

# A House for All Ages



An energy-efficient farmhouse offers single-floor living wrapped in low-maintenance, charming detail

BY DUNCAN McPHERSON

As an architect, I'm often handed a list of clients' needs and desires and charged with incorporating them into their new home. What clients often can't supply is a clear, accurate vision for their future needs. In this regard, retirement-age clients present a unique set of design challenges. They often plan to live in their new home for the rest of their lives, but they are unsure how their needs and their

lifestyles will change over the time they'll be in the house.

When Mike and Jo Ray approached Samsel Architects—the firm I work for—to design their retirement home, they had bought a piece of pastureland adjacent to Ivy Creek Valley in the mountains of western North Carolina. Through a carefully arranged layout, smart material choices, and an energy-efficient construction approach,

we created a home that accommodates their lives now and that will do so into the future.

## **Single-floor living makes the home accessible**

Reacting to the site's sloping topography, we designed the house (photo above, taken at A on floor plan) to be a narrow 20 ft. across, which enables single-room layouts of the main living spaces. Daylight fills the home

## BEST RETIREMENT HOME

Our award for best retirement home goes to Duncan McPherson for the farmhouse he designed in Mars Hill, N.C. The accessible floor plan, brought to life with a palette of simple, attractive, and durable materials, makes this home an exceptional example of sensible design.

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on two and sometimes three sides. The narrow footprint also provides at-grade access to the main level from the front entrance.

The main level is organized into two zones. The master suite at one end of the home includes a small office and a laundry/storage area, while the public end of the home is occupied by kitchen, dining, and living spaces. The two zones are divided by an entryway that also serves as a library. The bookshelves

bring an added layer of functionality to the entry space and keep it from feeling like an empty, boring hallway. A modern, open layout of all the spaces makes them feel larger than they are and helps to take advantage of the expansive southern views and sunlight.

The clients knew that they would want to use their new home to entertain. Locating all the primary spaces on the main level allows for ease of accessibility for the own-

ers as well as for any guests who may have limited mobility. With this in mind, three outdoor spaces—a covered porch, a terrace, and a screened porch—also were designed to be accessed easily from the main public zone.

### **A flexible design lets the house evolve over time**

Helping the clients to consider and address their future needs as well as their current

## A WELL-DEFINED, ACCESSIBLE KITCHEN

Lowering the ceiling over the kitchen distinguishes the space from the rest of the living area. This makes the kitchen, which was designed with a 4-ft.-wide circulation path around the island, feel more intimate, and it provides opportunity for task and ambient lighting. Concrete countertops and maple cabinets with hardware that allows a four-finger grip create a low-maintenance kitchen that's easy to work in. Photo taken at B on floor plan.



ones was vital in designing a house that they could grow into. Early on, we identified the design and building elements to be integrated into the home immediately as well as those that could be installed with minimal cost if they were needed later. For example, the clients are active and able in their lives now, but solid-wood blocking was installed in critical areas of the bathroom to allow for the addition of grab bars. A curbless shower with less than a 1/2-in. transition between shower and bath floor provides easy wheelchair access. Light switches are 40 in. above the floor, and thermostats are wired so that they can be lowered easily and accessed from



## A SIMPLE LIVING SPACE FROM A HARDWORKING DESIGN

The simple look of the open kitchen, dining, and living space is the product of hardworking design details. Thin cables replace bulky wooden rafter ties to increase the visual height of the room, which is important in spaces that are this narrow. Instead of drywall, locally sourced pine is used to clad the ceiling, which brings down the perceived scale of the room and adds a bit of warmth to make the space feel comfortable. Traditionally proportioned windows are used on the front of the house to help define its style, while large expanses of glass are used on the back of the house to bring in lots of daylight and southern views. Two doors placed to the right and left of a built-in entertainment center help to create an easily navigable circulation path from the kitchen to the screened porch, two of the busiest spaces when entertaining guests. Photo taken at C on floor plan.

a seated position if needed. These and other features are essentially invisible and lead to a home that feels anything but institutional—a concern for those considering building their retirement home.

The house was designed with two primary bedrooms, but by using multifunction spaces, it can sleep six to eight comfortably. Angling the house slightly across the sloping site allowed for a lower level with abundant daylight access through large windows and direct, no-step access to a lower patio. This lower level has a storage room, a guest bedroom and bathroom, and a flex space that currently serves as a craft room, recreation

room, and overflow guest room. Spaces that can support a variety of uses, including accommodations for live-in help, enable the house to remain highly functional over time.

The lower level of the house offers another benefit as well. Retirement often means spending far more time inside and with spouses and partners. It's important to create spaces that give each person a place for retreat when seeking privacy or solitude.

### **A fixed income demands an efficient, durable design**

Financial security is an important consideration in both the short and long term when

you're investing in a house, especially at retirement age. The clients wanted to minimize their utility costs over the long term while still working within their budget on up-front costs.

The home is designed to maximize solar-heat gain in indoor spaces. An airtight building envelope, insulated with spray-foam insulation, helps to minimize energy costs. An air-to-air heat pump is coupled with an energy-recovery ventilator (ERV) to reduce heating costs, while a heat-pump water heater saves on hot-water expenses.

