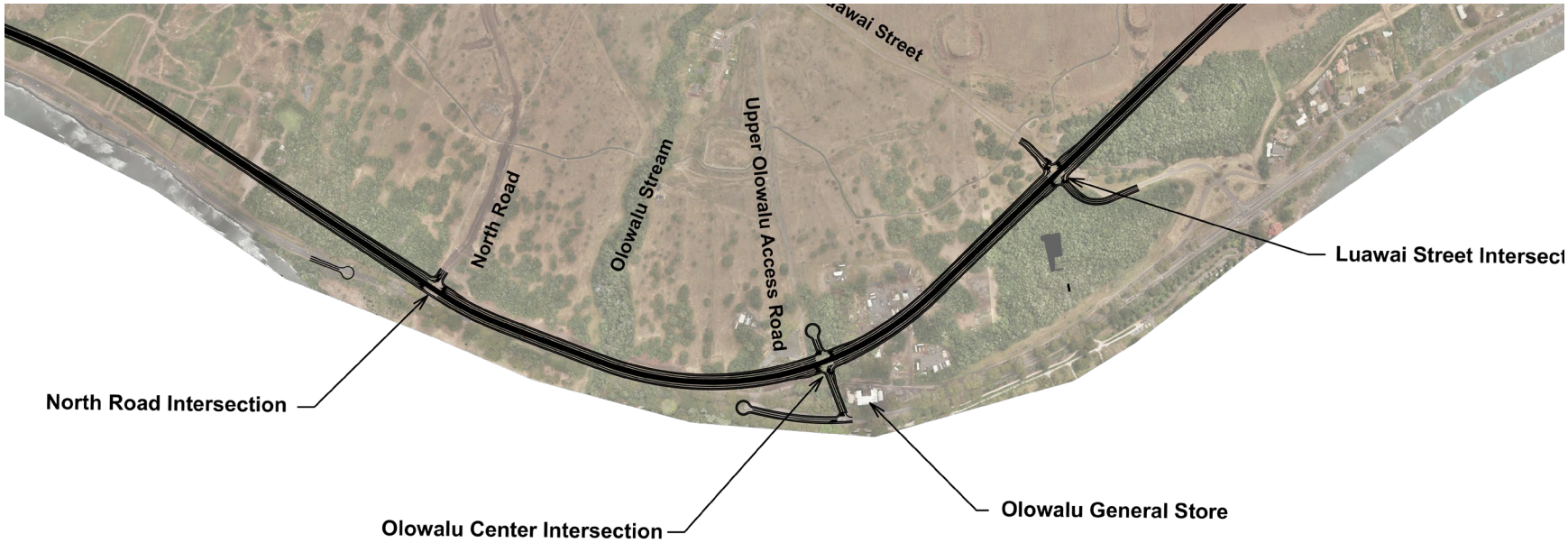


FIGURE 2-9. **Additional Traffic Features in Olowalu for Build Alternative 1**



2.3.2.3 Build Alternative 2

FIGURE 2-10 shows Build Alternative 2 in Olowalu as it crosses Olowalu from its tie-in point with Lāhainā Bypass through the Olowalu Peninsula—a length of about 2.8 miles. In addition to the common elements described above, key characteristics of Build Alternative 2 include the following:

- Based on the middle concept of the *Pali to Puamana Parkway Master Plan* (2005), the alignment would track mauka of the developed areas of Olowalu before joining in a common alignment toward its connection point with Ukumehame.
- It crosses portions of the easement areas associated with the private subdivision's approximately 60-acre greenway.
- It would be more than 0.25 miles away from the Olowalu Petroglyphs within the Olowalu Cultural Reserve as well as the upper elevation residences accessed by Luawai Street.

For Build Alternative 2, there are 18 parcels that would be affected: 15 privately owned TMK parcels, one County-owned parcel, and two State-owned parcels. Build Alternative 2 would also affect five kuleana parcels.

2.3.2.4 Build Alternative 3

FIGURE 2-11 shows Build Alternative 3 as it crosses Olowalu from its tie-in point with Lāhainā Bypass through the Olowalu Peninsula—a length of about 2.8 miles. In addition to the common elements described above, key characteristics of Build Alternative 3 include the following:

- It is based on the mauka concept of the *Pali to Puamana Parkway Master Plan* (2005) looking at a maximum separation of the new alignment from the coast.
- It was refined during scoping to avoid affecting properties with permitted building plans and to be more compatible with the private subdivision's greenway, following an existing mapped roadway and utility easement within the *Olowalu Mauka Roadway and Greenway Plan.*
- This alignment would be located farther from the shoreline areas of Olowalu, although closer to important cultural resources mauka of the project area—less than 0.25 miles away from the Olowalu Petroglyphs within the Olowalu Cultural Reserve—and to the upper-elevation residences accessed by Luawai Street.

For Build Alternative 3, there are 18 parcels that would be affected: 15 privately owned TMK parcels, one County-owned parcel, and two State-owned parcels. Build Alternative 3 would also affect eight kuleana parcels.

FIGURE 2-10. **Build Alternative 2: Olowalu**

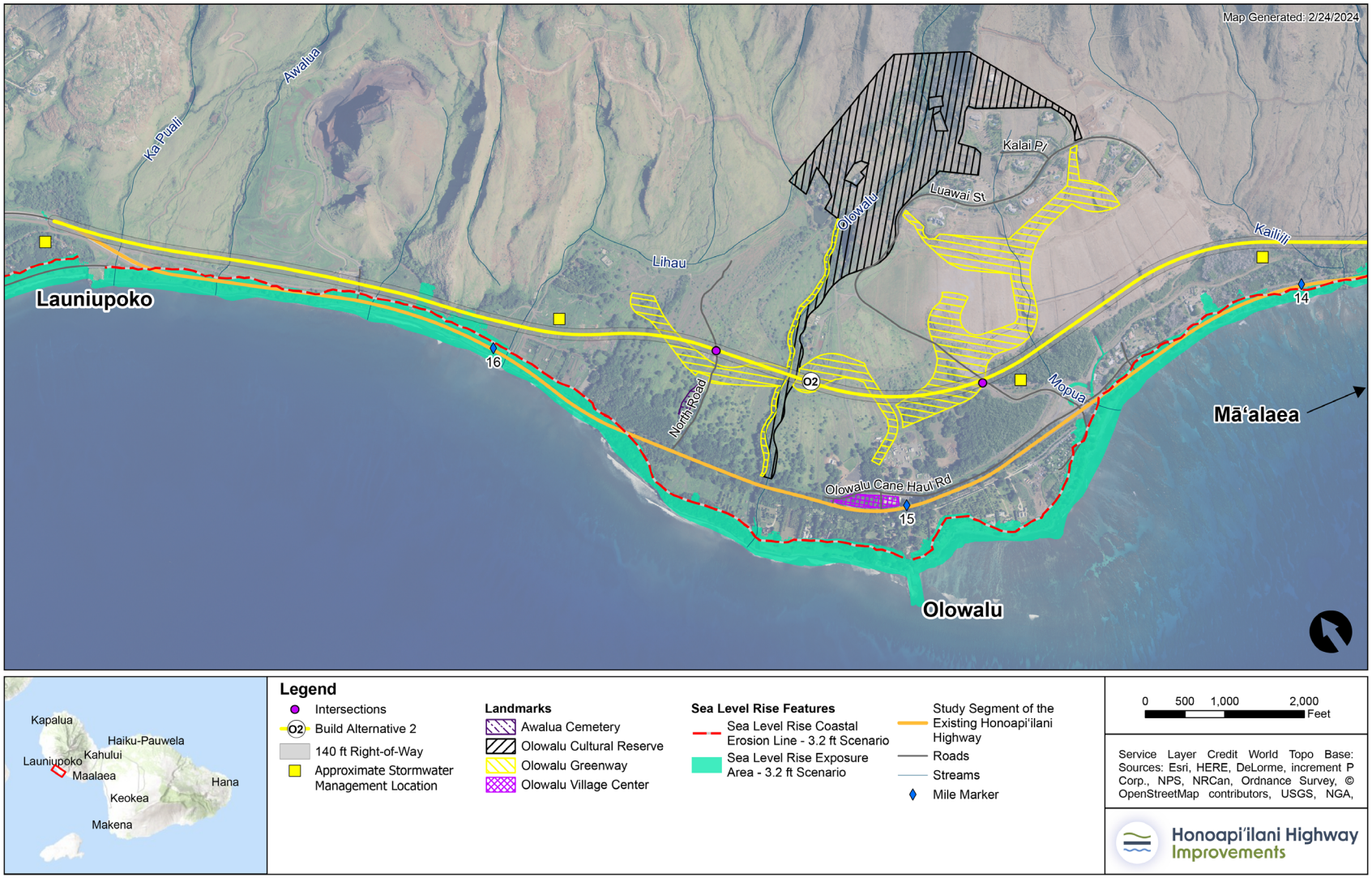
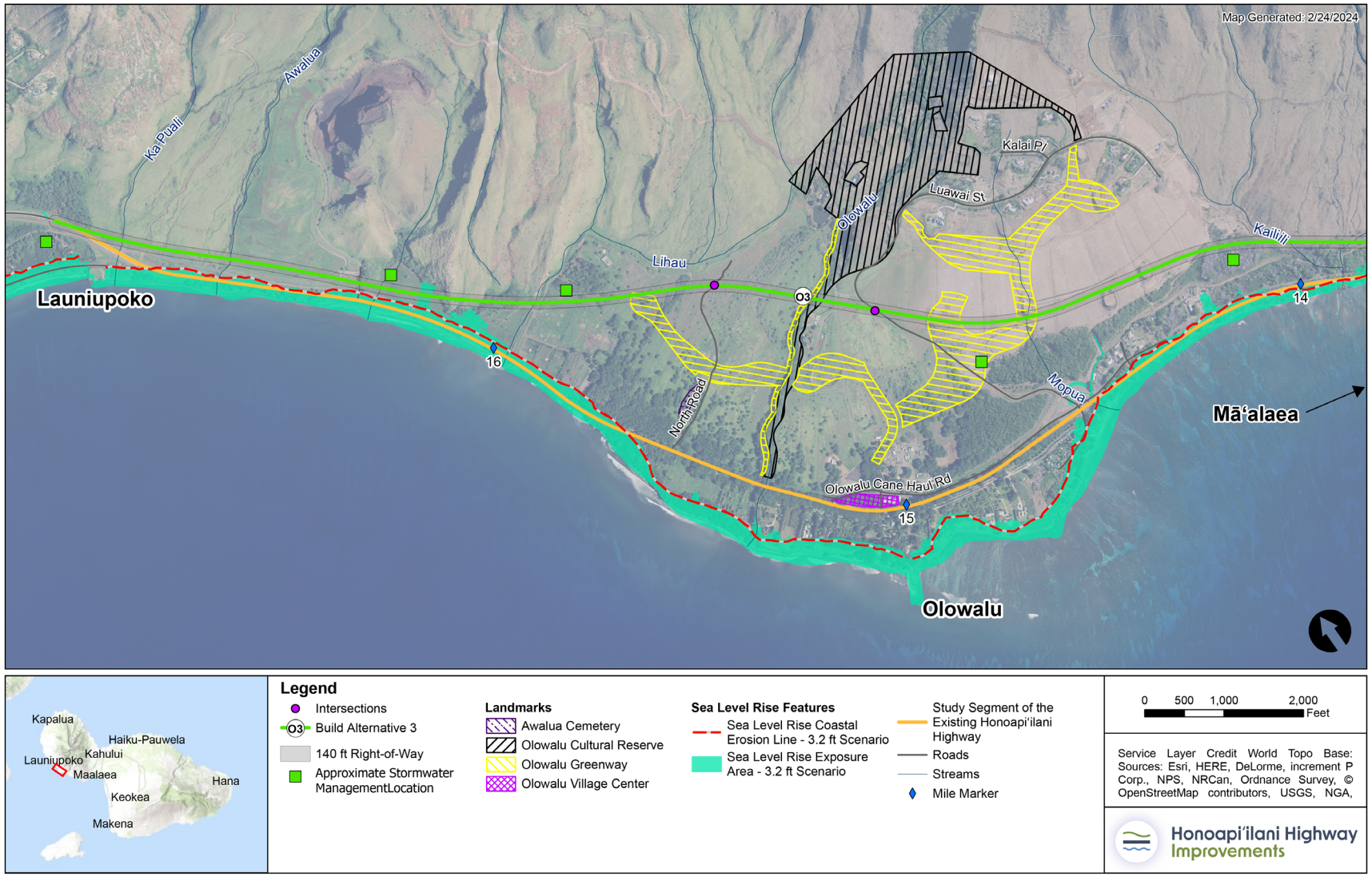


FIGURE 2-11. **Build Alternative 3: Olowalu**



2.3.2.5 Build Alternative 4

FIGURE 2-12 shows Build Alternative 4 as it crosses Olowalu from its tie-in point with Lāhainā Bypass through the Olowalu Peninsula—a length of about 2.7 miles. In addition to the common elements described above, key characteristics of Build Alternative 4 include the following:

- It is a variation of the mauka concept of the *Pali to Puamana Parkway Master Plan* (2005) looking at a maximum separation of the new alignment from the coast, with additional separation based on direct routing and less avoidance of private property. The alignment would have the most direct line across the Olowalu Peninsula.

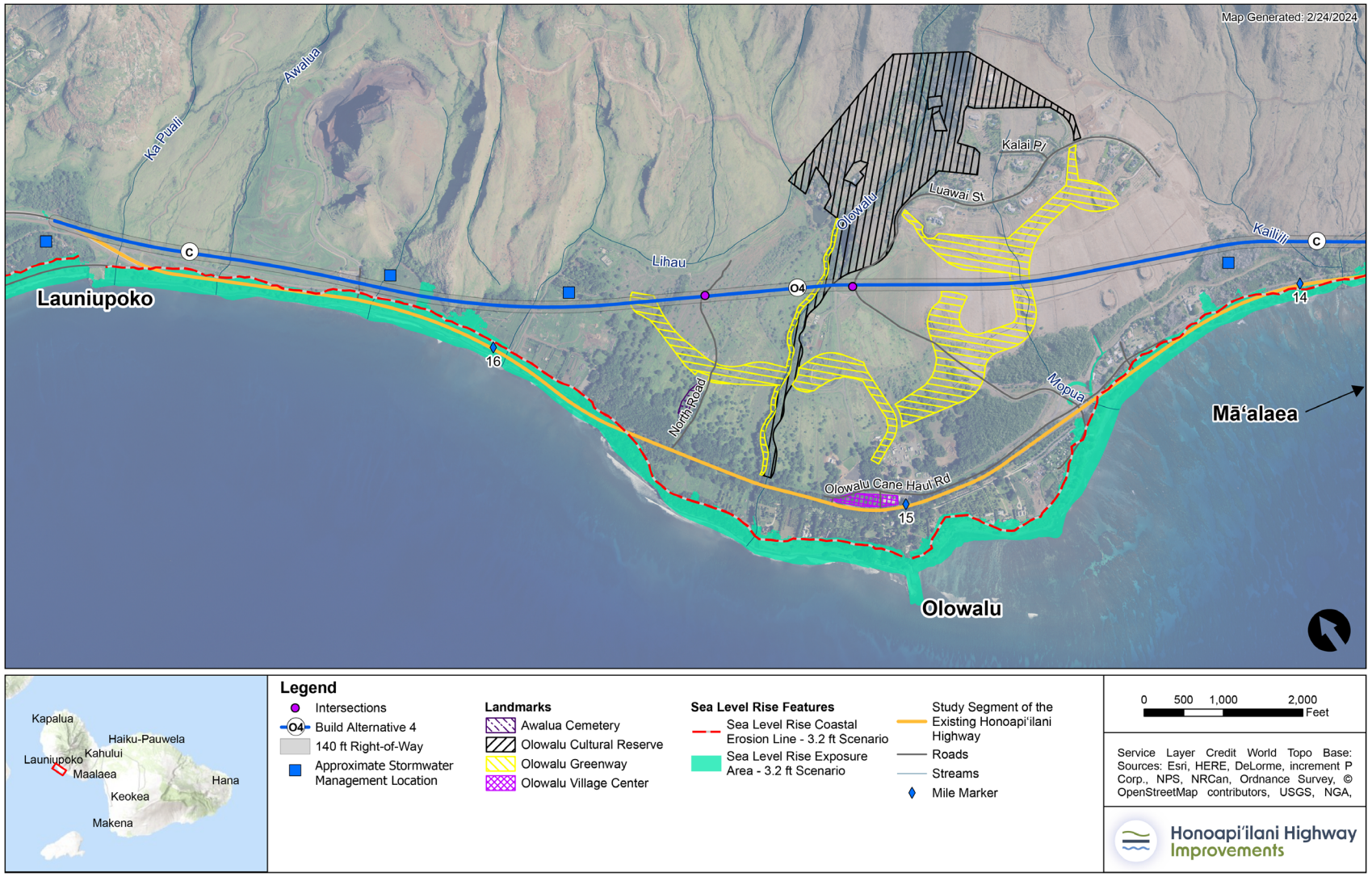
- The alignment would be mostly in line with Build Alternative 3 other than a middle stretch of about 1 mile where it would be farther mauka by up to approximately 400 feet.

- The alignment variation through Olowalu is based on preliminary stakeholder ~~Owner of Record~~ input provided in 2007 planning for the corridor. It is also based on early pre-NOI scoping and community outreach in 2022, when HDOT adjusted the alignment to minimize the creation of unusable remnant parcels by following proposed roads and property boundaries where possible.

- This alignment is the farthest removed from the shoreline areas of Olowalu, although it is closest to important cultural resources mauka of the project area.

For Build Alternative 4, there are 19 parcels that would be affected: 16 privately owned TMK parcels, one County-owned parcel, and two State-owned parcels. Build Alternative 4 would also affect five kuleana parcels.

FIGURE 2-12. **Build Alternative 4: Olowalu**



2.3.3 Ukumehame Build Alternatives

FIGURE 2-13 presents the three Build Alternatives (Alternatives 2 and 3 are on the same alignment in Ukumehame) evaluated for the Ukumehame segment. The figure also indicates the areas where the three alternatives share a common alignment.

2.3.3.1 Common to All Build Alternatives

All the Build Alternatives would have a 0.6-mile crossing over State-owned Forest Reserve land between Ukumehame and Olowalu to the north. Based on the steep terrain and cultural sites mauka of the existing highway, the area for a new highway alignment is limited. Therefore, there is no useful variation among alternatives, and the preliminary alignment is generally parallel with the existing highway and proposed approximately 250 feet mauka. Although the final design alignment could be modified within this narrow area to avoid or minimize adverse effects.

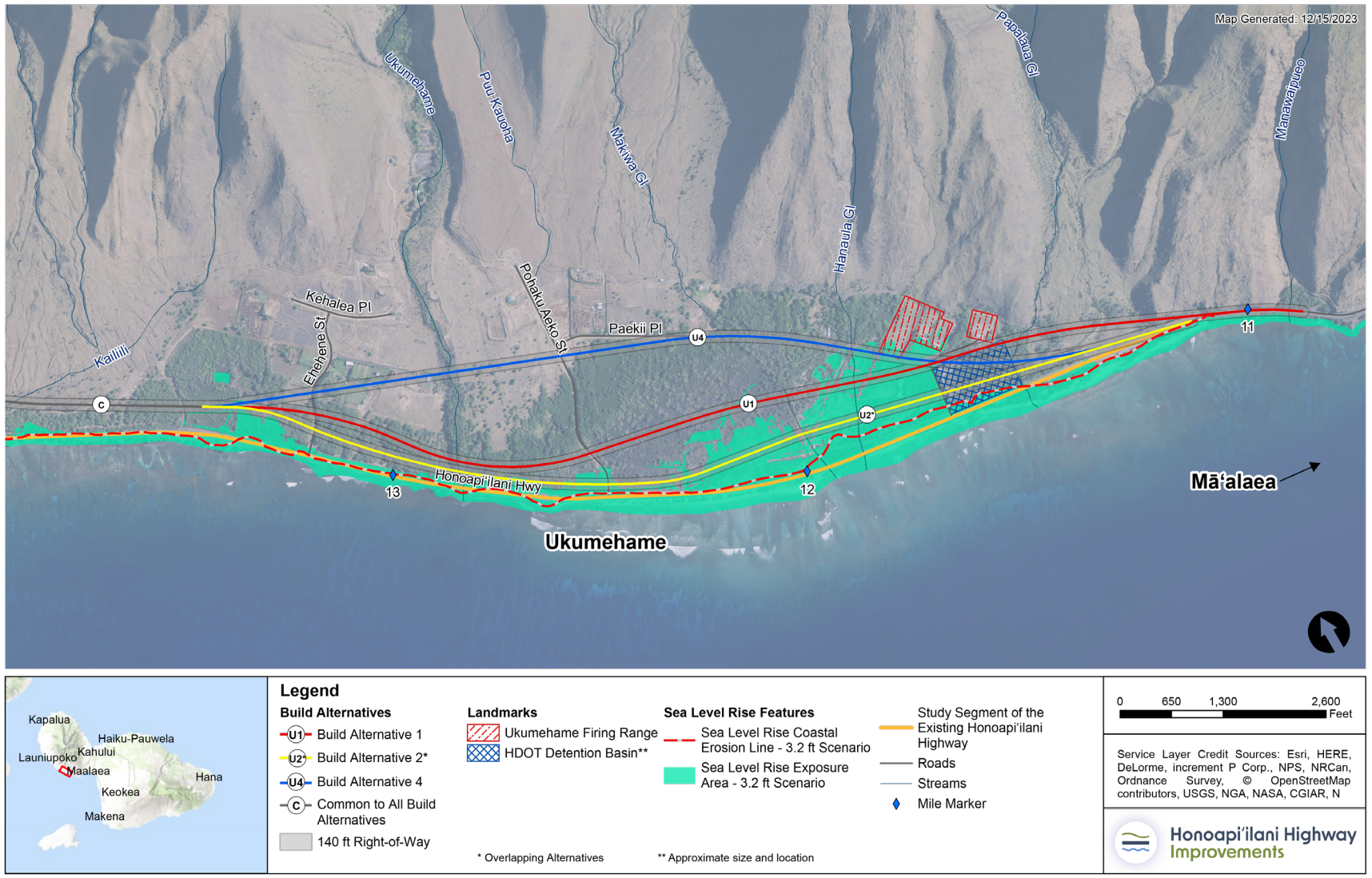
All Build Alternatives would have intersections with the existing Ukumehame subdivision streets of Ehehene Street north of the Ukumehame Stream and Pōhaku ‘Aeko Street south of the stream. These intersections provide access to the mauka areas of the subdivision, other areas mauka of the Project, and the existing Honoapi‘ilani Highway.

For all Build Alternatives, conceptual designs of permanent BMPs, at natural low points along the roadway profile to collect and treat roadway stormwater, are identified in the individual alternative figures presented below. An evaluation of how stormwater infrastructure would be incorporated to minimize adverse water quality effects is found in Section 3.9, Water Resources, Wetlands, and Floodplains. The final design established as part of the design-build process will determine the design, size, and location of the permanent BMPs, including conceptual detention ponds to promote infiltration and treatment of discharge generated on-site, and incorporation of Low Impact Development strategies, such as vegetated swales in the median and on the outside edges of the pavement structure to the maximum extent practicable. Concrete box, open bottom, and pipe culverts would convey stormwater under any Build Alternative at various locations, as needed.

~~Conceptual permanent BMPs were included as part of the Build Alternatives for this Draft EIS. Refinements to permanent BMP design would be made during development of the Final EIS, and the potential effects from those refined permanent BMPs would be documented in the Final EIS and ROD.~~

A bridge structure would be provided over the perennial Ukumehame Stream (with abutments and piers located outside the ordinary high water mark elevation). And bridges/culverts/viaduct would be required for crossing another six non-perennial streams and ditches (Build Alternative 4 crosses one additional non-perennial stream). Per HDOT drainage design standards, during the design-build phase of the Project, all culverts and bridges would be designed for a 50-year storm, and a 100-year storm would be used to analyze crossings within mapped floodways on FEMA Flood Insurance Rate Maps. In the area of Ukumehame Firing Range, all Build Alternatives have a portion of their alignment within the SLR-XA, which would largely be traversed on viaduct structure in order to meet the Project’s purpose and need and to minimize potential effects to the environmentally sensitive areas near the firing range.

FIGURE 2-13. **Ukumehame Build Alternatives**



2.3.3.2 Build Alternative 1

FIGURE 2-14 shows Build Alternative 1 through Ukumehame from the north on the border of Olowalu to its southernmost tie-in point with the existing Honoapi‘ilani Highway near the Pali—a length of about 3.1 miles. In addition to the common elements described above, key characteristics of Build Alternative 1 include the following:

- Build Alternative 1 would generally maintain a makai alignment along County of Maui and State of Hawai‘i lands but would move up mauka in the area of Ukumehame Firing Range and has the southernmost and most mauka connection back to the existing highway in the Pali section.

- To traverse the HDOT detention basin and not interfere with the active uses at the firing range, Build Alternative 1 has a conceptual design of a 0.6-mile (3,300 linear feet) viaduct.

- The existing driveway to the firing range would no longer provide direct access from Build Alternative 1 based on the need to be on a viaduct in order to minimize exposure to the 3.2-foot SLR-XA and to environmentally sensitive areas. Access to the range would be via Pōhaku ‘Aeko Street to the existing Honoapi‘ilani Highway and then to the existing Ukumehame Firing Range driveway, which would pass under the viaduct.

- The new alignment would be mauka of the 3.2-foot sea level rise coastal erosion line but crosses through an area of about 12.5 acres of the SLR-XA (linear length by the width of the right-of-way).

- For Build Alternative 1 in Ukumehame, there are 17 TMK parcels that would be affected: three privately owned TMK parcels, seven County-owned parcels, and seven State-owned parcels. There would be five kuleana parcels affected.

2.3.3.3 Build Alternatives 2 and 3

FIGURE 2-15 shows the Ukumehame segment of Build Alternatives 2 and 3, which have the same alignment through from the north border with Olowalu to its southernmost tie-in point with the existing Honoapi‘ilani Highway near the Pali—a length of about 3.3 miles. In addition to the comment elements described above, key characteristics of Build Alternatives 2 and 3 include the following:

- Build Alternatives 2 and 3 have the most makai alignment in Ukumehame, generally running parallel and close to the existing highway with the greatest proportion of alignment within the SLR-XA.

- The alignment would merge with the existing highway just south of the HDOT retention basin and would be at grade on a filled berm that would rebuild the makai wall of the retention basin and would maintain the firing range driveway access from the new at-grade highway (but not for the two County beaches that would be accessed via Pōhaku ‘Aeko Street).

- At the northern end of the detention basin, conceptual design for Build Alternatives 2 and 3 would transition to a long-span viaduct of about 0.7 miles (3,700 linear feet) to minimize disturbance of mapped wetlands and waters as well as to remain elevated above the SLR-XA. The alignment’s right-of-way would be over about 18.3 acres of SLR-XA.

- For Ukumehame Build Alternatives 2 and 3, there are 17 parcels that would be affected: one privately owned TMK parcel, nine County-owned parcels, and seven State-owned parcels. Build Alternatives 2 and 3 would also affect six kuleana parcels.

