

The America Solar Energy Society presents

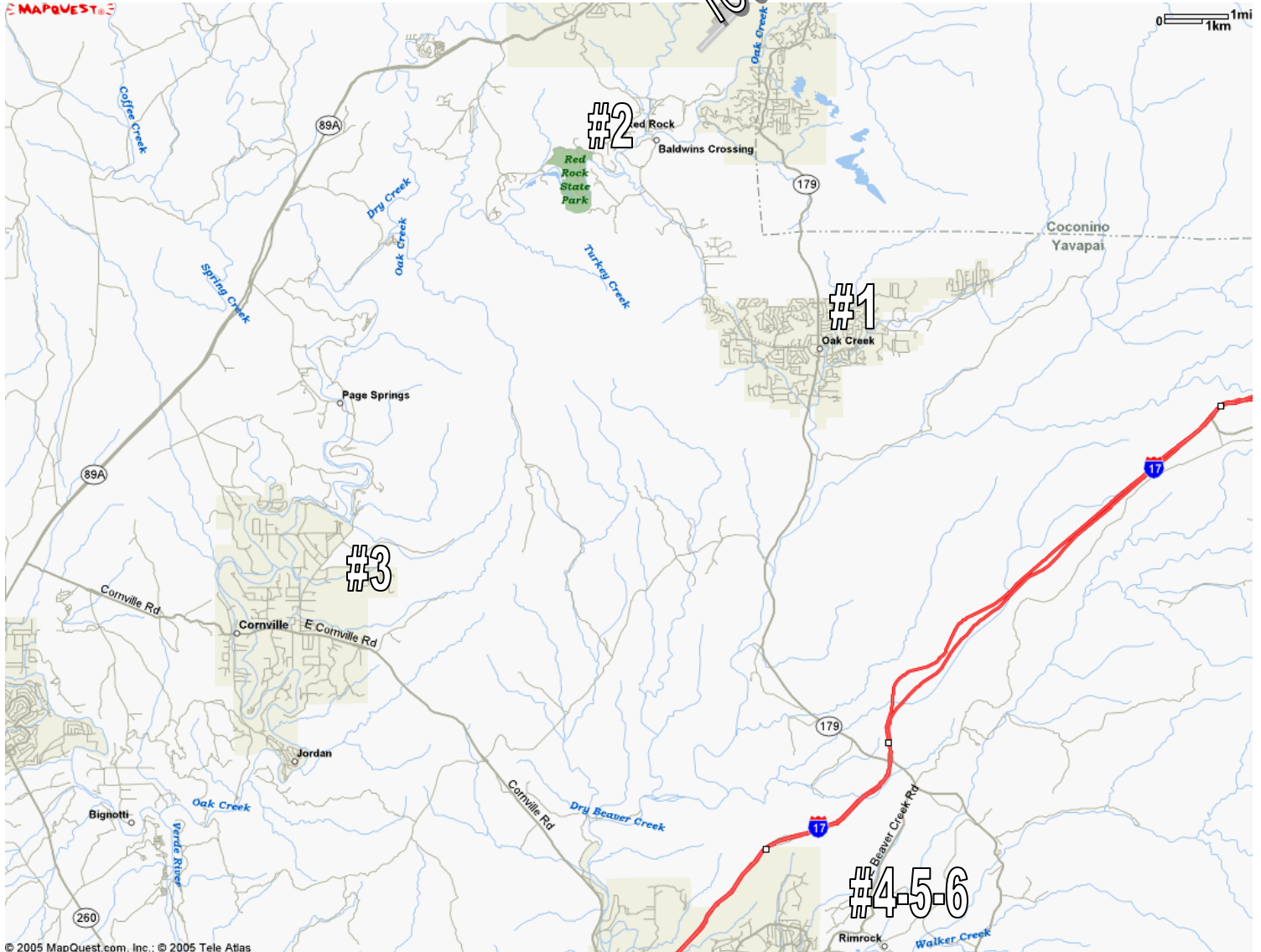
Self-Guided
self Guided

2005 National Solar Tour

Saturday, October 29, 10:00AM-4:00PM

FREE TOURS

Tour in ANY order



NOTE: home #1-3 only open from 10:00AM-1:00PM and #4-6 only open from 1:00PM-4:00PM

