All Together Now.

The case study home is a fusion of what has been learned from the past and where we see trends in modern living taking us. As a means of mending communities hard hit by the recession these infill projects need to, in a sensitive and restrained manner, represent how to infuse cost-efficiency, community reinforcement, local culture, and a sustainable lifestyle together into a single harmonious experience.

As we head towards an increasing global dependency on oil, there is no doubt that the home of the 21st century will need to tread more lightly than ever before. This project is fueled from a combination of renewable resources including solar and wind that power lights and ceiling fans. Appliances use alternative fuels for cooking and heating water in order to minimize the home's carbon footprint. Wood used to frame the structure is certified by the *Forest Stewardship Council*, recycled products and finishes are used wherever the opportunity proves cost-effective. A simple building geometry maximizes floor area efficiency and minimizes consumption of materials. Guttered-gable roofs and painted plaster are examples of inexpensive, proven exterior systems that are prevalent on so many Florida homes and blend with the existing fabric so as not to feel like an evasive species.

Like the homes from Florida's past the Case Study House reaches out to its edges. Balconies and porches push up to the street edge interacting with the local population like a friendly neighbor. The 21st century home encourages the exploration of the outdoors by increasing the ratio of outdoor–to-indoor spaces. Designed "comfortably", the home seeks to be an example of how to incorporate a reinterpretation of a traditionally recognized language with advancements in materials, techniques and technology. It looks to modernize, in a nostalgic sort of way, society's vision of the "American Dream".

Class of Construction : Average

Type of Residence: 2 story with carport

Area: Level 1: 900 sf, Level 2: 1100 sf

Basic Cost per Square Foot (*RS Means Square Foot Costs 26th Ed.*): 76.20

Base cost per square foot of living area includes:

1. **Site work** - Site preparation for slab.
2. **Foundations** - Reinforced concrete 8" slab on grade with 12" thick edge; dampproofed and on 4" crushed stone base and polyethylene vapor barrier, troweled finish (60%) polished (40%)
3. **Framing** - Exterior walls – 2 x 4 wood studs, 16" o.c.; ½" sheathing; 2 x 6 rafters 16" o.c. with ½" plywood sheathing, 2 x 6 ceiling joists; ½" plywood subfloor on 1 x 2 sleepers 16" o.c. ; 2 x 8 floor joists with 5/8" subfloor
4. **Exterior Wall System** - 1" thick colored stucco finish; windows – aluminum, low-e glass; tension cabled guardrail enclosure, solid wood doors
5. **Roofing** - Asphalt shingle roof, aluminum gutters, downspouts, drip edge and flashing
6. **Interior** - Walls and ceiling – ½" taped and finished drywall, primed and painted 2 coats; painted baseboard and trim, finished hardwood floor 60%, polished and sealed concrete slab (40%); hollow core doors
7. **Specialties** - Average grade kitchen cabinets – 14 L.F. wall and base with plastic laminate countertop and kitchen sink; 40 gallon gas water heater
8. **Mechanical** - 3 wall hung lavatories; 3 water closets, 2 enameled steel bathtubs, air conditioning/heat pump system
9. **Electrical** - 100 Amp service; romex wiring; fluorescent compact bulb lighting fixtures, switches and receptacles
10. **Overhead and Profit** - General Contractor overhead and profit*

Location Factor for Florida: .80

Modifications:

Half Bath
Full bath
Pergola

Additions, Credits and Alternatives:

380 sf stone paved porch (+2.00sf)
Standing seam metal roof (+4.25sf)
45' of tension cable guardrail system ($30.40 lf)
Energy Star qualified appliances (+5% of appliance budget)*
200 gallon rainwater storage tank & greywater treatment system ($800)*
160 sf photovoltaic panels ($8,000)*
Wind turbine ($3,800)*
(4) Ceiling fans ($600)

* Does not include potential discounts as a result of tax deductions for energy efficiency and/or not-for-profit programs

The porch. Front row seats for interacting with the locals.

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The façades of this 21st century home recall the nostalgia of historical Florida neighborhoods. Shaded space, natural ventilation, deep overhangs, run-off management and drainage strongly influence its curb presence (below).

A photovoltaic array and wind turbine are mounted to the roof for providing renewable power. Rainwater collected from the roof's gutter system is stored in a 200 gallon tank and used for irrigation. The Energy-Star qualified AC unit is elevated away from any potential standing water (right).

View looking from kitchen into the dining space.

Interior and exterior spaces blend together. Inspired by the courtyard gardens of Kyoto, public zones within the home all interact with nature which is positioned at the heart of the plan. Not only does it represent a spiritual relationship but is also instrumental in naturally ventilating the building.

Outdoor spaces reinforce socializing amongst neighbors and promote a closer, safer community. They can have the scale of a private balcony or a space comfortable for entertaining family and friends.

The upper porch. Located on the bedroom level, this is a comfortable space for enjoying quiet mornings and evenings.

