



TRAINEES LEARN A CONCEPT THAT ALLOWS HOMES TO BE PRODUCED "JUST IN TIME."

IMPROVING THE FRONT LINE: Lean Advocates Get Training

TECHNIQUES CAN BE USED TO IMPROVE PRODUCTION TIMES, QUALITY

Lean production techniques have the potential to change the way factory-built homes are constructed. By eliminating waste and improving processes, lean production can save time and money while improving quality.

As part of the Lean Production research program, a joint effort of PATH and the Manufactured Housing Research Alliance, MHRA held a training course for lean production advocates.

"In the 10 years I have been in the industry, it was by far the best training course I've taken," said Ty Batchelor, assistant general manager for Southern Energy Homes in Addison, Ala. "[The lean building techniques] are just phenomenal and have the potential to transform the industry."

During an intensive one-week training session, the advocates learned the basics of value stream mapping—a process that helps identify operational inefficiencies—and how to conduct rapid process improvement events designed to weed out wasteful steps in the building process. These events are aimed at streamlining plant operations, such as materials handling and labor utilization, allowing for the use of fewer resources (labor and material) while delivering higher and more consistent quality.

"I got a better understanding of what lean is and realized that our industry was just dying to have it brought to bear," said advocate trainee Robbie Davis,



production manager for Palm Harbor Homes in Plant City, Fla.

The advocates, with the guidance of MHRA experts, will take what they learned and apply it in nine home manufacturing plants. Their job is to transfer the knowledge to a "lean team" in each facility.

"Everyone we have shared the concept with so far has been receptive," said Davis. "We are in the process of making our value stream map, and we hope to use the process to make a better product, increase volume and make the people who build it happier."

▼ ABOUT MHRA

The Manufactured Housing Research Alliance (MHRA), the research arm of the manufactured housing industry, provides content for *Technologies*.

■ *Technologies* highlights the research of MHRA and examines other research and development activities throughout the industry.

■ For more in-depth information about research in the factory-built housing industry, or to find resources mentioned in *Technologies*, visit the MHRA Web site.



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MANUFACTURERS Participating in Lean Research

Cavalier Homes,
Addison, Ala.

Four Seasons
Housing Inc.,
Middlebury, Ind.

Palm Harbor
Homes, Plant
City, Fla.

Chelsea Modular
Homes,
Marlboro, N.Y.

Hi-Tech Housing
Inc., Bristol, Ind.

R-Anell Housing,
Denver, N.C.

Clayton Homes,
Andersonville,
Tenn.

Palm Harbor
Homes,
Albemarle, N.C.

Southern Energy
Homes,
Addison, Ala.

Brent Bardo, vice president, general manager and co-owner of Four Seasons Housing and Admiration Builders in Middlebury, Ind., agreed. “Our employees are excited about [building lean],” he said, “because it will save them time and energy. Any time you can do that they will love you.”

Additionally, lean processes have the potential to significantly increase production as bottlenecks and inefficient processes are streamlined and eliminated.

“For the retailers it means better quality and quicker deliveries,” added Bardo.



PARTICIPANTS WALK THE FACTORY TO SPOT AND ELIMINATE WASTE.

The manufacturers chosen for the study represent a cross-section of home types and price points, as well as geographic location, to ensure that the findings can be broadly applied.

After the lean techniques have been applied at the nine plants, MHRA will present the results and lessons learned by the teams in a report detailing how factory-built housing can utilize the practices to positively impact the bottom line and home quality. MHRA will also hold a seminar to present project findings to the industry. ■

Case Study

DEVELOPER USES ENERGY STAR TO IMPROVE FINANCIAL FEASIBILITY

A low-income rental developer in Texas has turned to manufactured homes to complete a long-delayed project. Daniel Crow of Banner Communities selected Oak Creek Homes, an American Homestar Corporation company, to provide single-section homes at Quail Ridge, a 282-site development in Midland, Texas.

One of the draws for Crow was the ability to get an ENERGY STAR rating, which will improve homeowner comfort and help make the project economically viable for the developer.

“I think by providing ENERGY STAR homes it demonstrates to HUD, the local housing authority and the market our commitment to quality housing for low-income families,” said Crow.

Owners of subsidized low-income rental housing are required by the Texas Department of Housing and Community Affairs to deduct a utility allowance from the allowable rent. The amount can be reduced at the discretion of the housing authority if the homes prove to have energy costs that are lower than the allowance.

If the developer can show that the renter’s utility costs will be substantially reduced, in this case through the ENERGY STAR designation, the developer can realize the savings in the rent.

“While the renter pays the same amount, the increased rent to the developer can make the difference in the economic feasibility of the project,” explained Crow.

EXAMPLE

\$ 600	Rent Allowance
\$ 120	Utility Allowance
\$480	Rent collected by developer
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\$ 600	Rent Allowance
\$ 60	Utility Allowance (reduced for ENERGY STAR)
\$540	Rent collected by developer

MHRA prepared a report for Crow to present to the housing authority outlining the utility costs associated with ENERGY STAR homes that should enable him to get the reduced allowance.

“Through this program, we can offer a much higher quality living value than is otherwise available in traditional low-income apartments,” explained Crow. ■