



Sustainable Home program

New Year Developments

The passing of the last year also saw the finalisation of the Year of the Built Environment 2004 celebrations and its many successes. One of the huge successes was the instigation of the Sustainable Home Program and the participation of



Year of the Built Environment 2004
TOWARDS SUSTAINABLE COMMUNITIES

the many local governments that are working towards delivering their project as part of the wider program.

There has been growing interest in the program from not only Queenslanders, but indeed from stakeholders around Australia who see this as an exciting initiative from a national level.

Latest news

Many significant events have taken place in January and February, including:

- various expressions of interests for architectural services closed which has led to architect interviews;
- the appointment of architectural firms as principal consultants for two projects; and
- full endorsement of the developed design stage of the Brisbane Project by the Sustainable Home Steering Committee.

Project updates

An update on the progress of some of the projects follows;

Maryborough City Council

Maryborough City Council is awaiting the results of their market research that will dictate their project budget, and are investigating financial considerations. Expressions of Interest for architectural services were called on the 21st February and there has already been wide interest in the project.

Murgon Shire Council

Murgon Shire Council received wide interest for their expression of interest call for architectural services which closed on the 24th December 2004. They have rapidly advanced their project over the last month by undertaking architect interviews on the 16th February which culminated in the appointment of their principal consultant, Elevation Architecture Studio.



Elevation Architecture Studio describe themselves as “a small, design focused practice specialising in sustainable residential projects throughout Queensland” with the ambition of “achieving best practice in sustainable design”. Elevation Architecture Studio describes their services as incorporating sustainable design as a core part of their design philosophy.

Murgon Shire Council is now working collaboratively with their consultant to develop a program, fine tune their design brief, and develop an effective local communication and public consultation strategy.

Emerald Shire Council

The sub-division works are completed and Emerald Shire Council has appointed Gall Medek Architects as principal consultant for their project. Gall Medek have a wide range of residential design experience and are recognised for having a broad based knowledge of issues in the area of sustainability.



The official launch for the Emerald project occurred on the 7th March 2005 in Emerald with the Mayor, Peter Maguire, opening the project to invited representatives. Councillor Paul Bell, President of the ALGA & LGAQ and Wayne Petrie also provided an address. The event was well publicised in the local media.

The launch coincided with a community workshop with local council officers, builders and other industry representatives, facilitated by Jim Gall of Gall Medek Architects.



Jim Gall, Wayne Petrie, Mayor Peter Maguire, and Councillor Paul Bell at the Emerald Sustainable Home launch.

The Council has been working with the architect to refine their brief that has culminated in the development of four schemes that the architect used to prompt discussion at the community workshop.

Brisbane Sustainable Home

The developed design stage of the Brisbane sustainable home Brisbane was presented to the Sustainable Home Steering Committee by the project architect, Bligh Voller Nield, on the 9th February.



Marci Webster, of Bligh Voller Nield, presenting the Brisbane Project developed design to the Steering Committee.

As part of the architects integrated design approach to maximise the house's sustainability performance, a full thermal comfort analysis was undertaken by Lincolne Scott Australia Pty Ltd. This analysis assisted the architect to rationalise such things as the home's thermal mass (heat gain potential); orientation; materials selection; window location, size and extent; ventilation; room positioning; and ceiling height.

The study reflects the “forest living” of the bushland housing estate and targeted a mean comfort level for both summer and winter. The process of the study found the following observations related to the region of the site –

- a lightweight, well-ventilated and well-shaded home will work well with the summer climate; and
- a well-insulated, passively designed home with exposed thermal mass will also work well with the winter climate.

An important feature is a roof and ceiling arrangement that promotes the benefits of natural ventilation for cooling in summer and, in conjunction with thermal mass, for heating during winter.

The design is described as an “elegant contemporary Queenslander with a relaxed sub-tropical atmosphere”. The home has a spacious and seamless indoor/outdoor, living area. It also incorporates an under-croft that reflects the traditional highset Queenslander which provided a place to “play, work or hang-out”. The design offers maximum privacy (visual and sound) whilst still maintaining a level of street visibility.

Materials have been carefully selected so that they have low embodied energy, low toxicity and, where possible, sourced from renewable resources. Floors are of timber construction, walls are lightweight and the roof will be reflective metal.

The design is two stories and the floor area has been considered to meet the market in the particular region of Seventeen Mile Rocks, 20 minutes south-west of Brisbane CBD.

Of note, as a variant of the design for another site, the lower level can be left off and the upper level can be used in its own right. This will create a smaller version that still incorporates the same sustainability benefits of the design at a reduced cost.

