

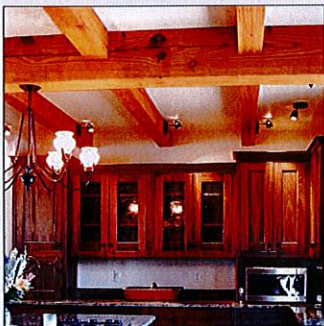
Your Projects

Sound Check

Tips for keeping noise levels down in an open floor plan

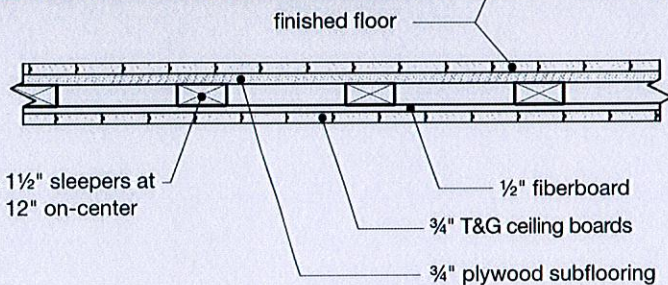
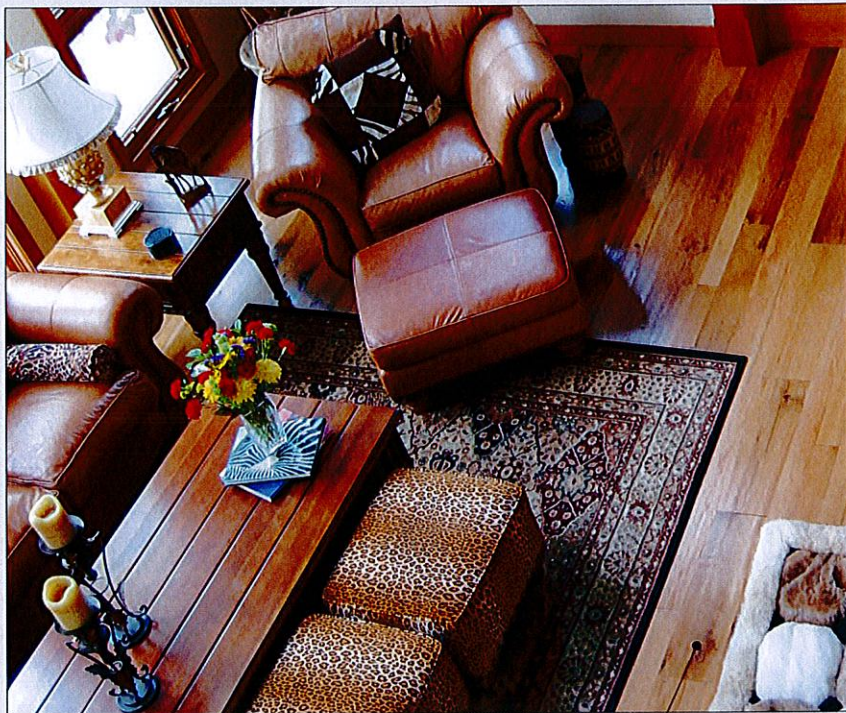
Open floor plans provide more visibility and flexibility, but a home can be much noisier once walls are removed. Dampening sound transmission is particularly challenging in the timber-frame structures that are the stock in trade of New Energy Works, in Farmington, N.Y.

As Ty Allen, the design group manager, explains, there are two main approaches to keeping sound at bay: treating floor, wall, and ceiling surfaces during construction; and through architectural elements. —*Stacey Freed*



CEILING

In a timber-frame structure, most clients want to see the exposed timbers, as well as the tongue-and-groove wood ceiling boards the company typically uses. When they do place drywall on the ceiling (above), texturing the surface helps to deaden sound. In new construction, the company sometimes uses a built-up floor system to deaden sound transmission between floors (see detail at right).



FLOOR

Hard-surface wood or tile floors present a challenge because they reflect sound rather than absorb it. One solution is to use area rugs and soft furnishings to reduce the amount of sound reflected off the floor.

In timber frame construction, sound transmission from one story to the next can be a problem. In new construction, New Energy Works sometimes uses a sleeper system (see illustration above) that adds a sound-deadening underlayment and an air space to reduce noise from foot-traffic. This detail can be adapted to a remodeling project, provided the added floor thickness can be resolved at exterior doors and room transitions.

