



COLD CLIMATE HOUSING RESEARCH CENTER

CCHRC

Promoting the development and advancement of healthy, durable and economically sound shelter for Alaskans and circumpolar people.

CCHRC QUARTERLY REPORT

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CCHRC

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CCHRC: This Quarter in Review

The Cold Climate Housing Research Center is an industry-based, non-profit corporation created to facilitate the development, use, and testing of energy efficient, durable, healthy, and cost effective building technologies for cold climate regions. CCHRC was, in a large part, developed by members of the Alaska State Home Builders Association. This positions CCHRC as a link between housing research and the practical needs of the building industry.

The pace of work at CCHRC has really picked up the 2nd Quarter of 2001. Besides the many current projects, we have been working on establishing the Policies and Procedures that will serve to keep us in line with the strict requirements of governmental grants.

We have also had our fiscal year 2000 audit completed and continue to work on setting up our accounting system to most efficiently manage our finances so we can concentrate on the major goals of the corporation.

We continue to add to and update our website at www.cchrc.org when time allows.

Our membership is growing to include individuals, corporations and legislators. We would like to see the membership continue to grow because it allows us to establish our presence in the state and nation as a strongly supported, important and viable organization. It also gives us a base to identify the specific research activities of interest to Alaskan and circumpolar communities and housing industries. If you have not yet updated your membership for 2001, you will find a membership form enclosed

The CCHRC Quarterly Reports will be sent out to members, CCHRC funding agencies and to those requesting information about CCHRC and its activities. Any response to this report, suggestions, or requests for further information are welcome and should be directed to the CCHRC staff.

Message from the President/CEO



I know that all of you in the building industry are extremely busy this time of year, but I would like to encourage you to investigate Building America in Alaska through CCHRC and how it can affect your bottom line. Over four years ago,

Building America in Alaska Design

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CURRENT RESEARCH PROJECTS

Building America in Alaska



The Building America in Alaska (BAA) program has generated so much interest among Alaskan builders that three construction projects are currently underway employing the design that CCHRC and its BAA Team generated.

Several other homes are being constructed using the energy efficient technology that BAA promotes. The performance target for the BAA homes is a Five Star Plus energy rating.

- Bee Construction, in North Pole, (Interior Alaska) is constructing 2 single-family homes using the BAA design and specifications.
- R-Valued Homes in Wasilla, (South Central Alaska) is building a single-family home using the BAA design. The target energy rating for this home is 99.0.
- BluSpruce Construction of Juneau (Southeast Alaska) is building a home using BAA technology, including the Wood Shear Panel Assembly shown in this scenic picture. He will also be providing cost analysis of the Panel.
- Taiga Woodcraft/Hébert Homes of Fairbanks is also building a home using BAA technology and SIPS panel construction. The wall assembly is R-44 with energy truss R-60 ceilings.

In addition, the Tlingit/Haida Native Corporation will be working with CCHRC and the BAA team in the construction of their housing development in Juneau

and CCHRC will adapt their plans as a single story option for Southeast/maritime climates. CCHRC staff is also working with the Fairbanks Chapter of Habitat for Humanity to utilize BAA design and technology in the current and future projects.

The “Builder’s Guide: Cold Climates” developed through the Building America program was reviewed and revised by the BAA team and delivered to Building Science Corporation for publication of a Severe Cold Climate edition.

The BAA project has been extended to October 30th to allow sufficient time to finish construction, determine actual costs, and to integrate the “lessons learned” into a final report.



BEES Study

CCHRC received 3 proposals to undertake a written economic analysis of the proposed changes to the Building Energy Efficiency Standards (BEES) with funding from Alaska Housing Finance Corporation.

Northern Economics Research Associates (NERA) was contracted in April to do the study. They have been reviewing the proposed changes and compiling data. Preliminary observation shows the proposed

changes don’t appear to be as substantial as some of the testimony suggested.

A Builders Survey was developed by NERA and submitted to CCHRC and AHFC for review on June 11th. The survey is to be mailed to builder participants early July and the study is scheduled to be completed in August.

