

Twin Lakes Park Green Office Complex

Sarasota County Community Services

6700 Clark Road, Sarasota

The Sarasota County Twin Lakes Park Green Office Complex consists of two office buildings — a new building completed recently and a renovated building originally constructed in 1971. The two buildings include administrative offices for Sarasota County Community Services: Libraries, Parks and Recreation, the History Center and the University of Florida-Sarasota County Extension. The new building, which houses the Extension offices, also includes an education center for public programs and meetings. The U.S. Green Building Council (USGBC) has awarded the complex its prestigious Gold-level LEED (Leadership in Energy and Environmental Design) certification. The designation recognizes buildings and grounds that are, in the words of the USGBC, “environmentally responsible, profitable and healthy places to live and work.” Buildings submitted for LEED certification are rated in five categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources and Indoor Environmental Quality. Innovation and Design Process credits are also possible.

Sustainable Sites:

- Alternative transportation is encouraged (bike rack, showers, hybrid electric vehicles)
- Existing site was not disturbed more than 40 feet beyond buildings
- Pervious sidewalks, parking lot reduce run-off to manage stormwater onsite
- Erosion and sedimentation control exceeded EPA Best Management Practices to reduce impact on water/air

Water Efficiency:

- Rainwater harvesting utilizing a 28,000-gallon cistern to flush toilets
- Low-flow toilets use cistern water (1.6 gallons)
- Water-free urinals use no water for flushing
- Automated sink faucets use motion sensors to reduce water use
- Low-volume micro-irrigation system for landscaping
- Water efficient landscaping utilizing native, adaptive plants
- Plants grouped according to water needs
- Recycled mulch retains moisture in the soil and prevents weeds

Energy and Atmosphere:

- Integrated design optimizes energy performance to be 50 percent more energy-efficient than standard building
- Building commissioning: independent authority verifies that all systems and products are working as intended.
- Energy-monitoring equipment tracks consumption for maximum efficiency
- Solar orientation maximizes north light for daylight harvesting
- Overhangs shade south windows, new building has no windows on east and west to reduce heat gain
- High-performance building envelope: autoclaved, aerated concrete walls; metal roofing; insulated, low-emittance impact-resistant windows; renewable energy—10 kW photovoltaic system on roof reduces fossil fuel energy
- Geothermal HVAC (Heating, Ventilation and Cooling) system more energy-efficient
- Desiccant wheel removes moisture
- Solar hot water heating
- Natural day-lighting for 90 percent of interior spaces reduces lighting costs by 40-60 percent
- Automated controls monitor and adjust light levels to reduce energy use

Materials and Resources:

- Construction waste management (89 percent of waste diverted from landfill and recycled)
- Building re-use: 89 percent of existing building retained and reused
- Recycled content materials: carpet tile, cool carpet carbon credits; ceramic tile; aluminum window and door frames; steel wall framing; toilet compartments; acoustical ceiling tiles; drywall; rubber flooring; rubber wall base
- Local and regional materials (most produced within 500 miles): parking lot gravel; autoclaved, aerated concrete wall panels; concrete — pervious and poured-in-place; landscape mulch from county landfill
- Certified Wood: wood used in building certified by Forestry Stewardship Council (FSC); cabinetry uses bio-based materials with zero formaldehyde emissions; no CCA (Chromated Copper Arsenate) pressure-treated wood used in project

Indoor Environmental Quality:

- Low- or no-VOC-emitting (Volatile Organic Compounds) materials (adhesives, paints, coatings, sealants, carpet)
- Carbon dioxide monitoring system in new building
- No smoking allowed in buildings
- Ventilation efficiency (fresh air is mixed with re-circulated air)
- Grates at entryways capture pollutants outside
- Temperature and humidity monitors track and adjust system
- Daylight harvesting increases worker productivity by using exterior windows, interior windows between work spaces, clerestory windows, and skylights to add natural light and provide views to outdoors

Innovation and Design Process:

- Educational outreach program to inform visitors about the sustainable green building and Florida-friendly landscaping features
- Green housekeeping utilizes environmentally preferable janitorial cleaning products