



# City greening

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The site of a former Greek community garden inspired an outward-looking approach for Mark and Lisa's Brisbane house design, securing its food growing legacy and plentiful green space around and above their new home.

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## VACANT, QUIET LOTS IN INNER URBAN

areas are rare, but architects Lisa and Mark stumbled across one on a morning walk. As keen gardeners, they saw added appeal in the block's previous life as a community food garden tended by its former neighbour, George. It was once so productive that his crops supplied not only his own household, but neighbours, friends and even local Greek restaurants.

When Lisa and Mark bought the block, the once fruitful plots had given way to weeds following George's passing a few years earlier. The couple set about restoring the garden's cultural value, and using it as inspiration for their joint design.

Their new house sits back from the north boundary to optimise winter sun and preserve the original raised garden bed, which supports herbs originating from its first crop. A compact design was needed for the narrow block, which suited Lisa and Mark's philosophy "not to build

larger than necessary." Movable screens, generous ceiling heights, wide openings to the outdoors and a large deck make the spaces feel more generous and let the home expand for visitors.

A slightly elevated boardwalk leads to the house, allowing a direct connection with nature that continues throughout. Stepping down the slope along the narrow block, the internal spaces hover just above to "maximise interaction with the food garden", explains Lisa. The cantilevered pathway protects the garden from footprints, it also allows plants to grow underneath in wetter times, and for better stormwater flow.

As the block had never been built on, Mark says they felt a strong need to "replace the amount of garden we were going to displace, by putting it back on the roof". The original design was a single-level pavilion with a simple green roof over its entirety, but planning permission



The block's former life as a community vegetable garden provided inspiration and the basis for Lisa and Mark's joint design. Three primary colours were added as accents internally and externally to what is otherwise a neutral, natural colour scheme.

→ The 90-square-metre extensive green roof is heavily planted and provides significant thermal insulation to the living spaces below, as well as controlled and filtered rainwater run-off, which they hope soon to be connected to their rainwater storage.



← Not only does the upper level master bedroom have an enviable morning outlook across the colourful green roof, a clerestory moonlight offers a nightly vista of the stars. Mark, originally from Dublin, was captivated by the southern sky when he first emigrated, and wanted to capture his love of it in the house design. The master bedroom also benefits from the cooling effect of the green roof, while large louvre windows help to purge rising heat from the rest of the house.



required something more in keeping with the neighbouring roof forms. After initial frustration, they saw it as an opportunity. “We were not going to get the full benefit of the green roof by just having an access hatch to it,” says Mark, “so, we thought why not sit a bedroom up there as part of our every day?”

In another example of clever sustainable design integration, a 20,000 litre rainwater tank forms the floor of the living room, with its exposed polished concrete top decorated with quartz collected on site. Built from blockwork rather than precast, to avoid damaging the nut trees with the use of a crane, the tank also provides a retaining wall to the workshop below, thermal mass to stabilise internal temperatures and an aesthetic separation between the ply floors of private spaces and the timber-floored living areas.

Lisa and Mark didn’t see the need for ceiling fans in a naturally ventilated house; with significant banks of louvre windows on all elevations, even after record-breaking summers, they’ve not regretted their decision. The upper bedroom and ensuite act as a thermal chimney and draw in pre-cooled air over vegetation through low-level louvres downstairs. Security screens to accessible windows, insect screens elsewhere and a cleverly detailed front door enable the house to be left open securely at all times.

While this is a seriously sustainable home, Lisa and Mark included some playfulness – “little pockets of interest for kids and adults that you don’t notice straight away”, says Lisa. “There’s a small common thread of red, yellow and blue coming through the house – timber screens, leadlight windows, joinery, tiling details,



To minimise predictable materials like plasterboard, Lisa and Mark sought a very different finish to the ceiling of the living spaces and came up with an ingenious solution of artist canvas stretched on timber frames with the fabric reversed, showing the unprimed linen. They developed a concealed fixing made from off-cuts of roof flashing.

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The house sits amidst its garden, a contrast to the elevated Queenslanders disconnected from theirs. Lisa and Mark's approach was "not to build bigger than necessary." Nut trees to the front and back of the property were retained to preserve features from the original garden. They also provide privacy, sun shading (reducing need for window blinds to only a couple of windows), bird habitat and food.



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Louvre windows throughout and a cleverly detailed front door, which allows the house to be left open securely at all times, provide great cross-ventilation and airflow to this Brisbane house. The home stays naturally cool, with no need for active cooling.

External finishes respond to the fabric of existing neighbours of weatherboard timber and corrugated iron. Battens provide privacy, shading, a finer texture to the buildings and a host for climbing vines and plants, allowing that connection between outdoor and inside spaces.

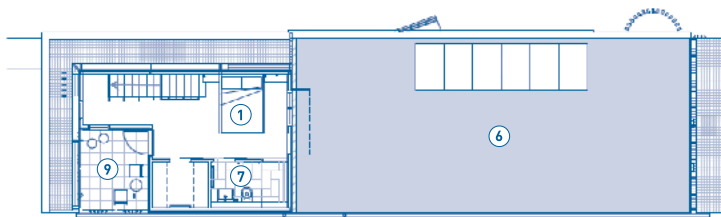
[fibre cement] panels at the front and the window on the north, where it splays out”.

To optimise quality and aesthetics for their budget, Lisa and Mark procured the majority of materials themselves (many repurposed), dressed rough-sawn timber, painted internally and externally, prepared recycled doors and made the entry door handles, gabion walls, the pergola, garden screens and workshop storage themselves. They also landscaped, propagated plants for and assembled the green roof. Stained plywood floors for bedrooms was affordable and attractive. Timber used was feature-

grade – much more economical than higher grades – while a tree felled on the family property will be reborn as purpose-built furniture once it has dried.

