

# High-Performance Relocatable Classroom Design Charrette

June 2-3, 2008

## Primary Objective:

Create State of Florida High-Performance Standard of Construction for Relocatable Classrooms.

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## DAY 1

7:45 – 8:15 **Arrival**

8:15 – 8:30 **Introduction and Intent of this Charrette**

Introduction of speakers, hosts, and sponsors

Introduction of Southeast Rebuild Collaboration Goals and Resources for Schools

Overview of what a charrette is and the goal of this event

8:30 – 9:15 **Presentation by Kristin Heinen on High Performance Schools.**

*(Learn about the Collaboration for High Performance Schools (CHPs) and lessons learned by others that have developed design specifications.)*

Kristin Heinen manages the Collaborative for High Performance Schools (CHPS, Inc.) program for Architectural Energy Corporation and serves as the non-profits Assistant Director. Ms. Heinen coordinates CHPS's legislative and governance affairs as well as its six volume Best Practices Manual on designing, constructing and operating high performance, healthy, green, K-12 schools. Ms. Heinen also oversees CHPS' programmatic activities and works with state adaptations of CHPS in MA, NY, WA, RI, NH, VT, TX and ME.

Her background in environmental design coupled with her education at Columbia's Earth Institute in environmental policy make her able to understand how building systems interact with our natural environment and how to communicate that effectively with a broad spectrum of stakeholders in the school construction community.

9:20 – 11:55 **High Performance Relocatable Design Charrette**

-Envelope Design and Performance Specifications

*EXAMPLE ISSUES: How should we control moisture, thermal transfer through Roof, exterior Floor and Walls, Windows? Consider safety and durability of material selection. Include acoustic considerations.*

-HVAC

*EXAMPLE ISSUES: Is there any innovation beyond traditional wall mounted units? What should efficiency be?, Do we use ducted systems?, Should we specify duct materials and tightness?, How should we optimize control of ventilation? What schedules and controls should be used? What are the acoustical considerations of our choices?*

12:00 – 1:00 **NETWORKING LUNCH On-Site**

Meet, Greet, and Eat

Day 1 (continued)

1:00 – 3:00 **High Performance Relocatable Design Charrette** (*continued*)

-HVAC (*continued*)

-Daylighting

*EXAMPLE ISSUES: How much glazing do we want? Where do we want it?*

*What minimum energy and impact performance should glass have?*

*What glare/quality control will be used to handle daylighting variability?*

-Electric Illumination

*EXAMPLE ISSUES: Do we want a Watt/square foot specification? How do we control and schedule lights? How do we optimize control to accommodate daylighting and variable task requirements?*

-IAQ Control Measures

*EXAMPLE ISSUES: Do we want source control specification?, Do we specify or prohibit use of specific qualities of materials?*

-Site Accessibility and Orientation

-Other Green Features

*Do we want to develop plans for water conservation or use of renewable/recycled materials?*

- Do we want to specify an energy use goal kWh/ft<sup>2</sup>?

3:15 – 4:30 **Begin Group Presentations of Designs and Evaluation** (Group Participation)

4:30 Complete Day1 Charrette Evaluations and Adjourn for the day

DAY 2

8:15 – 8:45 **Presentation by Chuck Withers on monitored impacts of improved relocatable classrooms.**

*(30 minute presentation of monitored energy savings of improved relocatables with discussion about economical and environmental impacts)*

Chuck Withers is a Senior Research Analyst at the Florida Solar Energy Center where he has worked on energy and environmental quality research projects over the past 18 years. He has authored/co-authored 24 national and international published papers and 6 national published articles and he is also an experienced instructor of several educational training workshops related to HVAC and indoor environmental quality.

8:45 – 10:00 **Continue Group Presentations of Designs and Evaluation** (Group Participation)

10:00 – 11:55 **Begin design specification selections and determine next step in development**

11:55 **Complete Day2 Charrette Evaluations**

12:00 – 1:00 **LUNCH—SPEAKER, TBA On-Site**

*Exact times spent on design activities and discussions will depend on the size of the group.*