

## Fieldtrip Report:

### TimberCreek Home Warm, Welcoming, and Net Zero Energy

The TimberCreek Net Zero Energy home in Lewisville goes **beyond energy efficiency in producing more energy than the home will require**. The idea intrigued thirty Plano volunteers who toured the home one Saturday morning with Greencraft builder Chris Miles and architect William Peck. This private home was built as part of the Dept. of Energy Building America Program and open to the public for one month before the family took up residency.

Making the most of **natural shading** and **orientation** in placing the home on the lot complemented the many energy efficient features: low-e metalized housewrap, low-e insulated windows, open cell spray foam insulation, conditioned attic, heat pump with variable speed compressor, low awnings, high windows and doors, Energy Star appliances, LED and compact fluorescent lighting. Eight kw **solar panels** will produce 1000 kwh/month. The household is expected to need 900 kwh/month. The surplus will be sold to Green Mountain Energy.

**Green building principles** were evident throughout the home:

- Use of **reclaimed materials** - oil rig drill stems supported the deck canopy, shredded scrap construction and demolition wood became garden mulch, brick salvaged from the original home was used on outdoor walls, solid doors were filled with wheat straw
- Integration of **recycled materials** - sheetrock, garage doors, countertops, cultured stone indoor wall, decorative glass tiles
- **Durable materials** –Hardie Plank siding, Trex decking, fifty year warranty insulated Galvalume metal roof
- **Water conservation** – gas tankless water heaters, low flow faucets, dual flush toilets, 5000 gallon rainwater collection system for irrigation, water wise landscaping, WaterSense appliances
- **Indoor air quality** – formaldehyde-free cabinets and trim, low/no Volatile Organic Compound paints and stains, fresh air intake system, HEPA air filtration system, garage attic separated from home attic, vented garage doors
- **Sustainable materials** –Forest Stewardship Council woods from fast growing forests
- **Local materials** - stone from Oklahoma
- **Low maintenance** – no exterior wood on the house, metal roof, water wise landscape, polished concrete flooring

TimberCreek home is an inspiring example of an attractive, comfortable, not-so-big, high-performance house.