

INFILL

NEW HOUSES FOR URBAN SITES
Adam Mornement & Annabel Biles

PANEL HOUSE

Venice Beach, California, USA
Architect David Hertz
Plot size 230m² / 2,476ft²

1 Prefabricated wall panels create a series of angled walls and reveals in the side elevations. The dull aluminium finish of the panels reflects the changing sky and colours of the sunset.



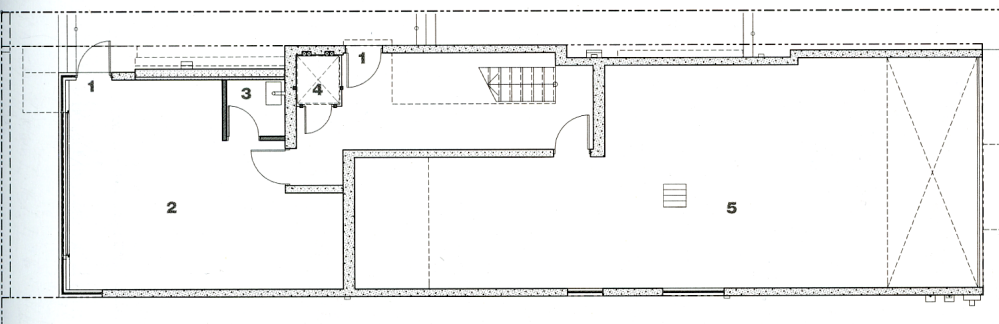
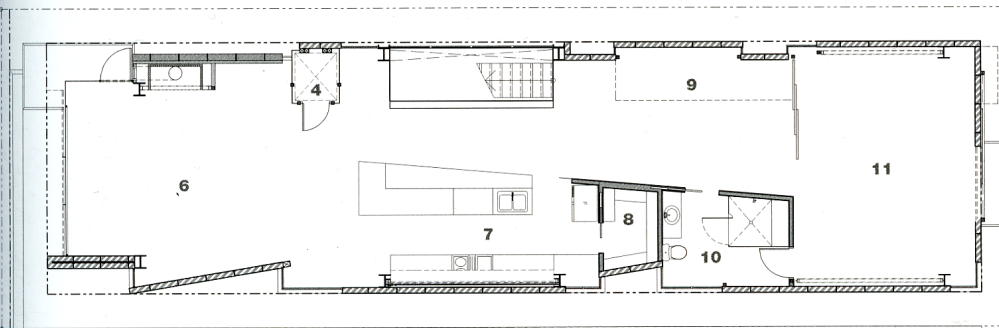
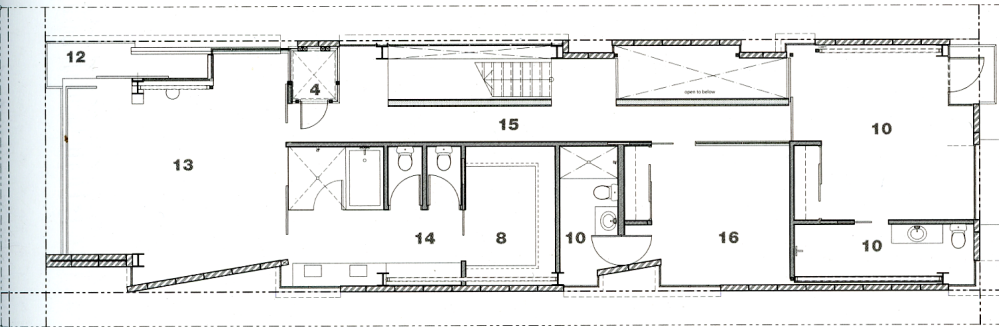
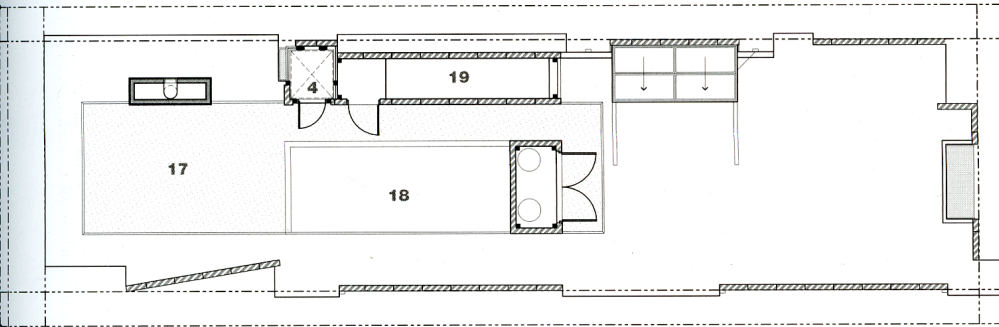
Innovative materials and an emphasis on minimizing emissions are two of the defining features of this luxurious house, which is also blessed with enviable views of the Pacific from its location on Venice Beach.

To maximize space on the narrow (9 metre / 30 foot) plot, architect David Hertz used a clear span structural system of wide flange steel columns and beams, diagonal brace frames and concrete decking, so eliminating the need for interior loadbearing walls. An additional consequence of the decision is that prevailing breezes pass unhindered throughout the three-storey house. Vertical air circulation is channelled through the stairwells and the shaft of the pneumatic elevator that links the ground level to the rooftop pool.

