

## The Future of Modular Homes

BY

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Asheville likes to pride itself on its environmental awareness and cutting edge ecology. In the local spec housing business, this forward thinking philosophy seems to be lagging behind. Most new building (and renovation) still revolves around stick built, traditional construction without much regard for renewable, green solutions. Affordable housing is definitely no exception. ABTech's Carpentry Program is about to shake up this process.

Many people hear the word "modular" and think "trailer" or "mobile homes". This stigma may be part of the resistance about embracing techniques for constructing quality homes that also honor our natural resources. Nearly 40% of the nation's housing is provided in some form by the production or home manufacturing industry. When Department Chair of Construction Management Technologies Ken Czarnomski looked at projects his students could create that contributed to the community, he saw this situation and determined that just more traditional houses were not the answer.

His vision is driving the collaboration with Neighborhood Housing Services (NHS) to help Asheville become more aware of the sustainable future with green, affordable modular homes. His students are working at the Colbond plant, (a site close to the Enka Campus of ABTech) where they are retrofitting a space to begin modular construction of one unit each school year which will then be sold as affordable housing on lots or building sites provided by NHS. Not only will these students be more knowledgeable about these green resources and able to bring this awareness into the work place, they will also be producing something which they can be proud to contribute to their community. The modular or "systems housing" industry is expected to grow, taking on a larger market share each year.

The floor plan for the first unit was designed in partnership with ABTech's Architectural Cad Students and, future concepts will eventually be accomplished in collaboration with National Architecture Students who are exploring new forms of systemized housing. As the project continues, every trade skill that is available will be utilized from the college's own Architectural Cad, Civil Engineering, HVAC, Electrical, Carpentry and Construction Management departments. The production housing industry is a business and students will learn skills needed to manage in tomorrow's workplace. All these contributors will be able to monitor the performance and measurable progress of their contributions with post occupancy evaluations and by driving down a street in Asheville where some lucky family will turn their inspired work into a home.

This sort of long term goal is just the legacy the architect turned instructor has in mind. Working in conjunction with the NC Healthy Home Initiative, WNC Green Council, and Energy Star Rating, Ken has invited the best minds in construction to generate low impact home ideas. The advanced methods they are exploring will result in a stylish, affordable product that achieves less than 5% total construction waste (as compared with 15-20% in traditional approaches).

Their new initiatives explore passive solar by introducing more daylight into the environment, recycling cut offs (from lumber and paneling), and including insulation and

appliances that will lower fuel consumption. These homes will prove that affordable housing does not have to be just a box; it can also be flexible enough to house the future. His goal is to see what we all can do to ensure that there is a sustainable future for the next generation.



AB Tech Model for year 2006 (South yard view)