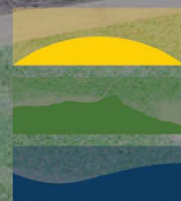


Multimodal Assessment

Identifying Accessibility Gaps to Jobs and Everyday Destinations and Projects to Address Those Gaps

State Transit Oriented Development Council - June 20, 2025



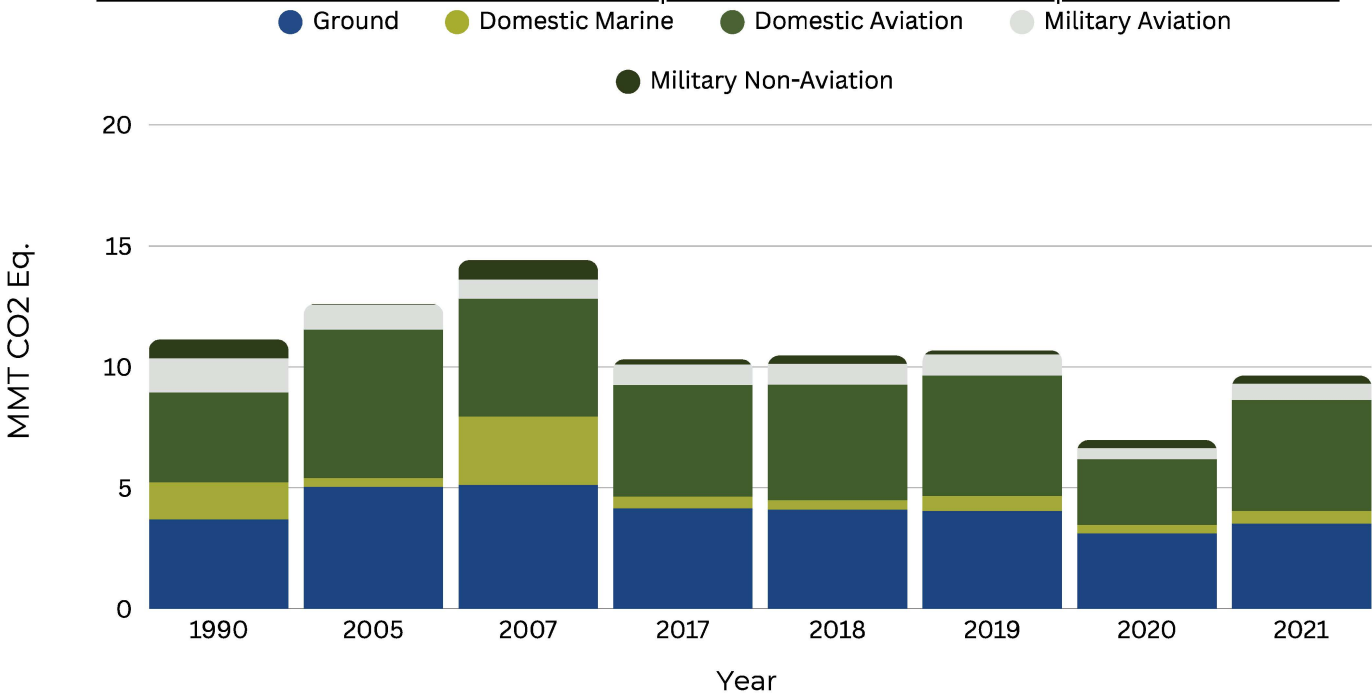
HAWAII
STATE
ENERGY
OFFICE

Photo Courtesy of DTS

***Ground Transportation is the
Second Largest Portion of
Transportation Sector Emissions***

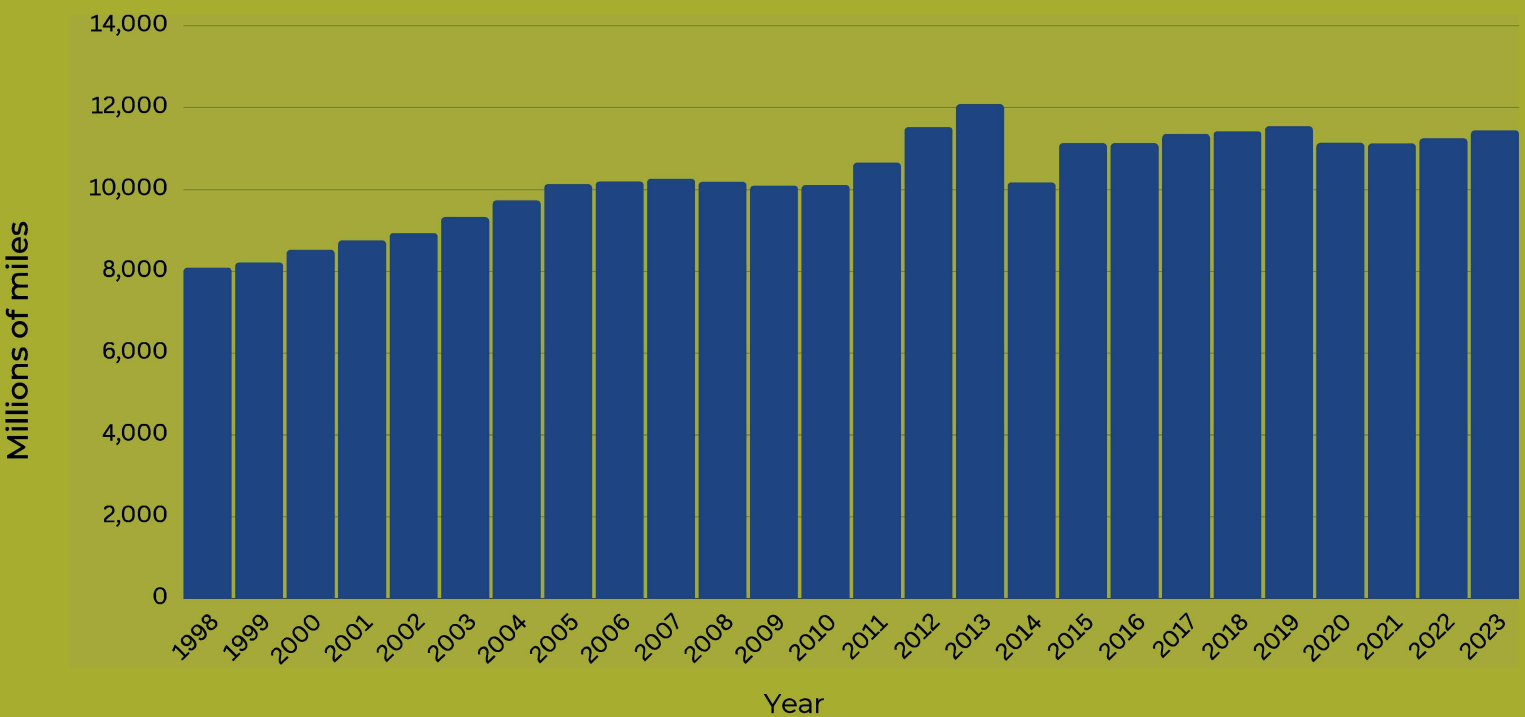
Transportation Emissions by End-Use Sector and Year

