

PHRC News



PHRC

Getting in touch

Contact us to find out more about the PHRC or to seek assistance.

www.engr.psu.edu/phrc

PHRC

Pennsylvania Housing Research/
Resource Center
Penn State University
219 Sackett Building
University Park, PA 16802
Tel: (814) 865-2341
Fax: (814) 863-7304
E-mail: phrc@psu.edu

Director: Eric Burnett
Assistant Director: Mark Fortney
Admin. Assistant: Michelle McMullen

PHRC at Penn College

Pennsylvania Housing Resource
Center at the
Pennsylvania College of Technology
Technology Transfer Center
One College Avenue
Williamsport, PA 17701
Tel: (570) 327-4768
Fax: (570) 320-5239
E-mail: phrc@pct.edu

Director: Bill Van der Meer
Assistant Director: Mark Fortney
Tom Woodson

PENNSYLVANIA STATE UNIVERSITY



PHRC Develops Alternative Pennsylvania Energy Standards

In November 1999, Pennsylvania's Governor Ridge signed the Uniform Construction Code (UCC) legislation into law, mandating a statewide building code for Pennsylvania. The Act requires the Pennsylvania Department of Labor and Industry (DLI) to issue regulations to implement the legislation. In addition, Chapter 3, Section 301 (c), *Prescriptive Methods for Energy Conservation* of the Act, requires the DLI to promulgate regulations for prescriptive methods to implement energy requirements that take into account the various climatic regions in the Commonwealth. In deriving these standards, it states that "the DLI shall seek to balance energy savings with initial construction costs."

In response to requests from members of the PHRC Advisory Council, the PHRC has developed the PA-Alternative Chapter 11 to replace the International Residential Code Chapter 11, *Energy Efficiency*. The PA-Alternative Chapter 11 provides an energy code that is simpler, more flexible, and focused on Pennsylvania. It also takes a rational approach to Pennsylvania's climate characteristics.

In May the PHRC submitted to the DLI the PA-Alternative Chapter 11 together with a series of five supplementary reports that document the development of the proposed energy requirements:

- Report No. 68, Glazing Proportions for New Housing in Pennsylvania
- Report No. 69, Climate Zones for Energy Conservation in Pennsylvania
- Report No. 70, Thermal Envelope Assessment of Energy Code Provisions for Pennsylvania
- Report No. 71, Evaluation of Energy Code Trade-offs for Pennsylvania
- Report No. 72, Energy Code Provisions for the use of Light-Gauge Cold Formed Steel Framing

These reports demonstrate that the PHRC PA-Alternative is equivalent to the 2000 International Energy Conservation Code (IECC) while providing significantly more flexibility in the design and construction of residential structures. For additional information on PA-Alternative Chapter 11, contact Eric Burnett at (814) 863-9788 or efb6@psu.edu, or Mark Fortney at (814) 863-2366 or mfortney@psu.edu

Mark your Calendar for the Annual PA Housing Conference

Monroeville, PA—February 21, 2001
(This will be held in conjunction with the BAMP Trade Show)

Harrisburg, PA—March 8, 2001

See page 2 — for additional information on the conference.

9th Annual PA Housing Conference

The New Statewide Building Code WHEN ~ WHAT ~ HOW

Over the next few years, no single issue will affect the residential construction industry as much as the establishment of a statewide building code in Pennsylvania. For this reason the 9th Annual Pennsylvania Housing Conference will focus on the new residential building code and what it means for all of us involved in the design and construction of houses. Participants will learn about the International Residential Code (IRC) requirements and the various options for implementing the new code.

The one-day conference will focus on:

- Cost implications for the builder and homeowner
- Technical considerations
- Design and construction considerations
- How to sell the various options to create an advantage in the marketplace.

Topics to be covered will address the house from the foundation to the roof, including:

- Foundation
 - Innovative systems
 - Insulation approaches
 - Shallow frost protected foundations
- Crawlspace
 - Vented & Non-vented
- Wall construction approaches
- HVAC considerations
- Air tightness considerations

The program is intended for anyone involved in residential construction including builders, remodelers, design professionals (architects and engineers), code officials, trade and specialty contractors, and manufacturers and suppliers.

