HOLLYWOOD CONTEMPORARY MEETS OKLAHOMA GREEN

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At the end of a dirt and gravel road in Oklahoma City, a clearing opens up to reveal a home many would term "California Contemporary" because of its form; yet it merges with the land and nature around it seamlessly – definitely modern, definitely natural.

The modular home, with gently angled roofs, has enough glass to please any modern home enthusiast, yet the stucco exterior with its enhancing sections of dry-stacked natural tan stone makes the structure a part of its surroundings. A curving stained concrete walkway composed of rectilinear sections adds an organic line to the geometric residence.

Jim Roth, owner of RR Residence, 3940 E. Wilshire Blvd., is pleased with the combination.

"I was going for a mix between Texas Hill Country and Hollywood Hills," he said. "I wanted a clean, open design that was one with nature. I was very interested by the juxtaposition of modern design in a rural setting."

That combination carries through to the interior. Roth's three-bedroom, three-bathroom home is very open, with clean lines and lots of natural light. Pale tans, greens and golds make a neutral but natural backdrop for Roth's collection of original, brightly colored art displayed throughout his home. For his stained concrete floors, Roth selected a color he calls "golden retriever tan" to camouflage the shed hair from his two retriever pets.

The minimalistic décor of the home avoids competing with what Roth intended to be the focal point: the windows. Situated on eight and one-half acres of natural Oklahoma forest and hills, every plate glass window brings a piece of nature into the residence. And the functional, double-glazed, low-emittance windows keep the radiating Oklahoma sun from heating up the home, an important feature for Roth, not just because of their comfort factor, but because of their energy efficiency.

Making his home sustainable was vital to Roth. Sustainable design, or green design, is about eliminating any negative environmental impacts. It requires thinking beyond individual need to a much more global, long-term level.

"I grew up in the Kansas City suburbs and my dad had a farm I used to visit," he said. "I remember he always had a row of crops for the animals. I liked the idea of giving back (to nature)."

After five years of research on green design, Roth understood the importance of each and every step of both the design and construction processes. The first step for him was selecting the correct architect for the

Jim Roth's home is open, with clean lines and lots of light. Stained concrete floors coordinate with a neutral but natural palette of pale tans, greens and golds.

Above: Minimalistic décor puts the focus on double-glazed, low emittance windows that keep the sun from heating up the home.

Right: The home was designed in three rectangles, the main one housing the living area, dining room and kitchen.

project. After conducting extensive interviews, Roth chose Jay Yowell, principle architect and owner of 'jy architecture' in Edmond.

Yowell is the founder and president of the Oklahoma Sustainability Network, of the Edmond Land Conservancy, and is an assistant professor at the University of Oklahoma's College of Architecture, with an emphasis on sustainable design.

"When I met with Jim, he was leaning toward hiring someone from (out of state)," Yowell said. "I asked him to reconsider keeping it local. To show that this can be done here, by someone from here. Okies are skeptical pioneers. If you can see it and touch it and feel it, *then* you can do it. I wanted them to see that you don't have to go to Europe or California (to build a contemporary, green design home)."

Roth had a binder full of ideas and information about his dream home, most of which revolved around Hollywood contemporary, 1950s-type houses. With this architectural style as his inspiration, Yowell's design for the home was simple – three rectangles. One long rectangle houses the living area, dining room and kitchen, while the other two rectangles – one for the master suite, the other for the office, garage and guest areas – are perpendicular to the first, creating a large 'U' shape that forms a three-sided barrier around an outdoor living space with a rectangular dipping pool and hot tub.

How this floor plan was situated on the site was determined not exclusively by the views, but by the land itself, as well as solar studies. The differences in designing sustainable versus standard architecture amount to one major thing: "Go back to design before air conditioners," Yowell said.

"Visit a farmhouse prior to 1930," he said. "It was oriented properly with minimum window exposure on the east and west sides, with deep porches and overhangs to protect from the rain and elements. Green design is a dichotomy of the

old stuff, with modern technology. It's using common sense principles, only modernized."

Yowell placed RR Residence carefully on the site to best utilize the seasonal solar elements. He placed few windows on the north side of the home. The open 'U' of the home faces south to best utilize passive solar collection, and the metal frame awnings over the wall of southern windows were sized carefully to intercept the high summer sun rays, therefore blocking the heat, yet allowing the low winter rays into the home, Roth said.

Three geothermal HVAC units, which tie into the hot water tanks, 11 inches of blown insulation in the ceiling, a white reflectant roof with a rubberized membrane that is weather proof but also breathes, and insulating concrete form block walls provide an amazing level of thermal energy efficiency.

ICF walls have a 6-inch concrete core sandwiched by 2 ½ inches of recyclable polystyrene, a Styrofoam-type product, for a total of 11-inch-thick walls. They

The two rectangles housing the master suite, office, garage and guest areas are perpendicular to the main rectangle, creating a large "U" shape that forms a three-sided barrier around an outdoor living space with a rectangular dipping pool and hot tub.

are stronger than typical wood framing to better endure Oklahoma storms, block out noise, will not support the growth of mold or mildew, are fire resistant, and provide massive savings in energy.

"It takes 18 hours for one degree of outdoor temperature change to reach the interior," Roth said.

The strength of the ICF walls also allowed for a very open, more modern floor plan, as no interior wall supports were necessary. This gave Yowell the ability to fully integrate his design concept of floating planes, which can be seen throughout the home: the thin overhanging roof, the metal canopy over the south window, the dropped-down ceiling clouds in the main living area to differentiate the different spaces, the wall-mounted cabinets in the bathrooms. Even the bases are slightly recessed, giving the walls the feeling of floating, Yowell said.