Hawai'i Greenhouse Gas Emissions Report for 2020 and 2021 - Department of Health



Annual Vehicle Miles of Travel

2023 State of Hawai'i Data Book - Department of Business, Economic Development, and Tourism

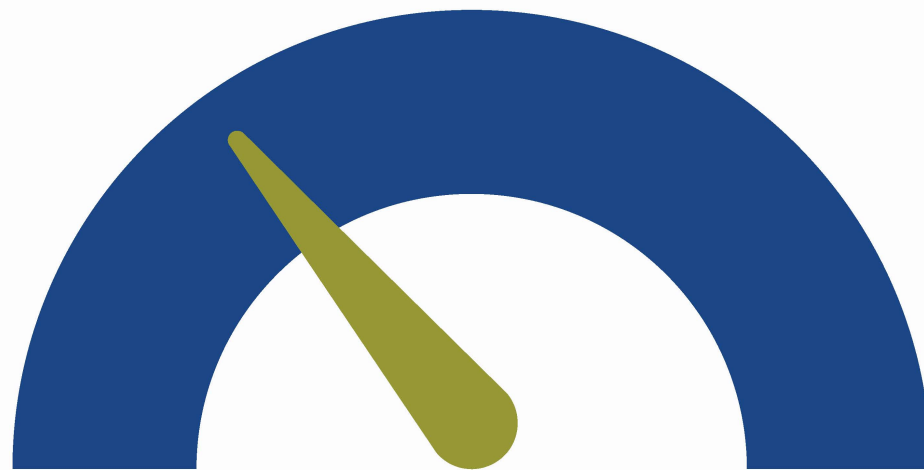


***More Vehicles Means More
Driving and More Energy
Consumed***

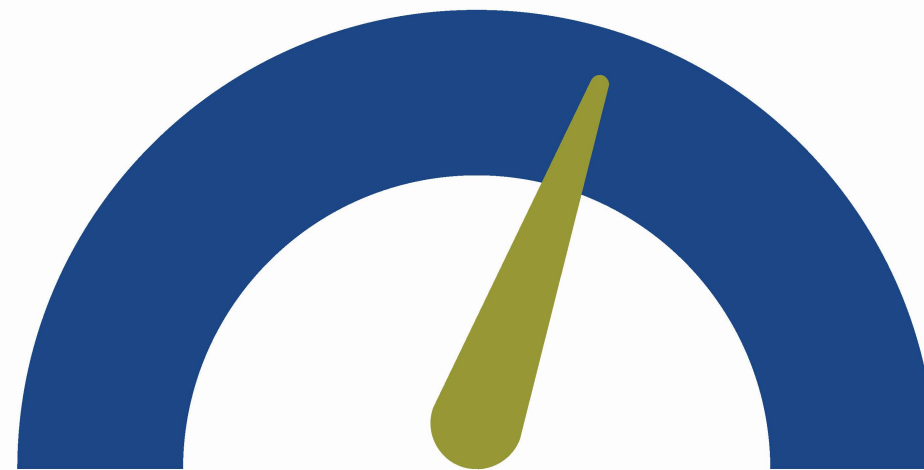
Huge Opportunities: The Majority of Trips Are Short

Percent of Trips by Distance

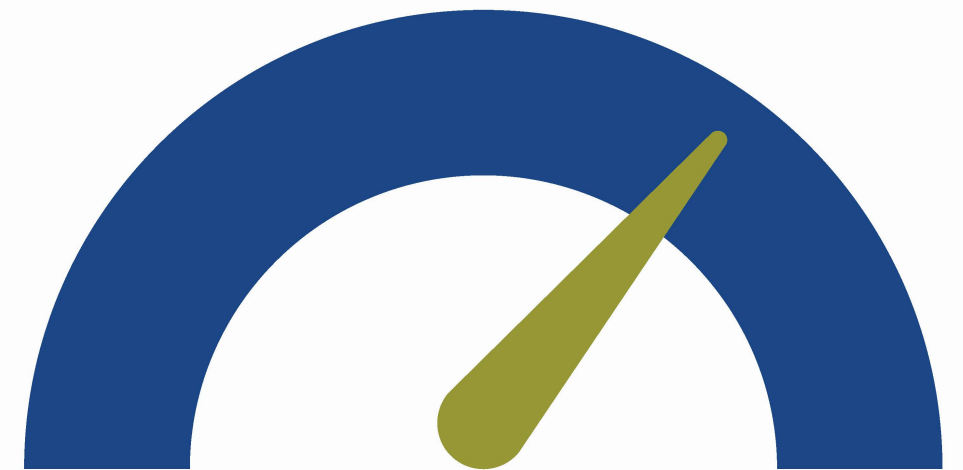
Source: Drivers of VMT and Priority Reduction Strategies Report



30% of trips made are under **1 mile**



60% of trips made are under **3 miles**



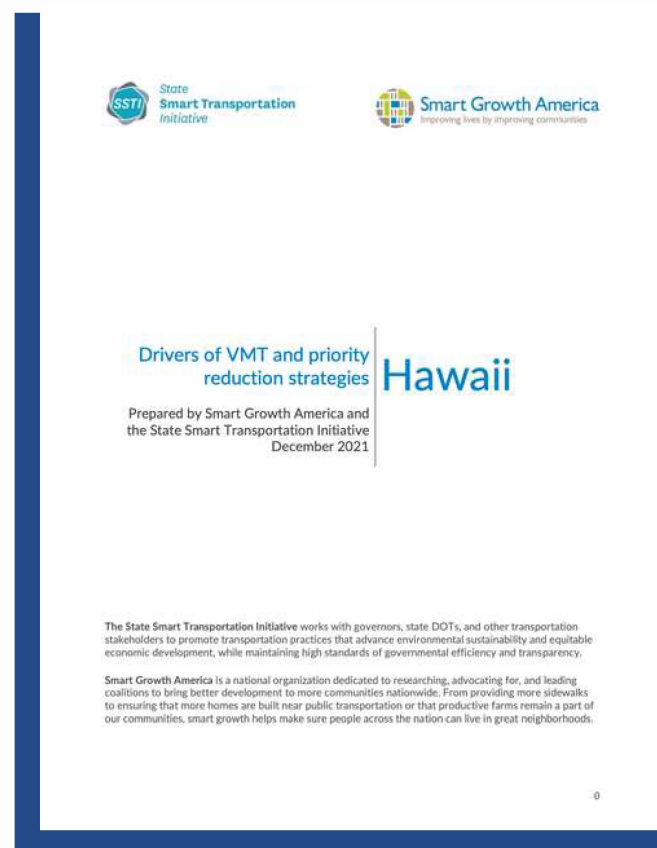
70% of trips made are under **5 miles**



What is Accessibility and Why Measure it?

- Ease with which people may reach destinations such as jobs, stores, parks, schools, and other amenities
- Metric that can be used to evaluate and measure the impact of projects of all modes

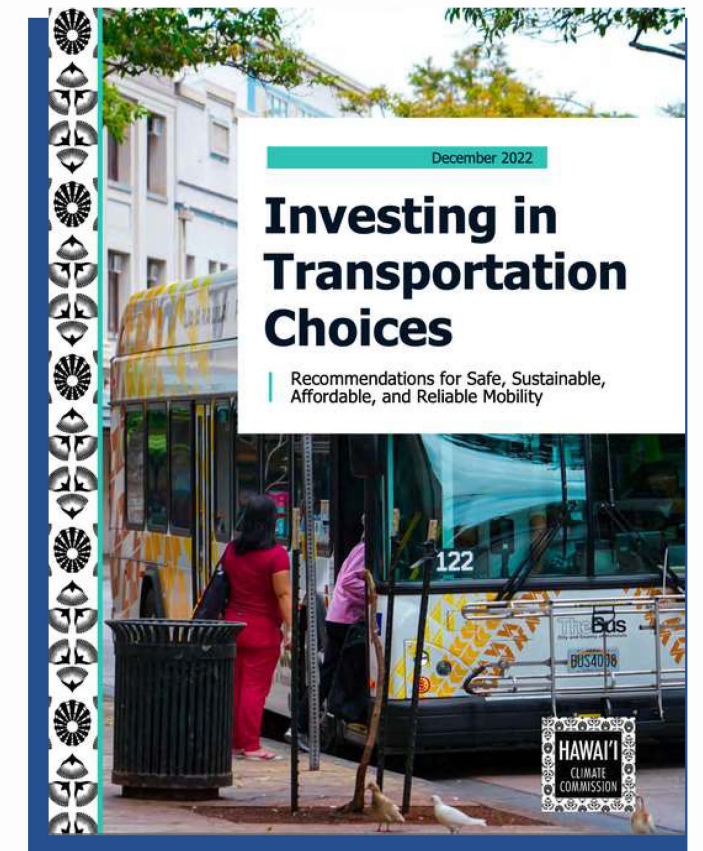
Consistency with Recent Lawsuit and Transportation Reports



