

CONSTRUCTION FOCUS

Designing for a sustainable future

Sue Wilcock speaks to directors of Wincer Kievenaar, Craig Western and Philip Branton, about attempting to integrate all elements of sustainability into architectural design.

What is sustainability, what does it mean and why is it so important? For most, it is increasing our use of renewable energy, reducing the impact of climate change and protecting our environment and resources for future generations.

Yet, in planning terms, sustainability has three core strands: Environmental; Social; and Economic. All three are interwoven and should be considered as a holistic approach.

Philip Branton explains. "Sustainability has always been important in building design, but it is rapidly moving up to the top of the agenda, and as an industry we must consider all three strands.

"From the social perspective, is the development in the right location, does it contribute to and enhance a community, are there sustainable public transport links, what to learn and work nearby?"

"Economically, everything we design considers the immediate and long-term economic cost. Our built environment must be viable and good value to be considered sustainable, but this should not come at the cost of the natural environment.

"We don't just design based around the functionality and budget; we consider the whole-life costs of the building over the next 60 years plus. We think about the way the building is going to be used by the occupants, and how it will connect with its surrounding communities.

"As an industry we need to look to the future and when the building has reached its end of life. How will elements and



The Suffolk Yacht Harbour Office and Chandlery at Levington was a scheme designed with sustainability in mind

Picture: WINCER KIEVENAAR

materials in the fabric of the building be reused, recycled and repurposed?"

So how do you design something aesthetically pleasing that meets the sometimes very restrictive, guidelines around sustainability?

"It comes down to a collaborative approach between the client and the design team," Craig Western adds.

"When we first meet with the client, we talk to them and listen to their aspirations and vision, as well as their approach to sustainability.

"It is important to have meaningful discussions with all stakeholders around the subject of sustainability so that it isn't just a 'tick box' exercise to achieve planning. Most of our clients want to see value for their investment and with a considered design approach sustainability does not need to be a bolt on.

"Environmentally, the topic of net-zero carbon is very much at the forefront of discussion. The design process needs to use the technology at our disposal, but the building itself does not necessarily need to be 'high tech'. We must focus on reducing energy needs of our homes and the built environment. Fabric should always come first to create an efficient building envelope, and maximise the use of natural light, solar shading and natural ventilation.

In addition, to minimise embodied carbon, we must carefully select materials which are appropriate for their setting but also consider the energy used in their manufacture. Concrete is an example of a poor material with high levels of embodied carbon, whereas natural timber is carbon negative having absorbed carbon in its growth.

As Mr Branton explains. "The manufacturing, transportation, construction and demolition of buildings is a big contributor to global carbon emissions, and to be truly sustainable you should build what you need.

"We must also think twice before demolishing existing buildings. As architects, we are helping clients whose requirements have changed, or where they are outgrowing their existing premises, to consider rethinking, redesigning and repurposing what they have, to meet their new needs.

"However, although repurposing old buildings is better for sustainability, it often comes at a cost for the client, and that's not just due to materials and design.

"When building something new, the client doesn't pay VAT. Yet if you are extending or reconfiguring existing

accommodation, 20% VAT is added to the bottom line.

"Change of use, or repurposing, attracts a slightly lesser rate of 5%, but essentially if we want developers and clients to prioritise sustainability and the reuse of old buildings, this disparity needs to be addressed at government level.

"The mantra of the moment is to 'reduce, reuse and recycle'. Rather than hindering creativity, recycling old buildings offers architects opportunities to reanimate unique spaces, engage with architectural traditions, and build off the legacies of established sites.

"When it comes to sustainable design, the future is not just about creating new eco buildings that are carbon neutral, but it is about how we as architects, can play a role in revitalising communities, where we live, work and play."

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01473 827992

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