NOTEBOOK

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Creative Solutions to Job-Site Waste

by Kathy Price-Robinson

t's said that the cost of getting rid of job-site waste currently averages about half of 1% of the total cost of most jobs, or about \$500 for a typical house. Given dwindling space in existing landfills and public opposition to the construction of new ones, that figure seems likely to increase. At the same time, some jurisdictions are beginning to enact "trash rationing" ordinances.

A few months ago, for example, contractors in Arroyo Grande, Calif., found themselves faced with a new hoop to

jump through in order to pass final inspection on their projects: to prove that they diverted 50% of their job-site waste from local landfills via reuse or recycling. Builders who don't comply with the new ordinance can be fined 2% of the project's cost. The city's action came in response to a decade-old initiative by the state to reduce landfilled waste by the same percentage — a goal that was to have been reached by the end of last year. Confronted by a long-running building boom that increased construction and demolition waste by more than 25% in the last two

years alone, the city had little choice but to put the squeeze on builders.

Crisis or opportunity? In response, builders and remodelers who have seen the writing on the wall are already searching for cheaper and more efficient ways to get rid of waste. For some, this can involve fairly sweeping changes, such as substituting deconstruction for standard demolition (see "Deconstruction Comes of Age," Notebook, 5/01). Others, however, are finding that even minor changes in the way they do business can mean significant additions to their bottom lines.

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Galvanized Pipe No Match for Aggressive Water and Lawyers

omes in the Santa Clarita valley north of Los Angeles have long been plagued with plumbing leaks caused by aggressive water. "In Santa Clarita, copper can develop pinholes in less than a year," says Bob Kennedy, an estimator at Kennco Plumbing in Lancaster, Calif. "I've been a plumber here for 40 years, and aggressive water has always been a problem."

When plumbers realized that copper wasn't holding up, they looked for an alternative material. "In the late sixties, they switched to galvanized," says Rob Kennedy, Bob Kennedy's son and the owner of Kennco Plumbing. "I honestly believe that the builders were trying to do the best thing

In some areas of California with aggressive water, plumbers installed galvanized water pipes in the hope that the galvanized steel would resist corrosion better than copper. When the galvanized pipes began to develop leaks, homeowners filed a class-action lawsuit against several plumbers and builders. The homeowners won, to the tune of \$41 million.



they could at the time. There weren't any cost savings, because the galvanized costs more than copper."

It took several years for plumbers to realize that aggressive water also attacks galvanized steel. When the galvanized pipes in thousands of area homes began developing pinhole leaks, lawyers filed a class-action suit against ten builders and eight plumbing contractors, as well as several manufacturers and suppliers of galvanized pipe. The pipes, which were installed in the late 1980s and early 1990s, were described by lawyers as "defective plumbing systems." Yet one of the attorneys for the homeowners, Brian Kabateck, a senior partner at Quisenberry

& Kabateck in Los Angeles, admits that "aggressive water was a significant component of the problem."

In late June 2001, a Los Angeles County Superior Court judge ruled for the homeowners, awarding \$41 million to 4,676 plaintiffs. While the average homeowner will receive less than \$7,000, lawyers will receive \$12 million.

In recent years, Santa Clarita plumbers have switched to plastic pipe. "Now we're doing some homes with CPVC, and some with PEX," says Bob Kennedy. "We expect plastic pipe to last as long as the house does."

Creative Solutions to Job-Site Waste

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Recycling. Studies by the NAHB Research Center show that about 80% of a home builder's waste stream is recy-

clable, although custom home builders and remodelers seldom manage to recycle anything like that figure. "Small-scale projects generate small amounts of waste materials, making cost-effective recycling difficult," states an NAHBRC report. However, it adds, cardboard and metals are the easiest and most cost-effective waste materials to recycle, and many builders are learning to do just that.

In St. Johns, Mich., builder Jason Seltin figures he saves a couple of hundred dollars per house in dump fees by dropping cardboard off at the local recycling center. "I've found on an average-sized home I'm getting four to six full-size pickup beds full of the stuff," Seltin says. "Vinyl siding, particularly, produces a lot of boxes."

Rick Stacy, a contractor in Bergen, N.Y., separates out all aluminum and copper and stores it in his barn until the slow season,

when he hauls it to the scrap yard. "It's a bit of work," he admits, "but it brings in \$200 to \$300 for the yearly trip."

Veteran Virginia builder Robert Criner encourages employees to recycle scrap by allowing them to keep the proceeds. One worker, he notes, recently made \$80 by taking old aluminum from a re-siding job to the recycling center.

Take my waste, please. Wood makes up about 25% to 40% of solid waste generated by residential construction, but getting rid of cut-offs and half-

sheets of plywood is not difficult for many small builders and remodelers.

"I keep a pile of scrap lumber and cut-offs and offer them to the homeowner for their fireplace," says Mark "Beezo" Bisig of Home Sweet Home



Soaring waste-disposal costs have builders in many parts of the country experimenting with better ways to deal with construction debris.

Productions in St. Louis, Mo. "And I stay in touch with a couple of families that do a lot of camping. When they need it, I'll haul them a load of scrap lumber for their campfires."

