

NEW LONDON

QUARTERLY

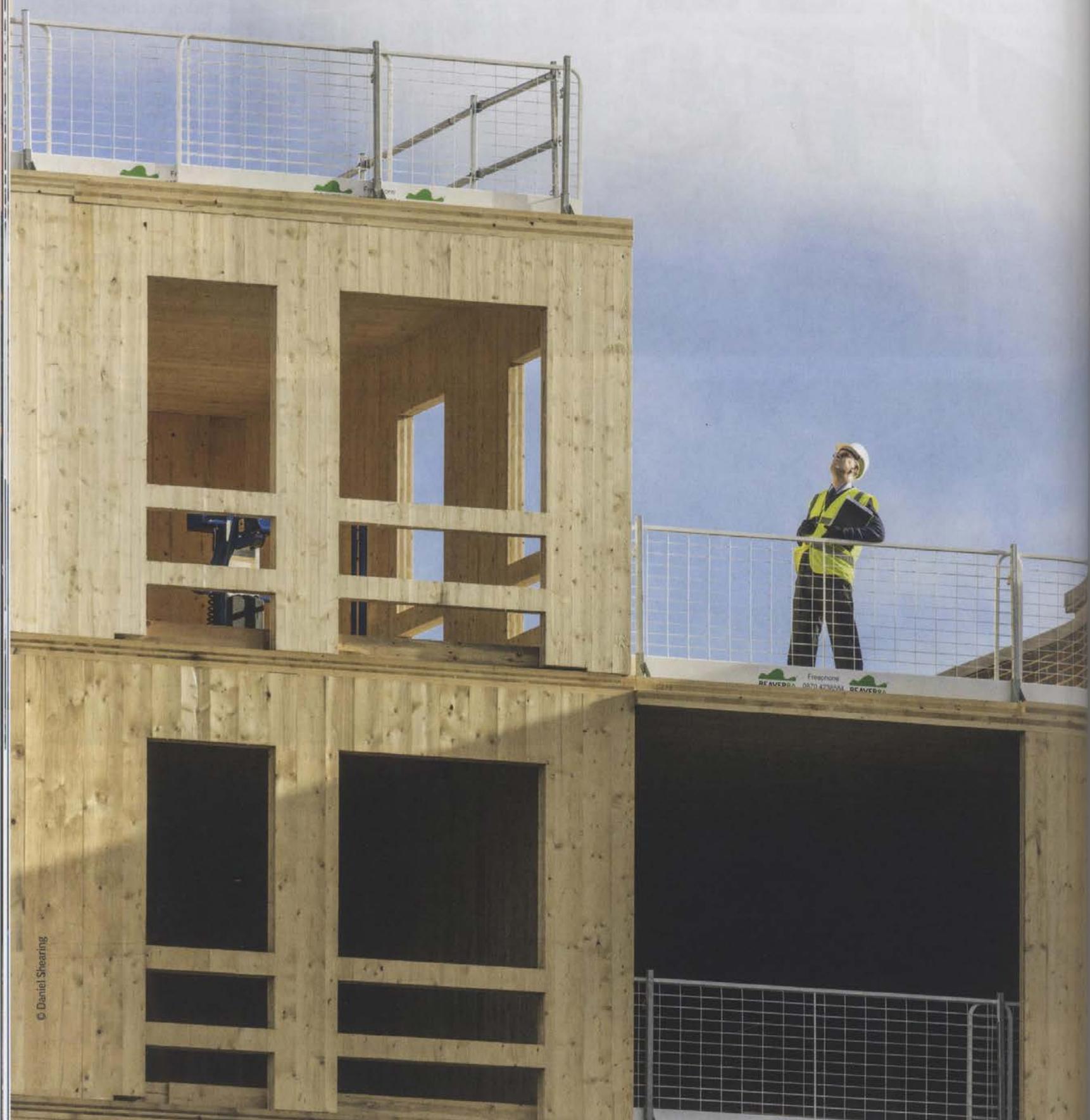
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DALSTON LANE

