

Date: January 14, 2007

To: QUUF Building and Steering Committees

From: Building Green Task Force (BGTF)

Re: BGTF Recommendation

(Note: These recommendations are a bit different from the ones first presented on January 9th and posted until mid February on the website. Notes placed in parentheses and in italics were added on 2/17/07)

We recommend the following:

1. That the Building Committee and the Steering Committee endorse: a. using the LEED menu to identify green building ideas, b. beginning the LEED certification process, and c. instructing the architect and contractor to incorporate as a minimum the first level of LEED certification in their first schematic design and cost estimates, and that this endorsement be part of the Program Document that is presented to the Congregation for approval. *(Note: This does not commit to seeking LEED certification. See #8 below.)*
2. That QUUF register with the Green Building Council (\$600) and purchase their version 2.2 Guide (\$150) to begin the LEED certification process immediately so that we can learn more about the administrative requirements and consultation opportunities, and make sure that we include LEED thinking from the inception with the Architect and the Contractor.
3. That the Contractor for this project knows about our desire to begin the LEED certification process and expresses enthusiasm for the process before (s)he is selected for the job. Previous LEED experience and / or a demonstration of knowledge of LEED program requirements should be considered as part of the selection process.
4. That both the Architect and the Contractor agree to use the LEED standards and incorporate as a minimum the first level of LEED certification in their first schematic design and cost estimates.
5. That the Building Green Task Force (BGTF) and the Building Committee work with the Architect and the Contractor to help identify those elements on the LEED menu that are the highest priority (easiest, cheapest and/or most important to QUUF) to include in the construction in order to achieve at least the basic LEED certification level.
6. That the BGTF identify and monitor the tasks required for certification, seek volunteers from the congregation and coordinate the LEED submittal process.
7. That \$10,000 be included as a line item in the building budget towards covering LEED registration, administration, and certification costs (**excluding** the cost of green building components that we might have built anyway) until we have a better idea of what the certification costs would be.

8. That we consider the decision about seeking certification once a preliminary LEED scorecard has been completed and we have a better idea of the number of LEED menu items we want to and can implement and of the marginal costs of formal certification.
(Note: The additional cost for the certification process is about \$2,200)

9. That if we seek and then become LEED certified, we apply for the UUA grant of \$5-10,000, depending on the LEED level we achieve.

Respectfully submitted on 1/14/07 by David Rymph, Kees Kolff, Rod Mitchell, Bob Purvis, Carol Collins, Julia Cochrane, Maitland Hardyman, Todd McGuire, Donna Frosthalm.

Background:

Thanks to those of you who were able to meet with us on Tuesday January 9th to learn from the Wayne County UU experience in achieving Gold LEED Certification. The slide show from Ohio stimulated an animated discussion that we believe disclosed some important common ground as well as some different views on how best to proceed. The passion in the room confirmed that we all care deeply about the environment, sincerely want to build as green as we possibly can, and realize that there will be financial constraints as well as competing priorities. Reality does have its limits.

The UUA in their June 2006 Statement of Conscience clearly establishes the “religious” imperative for building green to preserve the environment of this fragile planet for our children and grandchildren. In their list of recommended actions they ask congregations to “Seek U. S. Green Building Council Leadership in Energy and Environmental Design (LEED) certification for all new congregational building projects and use LEED guidelines for renovation projects...” Is this a mandate? No! Should it be seriously explored? Yes! Will the process of becoming certified add additional costs to the green efforts we might undertake anyway? Yes! Will adopting the program bring additional benefits to our process and end product? Yes! The big question is how much and when will we know what the additional costs and benefits will be!

Many people confuse and/or lump together 5 very different “LEED costs”:

1. The cost of building green, like no-flush urinals, bicycle racks, low VOC paints, solar panels, water cistern for rain water catchment, etc. Many of these we may chose to do anyway and provide long term economic as well as environmental benefits.
2. The cost of administering the paper work to verify green building techniques, like keeping records to show the wood used was sustainably harvested FSC certified lumber, that most of the building scrap materials are recycled, etc. Many projects pay the contractor to do this when in fact volunteers can do much. Our Owner’s group is particularly well suited to minimize this cost.
3. The cost of professional services to design certain systems and then verify after construction that they perform as expected. The heating and ventilation system is probably the most expensive and critical cost in this category, and is one we may want to have done regardless of going for actual certification. We can also explore the credentials of design professionals to confirm experience and approach to these elements.