*Hawai'i Drivers of VMT
and Priority Reduction
Strategies*



*Navahine vs. State of Hawai'i Department of
Transportation*



*Investing in
Transportation Choices*

Purpose of Project

Phase 1:

- Developed two GIS based tools to:
 - Measure accessibility changes in accessibility
 - Measure VMT impacts

Phase 2:

- Developed a framework for how to include accessibility in the prioritization for the TIP and ORTP
- Identify transportation projects that would improve accessibility to different points of interest.

Phase 3:

- Develop action plans to support project readiness for the TIP

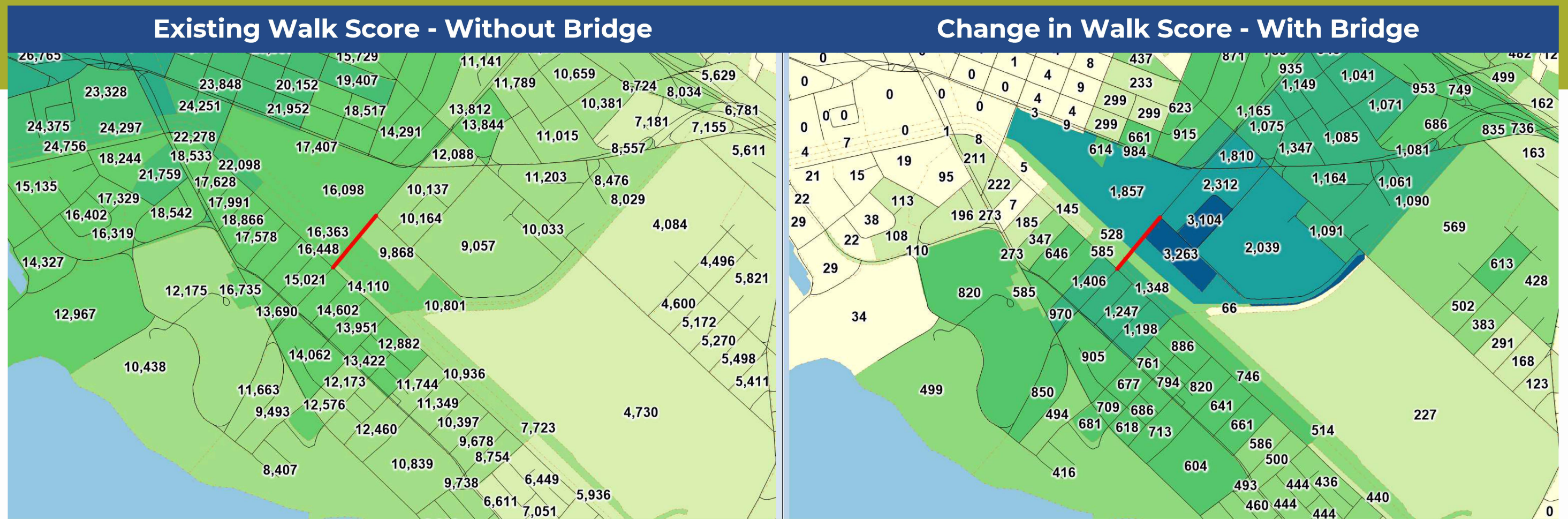


Photo Courtesy of DTS

What can the accessibility tool do?

- Measure accessibility changes to key points of interests (e.g., jobs, everyday destinations) by different modes of transportation (e.g., walk, bike, auto, transit) due to project impacts (e.g., new bikeways, etc.)
- Generate heat maps to identify accessibility gaps
- Can be used as a common platform to discuss land-use and transportation questions

Example: Ala Pono Project - Change in Walk Score for Everyday Destinations



For the map on the right, zeros indicate no improvement as the area already has a high score

Access to What?



