

## Background

Leading organisations, clients and some developers are beginning to recognise the benefits of post construction testing. Those studies that have been completed, most notably the Stamford Brook project by Leeds Metropolitan University, have shown that there is often a significant discrepancy between design aspiration and as-built performance.

This seminar offers a strategic overview of post construction fabric testing and will detail the range of tests, the benefits and constraints, costs and learning opportunities. We then go on to provide more detail of the forthcoming TSB *Building Performance Evaluation* competition.

The GHA considers monitoring, evaluation and feedback to be an essential part of any build programme and this is reflected in the GHA membership standards. Given the changes that house-builders are facing in delivering to higher sustainability standards, it is crucial that we close the gap between design aspiration and reality. We also need to understand how the new building systems/materials, which are being proposed as solutions for the higher standards, perform in reality.

## GHA Monitoring Programme

The GHA launched a significant monitoring programme early in 2010.

Phase 1 of this programme will use performance testing to help developers and industry increase their understanding of the effectiveness of new build systems by identifying performance gaps in building and system performance, and comparing actual performance to design targets. The team are due to test 5 dwellings on 4 sites this winter and will summarise the results to date.

Phase 2 of the programme will monitor in-use performance to see how the buildings perform during occupation. Much more detail on the programme will be presented at our monitoring event and exhibition at UCL on 22<sup>nd</sup> April from 12.00



Performance Improvement:  
Post Construction Testing  
Ecobuild 2010, Earls Court, London  
Tuesday, March 2<sup>nd</sup>, 10.30-12.00



EVENT SPONSORS



## Programme

### 10.30 Monitoring and feedback

**Chair, Mat Colmer, Head of Housing and Supply Chain, Energy Saving Trust**

The Energy Saving Trust launched their monitoring protocol in 2009 to ensure a standardised approach to data collection in the UK. They are supporting the 3 year GHA monitoring and feedback programme as well as supporting the TSB and managing the collection of data under their Retrofit for the Future programme.

### 10.40 The Carbon Challenge

**Jayne Lomas, Exemplar Programme Manager, Homes and Communities Agency**

Run by HCA on behalf of Communities and Local Government, the Carbon Challenge sites will be closely monitored during design, construction and occupancy to capture the lessons learned. The evidence emerging will be disseminated to help equip the development industry with the skills and technology needed to meet the goals being set by Government for new housing development, in particular as a testing ground for the Government's *Code for Sustainable Homes Level 6*.

### 11.00 Fabric testing: Technical approaches and process

**David Johnston, Reader, Leeds Metropolitan University**

Post construction testing is best conducted with a suite of tests centred on the co-heating test and including point heat flux measurement, ventilation rate measurement, pressurisation testing and infra-red thermography. These tests together provide a rich picture of the principal heat loss mechanisms. Come and listen to more detail on how these tests are conducted, what equipment is required and what the tests reveals, with detail from recent case studies.

### 11.20 GHA monitoring programme: Developers approach to post construction testing.

**Nick James, Sustainability Manager, BioRegional Quintain**

GHA developers have realised that monitoring is an essential tool, rather than a perceived threat, and that it will assist them in delivery of low carbon homes. They recognise that monitoring and feedback allows them to improve delivery and be entirely confident that the homes they are building and marketing are really performing as they claim. Nick will present an overview of the GHA Monitoring programme and will describe how this is being applied at One Brighton.

### 11.40 Building Performance Evaluation

**Kerry Mashford, Lead Technologist, Low Impact Buildings, Technology Strategy Board (TSB)**

Kerry will outline the forthcoming TSB competition that will enable companies constructing demonstrator buildings to apply for funding to monitor building performance, enabling comparison with predicted behaviour. The Technology Strategy Board is set to invest up to £8 million in the competition.

### 12.00 Close

Places at this free seminar are restricted and will be allocated on a first come, first serve basis on the day. You can reserve a place by e mailing [info@goodhomes.org.uk](mailto:info@goodhomes.org.uk). Entrance to Ecobuild is free but please register at [www.ecobuild.co.uk](http://www.ecobuild.co.uk)

## NEXT EVENTS

**22nd April, UCL, 12.00 – 18.00:** Feedback and monitoring; Implementation and case studies; seminar and exhibition.

**June:** Good Homes: Occupant and Buyer Satisfaction

For more info, please visit our website [www.goodhomes.org.uk](http://www.goodhomes.org.uk)