For your convenience the conference
will be held in two locations:
Monroville, PA on February 21, 2001
Harrisburg on March 7, 2001

For additional information on the conference call the PHRC at (814) 865-2341 or email at phrc@psu.edu.

PHRC Participating in DOE Grant

The Commonwealth of Pennsylvania has recently been awarded a \$300,000 grant from the US Department of Energy to develop and implement energy code related training in Pennsylvania. The training will be targeted towards building code officials, design professionals, and contractors and will cover both the residential and the commercial building sectors.

The PHRC is one of the participants in the grant. Other grant partners may include the the Pennsylvania State Association of Township Supervisors, the Pennsylvania State Association of Boroughs, the Building Code Assistance Project, the Building Officials Conference of America (BOCA), the Pennsylvania Departments of Community and Economic Development (DCED), and Labor and Industry (DLI).

The project is intended to start in late 2000 and will be completed by the end of June 2002. For more information on the PHRC's participation, contact Mark Fortney at (814) 863-2366 or mrf106@psu.edu.

ASHRAE Contract

The Director of the PHRC, Eric Burnett, was recently awarded a contract from ASHRAE to undertake research on the Development of Design Strategies for Rainscreen and Sheathing Membrane Performance in Wood Frame Walls. The award was for \$197,000 over two years. This work is to be done in collaboration with Oak Ridge National Laboratory in Tennessee and the Building Engineering Group in Canada .

PHRC Hosts International Masonry Meeting

Over the period August 23-26, the PHRC hosted a meeting of the CIB (International Council for Research and Innovation in Building and Construction) Commission W23A. This international group includes members from the US, Canada, Italy, Portugal, Finland, the United Kingdom, Brazil, Slovenia and Germany. One day was devoted to Historic Masonry and the second involved a workshop on Modern Masonry Wall Systems. You may be relieved to hear that we have similar problems, but they seem to have more of them than we do.

Building Code Training being developed for PBA

The Pennsylvania Housing Research Center has been contracted by the Pennsylvania Builders Association to develop customized code training programs to help their members understand the new requirements arising from the UCC. Under this initiative the PHRC is developing five different building code workshops and courses to meet the varied needs and interests of home builders, remodelers, and other contractors involved in the Pennsylvania housing industry. The five programs are:

1. Comprehensive International Residential Code 2000 2 Days
2. CABO to IRC Transition Program 3-4 Hours
3. BOCA to IRC Transition Program 1 Day
4. BOCA to IBC Transition Program 1 Day
5. International Energy Efficiency Code 3-4 hours

The PHRC is aiming to make the programs available through PBA's network of 41 local home builder associations beginning late in 2000. For more information, please contact Mark Fortney at (814) 863-2366 or mfortney@psu.edu

PA Code Training Consortium (CTC)

On October 30, 1999, the PHRC hosted the first meeting of the Construction Code Training Consortium. Since that time Governor Ridge has signed into law the Uniform Construction Code (UCC) Act, Act 45 of 1999. The passage of the UCC and the regulations that will be promulgated by the Pennsylvania Department of Labor and Industry will change the way every building is constructed in the Commonwealth. In turn, the changes create a need for training for regulators (building code officials and municipal and state administrators) and for the regulated community (builders, remodelers, contractors, design professionals, etc.) to help them understand the new requirements. The development of the Consortium was first discussed in the PHRC Report No. 61 "*Building Code Training Needs in Pennsylvania.*"

The main function of this consortium is to help identify the building-code-related training and educational resources and needs of various groups across the

Commonwealth. The consortium's role will be to provide a forum for members to develop strategy, to foster communication, to coordinate training among the members and to provide training where it is not being provided, either geographically or by subject area.

