

Gr⁵⁶ound Br³⁵eaking

Emmy award winning actor Bryan Cranston has built the greenest of beach houses using cutting-edge materials and techniques.

STORY: **DEBBIE JEFFERY** PICTURES: **TURTURRO DESIGN STUDIO**

Bryan Cranston – known to some as dad Hal on the series *Malcolm in the Middle* and to millions more as Walter White on AMC's *Breaking Bad* – is incredibly proud of his family's new LEED Platinum beach house in southern California. Bryan and his wife, actress Robin Dearden, recently completed their green dream home – a 228 sq m, three-bedroom house located in an LA beach community.

Robin and Bryan replaced an existing 1940s house, originally used as military housing, which they had owned for several years and affectionately dubbed the Love Shack. "It was very problematic, with single pane windows and gaps in the doors. It wasn't even built on a proper foundation, just on sand," says Bryan. "The only reason we bought it was because it stood right beside the Pacific Ocean."

Robin says: "There was carpeting in the kitchen that looked like it came from the Golden Nugget in Vegas in the 1960s. The back bathroom was so small that you could sit on the toilet and wash your hands at the same time. It got to the point that I didn't want to come any more except to sit on the deck. You just knew there was mould. It was not a healthy house. We came up only on the weekends, and it became quite the party house."

The couple found the beautiful setting relaxing, but wanted to build their own home in order to promote the philosophy of green living. "It was really fun, but it truly outlived its purpose and it was incredibly wasteful, energy-wise. We were there about three years before we tore it down," continues Bryan. "Robin and I wanted to combine both form and function, and show the world that sustainable

living doesn't mean that there's no indoor plumbing or that it will impinge on a modern lifestyle."

To achieve their objectives the couple invited a panel of green building experts, including Allen Associates, Turturro Design Studio and Alliance Design Group, to provide input into their new home's design and construction. This team of designers and builders prepared to work closely together to produce a Platinum LEED home of exceptional quality.

Leadership in Energy and Environmental Design (LEED) is a worldwide-recognised set of rating systems for the design, construction, operation, and maintenance of green buildings and homes developed by the US Green Building Council.

"I imagined the design of the home, and brought in architectural designer John Turturro," Bryan says of the 3 Palms Project. "He and I have challenged each other to turn the house into what it has become. We have photovoltaic panels, water heating panels, radiant heat in the floors, and we use old-fashioned ceiling fans. We combined modern technology with some old, tried and true methods for retaining heat and cooling down."

The design needed to take into account the long-term durability of the home, which is exposed to the elements of the Pacific Ocean – windstorms, shifting sands, salt and erosion. The new house's foundation is several feet higher than its predecessor and has been moved further back from the sea to meet planning conditions.

John Turturro comments: "I have always worked my designs from the inside out – first, by meeting the spatial and functional requirements of the interior, and then allowing the volumes to radiate to the exterior. Working with



“The titanium cladding was more expensive, but we wanted something that needed virtually no maintenance.”





Bryan Cranston we discovered many similarities between the two seemingly disparate processes of film making and structural design. During the exhaustive preliminary design phase I would prepare concepts in the form of design drawings, sketches and models for meetings at which the clients, myself, and select team members would be invited to give input. The result of our team's thorough design process is that we have made many of our mistakes on paper rather than with wood, concrete and steel."

Once the necessary permits had been secured the Love Shack was demolished, with as many items and building materials salvaged as possible and donated to charity or given to neighbours. Plants growing on the property were dug up, saved, and replanted – keeping the foliage at 3 Palms all native. Altogether, 76 per cent of the project's construction waste was recycled or diverted.

A raised foundation of fly ash (a by-product of coal power production) mixed with concrete was poured, with radiant heating installed in the floors that have retained their raw concrete finishes.

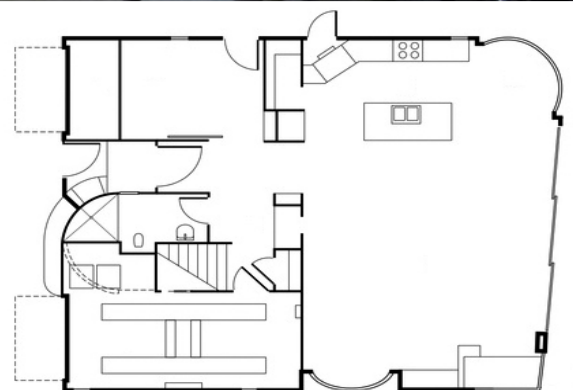
The new house was built using Structural Insulated Panels (SIPs), which are essentially a foam core sandwiched between two layers of plywood, offering superior insulation and minimising thermal bridging and air leakage.

Pictures: The project is 56 per cent more energy efficient than California Energy Code standards due to its passive solar design and high performance exterior shell. The house has a two-storey garage with a space-saving auto lift and custom doors.

