

COST-CUTTING TEARDOWNS

New research shows how clever use of demolition materials can greatly defray infill costs, at the same time easing environmental impacts.

AS URBAN INFILL CONSTRUCTION BECOMES EVER MORE DESIRABLE, many builders fear the “hidden” costs associated with demolishing and trucking away old factories, warehouses, or derelict housing. According to Amy Bauman, founder of greenGoat, a Somerville, Mass.-based consulting firm, however, those fears can largely be put to rest—if builders practice smart “deconstruction” techniques. Bauman used a Massachusetts EPA grant to examine the financial benefits to contractors who use recycling and salvage during their infill teardown phase. Using several case studies, she found that by taking advantage of little known recyclers and tipping fee savers, developers can save big money on knockdown costs.

“Typical demolition is done in an extremely tight timeframe,” Bauman notes, “but with a little extra planning, the company can benefit and so will the environment.”

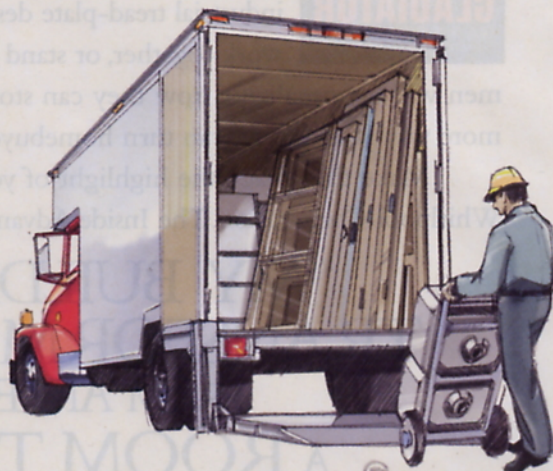
Specifically, that planning calls for creation of a recycling plan, along with identifying materials with intrinsic value, such as brick, timber, and iron. And, of course, a detailed timeline of removal, packaging, and shipping. One mistake builders often make: They group the whole demolition process together. Result: excessive landfill fees and missed opportunities.

“Deconstruction is nothing more than construction in reverse,” notes Bauman. “You need to think of taking away the building in layers.” Here’s a down and dirty checklist to consider on your next infill project. **B**

BY MATTHEW POWER
ILLUSTRATIONS BY HARRY WHITVER

1. CLEAN HOUSE

Before bringing in the wrecking ball, get out the cat’s paw. Make a careful inspection of the building’s interior. Remove all appliances, doors, sinks, along with architectural moldings, tin ceilings, and wainscot panels. Sort them at ground level. These items can either be sold to a salvage firm or donated to a building resource center. The latter may be your surest financial perk, because each item can be claimed for a tax credit.



5. SELL THE SLATE

Slate and tile roofs never die—they just outlive their underlayments (and their fasteners). Companies such as Vermont Recycled Slate will come and remove your slate roof and pay you a fair market value. Tile can be resold “as is” or donated for tax credit. Asphalt has no resale value, but some municipalities offer a discount if you deliver “clean” asphalt roofing (no wood or other debris) that can be recycled into road paving material.

2. RECYCLE CARPET & CEILINGS

Some companies—most notably DuPont—offer reclamation deals in which they will take away old carpets for free and recycle them, provided you purchase new carpets from them. Armstrong has a deal with even fewer strings attached. Because it uses so much recycled content in its ceiling tiles (up to 78 percent) it is happy to take away truckloads of old commercial ceiling tiles for less than \$12 per palette, as long as the tiles are stacked on pallets to the company's specifications. Compare the numbers: a 30-cubic-yard dumpster holds between 6,000 and 7,000 square feet of tile. You rent the rolloff, pay delivery and pickup fees, and pay a tonnage fee. One 4-by-4-foot palette of tile (6 feet high) holds 1,400 to 1,700 square feet of tile and costs almost nothing for disposal.

3. DO SURFACE SURGERY

Even if drywall recycling is not available in your region (visit BUILDER Online for more resource information), many waste facilities offer cheaper tonnage rates for gypsum that has been separated from other debris. Remove old hardwood floors one piece at a time to avoid damaging tongues. A local mill can replane the wood to restore its beauty, or sell it wholesale to a company that recycles old wood, such as Jefferson Recycled Woodworks in McCloud, Calif.

4. CASH IN WINDOWS

While interior work is under way, siding, gutters, and exterior trim can be removed. Of course, structural brick walls cannot come down yet, but veneer surfaces may be removed, along with flashing and windows (weather permitting). The windows may be donated to building material resource centers for significant tax credits.

6. TAKE TIMBERS

Bring on the crane. If you can move the heavy timbers of old roof assemblies intact, they retain more resale value. Dismantle and label them carefully on the ground. Do the same with wall beams once the brick comes down. Have the wood identified by a local timber company. Old-growth timbers fetch about \$1 per linear foot from wood flooring companies. And many builders now specialize in the use of salvaged beams. Identify the ones in your area and give them the heads up.

7. SAVE BRICKS

Now it's time for the walls to come down. But consider deconstruction over demolition, especially if you're dealing with old brick walls. Each intact brick (with mortar removed) may be worth 20 cents or more. In a big building, that figure can more than compensate for the additional labor costs.

8. SMASH AWAY

Here's your chance to hammer away at the problem. Demolish and crush the foundations into small pieces using conventional equipment. Then use what's crushed as solid fill, saving you about \$20 a ton (not including landfill fees you would have paid). If you can't use it, contact a local aggregate company. It may take this debris for free, and save you an enormous tip fee—depending on your region (tip fees are much higher in the Northeast, for example, than in Ohio).

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