

BIG SANDY MUSH BALD

LONG BRANCH SELF GUIDING TOUR



Long Branch Environmental Education Center SELF GUIDING TOUR

- 1) **CREEK HOUSE:** Built in 1995 with native materials, primarily tulip poplar Wood milled on site with a portable sawmill. Passive solar design, super insulated with energy efficient details. An insulated slab on grade foundation with radiant floor heating system provides heat in conjunction with a small wood-fired heater. (Private residence)
- 2) **ATTACHED GREEN HOUSE:** The Creek House's Pit type attached solar greenhouse includes a ground level for winter vegetables and other plants. Balcony level is for seedlings and other plants. Seedlings are transplanted into Center's numerous gardens. Existing deciduous trees serve as shade during summer months and allow full sun in winter months. Passive Solar Composting Toilet integrated into greenhouse design.
- 3) **SOLAR HOT WATER:** Integrated passive solar hot water heater, or breadbox or batch type system built on site with super insulated framing, 3-40 gallon water heater tanks plumbed in series allows for 3 times the collector surface area and 3 times the storage capacity compared to a single tank system. Double pane 46x76 sliding glass door replacement units used as glazing. Water temperatures of over 185 degrees Fahrenheit are typical on sunny days. The system functions throughout the year with no freezing problems.
- 4) **WORKSHOP:** Passive solar design built primarily with recycled and salvaged materials. Serves as tool storage, recycling center and encloses multiple work areas,
- 5) **MICROHYDRO POWERHOUSE:** 3.5-Kilowatt high-head Pelton Wheel system (under repair).
- 6) **RASPBERRIES, ORGANIC GARDENS, COMPOST BINS:** Heritage Variety Red Raspberries, Wineberries, grapes, and Blueberries with vegetable garden in integrated Edible Landscape and Permaculture Design. Plants available for donation. Compost bins constructed with salvaged wooden shipping pallets. Vermicomposting with Red Wiggler worms.
- 7) **WALNUT GROVE RETREAT:** Built at confluence of two streams in serene and beautiful part of Center's property. Bi-level black locust Wood construction with steel roof. One level can be used for a tent and the other level can be enjoyed as a covered porch. Ideal for meditation retreats, yoga practice, and peaceful contemplation of natural surroundings. Deer are frequent visitors and Wild Turkeys nest here.
- 8) **CHESTNUT GAP:** Provides scenic panoramic views of East Tennessee, the Great Smoky Mountains National Park, Blue Ridge Escarpment, Mt. Pisgah, the Black Mountains, and Asheville looks like a tiny village nestled along the Banks of the French Broad River! Views of the Center's protected wildlife habitat and ecological sanctuary of the headwaters of Willow Creek can be seen across the Big Sandy Mush Creek valley.
- 9) **BIG SANDY MUSH BALD:** The highest elevation in the Newfound Mountain Range, 5,152 feet. Nesting birds along the ridge include Red Tail, Broadwing, Sharpshinned, and Cooper's Hawks.
- 10) **POUND CABIN:** Built in 1980 with direct gain passive solar design. Insulated slab on grade foundation with north wall of insulated concrete to provide thermal mass for building. (Private residence)
- 11) **TROUT POND:** Cool breezes flow down the creek to make this the place to be on hot summer days! Especially when taking a break from abundant berry picking! 1,000 pounds of Brook trout can be raised here each year with normal precipitation patterns. Picnic tables for everyone's enjoyment.
- 12) **CORDWOOD SAUNA:** Native field Stone foundation with cordwood masonry super-insulated walls. Cordwood represents an excellent building material from the Southern Appalachian's most abundant timber resources.
- 13) **UPPER BLUEBERRIES:** Planted at the turn of the Millennium on hand-made terraces next to the Pond. These are the daughters of our Mother Blueberries. Plants available for donation.
- 14) **RASPBERRIES:** Heritage Variety Red Raspberries are everbearing, with two crops per season. Crop comes in around mid-June and goes for about a month, and the second crop comes in around mid-September and will go until frost. Plants available for donation.
- 15) **HEIRLOOM APPLE NURSERY:** We are raising over 52 different varieties of old-time apples, and are always on the lookout for other unique varieties. We obtain cuttings from these ancient trees and graft them onto semi-dwarfing rootstock. Tree seedlings available for donation.
- 16) **ORCHARD HOUSE:** Energy-efficient Passive solar design with insulated slab on grade foundation. Many native and salvaged materials used in construction. (Private residence)
- 17) **BLUEBERRY PLATFORM:** A 16x16 foot platform for tent camping at a beautiful location overlooking the creek and several ancient rock outcroppings and a small cave. Exceptional spot for yoga, meditation, and birding. Excellent views especially when the leaves have fallen!
- 18) **EDIBLE FOREST GARDEN:** Integrated Food Forest with a broad diversity of edible species -- apples, peaches, pears, cherries, plums, nectarines, Hall's Hardy Almonds, and backcrossed hybrids of the American Chestnut. Terraces for soil and water conservation allow for a two-story agriculture design, also known as alley cropping. Terraces can also be used for growing small grains and/or vegetables in conjunction with fruit and nut trees.
- 19) **BLUEBERRY TERRACES:** The bushes transplanted here come mainly from our Upper Blueberries, which are the offspring of our Mother Blueberries. Thus, these bushes may be considered our Mother Blueberries' Granddaughters and Great-Granddaughters!
- 20) **MOTHER BLUEBERRIES:** Planted in the late 1970s, these bushes share with us the blessings of the Blueberry Ecology and the Blueberry Economy -- Nature indeed teaches abundance and generosity!
- 21/22) **AMERICAN CHESTNUT NURSERY:** Seedlings in this nursery are the backcrossed hybrids of the American Chestnut. 75% American and 25% Chinese heritage. Tree seedlings available for donation.
- 23) **COMMUNITY CENTER:** Built in 1974, featured in Eugene Eccli's book, Low Cost Energy Efficient Shelter for the Owner and Builder (Rodale Press, PA, 1976). Features include wood-fired water heater, Cinva-Ram bricks used in Finnish Contra-Flow Masonry Heater, clerestory windows to bring natural daylighting to the northern section of the building, and composting toilet. With attached greenhouse featured by architect Darryl Strickler in his book, Passive Solar Retrofit: How to Add Natural Heating and Cooling to Your Home (Van Nostrand Reinhold Company, NY, 1982). Features include site-built thermopane windows. Placement of greenhouse below building allows for natural thermocirculation and heating of Community Center.
- 24) **BARN:** Built of native wormy American Chestnut lumber, it originally served as an old tobacco barn, now used for tool and equipment storage and recycling center. Upstairs areas are retrofitted into the rustic "Long Branch Hilton."
- 25) **FARMHOUSE:** A state-of-the-art conservation retrofit was completed on the Center's oldest building, constructed in 1917, showing that older housing stock can indeed be made more energy-efficient through applied conservation efforts. Site-built thermopane windows made of salvaged glass installed on the south and west sides to bring in more light. Some interior walls were removed to bring a feeling of greater spaciousness. (Private residence)