



USGBC Case Study
211 S. Florida Ave
Tampa, FL 33602

LEED NC v.2009
Pursuing Silver Certification



Owner: The University of South Florida Center for Advanced Medical Learning & Simulation
Architect: The Beck Group
Contractor: The Beck Group
Mechanical, Electrical, Plumbing Engineers: Affiliated Engineers, Inc.
Commissioning Agent: SSR Cx
LEED Consultant: The Beck Group

Occupancy: March 2012
Size: 90,000 sq. ft.
Occupancy: 276 FTE
Use: Medical Training & Conference Center

Project Description:

The Center for Advanced Medical Learning and Simulation will provide a supplementary vehicle for the development and delivery of continuing education content for health care professionals in collaboration with USF Health. Individuals already attending training sessions at the center will be able to further their competency in business principles, entrepreneurship, technology commercialization, and other interests.

Located in downtown Tampa, a 90,000 square foot, three-story medical conference facility is in development, opening in March 2012. Founded on a sustainable business model, whereby diverse multidisciplinary audiences' learning needs can be met in a single, interactive location, the vision for the center is to create a space to facilitate the transfer of knowledge and skills to the learner.

The building will include a 6,000 square foot laboratory for interdisciplinary research and development for new devices and technologies, to be known as the "Tampa Bay Research and Innovation Center." Physicians, nurses, engineers, computer scientists, and information technologists will collaborate on research and development with industry partners.

Project Highlights:

- **Integrated design process.** The Beck Group is a cross-discipline, integrated delivery firm that provided Architecture, Construction, and LEED management services for the CAMLS project. From the very beginning of the design process, the Beck team, the Owner, MEP engineers, and other key team members worked together on the building's design and provided immediate feedback to each other on the full range of design and construction issues, including those related to sustainability and LEED certification. This helped to ensure that sustainable design considerations were included across the entire project, and that each team member had a stake in reaching the project's certification goal.
- **Alternative transportation.** This facility is located within an existing urban fabric, surrounded by the dense Central Business District and within walking distance of numerous community services. A City parking garage is adjacent to the building's entrance and provides bike storage that can accommodate those traveling to the building on bicycles. Reserved parking spaces for fuel efficient vehicles and electric charging stations are also located in the parking garage. The City's trolley system has a convenient stop in front of the building and there are numerous bus stops within ¼ mile walking distance connecting students, visitors and staff to the facility. Using public transportation reduces pollution and land development impacts from automobile use.
- **Landscape.** The site which was formally a paved parking lot has been restored to include green space, exceeding the local code requirements by more than 50%. Green space helps reduce heat island effect and promotes biodiversity. The native plants are drought

tolerant and therefore do not require as much irrigation. Drip irrigation was utilized to reduce potable water use by 52%.

- **Urban heat island effect.** In addition to green space, the project team also reduced the urban heat island by installing reflective roofing materials and landscape paving. This strategy not only minimizes impacts on microclimates, it greatly reduces the heat gain on the building, thereby saving energy.
- **Stormwater Control.** On-site management of stormwater run-off is controlled by an underground chamber detention system which allows slow percolation into the soil, rather than into the City stormwater treatment system. The run-off was reduced by 54% in the post development condition.
- **Water conservation.** A reduction of 35% was achieved by installing high efficiency toilets and urinals, low flow faucets, and low flow showerheads, greatly reducing the consumption of scarce potable water.
- **Commissioning.** The commissioning process includes all energy consuming systems in the building. As buildings become more complex and the desire for maximum efficiencies increase, it is critical that all integrated building components work seamlessly together to achieve the optimal performance of the design intent. This approach is the foundation of the commissioning process and ensures the building operates the way the Owner intended.
- **Building's energy use** - A highly efficient mechanical system was installed and energy performance was improved further with energy saving strategies such as energy efficient interior and exterior lighting which are one of the biggest impacts of energy use in a building. Other building components that provide energy savings are high performance roof & wall insulation and high performance, low-e coated windows. A computer simulated model was used to determine potential energy savings, showing 12.83% in energy use reduction. These strategies help reduce the environmental and economic impacts associated with excessive energy use.
- **Green Power.** 76% percent of the building's electricity use is being provided by green power through the purchase of Green-e Renewable Energy Credits (RECs). This not only offsets the non-renewable energy used by the building but it also encourages the development and use of grid-source, renewable energy technologies.
- **Recycling centers.** To facilitate the reduction of waste generated by the building occupants, recycling stations are conveniently located on all floors of the building for use by students, visitors, and staff. Recycling items include paper, corrugated cardboard, glass, aluminum and plastic.
- **Construction Methods.** Construction activities can have many negative environmental impacts. By utilizing best practices for construction methods, the construction team limited disturbance to the site and the surrounding occupied buildings. A comprehensive Erosion and Sedimentation Control Plan was put in place for the site and a stringent Indoor Air Quality Plan for the building enclosure for all activities during construction.
- **Construction Waste.** The design and construction team sought to minimize the use of materials and create attractive, low-maintenance spaces. The commitment to minimizing materials extended to minimizing waste, as approximately 55% of all construction waste was recycled, diverting the waste from the landfill, mitigating the detrimental effects of new construction.

- **Low-impact finishes.** All materials in the building include the installation of products with low volatile organic compound (VOC) content levels and formaldehyde-free materials. This was important to the Owner and design team because a building committed to health and education should include healthy indoor air quality.
- **Natural daylighting, controllability.** It has been well documented to show that daylight and views improve productivity and overall well-being. Abundant daylight is provided in all public areas and rooms that daylight would not interfere with medical research and training. Occupants have also been given individual control over lighting, further enhancing their comfort and well-being.
- **Regional and recycled materials.** To reduce the impacts resulting from the extraction and processing of virgin building materials, products were used throughout the building which had a high recycled content. Some of these materials were acoustical ceiling tile, steel/metal products, gypsum wall board, insulation, carpet, and concrete. The percent of recycled content is measured by the total cost of all construction materials. This project totaled 23.65%. In addition, 25.8% of products used for construction were extracted, processed and manufactured within 500 miles of the project. This not only helps support the regional economy but reduces the environmental impacts resulting from transportation.
- **Indoor air quality.** To reduce outdoor contaminants being introduced into the building, permanent walk-off mats have been installed at all main entrances of the building keeping the quality of the indoor environment as clean as possible. Facility cleaning and maintenance procedures often expose building occupants to toxic, potentially hazardous particulates and chemical pollutants. A comprehensive Green Housekeeping Policy is in place that includes requirements for Green Seal Certified cleaning materials and extensive training for personnel.