FIGURE 2-14. **Build Alternative 1: Ukumehame**

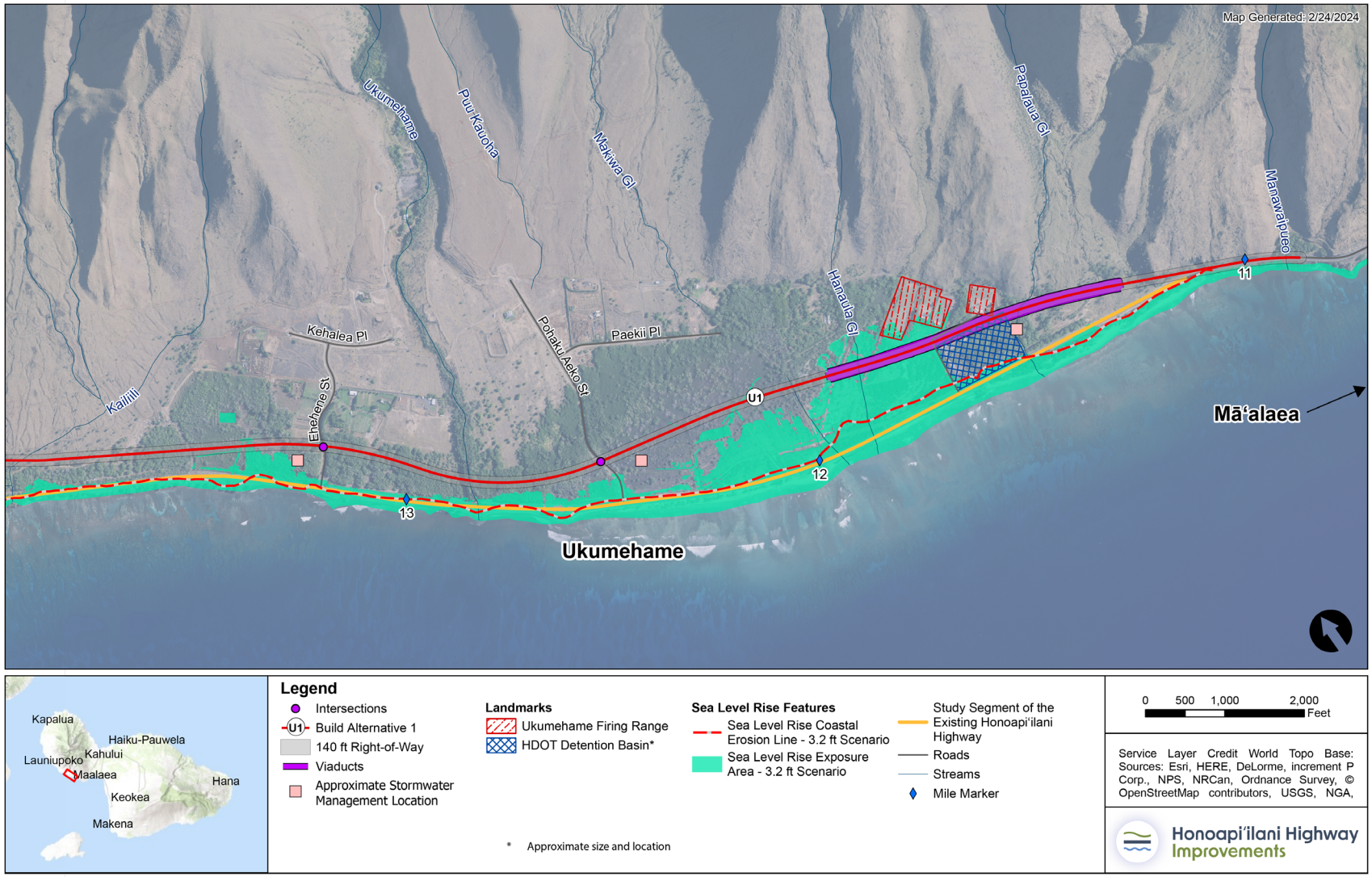
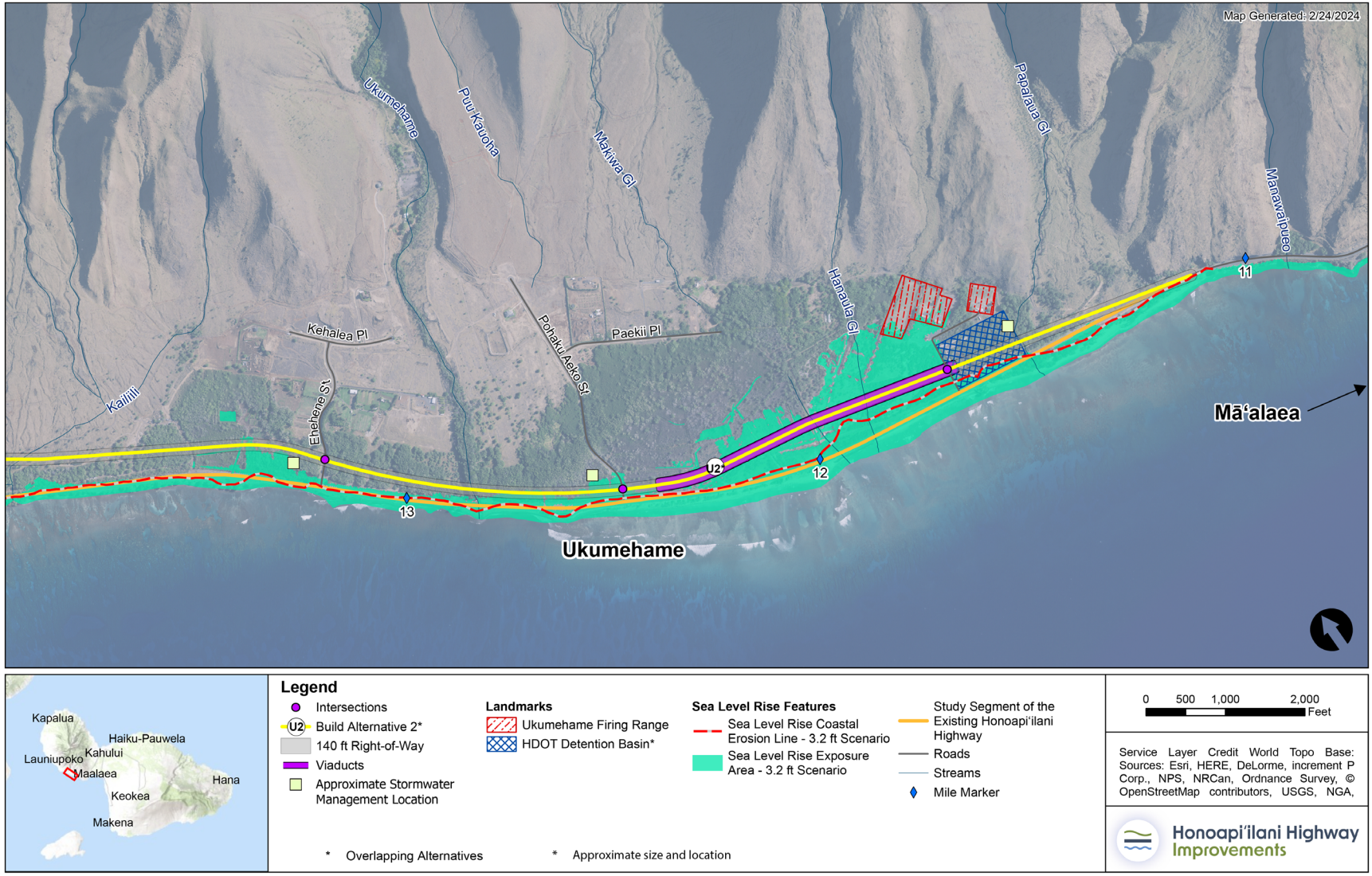


FIGURE 2-15. **Build Alternatives 2 and 3: Ukumehame**



2.3.3.4 Build Alternative 4

FIGURE 2-16 shows the Ukumehame segments of Build Alternative 4 from the north border with Olowalu to its southernmost merge point with the existing Honoapi‘ilani Highway near the Pali—a length of about 2.84 miles. In addition to the common elements described above, key characteristics of Build Alternative 4 include the following:

- It is the most mauka of all Build Alternatives through Ukumehame. This allows the alignment to be farther removed from the shoreline areas of Ukumehame and substantially mauka of the SLR-XA.

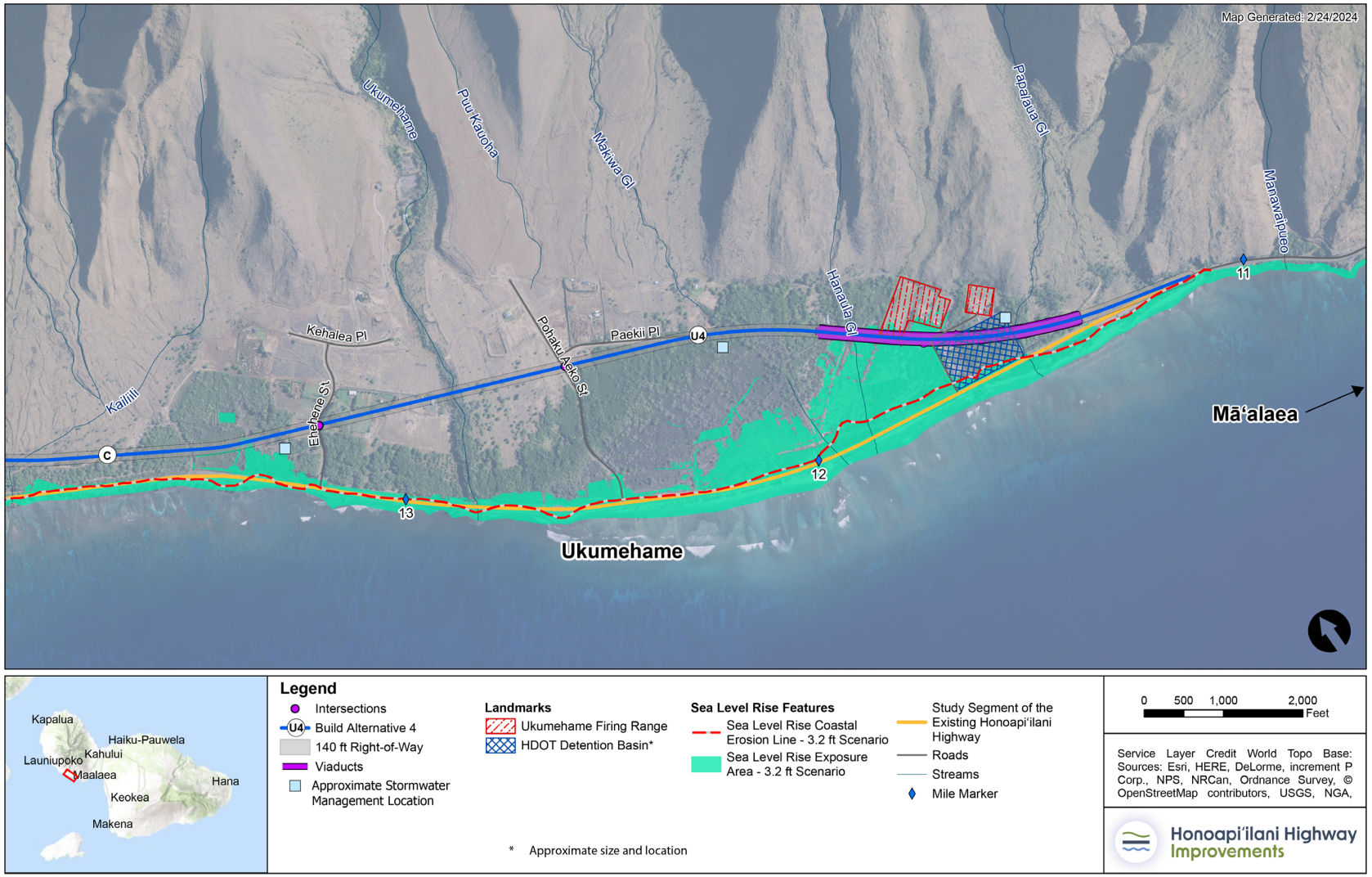
- As the most mauka alignment, Build Alternative 4 would require substantial private property acquisition of primarily undeveloped parcels of the Ukumehame subdivision and would displace two active sod farms off Ehehene Street north of the Ukumehame Stream.

- Build Alternative 4 includes a conceptual design of a 0.6-mile (3,100 linear feet) viaduct in order to elevate the roadway and minimize potential effects to the HDOT detention basin, the Ukumehame Firing Range parking lot, and to minimize exposure to the 3.2-foot SLR-XA.

- The Build Alternative 4 right-of-way would be elevated over about 8.6 acres of SLR-XA.

- For Ukumehame Build Alternative 4, 32 parcels would be affected: 20 privately owned TMK parcels, five County-owned parcels, and seven State-owned parcels. Build Alternative 4 would affect seven kuleana parcels and would also result in the full or partial acquisition and displacement of two existing sod farm businesses.

FIGURE 2-16. **Build Alternative 4: Ukumehame**



2.4 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

As detailed in the NOI Supplement and the EISPN, certain potential alternatives did not pass a screening process that evaluated their ability to meet the Project's purpose and need and constructability requirements. TABLE 2-1 summarizes these potential alternatives and provides the reason they were not considered in ~~this~~ the Draft EIS.

In addition, the embankment option for viaduct segments was evaluated in the development of the Build Alternatives. All Build Alternatives in the Ukumehame segment would be on viaduct through environmentally sensitive areas. A roadway on embankment would be less expensive to construct than a roadway on viaduct. However, a roadway on embankment would harden the shoreline and not meet the Project's need to reduce roadway exposure to the SLR-XA. Viaduct will be used to avoid new shoreline hardening and to reduce effects to sensitive environmental areas. Appendix 5.1 presents relevant evaluations for viaduct and embankment options.

TABLE 2-1. **Alternatives Considered but Not Carried Forward**

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD	DESCRIPTION	REASON FOR ELIMINATION
Build Alternative 5	Build Alternative 5 was the most mauka route considered as a potential Build Alternative. This alignment was a new concept developed to avoid private property acquisition in Olowalu by realigning the highway well inland of residential areas thereby using almost all County- and State-owned lands. Build Alternative 5 would have largely avoided the SLR-XA 3.2-foot coastal erosion line and the larger SLR-XA inundation area.	The Federal Highway Administration and Hawaiʻi Department of Transportation eliminated Build Alternative 5 from further study due to concerns for archaeological and cultural resources expressed by the Native Hawaiian community in early scoping meetings. In addition, because Build Alternative 5 would have crossed rugged terrain with many gullies and gulches, requirements for grading, slope stabilization, and bridge work would likely have more severe environmental impacts and would be the most expensive. Therefore, this alternative ~~is~~ was not evaluated further in ~~this~~ the Draft EIS.
Transportation System Management and Operations (TSMO) Alternative	TSMO improvements are operational improvements that maximize the efficiency of the current transportation system or reduce the demand for travel on a system through the implementation of low-cost improvements. Examples of TSMO activities include adding turn lanes, optimizing signalization at intersections, and using electronic Intelligent Transportation Systems. Other examples are enhanced ride sharing, van and carpooling, park-and-ride facilities, and the encouragement of teleworking.	As a stand-alone option, the TSMO Alternative would not have met the Project's purpose and need because Honoapiʻilani Highway would have remained substantially unchanged from its current location and configuration within the SLR-XA 3.2-foot scenario. While a TSMO Alternative may have minimized initial cost, ongoing maintenance and repairs costs—including emergency response—would be constant over the long term. Therefore, the TSMO Alternative ~~is~~ was not evaluated further in ~~this~~ the Draft EIS. Nonetheless, TSMO improvements could be included as part of the design-build final design or ~~Preferred Alternative~~ in conjunction with other future improvements.
Longer highway realignment from Māʻalaea to Launiupoko	A longer highway realignment from Māʻalaea to Launiupoko would have included a highway through or around the Pali. This alternative would have included project elements such as a tunnel under/through the mountainous Pali region or an ocean causeway around the coastline.	This alternative route was dismissed from further consideration because of the technical challenges of the difficult terrain and the high construction cost. In addition, there would have been extensive environmental impacts ~~concerns~~ involved in traversing the Pali. Therefore, this alternative ~~is~~ was not evaluated further in ~~this~~ the Draft EIS.
Kāʻanapali to Wailuku Highway via the northern coast of West Maui	Kahekili Highway (County Route 340) connects with Honoapiʻilani Highway via the northern coast of West Maui but is narrow and generally has insufficient capacity and substandard roadway conditions to accommodate the vast majority of traffic traveling to and from West Maui, including freight traffic.	Improving this route would have resulted in much greater environmental and community impacts than remaining parallel to the existing Honoapiʻilani Highway route around the southern end of West Maui. Therefore, this alternative ~~is~~ was not evaluated further in ~~this~~ the Draft EIS.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD	DESCRIPTION	REASON FOR ELIMINATION
Roadway couplet concepts using existing highway	This alternative would use the existing highway as the southbound/westbound travel lanes while northbound/eastbound travel lanes would be constructed mauka of the existing alignment.	This alternative would not meet the Project’s purpose and need because it assumes that some travel lanes would remain along the shoreline. This would not allow measures specifically intended to address rising sea levels and inundation in the foreseeable future and would require continued use of the highway for local access. Therefore, this alternative ~~is~~ was not evaluated further in ~~this~~ the Draft EIS.
Alternative transportation modes and other operational alternatives	The Hawai‘i Department of Transportation previously considered alternative modes of transportation to reach West Maui. These alternative modes of transportation included light-rail transit or an intra-island ferry system between Lāhainā and Kahului or Wailuku. Additional alternatives focusing on operational initiatives could have helped reduce or manage travel demand. These measures may have included greater investments in the Maui County bus system. They also would have encouraged West Maui hotels to provide enhanced shuttle service and carpools for workers and visitors, a large bikeway network, or other transit modes.	Even if these measures could significantly reduce vehicular travel demand on the existing Honoapi‘ilani Highway, West Maui still needs a reliable roadway continuing to serve as the main vehicular access facility connecting it with the rest of the island. These measures would not address the existing vulnerabilities of the roadway, and it would remain largely within the SLR-XA. For this reason, alternative transportation modes and other operational alternatives ~~are~~ were not evaluated further in ~~this~~ the Draft EIS.

2.5 CONSTRUCTION

While the Project would be built as a two-lane highway, the right-of-way and assessment of potential environmental effects ~~is~~ are based on the ability to provide a four-lane highway configuration (two lanes in each direction) in the future. The outer lanes would be constructed for the two-lane highway and area reserved for potential inner lanes would be cleared and graded to be built-out built in the future as warranted by traffic demand and the availability of funding.

Bridges would also be built to accommodate a future 140-foot, four-lane section but would be striped for a single lane in each direction. For areas with a viaduct (in the area of Ukumehame Firing Range) there would be one two-lane viaduct structure. The viaduct would be designed and striped to accommodate traffic in both directions with 11-foot-wide travel lanes separated by centerline striping and 8-foot-wide shoulders on each side. Construction would maintain connectivity to the existing roadway network so that construction activities begin and end at existing roadways, and stub roads would be built to allow continuation to the next phase without disturbing traffic on previously finished segments.

2.5.1 Construction Staging

The typical stages of construction activities are summarized below. These would be further detailed by the design-build contractor and developed in conformance with HDOT Construction and Post Construction Manuals.[7]

2.5.1.1 Pre-Construction

In coordination with and as approved by HDOT, the contractor would identify appropriate construction staging areas for storage, equipment, and materials. The contractor could identify disposal and borrow sites (that is, where excavated material would be excavated and stockpiled for application in later stages or removed for off-site disposal). The use of disposal and borrow sites would be subject to standard HDOT specifications and policies, as well as County of Maui and State of Hawai‘i environmental regulations and permit requirements. Another pre-development siting element would be the contractor determining whether there is a need to establish a concrete batch plant (where raw materials of aggregate, sand, cement, and water are stored and mixed as needed for highway construction).

2.5.1.2 Demolition, Grubbing and Clearing, Grading

The contractor would develop a schedule that identifies where construction would start and how it would proceed for additional segments. To prepare for new construction activities, the right-of-way land requiring grading or disturbance would be cleared of existing structures to be demolished and existing vegetation would be removed (grubbing). The roadway and adjacent areas would then be graded.

7 Construction Best Management Practices.

2.5.1.3 Roadway Substructure and Top Layers

Once the roadway is cleared and grubbed, subsurface utilities would be installed, including drainage infrastructure, and the right-of-way would have rough grading where the alignment and profile of the new roadway would be constructed. As the rough grading gets closer to the finish grade, signal light and streetlight and other future use conduits and pull boxes are installed. The final roadway layers would be based on the contractor's Pavement Design Report, which would indicate the precise thickness of the pavement structure to use and where it would be needed.

2.5.1.4 New Bridge and Viaduct Construction

While the final design of the new bridges, culverts, and viaduct portions of the Project would be developed by the design-build team, for the purposes of the Final ~~Draft~~ EIS, it is assumed that new structures would be supported on pile foundations. Drilled shaft foundations would be used in areas sensitive to vibration and noise and would be an efficient technique at selected pier bents. Abutment and wingwall footings would also be on piles. Construction of the bridge and viaduct portions of the Project would involve completing piers, columns, deck, roadway finishes, and lighting. The designer would determine the type of superstructure and construction methods that would best meet the requirements of the Project.

2.5.1.5 Completion and Build-Out

Once the roadway prism is installed and the final layer of concrete has achieved strength to support construction vehicles, striping would be installed. Guardrail would be used to prevent vehicles from departing the roadway onto unrecoverable slopes and to shield roadside obstructions. Guardrails may be installed before the final pavement layer is installed.

2.5.2 Construction Means and Methods

The construction means and methods would be determined by the selected design-build team. HDOT would work with the design-build contractor to finalize the design of the highway and determine the most efficient and cost-effective way to construct the highway.

2.5.3 Preliminary Cost Assessment

Listed separately for the Olowalu and Ukumehame segments for each of the Build Alternatives, TABLE 2-2 shows a preliminary construction cost estimate for the conceptual design (including bridges, culverts, and a two-lane viaduct). Because each segment would be selected independently, there is no single total per alternative. Therefore, the range in preliminary construction costs are from $151.1 million (Olowalu Build Alternative 3 plus Ukumehame Build Alternative 4) to $159.5 million (Olowalu Build Alternative 2 plus Ukumehame Build Alternatives 2 and 3). These preliminary construction estimates were developed for the Draft EIS Build Alternatives. Chapter 5, Selected Alternative provides the revised cost estimate for the Selected Alternative development between Draft and Final EIS.

TABLE 2-2. **Preliminary Construction Cost Estimate (Build Alternatives)**

SEGMENT	BUILD ALTERNATIVE 1 (MILLIONS)	BUILD ALTERNATIVE 2 (MILLIONS)	BUILD ALTERNATIVE 3 (MILLIONS)	BUILD ALTERNATIVE 4 (MILLIONS)
Olowalu	$63.8	$68.2	$62.9	$64.0
Ukumehame	$90.6	$91.3	$91.3	$88.2

For the No Build Alternative, Honoapiʻilani Highway would continue to require increased emergency road repairs and shoreline improvements. Over the last decade, multiple emergency and temporary projects have been completed to continue the road's use despite storm surges and erosion from the ocean. Around $16 million has been spent on emergency repairs. The Project would require less repair and rehabilitation work in the short and long terms. As identified in HDOT's RAISE Grant application to FHWA, this would save HDOT an estimated $22.5 million in 2023 dollars (adjusted from 2019 dollars as presented in the grant application) over 20 years due to a reduction in pavement preservation costs and the reduction in erosion emergency repair projects. Additionally, the RAISE Grant application estimated that the Project's concrete pavement would yield 50 years of useful life, which translates to $42.2 million in adjusted 2023 dollars at the end of the 20-year analysis.

2.6 CONFORMITY WITH HAWAIʻI STATE AND MAUI COUNTY PLANS

2.6.1 Transportation Plans

The Hawaii Statewide Transportation Improvement Program (STIP) and the *Hele Mai Maui 2040 Long-Range Transportation Plan* approved by the Maui MPO establish priority and funding commitments by the State and County.

The *Hele Mai Maui 2040 Long-Range Transportation Plan* includes the Honoapiʻilani Highway project as Project C10 - Honoapiʻilani Highway Realignment. It is described within the Recommended Projects as a "New Connections" project with Short-Term Priority (One to Five years).

The STIP provides a multiyear listing of the State and County projects and identifies those projects slated for federal funding. It is a multimodal transportation improvement program that is developed utilizing existing transportation plans and policies, and current highway, transit, and transportation programming processes. The STIP delineates the funding categories as well as the federal and local share required for each project. The approved version of the FFY 2022-2025 STIP is Revision #17 approved on January 12, 2024. The Honoapiʻilani Highway Improvement Project is listed as Project MS15 – Honoapiʻilani Highway Realignment, Vic. of Ukumehame to Vic. or Olowalu and is classified as Modernization.

2.6.2 Land Use and Development Plans

A variety of statewide and local plans guide land use and development. Appendix 2 provides a more complete summary of the plans evaluated for the assessment of the No Build Alternative and the Build Alternatives.

State plans include the following:

- *Hawaiʻi State Plan*
- *Hawaiʻi State Land Use Classification*
- *Coastal Zone Management Act Policies*
- *Hawaiʻi 2050 Sustainability Plan* (2008)
- *Hawaiʻi State Hazard Mitigation Plan (2023)*
- *Hawaiʻi State Historic Preservation Plan*

County and local plans include the following:

- *County of Maui 2030 General Plan, Countywide Policy Plan* (2010)
- *The Maui Island Plan* (2012)
- *West Maui Community Plan* (2022)
- *Pali to Puamana Parkway Master Plan* (2005)
- *Hele Mai Maui Long-Range Transportation Plan 2040*
- *West Maui Greenway Plan* (2022)

In the No Build Alternative, the Honoapiʻilani Highway would remain in its current alignment. This would leave the roadway vulnerable to coastal erosion and sea level rise, resulting in a less resilient and reliable roadway for this critical corridor. Much of the existing highway alignment is within a conservation district (Limited Subzone along the coastline and General Subzone in the area of Ukumehame Firing Range) per the Hawaiʻi State Land Use Classification and in the Special Management Area (Coastal Zone Management Act). In the future, much of the roadway would be makai of the 3.2-foot SLR-XA as well the 3.2-foot sea level rise coastal erosion line. Overall, this makes the No Build Alternative less consistent with applicable State of Hawaiʻi and County of Maui land use plans and policies.

2.6.2.1 Hawaiʻi State Plans

The Build Alternatives would be consistent with the *Hawaiʻi State Plan* based on its intent to provide a reliable transportation corridor in West Maui and because the Project has been developed in coordination with different agencies and levels of government.

TABLE 2-3 presents a summary consistency review of the applicable State of Hawaiʻi planning policies. Appendix 2 provides a comprehensive list of the policies reviewed for applicability and a summary description of the plans.

