

MODERN GREEN HOMES

Sanctuary

Renovation Special

INSIDE ISSUE 41 Summer shading ideas; tiny site big plans; focus on furnishings; 8.4 Star retrofit; SIPs tips; cool basement benefits; go up in style; purr-fect design; modular mountain magic + more

RENOVATIONS & ADDITIONS

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The slatted-timber bedroom 'cube' fits snugly into the trapezoidal shaped living area. "The weird shape is a balance of composition, the blocks all fit together, and hopefully they appear like they should be there," says designer Tim Dorrington. Around the original plum trees they've built a vegie patch and revegetated with native plants; a shed for kayaks was also added.



Seismic shift

Under New Zealand's seismic codes renovation can be tricky and expensive, but the rewards can be remarkable.

WORDS Kulja Coulston

PHOTOGRAPHY Emma-Jane Hetherington

IT WOULD HAVE BEEN EASIER AND cheaper to knock down their old, but sturdy, home in Westmere, an hour's walk from the centre of Auckland, however this approach didn't sit well with Candice and husband Bernard. Plus, they liked the double-brick bungalow's detailing: the stained glass windows, mosaic porch and old art deco bathroom. "We have a philosophy of not wanting to destroy something for the sake of it," says Candice. "And we love that 1970s homely feeling of carpet, colour and corked floors." In a suburb undergoing rapid

redevelopment, they also valued its history – it was built originally by a local bricklayer for his own family.

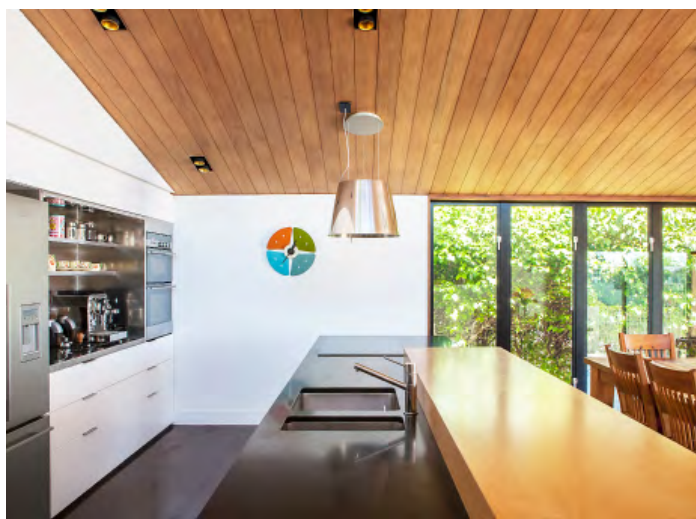
They did want to improve it though. The original house was cold and dark, and although the location gifted incredible views of the ecologically significant Meola Reef, the existing house didn't maximise either access or views to the water. "We had an outside toilet and the kids were quite small then – five and three – and often we had to get up in the middle of the night and take them outside," laughs Candice. "We

lived in it like that for several years to get a feel for the property and the orientation, the sun and all those sorts of things, and then we engaged Tim to help us turn it into a really well functioning family house."

The initial brief they gave architect Tim Dorrington was a relatively modest one. They wanted to improve overall comfort and add a living space at the back that looked across the water. They also preferred to use natural and recycled materials and New Zealand producers, something which had drawn them to Tim. "He's local, which



The addition connects the house with the waterfront, and the ecologically significant Meola Reef.



Colour and warmth: In order to avoid a monochromatic interior, colour was injected into the fabric of the building: oiled timber is used for the ceilings, cork for the floors and stained glass was incorporated into the entrance hall, stairwell and clerestory windows.



was important to us because we wanted someone who actually understood and cared about the area, not just coming in from somewhere else to stamp their mark on the place,” says Candice.

Tim believed Bernard and Candice could be more ambitious, and came back to them with an audacious design that married the old and new, but also accounted for New Zealand’s strict seismic regulations. “It was always a pretty difficult program to retain what we needed to and extend the amount we needed to, in order to fulfil the brief,” says Tim. “Seismic upgrading stymies quite a lot of projects because essentially you can’t rely on any of the existing walls.” In order to keep the existing house they essentially needed to construct a new one around it. “This was technically very difficult, as the retained structure was incredibly brittle.”

To make the project work, they needed to construct an internal skeleton from structural steel and connect it to all of the walls, floors and roofs. This involved excavating under the existing house in order to construct the steel ‘raft’ that everything was then built around.

“Rather than making it look like an extension, we tried for a solution that was distinctively different, but also blurry in terms of what was existing and what was old,” says Tim. “So instead of just removing the back wall, the new part parasitically

grows off the existing house.”

The ultimate design has two intertwined pavilions comprising a trapezoidal-shaped and zinc-clad living room, and timber-slatted bedroom ‘cube’. “They are all quite jarring shapes but it works – it was about striking that balance of angles and sizes that also met the height to boundary rules,” explains Tim.

The design is not textbook passive solar, but it does respond to the site. The quest for a 1970s aesthetic meant they chose carpet over a concrete slab, which could have provided some thermal mass. But in Auckland’s relatively temperate climate this seems to have played in their favour. The location of opening windows allows sea breezes to quickly cool the house.

The risk of overheating and glare is mitigated with a glass tint for the north-west facing glazing. Knowing this would also reduce desirable solar gain in winter, they’ve installed a large solar PV system to power a boiler and condensing unit to supply hot water for the taps and heating system; in summer the same system heats the pool. For periods with little sun, they light the fire that sufficiently warms the house via an air-circulation system.