Local tour presented by the Sedona/Verde Valley chapter of Arizona Solar Energy Association (ASEA)

Tour contact and for info on speaker series call Bill Buckner 928-203-1018

BillBuckner@sedonarealestatesolutions.com

OTHER TOUR: Tucson 10/29 & 30

www.ases.org and www.azsolarcenter.com for more info on these tours

Architectural and Environmental Homes

☀️ Compact design provides space needed but minimizes overall size of house. This is green sustainable design. It saves energy to heat and cool and saved energy and materials due to smaller size.

☀️ All plywood construction in house and cabinet construction. This helps reduce VOC's (volatile organic compounds) and chemical off-gassing such as formaldehyde.

☀️ All hard surface floors reduce dust, bacteria, mold, mites, chemicals and other environmental chemicals in the house.

☀️ Sealed fireplace unit with circulating heat and remote control, prevents contaminants from entering the house.

☀️ Finished garage with R25 insulation in walls, R30 in ceiling and durable finished floor.

☀️ Central vacuum system, which exhausts contaminants to the outside, with special kick base in the kitchen for easy cleaning.

☀️ Operable clerestory windows provides draft cooling effect and makes use of loft space for additional living area.

☀️ Light and airy design with passive solar clerestory windows and large stone Trombe wall, along with stone countertops, concrete and clay tile floors used to provide mass.

☀️ Upgraded heating and cooling system with HEPA and UV light filtration unit, wall detector and separate control for humidification, and electronic filter. All features which provide better Indoor Air Quality and better human comfort and health.

☀️ Upgraded attic ventilation with radiant heat reflective foil on entire roof, R35 roof construction helps save energy and keep house comfortable.

☀️ Low E value insulated windows on south wall helps reduce heat gain.

☀️ Low or no chemical construction used throughout the home. Alternatives such as environmentally friendly boric acid sill plate treatment were used instead.

☀️ Interior walls insulated for sound deadening and also to add additional mass to the home and energy savings.

☀️ Eco-aquatic balanced waterfall and pond minimizes water usage while providing pleasant human experience.

☀️ Cement stucco exterior for low maintenance with aluminum clad thermo-insulated windows for low maintenance and energy savings.

☀️ Through wall flashing used to help eliminate moisture collection in exterior wall and prevent wood deterioration, mold, bacteria and other moisture problems. Dry wall helps insulate and save energy.

☀️ Active 2.4 kilowatt photovoltaic grid tied solar system, provides electricity for the house, opportunity to sell excess electric power to APS. Provides a non-polluting energy source that is completely renewable, saves energy, and ties down energy costs to the present day cost without future inflation of cost.

☀️ Underground roof water drainage system, underground plumbing installed for future water reclamation catchment system.