TABLE 2-3. **The Hawaiʻi State Plan**

PART I: OVERALL THEME, GOALS, OBJECTIVES, AND POLICIES	APPLICABILITY	PROMOTE/ HINDER
§226-5: Objective and policies for population (a) It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter. (b) To achieve the population objective, it shall be the policy of this State to:		—
(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires	Applicable	Promote
(3) Promote increased opportunities for Hawaiʻi's people to pursue their socio-economic aspirations throughout the islands	Applicable	Promote
§226-6: Objectives and policies for the economy–in general (a) Planning for the State's economy in general shall be directed toward achievement of the following objectives: (1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaiʻi'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 (b) To achieve the general economic objectives, it shall be the policy of this State to:		
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives	Applicable	Promote
(11) Encourage labor-intensive activities that are economically satisfying, and which offer opportunities for upward mobility	Applicable	Promote
(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems	Applicable	Promote
(19) Promote and protect intangible resources in Hawaiʻi, such as scenic beauty and the aloha spirit, which are vital to a healthy economy	Applicable	Promote
§226-7: Objectives and policies for the economy—agriculture (a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives: (1) Viability of Hawaiʻi'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 Hawaiʻi's strategic, economic, and social well-being. (b) To achieve the agriculture objectives, it shall be the policy of this State to:		

PART I: OVERALL THEME, GOALS, OBJECTIVES, AND POLICIES	APPLICABILITY	PROMOTE/ HINDER
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai‘i's food producers and consumers in the State, nation, and world	Applicable	Promote
§226-8: Objective and policies for the economy–visitor industry (a) Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawai‘i's economy. (b) To achieve the visitor industry objective, it shall be the policy of this State to:		
(1) Support and assist in the promotion of Hawai‘i's visitor attractions and facilities	Applicable	Promote
§226-9: Objective and policies for the economy–federal expenditures (a) Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawai‘i's economy. (b) To achieve the federal expenditures objective, it shall be the policy of this State to:		
(3) Promote the development of federally supported activities in Hawai‘i that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawai‘i's environment	Applicable	Promote
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawai‘i	Applicable	Promote
§226-10: Objective and policies for the economy–potential growth and innovative activities	Not Applicable	
§226-10.5: Objectives and policies for the economy–information industry	Not Applicable	
§226-11: Objectives and policies for the physical environment–land-based, shoreline, and marine resources (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 Hawai‘i's land-based, shoreline, and marine resources (2) Effective protection of Hawai‘i's unique and fragile environmental resources (b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:		
(1) Exercise an overall conservation ethic in the use of Hawai‘i's natural resources	Applicable	Promote
(3) Take into account the physical attributes of areas when planning and designing activities and facilities	Applicable	Promote
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai‘i	Applicable	Promote

PART I: OVERALL THEME, GOALS, OBJECTIVES, AND POLICIES	APPLICABILITY	PROMOTE/ HINDER
§226-12: Objective and policies for the physical environment–scenic, natural beauty, and historic resources (a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaiʻi's scenic assets, natural beauty, and multicultural/historical resources. (b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:		
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities	Applicable	Promote
§226-13: Objectives and policies for the physical environment–land, air, and water quality (a) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives: (1) Maintenance and pursuit of improved quality in Hawaiʻi's land, air, and water resources. (2) Greater public awareness and appreciation of Hawaiʻi's environmental resources. (b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:		
(2) Promote the proper management of Hawaiʻi's land and water resources	Applicable	Promote
(3) Promote effective measures to achieve desired quality in Hawaiʻi's surface, ground, and coastal waters	Applicable	Promote
(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	Applicable	Promote
(6) Encourage design and construction practices that enhance the physical qualities of Hawaiʻi's communities	Applicable	Promote
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaiʻi's people, their cultures and visitors	Applicable	Promote
§226-14: Objective and policies for facility systems–in general (a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, sustainable development, climate change adaptation, sea level rise adaptation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives. (b) To achieve the general facility systems objective, it shall be the policy of this State to:		
(1) Accommodate the needs of Hawaiʻi's people through coordination of facility systems and capital improvement priorities in consonance with State and County plans	Applicable	Promote
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities	Applicable	Promote

PART I: OVERALL THEME, GOALS, OBJECTIVES, AND POLICIES	APPLICABILITY	PROMOTE/ HINDER
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user	Applicable	Promote
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems	Applicable	Promote
(5) Identify existing and planned state facilities that are vulnerable to sea level rise, flooding impacts, and natural hazards	Applicable	Promote
(6) Assess a range of options to mitigate the impacts of sea level rise to existing and planned state facilities	Applicable	Promote
§226-15: Objectives and policies for facility systems–solid and liquid wastes	Not Applicable	
§226-16: Objective and policies for facility systems—water	Not Applicable	
§226-17: Objectives and policies for facility systems—transportation (a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives: (1) An integrated multimodal 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 (b) To achieve the transportation objectives, it shall be the policy of this State to:		
(1) Design, program, and develop a multimodal system in conformance with desired growth and physical development as stated in this chapter	Applicable	Promote
(4) Provide for improved accessibility to shipping, docking, and storage facilities	Applicable	Promote
(6) Encourage transportation systems that serve to accommodate present and future development needs of communities	Applicable	Promote
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification	Applicable	Promote
(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai‘i's natural environment	Applicable	Promote
(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	Applicable	Promote
§226-18: Objectives and policies for facility systems—energy	Not Applicable	
§226-18.5: Objectives and policies for facility systems—telecommunications	Not Applicable	
§226-19: Objectives and policies for socio-cultural advancement—housing	Not Applicable	
§226-20: Objectives and policies for socio-cultural advancement—health	Not Applicable	
§226-21: Objective and policies for socio-cultural advancement—education	Not Applicable	
§226-22: Objective and policies for socio-cultural advancement–social services	Not Applicable	

PART I: OVERALL THEME, GOALS, OBJECTIVES, AND POLICIES	APPLICABILITY	PROMOTE/ HINDER
§226-23: Objective and policies for socio-cultural advancement—leisure (a) Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations. (b) To achieve the leisure objective, it shall be the policy of this State to:		
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance	Applicable	Promote
(5) Ensure opportunities for everyone to use and enjoy Hawaiʻi's recreational resources	Applicable	Promote
(10) Assure adequate access to significant natural and cultural resources in public ownership	Applicable	Promote
§226-24: Objective and policies for socio-cultural advancement–individual rights and personal well-being	Not Applicable	
§226-25: Objective and policies for socio-cultural advancement—culture	Not Applicable	
§226-26: Objectives and policies for socio-cultural advancement–public safety (a) Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives: (1) Assurance of public safety and adequate protection of life and property for all people. (2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances. (3) Promotion of a sense of community responsibility for the welfare and safety of Hawaiʻi's people. (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	Applicable	Promote
§226-27: Objectives and policies for socio-cultural advancement—government (a) Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives: (1) Efficient, effective, and responsive government services at all levels in the State (2) Fiscal integrity, responsibility, and efficiency in the State government and county governments (b) To achieve the government objectives, it shall be the policy of this State to:		
(1) Provide for necessary public goods and services not assumed by the private sector	Applicable	Promote
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response	Applicable	Promote

TABLE 2-4. **The Hawai'i State Plan (Part III)**

PART III: PRIORITY GUIDELINES	APPLICABILITY	PROMOTE/ HINDER
§226-103: Economic priority guidelines (a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai'i's people and achieve a stable and diversified economy:	Not Applicable	
(b) Priority guidelines to promote the economic health and quality of the visitor industry:		
(1) Promote visitor satisfaction by fostering an environment which enhances the aloha spirit and minimizes inconveniences to Hawai'i's residents and visitors	Applicable	Promote
(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:	Not Applicable	
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:	Not Applicable	
(e) Priority guidelines for water use and development:	Not Applicable	
(f) Priority guidelines for energy use and development:	Not Applicable	
(g) Priority guidelines to promote the development of the information industry:	Not Applicable	
§226-104: Population growth and land resources priority guidelines (a) Priority guidelines to effect desired statewide growth and distribution:	Not Applicable	
(b) Priority guidelines for regional growth distribution and land resource utilization:		
(13) Protect and enhance Hawai'i's shoreline, open spaces, and scenic resources	Applicable	Promote
§226-105: Crime and criminal justice (a) Priority guidelines in the area of crime and criminal justice:	Not Applicable	
§226-106: Affordable housing (a) Priority guidelines for the provision of affordable housing:	Not Applicable	
§226-107: Quality education (a) Priority guidelines to promote quality education:	Not Applicable	
§226-108: Sustainability (a) Priority guidelines and principles to promote sustainability shall include:		
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations	Applicable	Promote
§226-109: Climate change adaptation priority guidelines (a) 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:		

PART III: PRIORITY GUIDELINES	APPLICABILITY	PROMOTE/ HINDER
(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	Applicable	Promote
(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	Applicable	Promote
(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	Applicable	Promote
(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	Applicable	Promote
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy	Applicable	Promote

A realigned highway would remain within the framework of the Hawaiʻi State Land Use Classification. And compared to the No Build Alternative, the Build Alternatives would move more of the State highway alignment out of the Conservation land use districts along the coastline.

As evaluated in Section 3.12, Coastal Zone Management Act, Hawaiʻi Special Management Areas, the Build Alternatives would also result in substantially more of the state highway alignment being located outside the Special Management Area and therefore being more consistent with the Coastal Zone Management Act.

2.6.2.2 Maui County Plans

HDOT developed the Build Alternatives based on decades of public planning policy and have refined them to minimize and avoid potential adverse effects on local environmental and cultural resources. Transferring the existing Honoapiʻilani Highway roadway alignment to Maui County and declassifying it from a State highway to a local road would enable future planning to incorporate more nature-based solutions for future roadway operations.

The Build Alternatives would be consistent with the *County of Maui 2030 General Plan* (2010) because they create reliable and sustainable transportation infrastructure that can support the plan's broad policies relating to a strong and diverse economy.

The Maui Island Plan (2012) serves as a blueprint for future growth, the economy, and social and environmental decisions across Maui through 2030. All the Build Alternatives would be consistent with the strategies of this plan. The Build Alternatives would traverse the urban growth boundaries defined in the plan but would not alter their designation. However, the large-scale development plan that was originally identified as the basis for the growth boundary was not approved and is not part of the future condition in the project area.

The Build Alternatives would be consistent with the goals of the *West Maui Community Plan* (2022) for ready and resilient infrastructure systems and a complete, balanced, and connected transportation network. The Build Alternatives would be direct derivatives of the *Pali to Puamana Parkway Master Plan* and remain consistent with the plan’s foundation to establish public policy that encourages responsible development in a coastal area by acknowledging coastal processes.

Overall, the Project has been identified as a transportation improvement in the Maui MPO’s *Hele Mai Maui Long-Range Transportation Plan 2040*. The Build Alternatives would be consistent with the plan’s goals that reflect existing and future needs and were utilized to prioritize the projects identified in the plan. The plan specifically identifies the critical need to realign Honoapi‘ilani Highway inland from the coastal hazard zone.

The Project would create a template and baseline for the eventual implementation of the Maui MPO’s *West Maui Greenway Plan* (2022) by Maui County, and the plan acknowledges that the Project would allow the County to better frame and implement the *West Maui Greenway Plan*.

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3. Affected Environment and Environmental Consequences

This chapter (inclusive of Sections 3.1 through 3.20) primarily restates the Draft EIS assessment of the Build Alternatives. The chapter includes and denotes with double underlined text those changes made between Draft and Final EIS including limited updated existing conditions and analyses based on information that was identified after the Draft EIS was released (*i.e.,* information provided to FHWA and HDOT as part of public comments on the Draft EIS or based on continued agency coordination).

Chapter 5, Selected Alternative, presents the FHWA and HDOT initial determination of the Preferred Alternative as originally established in the Draft EIS and that the agencies have selected the Preferred Alternative as the "Selected Alternative" for the Project which will be carried forward into the design build process.

3.1 LAND USE AND ZONING

This section evaluates the potential effects of the Honoapiʻilani Highway Improvements Project (the Project) on the local community in the context of existing and future land uses and zoning regulations. Chapter 2, Alternatives, evaluates the Project's consistency with State and County plans.

Following publication of the Draft Environmental Impact Statement (EIS), the public was afforded an opportunity to review and comment on the effects of the Project with respect to land use and zoning. As part of this Final EIS, the analysis contained within this section was revised to reflect those comments, or other information gathered after the publication of the Draft EIS.

3.1.1 Regulatory Context

Land use and zoning are community characteristics evaluated in an ~~a National Environmental Policy Act~~ Environmental Impact Statement, following guidance found in Federal Highway Administration Technical Advisory T 6640.8A (1987)[1] and the Hawaiʻi Revised Statutes (HRS) Chapter 343.

A dual system of State and County laws regulate land use within Hawaiʻi. As described in greater detail in the following sections, all land in Hawaiʻi is categorized into one of four classifications defined by the Hawaiʻi State Land Use Commission: Conservation, Agriculture, Rural, and Urban. State-classified Conservation Districts are under the jurisdiction of the State of Hawaiʻi Department of Land and Natural Resources (DLNR). Additionally, the Maui County Zoning Ordinance provides for local implementation of statewide permitted uses in an Agricultural District in HRS 205.4. In Maui County specifically, the Maui Department of Planning's Zoning Administration and Enforcement Division

[1] https://www.environment.fhwa.dot.gov/legislation/nepa/guidance_preparing_env_documents.aspx#land. Accessed December 2023.

enforces State and County land use laws, rules, codes, regulations, and general and community plans. Maui County's zoning provisions are established in the County of Maui Code of Ordinances, Title 19.

3.1.2 Methodology

The existing land use and zoning descriptions were developed by reviewing available GIS data layers along with relevant planning and zoning ordinances (which are cited with the information presented in this chapter). Existing baseline conditions were confirmed through field reconnaissance. Future changes to land use and zoning, or the lack of any anticipated change, were identified by reviewing pending State and County applications.

3.1.3 Affected Environment

While the project area encompasses the linear length of the corridor and the land area inclusive of all the Build Alternatives, this assessment also has a general discussion on land use and zoning for adjacent areas.

3.1.3.1 Land Use

The project area is decidedly rural in character and includes mostly open and undeveloped lands along with historic settlements in Olowalu and newer, low-density residential development mauka of the existing highway corridor at the base of the mountains. As discussed in Section 3.19, Environmental Justice and Socioeconomic Conditions, about 100 to 200 residents live in the project area.

The project area is located in the moku (traditional district) of Lāhainā and spans three ahupua'a: Ukumehame, Launiupoko, and Olowalu. The area was also heavily influenced by the development of large-scale plantation agriculture that dramatically changed and still influences much of the existing landscape.

State Land Use Classification

FIGURE 3.1-1 shows that the Hawai'i State Land Use Districts mapped over the project area are predominately Agricultural Districts. There is a small area mapped as a Conservation District along the coastline, and larger areas mapped over the mountains mauka of the Project. Agricultural Districts are intended to recognize and protect agricultural uses, and HRS Section 205-4.5 identifies the range of permissible uses as established by the Land Use Commission. Lands mapped as Conservation Districts are primarily in existing forest, natural resources, and water reserve zones and are governed by rules established by the State of Hawai'i DLNR.

Olowalu

FIGURE 3.1-2 depicts existing land uses in Olowalu, which are summarized in TABLE 3.1-1, and notable features are shown in the photographs below.

FIGURE 3.1-1. **Project Area Hawai'i State Land Use Designation**

FIGURE 3.1-2. **Project Area Land Uses: Olowalu**

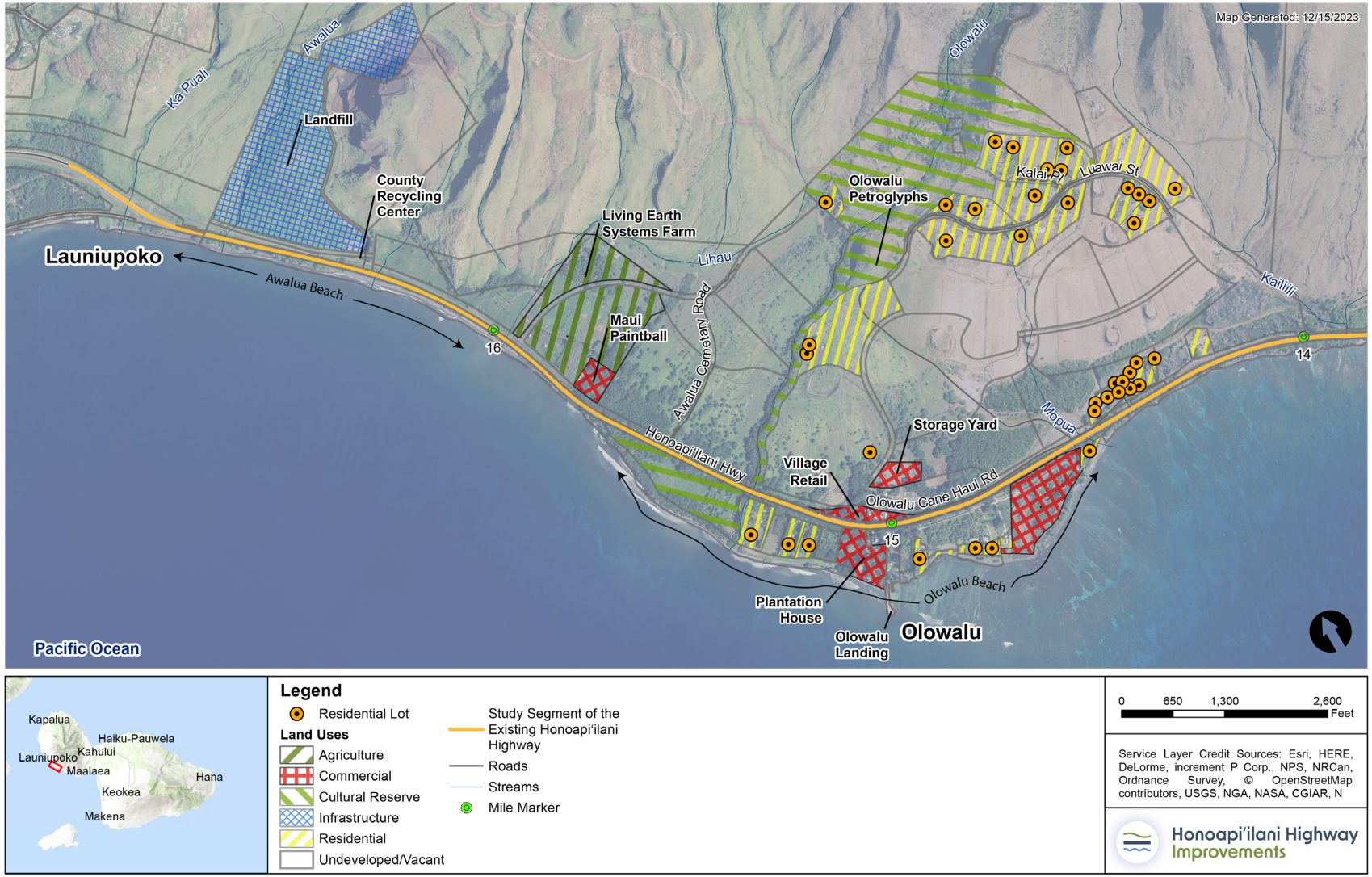


TABLE 3.1-1. **Summary of Land Uses in Olowalu**

LAND USE	SUMMARY DESCRIPTION
Residential	Six large waterfront houses are makai of the highway and accessed via Kuahulu Place (a private street) and the Camp Olowalu access road. On the mauka side of the street, a few residences are adjacent to and behind the Olowalu General Store. To the south, along the Olowalu Village Road (also known as Kapāiki Place), there are about 15 residences ranging in size and age. Mauka of the village center, a few houses are located along Olowalu Stream and in the area of the Olowalu Petroglyphs. Mauka of the project area, Luawai Street provides access to an additional 13 completed residences as part of the 34-lot Olowalu Subdivision. While some roads and supporting infrastructure have been constructed, the subdivision has not been fully developed or occupied. A central greenway with a partially constructed and paved multiuse path was created by the subdivision based on easements across multiple tax parcels (the southernmost extension of the path is located within the property line of a future subdivision private street that has not yet been built) (FIGURE 3.1-4 ~~Figure 2-7~~). Of the six undeveloped tax parcels containing greenway easements, five are owned by the original landowner and developers and one has a mix of owners. As set forth in the *Olowalu Subdivision Plan*, the pathway is within the easement area of these private parcels and is maintained by the homeowners association.
Agricultural	There are several agricultural tenants on the north end of Olowalu, most notably the Living Earth Systems farm, which is a commercial and educational facility focusing on sustainable farming practices and indigenous food sources. There are also agricultural activities on portions of the Olowalu Cultural Reserve and farther mauka into the mountains, where there are traditional taro loʻi using cooler mountain water. The taro loʻi are located in the Līhau portion of the West Maui Natural Area Reserve discussed in Section 3.5, Parklands and Recreational Facilities/Beach Access, along the recently approved additional reserve lands (State Division of Forestry and Wildlife).[2]
Commercial	In addition to the Olowalu Recycling and Refuse Convenience Center (at the north end of the project area) and Maui Paintball (north of the village center), several businesses are in the historic center of Olowalu. Combined with the monkeypod tree canopy, this commercial activity provides a unique and popular stopping point for local and through traffic. (Section 3.19, Environmental Justice and Socioeconomic Conditions, provides more information and an assessment of the effects of the Project on these businesses.) Leoda's Kitchen and Pie Shop and the Olowalu General Store share a built structure that is the core of the village center. North of these locations and within the Honoapiʻilani Highway right-of-way, there are open-air or food truck businesses and a farmers market (with a juice stand and butterfly exhibit). Mauna Kahālāwai Watershed Partnership maintains a storage yard that is mauka of the Olowalu General Store on the other side of Olowalu Village Road. There are two businesses makai of the existing highway in the village center: the Olowalu Plantation House, which is a popular waterfront wedding and banquet facility in the restored 1922 plantation manager's house; and Camp Olowalu, which is a private waterfront campground with a mix of tent sites, cabins, and car camping.

[2] https://dlnr.hawaii.gov/wp-content/uploads/2023/03/C-3.pdf.

LAND USE	SUMMARY DESCRIPTION
Infrastructure	Between Launiupoko at the north end of the project area and the Olowalu Recycling and Refuse Convenience Center, the makai side of the existing Lāhainā Bypass are undeveloped, and the shoreline (Awalua Beach) is publicly accessible directly from the existing highway. Mauka of the highway, the project area contains the Olowalu Recycling and Refuse Convenience Center, which provides recycling drop-off services for residents in the surrounding area. The closed Olowalu landfill is mauka of the current recycling center. While the landfill has been reopened to accept debris from the Lāhainā wildfire recovery, this is a short-revocable land use authorized by the State of Hawai‘i DLNR. Transporting the debris to the landfill ~~is expected to be~~ was completed in January 2025, and all wildlife debris is now in the process of being relocated to the permanent disposal site in Central Maui, which is expected to be complete by November 2025.[3]
Public and Cultural	As discussed in more detail in Section 3.6, Archaeological and Architectural Historic Resources, there are important cultural sites in Olowalu. Awalua Cemetery is north of the village center. ~~And~~The Lanakila Hawaiian Protestant Church (also referred to as the Olowalu Stone Church Ruins at Mōpua) is at the end of the existing Olowalu Village Road/Kapāiki Place. The Olowalu Petroglyphs are mauka of Honoapi‘ilani Highway and the project area. The petroglyphs are within the Olowalu Cultural Reserve (also called the Pu‘u Kīlea Reserve). Makai of the highway and along the waterfront, Olowalu Landing and the ruins of the historic sugar mill are between the Olowalu Plantation House and Camp Olowalu. While not part of the Maui County Parks system, the publicly owned and accessible shoreline includes Awalua Beach to the north and Olowalu Beach makai of the village center and existing highway.

[3] ~~https://www.mauirecovers.org/debrisremoval.~~ https://www.mauirecovers.org/debris-containment (Date Accessed: July 2025)

FIGURE 3.1-3. **Launiupoko and North Olowalu Photos**

Olowalu Recycling Center

Olowalu welcome sign adjacent to Awalua Beach

South end of Lāhainā Bypass in Launiupoko

Awalua shoreline

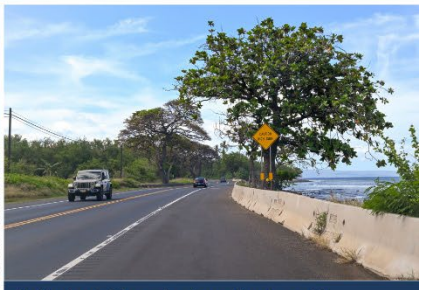
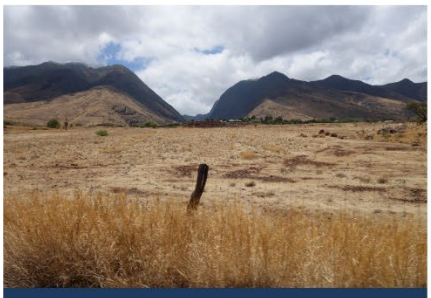

Entering Olowalu heading south

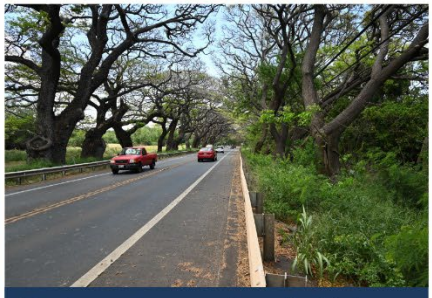
FIGURE 3.1-4. **Central Olowalu Photos**

Olowalu Town Center

Olowalu Sugar Mill ruins

Olowalu looking makai with Lāna'i on the horizon


Olowalu Valley


Monkeypod trees along the highway

Ukumehame

The ahupua'a of Ukumehame is noticeably less developed than Olowalu, as depicted in FIGURE 3.1-5. TABLE 3.1-2 summarizes these land uses and FIGURE 3.1-6 shows representative photos of the area.

TABLE 3.1-2. **Summary of Land Uses in Ukumehame**

LAND USE	SUMMARY DESCRIPTION
Residential	There are ~~four~~ eight residential dwellings within the largely undeveloped 45-lot Ukumehame Subdivision. A ~~fifth~~ ninth residence is located mauka of the subdivision into the gulch within the cultural reserve area. The subdivision is accessed by Ehehene Street north of the Ukumehame Stream and by Pōhaku 'Aeko Street and Paeki'i Place south of the stream. While roads and supporting infrastructure have been constructed, the Ukumehame subdivision has not been fully developed or occupied.
Agricultural	There are ~~two~~ three active agricultural uses: two off Ehehene Street (Ukumehame and Maui Sod Farms) and one off of Pōhaku 'Aeko Street (El Toro Soysia Turf-Maui Grass Farm) ~~on subdivision parcels on Ehehene Street.~~
Commercial	There are no commercial uses in Ukumehame other than the ~~two~~ three sod farms.
Public and Cultural	Along the Ukumehame Stream and mauka into the mountains, the subdivision created a buffer parcel that extends along the stream corridor. Close to and mauka of the existing highway, there is an area of active cultivation and cultural practices ~~are~~along and immediately south of the Ukumehame Stream. ~~There are t~~Three recreational resources are at the southern end of the project area. Mauka of the highway is the County-owned Ukumehame Firing Range (a State-owned portion is used by the National Guard). ~~And t~~Two beach parks are makai of the highway: Pāpalaua Wayside Park and Ukumehame Beach Park (Section 3.5, Parklands and Recreational Resources/Beach Access). As part of the Ukumehame subdivision, frontage lots parallel with the existing Honoapi'ilani Highway were deeded to Maui County for future open space and highway relocations.

FIGURE 3.1-5. **Project Area Land Uses: Ukumehame**

FIGURE 3.1-6. **Ukumehame Photos**

3.1.3.2 Zoning

FIGURE 3.1-7 shows that Maui County zoning in the project area is closely aligned with existing land use patterns and its historic use as a plantation. The vast majority of the project area, including all of the Ukumehame portion, is zoned as Agricultural (AG). Public and natural reserve lands mauka of the project area are zoned as Interim Districts. TABLE 3.1-3 provides a summary of County zoning districts mapped in and adjacent to the project area.

Since there are small areas within Olowalu with zoning districts mapped as other than AG, FIGURE 3.1-8 shows the mapped Residential, Commercial, and Hotel Districts in greater detail.