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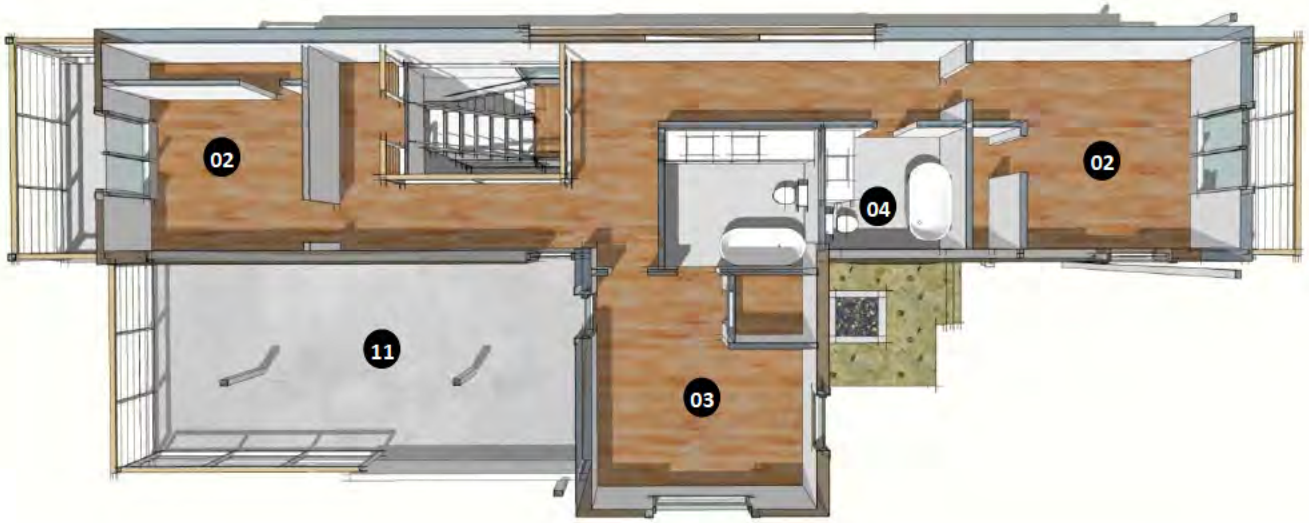
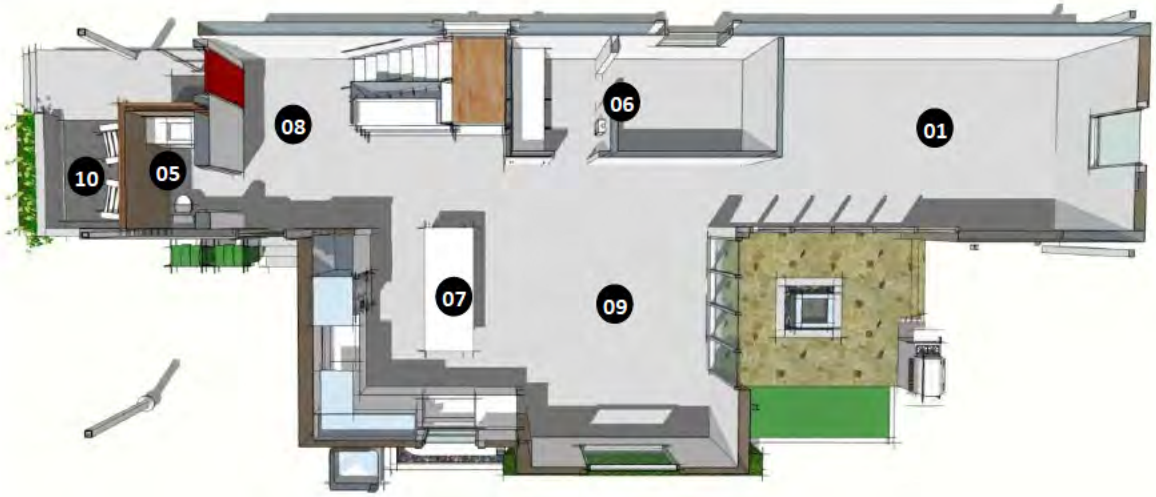
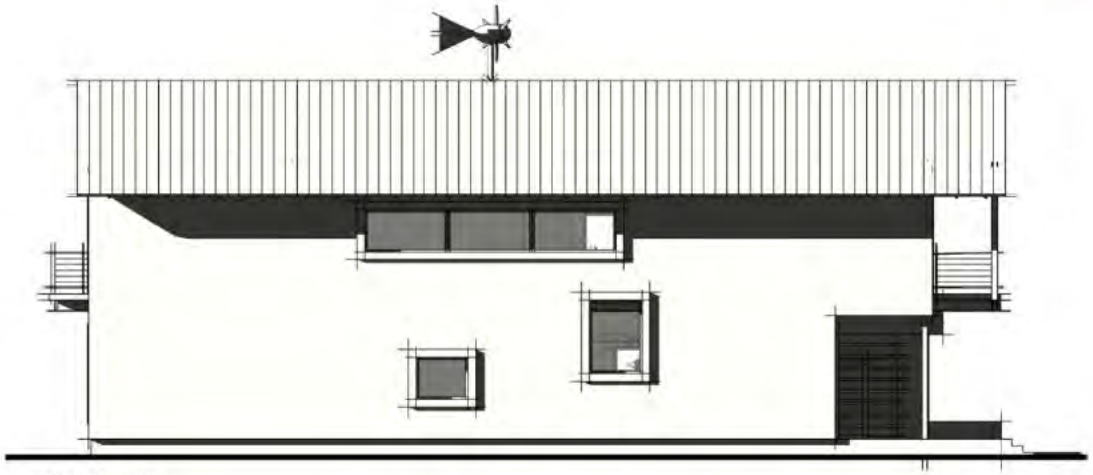




1. Living room
2. Bedroom
3. Master suite
4. Bathroom
5. ½ bathroom
6. Laundry/utility room
7. Kitchen
8. Foyer
9. Dining room
10. Lower porch
11. Upper porch

Front Elevation



Side Elevation

Side Elevation

Rear Elevation

Section - entry porch/bedroom & upper deck

Section - guest bathroom/bedroom & upper deck

Section - kitchen/stair/upper deck

Section - living room/bedroom

Section - kitchen/bedroom & upper deck

Section living room/bedroom