OAHU METROPOLITAN PLANNING ORGANIZATION

Technical Advisory Committee
October 9, 2026

OAHU METROPOLITAN PLANNING ORGANIZATION

I. Introductions/Roll Call

OAHU METROPOLITAN PLANNING ORGANIZATION

II. Approval of September 11, 2026 Meeting Minutes

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III. Reports

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IV. Old Business

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V. New Business

A. Planning Study Close Out Presentation:

Traffic Signal Optimization and Demand Management Study

Traffic Signal Optimization & Demand Management Microsimulation Model

Greg Tsugawa
Department of Transportation Services
City and County of Honolulu

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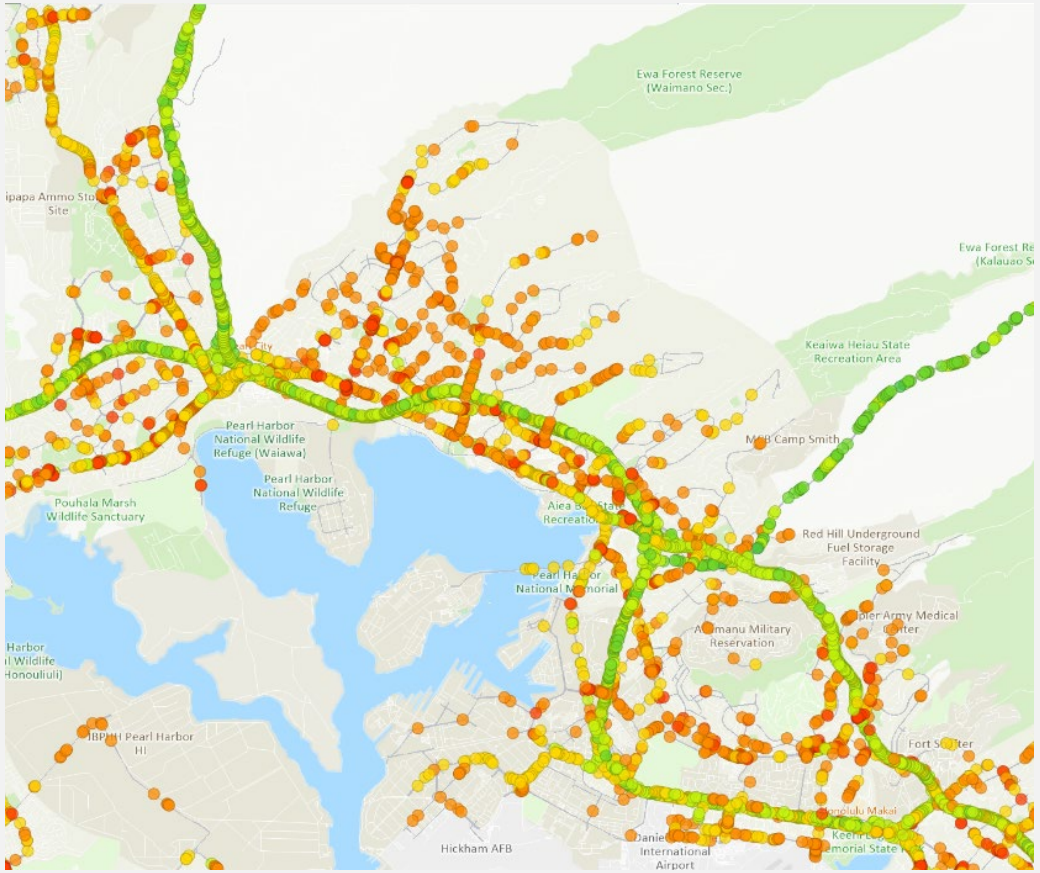
Project Team

Purpose and Need for Microsimulation Model

- Purpose:
  - Integrate simulation and larger forecasting models (Oahu Regional Transportation Forecasting Model)
  - Simulate all roads, project/routing impacts, individual driver decisions
  - Maintain consistency across projects and agencies
- Need:
  - Larger forecasting models cannot analyze specific project impacts in fine detail, nor individual driver decisions
  - Individual traffic analyses are disparate, duplicative, cannot address routing