FIGURE 3.1-7. **Project Area Maui County Zoning**

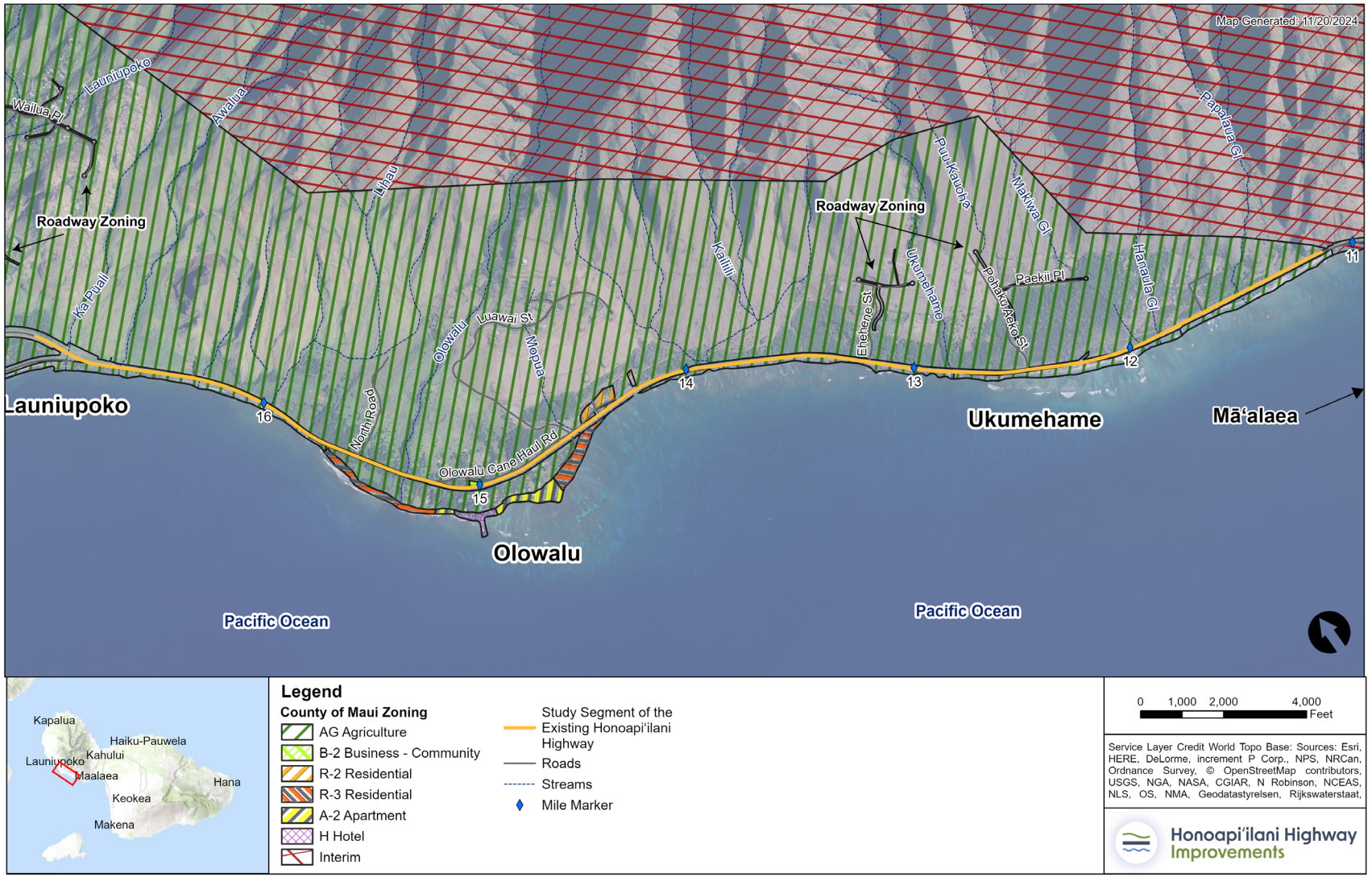


FIGURE 3.1-8. **Project Area Zoning: Olowalu**

TABLE 3.1-3. **Summary of Project Area Mapped Zoning Districts**

MAUI COUNTY ZONING DISTRICT	PURPOSE	ALLOWABLE USES	LOCATION IN PROJECT AREA
Agriculture (AG)[4]	Promote, preserve, protect agricultural use.	Agricultural uses, accessory residential uses on minimum lot size of 2 acres.	Predominate, this zoning is the controlling basis for the Olowalu and Ukumehame Subdivisions.
Residential (R-2/R-3)[5]	Provide for residential neighborhoods without the detraction of commercial and industrial activities.	Single family dwellings on 7,500 to 10,000 square foot lots (R2 and R3 respectively).	Small district mapped in Olowalu encompassing the Kapāiki neighborhood.
Apartment (A-2)[6]	To regulate multifamily dwellings and short-term rentals providing access to amenities, jobs, services, and transportation.	Apartments and short-term rentals including bed and breakfast businesses.	Small district mapped in Olowalu encompassing the Camp Olowalu location with short-term rentals and the vacation rental houses between Camp Olowalu and Plantation House.
Hotel (H)[7]	Establish high-density multifamily areas typically adjacent to business districts and/or oceanfronts.	Hotels and other related uses including banquet and meeting facilities.	Small district mapped in Olowalu to include the Plantation House banquet facility.
Community Business (B2)[8]	Low-density community district providing for goods and services.	Broadly defined, includes eating and drinking, amusement and recreational activities, personal and business services.	Very small district mapped to include the single commercial center in Olowalu village with the Olowalu General Store and Leoda's Kitchen and Pie Shop.
Interim	Delineation of public natural reserves and undeveloped conservation lands.	Conservation and open space.	Mapped areas mauka of the project area into the West Maui Natural Area Reserve.

4 https://library.municode.com/hi/county_of_maui/codes/code_of_ordinances?nodeId=TIT19ZO_ARTIICOZOPR_CH19.30AAGDI. Accessed April 2023.

5 https://library.municode.com/hi/county_of_maui/codes/code_of_ordinances?nodeId=TIT19ZO_ARTIICOZOPR_CH19.08REDI. Accessed April 2023.

6 https://library.municode.com/hi/county_of_maui/codes/code_of_ordinances?nodeId=TIT19ZO_ARTIICOZOPR_CH19.12APDI. Accessed April 2023.

7 https://library.municode.com/hi/county_of_maui/codes/code_of_ordinances?nodeId=TIT19ZO_ARTIICOZOPR_CH19.14HODI. Accessed April 2023.

8 https://library.municode.com/hi/county_of_maui/codes/code_of_ordinances?nodeId=TIT19ZO_ARTIICOZOPR_CH19.18COBUDI. Accessed April 2023.

3.1.4 Environmental Consequences

3.1.4.1 No Build Alternative

The No Build Alternative would maintain the highway in its existing configuration with ongoing maintenance and repairs. Other trends or changes in the project area are noted in the following sections.

Land Use

No planned projects would alter overall land use patterns in the project area. It is anticipated that the existing Ukumehame and Olowalu Subdivisions would continue to be built out over time with roads, infrastructure, and individual lot development proceeding per subdivision approvals and applicable zoning requirements. This is evidenced by current road and infrastructure construction in Olowalu to the north of the village center as well as a review of recent Maui County permit activities in the project area.

A public campaign led by the West Maui Improvement Foundation and the West Maui Taxpayers Association has been initiated to authorize and construct a new fire station in Olowalu. While an agreement is in place to provide land for the new fire station, no formal planning has started.[9]

Zoning

The County of Maui is not considering any rezoning applications or anticipating other zoning changes, so zoning is expected to remain as is throughout the project area.

3.1.4.2 Build Alternatives

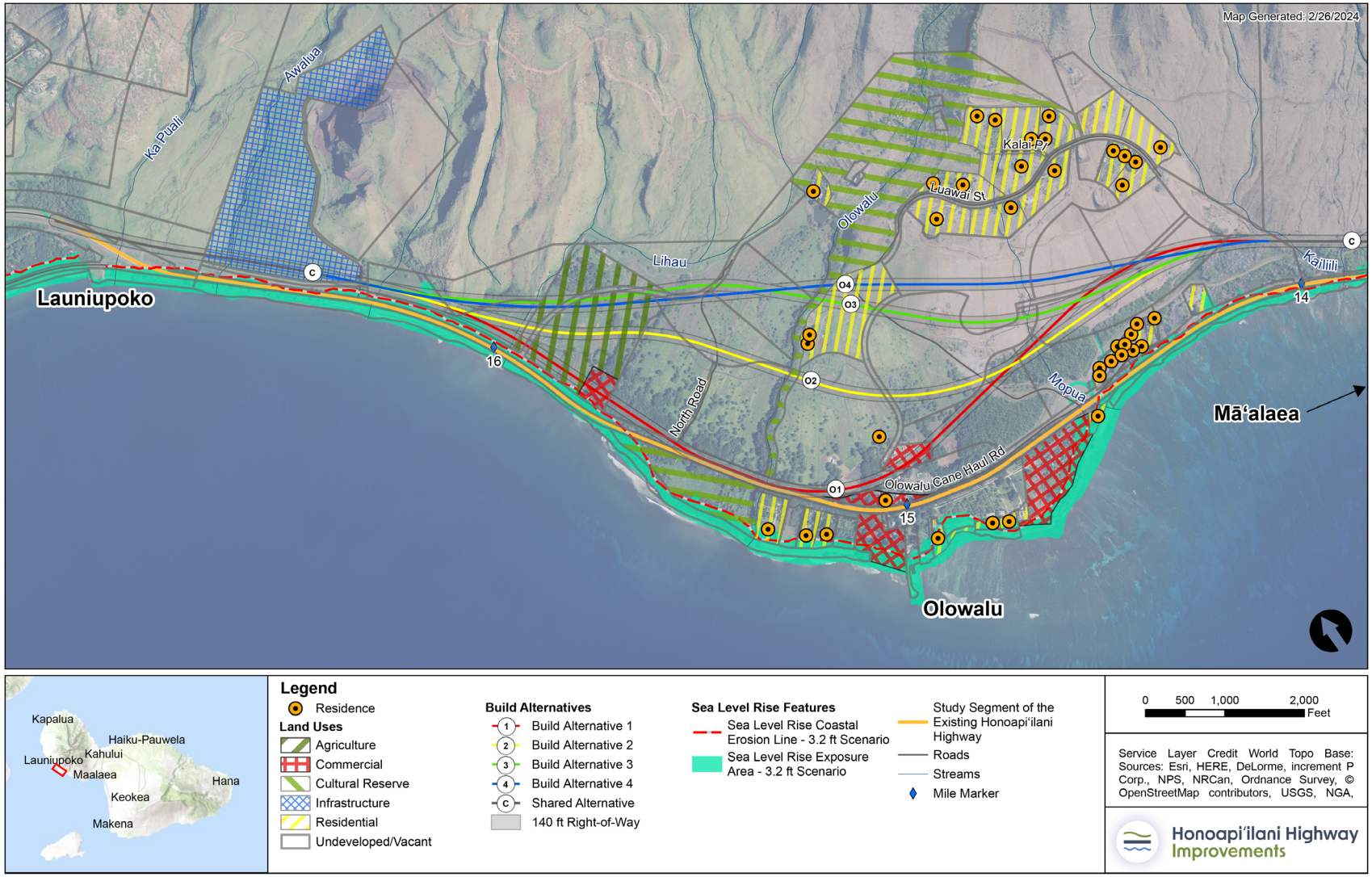
The following section discusses the potential adverse effects on land use or zoning. With the exception of Build Alternative 4 in Ukumehame, there are no substantive changes to land use and development patterns and no changes to zoning anticipated in the project area. For specific parcels of land acquisition required for one or more Build Alternative, Section 3.4, Land Acquisition, Displacement, and Relocation, addresses properties that may require full or partial land acquisition and explains the process for acquiring private land through the Uniform Relocation Act.

Land Use - Olowalu

FIGURE 3.1-9 shows the Build Alternatives and land uses in Olowalu.

[9] https://www.lahainanews.com/news/local-news/2023/08/04/olowalu-fire-station-fundraiser-gains-200000-in-pledges/.

FIGURE 3.1-9. **Build Alternatives and Land Uses: Olowalu**



Common to All Build Alternatives

The Build Alternatives would convert about 66 to 73 acres of undeveloped or agricultural use lands into highway transportation uses. Several residential properties may be acquired, which would reduce the total development potential of the subdivision but is not anticipated to alter overall development patterns in Olowalu.

At the northern terminus of the project area, the new highway alignment is anticipated to be generally parallel but mauka to the existing highway on State and County land—including the area currently in use as the Olowalu Recycling and Refuse Convenience Center (also referred to as the Maui County transfer station)—as well as access to the temporarily reopened portion of the landfill for debris from the Lāhainā wildfire. The Project would result in the displacement and need to relocate the Maui County transfer station at the north end of the project area. Maui County has long considered relocation options for this facility to move it closer to the Lāhainā urban center, where most users originate. The Project would accelerate the need for relocation. Because the reopened portion of the landfill is a short-term use of the State-owned landfill property under a revocable authorization from the State of Hawai‘i DLNR, the use is expected to be complete prior to the Project‘s implementation and would not be considered a displacement of the use.

All Build Alternatives would cross the active agricultural uses just south of the Maui County landfill facility. The makai alternative (Build Alternative 1) would generally cross the front portion of this facility and leave most of the land area intact. However, the alternative could displace some or all of the small agricultural uses fronting the cane haul road as well as the Maui Paintball facility. Build Alternative 2 would be just mauka of these uses while Build Alternatives 3 and 4 would pass through the middle of the parcel. The need to relocate these uses or ensure continued access—and possibly to reconfigure its use of the site and surrounding land areas—would be evaluated as part of the land acquisition process (Section 3.4, Land Acquisition, Displacement, and Relocation). As noted in Section 3.2, Agriculture and Farming, this would not result in a broader effect on agriculture pursuant to the Farmland Protection Policy Act (FPPA) Farmland Conversion Impact Rating (7 United States Code 4201 et seq.).

All the Build Alternatives would cross Olowalu Stream and its protected cultural reserve land area and would have two new intersections: one at the new Olowalu Subdivision road (North Road, near the Awalua Cemetery) and one at Luawai Street.

Build Alternative 1

From the common alignment area at the Olowalu Recycling and Refuse Convenience Center, Build Alternative 1 would be located just mauka and parallel to the existing highway—overlapping with the existing highway as it crosses the Olowalu Stream before turning mauka behind the village center and the Kapāiki neighborhood toward Ukumehame. The following key land use effects are specific to Build Alternative 1:

- Between the village center and Olowalu Stream, Build Alternative 1 overlaps with the existing highway right-of-way. Based on conceptual design, it is assumed that this would require permanent closure of a portion of the existing highway.

- Behind the village center, Build Alternative 1 would fully or partially displace the storage yard used by the Mauna Kahālāwai Watershed Partnership and would be close to the residence adjacent to the storage yard and the village center.
- Build Alternative 1 would displace the makai frontage of the Maui Paintball facility and the cane haul road. While it is not anticipated that the facility would be fully displaced, this would likely require reconfiguring the larger parcel, shifting the facility, and establishing a new access.
- Build Alternative 1 would be about 3,000 feet from the Olowalu Petroglyphs and mauka residences of the Olowalu Subdivision.
- There are 15 identified private parcels that would be affected by the alignment. These are primarily undeveloped parcels of the Olowalu subdivision along with three parcels with agricultural and commercial uses (Section 3.4, Land Acquisition, Displacement, and Relocation, provides more details).

Build Alternative 2

Build Alternative 2 would traverse a middle path through primarily privately owned undeveloped land. The following key land use effects are specific to Build Alternative 2:

- Build Alternative 2 would be about 1,600 feet from the Olowalu Petroglyphs.
- There are 15 identified private parcels that would be affected by the alignment. These are primarily undeveloped parcels of the Olowalu subdivision along with three parcels with agricultural and commercial uses (Section 3.4, Land Acquisition, Displacement, and Relocation, provides more details).
- Build Alternative 2 runs somewhat parallel to and crosses the easement areas on private lots, as detailed in Section 3.4. The alignment would cross the partially built-out multiuse path, which would require relocation or reconfiguration if it were to remain a continuous pathway. Build Alternative 2 would cross five private parcels with greenway easements as well as the easement area itself. All of these parcels are owned by entities of the subdivision developer.

Build Alternative 3

Build Alternative 3 would traverse a mauka path through primarily privately owned and undeveloped land. The following key land use effects are specific to Build Alternative 3:

- Build Alternative 3 would cross through a 16-acre parcel with an existing residence. The alignment would be mauka of the house and would not likely require relocation or displacement. The property acquisition process described in Section 3.4, Land Acquisition, Displacement, and Relocation, would determine the need to fully or partially acquire the parcel.
- Build Alternative 3 would be closer to the mauka residential areas of the Olowalu Subdivision and about 750 feet from the Olowalu Petroglyphs.
- There are 15 identified private parcels that would be affected by the alignment. With the exception of the one parcel noted above, these are primarily undeveloped parcels of the Olowalu subdivision along with three parcels with agricultural and commercial uses (Section 3.4 provides more details).

- Build Alternative 3 would also cross the greenway easement in two locations on one parcel and would require realignment, a grade-separated crossing, or a discontinuous multiuse path. The parcel is owned by entities of the subdivision developer.

Build Alternative 4

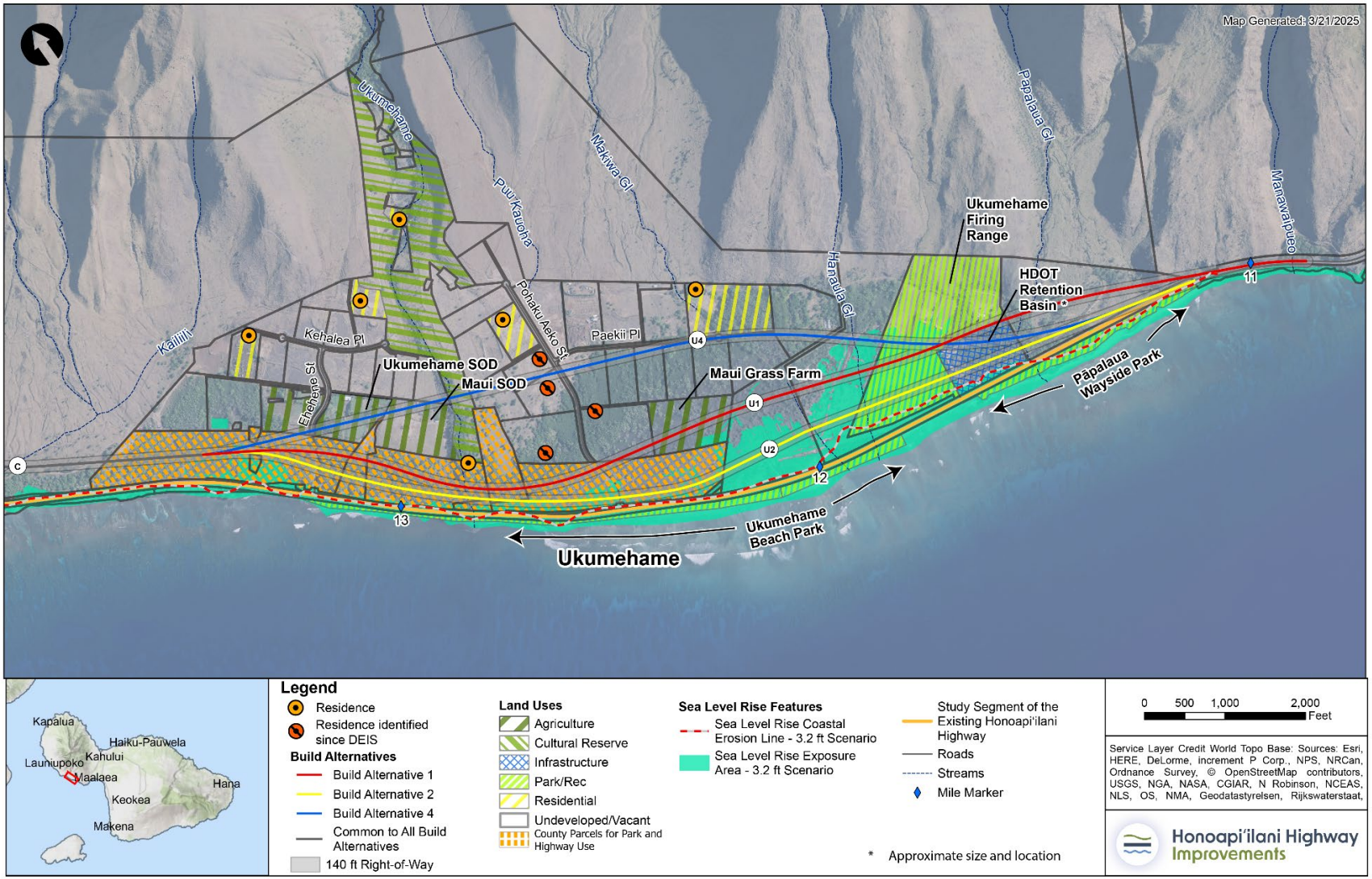
Build Alternative 4 would be the most mauka alignment and would also be primarily through privately owned land. The following key land use effects are specific to Build Alternative 4:

- As with Build Alternative 3, this alternative would require crossing through the same 16-acre parcel with an existing residence but would be located farther mauka from the house.
- Build Alternative 4 would be the closest to the mauka residential areas of the Olowalu Subdivision and about 500 feet from the Olowalu Petroglyphs.
- There are 16 identified private parcels that would be affected by the alignment. With the exception of the one parcel noted above, these are primarily undeveloped parcels of the Olowalu subdivision along with three parcels with agricultural and commercial uses (Section 3.4, Land Acquisition, Displacement, and Relocation, provides more details).
- Build Alternative 4 would cross one parcel's mauka portion of the greenway easement and would require realignment, a grade-separated crossing, or a discontinuous multiuse path. Multiple owners of condominium parcel allocations own this parcel.

Land Use - Ukumehame

FIGURE 3.1-10 shows that all the Build Alternatives would be located primarily on undeveloped land and would convert approximately 69.1 to 75.8 acres of land to a transportation use.

FIGURE 3.1-10. **Build Alternatives and Land Uses: Ukumehame**



Common to All Build Alternatives

At the north end of Ukumehame at its connection point with Olowalu, about a mile of alignment would be common to all the Build Alternatives. This portion of the alignment would traverse approximately 0.6 mile of undeveloped State-owned land, which is conditionally approved to be designated as forest reserve (Section 3.5, Parklands and Recreational Facilities/Beach Access) and has been identified as containing numerous archaeological resources (Section 3.6, Archaeological and Architectural Historic Properties).

Build Alternative 1

From the northern connection with Olowalu, south toward the Pali connection back to the existing highway, Build Alternative 1 is a middle alignment that generally parallels the existing roadway on County-owned lands but turns mauka at Pōhaku ‘Aeko Street to minimize crossing over the Sea Level Rise Exposure Area (SLR-XA) 3.2-foot boundary. Key land use effects specific to Build Alternative 1 include the following:

- Build Alternative 1 would displace a portion of two privately owned lots, including one undeveloped parcel and one parcel with active sod farming use located adjacent to ~~but undeveloped parcels adjacent to~~ the State and County parcels at Ukumehame Firing Range as well as a small portion of a third parcel encompassing privately owned Pōhaku ‘Aeko Street right-of-way.
- Build Alternative 1 crosses midway through State and County parcels at Ukumehame Firing Range follows along the mauka edge of the Hawai‘i Department of Transportation (HDOT) detention basin and across State land to the Pali connection at the southern terminus of the Project.
- The alignment is close to the firing range and, as a result, the conceptual design for Build Alternative 1 would be elevated on a viaduct and remain above the firing range parking lot, thereby allowing for continued use of the recreational resource.
- Build Alternative 1 would have the farthest south connection point at the Pali, which is undeveloped land but has been identified as an area with several archaeological resources (Chapter 3.6, Archaeological and Architectural Historic Properties).
- Build Alternative 1 crosses a County-owned parcel with a residence that is associated with the adjacent kuleana parcel. While the new alignment would be makai of the residence, it could alter the access to the residence, result in displacement, or possibly a relocation of the residence on the same or adjacent parcel.

Build Alternatives 2 and 3

Build Alternatives 2 and 3 have the same alignment ~~through~~ from the north border with Olowalu to its southernmost tie-in point with the existing Honoapi‘ilani Highway near the Pali—a length of about 3.3 miles. From the northern connection with Olowalu, south toward the Pali connection with the existing highway, Build Alternatives 2 and 3 are the most makai alignment and would be generally parallel to the existing highway. Key land use effects specific to Build Alternatives 2 and 3 include the following:

- The alignment would uniformly traverse undeveloped State- and County-owned land, including land that was set aside as part of the Ukumehame Subdivision and reserved for a new highway alignment and land for the Maui County Greenway makai of the new highway alignment.[10]
- Build Alternatives 2 and 3 would displace a small portion of one private parcel for the Pōhaku ʻAeko Street right-of-way.
- The alignment crosses State- and County-owned portions of Ukumehame Firing Range but would not displace the recreational resource. Conceptual design maintains access to the firing range with a new at-grade driveway from Build Alternatives 2 and 3.
- Across much of the firing range property, the alignment is conceptually designed to be on an elevated viaduct over the portions of the low-lying area that contain wetlands and are within the SLR-XA 3.2-foot boundary.
- South of the firing range, the alignment would traverse and widen the existing makai earthen berm of the HDOT detention basin and other State lands until the Pali connection.
- Build Alternatives 2 and 3 have similar potential displacement impacts as Build Alternative 1 on one residence.

Build Alternative 4

From the northern connection with Olowalu, south toward the Pali connection back to the existing highway, Build Alternative 4 would be the most mauka alignment through Ukumehame and was designed to maximize avoidance of the wetlands and 3.2-foot SLR-XA. Key land use effects specific to Build Alternative 4 include the following:

- Build Alternative 4 would traverse privately owned land across the Ukumehame Subdivision. It would displace or occupy portions of up to 20 privately owned parcels of land as well as a portion of Paekiʻi Place and other privately owned street rights-of-way within the subdivision for the area south of the Ukumehame Stream. This would alter the original development plan for the subdivision by removing many of the development parcels and having the highway alignment immediately adjacent to subdivision parcels on the mauka side of Paekiʻi Place.
- Build Alternative 4 would fully or partially displace the operations of Ukumehame and Maui Sod farms. As noted in Section 3.2, Agriculture and Farming, this would not result in a broader effect on agriculture.
- The alignment is closer to the houses that have been built in the Ukumehame Subdivision. It would require the acquisition of 20 private undeveloped parcels within the subdivision and potentially require the relocation of portions of Paekiʻi Place.

Olowalu and Ukumehame Zoning

For both Olowalu and Ukumehame, all Build Alternatives would be in the County AG District, as is the majority of existing Honoapiʻilani Highway. The AG District is the local County zoning district, and its defined purpose is implementing the AG land classification of HRS Chapter 205. Public roads are

[10] https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2005-05-23-MA-FEA-Ukumehame-Subdivision-Phase-1-and-2.pdf.

specifically identified as a permissible use in the State's AG designation and there would be no adverse zoning effects within the AG District.

3.1.5 Construction Effects

HDOT anticipates that project construction would take approximately four years and the Project could potentially be complete and operational by 2030. Certain parcels in the project area may need to be acquired for construction staging, but this cannot be fully determined until the design of the Preferred Alternative is advanced further. Nevertheless, any land use/acquisition required for project construction would be temporary and would not permanently change land use within the project area. Accordingly, construction activities associated with the Project would not be anticipated to result in adverse construction effects to land use and zoning.

3.1.6 Indirect Effects

There are no land use changes (other than the conversion of land to highway use) or new development associated with the Project. Therefore, the Project would not induce growth that would result in changes to land use, population density, or population growth. The project area is regulated by the zoning provisions described above, and potential future development within the project area would abide by the density provisions of applicable zoning, which could be developed as-of-right independent of the Project. Modifications to existing zoning would require approval and would be assessed separately.

The Project would maintain and ensure access to existing streets and parcels. Therefore, the Project would not result in indirect effects to land use or zoning. In addition, the Project does not preclude the development of additional open space resources, particularly along the coast or makai of the new highway alignment, consistent with Maui County policy (Chapter 2, Alternatives, and Section 3.5, Parklands and Recreational Facilities/Beach Access).

3.1.7 Mitigation

Across the larger project area (with the exception of Build Alternative 4 in Ukumehame as noted below), there are no broad or large-scale changes to land use, zoning, and development patterns as a result of the Project. The acquisition of private property for all the Build Alternatives would be pursuant to the federal Uniform Relocation Act process, which protects the rights of property owners and tenants of the property without discrimination. As set forth in Section 3.4, Land Acquisition, Displacement, and Relocation, there would be no additional mitigation required.

