



# Looking Closer at Building Material Reuse and Recycling

by Adam Stenftenagel



**E**ver wonder where ReSource gets its materials? They're all donated, but by whom? ReSource receives small donations from people who drop off a door here and a window there, but most of ReSource's inventory comes from deconstruction projects. Deconstruction is an alternative to demolition, in which the house is carefully taken apart by hand in the reverse order that it was built. By deconstructing a house, upwards of 95% of the materials in that house can be re-used or recycled.

In 2005, 170 buildings, both residential and commercial, were demolished in the City of Boulder; ReSource, and its deconstruction contractors, were able to salvage and recycle material from roughly 30 of these buildings. That leaves quite a few homeowners and contractors to be convinced of the importance of deconstruction.

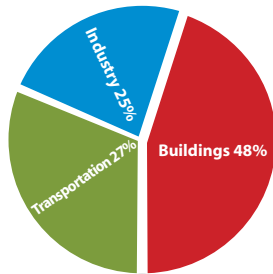
So, how to convince them? First of all, deconstruction makes financial sense. At the first glance, deconstruction seems to cost more than demolishing a house with heavy machinery. However, by donating the re-usable material to a 501(c)3 non-profit organization like ReSource, a homeowner can claim a significant tax deduction. It is not uncommon for the tax break received to completely offset the additional cost of deconstruction.

It is even possible for the homeowner to completely offset the entire cost of house removal with tax breaks.

Second, if the project is within the City of Boulder deconstruction will help earn Green Points towards the building permit. Currently, up to 8 green points are available for deconstructing a building instead of demolishing it.

of these buildings totals 48% of all energy consumed in the United States. A large part of this energy consumption is in the production of virgin building materials.

Locally, demolishing a typical 2,000-square-foot house might generate 150 tons of waste. We know that it's easy to recycle or salvage at least 75% of that same house and in



U.S. Electrical Energy Consumption  
Source: U.S. Energy Information Administration

Finally, the environmental impacts of deconstruction are astounding. According to statistics from the U.S. Energy Information Administration, the largest single contributor to global warming is the building industry. All together the energy necessary to operate industrial, commercial, and residential buildings, as well as the energy needed to produce all the materials that go into the creation



Tons of waste can be diverted from landfills by deconstructing

some cases, recycling/salvage rates of 95% have been achieved. Deconstructing a home could prevent 110 to 140 tons of material from entering the landfill, and return a large portion of that material back into the building material stock.

There are a few potential drawbacks to deconstruction. It does take significantly longer to take a building apart by hand versus bulldozing it, and tax deductions require income to be effective. However, with a project plan that factors in deconstruction from the beginning and a building owner that works for a living, doing the right thing makes a whole lot more sense.

*For more information about deconstruction, or to schedule a site visit, call 303-419-5427.*



Manual denailing at a deconstruction project.



**Before:**  
**Granite wet bar in Aspen**



**After:**  
**Granite in Floyd Mills' kitchen**



## SALVAGE PROFILE

For some of us, the excitement of using salvaged material is in its' history. Knowing the story behind the reclaimed material that we are bringing into our lives allows us to connect with the past and better appreciate the energy within the item. And at the very least, salvage materials make great conversation pieces.

**The material:**

Granite slabs, used as kitchen, bathroom and wet bar countertops.

**The situation:**

A 7000 square foot home in Aspen, Colorado was deconstructed to make room for a 17,000 square foot home. The owner took great care to recycle as much construction debris as possible, which included paying for a crew from ReSource to transport reusable materials to the Boulder sales yard.

**The reclamation:**

Local resident Floyd Mills was thrilled to make the find at ReSource. He installed the granite countertops in his kitchen. Floyd also got creative with some pieces and built an under-the-counter pull out cutting board and dish drain base.