

Barrett's Grove, Stoke Newington, London

Challenge:

Barrett's Grove, set in a Stoke Newington Conservation Area, accommodates two three-bedroom maisonettes, three two-bedroom flats and a studio. Standing on an archetypal Victorian street between a semi-detached townhouse and a red brick primary school, the form of this six-storey building echoes the tall gables of the school and standalone presence of the townhouse. The project required a comprehensive understanding of the materials and their structural properties as well as careful detailing of the exposed loadbearing elements, because many of the loadbearing elements are exposed, and each of the materials act and move in their own way. The result is a seamless combination of structural form and architectural vision.

Solution:

Cross-laminated timber is used for all wall, floor and roof superstructure, and enveloping the building is a non-structural façade of perforated brickwork that matches the neighbouring buildings. Wicker-woven balconies soften the external material palette, and are offset in elevation allowing neighbours to communicate with each other. Internally, the CLT and brick structures are left exposed and joined by timber sets, shelving units, doors and stairs. The ability of the materials to serve a number of purposes removed the need for plasterboarded walls, suspended ceilings, cornices, skirtings and finishes, and the simplified timber design, while allowing the exposed CLT structure's material qualities to drive a warm, tactile aesthetic, reduced the embodied carbon of the building, construction cost and time on site. Enveloping the building is a non-structural façade of perforated brickwork that matches the neighbouring buildings and acts as an aesthetic rain screen. This is decoupled from the rest of the building to allow it to expand and contract separately. Wicker-woven steel balconies are hung every other aperture softening the external material palette, and are offset in elevation allowing neighbours to communicate with each other, and large enough that they can be used for alfresco dining and entertaining. In almost all modern buildings the use of brick is not in any way structural or load bearing; only acting as a half-brick thick skin or rain-screen. Furthermore, when brick is used it is split across each floor with shelf angles then split again vertically with expansion joints. This awkward and inefficient method has gradually and somewhat inevitably replaced actual bricks with slips and more recently 25mm pressed brick full height panels, arguably the equivalent of an external grade wallpaper. This need not be so, at Barrett's Grove though the half-brick wall stands as a rain-screen we have done away with the need of shelf angles and expansion joints by allowing it to support itself across the full height of 6 floors. Only connected back with flexible wall ties to the CLT superstructure this decoupling enables the brick and timber to expand and contract independently without the need for expansion joints. The double stack stretcher bond adds a sense of solidity and playfulness while at the same time overtly expressing that a half-brick wall is never a solid structural element and of course the large gaps also offer an attractive 15% material cost saving for the client.

Architect: Amin Taha Architects

Brick:

Birtley Olde English Buff