



KALAELOA NZE COMMUNITY

HONOLULU, HI

Eliminating the Need for Fossil Fuel Energy through Design

DESCRIPTION The Kalaeloa NZE Community is a 15 acre compact, mixed use, community integrating net zero sustainability concepts with affordable and workforce housing choices and small commercial spaces. Comprehensive and thoughtful environmental building and site design, along with energy from the sun will eliminate the need for fossil fuel energy on site. Kalaeloa NZ residents will benefit from the elimination of future energy costs and enjoy a light imprint, pedestrian oriented neighborhood among the green streets, plazas, community park and green spaces.

The neighborhood will mix various housing types [stacked flats, rowhouse, townhouse, loft and carriage house] in 2 and 3 story structures with a mix of 1, 2 and 3 bedroom dwelling units. A Community “hub” is located on the “makai” end of the neighborhood incorporating retail spaces, community post office, plaza, bus stop, and community garden. 47% of the site is open space and landscaped in a variety of patterns including, native materials, water quality elements and edible landscapes.

GREEN FEATURES

- ✔ Natural ventilation & daylighting
- ✔ Shading exterior windows & walls
- ✔ Higher degree of building insulation
- ✔ Roof shading
- ✔ Higher ceilings
- ✔ 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



Client:

National Renewable Energy Laboratory (NREL) / Hawaii Community Development Authority

Building size/acres: 15 acres

Density: 338 units
23 du/ac
290,000sf

Contact:

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