

Adaptation to Climate Change

- a wiser use of resources -



Solutions that make **Eco**-logical and **Eco**-nomical **Sense**

Sustainable Building

Affordable Housing

Education

Policy Advancement

Sustainable Energy

Zero Waste

Net Zero Energy



Attention:

October 30, 2008

The following is a request for a grant to continue with our very successful work. To date, we have had no funding and you will see why, from the information below that we have not gone through conventional means to obtain funding.

Our mission, the Eco-Sense project, is multi-faceted and has been extraordinarily successful in achieving our goals since its inception 3 years ago.

Focus areas of the Eco-Sense project include **Sustainable Building, Green Building Policy, Affordable Housing, Sustainable Energy, Water and Energy Conservation, Efficiency, Education (secondary and post-secondary), and adaptation to Climate Change.** These will be discussed below including our successes to date.

Project Details:

2150 ft² family home for three generation family of six. Goal of being net zero energy and zero waste. Construction dates: April 2007 to December 2008

Features:

- 2 kW solar array with grid tie (net meter)
- Solar thermal hot water heating for hydronic heating and domestic hot water
 - Wood gasification back up
- Energy and water efficiency and conservation
- Rain water harvesting from a living roof for vegetable garden irrigation
- Grey water recovery for fruit tree irrigation with vermiculture filtration
- Waterless NO FLUSH composting toilets
- Local materials where possible
- 80% less wood than conventional construction and wherein of the wood used 80% is recycled
- High flyash concrete
- Earthen floors, natural light clay interior walls, natural clay or lime plasters, natural milk paints, earthen counter tops, built in earthen furniture in some locations
- Low embodied energy, non toxic products, fiberglass windows, recycled materials where appropriate
- Cost of \$140 per ft² including \$80,000 for alternative energies and inclusive of all labour. **If it's not affordable...it's not sustainable**
- 500 year life cycle of home
- Built on previously impacted lands
- Natural beauty and function
- Passive solar design
- **All of this in North Americas first Code Approved, Load Bearing, Fully Insulated, and Seismically Engineered cob building.** (Cob is clay, sand and straw, and in our case locally mined pumice)

Tours: Public, schools, professionals, builders, academics, policy.

Over the life of the project more than 100 tours have been conducted ranging from small private tours, bus loads of kids, architectural and engineering groups, to our regular scheduled public tours. Most for very small fees collected.

Tours of special note:

- June 2008 - Building and Safety Policy Branch – learning about our challenges building one of the most sustainable code approved homes in North America. Identifying the bureaucratic challenges. See report on our website at www.eco-sense.ca in the policy section.
- April 2008 - John Horgan MLA for Malahat – Juan de Fuca. Spoke about us in the Legislative Assembly on April 10, 2008. Hansard Blues Transcript available on our website at www.eco-sense.ca in the publicity section.
- Sept 2008 – BC Government Accommodation and Real Estate Services (formerly the BCBC) 18 engineers and architects learning about cob building and all the integrated systems for possible government buildings.
- Sept 2008 – Cascadia Green Skyline Tour. Over 50 people showed up for a one hour tour...most stayed for 3 hours. Cascadia chapter of the US and Canadian Green Building Council. Higher turnout for Eco-Sense than any other venue on the three-day tour schedule.
- June 2008 – Emerging Green Builders. Twenty engineers, architects, and building professionals learning about green building, energy, and water systems. Humbled by our achievements.
- August 2008 – BC Sustainable Energy Association board of directors. Amazed by our progress and educational achievements in the three years they have followed our progress.
- May 2008 – UVIC Engineering students. To learn about our innovations in energy and heating systems.

