At 4500 feet in southern Arizona, you will find this expansive residence perched high on the mountaintop. It was the dream of Richard & Ann Zeron to build their custom designed home in the beautiful landscape, nestled in the Santa Rita mountains. This unique location and the complex architectural design was not without its challenges - from backing concrete trucks up the 1250’ long driveway to working in only a 150’ x 200’ site location. The flexibility of the Quad-Lock system and the ingenuity of the design and build teams took this project from a dream to reality.

Why Quad-Lock was Chosen

The homeowners were convinced that Quad-Lock’s superior ICF system was the only choice for the following reasons:

- Ability to construct tight radius walls easily
- Energy efficiencies and Thermal Mass Optimization with 4¼” panels on outside and 2¼” panels on inside
- Easy to place #4 rebar in +25’ walls
- Product expertise of Quad-Lock team
- No need for special order parts in this remote location

Interesting Facts

- Location: Tubac, AZ
- Completion Date: March 2010
- Building Size (Total): 3,452 sqft
- Quad-Lock Walls: 6,750 sqft
- Interior Walls: 1,250 sqft
- ICF Installation Time: 120 days
- Total Construction Time: 450 days
- Floor Joists: 18” trim joists & laminated beams
- Exterior: Stucco
- Waterproofing: Black treated paper
Quad-Lock Project Profile - Salero Residence

The Design Vision

The location for this award winning home proved to be the biggest challenge. The site is 25 miles from the main highway, with the last 7 miles consisting of a dirt road. All concrete and pumper trucks had to be backed up the 1250’ dirt driveway with a 200’ elevation change.

The transportation load was reduced since Quad-Lock is a flat panel system which was significant based on the geographical challenges. In addition, there are no special order components, so all the architectural details could be adapted on site.

The residence sits east/west with Quad-Lock’s 4¼” panels used on all the exterior walls, and 2¼” panels used on the interior walls, therefore taking full advantage of the thermal mass optimization.

The complex design required 5 radius walls, all in varying sizes, including 4’, 5’ 9½’, 20’ and 45’ radiuses. Using Quad-Lock allowed for these specialized features to be created easily on-site.

Low-E windows with UV factory coating, energy efficient exterior doors, grey water recovery system and AC units with a SEER Rating of 15 complement the high efficiency Quad-Lock building envelope. With smart design and the right components, this home provides the optimum blend of economical usability for its proud owners.

Challenges Addressed with Quad-Lock

- Multiple, varying sized radius walls were easily constructed on site
- Using Quad-Lock allowed the construction to continue even at the height of the monsoon season
- A limited, tight workable construction site of only 15’ x 200’ at 4500’
- Easily work around the #4 rebar on 24” vertical and 12” horizontal, with many embeds
- Minimized the number of times the pump trucks had to be utilized by allowing for tall wall pours

Project Partners

General Contractor: Richard Zeron (Owner)
Architect: Design Solutions, Tucson, AZ
Engineer: CDK Engineering LLC, Tucson, AZ
ICF Installer: LGS Framing, Tucson, AZ
Quad-Lock Dealer: Arizona Radiant Heat Barrier, Vail, AZ

“The project exceeded our expectations as an owner/builder. All of the main players put their shoulders to the wheel to achieve this great success and using Quad-Lock ICF made this dream a reality.” Richard Zeron, Homeowner/Builder