As described below, there are specific, parcel-based changes to land use and potential mitigation measures associated with one or more of the Build Alternatives in Olowalu and Ukumehame.

3.1.7.1 Olowalu

<u>Common to All Build Alternatives</u>

All the Build Alternatives would cross agricultural uses (including the Living Earth Systems farm) at the north end of the project area in Olowalu. The first step of mitigation would be working with the tenant

farmer and property owners to determine if operations can continue at the present location by reconfiguring the farm to use other areas of the affected parcel (or other adjacent parcels as available). If the farm reconfiguration is not possible—and as described in Section 3.4, Land Acquisition, Displacement, and Relocation—mitigation would advance through the application of the federal Uniform Relocation Act and its obligations to provide relocation assistance and compensation for property acquisitions.

Build Alternative 1

Build Alternative 1 would displace a portion of the makai section of the Maui Paintball center. The first step of mitigation would be to determine if the use can remain with a reconfiguration and a new access point, or by application of relocation assistance as set forth in federal regulations.

Build Alternative 1 would also fully or partially remove the storage yard used by the Mauna Kahālāwai Watershed Partnership in Olowalu village center. The storage yard is on a large privately owned parcel and would most likely be relocated on the same parcel. If this is not workable, the relocation process described in Section 3.4, Land Acquisition, Displacement, and Relocation, would be the mitigation for the displacement.

Build Alternative 2

Build Alternative 2 would occupy areas currently within a greenway easement and crosses the partially built-out multiuse path. Mitigation for the potential displacement of the multiuse path could include reallocation of the greenway easement area on one or more private parcels and a potential realignment of the multiuse path, which would be determined through the land acquisition process described in Section 3.4, Land Acquisition, Displacement, and Relocation.

Build Alternatives 3 and 4

Build Alternatives 3 and 4 both traverse a 16-acre parcel with an existing residence. Based on the property acquisition process, the initial step would be to determine if the property can be configured and subdivided—allowing the house to remain on portions not disturbed by the highway—or if the entire parcel would be acquired and the house would need to be relocated. In this case, there would be a potential displacement of the residence, which would be mitigated through application of the Uniform Relocation Act as described in Section 3.4, Land Acquisition, Displacement, and Relocation. As described in Chapter 5, Selected Alternative, the Selected Alternative incorporates a shared-use path that would replace the existing subdivision greenway.

In addition, Build Alternatives 3 and 4 would cross smaller portions of the greenway easement and a portion of the partially built-out multiuse path. Mitigation for the potential displacement of a portion of the multiuse path could include reallocation of the greenway easement and a potential realignment of the multiuse path, which would be determined through the land acquisition process described in Section 3.4.

3.1.7.2 Ukumehame

Build Alternative 1

Build Alternative 1 crosses the parking lot of the Ukumehame Firing Range. The conceptual design for this alignment includes a viaduct over the parking lot to avoid displacement of the use. The viaduct is

also designed to extend over the HDOT detention basin and arrive at the southernmost connection at the terminus of the Project, which ~~effects~~ affects newly identified historic resources (Section 3.6, Archaeological and Architectural Historic Properties, includes a discussion of historic resources and Chapter 5, Preferred Alternative, includes mitigation/refinement information for the Preferred Alternative alignment).

Build Alternative 1 has the potential to result in a residential displacement or relocation of the residence on the same parcel, which would be mitigated through application of the Uniform Relocation Act as described in Section 3.4, Land Acquisition, Displacement, and Relocation. In addition, Build Alternative 1 would require the acquisition of one full parcel containing an agricultural use off of Pōhaku 'Aeko Street (El Toro Soysia Turf-Maui Grass Farm), which would be similarly mitigated through the application of the Uniform Relocation Act.

Build Alternatives 2 and 3

Build Alternatives 2 and 3 would have the same potential residential displacement and mitigation as Build Alternative 1.

Build Alternative 4

Build Alternative 4 would displace active agricultural uses and require the acquisition of 20 private undeveloped parcels. The alignment would substantially alter the development potential of the Ukumehame Subdivision and change its approved development patterns. The requirement to adhere to the Uniform Relocation Act—as described in Section 3.4—would mitigate the potential adverse effect of the agricultural use displacement and other owners. In total, the land acquired for the new highway alignment could also be evaluated as part of a relocation strategy that would allow for reconfiguration of the farms on lands adjacent to the new alignment.

3.1.8 Build Alternatives Comparative Assessment

3.1.8.1 Olowalu

In Olowalu, all the Build Alternatives would result in a partial loss of active agricultural use at the north end of Olowalu. This is considered an adverse effect. In consultation with the property owner and the tenant—and as required by the Uniform Relocation Act (Section 3.4, Land Acquisition, Displacement, and Relocation)—mitigation could be to retain the usable agricultural portions of the land and expand the use to adjacent parcels (or parcels acquired by HDOT as part of the Project).

As described above, Build Alternatives 3 and 4 would both traverse a 16-acre parcel with an existing residence. Build Alternative 1 would also fully or partially remove the storage yard used by the Mauna Kahālāwai Watershed Partnership in the Olowalu village center.

Build Alternatives 2, 3, and 4 would intersect with the greenway easements and partially built-out multiuse path within the Olowalu Subdivision.

TABLE 3.1-4 provides a summary of the primary evaluation factors used to compare the No Build Alternative and the Build Alternatives in Olowalu.

TABLE 3.1-4. **Comparison of No Build Alternative and the Build Alternatives in Olowalu**

ALTERNATIVE	ACRES CONVERTED TO TRANSPORTATION USE	PRIVATE PARCELS AFFECTED	POTENTIAL RESIDENTIAL, BUSINESS, OR AGRICULTURAL DISPLACEMENT
No Build Alternative	0	0	0 (Residential) 0 (Business) 0 (Agricultural)
Build Alternative 1	73.2	15	0 (Residential) 1 (Business) 1 (Agricultural)
Build Alternative 2	68.8	15	0 (Residential) 0 (Business) 1 (Agricultural)
Build Alternative 3	66.9	15	1 (Residential) 0 (Business) 1 (Agricultural)
Build Alternative 4	66.2	16	1 (Residential) 0 (Business) 1 (Agricultural)

3.1.8.2 Ukumehame

Build Alternatives 1, 2, and 3 have a similar land use effect—mostly using undeveloped and publicly owned land. Build Alternative 1 would mostly traverse State- and County-owned land and displace a small portion of two privately owned but undeveloped parcels as well as a small portion of a third parcel encompassing privately owned Pōhaku ʻAeko Street right-of-way, and one full parcel containing an agricultural use off of Pōhaku ʻAeko Street (El Toro Soysia Turf-Maui Grass Farm). Build Alternatives 2 and 3, which are the same in Ukumehame, would stay in State- and County-owned land and would displace a small portion of one private parcel for the Pōhaku ʻAeko Street right-of-way. Build Alternative 4 would displace an active agricultural use (Maui/Ukumehame Sod Farm) and up to 20 private parcels including a portion of Paekiʻi Place.

TABLE 3.1-5 provides a summary of the primary evaluation factors used to compare the No Build Alternative and the Build Alternatives in Ukumehame.

TABLE 3.1-5. **Comparison of the No Build Alternative and Build Alternatives in Ukumehame**

ALTERNATIVE	ACRES CONVERTED TO TRANSPORTATION USE	PRIVATE PARCELS AFFECTED	POTENTIAL RESIDENTIAL, BUSINESS, OR AGRICULTURAL DISPLACEMENT
No Build Alternative	0	0	0 (Residential) 0 (Business) 0 (Agricultural)
Build Alternative 1	75.8	3	1 (Residential) 0 (Business) ~~0~~1 (Agricultural)
Build Alternatives 2 and 3	70.4	1	1 (Residential) 0 (Business) 0 (Agricultural)
Build Alternative 4	69.1	20	0 (Residential) 0 (Business) 2 (Agricultural)

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3.2 AGRICULTURE AND FARMING

This section evaluates the potential effects of the Honoapi‘ilani Highway Improvements Project (the Project) on agriculture and farmland resources in the project area.

Following publication of the Draft Environmental Impact Statement (EIS), the public was afforded an opportunity to review and comment on the effects of the Project with respect to agriculture and farming. As part of this Final EIS, the analysis contained within this section was revised to reflect those comments, or other information gathered after the publication of the Draft EIS.

3.2.1 Regulatory Context

The State of Hawai‘i and the U.S. Department of Agriculture (USDA) have designated protected farmlands to curtail the unnecessary and irreversible conversion of productive farmland to nonagricultural uses. Federal agencies must comply with the Farmland Protection Policy Act (FPPA) (7 United States Code 4201 et seq.), which intends to “minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.”

The FPPA covers any federal activity that may irreversibly (directly or indirectly) convert farmland to a nonagricultural use. Transportation infrastructure is considered nonagricultural. The State of Hawai‘i developed and compiled the Agricultural Lands of Importance to the State of Hawai‘i (ALISH) Classification System in coordination with the federal FPPA.

3.2.1 Methodology

In addition to reviewing the Project’s ALISH Classification System and identifying active agriculture in the project area, the evaluation of the broader potential effects on agricultural resources in Maui and Hawai‘i overall is based on completing the Farmland Conversion Impact Rating For Corridor Type Projects (Form NRCS-CPA-106). The USDA’s Natural Resource Conservation Service (NRCS) reviews this analysis, which scores and ranks affected farmlands by attributes, including geographic context such as existing farming concentration, sizes of existing facilities, and availability of farm support services.

3.2.2 Affected Environment

The ALISH Classification System identifies three categories of agricultural land that are equivalent to the FPPA/NRCS categories (the federal classification is shown in parentheses):

- Prime Agricultural Lands (Prime Farmlands)
- Unique Agricultural Lands (Unique Farmlands)
- Other Important Lands (Additional Farmland of Statewide and Local Importance)

As set forth in 7 Code of Federal Regulations (CFR) Section 658.2(a), FPPA-protected farmland does not include land that is within or committed to urban development or water storage, which includes

lands identified as "urbanized area" on U.S. Census Bureau maps. Lands not considered for ALISH classification also include forest reserves, public parks and historic sites, lands with slopes that are more than 35 degrees, and military installations (with exceptions).

The ALISH/FPPA classifications of Prime Agricultural Lands and Other Important Lands comprise much of the project area (FIGURE 3.2-1 and FIGURE 3.2-2 for Olowalu and Ukumehame, respectively). Prime Agricultural Lands in the area generally form smaller bands at the north end of Olowalu, along the coastline and to the south in Olowalu toward Ukumehame, and then south of Ukumehame Stream. The areas encompassing Ukumehame Firing Range are not designated Prime Agricultural Lands. Overall, Maui has about 120,500 acres in active commercial agriculture. The industry is located more in central Maui and into the uplands area of eastern Maui.[1]

In Olowalu, there are active agricultural uses in the northern portion of the project area, most notably the Living Earth Systems farm. The farm focuses on sustainable and local food production and provides educational outreach on about 17 acres of actively farmed land. There are also smaller cultural-agricultural activities on the Olowalu Cultural Reserve mauka of the project area.

In Ukumehame, there are two small commercial sod farms are on properties off Ehehene Street, and one off of Pōhaku 'Aeko Street. Ukumehame Sod is on a roughly 15-acre farm while Maui Sod is on a roughly 8-acre parcel. El Toro Soysia Turf-Maui Grass Farm is located on an approximately 12.77-acre parcel. Smaller cultural-agricultural practices also occur on properties located mauka of the project area, along with one area closer to the existing highway next to Ukumehame Stream.

3.2.3 Environmental Consequences

3.2.3.1 No Build Alternative

The No Build Alternative would maintain the highway in its existing configuration with ongoing maintenance and repairs. No changes are anticipated to the farmland classifications in the project area. With no change in the alignment of the existing highway, there would be no effect on existing policies and no impacts to existing agricultural activities.

3.2.3.2 Build Alternatives

Olowalu

FIGURE 3.2-1 shows the location of agricultural uses, agricultural lands of importance to the State of Hawai'i, and the Build Alternatives. All Build Alternatives would affect the agricultural uses in the northern portion of Olowalu and could require acquisition of a portion of the active agricultural use areas, including the Living Earth Systems farm and an area of smaller agricultural tenants. Acquisition of these lands could require relocation of these agricultural uses in conformance with the Uniform Relocation Act (Section 3.4, Land Acquisition, Displacement, and Relocation), which would mitigate potential adverse effects associated with the acquisition.

While all Build Alternatives have an impact on these resources, there is variation by alternative:

[1] https://hdoa.hawaii.gov/blog/main/agbaselineupdate/.

- Build Alternative 1 is the most makai and within the area of these agricultural uses, running parallel to and just makai of the existing highway. This alternative would eliminate and displace a portion of the cane haul road as well as the makai agricultural uses comprised of smaller tenant parcels. While a new access point would need to be provided, Build Alternative 1 would not displace the Living Earth Systems farm.
- Build Alternative 2 crosses these agricultural use parcels just mauka of Build Alternative 1. The alternative would not be expected to displace the makai agricultural uses and would not displace the Living Earth Systems farm. Access for the makai farm tenants would be along the existing cane haul road, but a new access point to the Living Earth Systems farm would be required.
- Build Alternatives 3 and 4 would cross this parcel farther mauka and would bisect and displace a portion of the Living Earth Systems farm.

Ukumehame

FIGURE 3.2-2 shows the location of the ~~two~~ three sod farms in Ukumehame. Build Alternative 1 would require acquisition of one agricultural use (El Toro Soysia Turf-Maui Grass Farm). Build Alternative 4 would require acquisition of all or a portion of ~~these~~ two agricultural uses (Ukumehame Sod and Maui Sod). The other Build Alternatives would not affect these agricultural uses.

In addition, agricultural uses are present mauka of the project along the Ukumehame Stream and on the kuleana parcel located mauka of the existing highway. The Build Alternatives would not displace these uses.

FIGURE 3.2-1. **Project Area Agricultural Lands of Importance to the State of Hawai'i Classifications: Olowalu**

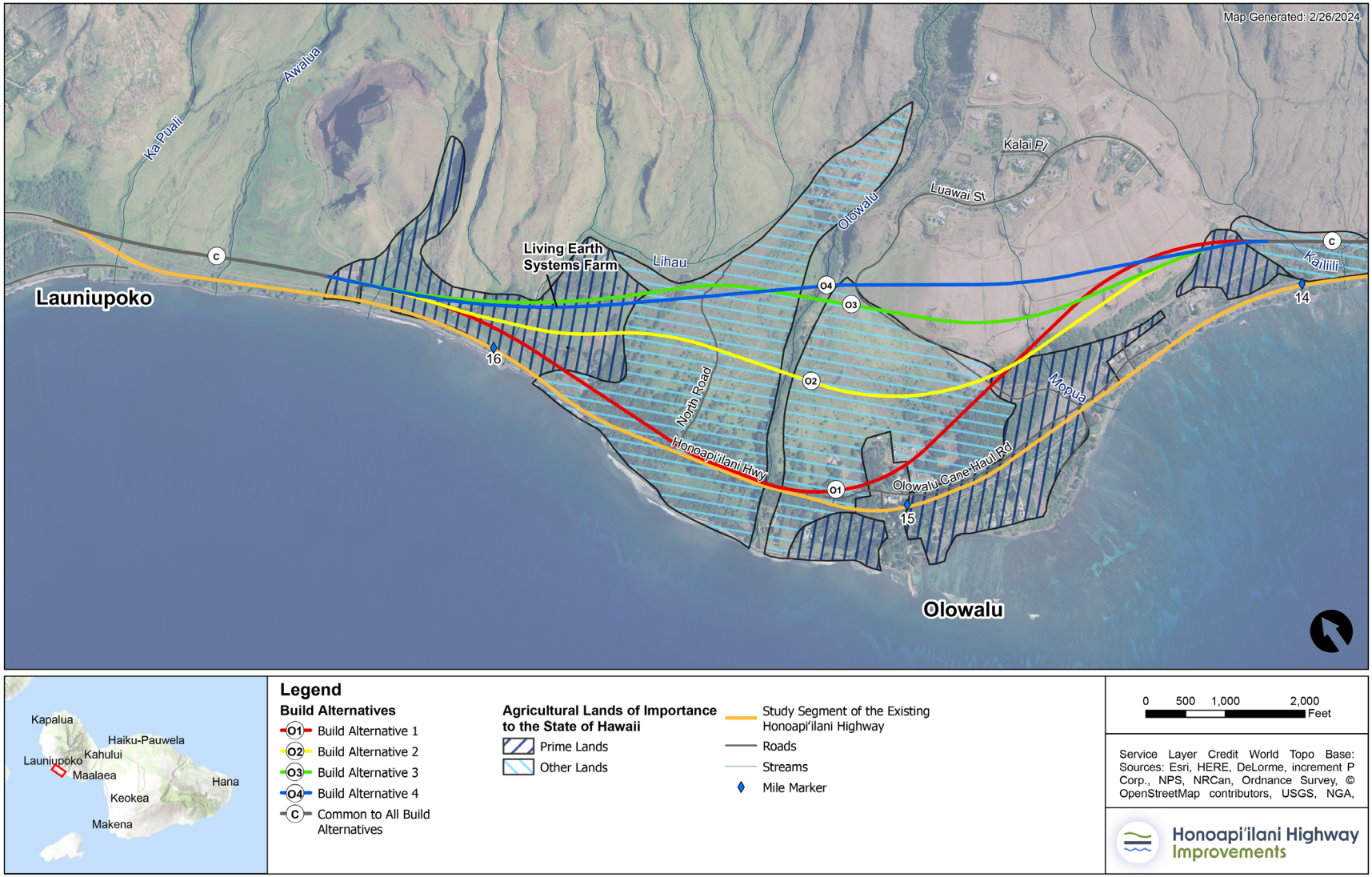
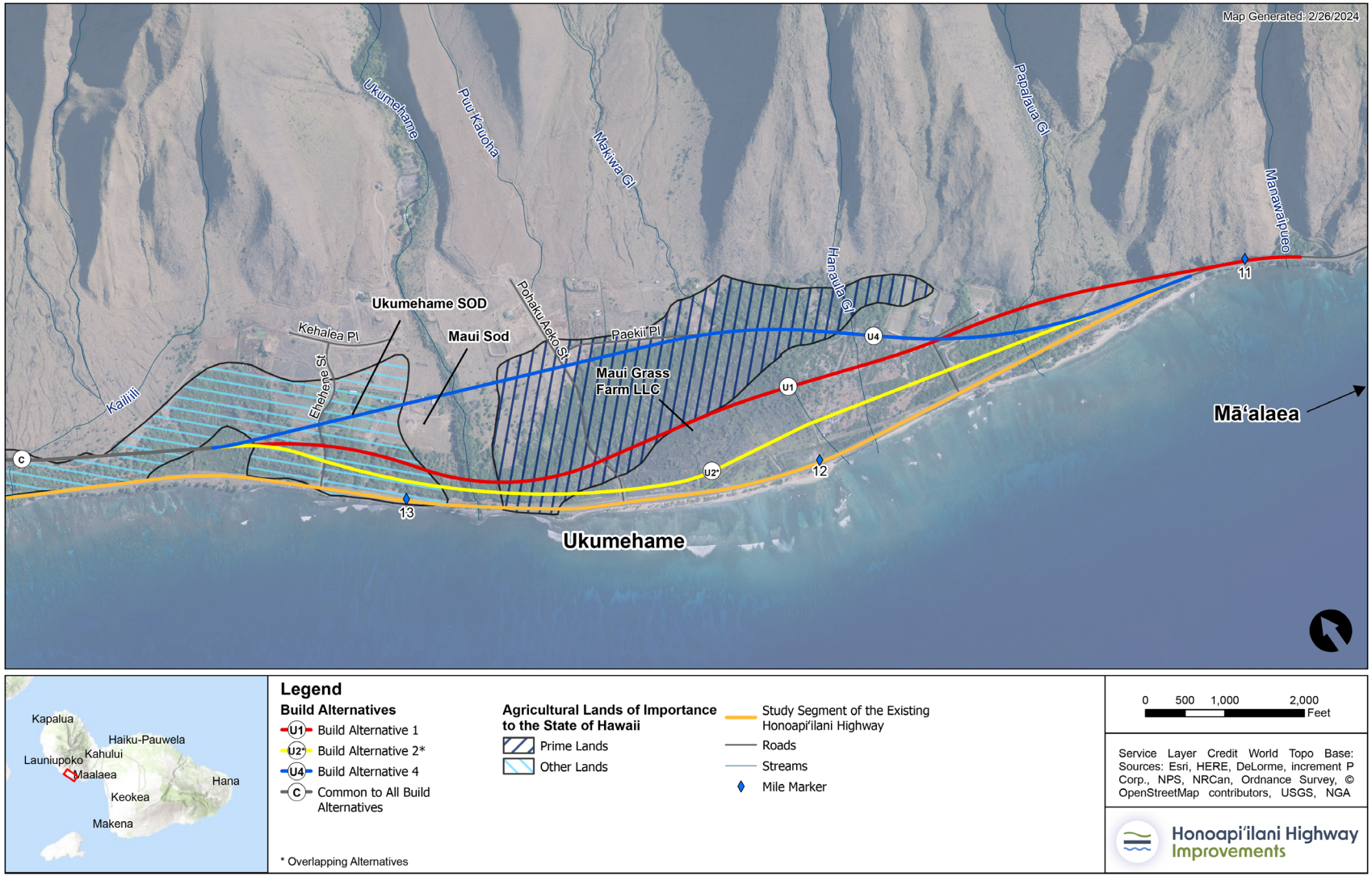


FIGURE 3.2-2. **Project Area Agricultural Lands of Importance to the State of Hawai'i Classifications: Ukumehame**



Combined Project Area

The Federal Highway Administration and the Hawai'i Department of Transportation (HDOT) prepared and submitted a completed Farmland Conversion Impact Rating For Corridor Type Projects (NRCS-CPA-106) to the U.S. Department of Agriculture's Natural Resource Conservation Service. The assessment provides a scoring system with a maximum of 260 points, and a resource area with a score over 160 is considered a threshold significance for adverse effect ~~(?)~~. The Build Alternatives scored 116 or less which is below the threshold of an adverse effect. This indicates that while the area has mapped agricultural land classifications, the area is not part of a critical agricultural cluster or supporting regional agriculture. Therefore, no further analysis pursuant to the FPPA (7 CFR Part 658) is required for the Project.

3.2.4 Construction Effects

HDOT anticipates that project construction would take approximately four years and the Project could potentially be complete and operational by 2030. Certain parcels in the project area may need to be acquired for construction staging; however, until the design of the Preferred Alternative is further along all the parcels needed cannot be fully determined. Although construction activities associated with the Project are not fully known at this stage, they would not be anticipated to result in adverse effects to agriculture and farming.

3.2.5 Indirect Effects

Beyond the proposed conversion of existing land uses to highway use (mostly vacant undeveloped land along with specific areas of agricultural uses and commercial uses that vary with the Build Alternatives), the Project results in no land use changes or new development. It is unlikely that the Project would induce growth resulting in changes to land use, population density, or population growth. There would be no anticipated indirect effect on agricultural uses given the limited amount and small, isolated characteristics of agricultural uses that are present in the project area. Overall, because the Project would not result in land use changes or induce growth that would result in land use changes, agricultural lands within the surrounding area would not be indirectly affected by the Project.

3.2.6 Mitigation

In the small area of active agriculture in the northern end of Olowalu, all the Build Alternatives would result in some level of displacement or compromised access to active agricultural uses, including the makai small tenant farms (under Build Alternative 1) and the Living Earth Systems farm (Build Alternatives 3 and 4). Build Alternative 2 would have the smallest area of displacement but would require continued access to the agricultural uses. These changes would require at least a partial acquisition of property and potential mitigations could include the following:

- Retaining access to the usable agricultural portions of the land
- Expanding the farm to adjacent commonly owned parcels (or parcels acquired by HDOT as part of the Project)

- If necessary, relocating the agricultural use pursuant to the Uniform Relocation Act, as applicable, and other provisions (Section 3.4, Land Acquisition, Displacement, and Relocation)

In Ukumehame, Build Alternative 1 would require acquisition of agricultural use (El Toro Soysia Turf), and Build Alternative 4 would require acquisition of areas containing active agricultural use (Maui/Ukumehame Sod Farm). Mitigation could include retaining the usable agricultural portions of the land and expanding the use to adjacent commonly owned parcels (or parcels acquired by HDOT as part of the Project). If the agricultural uses can no longer operate at these locations, the displacement would be subject to the Uniform Relocation Act and other provisions (Section 3.4).

3.2.7 Build Alternatives Comparative Assessment

TABLE 3.2-1 summarizes key evaluation factors in comparing the No Build Alternative and the Build Alternatives.

TABLE 3.2-1. **No Build Alternative and Build Alternatives Comparison**

ALTERNATIVE	POTENTIAL DISPLACEMENT	CONSISTENCY WITH THE FARMLAND PROTECTION POLICY ACT
OLOWALU		
No Build Alternative	0	Yes
Build Alternative 1	2*	Yes
Build Alternative 2	2	Yes
Build Alternative 3	1	Yes
Build Alternative 4	1	Yes
UKUMEHAME		
No Build Alternative	0	Yes
Build Alternative 1	~~0~~1	Yes
Build Alternative 2	0	Yes
Build Alternative 3	0	Yes
Build Alternative 4	2	Yes

*(1) Living Earth Systems farm; (2) grouping of small tenant farmers

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3.3 COMMUNITY FACILITIES AND SERVICES

This section evaluates the potential effects of the Honoapiʻilani Highway Improvements Project (the Project) on the local community in the context of existing and future community facilities and services. Following publication of the Draft Environmental Impact Statement (EIS), the public was afforded an opportunity to review and comment on the effects of the Project with respect to community facilities and services. Based on those comments, or other information gathered after the publication of the Draft EIS, no revision to the analysis contained within this section was warranted and no further analysis is required as part of this Final EIS.

3.3.1 Regulatory Context

Community facilities and services are community characteristics evaluated in an ~~a National Environmental Policy Act~~ Environmental Impact Statement following long-established guidance found in Federal Highway Administration Technical Advisory T 6640.8A (1987)[1] and the Hawaiʻi Revised Statutes Chapter 343.

3.3.2 Methodology

The project area and the broader region were evaluated to determine the presence and location of community facilities and services as well as to identify planned or proposed facilities.

3.3.3 Affected Environment

No municipal buildings are in the project area. The closest public services—such as schools, police, fire, and ambulance—are in Lāhainā, as is the Lāhainā Civic Center. Area schools include King Kamehameha III (this school was destroyed in the devastating 2023 wildfire) and Nāhiʻenaʻena Elementary Schools, Lāhainā Intermediate, and Lāhaināluna High School. The closest hospital is in Kahului.

Two regional area initiatives have been proposed to provide additional civic services:

- Planning for the West Maui Hospital has been in process for several years. Through State House Bill 1255 2023, $20 million in special-purpose revenue bonds have been designated to assist the West Maui Hospital Foundation with the construction of the West Maui Hospital and Medical Center on Kakaalaneo Road in Kāʻanapali.[2]

[1] https://www.environment.fhwa.dot.gov/legislation/nepa/guidance_preparing_env_documents.aspx#land. Accessed December 2023.

[2] https://www.wmhf.org/.

- The West Maui Improvement Foundation and the West Maui Taxpayers Association led a public campaign to authorize and construct a new fire station in Olowalu. An agreement is in place to provide the land, but no formal planning for the project has started.[3]

3.3.4 Environmental Consequences

3.3.4.1 No Build Alternative

The No Build Alternative would maintain the highway in its existing configuration with ongoing maintenance and repairs.

