

By the Time I Get to Phoenix

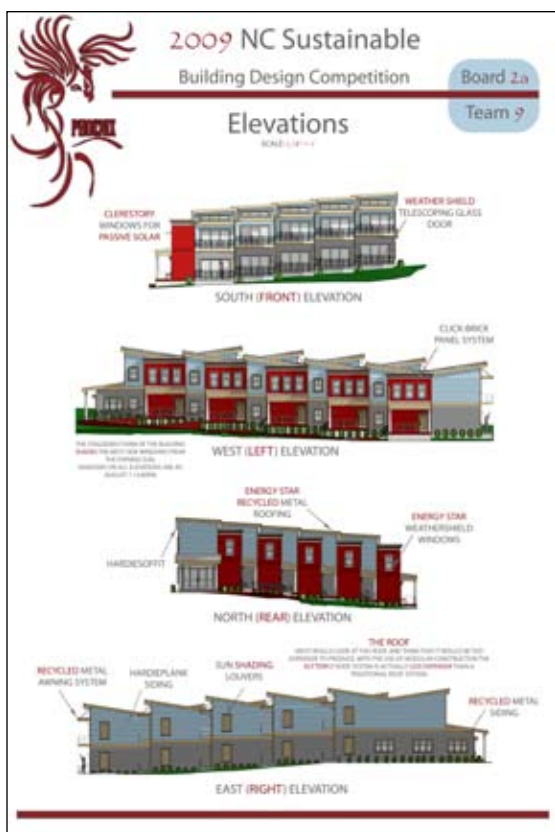
by Ron Wilson

As occurs every year, I began spring semester 2009 with a new group of second year architectural technology students. The capstone course I teach involves student teams competing in the annual Natural Talent Design Competition sponsored by the US Green Building Council (USGBC). Every year this challenging class and event bring forth the best from my students.

This year's project challenge was to design a nine-unit multi-family building that would include a group meeting area. The occupants would be recovering substance abusers who are mainstreaming back into a productive lifestyle. Part of the initial concept of Cape Fear Community College's "Team Phoenix" was to use the building to inspire the residents and the surrounding neighborhood with an uplifting green example of what is possible with forethought and vision. The staggered, stepped form and butterfly roof resembles a flock of birds taking flight; this symbolizes breaking free of stereotypes and starting a



Team Phoenix was 2009 National 2nd Place Winner in the USGBC's Natural Talent Design Competition. From left: Patrick Gorham, Larry Carr, Ron Wilson (Faculty), Eli Barrett, Josh Lee.



illustrations courtesy of Team Phoenix

The staggered layout of the Phoenix design allows more sunlight to enter each unit. See the online version of this article to view additional storyboards.

new life. Hence, the mythical, colorful bird, "The Phoenix" became the metaphor and logo for their project.

This year, Team Phoenix placed first in the NC Sustainable Building Design Competition, winning over other teams from NC State, Appalachian State, East Carolina University, Duke and numerous others. As a result of this significant achievement, the team was the second CFCC team in a row to earn the right to advance to national competition.

The Phoenix Project incorporated the following green building strategies:

- Sustainable Site
- Water Efficiency
- Energy Conservation
- Sustainable Materials and Resources
- Indoor Environmental Quality
- Innovation and Design Process
- Awareness and Education
- Universal Design
- Green/Energy Certifications

The Natural Talent National Design Competition is hosted each year by USGBC at the Greenbuild International Conference and Expo. This year the conference host city was Phoenix, Arizona.

It was particularly rewarding for CFCC to be awarded second place nationally, as they were the only community college that qualified to compete at the national level. The first place winner was Team Grow Harlem, a group of young professionals from a New York City architectural firm, whose winning design was an urban green upfit project in Harlem.

Team Phoenix members are Eli Barrett, Larry Carr, Patrick Gorham and Josh Lee with Ron Wilson, Architect and Faculty Advisor. USGBC's 2010 Natural Design Competition, in partnership with Salvation Army's EnviRenew Initiative, will focus its sights on the rebuilding effort in New Orleans, Louisiana.