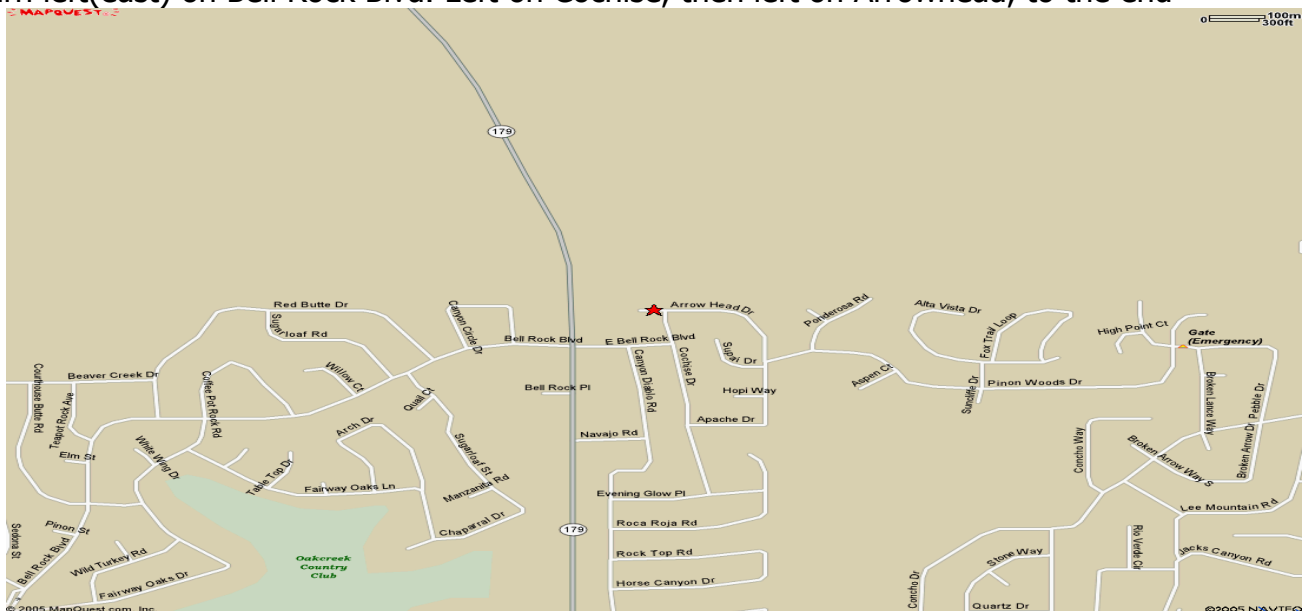
☀️ 2 x 6 wall construction with R25 insulation, and vapor barrier on the interior of the wall helps save energy and helps prevent moisture, mold and bacteria problems.

☀️ All concrete floors insulated with Dow "blue board" with thermal break insulation at exterior foundation walls for warm floors and additional thermal mass which saves energy.

☀️ Upgraded attic ventilation with radiant heat reflective foil on entire roof, R35 roof construction helps save energy and keep house comfortable.

Directions to home of Carl Ramsey
 245 Arrowhead Drive, Village of Oak Creek, AZ

From Sedona Proceed south on Hwy 179 about 6 miles to V.O.C. At circle K, when you first enter town, turn left (east) on Bell Rock Blvd. Left on Cochise, then left on Arrowhead, to the end



