



KALAELOA NZE COMMUNITY

HONOLULU, HI

A New Prototype for Hawaii Community Development

DESCRIPTION The Kalaeloa NZE Community is designed to be a holistic approach to healthy living through environmental awareness. It is a compact, 18-acre, 389 dwelling unit, mixed-use community that integrates sustainability at every level. This affordable and workforce housing community will sustain a net zero approach to energy, wastewater and stormwater. All energy used on-site will be generated on-site with rooftop PV panels. Stormwater is harnessed and filtered completely on-site. A natural wastewater treatment facility is wonderfully integrated into the site design and layout. Local food production is an important highlight, with “steward farms” and edible landscapes located throughout the site. Additionally, an Aquaponics Center is featured, where fresh vegetables and fish are grown in a greenhouse setting. Compost and recycling facilities are located throughout the community and each resident will be educated on what materials can be put in each waste stream. The neighborhood will mix various housing types [stacked flats, townhouses, carriage houses] in 2 and 3 story structures with a mix of 1- to 4-bedroom dwelling units. A mixed-use community “hub” is located in the center of the neighborhood incorporating commercial spaces, an environmental center, a community center, post office, and public plaza.

PROJECT INFORMATION

Client: HCDA / NREL

Site size: 18.3 acres

Density: 389 units | 21 du/ac

Residential: 368,795 sf

Commercial: 8,600 sf

Contact:

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GREEN FEATURES

- Natural ventilation and daylighting
- Shading of exterior windows & walls
- Higher degree of building insulation
- Roof shading with photovoltaic panels
- Light exterior colors
- No HVAC systems
- Energy star appliances
- Rain screen exterior systems
- Modular and panelized construction techniques
- Roof mounted photovoltaic systems
- Roof mounted solar hot water systems
- Rain water reuse system
- On-site waste treatment facility

