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BEST USE OF TIMBER AWARDS CASE STUDY
Bath Street Collective



“Seeing the CLT frame being constructed was the most exciting aspect of the project. The building went from being a slab on the ground to having a complete 4 storey CLT frame with staircase and balconies in place in just two weeks”

John Kinsley, Architect & resident

We spoke to Architect and resident John Kinsley about the project process:

How, when and why did the four families start the process?

We (JKA) put an advert on the local community website to gauge interest in the project and followed that up with a presentation in a local cafe one evening. From an initial 18-20 attendees there were eventually 4 families that committed to the project. The key motivations for the participants were twofold:- i) being able to save money compared to buying conventionally (because there is no developer involved there is no developer's profit – the flats are bought at cost price) and ii) being able to design and build a property that is completely bespoke.

Why Timber?

I had followed with interest the breakthrough use of CLT in projects down south and thought the material would lend itself to a residential project of tenemental scale. As a client group, we wanted to be as sustainable as possible and we were interested in using a timber structure in lieu of a concrete and steel frame. Although more expensive than a conventional steel frame on a straight capital cost comparison, the CLT saved around 8-10 weeks in programme. We were also able to avoid using considerable areas of plasterboard linings. Together these made CLT cost competitive.

What was your favourite part of the project process?

Seeing the CLT frame being constructed was the most exciting aspect of the project. The building went from being a slab on the ground to having a complete 4 storey

CLT frame with staircase and balconies in place in just two weeks. We could get a sense of space and volume within the building and with door and window positions in place we were also able to identify views out. For the two weeks of the CLT build we had the road closed and a large crane positioned in the street. The children from the local primary school just at the back of the building would stop to watch every afternoon on their way home and our neighbours and other passers-by were intrigued to see this new type of frame be constructed so quickly.

What is your favourite aspect of the finished project?

We have had incredibly positive feedback from our neighbours and the local community. Whilst the building is uncompromisingly of its time we worked hard to ensure it sat happily in the street and I am really happy at how it how well it sits with its neighbours. Also, having lived in draughty old houses for years, it's a joy to be snug and warm through the winter even in t-shirts and stockinged feet!

Is there any advice you could pass onto other community groups?

Lots! Celebrate the small victories, like getting the statutory permissions, buying the land or breaking ground. They will build up a store of positivity for when things inevitably get difficult at some point. You can't do too much communication. Get a good team of professionals around you who you can trust.

What are your plans for the future?

We're planning other similar projects. We are currently putting a group together for a site in Leith and are also looking at using the collective build concept as a model for retirement cohousing. Please get in touch with us if you're interested.

Project Overview

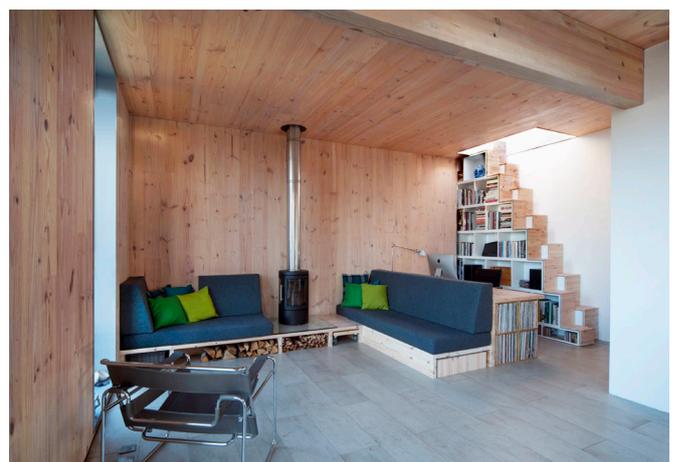
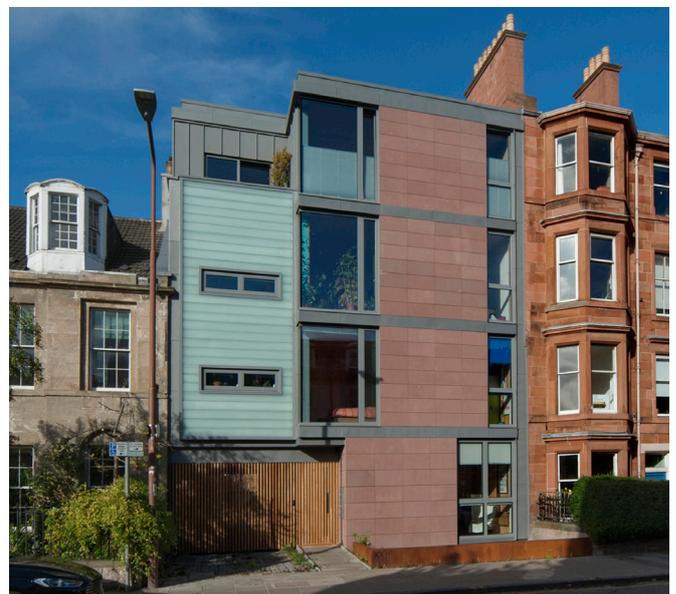
Bath Street Collective is a group of four families who came together to purchase the site and build a small tenement block containing a bespoke flat for each family. When the families started meeting to discuss their plans, one of the key topics of conversation was how 'green' they wanted the building to be. The collective wanted the project to be as sustainable as possible and they soon arrived at a brief that called for the building to be designed to Passivhaus equivalent standards of energy efficiency, with an all-electric strategy that would allow them to run free from fossil fuels.

As part of that discussion, it was also apparent that embodied energy and the use of healthy materials was important. The group was aware of Cross Laminated Timber (CLT) buildings in other parts of the UK and felt that their building, a four-storey tenement, lent itself to that form of construction.

They engaged with the contractor Egoon early in the design process and the local representative was extremely helpful in putting together some initial costs which demonstrated that the use of CLT was feasible and could be cost effective.

The CLT frame was constructed in just two weeks. Using this type of structure meant there was no need for a traditional steel frame, concrete floors, blockwork walls, plaster wall finishes and fireproofed steel. It is estimated that this saved around ten weeks in the construction programme as well as avoiding the need for additional trades.

By exposing the CLT they saved approximately 800m² of plasterboard. Research from the University of Tampere, Finland has shown that internal timber finishes can reduce the blood pressure and pulse of occupants when compared to plaster finishes. Anecdotally based on their experience, the residents believe the exposed interior finishes help promote a sense of wellbeing.





Location: Portobello, Edinburgh

Date Completed: April 2017

Building Type: Residential

Architect: John Kinsley Architect

Client: Bath Street Collective

Contract Value: £883,197.37

Main Contractor: HM Raitt and Sons

Timber Supplier: Egoín

Photography: John Reiach, Egoín