Overall, the Olowalu and Ukumehame communities would continue to travel to the north toward Lāhainā or toward the major centers of Kahului and Wailuku for access to community services. The reduced reliability of the roadway in the No Build Alternative would impede travel by community residents and through-travelers, including emergency responders, to such locations.

3.3.4.2 Build Alternatives

There are no community facilities or services located within the project area. As with the No Build Alternative, the Olowalu and Ukumehame communities would continue to travel to the north toward Lāhainā or toward the major centers of Kahului and Wailuku for access to community services. The Project would provide a more reliable transportation corridor through the area, which could benefit travel by community residents and through-travelers, including emergency responders, to such locations. In addition, the Project would generally support future community facilities that rely on Honoapi‘ilani Highway to service the public. With regard to the portion of the existing highway that would be transferred to the County of Maui, HDOT will coordinate with the Maui County Police Department regarding proactive strategies to minimize potential public safety concerns, including those related to criminal activity and disaster management.

3.3.5 Construction Effects

Because no community facilities or services are in the project area, there would be no direct construction effects. If the proposed fire station in Olowalu were to be built, its location and timing could require coordination with the Hawai‘i Department of Transportation in terms of right-of-way access during or after construction is completed on the roadway itself. Project construction is likely to overlap with rebuilding Lāhainā after the devastating 2023 wildfire, although the majority of the highway construction would be isolated from the through-traffic carrying construction workers and materials (Section 3.14, Transportation).

3.3.6 Indirect Effects

There are no community facilities in the project area and the Project would not increase the demand for community facilities and services. Because there are no land use changes or new development associated with the Project, there would be no anticipated demand for new community facilities to be

[3] https://www.mauinews.com/news/local-news/2023/07/future-olowalu-fire-station-lands-200k-in-conditional-pledges/.

located within the project area. Accordingly, because the Project would not increase demand or induce growth that would increase demand for community facilities and services, there would be no indirect effect on community facilities.

3.3.7 Mitigation

There would be no adverse effects on community facilities or services; therefore, no mitigation is proposed.

3.3.8 Build Alternatives Comparative Assessment

None of the Build Alternatives would have an adverse effect on community facilities or services. All of the Build Alternatives would have a beneficial effect by improving the reliability and resilience of the highway’s access to community facilities throughout the region.

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3.4 LAND ACQUISITION, DISPLACEMENT, AND RELOCATION

This section identifies the potential land acquisition requirements for the Build Alternatives, evaluates if there could be a displacement of residents or businesses, and provides an overview of the federal and State regulations governing land acquisition.

Following publication of the Draft Environmental Impact Statement (EIS), the public was afforded an opportunity to review and comment on the effects of the Project with respect to land acquisition, displacement, and relocation. As part of this Final EIS, the analysis contained within this section was revised to reflect those comments, or other information gathered after the publication of the Draft EIS.

Property acquisition would be carried out during the design-build phase of final design when right-of-way configurations would be fully identified. For purposes of this ~~Draft~~ Final ~~Environmental Impact Statement (~~EIS, this section discloses the parcels within the project area that any Build Alternative would traverse. If property acquisition effects are identified during final design ~~design-build~~ that exceed effects identified in this Final EIS, these effects will be examined in a NEPA re-evaluation.

The types of anticipated land acquisitions include the following:

- **Full and Partial Acquisitions** would occur when all or a portion of a parcel would be transferred from its existing owner to the Hawaiʻi Department of Transportation (HDOT) for transportation use. This transfer could potentially require displacement and relocation of the acquired property.
- **Temporary and Permanent Easements:** Temporary easements would acquire the use or control of property during project construction for a specific use or uses and for a limited period (usually the length of the construction contract). Permanent easements would acquire the use or control of property for a designated purpose in perpetuity. In most cases, temporary and permanent easements would not require displacement and relocation. The property owner can continue to use the property for purposes that would not interfere with the easement.

3.4.1 Regulatory Context

3.4.1.1 Real Property Acquisition

A federally funded project must adhere to the Uniform Standards of Professional Appraisal Practice and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), as codified in 42 United States Code Sections 4601 et seq., and the applicable implementing regulations set forth in Title 49, CFR, Part 24.

The Uniform Act protects the rights of owners and tenants of property that is acquired to implement a project without discrimination. Its intent is to ensure that affected individuals are justly compensated for losing property or being required to relocate due to programs and projects designed for the benefit of the public.

In Hawaiʻi, the acquisition of real property must adhere to the Hawaii State Eminent Domain Law (2022 Hawaii Revised Statues, Title 9 Public Property, Purchasing, and Contraction, Section 101, Eminent Domain), which establishes the public purpose and procedures for private property acquisition by the

State,[1] and Hawaii Revised Statues, Title 12 Conservation and Resources, Chapter 171, Public Lands, Management, and Disposition.[2] In addition, the HDOT Highways Division established property acquisition procedures in its 2011 Right-of-Way Manual, as amended, including the agency's compliance with federal and State of Hawai'i regulations and guidance.[3]

3.4.1.2 Māhele Land Tenure Rights

The Māhele reformed Hawai'i's traditional system of land tenure from the chiefs and people holding land in common to a private ownership model based on Western land regimes. It was a multipart process that began in 1845 with the establishment of a Board of Commissioners to Quiet Land Titles, also known as the Land Commission. Native tenants who intended to secure rights or title to any lands submitted their claims to the five-member Land Commission Board. The Board then determined the validity of those claims and issued a Land Commission Award to successful claimants.[4] Upon payment of a commutation fee to the government, a Royal Patent was issued, perfecting title to the land.[5]

The actual land division, or Māhele, began in 1848. It required an initial process of clarifying and separating the respective property interests of the King, the chiefs and konohiki (ahupua'a managers), and the native tenants or hoa 'āina.[6] The intent was for the King (Kamehameha III) to retain his own individual lands (known as the Crown Lands), and for the remaining lands to be divided into thirds and entitled to the government, the chiefs and konohiki, and the native tenants.[7] These three land categories are Government Lands, Konohiki Lands, and Kuleana Lands.

In designations of lands as either Crown or Government, and through all awards of whole ahupua'a, 'ili, and later land sales to foreigners, the rights of the native tenants were expressly reserved, "Koe na Kuleana o Kanaka" (Reserving the Rights of Native Tenants).[8] For the native tenants, it took the passage of the Act of August 6, 1850, commonly known as the Kuleana Act, to facilitate the process of taking title to their own landholdings, which became known as Kuleana Lands. While the Kuleana Act waived the commutation fee, a land survey was still required. The tenants were permitted to make claims for any lands that they cultivated and were required to provide evidence of such through testimony to the Land Commission. In West Maui, only approximately half of the native tenants who were expected to file claims did so by the initial February 14, 1848, deadline.[9]

Although the intent was for the land to be divided equally among the government, the chiefs and konohiki, and native tenants, the outcome was far from equitable. The native tenants received less than 1% of all the land in Hawai'i—a total of 28,658 acres.[10] Many eligible Hawaiians would later

1 2022 Hawaii Revised Statues, Title 9 Public Property, Purchasing, and Contraction, Section 101, Eminent Domain.

2 https://www.capitol.hawaii.gov/hrscurrent/Vol03_Ch0121-0200D/HRS0171/HRS_0171-.htm.

3 https://hidot.hawaii.gov/highways/files/2012/10/ROW-MANUAL-2011.pdf.

4 Chinen, Jon J. 1958. The Great Māhele: Hawai'i's Land Division of 1848. University of Hawai'i Press, Honolulu.

5 Ibid.

6 Ibid.

7 Ibid.

8 Alexander, W.D. 1890. A Brief History of Land Titles in the Hawaiian Kingdom. In Hawaiian Almanac and Annual for 1891, edited by T. G. Thrum. Press Publishing Company Print, Honolulu.

9 Scheuer, Jonathan L. and Isaki, Bianca K. 2021 Water and Power of West Maui. University of Hawai'i Press, Honolulu.

10 Van Dyke, Jon M. 2008. Who Owns the Crown Lands of Hawai'i. University of Hawai'i Press, Honolulu.

exercise an option to purchase government lands, greatly increasing native tenant ownership to 195,000 acres.[11] Any rights to Kuleana Lands protected the entitlement of Hawaiian tenant farmers[12] and their descendants to, among other things, access landlocked[13] real estate parcels and access to drinking and running water. These rights were historically ignored, resulting in displacement until Hawaiians asserted their rights—rights that have been affirmed by the State of Hawai‘i Supreme Court as recently as 2012.

3.4.1.3 Property Acquisition Process

Privately Owned Property Acquisition Process

The HDOT Right-of-Way Branch has primary responsibility for the acquisition and management of lands, right-of-way easements, and other real property interests. The branch also provides right-of-way cost estimates and monitors real property acquisition and relocation activities conducted by local public agencies.

Overall, the State of Hawai‘i ensures that legal and physical possession of all rights-of-way is available before starting physical construction on individual properties. This process involves direct communication with the parcel owners, creation of fair and independent property appraisals, negotiation, resolution and agreement on compensation and property transfer. For this process, the Right-of-Way Branch follows established real property acquisition procedures provided in the Right-of-Way Manual to do the following:

- Encourage and expedite the acquisition of real property through agreements with owners that are based on legal appraisals to determine fair-market value and in accordance with State of Hawai‘i and federal laws.
- Avoid litigation and relieve congestion in the courts. However, if a property owner chooses to reject the State of Hawai‘i’s offer to purchase or rent a subject property, the Department of the Attorney General would be requested to file proceedings in accordance with Hawai‘i State Eminent Domain Law to ensure a fair and legal process.
- Ensure consistent treatment for owners and tenants of real property that is acquired for State of Hawai‘i, federal, and federally assisted highway and highway-related programs and projects.
- Promote public confidence in the State of Hawai‘i’s land acquisition practices and the agents in the Land Acquisition Section.

Publicly Owned Property Transfer or Acquisition Process

The HDOT right-of-way process guides State and County property transfers and the HDOT Right-of-Way Branch facilitates the land acquisition. Transfers of land jurisdiction from County to State would be facilitated by the HDOT Highways Division. And as set forth in the HDOT Right-of-Way Manual, there is no cost for the transfer of State land. With the exception of lands owned by the State of Hawai‘i

11 Scheuer, Jonathan L. and Isaki, Bianca K. 2021 Water and Power of West Maui. University of Hawai’i Press, Honolulu.

12 Wikipedia, “Tenant farmer,” last modified April 8, 2023, 22:18 (UTC), https://en.wikipedia.org/wiki/Tenant_farmer.

13 Wikipedia, “Landlocked parcel,” last modified May 25, 2023, 10:24 (UTC), https://en.wikipedia.org/wiki/Landlocked_parcel.

Department of Land and Natural Resources (DLNR), HDOT would not be required to seek approval from the DLNR Land Board. Based on coordination with HDOT, County-owned parcels are generally quitclaimed to the State at no cost; however, if there are encumbrances on title and the County would not obtain releases from the encumbrance holder, then the State would need to obtain the releases. If the State is only requesting a temporary acquisition, then generally the County would provide the State with a form agreement with indemnity language.[14]

Property Acquisition Process for Kuleana Land

In addition to the procedures mandated by the Uniform Act, the HDOT right-of-way process provides extended title searches tracing land rights history. Additionally, the process provides considerations of kuleana land rights such as ensuring continued access, unless the State is acquiring the entire parcel with no remaining use.

There are five coterminous Tax Map Key (TMK) parcels with kuleana parcels in the project area (TABLE 3.4-1). Because of these synchronous termini, it is easy to consider the parcel kuleana only. However, acquisition procedures must occur for not just the kuleana interest, but also for the fee ownership of the TMK parcels. Therefore, for the purposes of this chapter, parcels with coterminous TMK and kuleana boundaries would be considered as both a TMK lot and a kuleana parcel.

TABLE 3.4-1. **Tax Map Keys with Corresponding Co-Terminus Kuleana Parcels**

TAX MAP KEY	KULEANA ID
48002049	5380
48002057	6408_5124
48002058	5380
48002059	6751
48002069	6079/6609

3.4.2 Methodology

Based on preliminary conceptual designs for the Build Alternatives, estimated limits of disturbance (including permanent BMPs) for each alternative were used to identify properties where land acquisition or easements would most likely be required for either the Project's construction or operation (or both). GIS databases obtained from the State of Hawai'i and the County of Maui were used to graphically identify potentially affected parcels and to obtain available parcel-level data.

This ~~Draft~~ Final EIS includes the initial and typically most conservative identification of potential property acquisition for the Build Alternatives. The more refined Preferred Alternative, which is used as a basis for the final design, ~~would~~ provides a better opportunity to clarify property acquisition limits and minimize property acquisition disturbance.

[14] TO COME

Typically, HDOT initiates the formal acquisition process upon receipt of the final right-of-way delineation, and formal acquisition proceedings begin after completion of the National Environmental Policy Act and Hawaiʻi Environmental Policy Act reviews, before construction begins.

3.4.3 Affected Environment

The affected environment includes a mix of private and publicly owned lands.

In Olowalu, the Build Alternatives traverse an area mainly consisting of large private parcels within the Olowalu Subdivision. State of Hawaiʻi-owned lands associated with the existing highway right-of-way as well as lands to the north of the project area include natural reserve parcels that surround the private land in addition to the County of Maui's former landfill. Maui County owns land on either side of the Lahaina bypass at the northern-most end of the project area.

In Ukumehame, the private properties are centralized in the Ukumehame Subdivision, and there is a larger proportion of State- and County-owned land. Most notably this includes the County's beach parks at the south end of the project area and Ukumehame Firing Range. The County also owns land running alongside the existing highway and makai of the subdivision. The State owns property at the firing range (under the jurisdiction of the Hawaiʻi Department of Defense ~~State's defense department~~) as well as natural reserve lands that surround the subdivision (most notably, the area between Ukumehame and Olowalu).

3.4.4 Environmental Consequences

3.4.4.1 No Build Alternative

Under the No Build Alternative, the Project would not be built and would not have any acquisition impacts on residential or commercial properties. Because the existing highway would continue to be inundated by rising sea water and affected by coastal storms, emergency and long-term repairs could have temporary to permanent effects on adjacent properties to keep the highway operational.

3.4.4.2 Build Alternatives

As summarized below, the Build Alternatives in both Olowalu and Ukumehame would require property acquisition, including the acquisition of kuleana parcels.

Olowalu

TABLE 3.4-2 summarizes the properties that would require a more detailed evaluation for right-of-way acquisition or easements for the Build Alternatives. Lots where a Build Alternative may also affect an existing greenway easement are also identified. TABLE 3.4-3 summarizes the affected kuleana parcels in Olowalu.

Common to All Build Alternatives

The Olowalu Build Alternatives would affect the State of Hawaiʻi and County of Maui parcels at the north end of the project area, including the displacement and need to relocate the Maui County transfer station at the north end of the project area. Maui County has long considered relocation options for this facility to move it closer to the Lāhainā urban center, where most users originate. The

Project would accelerate the need for relocation. The alternatives would also require acquisition and potential relocation of the agricultural uses at the north end of the Olowalu Subdivision. While the ultimate acquisition and relocation requirements will be negotiated once final design is completed, additional tables presented below provide initial estimates about the extent of the potential private land acquisition required for each parcel for each alternative.

TABLE 3.4-2. **Land Acquisition Parcels by Olowalu Build Alternative**

TAX MAP KEY	BUILD ALTERNATIVE 1 LAND ACQUISITIONS	BUILD ALTERNATIVE 2 LAND ACQUISITIONS	BUILD ALTERNATIVE 3 LAND ACQUISITIONS	BUILD ALTERNATIVE 4 LAND ACQUISITIONS	OWNER
47001030*	X	X	X	X	County
48003008	X	X	X	X	State
48003034	X				State
48003039	X	X	X	X	State
48003098	X			X	Private
48003099	X			X	Private
48003100	X	X	X	X	Private
48003101	X	X	X	X	Private
48003102	X	X			Private
48003103	X	X			Private
48003104	X	X**			Private
48003105	X	X**	X**		Private
48003106			X	X**	Private
48003107			X	X	Private
48003108		X	X	X	Private
48003109			X	X	Private
48003110			X	X	Private
48003111		X	X	X	Private
48003112	X	X**			Private
48003113	X	X**			Private
48003114	X	X**	X	X	Private
48003115	X	X	X	X	Private
48003116	X	X	X	X	Private
48003117			X	X	Private
48003118	X	X	X	X	Private
48003125	X	X	X	X	Private
Olowalu Total	**19**	**18**	**18**	**19**	
Private Total	**15**	**15**	**15**	**16**	
County Total	**1**	**1**	**1**	**1**	
State Total	**3**	**2**	**2**	**2**	

*This parcel is in the ahupua'a of Launiupoko.

**Build Alternative affects greenway easement portion of these parcels.

TABLE 3.4-3. **Land Commission Awards by Olowalu Build Alternative**

LAND COMMISSION AWARD NUMBER	BUILD ALTERNATIVE 1	BUILD ALTERNATIVE 2	BUILD ALTERNATIVE 3	BUILD ALTERNATIVE 4
1742		X	X	
3772				X
4376	X	X	X	X
5113			X	
6058			X	
8573			X	X
9906		X	X	X
10128	X	X		
10128			X	X
5829E	X	X		
5829F			X	
TOTAL	3	5	8	5

Build Alternative 1

There are 19 TMK parcels that would be affected: 15 privately owned TMK parcels, one County-owned parcel, and three State-owned parcels (FIGURE 3.4-1). There would be three kuleana parcels affected (FIGURE 3.4-2). In addition to the common elements above, Build Alternative 1 would require a partial acquisition or a redistribution of space on the same parcel of an existing storage yard facility for the Mauna Kahālāwai Watershed Partnership. This is not considered an adverse effect because there are other areas within the same lot to reposition the facility. Build Alternative 1 would also overlap a small portion of the existing highway right-of-way, changing the traffic patterns but within land already under HDOT jurisdiction.

TABLE 3.4-4 provides information on the 15 privately owned parcels and three Kuleana parcels affected by Build Alternative 1. This includes the lot area and percentage of the total lot area required for the alignment and a preliminary assessment of the level of acquisition that could be required. Ultimately, the evaluation of the level of acquisition required (marginal, partial, or full as well as easement or fee title acquisition) would be undertaken by HDOT Right-of-Way at the time of final design during the design-build phase. This initial assessment is ~~presented in this Draft EIS would be~~ subject to refinement and determination of factors such as how the affected parcel can retain property uses (that is, sufficient size of the remaining parcel and ensuring continued access to the affected parcel). Nearly all the affected parcels require less than 50% lot area, suggesting only a partial acquisition would be required.

Based on the Build Alternative 1 alignment, two tax parcels and one kuleana parcel would likely require full acquisition regardless of the lot area coverage. This includes the privately owned roadway makai of the landfill (already in use as part of the Lahaina recovery efforts) as well as an undeveloped parcel of the Olowalu subdivision that is linear in shape and would be traversed by the alignment. Two parcels are identified as Partial/Full because they would likely be a full acquisition unless there is a way to ensure continued access or use of the property. No residences would be displaced with Build Alternative 1.

FIGURE 3.4-1. **Olowalu Build Alternative 1: Affected Tax Map Key**

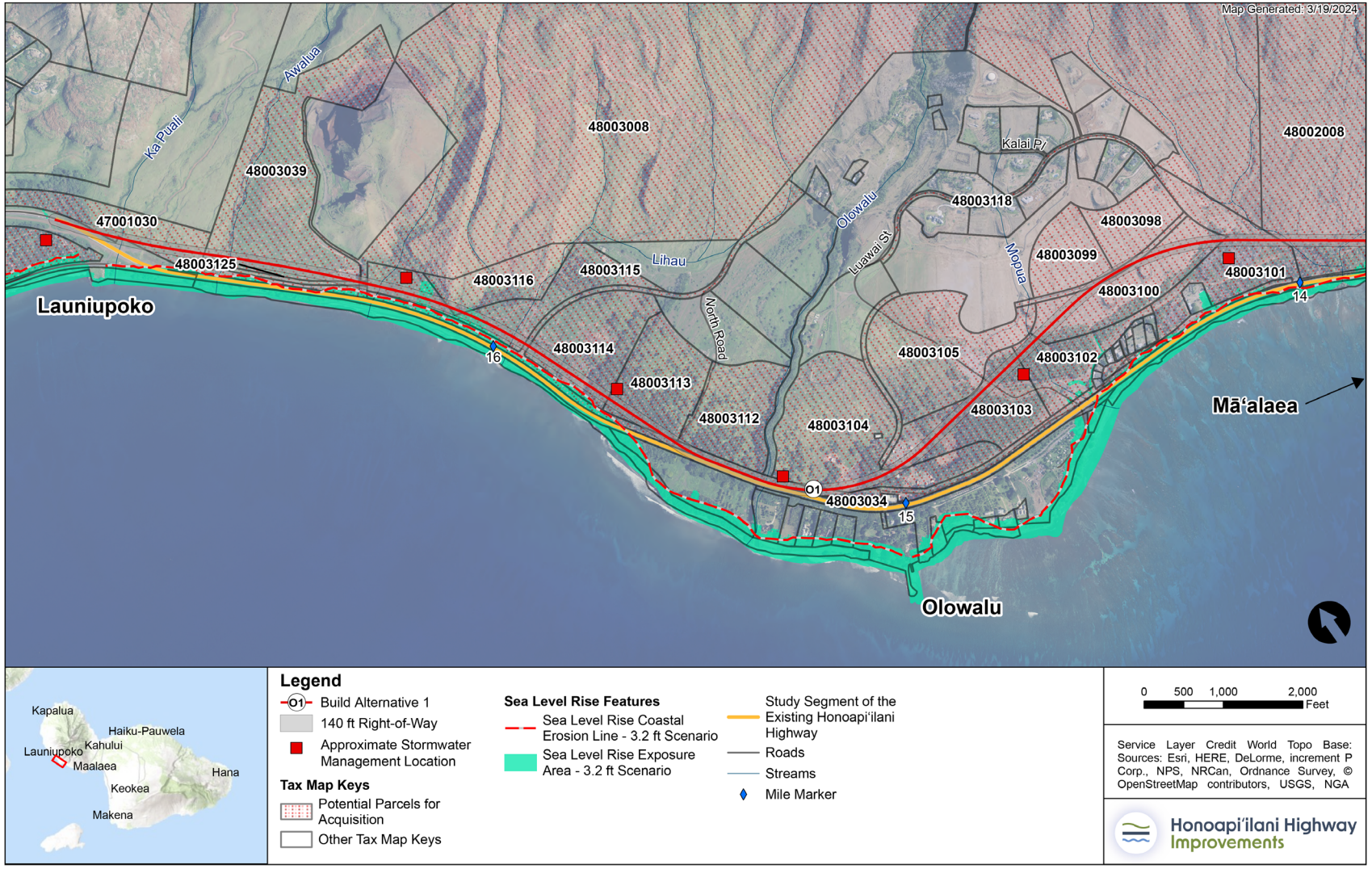

FIGURE 3.4-2. **Olowalu Build Alternative 1: Kuleana Parcels Affected**

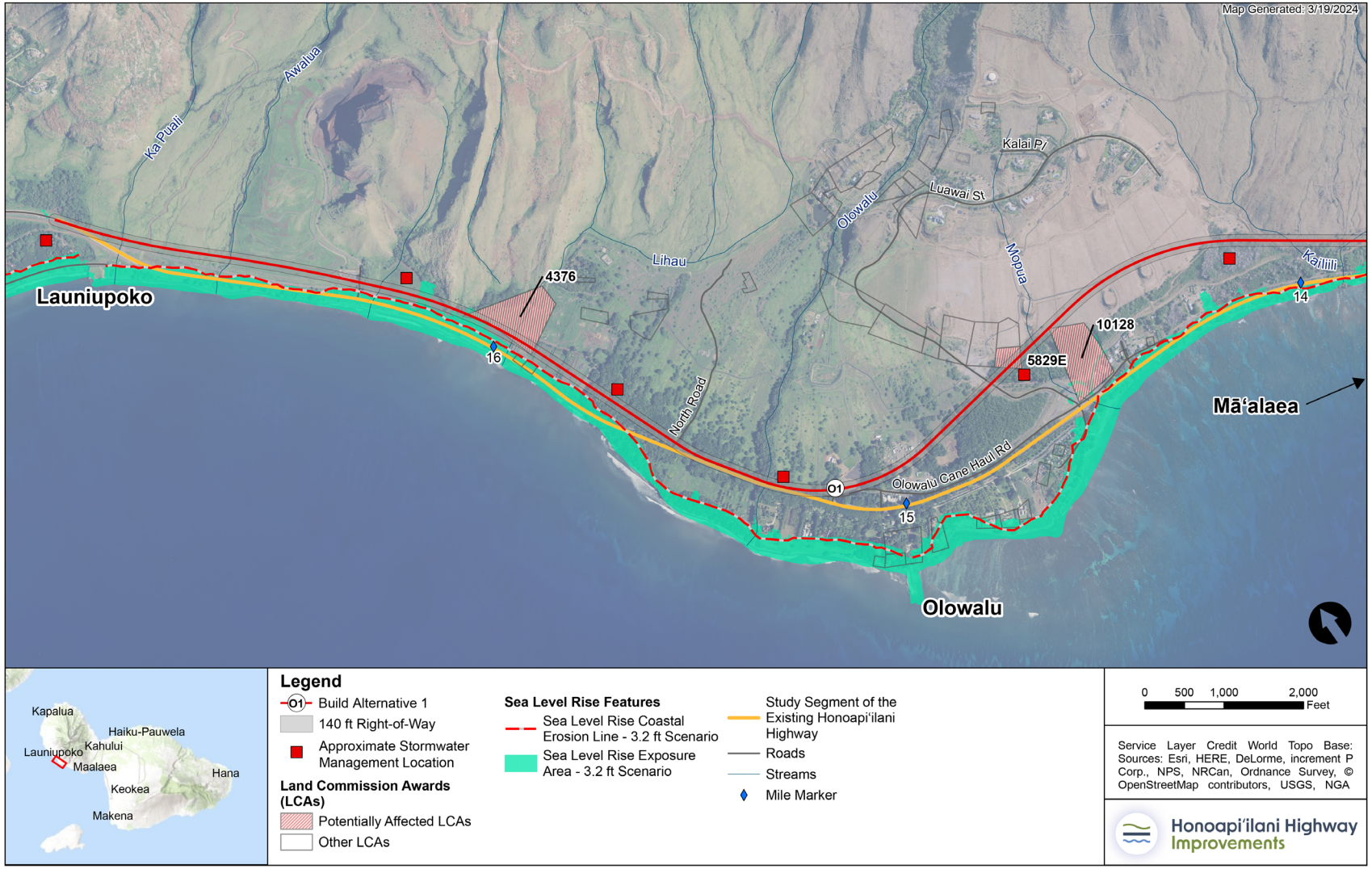

TABLE 3.4-4. **Olowalu Build Alternative 1 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON SITE USES
PRIVATE TAX PARCELS					
48003098	15.03	0.19	1.2%	Partial	No active uses
48003099	15.58	0.27	1.7%	Partial	No active uses
48003100	27.11	9.19	33.9%	Full	No active uses
48003101	29.38	5.42	18.5%	Partial	No active uses
48003102	16.88	2.25	13.3%	Partial	No active uses
48003103	27.80	9.74	35.0%	Partial	No active uses
48003104	50.30	4.59	9.1%	Partial	Storage yard, Greenway Trail (not affected)
48003105	40.73	0.26	0.6%	Partial	~~No active uses,~~ Greenway Trail (not affected)
48003112	24.61	1.01	4.1%	Partial	~~No active uses,~~ Greenway Trail
48003113	25.21	4.46	17.7%	Partial	No active uses, Awalua Cemetery (not affected)
48003114	28.84	5.62	19.5%	Partial/Full	Active agriculture, commercial use
48003115	26.18	9.51	36.3%	Partial/Full	Active agriculture
48003116	16.04	1.04	6.5%	Partial	No active uses
48003118	42.71	5.03	11.8%	Partial	Private subdivision streets (built and unbuilt) crossed by Alternative
48003125	2.28	1.31	57.5%	Full	Private road in front of landfill
KULEANA PARCELS					
4376	9.05	1.79	19.8%	Partial	Overlaps with agricultural uses on TMKs 4800-3115,-3114
10128/makai	8.75	0.09	1.0%	Marginal	Includes several lots in Kapāiki Place/Old Village Road area (not affected)
5829E	1.66	0.70	42.2%	Full	No active uses

Build Alternative 2

There are 18 parcels that would be affected: 15 privately owned TMK parcels, one County-owned parcel, and two State-owned parcels (FIGURE 3.4-3). Build Alternative 2 would also affect five kuleana parcels (FIGURE 3.4-4).