Banking



Beaches and Parks



Schools



Grocery



Government



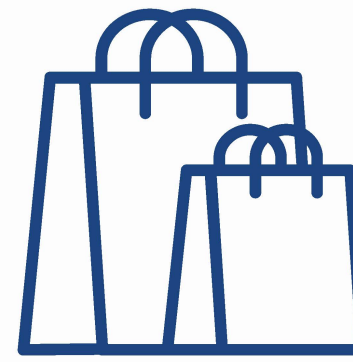
Health Services



Organizations



Restaurants



Shopping



Social Services



Transit Stops

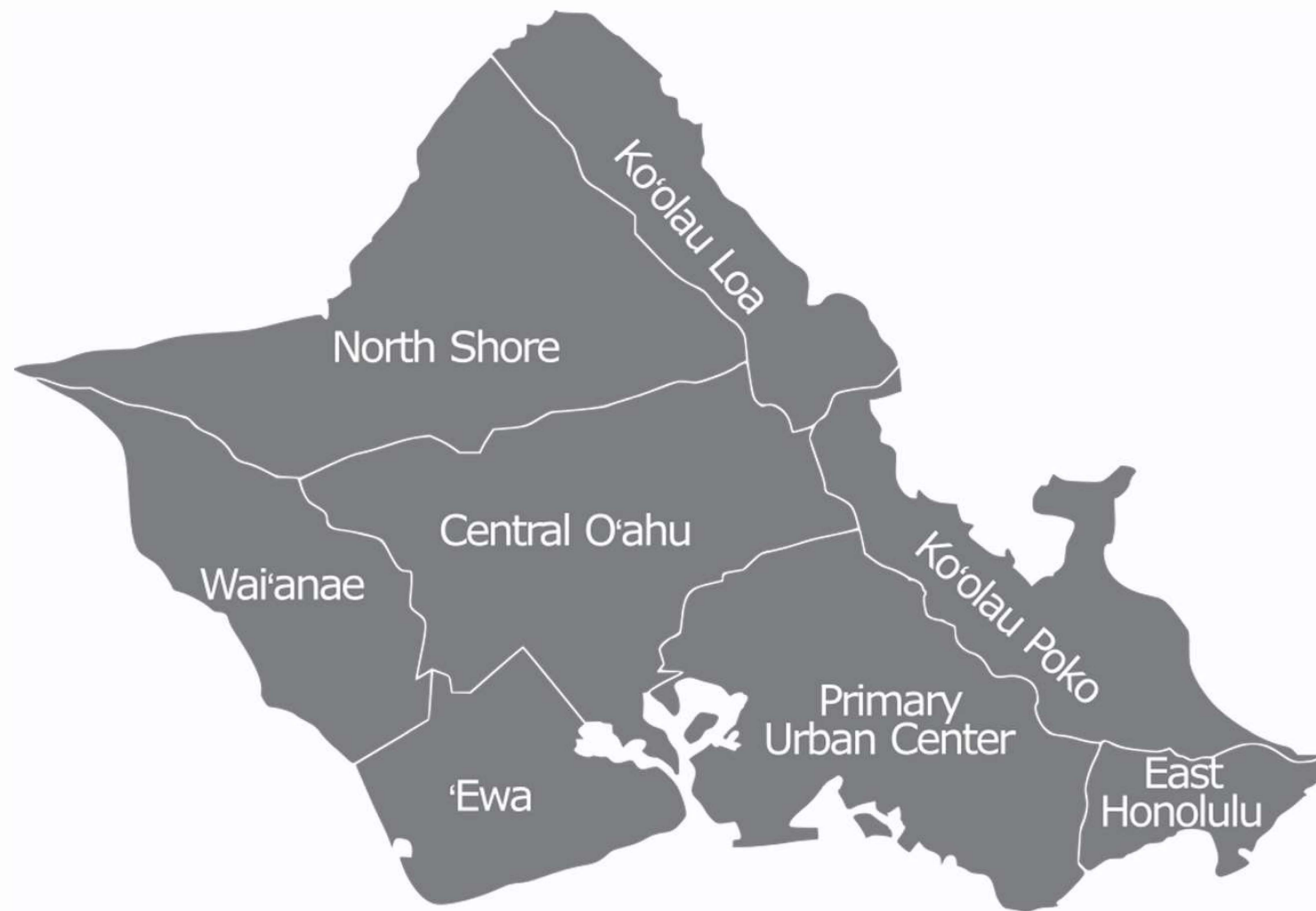
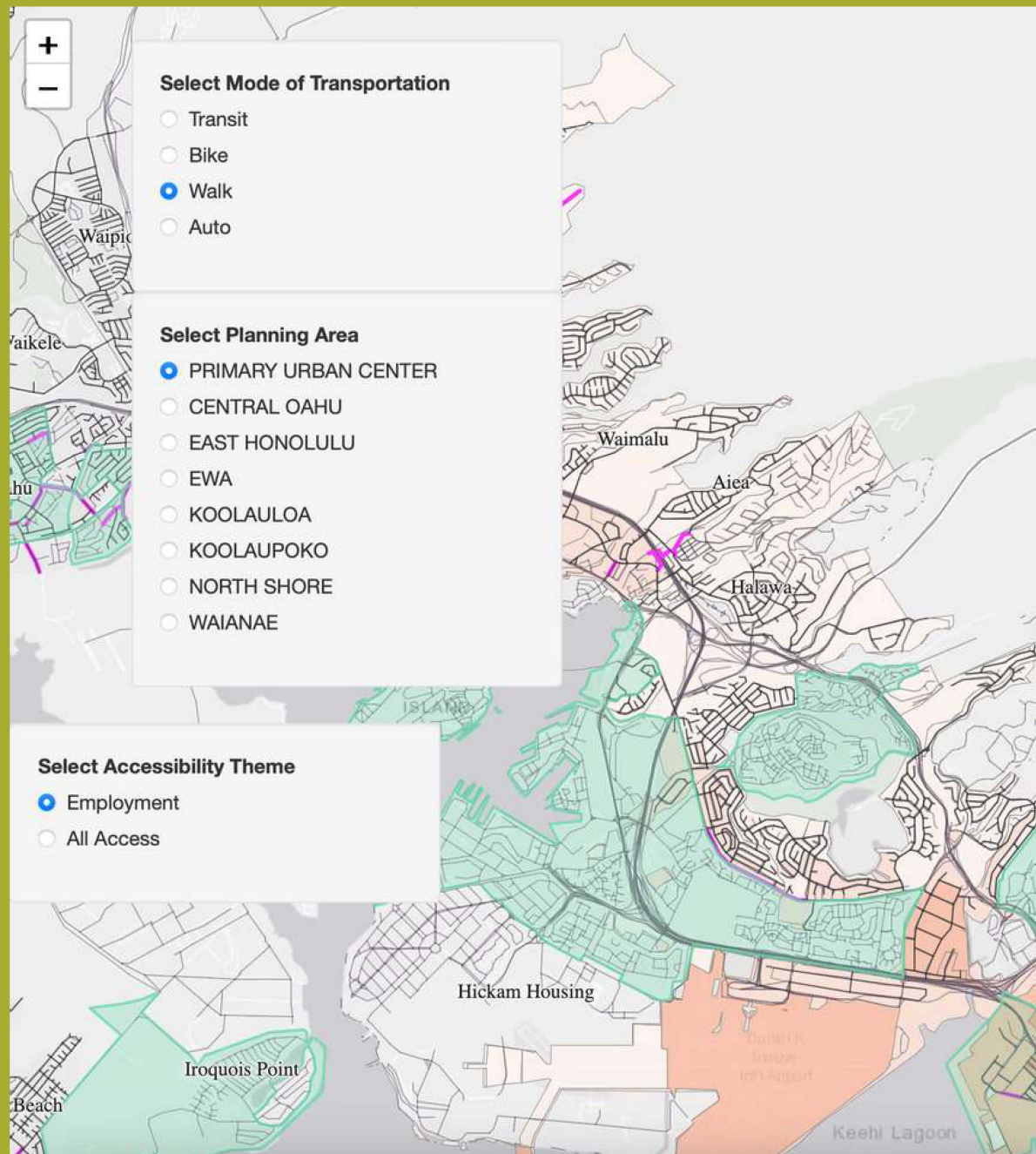


Photo Courtesy of DPP

Needs Assessment: Approach

- Generate accessibility heat maps by transportation mode for each of the DPP eight planning areas to identify gaps in accessibility.
- Develop an interactive dashboard available to the public and partner agencies to inform project proposals for the ORTP and TIP.
- Identify key walk and bike projects based on gaps observed in the heat maps.

Accessibility Map



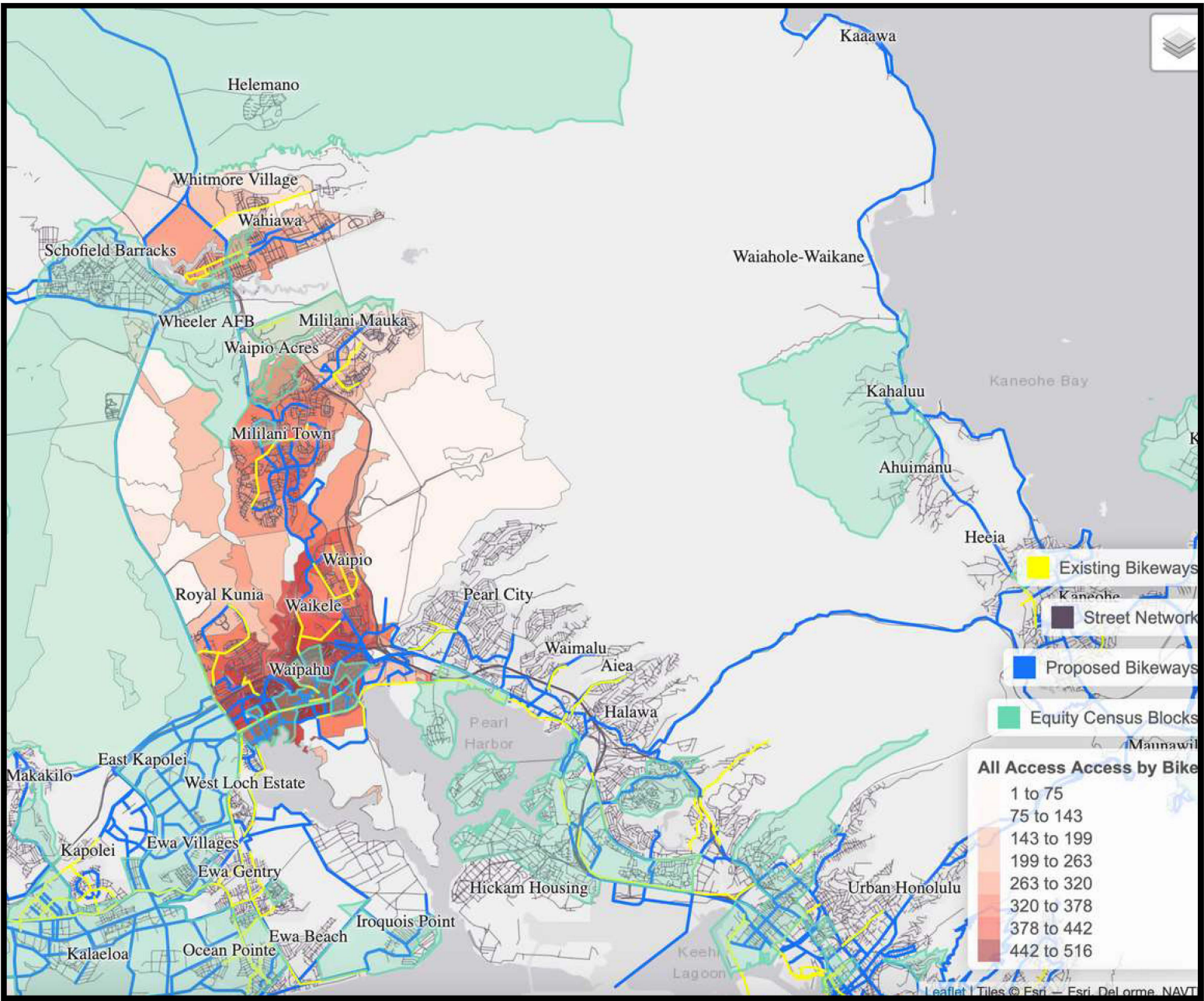
Needs Assessment: Accessibility Maps and Projects