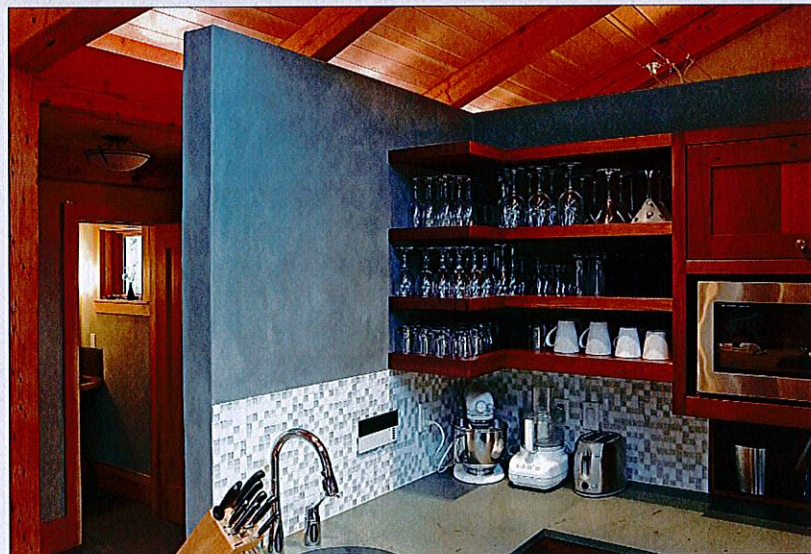
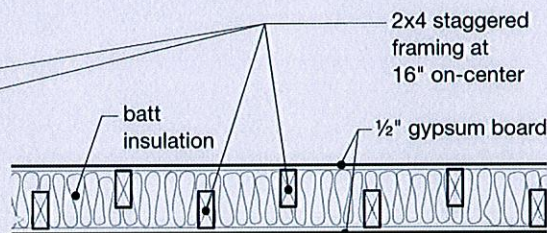
Photos: courtesy New Energy Works

WALLS

To separate, visually and audibly, one area from another in a large open interior room, New Energy Works often uses half-walls or partial walls, or a woodwork element such as lattice or slatwork, to break up site lines and soften sound transmission (see photo at bottom). Applying ½-inch-thick fiberboard panels over dry-wall will deaden sound transmission even more, and the finish surface can be papered, painted, or faced with fabric.

To reduce sound transmission through a wall between rooms, New Energy Works sometimes builds a 2x4 wall using 2x6 plates, staggering the studs and filling the stud bays with insulation (see illustration below). This effectively interrupts the path of sound as it travels through the studs and wall cavities.

Additional measures can help raise a wall's STC (Sound Transmission Class) to as high as 55. In a *Journal of Light Construction* TV video, *The Basics of Sound Control*, drywall expert Myron Ferguson explains how to use caulk and spray foam to fill all voids, including seams between plates, the space between the bottom plate and the subfloor, and holes used to run electrical wiring. To combat the sound short-circuit created by electrical boxes, Ferguson wraps each box with ⅛-inch-thick mass-loaded vinyl membrane and fills all empty openings in the box. A similar sound-deadening membrane can be used to wrap PVC or cast-iron drain pipes passing through a stud bay. Final steps include adding batt insulation and stapling a layer of mass-loaded vinyl over the entire surface before installing the drywall.



Inspiration Ahead

Pantone offers its 2011 color forecast.

According to Pantone, a provider of professional color standards for the design industries, the color trends for 2011 include grape, deep periwinkle blue, cadmium green, antique moss, and gold, silver, and copper metallics. Pantone forecasts nine color palettes for home furnishings and interior design.

The nine palettes for 2011 include:

Simply Stated: dusty rose, avocado, antique moss, deep periwinkle blue, warm taupe, and angora white.

Style and Substance: jet black and metallics of gold and silver, subtle blue and frosted gray, purples, and wine-ish brown.

Clarity: cool blues and greens, pure white, mystical mauve, violet, and Tibetan red.

Fragments: amber, grenadine red, hot pink, baked clay, citron, grape, cadmium green, and bright gold.

Mixed Media: deep teal, aqua, ermine, ochre, berry, metallic gold, copper, and frosted almond.

Designers can purchase "Pantone-View home + interiors 2011," a guide that includes swatches of the 77 forecasted colors, at www.pantonepaint.com and at Pantone Paint retailers nationwide for \$195. —Nina Patel