



FACADE ANALYSIS

Second Year Technical Studies - Material

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BASIC INFORMATION & SITE SURVEY

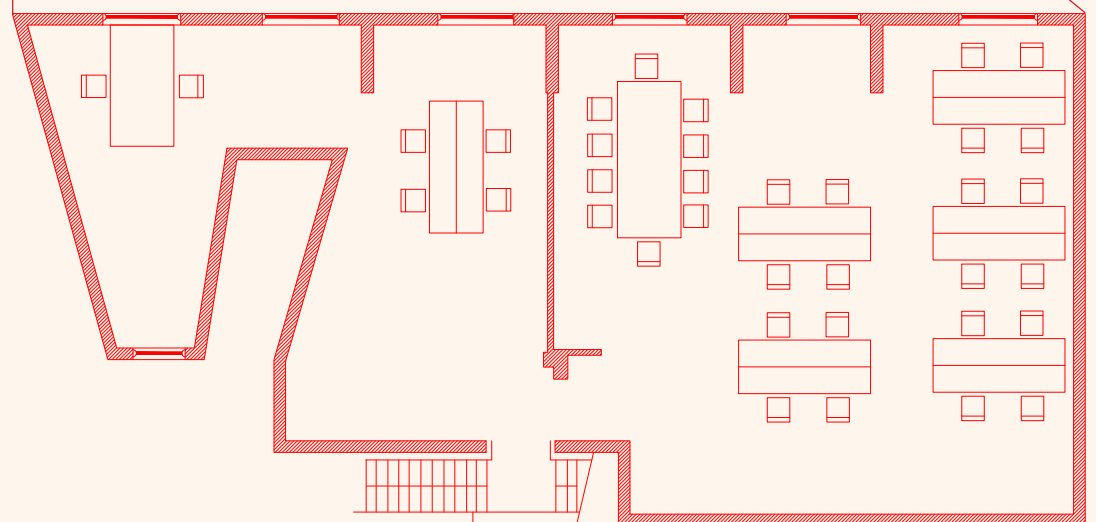


Property Name:
50 Whitmore Road

Architect:
Waugh Thistleton Architects

Location:
Hackney, east London

Completed:
November 2012



This testbed for what a CLT architecture could be is a seven-storey canal-side city block with a photographic studio, offices and three duplex flats.

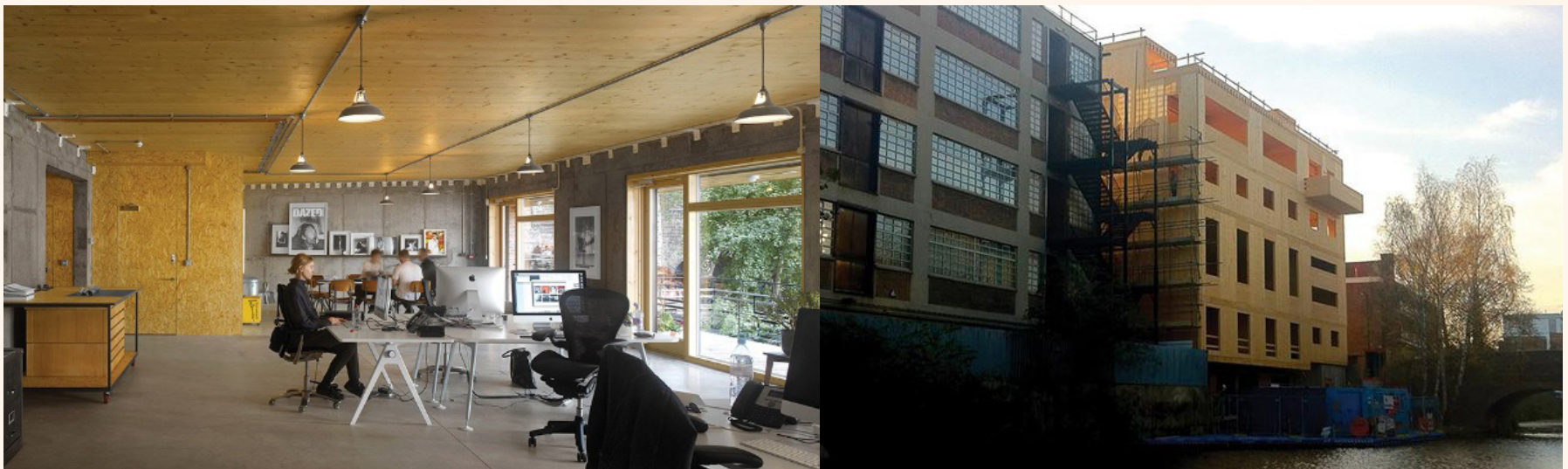
It provides the four-client co-operative with two floors of office space, a double-height photographic studio and three triplex apartments that open onto roof terraces overlooking the canal.

The arrangement was determined by the site being bounded on two sides by buildings and the other by the canal, as well as the aspiration to maximise space and make the most of the aspect.

The office spaces on the lower ground and upper ground floors benefit from canal views, a canal-side walkway and a large deck. The 5m-high photographer's studio sits above this. The commercial spaces at these first four levels face north where an adjacent building sits to the south.

On the fifth to seventh floors, family-sized, three-bedroom flats benefit from 360 degree views, cross-ventilation and solar-gains from the south. The roof terraces feature private decked areas and a brown roof bearing wildflowers.

INITIAL OBSERVATION & ASSUMPTIONS



The reason why I chose this building facade to analyse is because of its unique combination of material. Comparing to its surrounding brick buildings, the elevated wood facade, supported by the red bricks underneath, makes the building itself stand out and has a lighter feeling, almost floating, yet the overall colour scheme is coherent to its neighbourhood.