- **Accessibility Map Link:**
https://nelsonnygaard.shinyapps.io/Oahu_Accessibility_Map/
 - a. View by mode
 - b. View by planning area
 - c. View jobs and everyday destination accessibility
- **Projects separated into:**
 - a. Exists in Plan
 - b. Consider Facility Upgrade
 - c. Missing
 - d. In Progress
- **Existing projects are from:**
 - a. O'ahu Pedestrian Plan
 - b. O'ahu Bike Plan
 - c. OahuMPO Transportation Improvement Program

Central O'ahu



California Avenue near Leilehua High School
Proposed Bike Lane (Project 1-1)

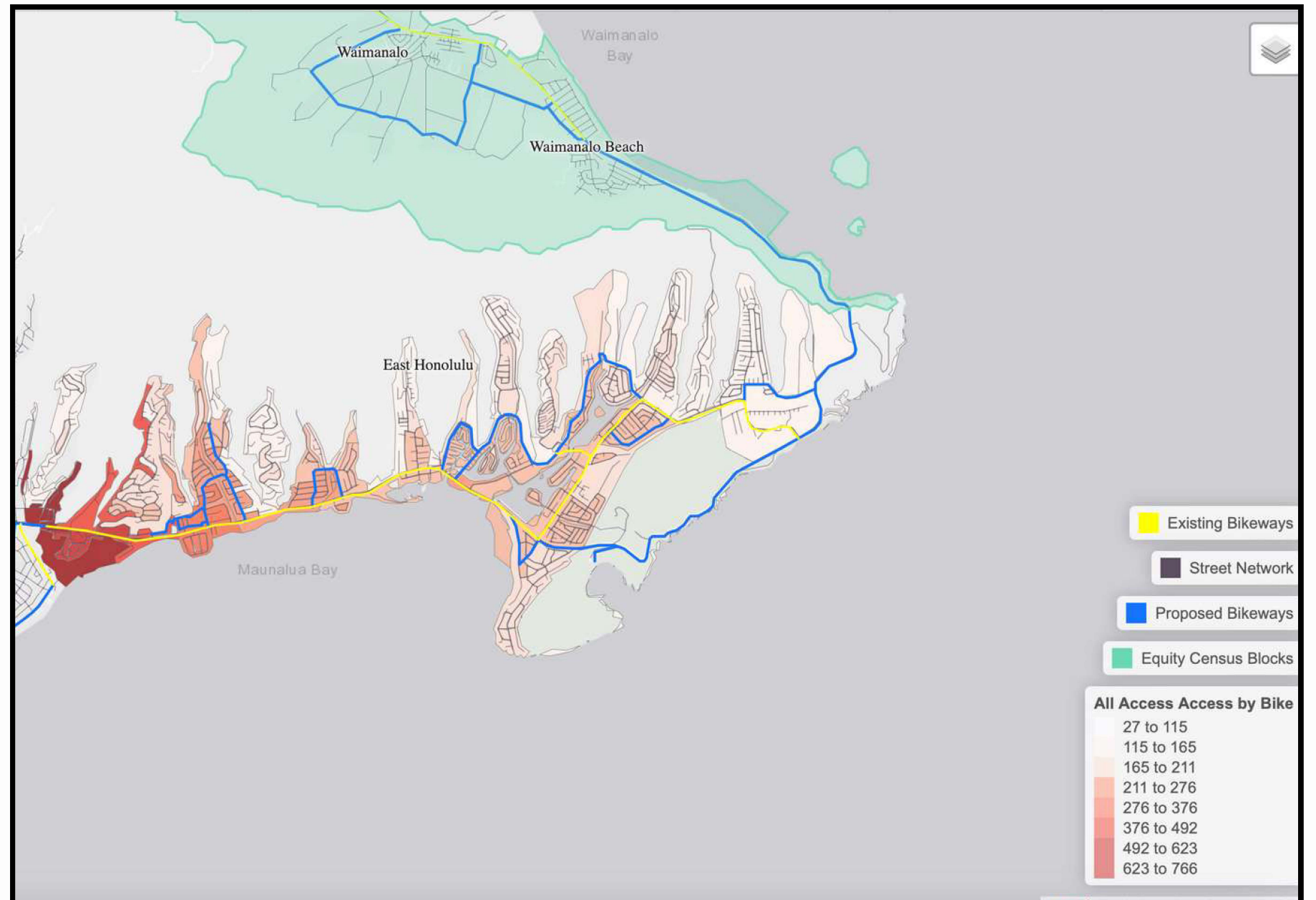


Central O'ahu Accessibility Map
Bike Accessibility to Jobs and Everyday Destinations

