



Case study: Chaucer House, Sutton

Sutton tower block is transformed by innovative solution

The redevelopment of a Sutton eyesore has been hailed as the borough's most complex investment project.

The three-year £13m project included all 96 flats within the Chaucer House tower block in Sutton, each receiving brand new kitchens, bathrooms and heating systems. The exterior of the building was also renovated with new windows, doors and rainscreen cladding.

THE PROBLEMS

The main aim of the refurbishment works was to improve the energy efficiency of the building and, in turn, reduce utility bills for the residents. The system and glazing specified for the apartment windows would need to offer high thermal performance while also providing the durability and security that a high rise tower block demands.

The communal areas of the tower block had different requirements. The stairwells and viewing gallery on the roof level did not need to be thermally efficient but the stairwells would require a bespoke framing design due to the angled nature of the glazed areas.

The residents remained in occupation throughout the refurbishment so a solution was needed to minimise the inconvenience and disruption caused by the works.

The tower block also presented a logistical challenge which would mean a higher than normal amount of installers would be on site to carry out the different tasks. This would require careful planning and coordination from our Contracts Manager.

THE SOLUTION

Given that the building would be occupied throughout the works it was decided that a single unit would be used as a pilot flat to give the specialist contractors an opportunity to put the designs to the test and iron out any issues that arose before the main work. This took place in October with the rest of the work commencing in early December.

In order to reduce the disruption caused to the tenants, Pellings LLP - the building consultants for the project - developed a solution where an exoskeleton framework system was constructed over the existing glass reinforced plastic cladding which would provide structural support for the windows and cladding panels. Pockets were then cut through the existing panels to accommodate bespoke brackets attached to the concrete floor slabs.

Sapa's Dualframe 75 system was selected for the apartment windows and were glazed with Cool-lite SKN174 solar control glass. 24mm glazed in louveres - supplied by Bridge Louvre - were incorporated to ensure the ventilation requirements were met.

The communal stairwell was specified with a Glostal 202 corner glazing system with single glazing comprising of 4mm Bioclean and 6mm clear float glass bonded together with 0.76mm interlayer of PVB film forming a 10.8mm Stadip Protect. Glazed in louveres were also included.

THE INSTALLATION

Chaucer House was one of the largest projects that Prima Systems had undertaken so it was decided that full time site management was required.

The existing window frames were carefully removed using a 110v low vibration reciprocating saw to cut through the jamb members and pry bars were used to remove the frame from the structure. The glass and frames were then cut down to manageable sizes and placed on the external scaffold unit ready for removal.

Due to the unique nature of the exoskeleton frame system a level of on-site fabrication was needed. The undercroft of the building was split up into sections and set up as a working area for each of the subcontractors.

This meant that when the glazing and frames were delivered to site, they were fork lifted down to the undercroft to a make-shift production line where our team could make the necessary adjustments and fit the accessories.

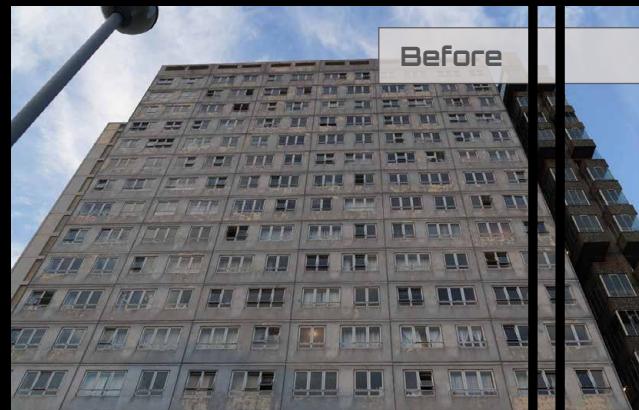
To avoid a cold bridge forming between the new supporting metal frame, we fixed a PVC perimeter angle to the window frame that attached to a steel angle fitted to the frame by the cladding subcontractor, RKC Roofing & Cladding to form a fully watertight facade.

CONCLUSION

Chaucer House was successfully completed and handed over in May 2016. It was the culmination of nearly two years of hard work for the Prima team, from the original pricing of the works in 2014 through to the 18 week installation period with five full teams working at the peak.

Project profile

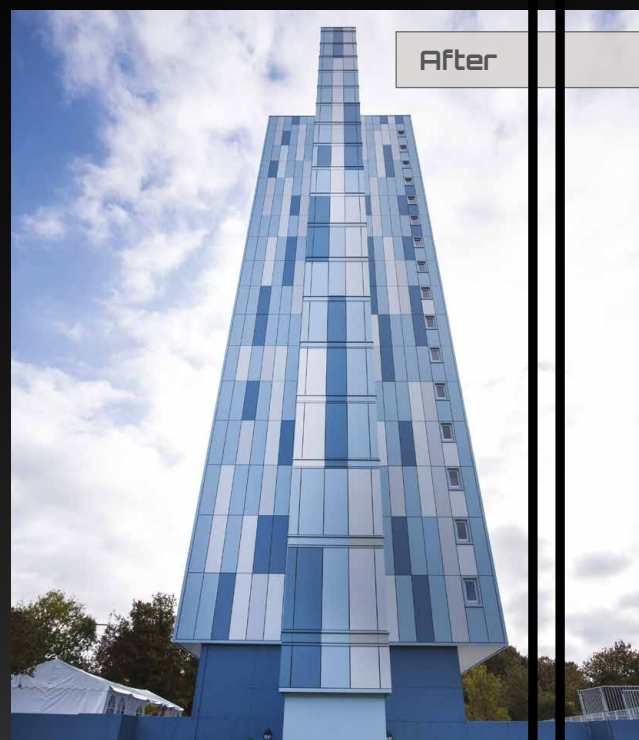
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|--------------------|---|
| Project: | Chaucer House, Sutton |
| Architect: | Mulalley |
| Contractor: | Mulalley |
| Value: | £1.15m |
| Products: | Sapa Dualframe 75 Si windows Sapa Glostal 202 commercial doors Renson glazed-in louvre panels |



Before



Artist's impression



After

Prima

Integrated Facade Solutions