In parallel with the seismic upgrade, they also improved thermal performance throughout the whole building: gaps were sealed, insulation was installed in walls, ceilings and under floors, and all windows



KEY FEATURES

- Retained and upgraded building to be compliant with NZ seismic codes
- Full thermal upgrade, all windows are double glazed, including the original stained glass
- All local NZ materials, appliances and producers
- Custom central heating system runs from solar PV; also supplies hot water and pool heating.



Behind the slatted screen is the main bedroom which sits within, but still separate, from the kitchen and living area.




The old blends with the new: Double-glazed stained glass windows mark the connection between the original, bagged brick bungalow and the timber-slatted addition.

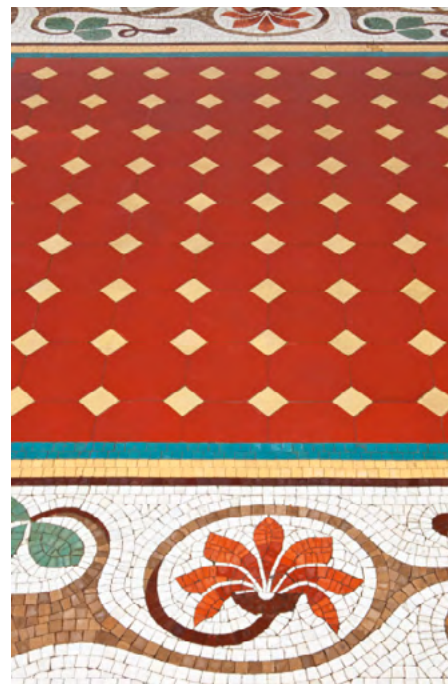


The basement level features local wallpaper, “We sourced it from some fabulous guys in Christchurch and it perfectly matches the dark and moody basement vibe,” says Candice. Although the entire building needed to be upgraded to meet seismic codes, much of the original 1930s house was retained, including the original mosaic porch (right). “It certainly would’ve been simpler to demolish the house, but we wouldn’t have achieved the same rich result with obvious history visible with the retained materials and features.”

are now double-glazed: “We went to a lot of trouble to track down somebody who could remove and reinstall the leadlight, after ‘triple’ glazing it for thermal efficiency,” says Candice. “We also reused all of the original doors and floors so everything that got pulled up was reincorporated.” To complement the textural warmth of old Matai flooring, new FSC-certified podocarp timber was used to line the ceilings.

The basement level, made possible

due to the costly excavation works, also helps keep internal temperatures stable. Perhaps surprisingly, due to her new coastal outlook, it’s this subterranean area that Candice likes best of all: “It’s fun and cool, like a New York bar! Yes, it would have been a lot cheaper and quicker if we’d just bowled the house over,” says Candice. “But some things you do for personal fulfilment, not necessarily to achieve a financial outcome.” 



Winsomere Crescent

—Specifications

Credits

OWNER-DESIGNER

Tim Dorrington, Dorrington
Acheson Architects (DAA)

BUILDER

Precision Projects

PROJECT TYPE

Renovation and addition

PROJECT LOCATION

Westmere, Auckland, NZ

SIZE

House 209 m²

Basement 174 m²

Land 783 m²

Sustainable Features

RENEWABLE ENERGY

- 5kW grid-connected solar array from Solarmaster.

WATER SAVING

- 2 x 5000 litre tanks for garden watering and toilet flushing
- Efficient water fittings from Methven
- Native, low water landscaping.

PASSIVE DESIGN / HEATING & COOLING

- Ventilation achieved through window placement and cross-ventilation
- Optimised glazing placement to provide desired sun penetration, as well as views
- Viridian grey float tint on rear double glazing to reduce glare and over heating.

HOT WATER / ACTIVE HEATING & COOLING

- Fireplace in the living room
- A heat-exchange system connected to a boiler, and largely powered by rooftop photovoltaic panels provides:

household water; hydronic space heating; warmed water to the pool in summer. Custom designed by Tony Champion heating.

LIGHTING

- All LED downlights by ECC.

BUILDING MATERIALS

- Zinc cladding from MDS
- FSC-certified podocarp timber ceiling lining to mimic existing Matai flooring
- Cedar slatted screens from JSC
- Existing Matai floors, refinished
- Existing brick: bagged and solid plastered
- Roof: zinc and membrane roofing.

PAINTS, FINISHES & FLOOR COVERINGS

- The majority of materials left ‘raw’ including exposed building materials
- Existing tiles and fittings retained in art deco bathroom and mosaic entry
- Cork floor throughout addition

- Upcycled Matai timber strip flooring, sealed in Drydens wood oil
- Carpets in living spaces and basement level.

WINDOWS & GLAZING

- Refurbished stained glass windows ‘triple’ glazed for thermal efficiency
- New windows are aluminium-framed, double-glazed units from APL.

OTHER ESD FEATURES

- Due to the seismic performance requirements for major renovations, the main ESD effort was in retaining the existing house and building a new house around it
- All appliances and materials sourced from local manufacturers and suppliers, including NZ brands Fisher & Paykel and Methven
- Herb and vegie gardens built outside kitchen.



LEGEND

- ① Bedroom
- ② Living
- ③ Kitchen
- ④ Dining
- ⑤ Bathroom
- ⑥ Toilet
- ⑦ Entry
- ⑧ Study
- ⑨ Robe
- ⑩ Lightwell
- ⑪ Pantry
- ⑫ BBQ & deck
- ⑬ Pool
- ⑭ Stairs (basement level not shown)
- ⑮ Driveway (garage under)
- ⑯ Green wall