Description of Home

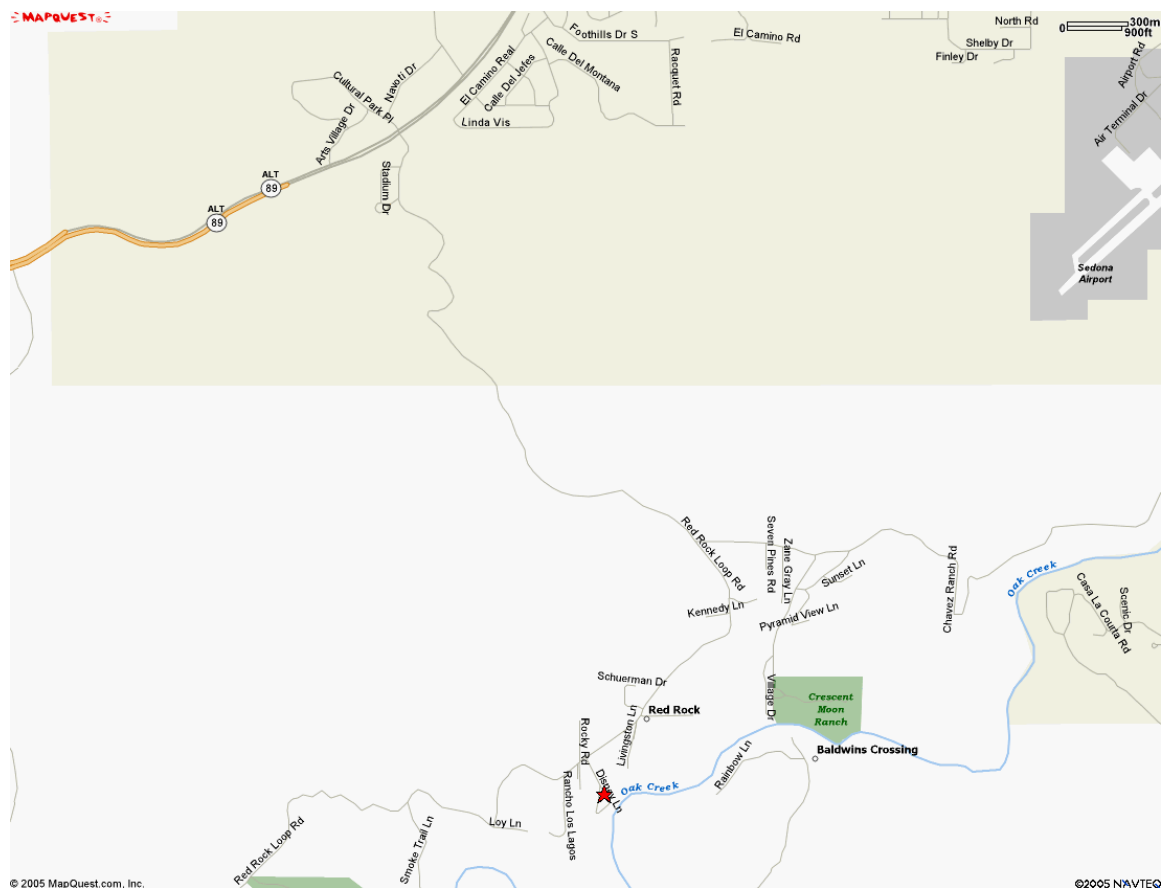
This passively heated solar home was designed and constructed during the 80's solar revolution that was at its peak during the Carter Administration. The design was aided by running a multitude of scenarios through the M.I.T. computer. This 1700 sq ft 2 bedroom, 2 bath home has a southerly orientation that heats the bedrooms with two trombe walls. The north half of the home is bermed in for added insulation, and gets its solar heat gain from a wall of windows on the east side as well as clerestory windows that heat the northern wall. Hot water is solar as well, though this is an active system using two collectors and a large storage tank and a heat-flo exchanger. The garden and fruit trees are irrigated by the red rock ditch association and the homes drinking water is from a community well.

Directions to the home of Bill and Jocelyn Buckner

140 Disney Lane, Sedona

From Village of Oak Creek

Head north out of the Village toward Sedona on 179. In about 6 miles you cross the bridge over Oak Creek and come to the intersection with 89A. Go left and head west through town. At the last signal at the top of the hill as you are heading out of Sedona (the high school is on the left), turn left at Upper Red Rock Loop Road. The next 2 miles is a popular scenic drive, careful of vacationers that stop in the middle of the road, armed with Nikons and Minoltas. After 1.5 miles, you come to the left turn at Chavez Ranch Road. Go straight, the road then makes a sharp right, continue half mile to Disney Lane and turn left. If you reach where Loop Road turns dirt, you've gone 70 yards too far. Come down Disney, home is on the left, where Disney splits in two directions.



Description of Home Strawbale construction with 4" steel reinforced concrete interior walls. Conventional asphalt shingle roof coated with elastomeric (white) to reflect sun's heat. Two bedrooms two bath with sunken living room. Tile floors except living room which is flagstone. Home is 1600 sq. ft. with well on 5 acres.

PV System - Solar Array

2.5 kilowatt ground mounted grid-tied solar electric system. 16 single crystal silicon photovoltaic modules with 175 W maximum power each. System has no batteries and feeds excess back into APS. At night house draws power from APS.

Directions to Home of Horace Ellis

13450 E. Rindone Lane, Cornville, AZ 86325

From Sedona

Take Hwy 89A towards Cottonwood.

Turn southeast onto Page Springs Rd, and go 6.3 miles.