Media: Summary of highlights of the past 3 years – links available on our website in the media section

- Goldstream Gazette (10 articles from April 2006 – Oct 2008)
- Vancouver Sun (three articles)
- The Province (two articles)
- Times Colonist (two articles)
- CanWest News (Various papers across Canada Sept 2008)
- Granville Magazine (spring 2008)
- Focus Magazine (Dec 2007)
- Monday Magazine (March 2008)
- Harrowsmith Magazine (coming Spring 2009)
- Calgary Herald (Sept 2008)
- Royal BC Museum Exhibit – Stories of You Me and BC – Full size photo of us in the museum – exhibit runs from March 2008 to Jan 2009
- Front cover of the RBCM Publication “Free Spirit – Stories of You, Me, and BC” by Gerald Truscott.
- Free Spirit Conservation tour. Project of the RBCM and BC Hydro. Inclusion of a model of our home, photos of us, our house, and our energy efficient kitchen. Traveling road show to six BC cities throughout October and November 2008.
- CBC radio (three times)

- CFUV (three times)
- Globe and Mail (Aug 2007)
- CBC National TV News (Jan 2008)
- A-Channel News (Dec 2007 and Sept 2008)
- Knowledge Network Documentary (Spring 2008)
- Shaw TV (June 2006 and August 2008)
- Peak Moment TV (2007 – ongoing across the US)
- Many more smaller publications and organizations

Goals:

- To create an affordable and sustainable home for our family
- To maintain the level of comfort our society is accustomed to without taking away from future generations their right to enjoy the same
- To accelerate the green building movement to more sustainable levels
- To direct policy to a greener building code through education and science
- To produce peer reviewed studies for publication on the energy performance of our home.
- To produce peer reviewed data on the construction methods used regarding seismic stability, healthy indoor air quality, and breathability of natural materials
- To build credibility for earthen architecture
- To provide options for affordable housing solutions
- To create a “**Living Building**” and perhaps be the first to qualify for this rating system which surpasses LEED platinum
- To create credibility regarding liability for insurance companies (Home Warranty Insurers) and for lending institutions (home mortgage financing)
- To educate on the impacts of the built environment on the natural environment.
- To inspire kids on the future possibilities of sustainability
- To educate building inspectors and policy makers on green building options; normalizing the methods thus reducing psychological barriers
- To inspire professionals and developers to pursue more sustainable projects
- To educate on energy conservation and lifestyle choices
- To act as a hub for networking, connecting and facilitating ideas
- To be part of the solution in adapting to climate change

We wish to continue with our work and build on our successes. In a very short time we have made major contributions towards our goals. The completion of our home is imminent and as we move into our home our finances are depleted but our spirits are not. The public interest is continuing to grow and the requests for interviews and help is daily. In order to continue in our work we will need to secure funding as we have been completely self financed...there have been NO grants to date to help in anyway.

A grant would allow us to:

- Offer free (or subsidized) tours for secondary and post secondary students.
- Work with our engineer (Kris Dick, University of Manitoba) to produce peer reviewed studies for publication. (more details available on this project if required)
- Continue to offer subsidized (or free) tours for the public
- Speak at appropriate gatherings regarding our work and ideas
- Offer tours and lectures for building professionals

- Continue our involvement with “Greening the BC Building Code”
- Continue with education for adaptation to climate change
- Prepare document showing equivalencies under various sections of the building code (e.g. section 5 covering thermal resistance, air barriers and vapour diffusion) for inspectors, green builders, and insurers.

Size of Grant: A grant of \$50,000 per year would allow all of the above and more. This grant would enable Gord and Ann Baird to spend their full time and energies pursuing the above goals. Because we are a family, not a corporation, developer, NGO, or other such organization, we can be very effective with little overhead or bureaucracy. This grant would provide a very effective use of grant money that leads to direct and achievable results.

Our Background: brief bio available on our website in the “About Us” section

Gord Baird (39)

- BA SFU 1992 Major Neuro-Psychology
- Past small business owner in Victoria - Autobody shop (Advance Collision 1992-2005)
- Strong business background

Ann Baird (41)

- BSC SFU 1990 Major Biology (Ecology)
- Past small business owner in Vancouver – (EPS Electronic Publishing Solutions 1994–2000)
- Strong financial management and bookkeeping background

References available on request.

Please forward to anyone you know who can help. Our contact information is below.

Much appreciation,

Ann and Gord Baird

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