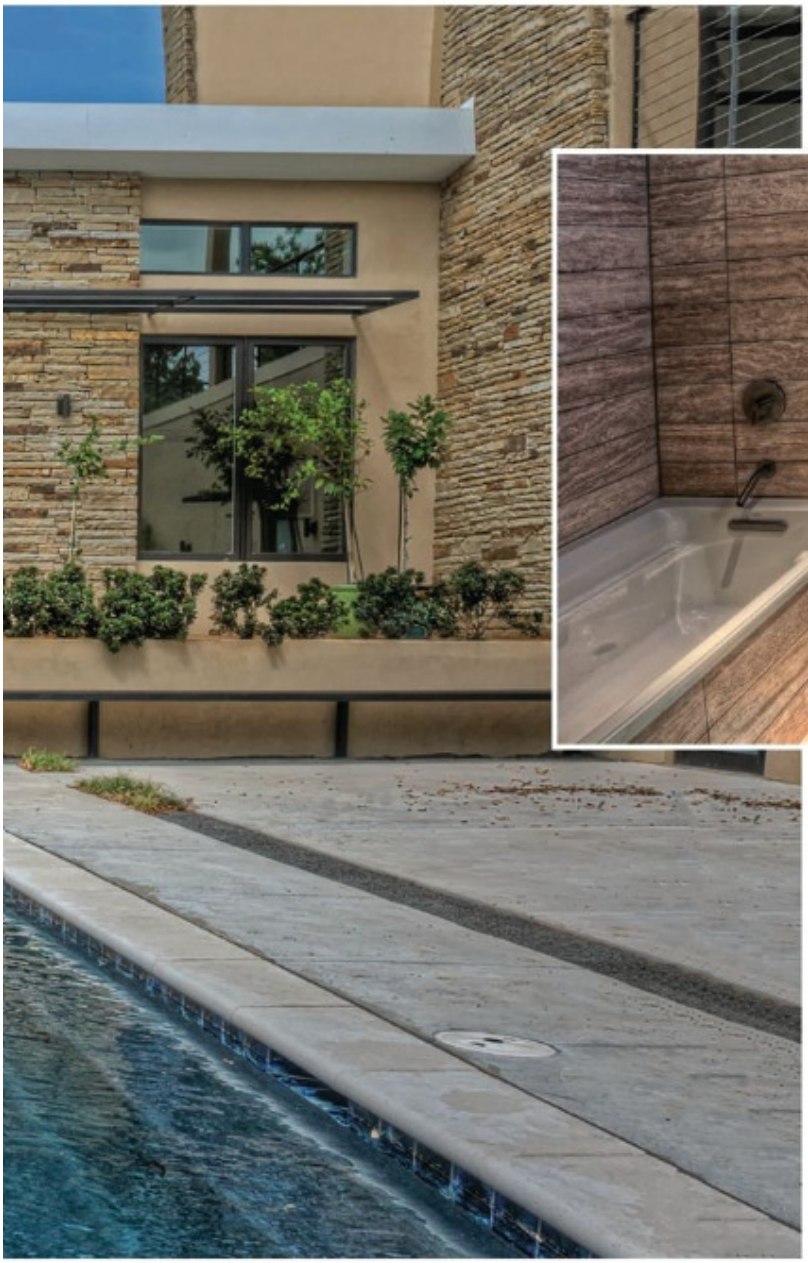
Another key design element was the use of horizontal lines.

"Horizontal lines give a feeling of being grounded, of being connected to the earth," Roth said.

The vein-cut travertine backsplashes are laid in a landscape orientation, and are paired with various natural countertop materials throughout the home. The kitchen has mostly granite, with a raised translucent onyx bar that is underlit. The bathrooms have recycled glass and concrete countertops, made from bottles, some of which Roth provided.

Further green design elements include energy efficient appliances, recycled carpet, low or no VOC finishes (volatile organic compound, a gas that is released from certain products such as paint, that can be a health hazard), water-efficient plumbing fixtures and energy-efficient lighting.

Roth took green design outdoors as well by hiring a landscape design company that specializes in sustainable



Top photo: Water-efficient plumbing fixtures and energy-efficient lighting in the bathrooms; the glass and concrete countertops are made from bottles, many of which Roth provided. Bottom photo: Kitchen is mostly granite, with a raised translucent onyx bar that is underlit.

design. They have created a landscape that is all natural, with ground cover consisting of a mix of native prairie grasses. The yard will be covered with buffalo grass, which clumps at five inches in height.

"Once (all the plants) are established, this will be an entirely maintenance-free yard," Roth said. "No mowing, no watering, no fertilizing … nothing."

Going green requires not only additional thought and planning, but a larger budget. Yowell estimated building a green home costs about 10-15 percent more than a traditional construction. However, those costs are recovered within about five years, he said.

Roth has not yet applied for Leadership in Energy and Environmental Design certification for his home, but RR Residence was built to qualify at a Silver level. LEED was developed by the U.S. Green Building Council and is an internationally recognized green building certification system, with ratings for new construction ranging from Certified to Platinum.

The nation's first LEED-certified home was constructed in Edmond five years ago, yet it has taken time for architects, designers, builders and homeowners to pursue this type of planning. Construction took nearly two years on RR Residence, although Yowell believes the modern design was more of a construction challenge than the green aspects. For Roth, it was worth the time, effort and costs involved.

"There is something strong inside me with this," he said, "to be mindful of my environment. It comes from within my own sense of responsibility. My favorite thing about my house is its sense of solitude and how it respects nature. That solitude comes from the feeling that (the home) is immersed into the nature around it."

Roth's home has a genre of its own: Oklahoma Contemporary – modern, natural, environmentally aware.