An Industries Perspective on the Performance Gap

It’s the little things that make a big difference

Tuesday 8th July 2014
• A sector capable of delivering 200,000 plus homes per annum
Research & Development begins at Home

• Crest involvement to date 100 man days at senior level
• An open and transparent industry working together
• Its not just the performance gap, its attention to detail all round
What’s wrong in these pictures?
Some Examples of Recent Issues

Incorrect materials used on inner leaf of external wall (Thermal Bridging)

Screed has bridged perimeter insulation

Lean mix concrete in cavity?

Beams project into cavity reducing insulation
What’s Wrong in These Pictures?
Some Examples of Recent Issues

- Quality of Cavity walls, missing insulation at eaves and in cavity wall below door

Dirty cavities with build up of mortar snots as not protected during construction

Insulation missing from cavity closer at eaves level up to top of wall plate
The Impact on the Crest Nicholson Business

- Unhappy customers
- Latent build defects
- Higher running costs than expected
- Impact on Crest bottom line for putting defects right
Changing a Culture

• We’ve produced a Quality Manual
• We’re training our Site Managers as well as Senior Management
• Apprentice Days, Toolbox Talks
• Happy customers with low running costs and able to enjoy living in their home

A peek inside....
The Detail and Supporting Documents

The overall cavity tray length is calculated by adding:
The lintel length plus 50mm overhang each end.
The additional length to the next perpend joint (both ends).
An additional 150mm each side made up of 75mm perp and 75mm bed on to the course above.

Installation Manuals

Crest Nicholson has produced a number of manuals to assist Site Managers and sub-contractors to ensure that the products specified are installed correctly.

The manuals can be found on the Crest Nicholson Intranet and if you don't have access please contact the Regional Technical Manager at Crest Nicholson or send an email to request a copy of the relevant manual.

The manuals available are:

Beamshield floor installation

Developed with Springvale Insulations this manual looks at the individual components of the system, installation notes and a sample VM and ladder section.

Cavity tray bag - back procedure where all Beamshield methods should be referred to.

Cavity Tray Systems

for Groundworkers

Crest Nicholson Landscape Architects especially for our Groundworkers Instructions this document sets out the landscape code correctly for the Landscape Generator, then follows the document covers an overview of the work, preparation of the site and construction of the ground works. The document is suitable for Groundworkers and/or Site Managers.

for Site Managers

Landscape Architecture and our Site Managers this document sets out what is expected of the Site Manager when it comes to preparing landscape limits and specifying the advising of the ground works, protection and marking.


Dampers

Developed with Procurement to ensure that the correct fitting of the dampers to maintain peace and safety, the fine integrity of the structure and correct cavity wall positioning. The manual also covers fitting of the dampers/floor and the air space required around a damper.

Cavity Flue terminal kits

Developed with Multi-dwells as part of the Building Code, this installation manual covers the correct fitting of a solid fuel

cavity Flue terminal kit

Damp proof metal stud Party Wall (for RC Frame Apartments)

Developed with Crest Nicholson this installation manual covers the correct construction of the damp proof metal stud party wall.


Where weep vents are not fitted (fully rendered elevations) the ends of the trays must be left open.

Tray upstand 150mm reducing to 75mm where bedded and restrained.
Springvale Beamshield Floor Installation

Cloakroom soil pipes terminate capped max 5mm below the finished floor screed to enable the branch waste from the basin to be connected as low as possible.

Service ducts pass through core drilled penetrations to suit the duct size so that the floor insulation is not compromised.

Segregation area of the recyclable beamshield waste.
**Next Steps**

- Research required to understand the performance gap, why it occurs, and how it can be reduced.
- A clear programme and an end of term goal should be set so industry and its Supply Chain can properly gear up. Needs to be deliverable and cost effective.
- We need an industry-owned “construction details” pattern book, similar to Robust Details that supports the most common construction methods.
- Testing should be a last resort. There’s no point in introducing a testing regime that tells us a home has failed but provides no reason or guidance as to why.
Finally

- Don’t forget the customer! We simply want to design and build homes that our customers love and can enjoy for generations.