From about Luawai Street northward to the edge of the agricultural uses on lots 4800-3014 and 3015, Build Alternative 2 touches or crosses small portions of the easement areas associated with the subdivision’s greenway along the mauka border of lots 4800-3104, 3012, 3013, and 3014 as well the central portion of lot 48003105. Based on current property records (as of February 2024), these parcels are all owned (including sub parcels established on a condominium basis) are all owned by entities of the subdivision developer. The establishment and maintenance of the subdivision’s approximately 60-acre greenway was a condition of the original 2000 Special Management Area (SMA) permit issued in September 2000. The alignment would cross the partially built-out multiuse path, which would require relocation or realignment if it were to remain a continuous pathway (and would require an amendment to the SMA permit or be part of a new SMA permit associated with the Project that would be obtained during the design-build process).

TABLE 3.4-5 provides information on the 15 privately owned parcels; the five kuleana parcels; and the level of potential land acquisition, the lot area required, and an initial preliminary assessment of the property acquisition being full or partial. Similar to Build Alternative 1, the majority of the parcels affected would have less than 50% coverage area, suggesting only a partial acquisition would be required. For Build Alternative 2, the full and partial/full takings match Build Alternative 1 and no residences would be displaced.

Build Alternative 3

There are 18 parcels that would be affected: 15 privately owned TMK parcels, one County-owned parcel, and two State-owned parcels (FIGURE 3.4-5). Build Alternative 3 would also affect eight kuleana parcels (FIGURE 3.4-6).

Build Alternative 3 would cross a privately owned 16-acre parcel (lot 48003106) that contains a residence. The new highway right-of-way would be mauka of the residence and the Parcel B property boundaries. Therefore, it would not be directly affected but would be further evaluated and negotiated during a future right-of-way acquisition process.

South of Luawai Street, Build Alternative 3 crosses land area of the subdivision greenway along the central portion of lot 48003105. Based on current property records (as of February 2024), this parcel (including sub parcels established on a condominium basis) is owned by entities of the subdivision developer. This would require realignment, a grade-separated crossing, or a discontinuous multiuse path (and would require an amendment to the SMA permit or be part of a new SMA permit associated with the Project that would be obtained during the design-build process).

As summarized in TABLE 3.4-6, most of the affected lots in Build Alternative 3 have less than 50% lot coverage. Based on the alignment’s position on the parcel and the overall lot area required, three tax parcels and 1 kuleana parcel are anticipated to require full acquisition.

FIGURE 3.4-3. **Olowalu Build Alternative 2: Affected Tax Map Key**

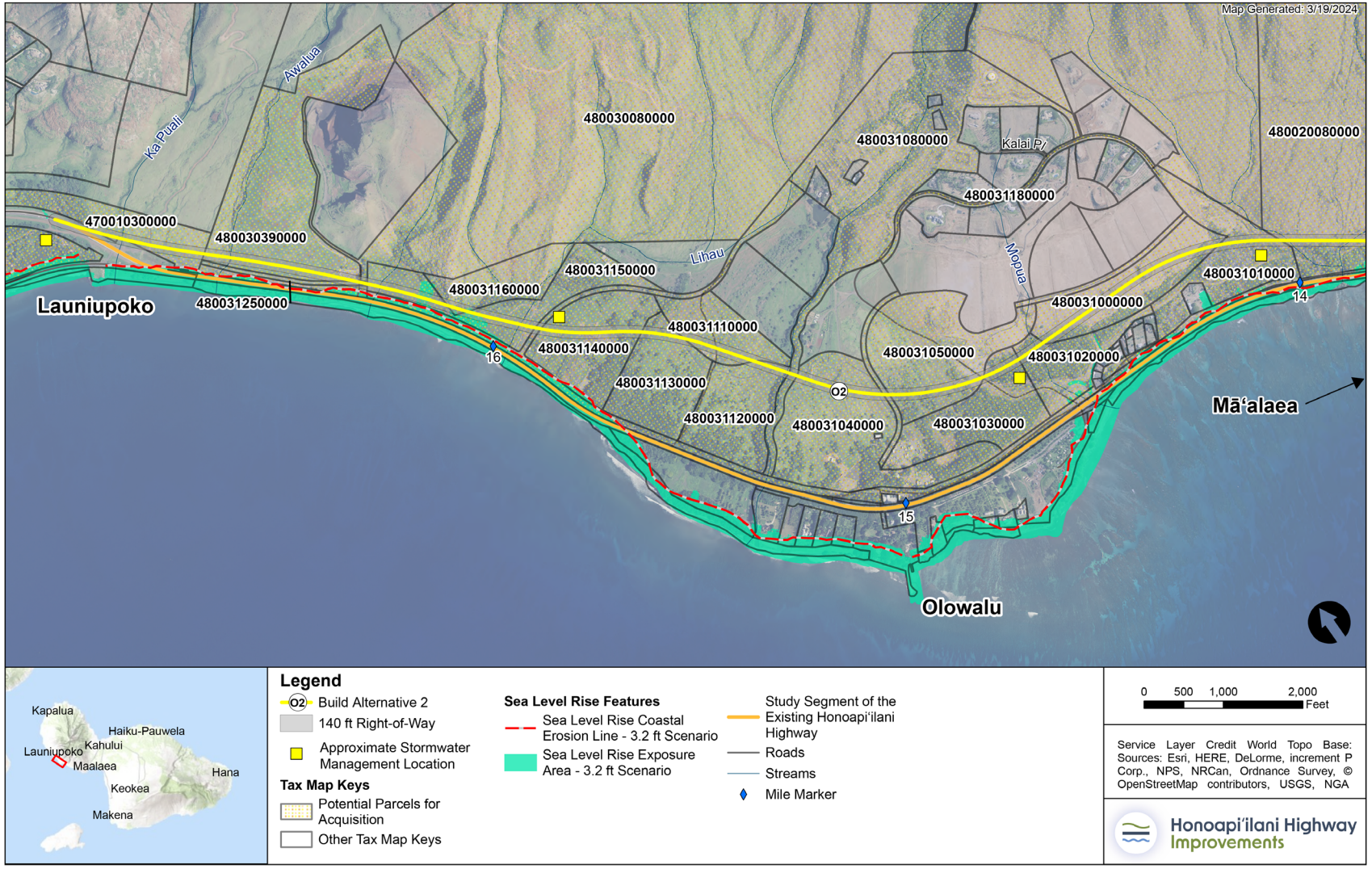

FIGURE 3.4-4. **Olowalu Build Alternative 2: Kuleana Parcels Affected**

TABLE 3.4-5. **Olowalu Build Alternative 2 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON-SITE USES
PRIVATE TAX PARCELS					
48003100	27.11	10.15	37.4%	Full	No active uses
48003101	29.38	4.25	14.5%	Partial	No active uses
48003102	16.88	2.13	12.6%	Partial	No active uses
48003103	27.80	3.38	12.2%	Partial	No active uses, Greenway Trail
48003104	50.30	4.77	9.5%	Partial	Storage Yard (not affected) and Greenway Trail
48003105	40.73	5.16	12.7%	Partial	No active uses, Greenway Trail
48003108	81.05	0.72	0.9%	Marginal	Olowalu Stream and Cultural Reserve
48003111	16.58	4.36	26.3%	Partial	No active uses, Greenway Trail
48003112	24.61	1.27	5.2%	Partial	No active uses
48003113	25.21	2.26	9.0%	Partial	Commercial use (Maui Paintball)
48003114	28.84	6.36	22.1%	Partial/Full	Active agriculture
48003115	26.18	9.32	35.6%	Partial/Full	Active agriculture
48003116	16.04	1.47	9.1%	Partial	No active uses
48003118	42.71	0.59	1.4%	Partial	Private subdivision streets (built and unbuilt) crossed by alternative
48003125	2.28	1.31	57.5	Full	Private road in front of landfill
KULEANA PARCELS					
1742	3.65	0.003	0.1%	Marginal	No active uses
4376	9.05	2.68	29.6%	Partial/Full	Overlaps with agricultural uses on TMKs 4800-3115,-3114
9906	2.61	0.68	26.0%	Partial/Full	No active uses
10128/makai	8.75	0.78	8.9%	Partial	No active uses
5829E	1.66	0.70	56.9%	Full	No active uses

FIGURE 3.4-5. **Olowalu Build Alternative 3: Affected Tax Map Key**

FIGURE 3.4-6. **Olowalu Build Alternative 3: Kuleana Parcels Affected**

TABLE 3.4-6. **Olowalu Build Alternative 3 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON-SITE USES
PRIVATE TAX PARCELS					
48003100	27.11	7.95	29.3%	Full	No active uses
48003101	29.38	5.35	18.2%	Partial	No active uses
48003105	40.73	5.53	13.6%	Partial	No active uses, Greenway Trail
48003106	16.68	2.94	17.6%	Partial/Full	One residence on Parcel B (not directly affected), access roads
48003107	41.14	3.00	7.3%	Partial	No active uses, Greenway Trail
48003108	81.05	0.53	0.7%	Partial	Olowalu Stream and Cultural Reserve
48003109	16.17	0.33	2.1%	Partial	No active uses
48003110	17.22	4.97	28.6%	Full	No active uses
48003111	16.58	0.10	0.6%	Partial	No active uses
48003114	28.84	2.95	10.2%	Partial/Full	Active agriculture
48003115	26.18	9.30	35.5%	Partial/Full	Active agriculture
48003116	16.04	4.19	26.1%	Partial	No active uses
48003117	15.59	2.40	15.4%	Partial	No active uses
48003118	42.71	4.26	10.0%	Partial	Private subdivision streets (built and unbuilt) crossed by alternative
48003125	2.28	1.31	57.5%	Full	Private road in front of landfill
KULEANA PARCELS					
1742	3.65	0.38	10.6%	Partial	No active uses
4376	9.05	1.93	21.4%	Partial	Overlaps with agricultural uses on TMKs 4800-3115,-3114
5113	4.24	0.90	21.1%	Partial	No active uses
6058	1.85	0.31	17.0%	Partial	No active uses
8573	0.55	0.37	66.8%	Full	No Active uses
9906	2.61	0.22	8.3%	Partial	No active uses
10128/mauka	6.58	2.23	33.8%	Partial/Full	No active uses, includes portions of Luawai Street
5829F	4.77	0.68	14.2%	Partial	No active uses, includes portions of Luawai Street

Build Alternative 4

There are 19 parcels that would be affected: 16 privately owned TMK parcels, one County-owned parcel, and two State-owned parcels (FIGURE 3.4-7). Build Alternative 4 would also affect five kuleana parcels (FIGURE 3.4-8),

As indicated in TABLE 3.4-7, Build Alternative 4 has the same (but slightly mauka) alignment as Build Alternative 3, resulting in a similar but slightly more mauka alignment outside the Lot 48003106/Parcel B boundary, which has one residence. As with the other Build Alternatives, most of the affected parcels have alignment coverage of less than 50%, suggesting only a partial acquisition would be required. Overall, there are three tax parcels and no kuleana parcels that would likely require a full acquisition.

South of Luawai Street, Build Alternative 4 crosses directly through parcel 48003107, including a small area of the subdivision greenway at the south end of the parcel. Based on current property records (as of February 2024), this parcel is owned by three entities separate from the original subdivision developer. This would require realignment, a grade-separated crossing, or a discontinuous multiuse path (and would require an amendment to the SMA permit or be part of a new SMA permit associated with the Project that will be obtained during the design-build process).

FIGURE 3.4-7. **Olowalu Build Alternative 4: Affected Tax Map Key**

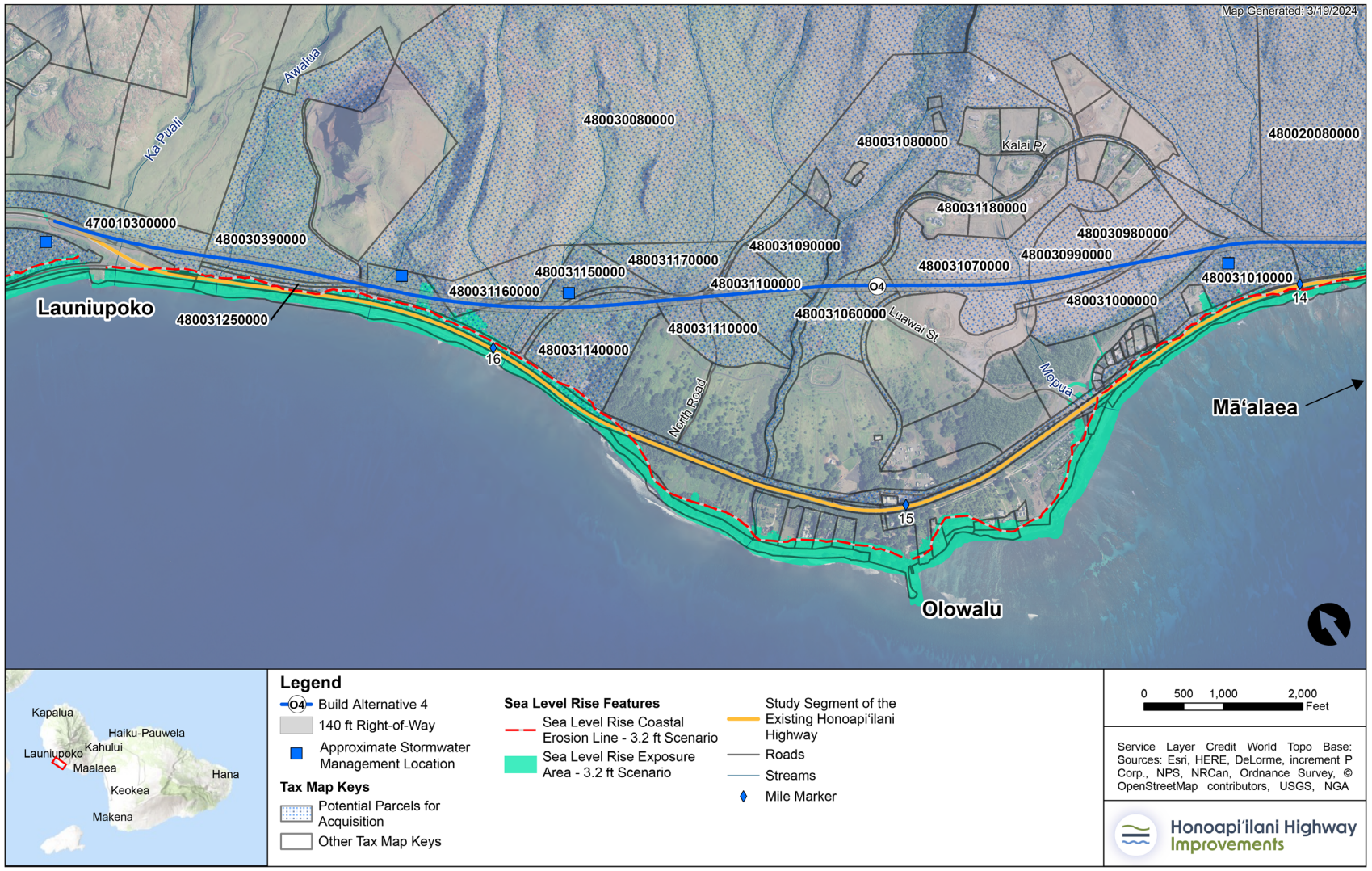

FIGURE 3.4-8. **Olowalu Build Alternative 4: Kuleana Parcels Affected**

TABLE 3.4-7. **Olowalu Build Alternative 4 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON-SITE USES
PRIVATE TAX PARCELS					
48003098	15.03	0.81	5.4%	Partial	No active uses
48003099	15.58	4.28	27.5%	Partial	No active uses
48003100	27.11	4.02	14.8%	Partial	No active uses
48003101	29.38	6.01	20.5%	Partial	No active uses
48003106	16.68	3.38	20.3%	Full	One residence with potential relocation
48003107	41.14	7.41	18.0%	Partial	No active uses, Greenway Trail
48003108	81.05	0.72	0.9%	Partial	Olowalu Stream and Cultural Reserve
48003109	16.17	1.22	7.5%	Partial	No active uses
48003110	17.22	4.54	26.4%	Full	No active uses
48003111	16.58	1.76	10.6%	Partial	No active uses
48003114	28.84	4.68	16.2%	Partial/Full	Active agriculture
48003115	26.18	10.75	41.1%	Partial/Full	Active agriculture
48003116	16.04	3.35	20.9%	Partial	No active uses
48003117	15.59	0.61	3.9%	Partial	No active uses
48003118	42.71	2.59	6.1%	Partial	Private subdivision streets (built and unbuilt) crossed by alternative
48003125	2.28	1.31	57.5%	Full	Private road in front of landfill
KULEANA PARCELS					
3772	1.00	0.13	12.7%	Partial	No active uses
4376	9.05	2.28	25.0%	Partial	No active uses
8573	0.55	0.23	41.4%	Partial/Full	No active uses
9906	2.61	0.35	13.2%	Partial	No active uses
10128/mauka	6.58	1.08	16.4%	Partial	No active uses, includes portions of Luawai Street

Ukumehame

TABLE 3.4-8 summarizes the number of properties that would require some level of evaluation for right-of-way acquisition or easements for the Build Alternatives. TABLE 3.4-9 summarizes the affected kuleana parcels in Ukumehame.

TABLE 3.4-8. **Land Acquisition Parcels by Ukumehame Build Alternative**

TAX MAP KEY	BUILD ALTERNATIVE 1 LAND ACQUISITIONS	BUILD ALTERNATIVE 2 LAND ACQUISITIONS	BUILD ALTERNATIVE 3 LAND ACQUISITIONS	BUILD ALTERNATIVE 4 LAND ACQUISITIONS	OWNER
48001001	X	X	X	X	State
48001003	X	X	X	X	State
48002002	X	X	X	X	State
48002008	X	X	X	X	State
48002041		X	X	X	County
48002042	X	X	X	X	State
48002045	X	X	X	X	State
48002046	X	X	X	X	County
48002047	X	X	X	X	State
48002049				X	County
48002057	X	X	X		County
48002058	X	X	X		County
48002059	X	X	X	X	County
48002068	X	X	X		County
48002069		X	X		County
48002070	X	X	X	X	County
48002071	X	X	X		County
48002075				X	Private
48002090				X	Private
48002091				X	Private
48002092				X	Private
48002094				X	Private
48002095				X	Private
48002096				X	Private
48002098				X	Private
48002107				X	Private
48002108				X	Private
48002109				X	Private
48002110				X	Private
48002111				X	Private

TAX MAP KEY	BUILD ALTERNATIVE 1 LAND ACQUISITIONS	BUILD ALTERNATIVE 2 LAND ACQUISITIONS	BUILD ALTERNATIVE 3 LAND ACQUISITIONS	BUILD ALTERNATIVE 4 LAND ACQUISITIONS	OWNER
48002112				X	Private
48002113				X	Private
48002114	X				Private
48002115	X				Private
48002116				X	Private
48002117				X	Private
48002118				X	Private
48002120				X	Private
48002121	X			X	Private
48002125		X	X		Private
Ukumehame Total	17	17	17	32	
Private Total	*3*	*1*	*1*	*20*	
County Total	*7*	*9*	*9*	*5*	
State Total	*7*	*7*	*7*	*7*	

TABLE 3.4-9. **Land Commission Awards by Ukumehame Build Alternative**

LAND COMMISSION AWARD NUMBER	BUILD ALTERNATIVE 1	BUILD ALTERNATIVE 2	BUILD ALTERNATIVE 3	BUILD ALTERNATIVE 4
5380	X	X	X	
5380				X
6751	X	X	X	X
6758				X
7779				X
8559	X	X	X	X
8559				X
3702_5410	X	X	X	X
6079/6609		X	X	
6408_5124	X	X	X	
TOTAL	5	6	6	7

Common to All Build Alternatives

All Ukumehame Build Alternatives have a common alignment through the State-owned parcel between Ukumehame and Olowalu. The Build Alternatives would also cross State- and County-owned lands in the area of the Ukumehame Firing Range and at the Pali connection at the southern terminus of the project area (although as shown in the figures below, there are different alignments through these

parcels) and none of the Build Alternatives would displace the existing use of the firing range. While the ultimate acquisition and relocation requirements will be negotiated once final design is completed, additional tables presented below provide initial estimates about the extent of the potential private land acquisition required for each parcel for each alternative.

As discussed in Section 3.5, Parklands and Recreational Facilities/Beach Access, the DLNR has jurisdiction over two large parcels (TMK 48002008 and TMK 48002002) that will require right-of-way acquisition.

Build Alternative 1

There are 17 TMK parcels that would be affected: three privately owned TMK parcels, seven County-owned parcels, and seven State-owned parcels (FIGURE 3.4-9). There would be five kuleana parcels affected (FIGURE 3.4-10).

The preliminary estimate of land acquisition requirements on three privately owned tax parcels and five kuleana parcels are summarized in TABLE 3.4-10. While all these parcels would have alignment lot coverage considerably below 50%, one parcel (48002115) which has an active sod farm (El Toro Soysia Turf - Maui Grass Farm) ~~partial~~ would likely require full acquisition based on alignment bisecting the site. The other parcels would likely require a partial acquisition.

Build Alternative 1 crosses a County-owned parcel (48002068) with a residence on it, which is associated with the adjacent kuleana parcel (6408-5124 and its co-terminus County-owned tax parcel 48002057). The new highway right-of-way would be makai of the residence itself and, using the process described above, would require assessment and evaluation to determine if the parcel can be a partial acquisition—leaving the residential use intact (and/or potentially relocated on a more mauka portion of parcel 48002057)—or a full acquisition with relocation of the residence. This would require identifying and creating new access into the property, most likely from Pōhaku 'Aeko Street. This ~~Draft~~ Final EIS assumes this displacement, which would be negotiated through the right-of-way acquisition process.

Build Alternatives 2 and 3

There are 17 parcels that would be affected: one privately owned TMK parcel, seven County-owned parcels, and nine State-owned parcels (FIGURE 3.4-11). Build Alternative 2 would also affect six kuleana parcels (FIGURE 3.4-12).

As summarized in TABLE 3.4-11, no parcels would have more than 20% of their overall lot area affected and all would be considered a partial acquisition.

Build Alternatives 2 and 3 would have the same potential displacement of the residence on tax parcel 48002068.

FIGURE 3.4-9. **Ukumehame Build Alternative 1: Affected Tax Map Key**

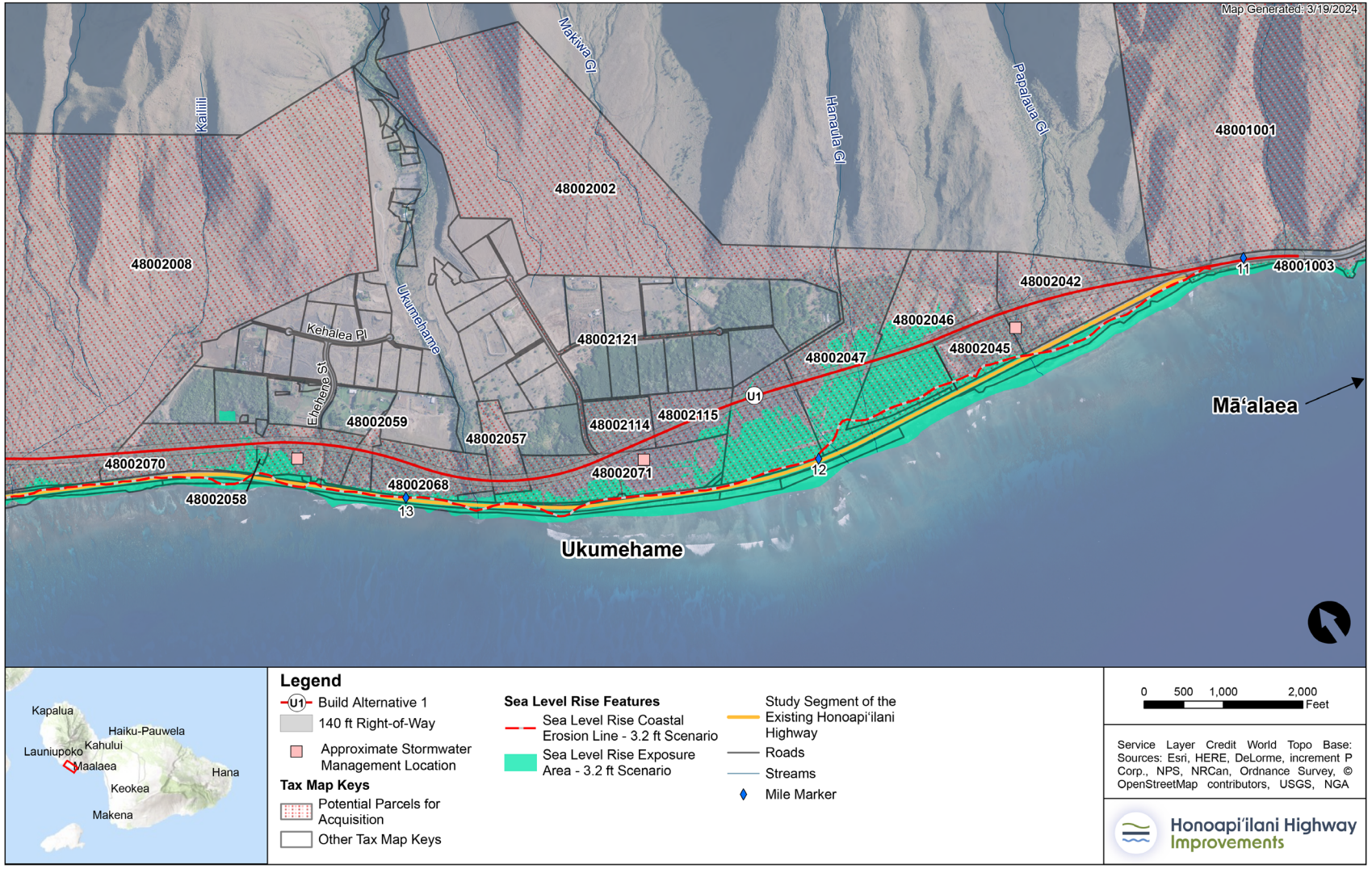

FIGURE 3.4-10. **Ukumehame Build Alternative 1: Kuleana Parcels Affected**

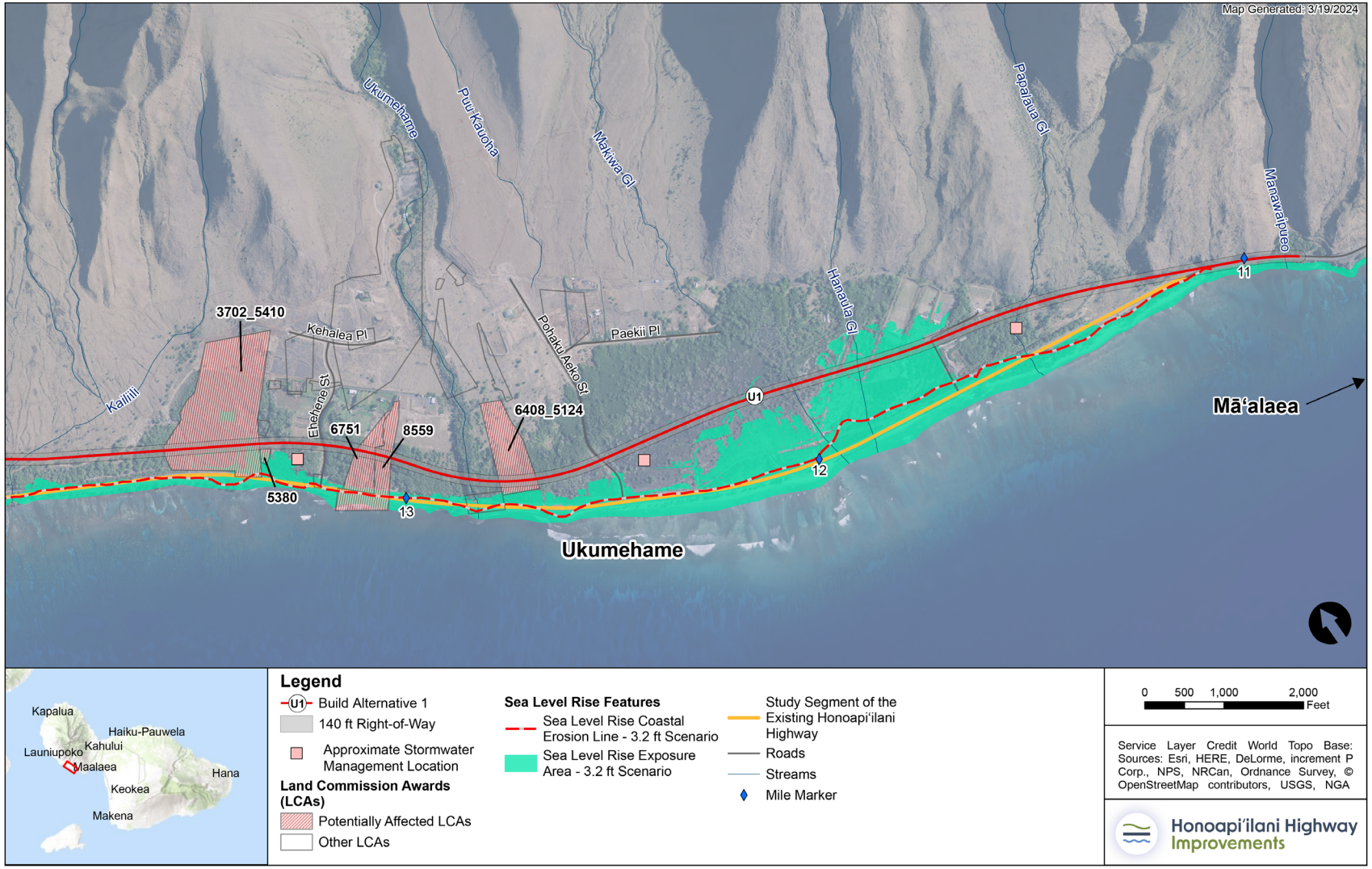

TABLE 3.4-10. **Ukumehame Build Alternative 1 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON-SITE USES
PRIVATE TAX PARCELS					
48002114	11.00	2.45	22.3%	Partial/Full	No active uses
48002115	12.77	4.60	36.0%	Full	~~No active uses~~ Agricultural use
48002121	5.16	0.06	1.1%	Partial	Private subdivision street that is crossed by alternative
KULEANA PARCELS					
5380/makai	0.43	0.04	10.0%	Partial	No active uses
6751	4.87	0.72	14.7%	Partial	No active uses
8559	7.09	0.64	9.0%	Partial	No active uses
3702-5410	32.8	3.60	11.0%	Partial	No active uses
6408-5124	9.36	1.42	15.1%	Partial	Agricultural use/cultural practices

