



Cape Eleuthera Residential Subdivision Sustainable Design Best Practices

The following are recommendations agreed to between Cape Eleuthera Resort and Marina and the Center for Sustainable Development/Island School for the inclusion of sustainable design features into new residential buildings at The Grove, Blue Marlin Lane, Conch Shell Lane, Starfish Lane, Reef Lane, Coral Lane and other future residential subdivisions at Cape Eleuthera. The areas of focus described below are chosen to provide the most significant improvement in reducing negative environmental impact and improving positive environmental impact over typical building practices.

Energy

1. Each house must incorporate renewable energy generation equipment into the building design.
2. The owner may decide whether to use solar, wind or other sustainable power generation methods.
3. Owners are encouraged to use solar thermal collectors for hot water.

Water

1. Each house must utilize a cistern to capture rainwater for irrigation and potable water uses.
2. Potable water treatment achieved using UV or other low energy/chemical free sterilization.
3. The house must employ low-flow fixtures for sinks, showers, toilets and washing appliances.

Sanitary Waste

1. Human waste must be treated on property, using chemical-free, biological wastewater treatment.
2. Each home must install its own wastewater treatment system.
3. Nutrient rich effluent from the treatment system should feed a banana grove or other agricultural feature rather than passive release into the environment to maximize benefits.

Building Design

1. Locally sourced materials should be used to the greatest extent possible, where practicable.
2. Buildings should incorporate low energy fixtures such as LEDs for lighting and inverter driven appliances for refrigerators, microwaves, washing equipment, water pumps, air conditioning equipment, etc.
3. Specify insulation meeting or exceeding R21 in walls and R40 in ceilings.
4. Specify high performance glazing in wall windows and doors.
5. Specify white or light colored roofing material. Elastomeric roofing material is suggested as a low impact, environmentally friendly material.
6. Design the building to maximize natural cooling from the wind and lighting from the sun.

Landscaping

1. Houses must incorporate sustainable/native/non-invasive species in the landscaping plan to contribute to the overall aesthetic appeal.
2. Native species requiring minimal upkeep are preferred to minimize negative impact.
3. Some edible landscape serving dual aesthetic and food production purposes is encouraged.

Site Planning

1. Homes must include a landscape plan to encourage synergies between built and natural environments.
2. Consider the house as a room within the environment, rather than a structure that does not fit with natural features.
3. Plan the site to maximize benefits from natural shading, providing natural cooling.