

Sustainable Elements at IslandWood



Buildings occupy only 6 acres of the 255-acre property.

General Overview

- Solar meadows and building orientations maximize passive solar gain. High performance windows optimize solar heat gain and reduce energy consumption.
- All concrete contains 50% flyash, a recycled utility waste product of coal.
- Natural ventilation replaces air conditioning. Buildings designed using computer modeling to locate window openings and operable skylights for maximum air circulation.
- Walk-off mats at entry doors are made from recycled tires.
- Many building materials are left untreated to reduce off-gassing of volatile organic compounds.
- Roof rainwater used for landscape irrigation.
- Wood harvested from solar meadows used for exterior siding and interior trim throughout project.
- More than 50% of wood products are Forest Stewardship Council (FSC) Certified.

Creative Arts Studio

- Walls are constructed from straw bales.
- High efficiency wood stove provides alternative heat source.
- Skylights and bay windows provide natural daylighting.

Sleeping Lodges

- Solar-heated water from roofs preheats water for showers and sinks.
- Upstairs features cork flooring—a renewable resource and sound absorber.
- Throw rugs in bunkrooms are woven from upholstery remnants and discarded clothing.
- All wastewater is naturally treated with on-site constructed wetlands.
- Flooring in Great Room and Loft made from recycled wood.

Main Center includes Welcome Center, Great Hall and Administration

- The small sections of carpet found in the Administration Office are made from 95% recycled carpet.
- 92-foot, 120-year old salvaged wood beam serves as an element in the primary roof truss.
- Flooring is assembled with salvaged wood.
- Skylight and mechanically operated louvers provide solar heating and natural ventilation.
- Retractable canopies will be used to lower summer heating load.

Dining Hall

- Solar-heated water used in kitchen, restrooms and laundry.
- Photovoltaic-powered fans ventilate rooms.
- Bathrooms feature recycled glass tiles in floor and as wainscoting.

Educational Studios

- Photovoltaic panels on roof provide 50% of lighting and electrical needs.
- Composting toilets eliminate water use.
- Sustainability classroom features interpretive elements to allow students to monitor their energy and water consumption.
- Each classroom features a different renewable resource flooring: cork, bamboo, recycled rubber, and concrete.
- Bathroom countertops made from recycled yogurt containers.
- Bathroom stall partitions made from recycled plastic.
- Each classroom countertop features a different sustainable surface: recycled-content concrete, recycled yogurt container composite, or soybean/sunflower seed bio-composite.

Living Machine

- On-site treatment system provides tertiary treatment of wastewater. Reclaimed water used for low-flush toilets and potential landscape irrigation.