The Consortium consists of interested organizations, associations and state agencies that either provide building code training or represent groups that need access to training. The following is a list of CTC members at the time this newsletter went to print:

ABC-Keystone Chapter
 ABC-Lehigh Valley Chapter
 ABC-Southeast Pennsylvania Chapter
 BOCA Eastern Regional Office
 BOCA Professional Chapter of Western Pennsylvania
 Building Codes Assistance Project
 California University of South Pointe
 Commonwealth Building Officials
 Eastern Paralyzed Veterans Association
 Harrisburg Area Community College
 International Conference of Building Officials
 Lebanon County Planning Department
 Local Government Academy
 MaGrann Associates
 National Conference of States on Building Codes & Standards
 Penn State University
 Pennsylvania Association of Code Officials
 Pennsylvania Builders Association
 Pennsylvania Building Officials Conference
 Pennsylvania College of Technology
 Pennsylvania Department of Labor and Industry
 Pennsylvania Housing Research Center
 Pennsylvania State Association of Boroughs
 Pocono Builders Association
 South Central Assembly for Effective Governance
 VFIS
 York City Department of Fire/Rescue Services

Contact Mark Fortney for more information at mrf106@psu.edu or (814) 863-2366.

Modular Housing Training Center (MHTI)

After a successful and well attended run of courses, the Modular Housing Training Institute (MHTI) is set to continue offering its educational program to the modular housing industry. The two-day class offers modular builders, set crews, building code officials and manufacturer service reps the opportunity to standardize their processes and enhance the quality of the finished product.



*First MHTI graduating class
November 18, 1999*

MHTI is located within the PHRC at Penn College and was originally funded and developed through a grant from the Department of Community and Economic Development.

Taught by two industry veterans, Clyde Kreider and Warren Gotshall, the class covers four major topic areas including site and foundation preparation, optimal scheduling, and set and finishing operations. In addition to its centrally based offerings, the MHTI has taken the course on the road directly to manufacturers who may host the program for their own builder/dealer networks.

A new schedule is in place through January 2001 with six classes planned. To register or to obtain additional information, visit the MHTI's web site at (www.pct.edu/mhti) or call the PHRC at Penn College at (570) 327-4768.

PHRC Fall Workshop Schedule

The PHRC at Pennsylvania College of Technology will be offering the "Builder's Workshop Series" in a variety of locations across the Commonwealth. The workshops will begin in October 2000 and will continue through March 2001. Their content is specifically designed to meet the needs of residential builders and remodelers.

The series will include a nationally recognized workshop developed by The Energy Efficient Building Association (EEBA), titled "**Cure for the Common Callback.**" This workshop focuses on prevention of expensive and time-consuming callbacks by examining the solutions, and thereby increasing profits. Principles of building science and quality assurance issues are key components. This program will be offered on October 10th in Allentown and October 11th in Harrisburg.

"**Preventing and Solving Moisture Problems,**" a workshop that has consistently received high marks from participants, is being offered again at the request of regional builders associations. The content of this workshop includes, but is not limited to, moisture control, rain control strategies, dealing with built-in moisture, and interior sources of moisture. This program will be offered on November 1st in Pittsburgh.

Other programs of interest may also be offered regionally by sponsoring Home Builders Associations. A schedule of workshops will be available through the PHRC at Penn College and the PHRC at The Pennsylvania State University.

Additional workshops will include "**Engineered Wood Products**" which addresses problems commonly found in the field as well as some design considerations.

For registration or information on these workshops, or information on sponsoring a workshop, please call the PHRC at (570) 327-4768 or e-mail phrc@pct.edu.

Publications Reports and Software

The PHRC offers a series of reports and publications to the general public. The following is a brief list of some of our recent reports:

Reports		
Report Number	Title	Price
50	Below-Grade Construction: Issues and Needs	\$25.00
51	Foundation Wall Systems for Houses	\$25.00
52	A Builder's Guide to Modular Housing	\$25.00
53	Flood Damage to Basements: a Starting Point	\$25.00
55	Economic Assessment of Basement Insulation	\$25.00
56	The Importance of Modular Housing in Pennsylvania	\$25.00
58	Steel-Stud-Framed Wall Systems	\$25.00
59	The Use of Housewrap in Walls: Installation, Performance and Implications	\$25.00
61	Building Code Training Needs in Pennsylvania	\$25.00
62	Marketing Modular	\$25.00
65	Training and Education Needs Assessment for the Home Building and Remodeling Industry in Pennsylvania	\$25.00
66	Residential Site Improvement and Subdivision Design Standards: A Review	\$25.00
Briefs		
BB0199	Builder Brief — New and Improved Basement Wall System	FREE
RB0199	Research Brief — Composite Action and Floor System Stiffness	FREE
Software		
54	Evaluating the Costs of Modular and Stick-Built Construction Using ACE (includes a copy of report #52 - A Builder's Guide to Modular Housing)	\$125.00

For a complete list of PHRC reports and publications, visit our web site at www.engr.psu.edu/phrc. Executive summaries of each of the reports are also available on-line for your review. These reports can be ordered by calling (814) 865-2341. Payment methods include Master Card, Visa, American Express, or company or personal check.