Another feature that helps to modulate ventilation, as well as the temperature, is the full-height glass window of the west elevation, which is mounted on a 'worm drive' gear system. When lowered, the living room is open to the elements, and has uninterrupted views of the beach. A system of aluminium louvres was

2 From bottom: Ground-, first-, second- and third-floor (roof) plans.

(1) entrance, (2) guest room, (3) beach bathroom, (4) elevator, (5) garage, (6) living room, (7) kitchen, (8) closet, (9) dining room, (10) child's bed and bathroom, (11) media/family room, (12) balcony, (13) master bedroom, (14) master bathroom, (15) gallery hall, (16) bedroom, (17) roof deck, (18) pool, (19) solar chimney/skylight.



designed to minimize solar gain and provide privacy.

David Hertz, who is no stranger to invention – he once created a house from a Boeing 747-200 – used the prefabricated panels that give this house its name to create a series of angled walls and reveals in the side elevations. They also offer an insulation rating four times greater than standard residential walls.

Typically used for walk-in refrigerators, each panel is nine metres (30 feet) long and 76 centimetres (30 inches) wide with a foam core 15 centimetres (six inches) deep. They are sheathed in a thin skin of aluminium and finished with Kynar paint, an industrial coating that resists weather damage and oxidation.

The use of the panels minimized on-site labour costs, and obviated the need for timber framing. Other environmentally responsible features include: solar and photovoltaic panels on the roof; a networked thermostat with exterior and interior sensors that help to minimize heating and cooling costs; and the collection of rainwater for use in the garden.



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- 3 Rear elevation.
- 4 A swimming pool and solar and photovoltaic panels furnish the rooftop, which is accessed from the pneumatic elevator.
- 5 Ocean views are visible from the open-plan kitchen and dining area.
- 6 A clear span structural system maximizes the narrow dimensions of the plot, creating interior spaces unhindered by loadbearing walls.



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LOWERLINE HOUSE

Architect Byron Mouton, bild Design
www.bildit.com

Contractor Anthony Christiana

Construction crew A.J. Christiana Construction

Millwork Dean Kageler

Metal specialties Sam Richards

LUCKY DROPS

Architect Yasuhiro Yamashita (Atelier Tekuto) with
Masahiro Ikeda (Masahiro Ikeda Co., Ltd)
www.tekuto.com

Construction Hideo Kikushima (Kikushima Co.,
Ltd), with the cooperation of Shigeki Matsuoka
(Home Builder)

MICHAELIS HOUSE

Architect Alex Michaelis, Michaelis Boyd
Associates

www.michaelisboyd.com

Project team Alex Michaelis, Tim Boyd,
Rodrigo Moreno Masey

Structural engineer P&N

Mechanical engineer Arup

NATURAL WEDGE

Architects Masaki Endoh + Masahiro Ikeda /
Endoh Design House EDH + mias
www.edh-web.com

Principal-in-charge Rio Tomita, Kenji Nawa,
Hirofumi Ohno

General contractor RIDEA CONSTRUCTION
Co., Ltd

OLD HOUSE

Architects Jackson Clements Burrows Pty Ltd
Architects
www.jcba.com.au

Project team Jon Clements, Tim Jackson,
Graham Burrows, Kim Stapleton, Josh Flavell,
Tim Humphries

Engineer Meyer Consulting

Builder BD Projects

Landscape architect Emma Ferguson
(Mantello)

Building surveyor Australian Building Permits

Façade image High Performance Films

Façade glazing Ascott Glass

Client David Clements

Heating/cooling systems Griepink & Ward

Benchtops Rutso Concrete

Joinery Cattanach Kitchens

Kitchen appliances Smeg

ONE WINDOW HOUSE

Architect Touraine Richmond Architects
www.touraine-richmond.com

Design team Terri Moore, Deborah Richmond,
Olivier Touraine, Taiyo Watanabe

Structural engineering Anders Carlson,
Gilsanz Murray Steficek

Builder Bruce Brown, Brown Osvaldsson Builders

Landscape design Touraine Richmond
Architects

Curtains/textiles Cathy Pack

PANEL HOUSE

Project designer/project architect David
Hertz, FAIA, LEED A.P./ John Meachem

Project managers Keith Ireland, Lucas
Goettsche, Jared Wright

General contractor Ron Senso Construction

Structural engineer C.W. Howe Partners Inc.

Mechanical Monterey Energy Group (MEG)

ROOFECTURE S

Architect Shuhei Endo Architect Institute
www.paramodern.com

Consultants Masashi Ooji, Design-Structure
Laboratory

SHIP HOUSE

Architect Katsuhiko Miyamoto & Associates
www.kmaa.jp

Principal-in-charge Katsuhiko Miyamoto

Project team Kazuhiro Takeuchi

Collaborator Masahiro Miyake / y+M design
office

Structural engineering Masaichi Taguchi /
TAPS

General contractor Yamamoto Komuten

Steel construction Nakamitsu Kenko,
Mukai Tekkojo

SÁNCHEZ MEDINA HOUSE

Architect Manuel de las Casas

Collaborators Iciar de las Casas (architect),
Sergio de las Casas (structures)

Assistants P. Enfedaque, L. McNicholl, R. Heras,
P. García, J. McNicholl

Collaborator Eusebio Sánchez (quantity surveyor)

Client Sres Sánchez Medina

Construction company Alfonso Peña, S.L.

SKY TRACE

Architect Kiyoshi Sey Takeyama + AMORPHE
www.amorphe.jp

Principal in charge Ikuma Yoshizawa

Structural engineer K3 Structure Design Office,
Hirofumi Kaneko

Mechanical engineer Soh Mechanical
Engineers, Masami Tanno, Akhiro Nanjo

Contractor Sobi