



## Energy Efficient High Performance Housing

Agenda

December 8, 2008

Mobile, Alabama

**8:00 Sign In, Meet and Greet**

**8:30 Welcome and Introductions (15 min)**

Janet McIlvaine and David Beal, Building America Research Analysts and Certified Home Energy Raters – Florida Solar Energy Center

Brain Stanley, Construction Manager, Mobile County Habitat for Humanity

**8:45 Building Science Fundamentals (45 min)**

The house as a system

Elements of the building enclosure system

Elements of the conditioning system

Air flow dynamics demonstration

**9:30 Gulf Coast High Performance Affordable Demonstration House (75 min)**

▪ **Indoor Air Quality Features**

Combustion safety

Humidity and infiltration control

Whole house mechanical ventilation and exhaust fans

▪ **Durability Features**

Water Management and Flashing Details

Humidity Control

Equipment Life

▪ **Energy Efficiency Features**

Analysis and Ranking of Improvements

Review of individual improvements and implementation strategies

▪ **Ensuring Comfort**

Right Sizing Air Conditioning Using ACCA Manual J

Proper Duct Design Using ACCA Manual D

Adequate Return Air Pathways Including Passive Transfers

**10:45 Step 1 – Achieve Energy Star (30 min)**

Home energy rating system index

Energy star program overview and technical requirements

Thermal bypass inspection

**11:15 Overview of Afternoon Field Activities (15 min)**

**11:30 Lunch (60 min)**

**12:30 Depart for Site Visit (30 min)**

**1:00 Tour of Habitat for Humanity High Performance Demonstration House (30 min)**

Discussion of critical details, thermal bypass inspection, implementation hurdles

**1:30 Testing Demonstration in Completed House (20 min)**

Blower door and duct testing and discussion

**1:50 Wrap Up**

**2:00 Dismissal**