



THINKDIFFERENT

AFFORDABLE 'GREEN' HOME PROJECT GUIDELINES

The guidelines are designed to maximize the number of concepts sought, the efficacy of these concepts in making home ownership significantly more affordable, and doing so using sustainable materials and energy efficient equipment while reducing the harmful impact on the environment.

The competition will be a Two-Stage Process wherein all registered participants can submit for the First Stage of the Competition. No more than 10 short-listed participants will be invited to proceed to the Final Stage of the Competition.

PRIZES:

There will be prizes in the amount of \$1,000,000, with a First Place Prize of \$500,000, a Second Place Prize of \$300,000 and a Third Place Prize of \$100,000, to be awarded to the three Teams whose Final Stage entries receive the three highest aggregate scores as tabulated according to the scoring criteria below. Short-list participants will each receive \$10,000 each.

ELIGIBILITY:

Each team must have at least one **(1) Registered Architect from any UIA** (*International Union of Architects*) member country. Teams are encouraged to be multi-disciplinary. Current employees of The Scott Petinga Group or any of its group of companies may neither participate in nor have financial interest in any team. The Competition is void in those countries where prohibited or restricted by law.

REGISTRATION:

The registration fee is US \$1,000 per entry for each competition, payable in U.S. Dollars only. To register visit <http://www.thinkdifferent.org/IntentForm>

Deadline to register is on **December 15, 2015 at noon (Central Standard Time, GMT -5:00)**. Only registered participants will be given access to the Competition Kit.

TIMELINE:

- Registration Deadline: December 15, 2015 at noon (Central Standard Time, GMT -5:00).
- First-Stage Submissions Deadline: May 15, 2016 at 3 PM (Central Standard Time, GMT -5:00).
- Announcement of Short-listed Entries: June 30, 2016.
- Final-Stage Submissions Deadline: November 30, 2016 at 3 PM (Central Standard Time, GMT -5:00)
- Announcement of Winner: January 31, 2017

SPECIFIC DESIGN GUIDELINES

→ Architectural

The design should be connected to the site, of appropriate scale, and minimize its impact on its surroundings. The team should adequately describe the selected site; each team should select an appropriate site for their project consistent with sustainable site selection practices such as those in LEEDS for Homes

The building envelope shall conform to LEEDS v4 Homes as a minimum; this includes (but is not limited to) glazing, walls, roofs, fenestration, and foundations.

The interior wall construction shall be sensitive to noise transmission such that minimal noise shall be transmitted from one space to any adjacent space. If elements of the building are not clearly defined, refer to LEEDS v4 Homes for clarification. Esthetic appearance is important; as such building systems (mechanical & electrical) shall not be visible from the street or neighboring buildings if possible.

Per LEEDS v4 Homes, the building is classified as “Long Life”; thus, the sustainable life cycle analysis shall be 50 years and all building design decisions shall be based on this assumption. This assumption shall also be integral to decisions on building orientation, shape, envelope construction and materials, and systems within the building to maintain functionality, purpose, and energy efficiency. Spaces within the building shall be adequately sized for service and sustainable practices.

The team shall include per LEEDS v4 Homes integrated combinations of building shading and natural day lighting to reduce electrical loads within the building. Additionally, teams shall include as a minimum the mandatory space requirements for PV power per LEEDS v4 Homes in an effort to reduce peak electrical demand and annual electrical consumption. Per LEEDS v4 Homes, teams shall illustrate how the building will shave 5% of the peak electrical load through a combined balance of architectural, mechanical and electrical design; while still maintaining the comfort levels of occupants, per LEEDS v4 Homes, within the building.

Teams should also assume the building will be placed on a cleared site in a new development area.

→ MEP Systems

The minimum team goal is to meet LEEDS v4 Homes levels of efficiency, which is 30% better than LEEDS v4 Homes. Teams shall include illustrations of projected annual building energy consumption (including plug load), this annualized energy consumption shall be shown in Energy Use Intensity (EUI) value units of kBtus/ft² or Mj/m².

Teams shall illustrate their mechanical and electrical systems of choice such that examples of energy efficiency meeting (or exceeding) LEEDS v4 Homes are included. Demonstration of acceptable Indoor Environmental Quality shall also be included; examples could include (but are not limited to) human comfort, ventilation effectiveness, and building air pollutant control.

Lighting levels within LEEDS v4 Homes shall be maintained or exceeded; demonstration of this shall be illustrated by each team. Inclusive of the lighting level control shall be all outside lighting to illustrate the reduction of Backlight, Uplight and Glare (BUG) to the building site. Teams shall include examples of lighting level control (occupancy control, daylight control, etc.) to illustrate reductions in overall building energy footprint.

