

SKYCASTLE CONSTRUCTION

Creating sustainable homes without compromise

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Known for its creative excellence, responsive service and expertise in design-build services, Skycastle Construction is an award winning design-build general contracting company that works in partnership with Rodwin Architecture, a complete architectural, interior and landscape design firm. Serving the greater Boulder, Colorado, and Rocky Mountain region with an integrated staff, Rodwin Architecture and Skycastle are leading the residential construction industry into the future of sustainability with the innovative design and construction of custom green homes.

Founded in 1999 by Scott Rodwin, the goal of Skycastle is to create homes with no compromises between beauty, functionality and sustainability. Due to a passion for building green homes, Rodwin and his team are able to accomplish this goal by demonstrating an extra effort in design procedures. “When people look at the homes we build, I want them to first enjoy their beauty and functionality,” says Rodwin. “Afterwards, it’s always fun when the owner says, ‘Oh, by the way, we have no utility bills.’”

Building a green portfolio

A perfect example of beautiful efficient home without compromise exists at the Gunung Mas Ranch in Boulder, Colorado. Rodwin Architecture and Skycastle provided architecture, interior and landscape design as well as full construction services for this single-family custom home, which was completed in September 2013. Traditionally in Colorado, if a client wished to have a great view of the western mountains, it would mean compromising the passive solar design as the house would overheat in the late afternoon with large windows facing the west. “By using a deep west facing porch, properly sized overhangs and low-E film, we were able to give the owners a passive solar home while capturing a great view of the western mountains,” recalls Rodwin, “The house had a series of historic ranch gates framing views of the land and the house; we continued this theme and dissolved the house into the land by extruding the frames into the landscape.”

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The Gunang Mas Ranch included energy efficiency features such as a home energy rating system (HERS) score of 40, which was 60 percent less energy than code; “tuned” Energy Star windows; foam insulation; solar photovoltaic panels; 95 percent LED fixtures and natural daylight and ventilation in all rooms.

A personal favorite project of Rodwin’s is the Farmhouse that Skycastle recently completed in Boulder. Producing more energy than it consumes, this LEED-Platinum certified modern farmhouse is the company’s first regenerative home. When the owners approached Skycastle asking for a modern interpretation of a traditional farmhouse, Rodwin and his team holistically integrated the owners’ passion for sustainability with a livable, functional and replicable single-family home.

Skycastle began by deconstructing the dilapidated existing house and donating its materials to ReSource, which is an organization that facilitates the reuse of architectural and other building materials through donation and resale. “We sited the new house in the previously-disturbed area to protect the soil and the existing nearby marsh,” says Rodwin. “The remaining site was devoted to permaculture and urban agriculture. The roof and gutter systems direct water into the gardens and rainwater harvesting barrels.”

The farmhouse’s floor plan balanced a modern, open layout with the owners’ desire for a traditional feel. In catering to the clients’ passion for their connection to the land, Skycastle opened the house on all sides to views, porches and garden access. By incorporating “universal design” principles, Skycastle was able to

provide space for a future master suite on the first floor with an accessible shower. “Most of the spaces serve at least two functions,” Rodwin explains. “Our favorite detail is a custom-designed guest room Murphy bed that folds out into a giant sewing table like a Transformer.”

The building’s envelope is a double stud wall, responding to the owners’ request for a solid, old-world feel, while simultaneously providing a large cavity for insulation and an air gap to eliminate thermal bridging. Foam insulation, insulated fiberglass doors, and Energy Star windows complete the envelope. “We used a ground source heat pump, an ERV, 95 percent LED lighting, Energy Star appliances, and a 10 kilowatt solar PV system to complete the Net Positive Energy package (HERS -8),” says Rodwin. “Xeriscaping and low-flow EPA Watersense plumbing fixtures throughout the home are used to conserve water.”

“What makes this project truly special for us is how conventionally attractive the home is,” shares Rodwin. “Many custom, energy-efficient homes are very peculiar looking or extraordinarily expensive; this is neither. This house could be inserted and replicated in any neighborhood throughout the country.”





A green future

The work and innovation that Skycastle and Rodwin Architecture are contributing to sustainability in the construction industry has not gone unnoticed. Both companies have received numerous awards including Green Home of the Year by the Home Builders Association of Colorado, Eco Hero Award by Boulder County Business Report, and Top Mountain Architect by Mountain Living Magazine.

Rodwin credits much of his company's success to the work of Skycastle's vice president of construction, Brandon David. David has more than 20 years'

experience in construction and was recently recognized by Builder Magazine in its 2014 40 Under 40 Awards. "Brandon has been with us for 10 years," says Rodwin. "He has helped me build the company from the ground up."

With a passion for green building and innovating design-build techniques, Skycastle Construction and Rodwin Architecture will continue to raise the bar by building green homes without compromising the beauty of aesthetic design. •