

Presentations

Martin Roscoe, 545 Kingston Lacey

- The National Trust had been unable to access this property for a number of years as the tenant was reluctant to move out – as a result, no repairs had been completed for 50 years
- Once they began the project in 2014, they then realised the scale of the work, which was much worse than previously thought
- The methods the team used to restore the cottage were designed to be as in-keeping as possible with the look of the old building
- They used oak frames in place of the old, a new method of wall construction using stainless steel mesh to stop shrinkage. This seems to have worked so far!
- To provide heating and insulation they used a lime flooring, and decided not to have a wood burner or open fire so that they didn't have to compromise on the thatch.
- They used an air source heat pump and the final energy efficiency rating was a D
- The final cottage offered viewing days to local tenants and was well received, and the new tenants are very happy so far
- The cost of the project started off at £286,000, including VAT, but the extra repairs took this up to £360,000 – and potentially the additional fees and legal work pushing it close of £400,000
- Q. RHI: it was agreed by many that there is no simple way of completing an RHI application!
- Q.ASHP: This feeds through to a normal boiler and radiators, and so far seems to be working well
- Q. Repair process: it was a balance of cost and preservation, the lesson learnt was that they potentially needed to do more opening up and now also apply the lessons learnt from the project

Sam Clarke and Fabien Le Dem, Watershed

- This project began with an energy study, to identify which aspects of the building were using the most energy
- Using TM22, the team worked out what is using the electricity and how often these appliances are on for. From there they can get an estimate, and can create a breakdown of where the energy is going.
- This process identified lighting and catering as the key target areas
- For lighting, look and feel is important in a space that is a really human-focussed environment; so understanding the context and also the expectations of the users

- One year on, the kitchen is now electric where it was gas, and this takes a large chunk off the energy consumption. Worth bearing in mind that carbon factors mean this can affect how much carbon is saved, as opposed to kwh
- Q. Watershed wanted to save energy and were doing all they could in-house, but they got to the point where they needed structural changes – the survey was worth the money because it quickly identified key areas of focus
- Q. Solar PV has been considered for the roof, but Sam said that reducing energy consumption overall should come first.

Nicola Walker, The Whitworth

- Visitor numbers have risen since the gallery re-opened
- They were given a sustainable brief, and all funders were setting very high targets
- The sustainable design brief incorporated a passive approach and broad parameters
- The brief included the surrounding environment and landscape, with green space
- They encourage visitors to use sustainable transport
- They have a sustainable ethos in their café and shop
- They have had many challenges but are slowly working through them!

Panel Discussion – How do make our buildings perform better?

Merrissa Fallas:

- To ensure you can retain an element of support its crucial to speak to designers and contractors, and tell them you want them to stay involved after completion – this will enable your team to stay involved after you get feedback and this can be plugged into the next project.
- This must be introduced right at the beginning
- Determine the experience on the team
- The client needs to detail the outcomes and specify how much time is allocated
- Stay involved with the design team, ask questions, ask other people their opinion on the answers!
- Need better evaluation processes

Matt Wood

- The eco-town in Bicester, Oxfordshire has a commitment to be truly carbon zero.
- Researched the project over the last four years – monitoring the construction to identify where problems occur so that these learnings can be applied to the next property
- When it comes to performance it is the smaller, minor things that cumulatively contribute
- Communication around teams is important

- Easy to lose the desire for energy performance – so when doing large scale programme, make sure that communications trickle down through all the contractors and sub-contractors so that everyone understands the overall aims.

Vicki Limbrick

- You need a good specification for what you actually want to control – don't overcomplicate it
- Make sure it is properly commissioned; be informed about what you want to control and why, and make sure your team knows

Trevor Francis

- Things are getting complex – look after the building, keep it well maintained.
- Despite construction being a large industry, most people learn maintenance on the job

Afternoon Workshops

Julie's Bicycle – Energy Monitoring and Reporting

- Strategy: design how you collect your data and think about what you are going to do with it
- Energy Management system ISO50001 – a really helpful tool
- Ensure that your energy policy relates to your organisation's core objectives. This will give it more weight
- Monitoring helps set realistic targets as you aren't plucking figures out the air. You need to know where you are before you start planning where to go
- Top tip: don't overdo sub-metering! Data overload can be just as difficult to deal with, only use sub-metering where necessary]
- Manual readings are still useful! Nothing can beat the human eye...
- Make sure that you can access the data and it is yours to use
- Once you have the relevant monitoring in place, you can start celebrating the achievements. Telling the improvement story is very compelling; organisations that do this well have more success

Key points from the discussion:

- The importance of all people on your team understanding key buy in: senior buy in from the board; information flow – finding someone on the board who can champion sustainability and make it a strategic goal; involving CFOs
- Discussion about baselines: do you start again or do you update existing baselines? Tip: be honest about baselines and it can be appropriate to revise them

- Tip: keep things simple and evolve it as you increase in understanding; get help and support, and manage the expectations of the users
- Tenant-landlord relationship can be difficult; how do you engage occupiers?