The sloping site, often considered an obstacle to providing an accessible living level, in this instance allowed access to the primary upper living level. This is achieved with an elevated walkway from the street. The walkway has the added benefit of clearly defining the pathway to the entry for visitors, in much the same way that the front steps on a traditional Queenslander help to define the entry.

The home has a minimal ecological footprint and attempts to respect the site's intrinsic environmental values such as natural drainage flows for water run-off and remnant vegetation are retained for biodiversity management.

To address economic considerations, the home has been designed so that current best practices in building can be utilised using materials that are of a more sustainable nature. Detailing and finishes have been addressed to ensure that costs are controlled.

The design of the Brisbane Sustainable home addressed the Department of Housing's Smart Housing Guidelines and was considered to address the balance of economic, social and environmental considerations and was therefore fully endorsed by the Steering Committee. The principles will provide an interesting example of sustainable housing in the sub-tropics.

The Brisbane Project team is now finalising construction drawings for submission to Council and is expecting to commence construction of the home in April.



An artists rendering of the Brisbane sustainable home project.

Toowoomba City Council

Expressions of interest for the architectural services to design Toowoomba City Council's Sustainable Home closed on the 11th January 2005 and considerable interest was received. The Council has decided to seek expanded submissions from the firms that lodged their interest to help them refine their selection process. This process closes on the 15th March.

The project has an expanded component that will require the successful consultant commissioned for the first house to provide input into the expression of interest documentation for the sale of the nine adjoining allotments to builders/developers.

The returned expression of interest for the sale of the allotments will need to address sustainability criteria and will be reviewed and assessed on this basis. The architect will provide advice to the builder's house designer during the design stage and will undertake inspections during construction to confirm that sustainable features have been incorporated.

Communication support tools

The Local Communication Guidelines and supporting tools are now complete and available for use. They are intended to assist Councils with their media responses and awareness-raising events, as well as provide a common and coordinated message that the Steering Committee would like to communicate about the Sustainable Homes Program.

As well as the Local Communication Guideline document, the following communication tools will be bulk distributed shortly to local Project Coordinators:

- Sustainable Home Program Posters (two sheets)
- A Sustainable Home brochure
- A Sustainable Home media release shell
- A Sustainable Home standard letter head

All Project Coordinators are encouraged to provide feedback on the value and usefulness of the tools

Programs across the Tasman

New Zealand are undertaking a sustainable program that is the first step in a much larger program focussing on enhancing the quality of life for residents, and at the same time minimising use of natural resources such as land, water and energy. Called the NOW HOME project, it is a partnership programme involving Forest Research, Waitakere City Council, Building Research, and Fletcher Building and has input provided by The Energy Efficiency and Conservation Authority (EECA).

The wider program consists of three components –

1. The 'NOW Home' which demonstrates today's technology that will lead to the requirements for the next decade;
2. The 'THEN Home' which demonstrates how to retrofit existing homes so that they meet the requirements for the next decade; and
3. The 'FUTURE Home' which will demonstrate what might be common practice in 10 to 20 years time.

Further information can be obtained from the programs official website (www.nowhome.co.nz).

Sustainable Home web site

The team is currently developing a website that is being sponsored and hosted by the **Department of Public Works**. The website will come online soon and will provide such things as –

- program information;
- links to program partners and other associated web sites such as Smart Housing, Your Home;
- links to educational tools;
- links to relevant programs and research areas;
- access to the programs latest and updated construction and communication tools and templates; and
- up to date information on the progress and development of the programs individual projects; and

The domain is not active at the present time, however for your reference the web address will be: **www.sustainable-homes.org.au**

New and departing team members

Welcome to a new member of the team, **Nicki Battersby** who is seconded from the Department of Housing and has the role of Communication Coordinator. As the program is gaining considerable momentum, her commencement will assist in providing additional service to each project. Nicki has established appropriate communication protocols that have made a significant impact on the program.

Nicki can be contacted by email or phone as listed at the end of this newsletter.

A big thank you to **Alex Ackfun** for his positive contribution to the Program. Alex has recently left the team and we wish him well in his future endeavours.

Photos of your site

We would welcome photos of your site or project team to profile on our web page or in upcoming newsletters. If you would like to share any images please email contributions to –

ross.mehrten@housing.qld.gov.au

Useful web links

Don't forget to check the following links for further information on sustainable housing:

- **www.smarthousing.qld.gov.au**
- **www.yourhome.gov.au**

New team location

The Sustainable Home team has moved to a new location. Details are:

Address: Level 18, 111 George Street Brisbane

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Stay in touch

Your involvement is important to the success of this program and the ongoing development of sustainable housing throughout Queensland.

The Program Team relies on your feedback, comments and suggestions. We also welcome contributions to this newsletter by contacting any of the team members.