

Advanced Housing Research Center

An Initiative for Improving Our Nation's Housing

Background—America needs more durable and energy-efficient housing. In response to this need, a National initiative—the Advanced Housing Research Center—must be established. Research at the Center will evaluate technology needed for both new and existing housing and will encompass all types of residential structures in which wood or wood-based products are used as primary or secondary building components. Emphasis will be on the improved use of traditional wood products, the use of recycled and engineered wood composite materials, durability and moisture control, energy and sound efficiency, indoor air quality, improved living environment, and natural disaster resistance. The Center's research will focus primarily on the housing structure and practical technologies that can be readily adopted by home builders for better, less costly, and faster home construction, but the Center will also work with partners to move forward with the latest theories and ideas in water conservation and recovery.

Management—USDA is the lead agency for wood-frame housing research through the Forest Products Laboratory (FPL) in Madison, Wisconsin. FPL has long been recognized as a world leader in such housing-related areas as engineered wood products and structures, moisture control in housing, material design and performance, coatings and finishes, adhesives, wood preservation, biodeterioration, and wood-nonwood composites. Many of the materials and technologies now used in housing were developed through basic research at FPL in cooperation with industry, academia, and government. To move new technologies into use, FPL also has established strong links to industry and has played a very active role in information transfer and development of codes and standards.

This initiative will build on the following current FPL housing research:

- Development of reliability-based design for housing in high wind areas
- Effects of cyclic moisture on engineered wood panel products
- Durability of hardboard siding
- Development of wood-nonwood composites using recycled materials
- Use of recycled lumber for construction
- Improved utilization of secondary wood species for engineered wood products



The Research Demonstration House is the showcase piece of FPL's Advanced Housing Research Center. Drawing on FPL's broad research expertise, the Advanced Housing Research Center will study issues such as moisture intrusion, energy efficiency and proper building practices.

Partnerships—The Center will rely heavily on partnerships and alliances with universities, industry, interest groups, and other Federal, state, and local agencies. The pool of technical expertise and a broad approach to problem solving will be facilitated under the joint leadership of FPL, industry, and university co-chairs who will facilitate input and interaction with research partners.

Industry Council—Interaction with wood industry representatives will be facilitated under the existing American Forest and Paper Association Committee on Research and Evaluation. This group will assist in identifying research priorities, evaluating program effectiveness, developing field evaluations, and information transfer.

