

## Z6 House

Location: Santa Monica, CA Architect: LivingHomes / Ray Kappe Architects



### SUSTAINABILITY SNAPSHOT

- Percent of total building area that is daylight: **100**
- Percent of building that can be ventilated or cooled with operable windows: **100**
- Precipitation managed on site: **100**
- EPA Energy Reduction:
- Percent total energy savings: **35**
- Lighting Load after Controls (W/sf):

### Overview

The Z6 House is a single-family residence that was added to a multifamily-zoned lot with an existing duplex. It has four bedrooms and 2.5 baths. The house serves as both a residence and a model home for a line of green, modular, single-family dwellings offered by the owner's business.

The house is constructed of factory-built modules that were erected on the site-built foundation over a period of 13 hours; the structural slab-on-grade serves as the finish floor for the first level. A roof deck offers views and a green roof with vegetation native to southern California.

### Jury Comments:

"Spatially this is a sophisticated project. There is a subtlety to the spacemaking. Also, there are a lot of prefab projects out there that have very little rigor to the sustainability, and this challenges that. It also responds to the tradition of the Case Study houses."

– **John Quale, Assistant Professor / University of Virginia School of Architecture / Charlottesville, VA**

"I think it's taking the Case Study tradition to the next level ... maybe we are ready, 50 years later, to reinvigorate that tradition."

– **Susan Szenasy / Metropolis / New York, NY**

"This is beautifully crafted and resolved. I hope it is also replicable. I'd like to see the transfer of this knowledge to other, smaller projects." – **Anne Schopf, FAIA / Mahlum Architects / Seattle, WA**



## Sustainable Design Intent & Innovation

A commitment to minimizing the project's ecological footprint informed all aspects of the home's design. The project team used the phrase "six zeroes" to describe the goals of the project: zero waste, zero energy, zero water, zero carbon, zero emissions, and zero ignorance.

The design maximizes the opportunities of the mild, marine climate with a passive cooling strategy using cross-ventilation and a thermal chimney. A 2.4-kilowatt photovoltaic array and a solar hot-water collector take advantage of the sunny location, as does the daylighting strategy for the interior.

To create flexible interior spaces, all bedrooms have moveable wall partitions that can be opened to common areas for more space. Large exterior doors and large expanses of glass connect the inside to the outside, allowing the living space to expand to the outdoors.



### Primary Design Team Members

Kappe Architects/Planners	Hinerfeld-Ward, Inc.
LivingHomes, LLC	The Great Outdoors Landscape Design & Construction
Design AVenues	Bill Wilson Environmental Planning
Davis Energy Group	Heidi Toll Design
Reiss-Brown-Ekmekji, Inc.	
Profile Structures, Inc.	

### Full project profile:

[www.aiatopen.org/hpb/overview.cfm?ProjectID=851](http://www.aiatopen.org/hpb/overview.cfm?ProjectID=851)

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