East Honolulu



**Kalaniana'ole Highway at Lunalilo Home Road,
towards Koko Marina Shopping Center
Proposed Bike Lane (Project 1-21)**

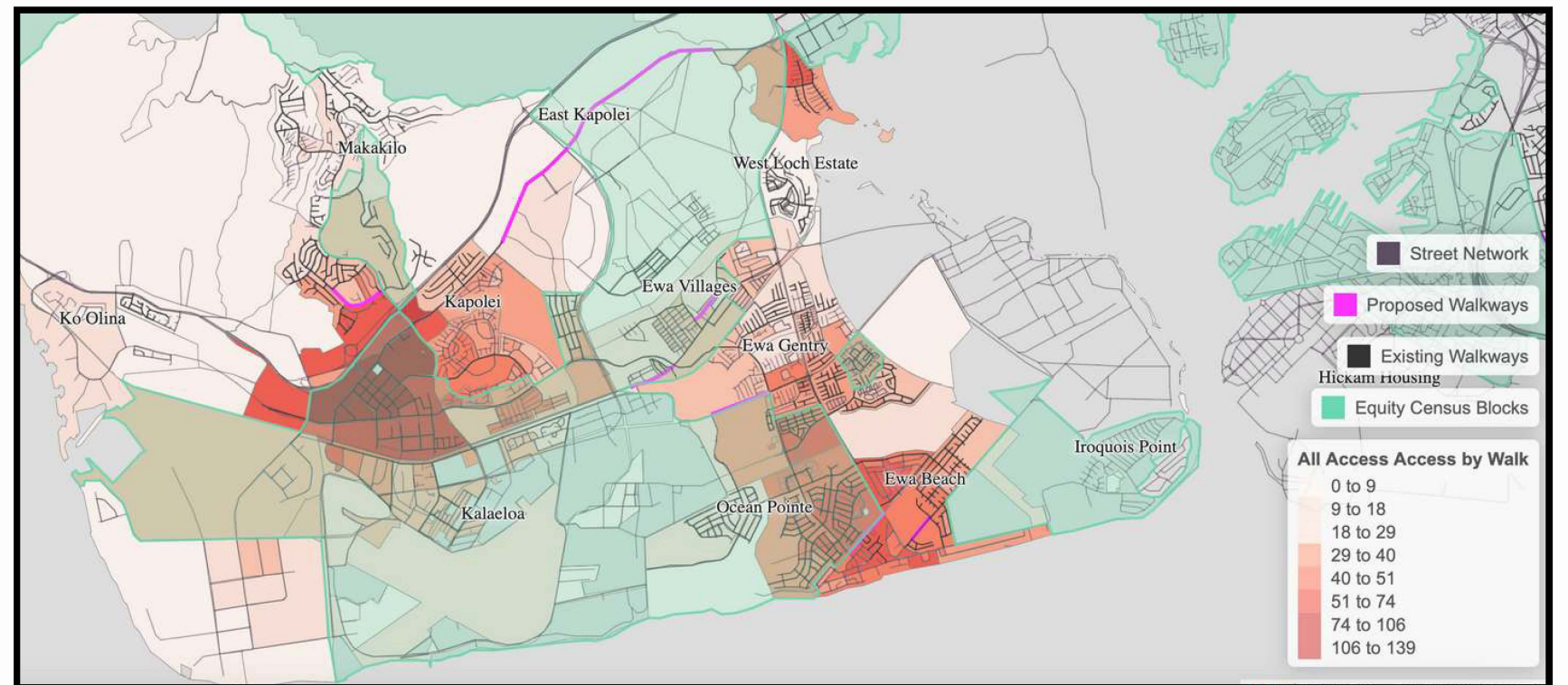


**East Honolulu Accessibility Map
Bike Accessibility to Jobs and Everyday Destinations**

'Ewa



**Makakilo Drive near Mālama Market
Proposed Buffered Bike Lane (Project 2-51)**

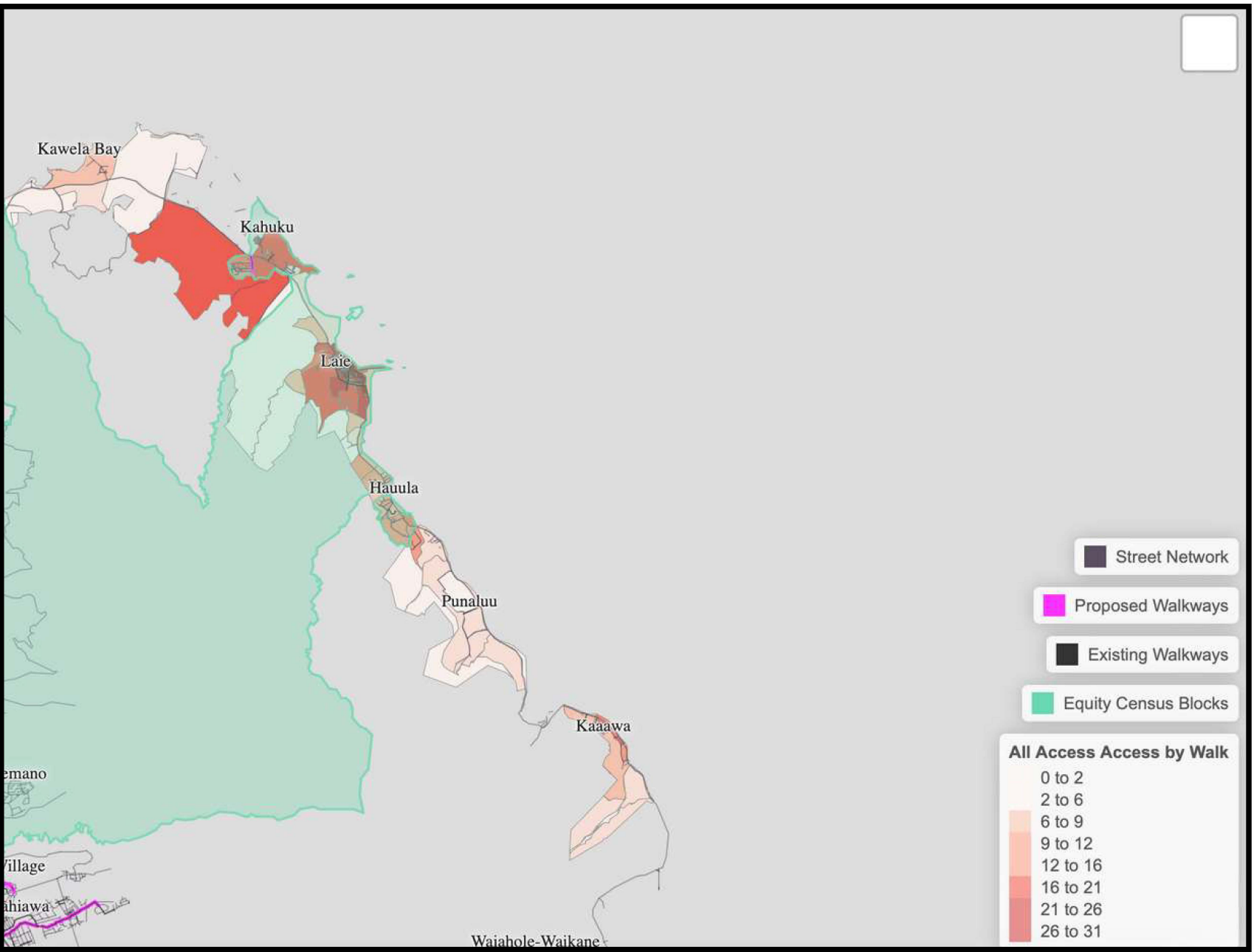


**'Ewa Accessibility Map
Bike Accessibility to Jobs and Everyday Destinations**

Ko'olau Loa



Kamehameha Highway near Lā'ie Elementary
Proposed Shoulder Bikeway (Project 1-38)