Calendar of Events

October 5, 2000	Code Training Consortium Meeting, Harrisburg, PA
October 10, 2000	PHRC Workshop: Cure for the Common Callback, Allentown, PA
October 11, 2000	PHRC Workshop: Cure for the Common Callback, Harrisburg, PA
October 19, 2000	PHRC Fall Industry Advisory Council Meeting, Marriott Hotel, Harrisburg, PA
November 1, 2000	PHRC Workshop: Preventing and Solving Moisture Problems, Pittsburgh, PA
November 9, 2000	PHRC Conference Steering Committee Meeting, Station Square, Pittsburgh, PA
November 14-15, 2000	MHTI Class, Penn College, Williamsport, PA
December 12-13, 2000	MHTI Class, Penn College, Williamsport, PA
January 9-10, 2001	MHTI Class, Penn College, Williamsport, PA
January 11, 2001	Code Training Consortium Meeting, Carlisle, PA
February 21, 2001	9 th Annual Pennsylvania Housing Conference (West), Monroeville, PA
March 8, 2001	9 th Annual Pennsylvania Housing Conference (East), Marriott Hotel, Harrisburg, PA
April 5, 2001	PHRC Spring Industry Advisory Council Meeting (Tentative), State College, PA
April 12, 2001	Code Training Consortium Meeting, Harrisburg, PA
October 18, 2001	PHRC Fall Industry Advisory Council Meeting (Tentative), Harrisburg, PA

We're on the Web
www.engr.psu.edu/phrc/

The Pennsylvania Housing Research Center
219 Sackett Building
University Park, PA 16802
Phone: 814-865-2341
Fax: 814-863-7304

Speaker Service for Local Associations

The PHRC is continuing its speaker service for groups related to the residential construction industry. This service has been well received since its introduction in the summer of 1999.

The PHRC can provide a short (15 to 45 minute) technical session on subjects of interest to a local association.

Popular topics include:

- Overview of Pennsylvania's Uniform Construction Code
- Overview of the 2000 International Residential Code
- Steel Framing – doing it right
- Innovative Foundation Systems
- Engineered Wood
- The Use of Housewrap

If you are interested in having a presentation in conjunction with your local association's meeting, Mark Fortney would be glad to help. Contact him at mrf106@psu.edu or (814) 863-2366.

Membership

A portion of the financial support for the PHRC is obtained from membership fees. Financial and other forms of support for the PHRC are very important. Industry-based funding, individual or corporate or association, is critical for our continued operation. We warmly welcome the new members of the PHRC. We thank new and existing members for their support of the PHRC and its efforts to serve the home building industry in PA.

New Members

Trus Joist
Blair County Builders Association

Current Members

ACCADIA
All Star Homes
Armstrong World Industries, Inc.
Builders Association of Central PA
Cedar Knoll Associates
Celotex Corporation
CertainTeed Corporation
Comfort Home Corporation
Curtis E. Schneck, Inc.
Dow Chemical Company
DuPont Nonwovens
Franklin County Builders Association
HBA of Chester and Delaware Counties
HBA of Metro Harrisburg
HBA of the Alleghenies
Lackawanna Home Builders Association

Lebanon County Builders Association
Lehigh Valley Builders Association
Liberty Homes Custom Builders
Mid-Atlantic Building Systems Council
PA Concrete Masonry Association
PA Dept of Community & Economic Development
PA Manufactured Housing Association
Pennsylvania Builders Association
Pocono Builders Association
Ray-Core, Inc.
Ryland Group, Inc.
S&A Custom Built Homes, Inc.
Sentry Management Co., Inc.
York County Builders Association