By *Andrew Waugh*, director, Waugh Thistleton Architects





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On track; the Dalston Lane CLT project overlooks the railway

Waugh Thistleton's ethos has always been that the quality of the architecture should not play second fiddle to the sustainable ambitions of the project. There is no need for a 'hair shirt' approach – why shouldn't

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sustainable buildings perform to the same design aspirations as any other? Nowhere is this ethos more evident than at our soon-to-be-completed Dalston Lane development in Hackney. The 121-unit development is estimated to use more structural timber than any other project in the

world, making it the largest cross-laminated timber (CLT) project globally and saving 2,400 tonnes of carbon. At the same time, this is a worthy architectural addition to a richly diverse part of London, a building that complements its Victorian context as well as providing a thoroughly contemporary addition to Hackney's streetscape.

On a prominent corner site previously occupied by a group of one, two and three-storey light industrial buildings, this part of Dalston is designated as a Priority Employment Area. We were keen to propose a building that maximised the potential of this key position, at the same time complementing the diverse cityscape that ranges from two-storey terraces to 20-storey residential towers.

The building is imagined as a village within a city, the plan modulated to break down the large site into a series

of forms. By recessing the plan form of the building, the mass is formed into a cluster of smaller elements that are more recognisable as the scale of individual buildings in the area. The modern residential community makes up a large part of the new streetscape, and responds in scale with varied roof heights, undulating between five and 10 storeys, each orientated to maximise daylight to the apartments and communal open spaces.

The touchstone in this part of the borough for buildings this size is in the range of ornate brick warehouses nearby, not the small white stucco and stock brick residential buildings. For that reason, a robust red and brown brick architecture was developed, expressed in crafted brick cills and heads and complemented by contrasting dark metalwork.

The 10-storey, 17,000 sqm development incorporates 121 homes,

of which 20 will be affordable, 3,500 sqm of office space and around 1,500 sqm retail and restaurant space. The office space includes a small business hub designed to attract and support SMEs in the development and the wider area.

As well as tackling London's need for high-quality, high-density housing that provides a natural and healthy living environment, this groundbreaking use of timber

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technology has significantly reduced the carbon footprint of the building in terms of both material production, and on-site time and energy consumption. The London borough of Hackney actively encourages timber construction, having mooted a 'timber first' policy in 2012. The Dalston Lane building will join a number of

other timber buildings in the area making this central London borough a world leader for timber construction.

The development is made almost entirely of CLT: external walls, party walls, the floors and ceilings of the apartments; even the blocks' stair and lift cores are made from CLT. Each bespoke CLT panel was delivered to the east London site complete with cut-outs for doors and windows and even pre-formed holes for soil pipes and other penetrations thereby reducing the build programme and reducing the number of deliveries during construction by 80 per cent. Weighing a fifth of a concrete building of this size, the structure is taller than was ever thought feasible on the neglected brownfield site that is constrained by its proximity to a future Crossrail route.

The aspiration is to see this technology become normality. When we completed Stadthaus on Murray Grove in 2009, a nine-storey timber building was a novelty. Now, timber buildings are springing up across the UK and new aspirations are being set for height and magnitude of timber projects. ●

Engineer Ramboll's CLT experts have calculated that the building will save 2,400 tonnes of carbon, compared with an equivalent block with a concrete frame. By using CLT construction, the embodied carbon is 2.5 times less than that of an equivalent concrete frame. Taking into account that timber stores carbon by absorbing carbon dioxide (CO₂) from the atmosphere, which is also known as 'sequestered carbon', the structure can be considered as 'carbon negative'. Ramboll director and CLT expert Gavin White said: 'It is exciting to see this benchmark project get out of the ground. The height and size of the Dalston Lane building shows how versatile CLT is, as well as its potential in leading the future of sustainable construction. We have been working on CLT projects for more than 10 years now, so it's heartening to see Hackney actively encouraging CLT construction, and we look forward to completing what will be a landmark building'.



Wood, for good – how the finished scheme will look