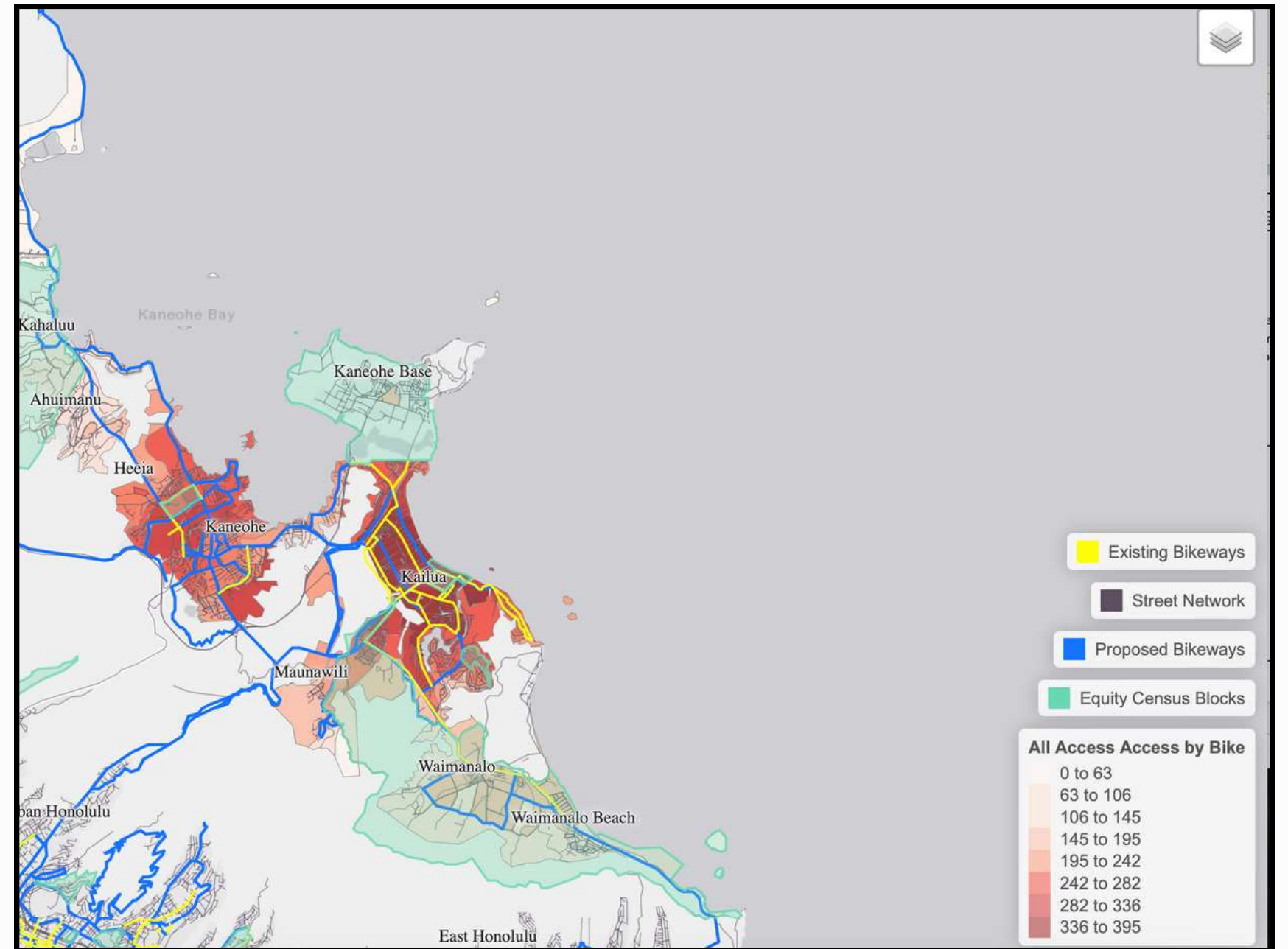


Ko'olau Loa Accessibility Map
Walk Accessibility to Jobs and Everyday Destinations

Ko'olau Poko



Kāneʻohe Bay Drive past Castle High School, near Bay View Golf Course
Proposed Buffered Bike Lane (Project 2-75)

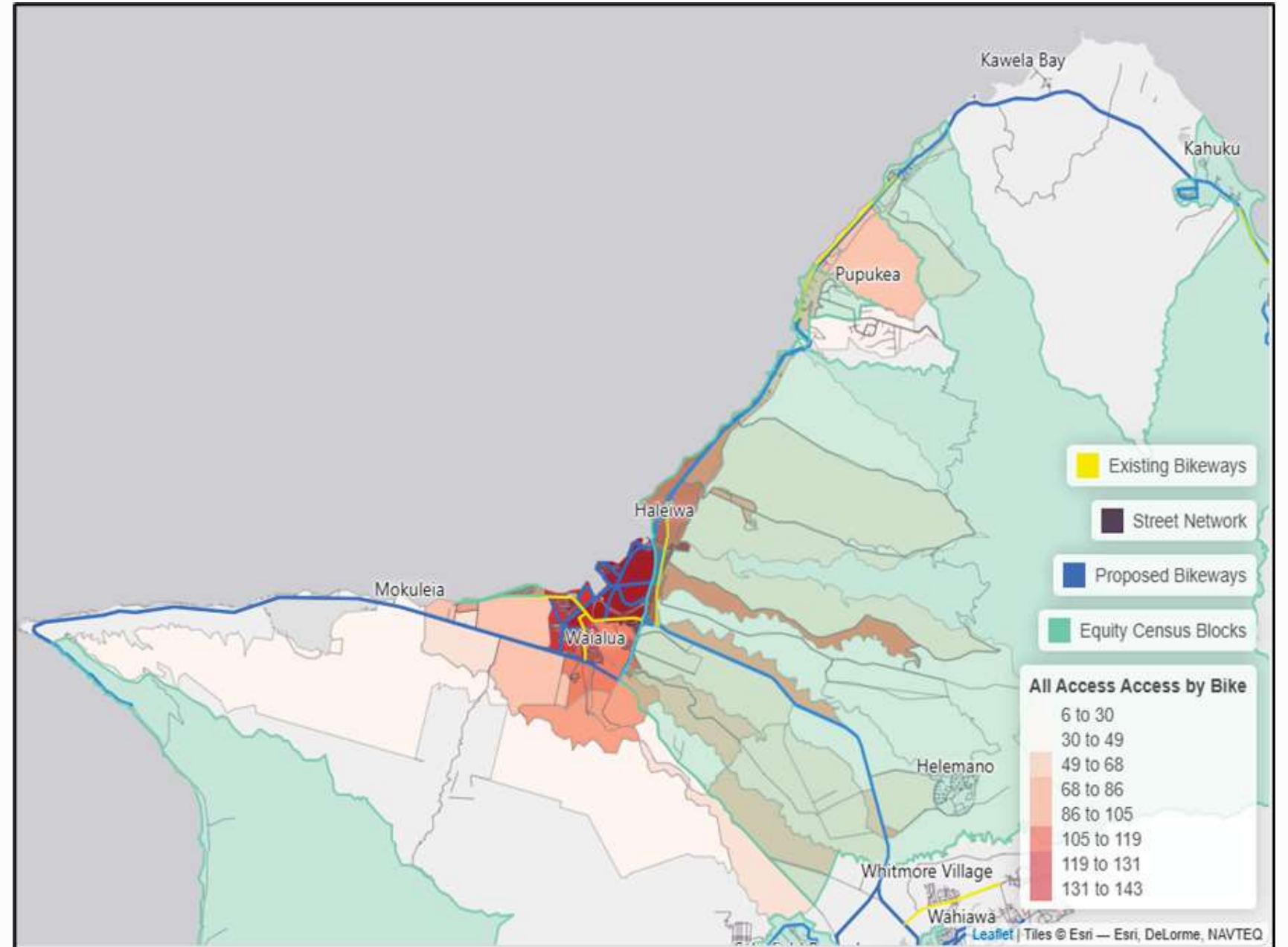


Ko'olau Poko Accessibility Map
Bike Accessibility to Jobs and Everyday Destinations

North Shore



Kamehameha Highway in Pūpūkea
near Foodland and the Sunset Beach Fire Station
Proposed Shared Use Path (Project 1-58)