Oahu Island-wide Model

- Incorporates:
  - Oahu Regional Transportation Forecasting Model streets
  - All traffic signals
  - All modes of travel: vehicle, transit routes, pedestrians, and cyclists
- Generates reports, maps, charts
- Calibrated and validated



Keeaumoku St. Corridor Model

- Proof-of-concept to develop island-wide model
- Corridor between Wilder Ave. and Kapiolani Blvd.
- Modeled Complete Street improvements

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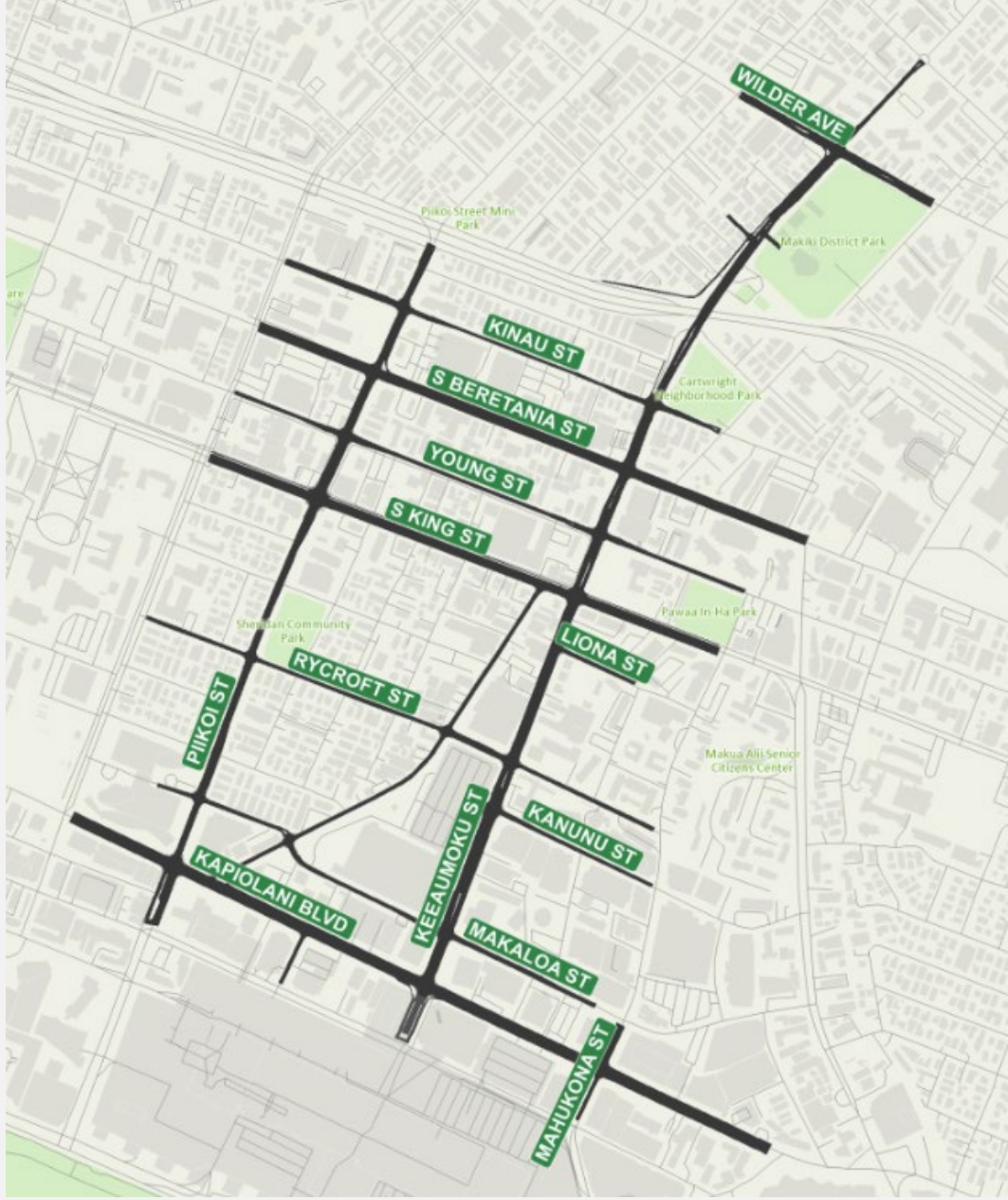
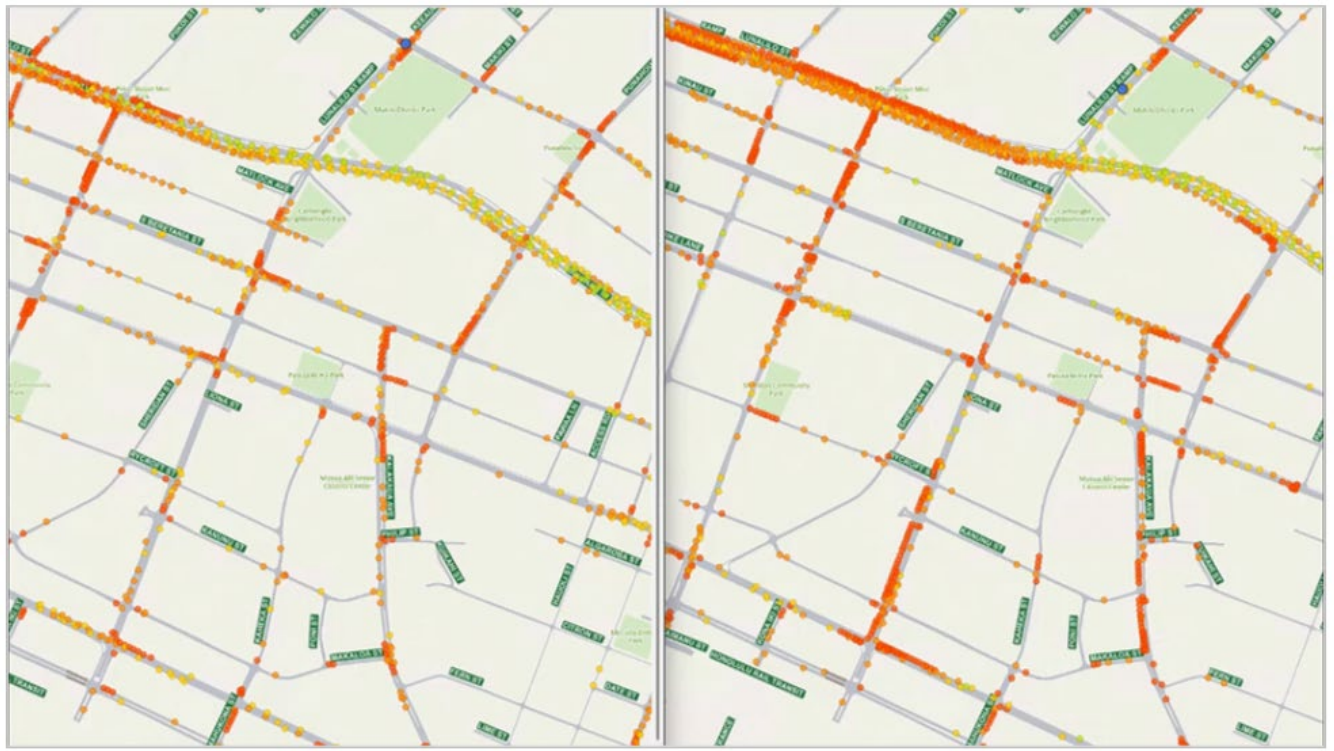
Project Carve-out Studies