→ Sustainability

Per LEEDS v4 Homes teams shall include a “Plan for Building Operation”. Teams shall develop a means for the building owner to document steps during the construction phase, commissioning phase, and operational phase which will provide a sustainable performance plan for the building, its functionality for occupants, and its EUI performance for the future. Teams shall include examples from LEEDS v4 Homes on how this would be implemented and maintained for future utilization.

→ Utility Usage and Life Cycle Considerations

Teams shall assume the following for utility service and life cycle elements available:

Grid supplied electricity, natural gas, city water, and city sewer. The \$75/sq ft. does include connection to utilities and all site/infrastructure requirements related to a pad ready site.

Life Cycle Factors shall include escalation, inflation, return on investment rate, and life span.

→ Design Parameters and Assumptions

Building structural, architectural, mechanical, and electrical elements shall conform to LEEDS v4 Homes as a minimum. Teams have the freedom to exceed this standard if specific examples exist and are intended to be used by the team for purposes of demonstrating superior building performance, such use shall be stated and illustrated.

JUDGING CRITERIA:

The winners of the Affordable 'Green' Home Project will be the team that build a 1,500 sq ft energy efficient home using sustainable materials for less than \$75/sq ft. In both judging phases, the judges will score the entries under review based on five criteria:

1. Constructability (50%)
2. Green & Smart Features (15%)
3. Operational Sustainability (15%)
4. Environmental Sensitivity (10%)
5. Originality (10%)

OPERATING COSTS

Teams will be responsible for funding their own development costs, including but not limited to proposal and presentation materials as well as incurred travel expenses.

JUDGING PANEL

The judging panel for the Affordable 'Green' Home Project will include experts in sustainability, architecture, energy and water conservation, business and commercialization of technologies.

SUBMISSION REQUIREMENTS

First Stage Submissions: For ALL Registered Participants

Each submission entry will be assigned an alpha-numeric code. Submission Requirements must have NO identifying names, marks or logos. Submissions with Identifying names, marks; or logos will be automatically DISQUALIFIED.

Incomplete submissions will be automatically **DISQUALIFIED**. *NOTE: Upon submittal of registration application, TH!NK DIFFERENT will issue each participant an alpha-numeric code that must appear on each component (ex: 101A.pdf.)*

A. One (1) Project Report in PowerPoint Format (Landscape Orientation)

Maximum of 50 pages and must include the following:

- An executive summary of the Project Proposal, beginning with a paragraph highlighting the key features of the project. As part of the executive summary, include a 1-2 page table that lists as bullet points the significant elements in which the Project Proposal meets each of the five judging criteria.

- Projected Utilities Usage (energy and water) of the house
 - Timeline
 - Project Cost with Item Breakdown (includes utility connections, excavation/sitework, landscaping, etc).
 - Calculation of Monthly Utilities Usage
 - Materials and Site Specifications
- 1.) Constructability
 - a.) Material selections
 - b.) Means & methods
 - c.) Project Costs
 - d.) Timeline
 - 2.) Green & Smart Features
 - 3.) Operational Sustainability
 - a.) Projected and/or calculated utility usage
 - b.) Relationship between site / location and access to transportation, amenities, services, etc
 - 4.) Environmental Sensitivity
 - 5.) Originality
 - a.) Approach
 - b.) Architectural significance

B. Four (4) separate 30 x 40 inches Sintra Boards (Landscape Orientation): full bleed colors with NO borders. Must include the following:

- Site Development Plan
- Floor Plans
- Elevations
- Perspectives

C. Filled-up and Signed Forms and Declarations

D. One (1) USB containing the PDF formats of Requirements A to C and the Excel files of the Initial and Detailed Financial Analysis.

Second Stage Submissions: For Short-listed Participants Only

Names, logos and other identifying marks are now ALLOWED.

A. An audio-visual presentation, maximum of 2 minutes that summarizes the features of the Project Proposal.

B. A slide presentation to go along with the 15-minute live presentation. The presentation must highlight how significant elements of the Project Proposal meet each of the 5 judging criteria.

C. A scale model (Dimension of the scale models must fit within a 30 x 40 inches board).

D. Revised Two (2) Separate 30 x 40 inches Sintra Boards (Landscape Orientation): full bleed colors with NO borders

E. Revised Project Report in PowerPoint Format (Landscape Orientation), Maximum of 50 pages, seven (7) colored copies

F. A Signed and Filled-up Forms and Declarations

G. One (1) USB containing all the file formats of Requirements A to F.