PROJECT SUMMARY	TGBN / KENICK CONSTRUCTIONS SUSTAINABLE DISPLAY HOME
Address:	**Lot 1420 Kippin Close, Redlynch Valley Estate**
Client:	Rachel Whymark
Designer:	Sophie Barrett- Green at Heart
Builder:	Kenick Constructions
Construction Budget:	Under $250,000
Energy Rating:	9 - 9.5 Stars dependant on cost
HIA Greensmart Acc.	YES- Aiming for this
Opening times:	Open for one month then one weekend per month for one year
Launch Date:	To coincide with Sustainable House Day 2012

A passive designed home packed with energy efficient features. The TGBN / Kenick Constructions Sustainable Display Home displays tropical living at its best. The home showcases local suppliers, energy efficient products and will explore and incorporate alternative energy solutions where feasible within budget. The aim is to promote sustainable housing for the affordable project home market and show that you can create a home that is energy efficient, affordable and reduces ongoing energy costs on a budget.

SITE FEATURES	
Site and Landscape	**Relates to site preparation, landscaping, planting, water saving features**
	Sited to reduce sun exposure to western walls
	Sited to maximise views and capture south easterly breezes
	Vegetable garden with some permaculture features
	Composting system
	Native plant species selected to encourage local birds and butterflies and reduce need for watering in dry season
	Garden beds mulched for water retention
	Drip rather than spray irrigation used
	On site water retention with minimal hard landscaped areas
TBC	Grey water diverter system
TBC	Gro wall garden at entrance or to create entrance courtyard
	Physical termite barriers, rather than chemical
	Planting for shading to west and south west walls to block summer sun
	The home does not reduce the privacy or daylighting to existing dwellings.

MATERIALS SELECTION	
Building Materials and Finishes	
Walls	
	Lightweight Hardies Product- confirm product and eco features
	Reflective foil sarking
	R 1.5 Insulation Batts
	Light colours
	2.7 high ceilings and 2.1 high joinery to promote light and ventilation
Roof	
	Colourbond roof, recyclable
	Roof and Eaves vents- Local manufacturer
TBC	Reflective foil under roof
	Bulk insulation R3.5 on ceiling
	Light coloured to reflect solar radiation
	Timber for roof trusses sourced from sustainably managed forests
Floor	
	Slab on ground for geothermal internal temperature control
	Well shaded with eaves and tinted windows to avoid heat gain
	Level for easy access for disability
Paints	
	Internal paints Low VOC
	All adhesives and fixing products to be low VOC

DESIGN FEATURES	
Dwelling design	Relates to passive design, energy efficiency and zoning features
Item	Passive solar design
	Living area and kitchen face NW, Patio and dining face SE to capture breezes
	Bedroom and service areas located so as not to block breeze paths
	Cross Ventilation, minimum of 2 openings provided to rooms where applicable
	Open Planning & minimal hallways to minimise blockages to breezes
	Zoning of areas
	Narrow building widths for excellent daylighting and ventilation
	800mm overhangs (inc. Gutter) throughout
	Energy Efficiency Rating of 9/10 Stars
Kitchen Design	
	Reuse of owners existing appliances where possible
	Energy Efficient Dishwasher
	Gas cook tops
	Easy supervision of children for safety
	Easy access around and ergonomic bench heights
Window Design	
	Large window openings allow for excellent breeze circulation
	Use of tinted windows to reduce solar radiation penetration
TBC	Louvres allow 100% openings
	Large sliding stackers ventilated living areas and create indoor outdoor connection
	800 overhangs shade windows from solar radiation penetration
	Aluminium louvres at front for added security and shading
	User can adjust window to create optimal breeze paths
	Minimum of two openings provided to rooms for cross ventilation- Query Bed 2? Provide ventilation diagram.
	Windows designed to capture breezes from the South East which are the predominant breezes in North Queensland
	Breezes from north in summer to be filtered thorough front doors which will be kept open with courtyard entry and through doors to master bedroom.
	Windows and door sealed to reduce heat transfer through openings
Access	**Relates to universal access features**
	Access to the main entry from the street is by a safe and continuous pathway
	Access for persons with disability to house from entry, sufficient width for corridors and 820 doors throughout house. Outward opening WC door.
	Bathrooms and WC's to have additional wall noggins for possible retrofitting of handrails.
	Easy level access into house and on to deck areas
	Hobless shower provided in bathroom and toilet designed for accessibility Switches and sockets to be within 450mm and 1200mm AFFL
	Concrete driveway and access path to front door for accessibility
Safe Design and construction techniques	
	Slip resistant floor treatments to areas exposed to weather or dedicated wet areas
	Permanent anchor point provided to roof for maintenance to roof during life of building
	Roof pitch designed to 22.5 degrees to reduce fall hazards during construction
	Roof trusses prefabricated off site to avoid fall risks during construction
	Check with Kent or Peter for any further things that could be incorporated

INTERNAL AIR QUALITY FEATURES	
	Excellent air circulation reduces odours and permits maximum fresh air
	Mould in roof cavity reduced by vented eaves and roof
	Exposure to formaldehydes in plywood (laminate products) reduced
	Exposure to formaldehyde in particle board or fibreboard products reduced
	Low VOC paints, finishes and varnishes selected
	Low VOC tiled floor covering
	Adhesives and glues incorporated with a low VOC (Volatile Organic Compound) content

WATER MANAGEMENT	
Plumbing and Drainage	
	Rainwater tank 5000L
	Rainwater tank to flush toilets and for laundry use
TBC	Grey water diverter system installed
TBC	Energy Efficient Solar Hot water System
	Bathrooms and kitchen all located at small runs from hot water system to minimise wastage of cold water while warm water arrives at fixtures
	Showers fitted with 3 star minimum rated showerheads
	Hand basins and sinks have 4 star rated tap ware
	Toilets have a minimum 4 star WELS rating
	Basin over cistern in powder room to reuse this water
	Water pressure limited to 500kPa
TBC	Water diverter at shower to reuse water

ENERGY MANAGEMENT	
Electrical, Lighting, AC and Gas	
	LED lighting 100% used throughout
	Gas cook tops
TBC	Energy Efficient Inverter ACs- price dependent
	Areas zoned for more efficient air-conditioning
Alternative Energy Sources and monitoring	
TBC	Solar or wind power
TBC	Solar hot water system
	Climate Smart Energy monitor
	Remote power off at powerpoints - Climate Smart

WASTE MANAGEMENT - DESIGN AND CONSTRUCTION PHASE	
	Designed to suit sheet widths for ceiling heights - 2700mm - TBC
	Designed to suit sheet widths for eaves - 800mm
	Metal off cuts recycled
	Strict management of ordering and cutting to ensure minimal waste
	Construction waste separated from non construction waste
	Recycling bin provided on site for recycling cardboard packaging and plastics and glass
TBC	Recycled materials used in landscaping