4. The cost to register our project in the LEED program (\$600) and the purchase of the LEED for New Construction Version 2.2 Reference Guide (\$150). Enrolling in the program provides access to online tracking of progress in meeting LEED green standards as well as free consultation.
5. The cost of being officially certified by the US Green Building Council at the end of the process: Design Review costs \$1,250 and Construction Review costs \$750, for a total registration and certification cost of \$2,750.

In our review of the literature, study of the experiences of others, and discussion with LEED certified professionals, we have determined that it is impossible to say what the added administration and service costs of becoming certified (#2 and #3 above) will be before the architect has taken our program requirements and passed the first schematic design to a contractor for a preliminary estimate of construction costs, as well as any additional design team time that might be required to facilitate the program process. At the same time we will confirm the level of volunteer commitment within the congregation to support the administrative and documentation aspects of the program. This uncertainty is only temporary.

The Building Green Task Force believes that the costs associated with certification can be kept to an acceptable level. We also are aware of the reimbursement options from the UUA which would cover \$5,000 of costs associated with minimal LEED certification and as much as \$10,000 for the gold level.

Here are the priorities we presented earlier to the Building Committee, with “N” representing necessary priorities and “P”, those that are preferred by the Building Green Task Force:

N = Build Green

N = Seek LEED certification

N = Integrate efforts with QUUF Green Sanctuary program

N = Have Green budget line items

P = Use Cascadia GBC “Living Building” ideas to help set additional goals (see appendix)

P = Set goal as “carbon neutral” for building operations/maintenance

The Building Green Task Force would most like QUUF to build to a green standard more rigorous than LEED, however we realize that this might be beyond our means. The US Green Building Council itself is in the process of setting higher standards for CO2 reduction in response to the global climate crisis. Their Cascadia Region has put forth a “Living Building” challenge to encourage carbon neutral buildings (see appendix). We see LEED certification as a reasonable compromise and the process as a good way to begin. Although we could merely follow the guidelines set by the Green Building Council and use their LEED menu of green ideas, we still believe the benefits of seeking certification outweigh the costs, but the decision to apply for official certification can be made at a later date. We can consider additional elements that surpass LEED requirements for LEED Innovation Credits as opportunities present themselves.

Certification Benefits:

1. Certification will prove we have outside, independent verification that we built according to the best green standards developed by the building industry.
2. It reinforces our own commitment to stick to our build green plan.
3. It will generate even more volunteer enthusiasm within our congregation.
4. It is consistent with the UUA 2006 Statement of Conscience and call to action.
5. It supports the US Green Building Councils efforts to promote green construction.
6. It will help attract new members.
7. Much of the actual certification cost can be reimbursed by the UUA.

APPENDIX #1

In November of 2006, the US Green Building Council made a deeper commitment to address the global climate crisis. We endorse their new initiatives and have yet to see how they will influence the standards we will need to attain. Here is some information from a recent press release:

USGBC UNVEILS 8 CLIMATE ACTIONS

Goal is to more closely align USGBC with Climate Initiatives

November 15, 2006 (Denver, CO) - USGBC's board and the LEED Steering Committee have this week put forth a series of proposals and recommendations that will bring further focus on green buildings and their impact on climate. Each of the eight specific actions will have an immediate and measurable impact on CO2 reduction; when implemented in concert, they comprise a powerful leadership initiative that sets a high bar for the industry.

- 1. The 50% CO2 reduction goal . Beginning in 2007 all new commercial LEED projects will be required to reduce CO2 emissions by 50% when compared to current emission levels.*
- 2. Increased energy reduction prerequisites in LEED. All commercial LEED projects registered after the date of member approval of this change must achieve at least two energy and optimization credits.*
- 3. Implementation of a carbon dioxide offset program. USGBC will develop an innovative carbon dioxide offset program that relies on the verified performance data from LEED projects*
- 4. A Carbon neutral USGBC. By the end of 2007, USGBC as an organization will be 100% carbon neutral.*

