House 1.
Aquaponics in Manunda
Manunda 4870
Wendy and Len have a strong interest in sustainable food production and after seeing an episode of Gardening Australia where an aquaponics system was featured, decided to construct their own. They form a great partnership with Len contributing the practical know-how in the construction of the fish tanks and growing beds, and Wendy tending to the plants. They now have a ready supply of barramundi and vegetables in their suburban backyard.

House 2.
Retrofit in Manoora
Manoora, 4870
Steve and Alessia bought this 1970's house about 2 ½ years ago and have since retrofitted it to make it more sustainable and livable. They have a nearly two year old daughter who delights in eating produce grown in their own backyard. The recent installation of solar hot water and grid connected solar electricity has seen a 60-70% reduction in their electricity bills!

House 3.
Energy efficient home
Mareeba, 4880
This house has been designed in conjunction with Adrian Gallo of "Own Home Design", who is a "Green Smart Professional". The aim of the design was to construct a house that was comfortable, energy efficient, sustainable home with views of the parklands behind the house, and with a large outdoor area connected to the main living space. The house was also designed to be able to be built in two stages to illustrate that a house could be designed to start off smaller and be added to as the family grows. All external walls of the house have been insulated to keep the house warm in winter and cool in summer. Internal walls around the bathrooms and media room have been insulated to reduce noise. The house is an above ground construction to allow the air to circulate around the house, and vents in eaves allow air to circulate in the ceiling to reduce the heat buildup and condensation. There is a fairly large expanse of windows in the house strategically placed to create a naturally air-conditioned environment. Breezes are captured from every angle of the house to maximise air flow. The light coloured roof and under-roof insulation also keeps the house cool in summer.
There are many design features incorporated in the house with the aim of increasing energy efficiency and livability. Even the landscaping has been designed to be a low maintenance garden, consisting entirely of native species and plants with low water requirements, interspaced with edible plants including citrus trees, with an area for raised vegetable garden beds.

House 4.
Water efficient home
Edge Hill, 4870
This timber house has been retro-fitted for extreme water efficiency. It features water tanks and water recycling systems. It is also an energy efficient home, and features a solar hot water system with solar panels soon to be installed on the roof to generate electricity that feeds back into the grid.

House 5.
“Bambusa” house
Trinity Beach, 4979
“Bambusa” is an environmentally sustainable home and is the culmination of three years of planning to produce a structure which has been designed to take advantage of the natural elements of its surroundings, have a modern relaxed feel, an understated quality finish and a reduced carbon footprint.
The site was selected and the home was oriented to capture the natural SE breezes which are prominent for 80% of the year and take advantage of the passive cooling effect of the lagoon. The openings in the home allow the cross flow of cooling breeze to reach every corner, and the polished concrete floor throughout the living area provides a cooling thermal mass which assists natural cooling.
Lighting inside the home is 100% fluorescent and most fittings are high performance dimmable commercial fittings providing maximum lumen output with minimum energy consumption and variable lighting level control.
Water fittings have been selected to reduce water consumption while retaining practicality and comfort. The water tank has been installed to reduce the water used through clothes washing and toilet flushing. Solar hot water panels have been installed to almost eliminate the need for electric heating for hot water.

House 6.
Low impact Tablelands home
Yungaburra, 4884

Williams Avenue was recently constructed in December 2009. We own a small building design firm and are passionate about environmentally sustainable designs. We work from home and we wanted to build a house to showcase to our clients how easy it is to build a sustainable home without compromising on looks or blowing your budget. Our house has been awarded a GreenSmart accreditation and also was the 2010 BDAQ award winner for the affordable housing category in North Queensland so it is fair to say we achieved our goal.

Our house has been designed to suit the elements of the Atherton Tablelands, we have reasonably hot summers therefore an open plan design with a good choice of windows and bifold doors were used, we also have internal wall vents on all the bedrooms in the main dwelling to allow a full cross flow of breezes. The winter months in Yungaburra can be very cold and drizzly, the outdoor entertaining area has been positioned where it is sheltered from the south west and therefore can be used year round. The timber floor has been insulated with R-Floor and the walls and roof have been insulated with Etherm 8mm AG. Both products are relatively new to the market and have stood up to the test both in the summer and winter months. We have no artificial heating or cooling in our house and it has remained at a comfortable temperature both in summer and in winter.

House 7.
Siesia Converter, the "breathing" house
Cairns, 4870

This home achieved a 7.5 star energy rating, using a timber framing that is made entirely of renewable and sustainable timber resources and does not deplete our precious forests. Timber is more energy efficient to produce from its raw form than other comparable building materials, is biodegradable, renewable and reusable. All our timber products are manufactured from a combination of plantation (60%) and recycled (40%) timbers. End of life planning means that where possible, products used inside the house; the flooring system, for example, are recyclable.

The patented passive design, featuring "breathing" walls, will allow the homes to be lived in comfortably without air-conditioning because it has been specifically designed to move hot air out of the building. We utilise the latest in resource-saving fittings, which can save the average home up to 35,000 liters of water per year, and compact fluorescent lights, which are around four times more efficient than incandescent lights.

The majority of the home is made from sustainable, eco-friendly products. All waste from the manufacturing process is transformed into other products. For example, bark is turned into garden mulch, while peeler cores are machined into pallets.