Turn LEFT (southeast) onto Mingus View. (Note: Mingus View is a Loop and has two entrances onto Page Springs Road. Take the first/north entrance.)

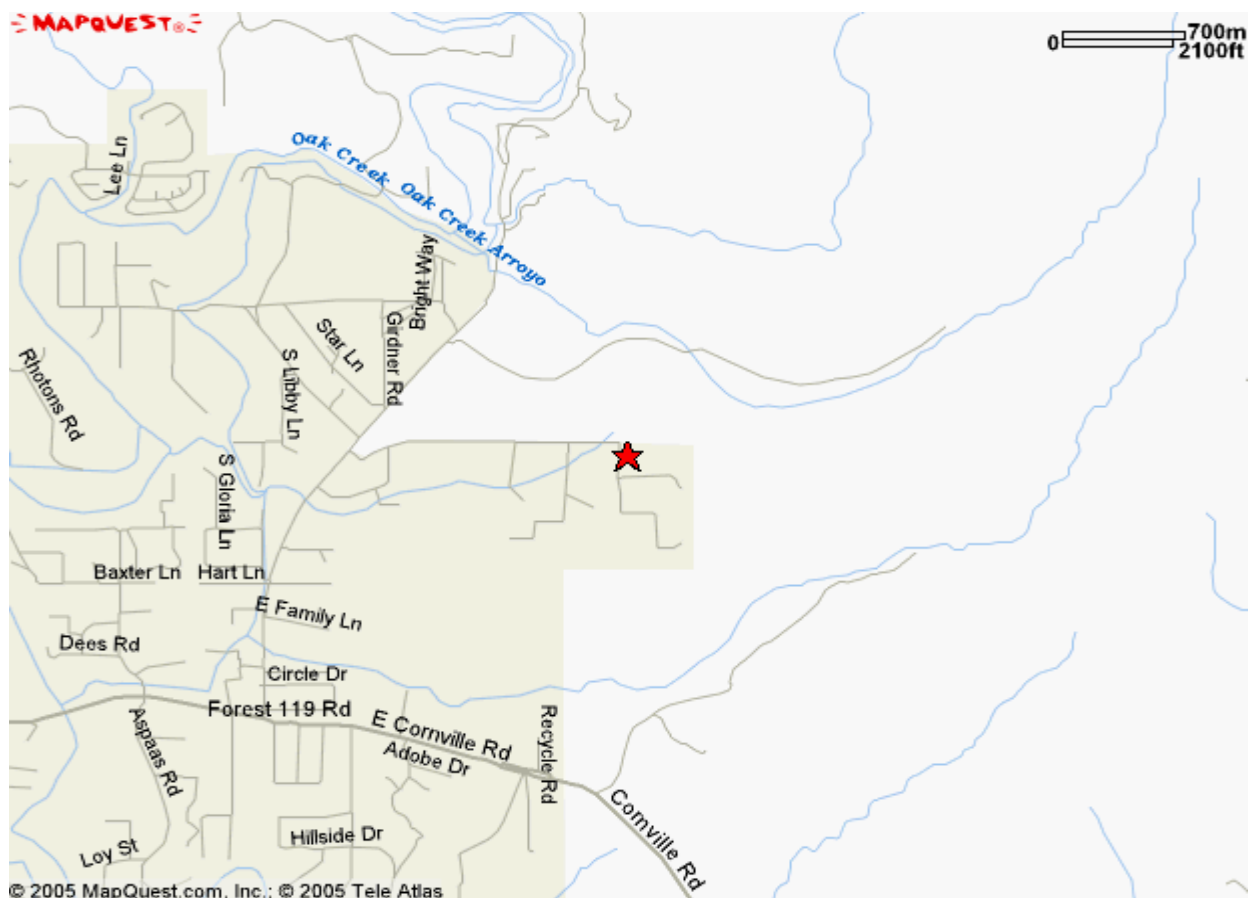
In about 0.1 m Mingus View will make a 90 degree turn to the right. Do not make the turn, but instead continue straight onto Lee Pasture Road which is a gravel road.