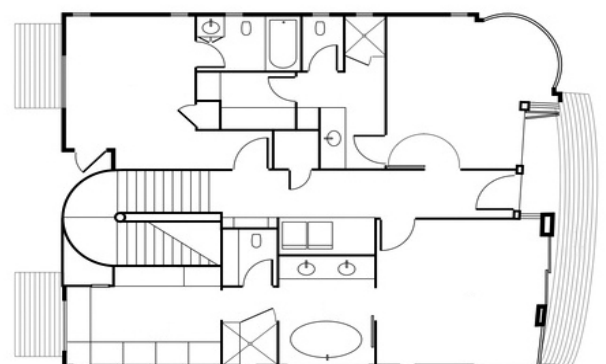




Kitchen cabinets are by Poggenpohl, with Cambria 'stone' surfaces, sink and taps from Kohler and Ublo bar stools by Roche Bobois.



GROUND FLOOR



FIRST FLOOR

The floorplan

Designed with a spacious open-plan kitchen/dining/living room overlooking the water, the property boasts a media room, an office and a bathroom on the ground floor in addition to an integral two-storey garage with a space-saving lift. Upstairs there are three en suite bedrooms, with the main suite extending across one half of the building and incorporating a spacious walk-in closet.



A Kohler bathtub and fixtures were chosen for the main en suite bathroom.

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Externally the building's towers have been clad in thin gauge titanium, which is highly durable in a marine landscape and requires virtually no maintenance. For the façade, exposed to the constant salt air, the team considered everything from copper to zinc and aluminium. Eventually, a sample of titanium was tacked up for six months and showed no wear.

“Part of the green philosophy is not just what is cheaper; it's what's sustainable,” Bryan Cranston explains. “The titanium cladding was more expensive, but this is a house we plan to be in for the rest of our lives, so we wanted something that needed virtually no maintenance.”

All of the timber used in the building was FSC certified, originating from sustainable harvested forests, and the inclusion of Icynene spray foam both insulates and air-seals the structure – expanding within seconds to completely seal the envelope and provide airtightness as well as minimising allergens and moisture.

The carefully detailed building envelope, together with high performance windows and doors, ensures that the house is virtually airtight, and is mainly heated by passive solar gain and internal heat gains from occupants, cooking and electrical equipment.





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Project website: 3palmsproject.com

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Civil engineer Laima Reeder, PE: reeder.lb@gmail.com

SIPs panels US Sips: ussips.com

Aluminium windows and bifold doors

Schüco: schueco.com

► FIXTURES AND FITTINGS

Kitchen cabinets Poggenpohl: poggenpohl.com

American clay Natural Walls: naturalwalls.com

Car lift Bendpak: bendpak.com

Solar and PV panels, underfloor heating

Solar Electrical Systems: solarelectricalsystems.com

Plumbing fixtures Kohler: kohler.com

Lighting system Lutron: lutron.com,

Elan: elanhomsystems.com

Ceiling fans The Modern Fan Company:
modernfan.com





Above & left: Bryan Cranston's waterfront home features a stunning living room with an even more stunning view. Internal finishes are classic and neutral, with concrete floors and eco-friendly paints. The pastel on paper artwork by Maribel Hernandez conceals a flat-screen LED TV.

A ventilation and heat recovery system provides a constant supply of tempered, filtered fresh air, and summer heat is controlled through shading, window orientation and passive ventilation. All of the electricity is produced by photovoltaic panels, with solar panels preheating the hot water. Rainwater from the roof is collected in 600 gallon tanks beneath the house and used for irrigating the garden, lighting is LED and all appliances are low energy.

"With a Passive House you don't rely on the mechanics but upon nature," John Turturro explains. "We tracked the course of the sun and took into account the landscape and orientation of the site so that the building takes complete advantage of its setting. Salt water is the enemy of architecture, so all materials were carefully researched."

John Turturro worked closely with Bryan and Robin to select all the furnishings and interior materials. 3 Palms includes recycled wood for cabinets, a low-energy refrigerator and sustainable building materials used during construction.

Right: Interior walls were finished with American clay plaster, which contributes to healthy air quality.





Cranston and his family have a motto for their new home: “Nothing happens to the house and nothing comes into the house unless it’s special.” This means being conscious of the things they buy – where they are made and how they are made – including artwork created using low VOC paints.

“I worked with John on the inside of the house, the furniture, the colours,” says Robin. “I had a blast decorating, and it was a real learning experience because John knows his stuff.”

Five years of work and dedication on the part of the team and home owners is now at an end, and 3 Palms was completed in 2013. The whole build has proved to be a positive experience for all involved. “If you like putting puzzles together, building a house is just that,” says Bryan, who was involved at every stage of the project.

“I like the act of translating the two-dimensional into three-dimensional, looking at floorplans and imagining walking into a room and what I’m going to see, what I’m going to feel. We have qualified for the highest level of ‘green’ building in the country, and strived to achieve the highest level of style and comfort too.”



Below: The main bedroom overlooks the sea through Schüco doors and features a ceiling fan from The Modern Fan Company.

