



## **Sarasota Residence**

### **Sustainable**

### **Building**

### **Specifications**

The Sarasota Residence designed by Barron Schimberg utilizes a comprehensive array of sustainable practices and materials to maximize efficiency and sustainability, which resulted in the achievement of a Florida Green Certified House. Please see list below:

#### **CONSTRUCTION**

- Used metal studs rather than wood to avoid damage to the environment. Metal studs use a percentage of recycled material
- Drywall used incorporates recycled paper backing
- House was designed based on masonry block dimensions to minimize waste
- Glazing is low-e and insulated
- All construction waste was diverted to WCA, a recycling trash company
- Before construction, a jobsite management program was created to minimize waste and maximize efficiency
- The design allows for an area, facing south, specifically created for future solar panels

#### **MATERIALS**

- Recycled glass and glass tile
- Reclaimed cypress planks and reclaimed wood furniture
- Natural basalt stone
- Stained polished concrete – no off gassing or toxic emissions
- Countertops are Zodiac – a recycled quartzite product
- Countertops in the garage are Fireslate – a manmade material consisting of Portland cement, sand, water and fillers - environmentally friendly

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#### ENERGY

- Efficient HVAC system – 16 SEER
- Installed dampers in the duct system to allow for adjustment of airflow and minimize wasted energy and air distribution
- The flat roof is white, highly reflective, low emmissivity (absorption), which reflects the sunlight and keeps the house cooler
- Passive cooling by raising the building and providing openings underneath allowing for air flow below floor slab
- Designed the house to have the ability to open doors on both sides of the main space for cross ventilation, either through the doors or the operable windows above
- Operable windows in transoms above doors to allow for heat exchange and outside air flow
- Operable windows in the clerestory to allow for heat exchange
- Exterior/interior walls are insulated with R-11 insulation and the ceiling with R-30 insulation
- Used light colored walls throughout to minimize height absorption
- Used fluorescent lights in the laundry rooms and closets for energy efficiency
- Open plan allows for efficient air flow, minimal walls, and a more comfortable feeling

#### WATER

- Tankless water heater with a recirculation pump saves water consumption
- Low flow fixtures saves water consumption

#### SITE

- During construction, all run off was controlled with a silt fence and shell rock adjacent to the street to minimize waste and run off

#### HEALTH

- All penetrations, floor, wall and ceiling are completely sealed
- All HVAC ducts were protected throughout construction to keep dust out
- Low or no VOC paints and sealants were used throughout
- Carpet was deliberately avoided for health reasons
- Icynene was used throughout for insulation purposes
  - Icynene® is 100% water-blown and does not emit harmful gases once cured
  - Icynene® contains no ozone-depleting substances and does not off-gas over time, unlike some conventional insulation that can deteriorate as time passes. Icynene maintains its efficiency with no loss of R-value to provide healthy indoor air (and energy savings) for its occupants today and for years to come. Selecting products that provide longevity, like Icynene®, reduces the impact on the environment because it eliminates the need for the installation of additional material in the future
  - Icynene creates a continuous air barrier in the walls, ceilings and floors, which **minimizes the intrusion of outdoor allergens and pollutants**

#### POOL

- Highly efficient pool pumping system – Whisper Flo

#### LANDSCAPE

- A 3'-0" wide strip of mulch between the seawall and the property minimizes water run off and filters storm water before it enters the bay
- Water from the roof is channeled through pipes/drains to a bubbler box located in a landscape bed which allows water to be distributed slowly, preserve soil and be reused in a necessary area
- Over 50% of the plants are drought tolerant and do not require irrigation
- All trees are compatible with the local environment
- Minimized turf to be less than 50% of the entire site
- Grouped plants with similar maintenance requirements to minimize wasted water and create better efficiency