Intended for where north is to the side of the block, this design captures the sun's rays in winter, through double glazed windows, and stores the heat in a dense thermal spine. Furthermore this feature wall provides sound insulation between the living and the sleeping zones.

Clerestory windows bring sunlight deep into the bedrooms on the south and a northern courtyard can be opened up by bifolds to become an indoor/outdoor entertaining area.

This design offers efficient spaces with great functionality and liveability. We present one of our 9 Star range -

# Sunny Side In



## **ENVIRONMENTAL FEATURES**

# 1) 9 Star House Energy Efficiency (~1/10 of the average energy to heat & cool)

- House layout and clerestory windows combine to bring sunlight deep into all living spaces
- Eaves designed to let in the winter sun, and keep out the summer rays
- Double glazed low emissivity coated casement windows & bi-folds to maximise ventilation
- Thermal mass provided by tiled/polished concrete floor and recycled & bagged reverse brick veneer walls to store the heat in winter and cool in summer
- Highly insulated, tight building fabric
- Solar hot water system with instantaneous gas boost
- Louver vents to all exhaust fans (eliminates unwanted air leaks)
- Reversible ceiling fans to provide summer cooling
- LED and compact fluorescent lighting throughout
- Greenswitch to turn off standby loads
- 2.0 kW grid interactive Photovoltaic system

### 2) Efficient use of water (~1/3 average mains water use)

- Rainwater collected from entire roof via a charged filtered system
- Rounded gutters to enhance self cleaning
- Min. 5000 litre Rainwater tank to run laundry, flush toilets, & water garden. Mains backup
- Redwater valves to direct 'cold' hot water, normally wasted, to the watertank
- Water efficient tapware throughout; 7.5 litre per minute shower roses; & 3/4.5 litre flush toilets
- Greywater plumbing kept separate from sewer for future pickup
- Nylex greywater gravity diversion system to underground garden distribution (optional)

### 3) Low Impact Material Selection

- Low Embodied Energy Concrete floor made from Ecoblend concrete (60% cement replacement) with recycled aggregate and recycled steel
- Plantation hoop pine timber windows, with recycled Karri door frames
- FSC certified, Plantation or Salvaged timber used throughout
- Recycled content (70%) insulation
- Ekodeck bamboo decking and ramps
- Recycled brick to internal spine wall
- Low Embodied energy, low maintenance cladding materials Rough sawn battens,
   Easy lap panel and Colorbond sheeting

### 4) Health Benefits

- Zero VOC (Volatile Organic Compounds) paint throughout
- E0 (minimal formaldehyde off-gassing) cabinetry and trims throughout
- Bamboo flooring in bedrooms
- Easy to clean surfaces in living spaces throughout
- Warm & bright with excellent ventilation when required



<u>Areas</u>

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Floor Area 152m<sup>2</sup>
Garage Area 35m<sup>2</sup>
Deck 45m<sup>2</sup>

Block min. dimension 12.5m x 30m



Positive Footprints
9 Star Series

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