*Because of the universal impacts of climate change and to ensure a sustainable future for our children, USGBC is underscoring this challenge with a commitment to the following:
By 2010, there will be 100,000 LEED certified commercial buildings...and one million Certified homes.
By 2020, there will be one million LEED certified commercial buildings...and ten million certified homes.*

APPENDIX #2

The Living Building Challenge

Issued by the Cascadia Region Green Building Council, 2006

(NOTE: These ideas are listed merely to show some of the recent priorities being

proposed by one group of architects within the US Green Building Council)

Summary of the 16 Prerequisites:

1 – Responsible Site Selection

You may not build on the following locations;

- Within 50-feet of Wetlands
- On or adjacent to Sensitive Ecological Habitats such as Primary Dunes, Old Growth Forest, virgin prairie.
- Prime farmland
- Within the 100 year flood plain

2 – Limits to Growth

Projects may only be built on previously developed sites, either greyfield or brownfield.

3 - Habitat Exchange

For each acre of development, an equal amount of land must be set aside as part of a habitat exchange.

4 – Net Zero Energy

100 percent of the building's energy needs supplied by on-site renewable energy on a net annual basis.

5 – Materials Red List

The project cannot contain any of the following red list materials or chemicals.

- No added formaldehyde
- Halogenated Flame Retardants¹⁸
- PVC¹⁹
- Mercury²⁰
- CFC's
- HCFC's
- Neoprene (chloroprene)
- Cadmium
- Chlorinated Polyethylene and Chlorosulfonated Polyethylene²¹
- Wood treatments containing Creosote, Arsenic or Pentachlorophenol
- Polyurethane
- Lead
- Phthalates

6 – Construction Carbon Footprint

The project must account for the embodied carbon footprint of its construction through a one-time carbon offset tied to the building's square footage and general construction type

7 – Responsible Industry

All wood must be FSC certified or from salvaged sources.

8 – Appropriate Materials/Services Radius

Materials and Services must adhere to the following list:

Weight/Distance List

MATERIAL OR SERVICE	MAXIMUM DISTANCE
Ideas	12,429.91 miles
Renewable Energy Technologies	277000 miles
Consultant Travel	1500 miles
Lightweight Materials	1000 miles
Medium Weight Materials	500 miles
Heavy Materials	250 miles

9 – Leadership in Construction Waste

Construction Waste must be diverted from landfills to the following levels

MATERIAL	MINIMUM Diverted/Weight
Metals	95%
Paper and Cardboard	95%
Soil, and biomass	100%
Rigid Foam, carpet & insulation	90%
All others – combined weighted average	80%

Asphalt, Concrete and concrete blocks, Brick, tile and masonry materials, Untreated lumber, Plywood, OSB and particle board, Gypsum wallboard scrap, Glass, Plumbing fixtures, Windows, Doors, Cabinets, Architectural fixtures, Millwork, paneling and similar, Electric fixtures, motors, switch gear and similar, HVAC equipment, duct work, control systems, switches

10 – Net Zero Water

100 percent of occupants' water use must come from captured precipitation or reused water that is appropriately purified without the use of chemicals.

11 – Sustainable Water Discharge

100 percent of storm water and building water discharge must be handled on-site.

12 – A Civilized Work Environment

Every occupiable space must have operable windows that provide access to fresh air and daylight.

13 – Healthy Air/Source Control

All buildings must meet the following criteria:

- Entryways must have an external dirt track-in system and an internal one contained within a separate entry space.
- All kitchens and bathrooms must be separately ventilated.
- All copy rooms, janitorial closets and chemical storage spaces must be separately ventilated.
- All interior finishes, paints and adhesives must comply with SCAQMD 2007/2008 standards. All other interior materials such as flooring and case works must comply with California Standard 01350 for IAQ emissions.
- The building must be a non-smoking facility

14 – Healthy Air – Ventilation

The building must be designed to deliver air change rates in compliance with California Title 24 requirements.

15 - Beauty and Spirit

The project must contain design features intended solely for human delight and the celebration of culture, spirit and place appropriate to the function of the building.

16 - Inspiration and Education

Educational materials about the performance and operation of the project must be made available to the public in order to inspire and educate. Non-sensitive areas of the building must be held open to the public at least one day per year, to facilitate direct

contact with a truly sustainable building.