- Specific project focus
- Insert origin-destination data from regional forecasting model
- Simulates project effects on surrounding network
- Models alternate route choices



Scenarios

- Vision Zero Countermeasures (protected left turns, leading pedestrian interval, no right turn on red)
- Pedestrian Recall (no button push crossing)
- Bikeway Network
- Transit Priority Network
- Scenarios compared with base/no-build model



BASE PED RECALL

Story Map

- https://arcg.is/1HDK4u0
- Story map details the project:
  - Overview
  - Capabilities
  - Traffic Impact Report usage summary
- www.honolulu.gov/completestreets/guidance/

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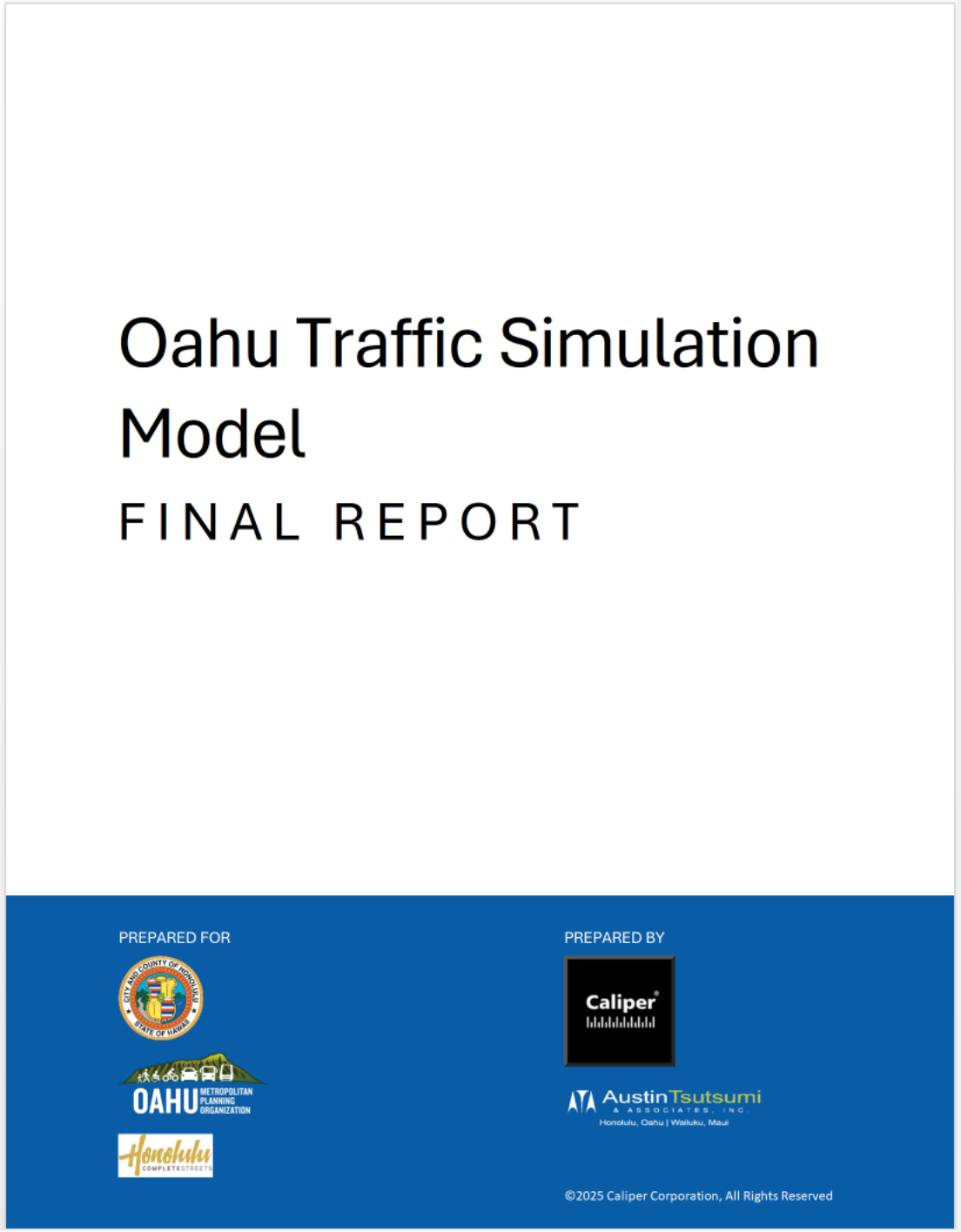
Project Website

- www.honolulu.gov/completestreets/guidance/
- O‘ahu Microsimulation Model and Report section has links to:
  - Final project report
  - Story Map site
  - Final model version on Github



Mahalo!

Requested Action: Recommend the Policy Board approve the Traffic Signal Optimization and Demand Management Study as evidence that the work was carried out, submit documentation of the work completed to the USDOT for approval, and incorporate study findings into the metropolitan transportation planning process.

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VI. Invitation to interested members of the public to be heard on matters not included on the agenda

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VII. Announcements

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VIII. Adjournment