The NAHB Research Center suggests setting up a "free tree" where scrap lumber is stacked for pickup by neighbors. But Jim Eggert, a builder in Branford, Conn., finds that if the material is partially covered, as though it's slightly valuable, it goes faster. "It's amazing what will disappear when

someone thinks you're going to reuse it," he says.

Remodelers face even more challenges in waste management than builders do. Eggert takes old cabinets from kitchen remodels to a local

> church for it to give away. In Virginia, Criner brings cabinets and appliances to the church "building ministry" he helped create, where he donates them in the client's name.

> Reduction at the source. Of course, the simplest way to manage waste is not to create it in the first place, or to make someone else responsible for it. Robert Criner, for example, has his cabinet supplier — Corsi Concepts in Fine Cabinetry in Indianapolis — ship his cabinets packed in shipping quilts, rather than cardboard. The quilts are sent back with the shipper once the cabinets are unloaded.

Peter Dell, a contractor in Yakima, Wash., uses contract language that requires his subs to take care of any trash they generate themselves. "They do it grudgingly," he says, "but they do it."

Rick Stacy occasionally does business with budget-conscious homeowners who agree to handle waste disposal themselves, often by sending out bagged construction waste with their household trash over a period of weeks. "If that's the case, I'll make it clear in the contract that debris removal is not included," he says. "That lets them keep the fee I'd otherwise charge for dealing with it myself."

Kathy Price-Robinson is based in California and writes about home building.

AINING OLDER WORKE

OFFCUTS

Residents of luxury developments often resent the building of any affordable housing nearby, even when it's required by state or county government. But according to the Washington Post, Fairfax County, Va., is seeking to overcome any stigma by encouraging developers to build affordable townhouse units that closely resemble surrounding single-family homes. In one development mentioned, the four-unit townhouses have a single front door; the remaining doors are hidden on the sides of the building. "Luxury buyers want everything their neighborhood touches to feel good," said a spokesperson for the developer. "This fulfills their expectations."

Second homes could be the growth industry of the future, if predictions by the National Association of Realtors are borne out. According to the NAR, 415,000 second homes were sold in the U.S. last year, up 40% from the total five years earlier. The association predicts that more than one million new vacation houses, condos, and townhouses will have to be built in the coming decade to satisfy the needs of prosperous baby boomers.

The W.H. Maze Co. has purchased the assets of the Dickson Weatherproof Nail Co. A former Maze competitor in the specialty nail industry, Dickson has manufacturing plants in Houston, Tex., and Libertyville, Ill. Maze will move Dickson's machinery and equipment to its own plant in Peru, Ill.

A merger between home builders
Pulte Homes and Del Webb
Corporation has made Pulte the nation's largest home builder. The merger became final on July 31 and results in a company with over \$6 billion in annual revenues and 37,000 closings in the U.S., Argentina, Mexico, and Puerto Rico.

The so-called graying of the construction work force — a gradual increase in its average age as fewer young workers enter the field in place of retiring older ones — is a well-known side effect of the continuing labor shortage. Ironically, it now appears that one promising program aimed at deepening the labor pool will also make it a little grayer.

For the past few years, the Home Builders Institute — which describes itself as the educational and training arm of the National Association of Home Builders — has been training economically disadvantaged older workers to build and repair housing. The CRAFT program is conducted in partnership with the National Council on Aging and the U.S. Department



An innovative construction-skills training program for older workers may help ease the chronic labor shortage. Here, trainees at the San Antonio SKILLS program learn to install fiber-cement siding.

of Labor and provides enrollees with 2 weeks of classroom training, followed by 12 weeks of work in the field. So far, the training is offered at sites in Phoenix, San Antonio, and Lantana, Fla.

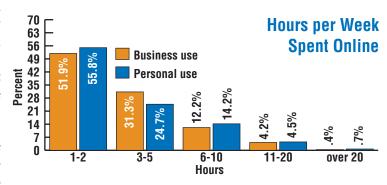
According to HBI spokesman Dennis Torbett, the program includes both men and women, who range in age from 55 to well over 70. A few have some previous construction experience, while others are former farm workers. Still, Torbett observes, they have one important attribute in common. "These are people who already have a strong work ethic," he says. "They may lack training, but they understand the importance of getting up in the morning and going to work."

Instructor Mark Price, who teaches the SKILLS course in San Antonio, has for several years taught a curriculum aimed at training workers for building and apartment maintenance. The vast majority of program graduates have found work in that area, but additional course offerings may not be far off. "Builders in our area are desperate for framers," he says. "We're in the process of working on a curriculum right now, and we hope to have a framing program up and running sometime this fall." For further information on the SKILLS program, call Dennis Torbett at 800/795-7955.

