



Construction With a Conscience

Building and demolition take a toll on the environment. Here's how you can reduce damage—and your bottom line

by Keith Pandolfi

Introduction

First, do no harm—or at least do as little harm as possible. Rob Moody may not be a physician, but his approach to home construction echoes the doctor's creed. That's why Moody, owner of the EcoBuilders in Asheville, North Carolina, starts every job by setting up nylon silt barriers reinforced with hay bales to prevent upturned soil from running into local sewers. Then he and his eight-man crew fence off trees in the yard at the drip line to protect delicate roots, throw down a gravel walkway so they don't track contaminated dirt into the house, and set out as many 12-foot trailers as it takes to accommodate recyclable building materials.

But the company, known for its dedication to maintaining green-as-can-be job sites, goes even further, using FSC-certified lumber whenever possible, buying paints and sealants with low levels of volatile organic compounds (VOCs), and—here's how you know they're serious—setting up a composting porta-potty. "We have an employee handbook that details everything," says Moody. EcoBuilders even uses vegetable-oil or biodiesel-powered trucks and equipment (and gives preferential treatment to any subcontractors who do the same). "All of my guys are dedicated to the cause," Moody says.

Commitment like that comes at a price. Because green products and processes tend to be more expensive, Moody charges 5 to 10 percent more than comparable non-green contractors. But that hasn't stopped him from quadrupling his revenues in the past year. "You can build green on any budget," he says. "You just have to figure out how far you're willing to go."

Green's Cost Benefits

Increasingly, homeowners are taking extra steps to make sure their additions and renovations are as nonpolluting, energy-efficient, and waste-reducing as possible. And while some measures, like hiring a professional "deconstruction" team, can add to the bottom line, others, such as reusing discarded building materials on-site, can actually save you cash.

And then there's the feel-good factor that comes from knowing you've done your best to respect the earth's resources. Two years ago, Stephen Beili hired Moody to build a 1,400-square-foot house that Beili had designed. He was impressed by the contractor's willingness to preserve as many of the site's trees as possible. He also liked the fact that Moody didn't haul in a Dumpster until the project was nearly finished. "He took everything away in his pickup truck to be recycled—wood, metal, and plastic—so we never needed one."

Beili was willing to trade off a few luxuries to build a house that lives in peaceful coexistence with its plot of land. "I had to give up the hot tub, which was hard," he

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says. But in the end, he adds, he's just as happy looking out the window at the abundant plant life that survived the construction as he would be immersed in whirlpool bubbles.



Illustration: Dan Page

As Beili discovered, one of the easiest and most cost-effective ways to green up a job site is by recycling. "Almost everything can be recycled in a big remodel—fixtures, flooring, sinks—all of it," says Kim Masters, a green-building consultant in Boulder, Colorado. Local recycling centers and national organizations like Habitat for Humanity's ReStores will pick up donated materials, saving you the cost of discarding them. If you're doing demolition, consider hiring a deconstruction expert rather than a demo company to ensure that salvageable materials survive intact. According to the ReUse People, a California building-salvage group, deconstruction can cost up to \$10,000 more, but you can offset the expense, or even come out ahead, by donating materials to a nonprofit for a big, fat charitable tax credit.

Even cheaper than recycling is reusing materials on-site. You can reinstall those old kitchen cabinets in your basement workshop, for example, or use discarded insulation to beef up what's already in the attic. Untreated wood, drywall, and cabinetry can all be used again, cutting down on waste while saving on materials fees.

"There are a lot of cost benefits in maintaining green job sites, but most people don't recognize them," says Brian Yeoman, a green building expert with the Houston Advanced Research Center. In his area, for example, it costs a contractor about \$14 a cubic yard to dump construction waste into a landfill. But for about \$125 an hour, he can rent a mobile grinder that will chew up and spit out discarded building materials on-site. The difference in cost can be offset by using ground-up wood instead of commercial silt fences to control run-off, pulverized drywall for a pH-balancing soil amendment, and ground brick as a driveway base or gravel garden.

Sooner or later, green job sites might become the norm for all builders, as concern for the environment increases, says Ray Tonjes, a builder in Austin, Texas, and chairman of the National Association of Home Builders' Green Building Subcommittee. Tonjes applauds the practices of eco-builders like Moody, but he's aiming his efforts squarely at the mainstream. "After all," he says, "if you can get 100,000 builders to start thinking about [green practices], you can start to achieve market transformation. And that's a real benefit with real effects."

Soon we may be forced to build green. In 1978, there were about 20,000 landfills accepting construction waste in the U.S. Today it's down to 3,091.

What You Can Do

Here are a few commonly recycled building materials. To find a recycling organization in

your area, consult the local Yellow Pages or the Construction Materials Recycling Association at www.cdrecycler.com.

- **Wood** Untreated wood can be shredded up for mulch, animal bedding, playground cover, or composting material, or it can be reused on-site in construction.
- **Drywall** Can be ground up for on-site use as a soil amendment.
- **Concrete** Can be used as an aggregate for new concrete for roads or buildings. On-site, it can be ground and used for backfill or as a sub-base for driveways or sidewalks.
- **Asphalt Shingles** Can be used for hot-mix asphalt, or as dust control on temporary roads. They can also be recycled into new shingles.

Where to Find It

Green builders:

The EcoBuilders Inc.
Asheville, NC
828-337-0623
theecobuilders.com

Ray Tonjes Builder Inc.
Austin, TX
512-258-6691
raytonjesbuilder.com

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