Egress Windows

To address problems of egress in extreme cold climates, CCHRC worked with Northern/Capital Glass in Anchorage to develop a window design that could be opened despite ice build-up and other problems common in bush communities. A prototype window has been completed and is on display at the CCHRC office.

Senator Stevens office was very impressed with the fast response to this problem and would like to help promote the window in rural villages.

CCHRC will contact the Alaska Housing Authorities for testing and comments, and hopes to have the final design tested by the Canadians so it can help improve home safety in Northern Canada also.

CCHRC has engaged an attorney to draft an agreement with Northern for CCHRC to receive proceeds from the eventual sale of each unit, which will be reinvested in further research and development.



Proposed Projects

Projects currently under development:

Five-Star Homes Survey—AHFC has requested a survey of a sampling of Five Star Energy Rated homeowners and builders throughout Alaska to determine their satisfaction with their homes. The RFP has been advertised with a closing date of July 17th.

Strawbale House Monitoring Project—A strawbale house is being constructed this summer in the Fairbanks area. CCHRC staff has been documenting the construction phase with photos and will monitor and log data as the project progresses.

HUD SuperNOFA Proposal—CCHRC submitted a proposal in conjunction with AHFC under the HUD Demonstration/Education Project grant. The Project/Grant Notice of Award should be announced in September 2001.

The goal of the proposed project is to develop and implement cost-effective approaches to identify and control housing based hazards to low-income children throughout Alaska, and to build local capacity to sustain the program after the grant term.

The proposed project has a budget of \$1.2 million with additional matching funds over a timeline of 2 1/2 years. If awarded, CCHRC will coordinate with over a dozen private and public firms and agencies. The study will be conducted in Unalaska, Noorvik, and Fairbanks. CCHRC will provide training and presentations in Fairbanks, Anchorage, Juneau, Un-

alaska, Barrow, Bethel, and Kotzebue.

Cold Climate Research Facility—CCHRC is meeting with personnel from the University of Alaska Fairbanks and the Cold Regions Testing Lab to discuss preliminary investigations necessary to establish a research facility to be dedicated to cold climate research to be constructed in Fairbanks. These investigations would include a building use study, possible funding sources, and design development.

Projects currently under consideration:

Southeast Research Activities Study—Maritime regions have extreme & unique moisture considerations in housing, both indoor and outdoor. The proposed study will conduct a needs assessment of building problems and issues affecting the Southeast Alaska region. The goal is to define specific problems and identify a priority list of issues for further study.

Garage Make-up/Combustion Air Study—An issue of debate has been brought up by members of the Healthy House Standards Criteria committee: the problem of attached garages contributing to indoor air pollution in the living quarters of the home.

Residential Ventilation Strategies— Builders in both South Central and Interior Alaska identified ventilation concerns as their top priority through the Research Advisory Committees last winter. CCHRC will be developing studies to identify the problems and work on affordable solutions to this critical issue.



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Message from the President/CEO (cont.)

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the nationwide Building America Program was established to form partnerships between housing research professionals and builders with the goal of incorporating more efficient technologies into buildings without increasing production costs. This is one of those rare government programs that has produced some real results. Builder members of the Building America Teams in the lower 48 are not only building better homes for comparable costs, but are lowering their clients energy bill, using less materials in construction with less waste, and increasing the marketability of their product. If you've got a minute, go to their website at:

www.eren.doe.gov/buildings/building_america/.

Building America in Alaska through CCHRC currently has five builders incorporating Alaska appropriate technologies into their new homes this season. These "field tests" will be examined and

analyzed at season's end to determine the real results of our recommendations. Data from this work will be included in the three sets of working plans (Southeast, South Central and Interior) that are currently being developed. I encourage any builder interested in what we are trying to accomplish to contact the CCHRC office. We will share what we are doing and send you preliminary drawings and recommendations. We would like to incorporate feedback from all Alaskan builders who are interested in this project.

Your Cold Climate Housing Research Center is beginning to produce some real results for our industry. We have funds for research to help us find answers to the questions building in our extreme climates raise. Being a part of this process is only a phone call away.

Enjoy Alaska's beautiful summer.