With a palette of natural, carefully sourced materials which reflect their lifestyle and nature, Lisa and Mark describe living in their new house as comfortable and calming. Their nurturing of the outdoor space throughout the process has paid off too, with their growing family (they are expecting a baby in February) and the community set to benefit from its food-producing legacy. 5

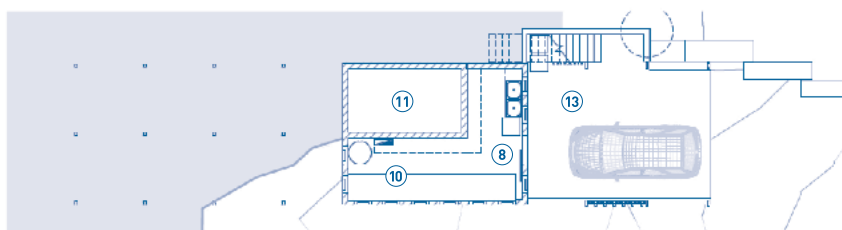
UPPER FLOOR PLAN



MAIN FLOOR PLAN



LOWER FLOOR PLAN



LEGEND

- ① Bedrooms
- ② Dining room
- ③ Kitchen
- ④ Living room
- ⑤ Study
- ⑥ Rooftop garden
- ⑦ Bathroom
- ⑧ Laundry
- ⑨ Deck
- ⑩ Workshop
- ⑪ Water tank
- ⑫ Pool
- ⑬ Garage

# Highgate Hill house

—Specifications

## Credits

### DESIGN

Lisa Marie Daunt & Mark Joseph Hogan (architects, painters, landscapers and owners)

### STRUCTURAL ENGINEER

Bligh Tanner

### BUILDER

Greg Thornton  
Constructions (supported by local tradesmen)

### PROJECT TYPE

New build

### PROJECT LOCATION

Highgate Hill, Queensland

### COST

\$830,000 (excl. land costs, architects fees and labour by owner)

### SIZE

Land 365.45 sqm;  
house 147 sqm (excl. decks);  
green roof 90 sqm

## Sustainable Features

### HOT WATER

– Apricus evacuated tube solar hot water system with electric boost.

### RENEWABLE ENERGY

– 3kW MC Solar PV array; 1.5kW on green roof on tilt frame and 1.5kW on raking northern upper roof, separately monitored.

### WATER SAVING

– 20,000L blockwork rainwater tank connected to both toilets, laundry washing machine, garden taps (which also enable the plunge pool to be filled with rainwater) and green roof irrigation

– Water-efficient tapware, WELS 6-star to basins

– Sanitary ware and appliances by Scala and Reece

– Aqua One 5-stage filter and tapware to kitchen sink.

### PASSIVE DESIGN

– Naturally ventilated throughout; breezes captured with operable openings with louvres, bifold doors and part openable entry door

– Ensuite and bathroom open to outdoors to negate need for exhaust fans, cooktop exhaust direct to outdoors

– Shaded decks and windows, with further shading to be provided by vines on pergolas once established

– Existing nut trees retained at front and back for privacy and sun shading (reducing need for window blinds to only a couple of windows).

### ACTIVE HEATING & COOLING

– No active cooling

– Heatec low-voltage electric heating to entry/lounge slab.

### BUILDING MATERIALS

– Locally sourced timbers for structural frame, unseasoned spotted gum, pre-primed tight-knot pine and spotted gum shiplapped cladding boards, tallowwood and hoop pine plywood timber flooring by Wilson Timbers

– Green roof: Sika Sarnafil welded waterproof membrane, geotextile fabric, drainage cell by Elmich, supplied by BWA Architectural Products, soil by Green Fingers, eyelet roof safety system and harness by RIS, red scoria stone mulch by Centenary Landscapes

– Repurposed materials: 1920s leadlight doors to study, laundry tub, feature fence posts and concrete paver used for rainwater tank access lid, plus variety of waste sample tiles used as feature inside and out.

– Insulation: Tontine Insuloft recycled polyester thermal batts and Bradford acoustic batts to roof (R4.65 in total); Tontine Insuloft recycled polyester and Bradford SoundScreen to walls (R2.8 in total); sub-floor soffit using Foilboard Superior (R1.45)

– Bradford Enviroseal ProctorWrap Commercial Wall to roof and walls, with cladding battens to avoid moisture and mould occurring within insulation and timber).

### WINDOWS & GLAZING

– Hoop pine and spotted gum timber frames by Finlaysons Envirowood and Darra Joinery, low-e glazing generally, aluminium frames to higher windows to the south

– Breezeway louvres

– Multicell polycarbonate (Ampelite, re-purposed from

another project) moonlight over main bed, shaded by eaves, and to two other bays of clerestory

– Coloured and textured glass leadlight windows to northern window by Annerley Glassworx.

### LIGHTING

– Natural daylight maximised and lights minimised

– LED lighting by Lumen-8 throughout, T5 fluorescent battens to workshop

– LED strip lighting (re-purposed from another project) under northern cantilever of house deck to illuminate food garden.

### PAINTS, FINISHES & FLOOR COVERINGS

– Low-VOC and water-based paints by Resene; Cutek oil to structural timbers, timber fences, timber battens and spotted gum cladding; water-based clear finish to timber joinery and decking by Intergrain; Cabots water-based clear finish to plywood soffit, plywood floor, tallowwood flooring; Loba stain/oil to study and bed.

### OTHER ESD FEATURES

– Green roof to the living and outdoor living areas provides additional thermal insulation

– House designed to retain the existing food garden (protected during build)

– Maximised connection with garden for cooling breezes, easy gardening and cooking accessibility

– All timbers ordered by owner using architect's drawings to reduce waste, offcuts kept on site for future use or directed to others.