best management practices WASTE REDUCTION



Overview

Deltec Homes takes pride in being "the original green builder." Not only are the homes they prefabricate designed with resource efficiency and energy efficiency in mind, their manufacturing facility also maintains these principles in their day-to-day operations. Deltec continually seeks to reduce the waste they send to the landfill, uses environmentally preferable building materials, and harnesses power from renewable resources. While in pursuit of these goals, they faced a challenge not uncommon to other businesses: what to do with wood scrap? Their volumes of wood scrap were relatively low and, therefore, not as attractive to many wood waste recycling markets. Over time, Deltec Homes has developed a series of creative strategies to reduce wood waste and sends the remaining wood scrap to a variety of recycling outlets.

Wood Waste Reduction and Savings

Deltec Homes is always looking for the most efficient way to use their home construction materials. Lumber is no exception. Any source of excess scrap is re-addressed in the design phase of their homes. On the manufacturing floor, a CNC saw helps to analyze optimal cuts for the most efficient use of the lumber.



Much of the small dimensional lumber scrap that is generated is either used elsewhere in the construction as blocking or recycled into mulch or boiler fuel at a local wood recycling facility.

More sizable lumber scrap has been donated to various organizations such as woodworking training programs and the relief organizations helping to rebuild Haiti in the aftermath of their 2010 earthquake.

One particularly difficult by-product to find a recycling outlet for has been the odd shaped pieces of plywood sheathing. The woodworking training program is able to take the larger pieces. For the smaller pieces, Deltec is currently reviewing options with their supplier to see if they can back-haul the scrap and reuse it in their manufacturing process. Type of Facility:

Manufacturer of Green Prefabricated Homes

Recycling Since: 1968



Recycles: wood, metal, plastic shrinkwrap, strapping and housewrap, office paper, copy toner, cardboard, bottles, cans, batteries, fluorescent lamps, and foam board

Monthly Recycling Stats:

Lumber: 4 tons / month Plywood: 2 tons / month Plastics: 100 cu. ft. / month

Cost of Recycling Services vs. Disposal:

Lumber: 4 times less Plastics: 10 times less Foam: recycled into finished product

Continued on reverse.



Other Solid Waste Reduction Strategies

The walls of a Deltec Home, which are constructed at their manufacturing facility, are often specified to receive supplemental one inch rigid foam board between the plywood and siding. Deltec associates realized that any excess scrap rigid foam board that was trimmed off could be chopped up and inserted into the headers above doors and windows for added insulation, and the associates designed and built a machine to do the chopping. This not only keeps foam plastic from the landfill, but the future homeowners reap the energy cost savings of their well-insulated home.





A local plastics recycler, Smoky Mountain Resource Recovery, takes plastic housewrap, shrinkwrap, plastic banding and five gallon paint buckets. Deltec has reduced the amount of plastic in their waste stream to a fraction of a percent.

Deltec employees also recycle toner cartridges, batteries, office paper, drink containers and other food packaging. Essentially, anything with a viable, local recycling market or mail-back recycling program gets recycled.

Contact Information

Steve Linton, LEED AP Director of Sustainable Technologies slinton@deltechomes.com 828-253-0483



Land-of-Sky Regional Council • Asheville, NC • Phone: 828-251-6622 • Email: wrp@landofsky.org • www.wastereductionpartners.org Triangle J Council of Governments • Research Triangle Park, NC • Phone: 919-549-0551 • wrp@tjcog.org