FIGURE 3.4-11. **Ukumehame Build Alternatives 2 and 3: Affected Tax Map**

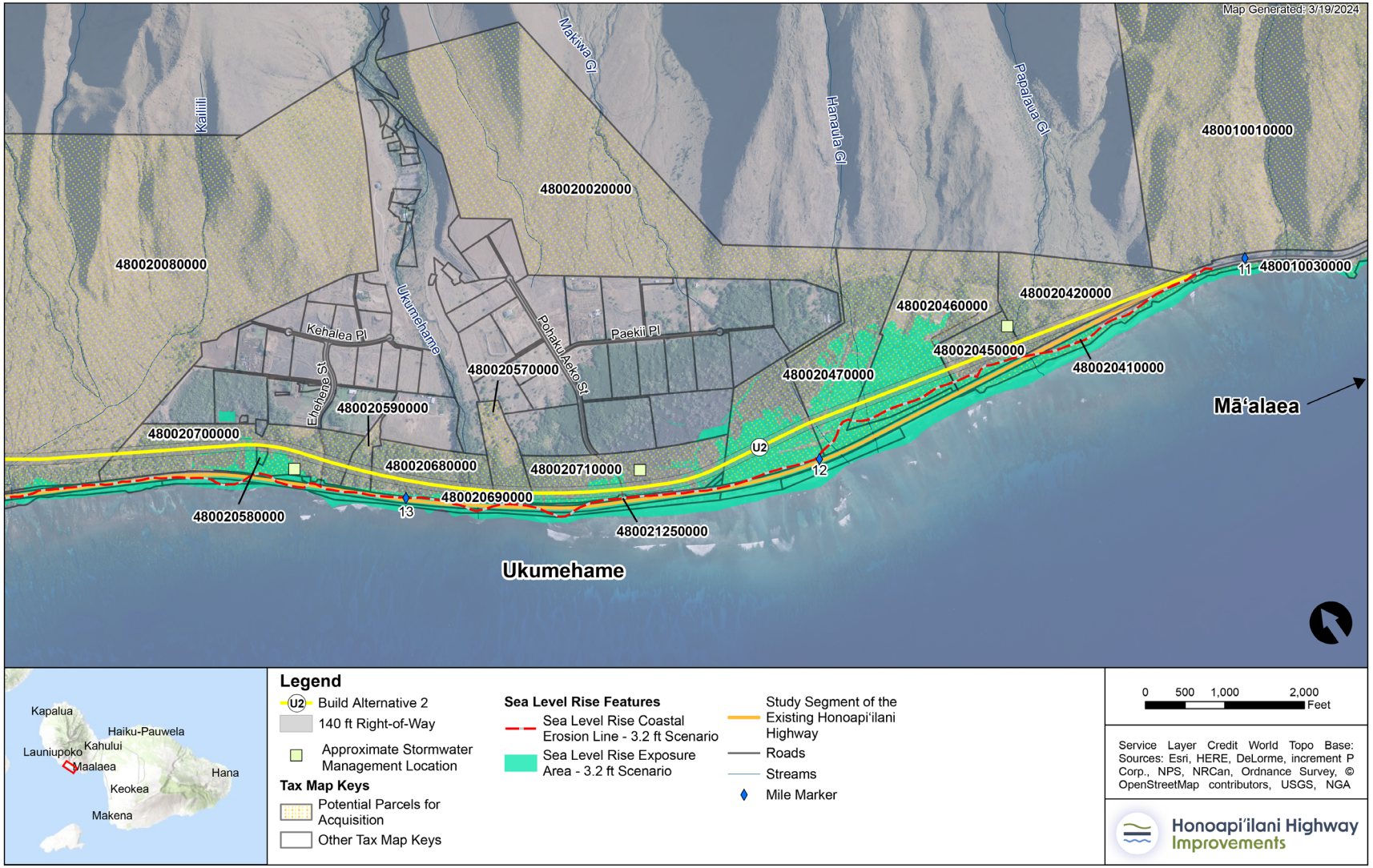

FIGURE 3.4-12. **Ukumehame Build Alternatives 2 and 3: Kuleana Parcels Affected**

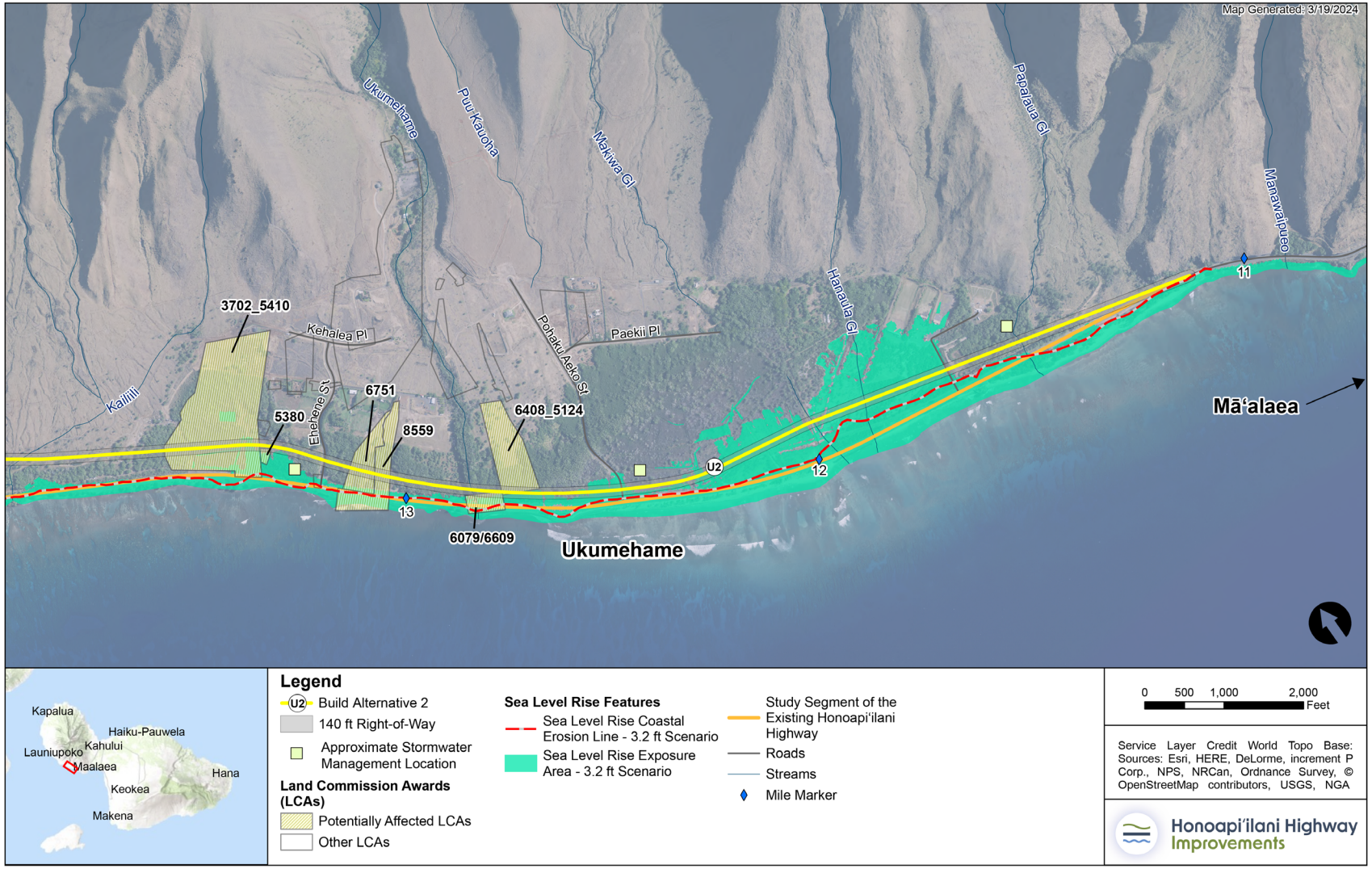

TABLE 3.4-11. **Ukumehame Build Alternatives 2 and 3 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON SITE USES
PRIVATE TAX PARCELS					
48002125	0.43	0.07	15.6%	Partial	Private subdivision street
KULEANA PARCELS					
5380/makai	0.43	0.12	27.8%	Partial	No active uses
6751	4.87	0.97	19.9%%	Partial	No active uses
8559	7.09	0.61	8.6%	Partial	No active uses
3702-5410	32.8	3.60	11.0%	Partial	No active uses
6079/6609	2.20	0.41	18.8%	Partial	No active uses
6408-5124	9.36	0.63	6.7%	Partial	Agricultural use/cultural practices

Build Alternative 4

For Build Alternative 4, 32 parcels would be affected: 20 privately owned TMK parcels, five County-owned parcels, and seven State-owned parcels (FIGURE 3.4-13). Build Alternative 4 would also affect seven kuleana parcels (FIGURE 3.4-14). Build Alternative 4 would also result in the full or partial acquisition and displacement of two residences in construction or recently completed as well as two ~~of two~~ existing sod farm businesses. If relocation is required for these residents or businesses, relocation assistance would be provided pursuant to the Federal Uniform Relocation Act.

As summarized in TABLE 3.4-12, most of these parcels have less than 50% lot coverage, suggesting only a partial acquisition would be required. However, compared to the other Build Alternatives, this alignment traverses several unbuilt lots of the Ukumehame subdivision as well as the subdivision street providing access to several of these lots. For these reasons, the viability of the remaining lot areas would be less certain and have been classified as “Partial/Full”—even with lower lot coverage requirements.

3.4.5 Construction Effects

Additional parcels in the project area may need to be utilized for construction staging; however, until the design of the Preferred Alternative is further along, the construction staging areas cannot be fully determined. For construction, however, the use of such properties would be temporary and not likely to require permanent land acquisition.

3.4.6 Indirect Effects

Because the acquisition of property associated with the Project would be limited to parcels required to accommodate the Project, there would be no indirect effects.

FIGURE 3.4-13. **Ukumehame Build Alternative 4: Affected Tax Map Key**

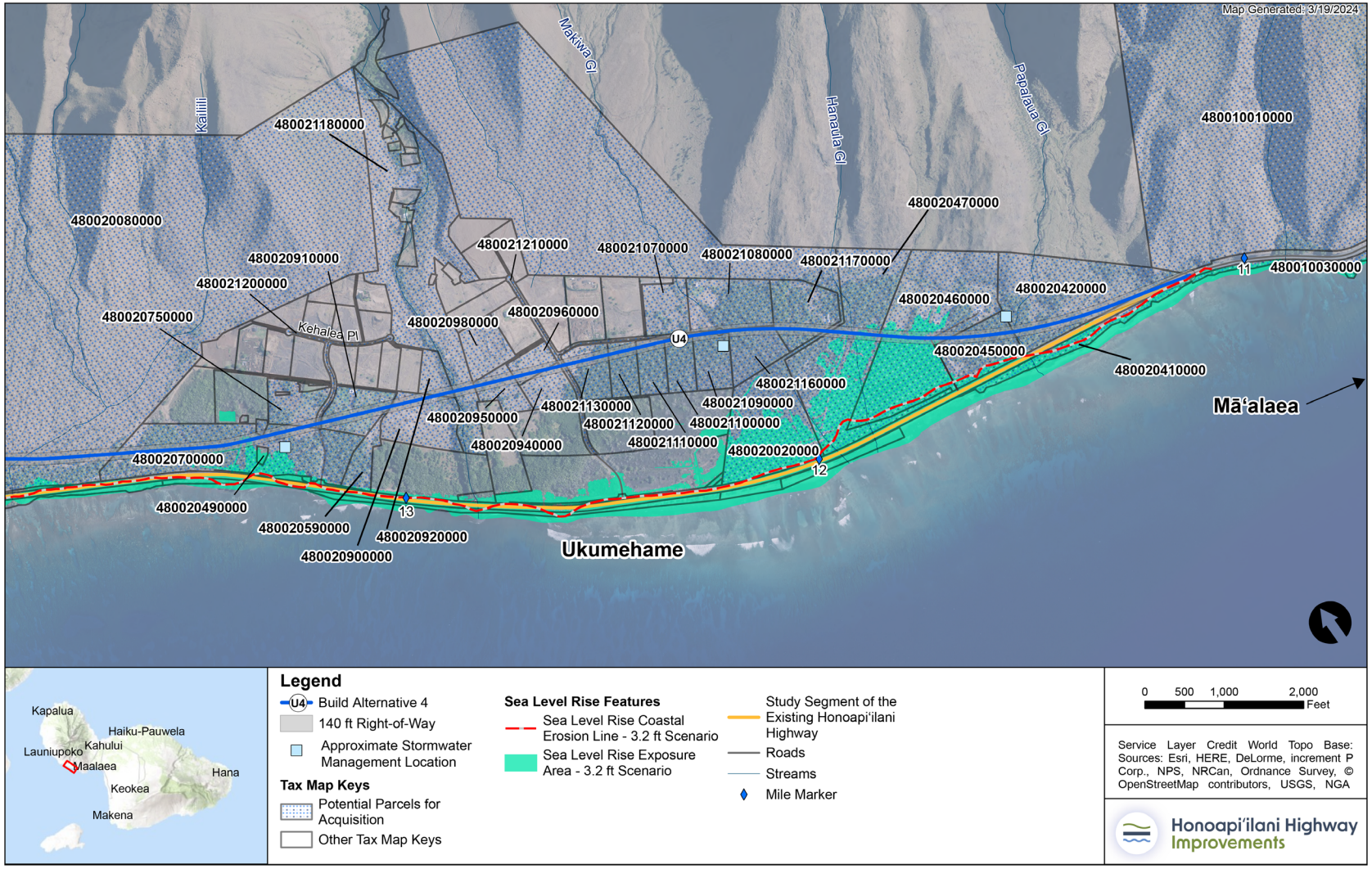

FIGURE 3.4-14. **Ukumehame Build Alternative 4: Kuleana Parcels Affected**

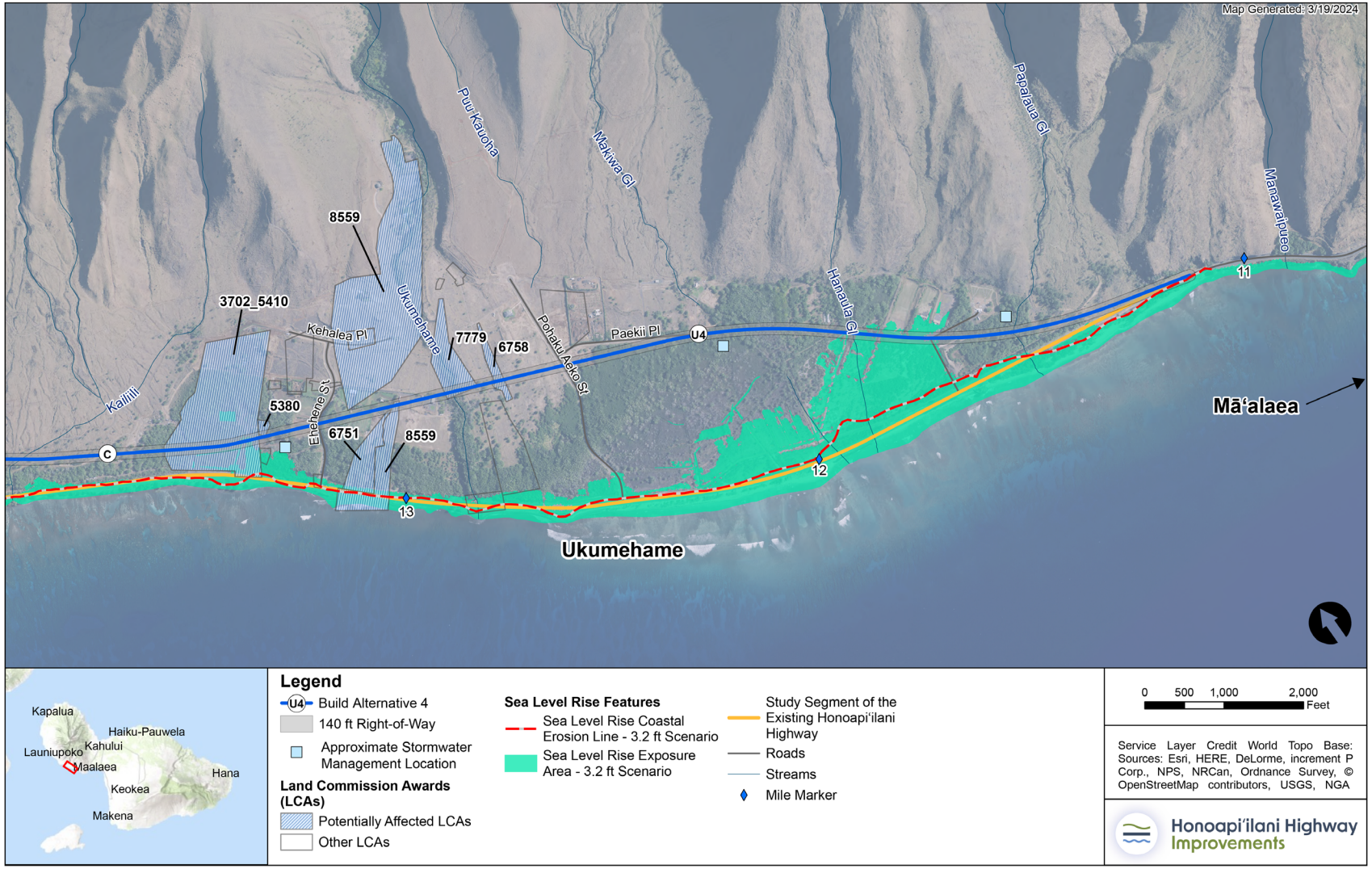

TABLE 3.4-12. **Ukumehame Build Alternative 4 – Estimated Land Area for Private and Kuleana Parcels with Right-of-Way Acquisition**

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON SITE USES
PRIVATE TAX PARCELS					
48002075	7.15	0.87	12.2%	Partial	Active agriculture
48002090	3.88	1.01	25.9%	Partial	Active agriculture
48002091	7.99	3.82	47.9%	Full	Active agriculture
48002092	12.27	2.57	20.9%	Partial	No active uses
48002094	5.37	0.71	13.3%	~~Partial/~~ Full	~~No active uses~~ One residence
48002095	5.39	2.04	37.7%	Partial/Full	~~No active uses~~ One residence
48002096	3.56	1.80	50.5%	Full	No active uses
48002098	7.25	0.18	2.5%	Partial	No active uses
48002107	7.41	0.44	6.0%	Partial/Full	No active uses (would need new access)
48002108	13.28	1.83	13.8%	Partial	One residence (if required), would need new access
48002109	6.36	0.78	12.3%	Partial/Full	No active uses (would need new access)
48002110	5.00	0.86	17.2%	Partial/Full	No active uses (would need new access)
48002111	5.00	1.19	23.9%	Partial/Full	No active uses (would need new access)
48002112	5.00	1.52	30.3%	Partial/Full	No active uses (would need new access)
48002113	6.60	2.48	37.6%	Partial/Full	Storage yard (would need new access)
48002116	7.34	1.31	17.9%	Partial/Full	No active uses (would need new access)
48002117	11.74	2.95	25.1%	Full	No active uses (would need new access)
48002118	55.64	1.23	2.2%	Partial	Ukumehame Stream crossing
48002120	3.03	0.25	8.1%	Partial	Private subdivision street crossed by alternative
48002121	5.16	1.36	26.4%	Partial	Private subdivision crossed by alternative
KULEANA PARCELS					
5380/mauka	0.48	0.12	25.0%	Partial/Full	No active uses

	PARCEL SIZE (ACRES)	AREA OF ACQUISITION (ACRES)	PERCENT OF LOT AREA	PRELIMINARY INDICATION OF FULL OR PARTIAL ACQUISITION	ON SITE USES
6751	4.87	0.03	0.6%	Marginal	No active uses
6758	2.0	0.41	20.6%	Partial	No active uses
7779	6.20	0.97	15.6%	Partial	No active uses
8559 (makai)	7.09	0.22	3.1%	Partial	No active uses
3702-5410	32.8	3.62	11.0%	Partial	No active uses

3.4.7 Mitigation

The land acquisition requirements, including the ~~potential reallocation of easement area~~ and realignment of the multiuse path, would be refined for the ~~Preferred~~ Selected Alternative as part of the ~~Final EIS~~ final design established through the design build proces.[15] HDOT and the Federal Highway Administration would comply with the requirements of the Uniform Standards of Professional Appraisal Practice and the Uniform Act. If parcels need to be acquired to complete a project—including those with existing greenway easements—the Uniform Act protects the rights of property owners and tenants of the property without discrimination. It also ensures that individuals do not suffer disproportionate injuries because of programs and projects designed for the benefit of the public and minimizes the hardship of displacements.

The State acquisition process would require ensuring that the original Olowalu or Ukumehame Subdivision conditions of approval that may be modified or eliminated by the Project (that is, relocation or elimination of portions of the Olowalu greenway) are amended or superseded by the State action, providing tax parcel owners relief from conditions that are no longer applicable or achievable. In addition, because implementation and maintenance of the greenway was a condition of the Olowalu subdivision’s 2000 SMA, the relocation, realignment, or elimination of portions of the greenway would require an amendment to original SMA or be part of a future SMA permit specific to the Project that will be obtained during the design-build process.

Additionally, HDOT must comply with the Hawai‘i State Eminent Domain Law, which establishes the public purpose and acquisitions procedures for private property acquisition by the State of Hawai‘i. In complying with the law, the individuals affected by land acquisition would have a transparent process to follow and a full understanding of their rights to just compensation.

3.4.8 Build Alternatives Comparative Assessment

As summarized in TABLE 3.4-13, the potential number of affected properties in Olowalu ranges from 22 total affected parcels (Build Alternative 1) to 26 (Build Alternative 3). Build Alternatives 1, 2, and 3 ~~include~~ affect 15 private parcels, compared with 16 private parcels in Build Alternative 4. Build Alternatives 3 and 4 have the potential to displace one residence if full acquisition is required.

[15] As described in Chapter 5, Selected Alternative, the Selected Alternative incorporates a shared-use path that would replace the existing subdivision greenway.

TABLE 3.4-13. **Summary Comparison of Land Acquisition Parcels by Build Alternative in Olowalu**

	BUILD ALTERNATIVE 1	BUILD ALTERNATIVE 2	BUILD ALTERNATIVE 3	BUILD ALTERNATIVE 4
Olowalu	22	23	26	24
Private TMK Parcels	15	15	15	16
Private TMK Parcels with Greenway Easements	0	5	1	1
County TMK Parcels*	1	1	1	1
State TMK Parcels	3	2	2	2
Kuleana Parcels	3	5	8	5
Potential Residential Displacement	0	0	1**	1**
Potential Agricultural Displacement	2**	1**	1**	1**

* This parcel is in the ahupuaʻa of Launiupoko.

** Overall property is affected by alternative but may not require relocation of the residence or agricultural use and would be determined during the right-of-way acquisition process.

TABLE 3.4-14 shows the potential number of affected properties in Ukumehame, with a greater range of potential effect between 22 parcels (Build Alternative 1) and 39 parcels (Build Alternative 4). Ukumehame Build Alternative 4 includes up to 20 private-parcel acquisitions compared with one private-parcel acquisition for Build Alternatives 2 and 3, and three private-parcel acquisitions with Build Alternative 1. Build Alternative 1 and Build Alternatives 2 and 3 have the potential to displace one residence if full acquisition is required.

TABLE 3.4-14. **Summary Comparison of Land Acquisition Parcels by Build Alternative in Ukumehame**

	BUILD ALTERNATIVE 1	BUILD ALTERNATIVES 2 AND 3	BUILD ALTERNATIVE 4
Ukumehame	22	23	39
Private TMK Parcels	3	1	20
County TMK Parcels	7	9	5
State TMK Parcels	7	7	7
Kuleana Parcels	5	6	7
Potential Residential Displacement	1**	1**	0
Potential Agricultural Displacement	~~0~~1	0	2**

* This parcel is in the ahupuaʻa of Launiupoko.

** Overall property is affected by alternative but may not require relocation of the residence or agricultural use and would be determined during the right-of-way acquisition process.