OVERVIEW

The USGBC NaturalTalent 2008 Design Competition provides an applied learning experience in the principles of integrated design, sustainability, innovation, and social consciousness; all of which are components of the LEED™ Green Building Rating System. Participants will compete in a local competition, the top winner of which will move on to compete for a national award at Greenbuild Boston in 2008. Awards include travel and registration to Greenbuild (http://www.greenbuildexpo.org), the USGBC’s Annual Green Building Conference and Expo, where finalists’ entries will be displayed and where final national judging will occur. Greenbuild 2008 will be held in Boston, MA, November, 2008.

The Emerging Green Builders (EGB) committee of the James River Green Building Council (JRGBC) is hosting the local competition, which is organized with the intention of encouraging students and young professionals to work as a team to create innovative design alternatives and solutions applicable to the development of a nature oriented education facility and associated campus like setting. In consideration that 55 million students and 5 million faculty members spend their days in school buildings, the intention of the design competition is to encourage the development of healthier and more productive education and training centers throughout Virginia.

A recent study by Capital E, a national clean energy technology and green building consulting firm indicates that: “a typical green school involves a 2 percent increase in cost, but would save $100,000 per year in energy costs alone – enough to hire two new teachers, buy 500 new computers, or purchase 5,000 new textbooks.”

COMPETITION OBJECTIVES

- Broaden environmental education and inspire creativity
- Encourage innovative designs generated from higher education facilities
- Strengthen teamwork through challenging design scenarios
- Design solutions to reduce impacts on natural resources and enhance habitat
- Explore design features and alternatives that increase energy efficiency
- Promote education through sharing of design solutions
- Encourage the reduction of the dependence on fossil fuels within the building industry
- Explore the connection between indoor and outdoor environments

ELIGIBILITY

- University students or less that five (5) years professional experience
- 50% or more of the design team currently residing in Virginia (or closest Chapter participating)
- Teams are no larger than five (5) individuals
- Only one (1) entry per team/individuals
- Teams may secure a faculty member or industry professional as a mentor.
REGISTRATION

1. Teams are required to complete an online registration form by visiting the Emerging Green Builders national website at www.usgbc.org/egb; only one form per team. All information must be complete to be considered a valid entry. A confirmation email will be sent from National within seven (7) business days of receiving the registration, and will contain information on how to proceed. Registration is mandatory to receive additional instruction and information on project submittals.

2. Teams are required to identify a primary contact. This person will receive important information from the local competition committee and is responsible for final submission. The team contact will be responsible for all communication between the design team and the Competition Committee. Additionally, the team contact should disseminate all information from the Competition Committee to their entire team.

3. Each team/individual may only enter one local competition. This competition should be the competition geographically closest to your current location.

COMPETITION CHALLENGE

Provide detailed design for an elementary school building integrated within a nature oriented campus style setting with access to natural features and outdoor educational opportunities. The school will be located on an approximate 6-acre parcel in James City County, Virginia (Site Map and Environmental Constraints Map to be supplied upon registration). The building design and associated site plan shall aim to serve as an example of design principles and techniques that can be integrated into other schools located in communities throughout Virginia.

In addition to the building design, provide a conceptual site layout for the entire property highlighting opportunities within the site to incorporate associated recreational amenities, environmental education facilities, and events center. The selected conceptual site layout shall show connectivity between required site/campus elements as outlined in the Development Program specified below.

The building is itself intended to demonstrate a balance between traditional and cutting edge design, energy and resource conservation, and environmental protection, while meeting the requirements established for projected enrollment and expansion. Innovative methods of carbon sequestration, low carbon footprinting, green roofing, solar, wind and geothermal technologies shall be explored and utilized where applicable in consideration of the local climate, site constraints etc.