Architect Ron Wilson is Program Director of the Architectural Technology Program at Cape Fear Community College. Learn more about the Architectural Program at www.cfcc.org.



2009 NC Sustainable

Building Design Competition

Board 1a

Team 9

Design Synopsis

MODULAR CONSTRUCTION TAKES FLIGHT ON POOLE ROAD

Our goal was to design a cost effective, durable, and sustainable building that meets the needs of the owner and residents. Our inspiration, The Phoenix Myth, continuously reminded us of the future residents who are in transition from homelessness to a life of independence and success. Just as the Phoenix rises from the ashes and flies to new heights, West Hill will help those who are struggling see the possibilities of tomorrow.

We wanted to inspire the residents of this building, and the surrounding neighborhood, with an uplifting example of beauty, responsibility, and grace. The staggered, stepped form, and "winged" roof of our building resemble a flock of birds taking flight. It is rising up from the ashes and starting a new life.



ECONOMY OF SCALE

Just as the Phoenix must burn down to ashes to be reborn into greatness it was essential that we burn away all misconceptions we might have had with affordable housing. To do this we choose a somewhat unconventional approach to the challenge by using Systems-built Modular Construction. We took advantage of the economy of scale in the program and designed with function and form in mind. With the help of HandCrafted Homes, a modular manufacturing company in Henderson, West Hill began to develop from an idea and became a design that inspires and brings sustainable practices to the community. This modular system shortened construction time and increased available funds needed to incorporate sustainable products.



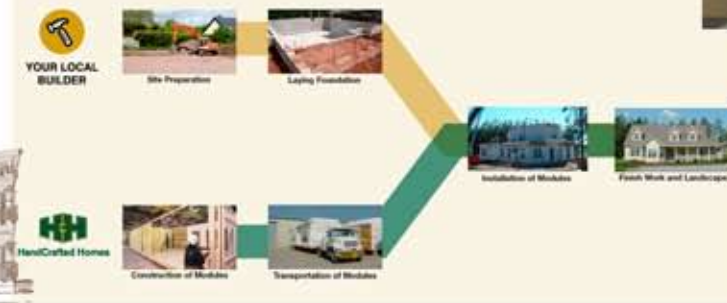
EACH INDIVIDUAL UNIT WILL BE TRUCKED ONTO THE SITE PRE-MANUFACTURED AND PUT IN PLACE BY A CRANE.



HandCrafted Homes
A BETTER WAY TO BUILD



How Does Systems-built Modular Work?





2009 NC Sustainable

Building Design Competition

Board 2a

Team 9

Elevations

SCALE: 1/8" = 1'

CLERESTORY
WINDOWS FOR
PASSIVE SOLAR



WEATHER SHIELD
TELESCOPING GLASS
DOOR

SOUTH (FRONT) ELEVATION



CLICK-BRICK
PANEL SYSTEM

THE STAGGERED FORM OF THE BUILDING
SHADES THE WEST SIDE WINDOWS FROM
THE EVENING SUN.
SHADOWS ON ALL ELEVATIONS ARE AT:
AUGUST 1 12:00PM

WEST (LEFT) ELEVATION



ENERGY STAR
RECYCLED METAL
ROOFING

ENERGY STAR
WEATHERSHIELD
WINDOWS

HARDIESOFFIT

NORTH (REAR) ELEVATION



RECYCLED METAL
AWNING SYSTEM

HARDIEPLANK
SIDING

SUN SHADING
LOUVERS

RECYCLED METAL
SIDING

THE ROOF

MOST WOULD LOOK AT THIS ROOF AND THINK THAT IT WOULD BE TOO EXPENSIVE TO PRODUCE. WITH THE USE OF MODULAR CONSTRUCTION THE BUTTERFLY ROOF SYSTEM IS ACTUALLY LESS EXPENSIVE THAN A TRADITIONAL ROOF SYSTEM.

EAST (RIGHT) ELEVATION