



**Martin Home  
3143 Hwy 39  
Hunt, Texas 78024**

**GREEN\***

**\*Symbolic color of environmentalism  
“Build with it live with it”**

### It's About Energy

Energy efficiency is first obtained by using high levels of insulation, both super r-rated barriers and oversized wall thicknesses and high-performance window and doors and tight construction.

We used wide overhangs around the house for added shade and insulated all porches with the same r-rating as the interior ceilings. The metal roofing is also light in color and highly reflective for minimizing solar gain.

Solar water heating is used in a hybrid system, i.e. the water from the solar collector travels through the conventional water heater. Only if the need arises does the conventional system come on.

We also incorporated a recirculation pump in the hot water system that eliminates the need to wait for hot water, an obvious conserver of water.

The house is oriented with a flow of air from south to north. Multiple double doors are located on north and south sides for this flow through screened porches. Large windows facing east for early light and solar gain. Few windows west for restricted gain.

We have ceiling fans located in many places for added distribution of air in the winter and or a breeze in the summer months.

We use a large oak tree to the west for shade and used it for a starting point of location.

We use a furnace/fireplace for heat during the winter months. The fireplace provides forced air into the living area and into the bedroom suite with fan switching. We supplement that with a split system heat pump/ air conditioning. We can choose to condition our bedroom suite or isolate it in favor of the living areas. We can also combine the systems by activating an air handler switch.

We are planning a low voltage lighting system for the future through a photo voltaic panel system. This will be for general lighting and proof of concept for a larger system in the future.

Most all the appliances are energy star rated or will be replaced in the future for such.

Recycling waste is addressed with bins. We recycle all food products in our own compost beds and take all recyclables to Kerrville every few weeks. We send no waste products to the landfill via a trash service. We use no disposal in the kitchen sink.

### It's About Water

Household water is on a dual system. We collect all rainwater from the house and store it in multiple tanks totaling 19,500 gallons at this time. We filter it and run it through an ultraviolet light for final consumption. Since we started with an alluvial well at the house across the creek from where we are now, we now have a switching system should we need water during a drought. Extra water lines were run so that we can operate either system or a hybrid use of all.

We have a third system of water from our creek to the east. We only do watering of the garden and plants around the house with the creek water. This is on a separate pump and separate set of water lines. We do not pump water from the river even though we are legally allowed for non-commercial use.

Use of gray water is anticipated and the plumbing and storage systems are in place for the use of gray water for flushing and watering.

Water efficient and low maintenance landscaping is in place. We use the natural plants that were here when we built and added in other native plants.

We use a dehumidifier below the house, in the crawl space, and collect water from it and add it to our store of water. We also use the condensate lines from the air-conditioning to add into the store of water.

### It's About Sustainability and Longevity

The materials throughout the house were chosen with concern for sustainability. Renewable forest products, mainly regional pine and American oak were used. We used some local stone off the ground for the perimeter base of the house. We landscape with cedar and stone from the property where we can.

We hope this house will stand for 100 years or more. From the pier and beam foundation to the standing seam roof we have attempted to produce a very long lasting structure. The exterior doors and windows are permanently finished. The cement based siding has a very long life and is very low maintenance.

## It's About Aging In Place

The house is designed for not only green but gray. This is a term used for construction that allows for continued use of a dwelling as one ages. It is one level with ramps and minimal thresholds, all wide doors with lever handles, low light switches and raised electrical plugs. The shower and toilet areas are completely accessible and prepared blocking is in place for grab bars. The kitchen is designed with drawers mostly and few wall cabinets for easy reach. The laundry is raised for easy use and carts are used to manage things around the house. The closets are designed for accessibility with either double doors or roll-in capability. Additional electrical circuitry is designed in and around the master area for any equipment needs in the future.

### Construction:

We designed and prepared all of the concept drawings ourselves. We had a draftsman produce a set of bid documents for the various trades and help develop the foundation plans. I acted as General Contractor and hired the trades based on qualification recommendation.

Foundation:	Don Mays	retired.
Framer and Carpenter:	James Morris	830-739-3251
Electrician	Denny Hardy	830-792-5283
Plumber	Johnny Bryant	830-377-0032
HVAC (Oasis)	Kerry Tielke	830-459-0071
Rainwater	Barry Wall	830-367-7246
Block/Stone	Jesus Contreaus	830-739-5999
Building Supplies	MG Lumber	830-257-2300
Plumbing Supplies	Morrison's	830-895-1550
Roofing	All Weather	830-739-3251
Gutters	Gutterman	830-257-3474
Window/Doors	Kolbe/Kolbe	
Fireplace/Furnace	Quadrafire	