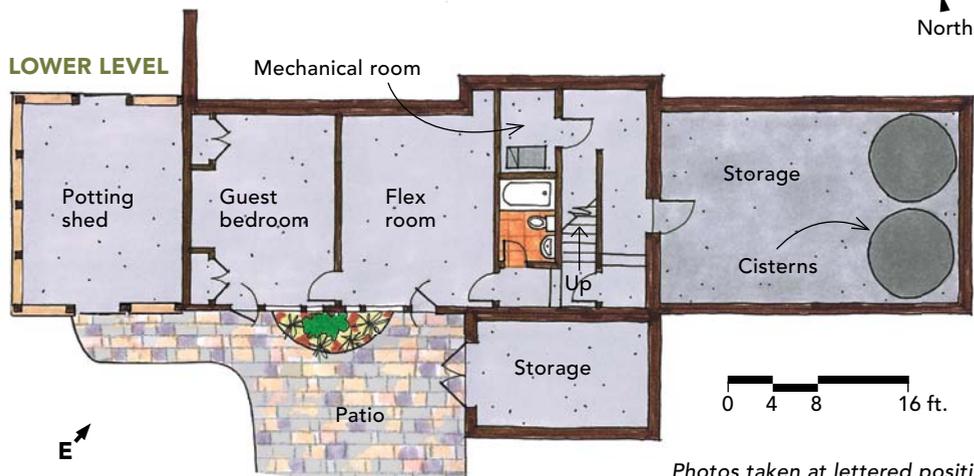
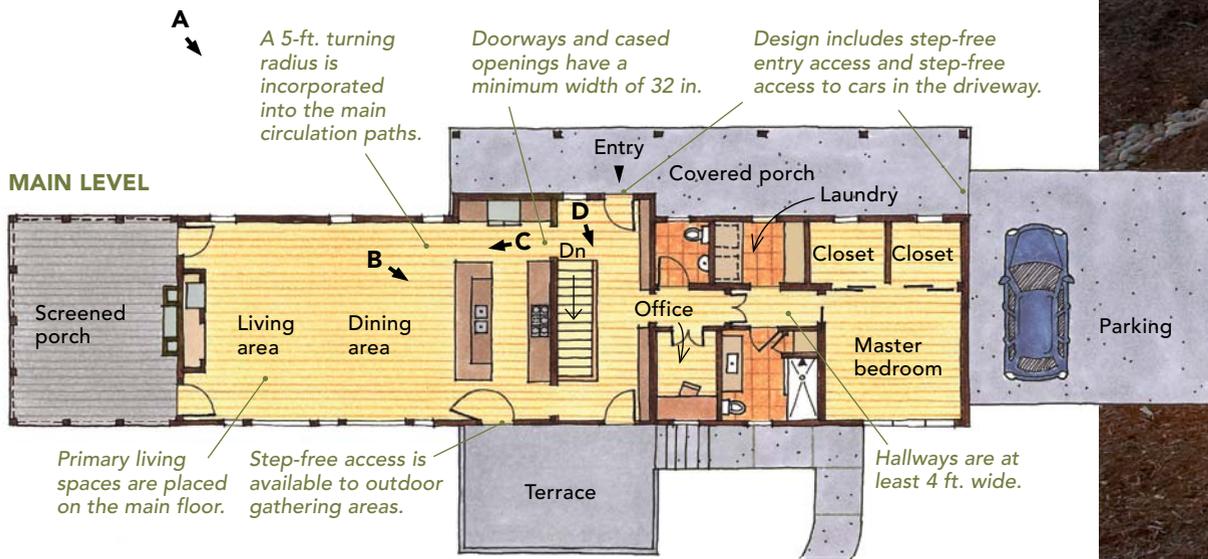
The house had to be efficient from an economic standpoint, but it also had to be





## A FLOOR PLAN DESIGNED FOR ENTERTAINING AND AGING IN PLACE

The entry hall in this home is used to buffer the private end of the house from the public end. Bookshelves bring a practical purpose to what could otherwise be a bleak space (photo left taken at D on floor plan). To create a home that would be functional now and in the future, design principles in accordance with the Americans With Disabilities Act (ADA) were integrated into the plan. ADA design principles typically are used to meet code requirements for wheelchair access and accommodation of other disabilities in commercial and public spaces. In residential design, fundamental elements of ADA are incorporated into a home initially—some of which are highlighted here—and allow the house to accommodate full ADA design when needed.



Photos taken at lettered positions.



### SPECS

**Bedrooms:** 2, plus a flex room

**Bathrooms:** 2½

**Size:** 2460 sq. ft.

**Cost:** \$240 per sq. ft.

**Completed:** 2009

**Location:** Mars Hill, N.C.

**Architect:** Duncan McPherson, Samsel Architects; [www.samselarchitects.com](http://www.samselarchitects.com)

**Builder:** Blue Ridge Energy Systems

*Stretched across its site.* The southern elevation displays bottom-floor functionality. A patio accessed from the flex room sits adjacent to a storage room beneath the main-floor terrace. A potting shed under the screened porch elegantly hides gardening supplies. Photo taken at E on floor plan.



durable to reduce long-term maintenance needs and expenses.

Controlling moisture is a crucial step in making a building durable. We used water-collection and site-drainage techniques—including two 2000-gal. cisterns and a rain garden—to help keep surface water and groundwater away from the foundation. The metal roofing, large overhangs, and aluminum-clad windows protect the house, while fiber-cement siding and trim installed over a drainage plane provide a durable

exterior shell that still allows the house to breathe. Ventilation through the ERV helps to ensure effective indoor-moisture control.

The screened-porch flooring is durable ipé, and the front porch and back terrace are concrete slabs requiring minimum maintenance and long life spans. Cork, concrete, and maple floors are used throughout the interior, along with custom maple cabinets and concrete countertops built by local craftsmen. This palette of materials provides a durable, low-maintenance, and easy-to-clean house

that the clients can enjoy and be comfortable in for the rest of their lives. □

Duncan McPherson, AIA, is an architect at Samsel Architects in Asheville, N.C. Photos by Rob Yagid, except where noted.

**Design video:** Scan here or visit [FineHomebuilding.com](http://FineHomebuilding.com) for an inside look at this home and those behind its design.