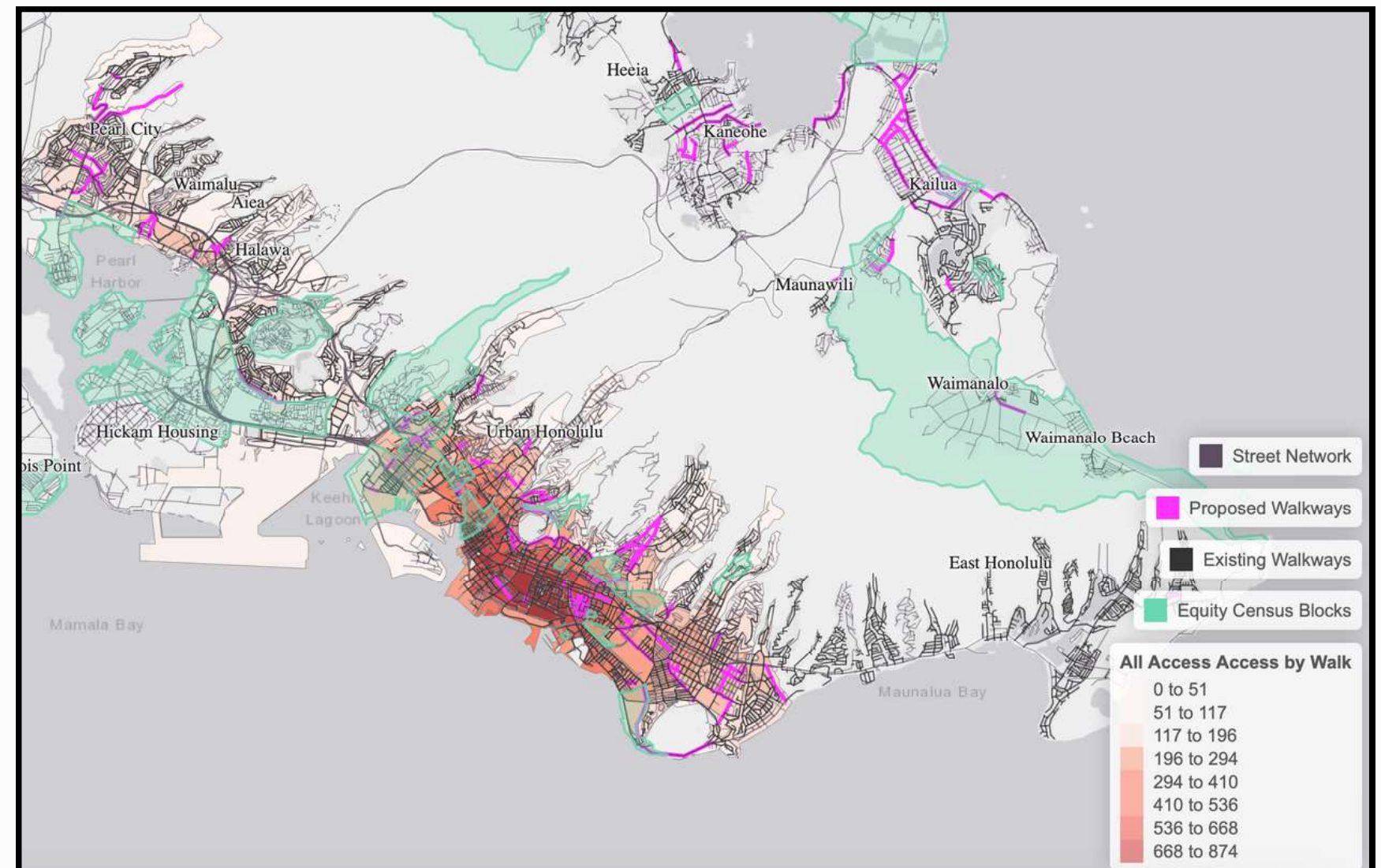


North Shore Accessibility Map
Bike Access to Jobs and Everyday Destinations

Primary Urban Center



University Avenue at Ka'ala Street right past UH
Proposed Walkway (Project 1-51)

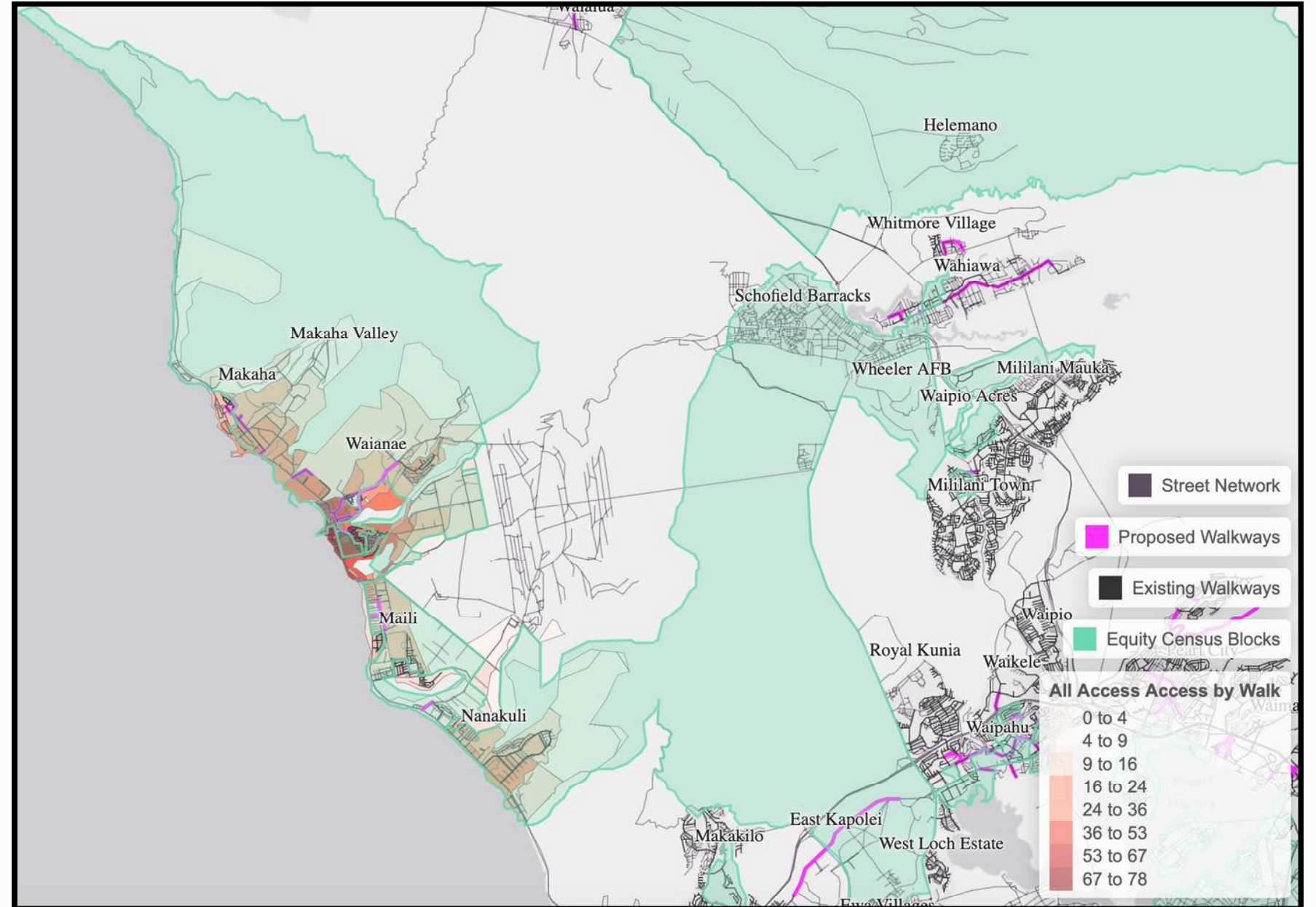


Primary Urban Center Accessibility Map
Walk Accessibility to Jobs and Everyday Destinations

Wai'anae



Farrington Highway in Mā'ili
Proposed Shared Use Path (Project 1-128)



Wai'anae Accessibility Map
Walk Accessibility to Jobs and Everyday Destinations

Relevance to the State TOD Council Members

- Identify land-use gaps
- Identify where land-use changes may benefit access for communities
- Identify key transportation gaps and improvements for master plans and other planning efforts
- Contact MPO Staff to utilize tool or for opportunities to expand use of the tool





MAHALO!

Photo Courtesy of DTS