Innovative site design utilizing existing drainage patterns and low impact stormwater management design are encouraged. The site design should present opportunities to create trail connectivity between multiple buildings. The design team is encouraged to utilize habitat enhancements and environmental mitigation to create opportunities for hands-on education and continual monitoring and research programs.
PROJECT CONTEXT AND LOCATION

The Williamsburg Montessori School, a 501(c)3 not-for-profit organization, has operated at its current location on Longhill Road in James City County since 1982. The existing facility (approximate 5,000 S.F. traditional brick building on concrete foundation) serves students from Pre-Kindergarten through Lower Elementary. In order to meet the continuing needs of the school, the Longhill Campus now requires facility upgrades. For the context of this design competition, the site will be completely re-developed, utilizing materials from existing structures where feasible.

The project is located on a 6 acre parcel along the Longhill Corridor in James City County (Figure to be provided upon registration). The site is a component of an urbanized portion of the County within the James River watershed. The project seeks to provide education facilities, primarily an elementary school and community education/conference center, within an area containing existing infrastructure and easily accessible basic community services. By selecting a site with existing structures, the design team is encouraged to re-use construction materials and provide recommendations to for the handling of construction debris.

* In consideration that there are multiple Chapters in Virginia, similar sites within the State may be accepted upon approval local EGB Chapter.

DEVELOPMENT PROGRAM

1.) Provide Adequate Building and Campus Space to Meet Projected Enrollment Needs
   - Design Functional Elementary School Building (7,000 – 12,000 SF)
   - Create Stable Foundation and Example for Future of Education Facilities
   - Provide High Quality Environmental Education Opportunities
   - Integrate Within and Provide Access to Existing Transportation Corridors
   - Create Safe Walkways Between Facilities

2.) Provide a High Performance Green Building
   - Low Impact Site Planning & Site Restoration
   - Innovative Architectural Design
   - Resource Efficiency (demonstrate energy reduction)
   - Renewable Energy Sources
   - Increased Carbon Sequestration (conceptualize carbon footprint)

3.) Provide Guiding Example and Educational Tool for Green Building in James City County
   - Minimum LEED Certification – Gold
   - Integrate Educational Opportunities into Design
   - Educational Signage and Kiosks
   - Provide Guided Tours
   - Incorporate Montessori Design Principles
   - Provide Conference Center for Community Use
Given the projected enrollment, the team shall delegate the interior and exterior space needs of the school including classroom and office distribution. Consideration shall be given to Montessori design guidelines, in addition to Local, State, and Federal guidelines and requirements for architectural and structural design.

Based on options for interior/exterior environment layout, the team shall develop a site design option, including (at a minimum) the following:

- Elementary School building footprint and layout, fully designed and dimensioned, with associated architectural renderings (detailed design)
  1. Adequate classroom and office space for projected enrollment
  2. Auditorium/Gymnasium
  3. Environmental Laboratories
- Conceptual parking and traffic flow layouts, shelters, parking, pedestrian circulation
- Outdoor use zones for recreation and education (site concept)
- Central conference center for community events (site concept)
- Outdoor amphitheater for community events (site concept)
- Innovative stormwater management concept plan
- Native landscaping & habitat enhancements
- Preserve vegetated buffers and connected corridors

- Approximate existing enrollment and projected enrollment figures will be available upon registration.
- Site boundaries for James City location shall be provided upon registration.

**DESIGN GOALS**

**Evaluation Criteria at the National Level**

- Conceptual Design and Program Fulfillment
- Integration of green design strategies and applicability to LEED criteria
- Creativity in process and innovation
- Engagement of environmental, economic, and social aspects of program and site
- Overall energy reduction and its documentation

**Additional Criteria**

- Minimization of impacts to adjacent resources
- Improvement of overall water quality
- Provide educational opportunities within the site design
- Provide cost-benefit analysis
- Innovative Architectural Design with Daylighting Concepts
- Design teams are encouraged to use site design principles provided in the LEED ND Pilot Program in addition to the LEED NC & LEED for Schools Credit Evaluation.
- Address the 2030 Challenge
SUBMISSION REQUIREMENTS

Submission for Requirements at the National Level

- At minimum, boards submitted at the national level must include:
  o Site plan providing context (scale at the discretion of the entrant)
  o Building Section
  o Floor plan
  o Illustration of key elements of sustainable infrastructure and building systems
  o Wall section OR detail illustrating special environmental features
  o Do not include names or the name of your team on the board
- All entries must remain anonymous at all levels.
- Each entry must also provide a digital file of the image as a JPEG or TIFF format at 300dpi, full size.
- Failure to follow the submission requirements could result in disqualification. This will be left up the judges’ discretion.
- A one-page written design analysis in PDF form to provide the judges with further insight into the submissions.