The lower ground floor was built out of concrete and erected in five weeks by a team of four. However, this concrete wall is hidden behind the red brick exterior wall, probably due to the aesthetic coherent reason.

From the construction photo, we can tell how the CLT are being used as part of the main force loading structure - maximising the multilateral strength of the material by arranging spaces to minimise lateral spans. At the centre of the building, the double height studio spans 9m and stretches to 23m of open column free space. This is achieved by the walls acting as beams and the party walls in the apartments above acting as trusses. The cross-laminated timber structure was erected in five weeks by a four man team. The cladding is sweet chestnut, a traditional cladding used in British barns.

INITIAL OBSERVATION & ASSUMPTIONS



INITIAL OBSERVATION & ASSUMPTIONS



Here we can see how the wood panels react to the weathering. Comparing to the very first construction photo, the building now has gained a more natural texture and colour. This building would only require small amount of maintenance, its flat surface and inwards windows makes it easy for the water to slide away.

INITIAL OBSERVATION & ASSUMPTIONS



Look further into detail, we can see how the wood panels are shaped in such a way to minimise the rain getting inside the facade. At the same time, the gap in between allows the panels to expand during hot summer days.

Behind the panels are the insects net and some reflective surfaces which I would assume it as insulation layer.

CROSS LAMINATED TIMBER



Rubber House by Cityforster



Elementary school Egggham, Germany.



Built by GarcíaGermán Arquitectos in Castillejo de Mesleón, Spain

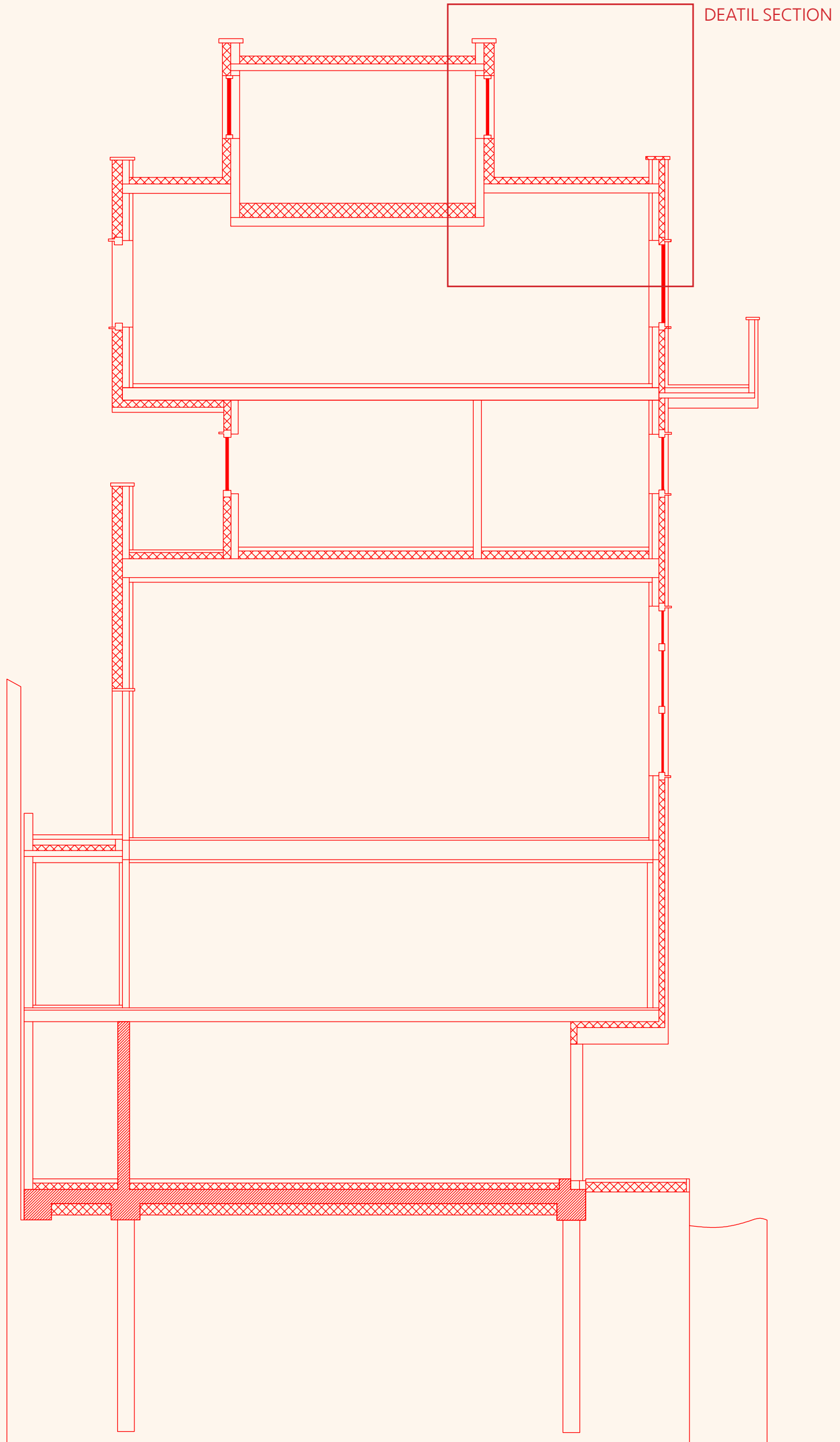


Big House by Glamuzina Paterson Architects

Here are some examples on how CLT are used on building facade as well as interior design.

Most of them are a mixture of two materials and the most common combination would be with concrete. In my perspective, by using plain concrete as a base can stand out the colour and the texture of the wood panels, it is also a cheap and fast way for constructional reason.

FACADE CROSS SECTIONS



DETAIL FACADE CROSS SECTIONS (SELECTION)