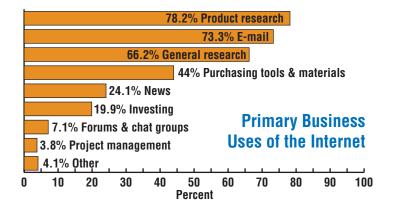
Survey Spotlights Reader Internet Preferences

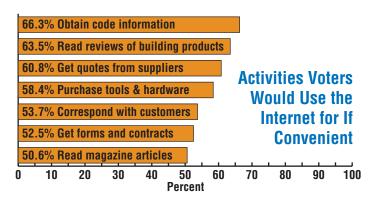
ow are builders currently using the Internet, and how do they see themselves using it in the future? Some aspects of that question have been considered in these pages before (see "Builders Go Online," *Notebook*, 7/01), but the detailed information provided by a recent survey of *JLC* readers suggests that builders are using the Internet in a variety of ways:

- Of about 350 readers who responded to the survey, more than 85% use the Internet for both business and personal reasons. (By comparison, 58% of all Americans have Internet access in their homes, according to a recent survey by the Nielsen/NetRatings service.)
- Internet use apparently isn't as much of a time waster as it's sometimes thought to be. Well over half of all respondents claimed to spend only 1 to 2 hours per week logged on to the Internet for business purposes. Less than 15% would admit to logging on for 6-10 hours a week, and less than 1% owned up to 20 hours a week or more. In all but one category, the figures for personal use were slightly higher. (The Nielsen/NetRatings survey found that the average home Internet user spends well over 10 hours a week logged on.)
- Nearly 30% of those who responded to the survey have their own company websites. Marketing was by far the most common use of company websites, although more targeted uses were also tallied, including showing progress photos to clients and posting job schedules.
- More than 95% of respondents reported using a desktop computer, with about 25% using a laptop. Handheld devices were used by a little more than 13%.
- Product research topped all other uses of the Internet, followed closely by e-mail, general research, and purchasing tools and materials.
- Many builders would apparently be willing to use the Internet much more extensively than they do at present. At least half of all respondents indicated that they'd be likely to take part in a broad range of activities if it were convenient, from obtaining code information to getting quotes from suppliers and reading magazine articles.









OFFCUTS

Freddie Mac and McDonald's have launched a joint effort to encourage home ownership in minority and low-to-moderate-income communities, according to *Inman News Features*. Financial giant Freddie Mac will equip 25 fast-food restaurants in the southeastern U.S. with personal computers capable of providing quick-click access to Internet-based home ownership and credit management information. The selected restaurants will be located in neighborhoods where many residents lack online access in their homes.

Pozens of tenants had to be evacuated from a New York City rooftop after a contractor removed three flights of stairs from a five-story walkup apartment building without any advance notice. A story in the New York Times noted that contractor Wilfredo Heredia of Heredia Iron Works in Manhattan had also failed to obtain a building permit. The mayor's office issued an emergency building permit to replace the stairs, paving the way for the evacuated tenants to return home.

North American OSB production is poised for a substantial jump in 2001, according to the forest products newsletter *Random Lengths*. Output is expected to increase from last year's 19.99 billion square feet (³/₈-inch basis) to 22.59 billion square feet, thanks to the opening of new plants in Fordyce, Ark.; Hugeley, Ala.; High Level, Alberta; and Hudson Bay, Saskatchewan. An existing plant in Cook, Minn., has also added 200 million feet of new production capacity.

Employees of the Massachusetts Division of Fisheries and Wildlife illegally bulldozed two asbestos-containing buildings at a remote wildlife management area and covered the area with dirt, apparently in a misguided effort to save money. "It reads bad. It looks bad. It's serious," an agency spokesman reportedly told the Boston Globe. "But we did not set out to flagrantly disregard environmental laws."

ROYAL FLUSH

ings and queens may have nicer-looking bathrooms than the common people, but they're pretty much like the rest of us once they



step inside and close the door. That seems to be the inspiration behind the elegant hardwood commode covers from the Throne Room, which are said to be easily cleaned and attach in minutes with only a screwdriver. The Classic model shown here retails for about \$2,800 (two additional models, the Queen Anne and the Adirondack, are comparably priced). If raising the necessary revenue means piling additional taxes on the peasants, well, let's just hope they don't show up at the royal palace with their scythes and pitchforks. For more information, call the Throne Room at 561/221-7667.

ICBO Issues Correction on Galvanized Fasteners in PT Lumber

lthough manufacturers of pressure-treated wood uniformly recommend using hotdipped galvanized fasteners in lumber that will be left exposed to the weather, that's generally seen as unnecessary in protected applications. That distinction was spelled out in the 1994 edition of the Uniform Building Code, which mandated the use of hot-dipped fasteners (or much more costly, little-used stainless-steel, bronze, or copper fasteners) in preservative-treated wood but granted an exception for wood not below grade or exposed to weather. That left builders free to use bright steel fasteners and ungalvanized anchor bolts with the treated bottom plates often used in slab-ongrade construction. In the 1997

edition of the *UBC*, however, the exception disappeared, leaving some builders scratching their heads.

An exchange of letters between the ICBO and the Western Wood Preservers Institute has clarified the situation. "It was an inadvertent omission," says ICBO Technical Services Administrator Paul Armstrong. "The exception should have been included, but somehow it didn't make it into the 1997 edition." A correction has been published on ICBO's website and will appear in future printings of the code book. In the meantime, builders in areas regulated by the UBC may want to discuss the situation with their local inspector to avoid possible misunderstandings and delays.