

GREEN BUILDING TOURS

OCTOBER 14, 2008



EMERSON UNITARIAN CHURCH

EDUCATION BUILDING

Houston, Texas

LEED® NC

75% waste recycled

50% water savings

30% energy savings

LEED® Facts

Emerson Unitarian Church
DeLaney Hall Houston, Texas

LEED® for New Construction
Certification awarded November 2005

Certified **26***

Sustainable Sites 6/14

Water Efficiency 3/5

Energy & Atmosphere 0/17

Materials & Resources 5/13

Indoor Environmental
Quality 7/15

Innovation & Design 5/5

*Out of a possible 69 points

PROJECT PROFILE

EMERSON UNITARIAN CHURCH EDUCATION BUILDING – DELANEY HALL PRACTICING WHAT THEY PREACH

PROJECT BACKGROUND

Emerson Unitarian Universalist Church wanted its new education building to enhance the existing campus, which was heavily influenced by Frank Lloyd Wright's Unity Temple. Emerson also wanted the new facility to reflect a strong environmental ethic that would reflect sustainability as the seventh principle of the Unitarian Church. Another consideration was that the building serve as a wise investment.

Emerson's Education Building was the first liturgical building in Texas to seek LEED certification.

STRATEGIES AND RESULTS

Working with off-the-shelf technologies and products, and with a limited budget, Bailey Architects designed a sustainable building and site that will deliver long-term savings in operating costs and maintenance, while meeting the congregation's goals. The end result is a building that is over 30% more efficient than a standard building. The 22,265 square foot building houses classrooms, meeting spaces, and offices for church staff. A two-story lobby area connects the new building to the existing church sanctuary, expanding the entrance hall and creating a much-needed gathering space. The new building's compact footprint replaces several smaller, loosely organized buildings, and provides three times the educational space they offered. An asphalt drive and turn-around were removed and replaced with a landscaped entry court. As a result, the campus has more landscaped areas than before, with native and water efficient plants and an efficient irrigation system reducing maintenance and water needs. Like the new lobby, the courtyard offers church members necessary space to gather between services and adult education sessions.

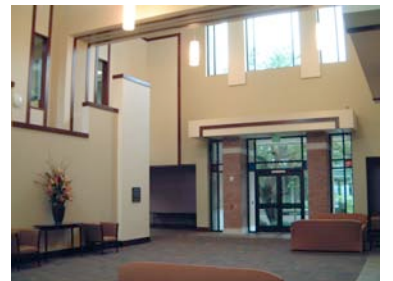
All building materials were evaluated for their health and environmental impacts, including CO2 monitoring, entry walk-off mats, and low VOC paints; and the construction process was carefully managed to ensure the highest level of IAQ for the life of the building. Efficient plumbing fixtures and an efficient landscaping reduce the water use on campus. Energy efficiency was achieved through site-responsive architectural design, such as reflective low-e glazing, cool roofing, and deep roof overhangs; and occupant-responsive mechanical and lighting design, including photocell and occupancy sensor controls; as well as selecting Energy Star appliances. These measures were estimated to save Emerson, just in utility costs, over \$12,000 annually compared to an equivalent facility of conventional construction. Nearly 75% of the construction and demolition waste (approximately 3000 tons) was diverted from the landfill during construction. And about half of the materials used were local in origin, and more than half include recycled content in their manufacture.

Emerson's commitment to sustainability extends beyond the building design and construction process with the development of green housekeeping and maintenance policies and the incorporation of recycling and carpooling operations into the design. Emerson also contracted for Green power.

ABOUT EMERSON

Emerson Unitarian Universalist Church, one of approximately 1,000 Unitarian Universalist congregations in the United States and Canada, was chartered in 1960 to serve the growing western suburbs of Houston. Emerson offers an expansive religious education program for adults, youth, and children, in addition to music and community outreach programs.

Emerson wanted the facility to reflect a strong environmental ethic, reinforcing Unitarian Universalism's principle of promoting "respect for the interdependent web of existence of which we are all a part."



Owner: Emerson Unitarian Church
Architect: Bailey Architects, Inc.
Engineers: Ingenium Inc., Dabney Engineering, Kuo and Associates, Inc.
Contractor: Fretz Construction Co.
Project Size: 22,265 SF
Total Project Cost: \$3,091,823
Photography by Gerald Moorhead, FAIA

ABOUT LEED

The LEED® Green Building Rating System™ is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S.Green Building Council's Web site at www.usgbc.org to learn more about how you can make LEED work for you.

USGBC:
Greater Houston Area Chapter
www.usgbchouston.org