Other important notes:

- LEED is a design guideline only. It is understood that this will not portray an accurate LEED score.
- No LEED credit interpretation rulings will be provided.
- Designs do not need to be engineered for construction. You should be mindful of conventional design practices, although no other codes other than ADA need to be explicitly met (i.e. local building code, IBC or UBC, fire code, etc.).

- Deadline for submissions is July 10, 2008.
- All local judging completed by July 20, 2008.
- Submittal timelines will be coordinated with professors at local universities that intend to integrate the design competition into their coursework, as needed).

JUDGING

There will be two phases of judging in the 2008 competition. The first will take place at the local level. Judging at the national level will take place at Greenbuild in Boston, MA, by an esteemed panel of green building experts.

Specific Judging Criteria:

1. Foundations in Sustainable Design (Energy & Environmental)
2. Integrated Design (Architecture & Engineering)
3. Social Consciousness (Communications & Education)
4. Innovation & Creativity
5. Understanding of LEED as a Framework
6. Presentation Quality
* Additional design scenarios may be accepted upon correspondence with the EGB committee, in which case additional judging criteria may be established.

**AWARDS**

The local jury will award a first, second and third place, as well as two Honorable Mention Awards. Winning teams will receive the following awards:

- 1st Place: $1,000
- 2nd Place: $500
- 3rd Place: $250
- 4th and 5th: Honorable mentions

**NOTE:** First place winners will also get travel, lodging and registration to Greenbuild in Boston. Only one representative from the design team will be compensated.

National awards are as follows:

- 1st Place: $5,000
- 2nd Place: $2,000

**DISCLAIMER**

The National EGB Committee reserves the right to refuse any entry. The USGBC is not liable for lost or misdirected, late or substantially incomplete entries, as well as any entries containing text/images that identify the designer to jurors. The decisions and opinions of the jurors represent their professional viewpoints, not the opinion of USGBC. All prizes will be awarded at the discretion of USGBC and all decisions are final.

All drawings, photographs, photocopies and other physical materials submitted to the competition become the property of the USGBC and will not be returned. It should be emphasized that this competition is purely conceptual, and the selection of finalists or prize-winners in no way indicates intent of the property owners to implement the proposed schemes. Upon registering for this competition, all competitors agree to waive any and all claims against the USGBC as a result of the competition. Also, by registering, the entrants transfer unlimited use for publication, exhibition and electronic posting of all entries to the USGBC. All images must either be created by the team or sufficiently cited. Failure to do so will result in disqualification. Fill out and return the Image Use Form found on the national EGB website prior to submitting for your local competition. This competition, headed by the USGBC Emerging Green Builders Committee, has no intention to award or grant any building contracts for the designs submitted in this competition.

**COMPETITION SCHEDULE**

- **November 15, 2007:** Registration goes LIVE on the national USGBC website.
- **November 30, 2007:** Kick-Off of Virginia Design Competition
- **July 10, 2008:** All submittals due to local judges
- **August 1, 2008:** Latest date for local judging to be complete.
- **August 22, 2008:** Local Award Ceremony
- **October 1, 2008:** National deadline for those chosen to compete at Greenbuild 2008.
CONTACT INFORMATION

For additional information and questions visit the FAQ page at www.usgbc.org/egb

Contact emerginggreen@usgbc.org with any questions not answered on the above site.

Local contact(s): Scott C. Blossom P.E., LEED AP (757) 570-7333 (cell)
                  Erin Magruder, (804) 432-6174

IMPORTANT LINKS

http://www.buildgreenschools.org/

http://www.usgbc.org/