Lee Pasture Road makes a 90 degree left then 90 degree right turn and continues straight for 1 mile to the top of a small hill.

You can only turn RIGHT (southeast) onto S. Forest View Dr. Go down the hill, and take the first road to the left (Rindone Lane). If you go up another hill, you missed it.

My house is the second house on the left. It sits about 100 yards off the road on a little hill. It has a white roof and you can see the solar array from the road.

The driveway is a circle drive, so you do not have to worry about turning around.



Description of Home “Casablanca” is a post and beam straw bale home constructed by Gunité Specialties Inc. This unique home in Rimrock is constructed entirely of straw bales, steel, and Gunité. This home is probably the first and only home to use an engineered post and beam system made entirely of Gunité and steel. Even the vegas are created using Gunité and steel, which support a Gunité and foam roof. The overspray and straw which falls on the floor during construction is left in place with a four inch Gunité floor over the top. This process results in a home with an insulation value of R-40 and requires minimal heating and cooling. This old territorial style home has an aura of peace and comfort.

“The Casita” is a Gunité 4” foam panel system with galvanized mesh on both sides. This system was used for the roof, exterior walls, and interior walls. The Gunité provides thermal mass inside and a hard shell outside. The foam core provides a thermal break from outside temperatures.

Directions to Home of Pat Shea
5910 Bentley Drive, Rimrock, AZ. 928.567.2938

From Village of Oak Creek

Hwy 179 south to Interstate 17. Take 17 south to exit 293. Loop under Hwy 17 to Beaver Creek Rd.

From Cornville and rest of directions if coming from VOC

When leaving Horace’s home in Cornville, turn left on Page Springs Rd. (south). Go to the intersection and turn left on Cornville Rd. Proceed just past I-17 and turn left on Beaver Creek Rd. Head north-east on Beaver Creek past post office, bend left to Thunder Ridge (about 3 miles) Left on Thunder Ridge Rd to Bentley Drive(1 block) Right on Bentley to 5910 on right.



Description of Home

“Casa Bonita” takes the minimalist approach to saving money on energy and preserving our natural resources. This modestly sized home was built using 3-D or Tridi-panel system (EPS Core with Wire Mesh Faces), with a 1.5" concrete gunite finish on each side. The panel was used for the roof also. This is a 1-bedroom cottage with evaporative cooler; earthquake and fireproof...snug as a bug!

Directions to Home of Dawn Lorenzo
4604 Monument Way, Rimrock, AZ

From “Casablanca”

From Pat Shea’s home, just continue on Bentley, around the corner, and down to Monument Way. Right on Monument Way to the home. * optional* You can walk down to the home from “Casablanca” rear gate, but be careful of the steep stairs!



Description of Home

This is a "Hard Hat" tour of a nearly completed adobe home, constructed by Adam Wayne and Matt Bressler of Beyond Adobe, LLC. This is the first home in the Valley constructed with "pressed" adobe blocks created locally by Beyond Adobe LLC. The 12" walls create excellent thermal mass for stable inside temperatures; *keeping the house cool in the summer and warm in the winter - effortlessly*. The home has a "southerly orientation" and 12% glass on the south wall to passively heat the home. This 1400 sq ft home has 3 bedrooms and two bathrooms as well as two outdoor living areas. The roof is made of metal from recycled materials by Mueller. The windows are dual pane with additional solar reflective glaze to reduce the UV rays. The floors will be sautillo tiles throughout, which adds to the heat bank. Instead of a conventional septic tank, the home will utilize a "Wetlands Based" sewage treatment system. All the grey and black water will be biologically treated and recycled through the wetlands, creating a natural "backyard wildlife habitat" for the "locals."

Directions to the home built by "Beyond Adobe" at 4600 Tieman Lane, Rimrock, AZ.

From Beaver Creek Road turn south on Kramer. Go through the 4 way stop and turn left at the next street, Tieman, and proceed to the third house on your left. You could view this home before or after "Casablanca" and "Casa Bonita". All are in close proximity to each other.

