



Case Study



Pontoon Dock

“The Sapphire Balcony installation was the most memorable part of my most recent project. It was the first time that our team was using the Sapphire balcony system, so naturally we were slightly apprehensive and anxious about implementing a new process. In the end, we could not have been happier with the way the process went – from clear communication throughout the design phase, providing quality balconies, and professional expertise during the installation. I would say that we were not only content with work, but we enjoyed working with the entire Sapphire team involved.”

Andrew Fitzpatrick – Bouygues



Pontoon Dock

Client: Bouygues

Contractor: Bouygues

Architect: Assael Architecture

Location: Newham, London

Balconies: 205

Pontoon Dock is part of the regeneration of the Royal Docks area providing 236 residential units to meet the growing need for housing in the capital. The project will form a gateway to the Thames Barrier Park which “combines striking landscaping with adventurous planting”.

Residents will enjoy exceptional views from their Sapphire balconies over the River Thames, park and the historic Royal Docks. The architects made use of BIM Level 2 to accelerate the project and facilitate smooth collaboration.



Challenge

The challenge at Pontoon Dock was around how to effectively meet the client’s design needs while bringing the benefits of offsite construction and MMC. The design needed to incorporate the specification given and ensure that the balconies fit seamlessly with the surrounding buildings to maintain consistency.

There were also constraints based on the planning conditions which required Sapphire to manage meeting both NHBC drainage requirements while meeting the existing planning terms.

The site involved logistical challenges requiring “tight logistical planning” according to the Project Manager.

Install time was also a key concern for the site team who required an efficient hassle-free install to keep to the project programme. An additional challenge was working in coordination with the scaffold and other trades.



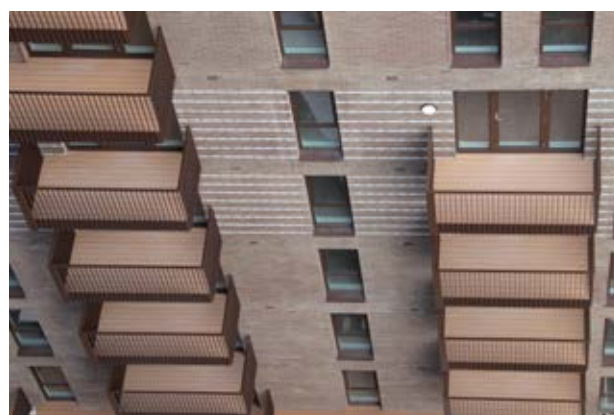
Solution

The design of some of the balconies featured a parallelogram to bring a unique look to the building and included a mix of balconies with and without soffits to match the surrounding buildings and meet the planning conditions. With consideration of the NHBC drainage requirements we ensured the balconies were appropriately drained while keeping within the terms of the planning.

Some balconies also featured low level solid end panels. One of the key benefits to offsite construction is consistency and superior quality control allowing the balconies to be manufactured in a controlled environment enabling the exacting specification to be precisely met.

According to the project manager, “on time delivery was key”. To meet the logistical needs of the site we worked with the team to carefully plan deliveries in synergy with the programme.

Our Glide-On™ technology also enabled a smooth install to be quickly completed helping cut the full site programme by 4 months. The presence of scaffold on the lower levels would have posed a problem for traditional balcony methods but using our Counter Balance Lifter (CBL) we were able to install balconies in a sequence to suit the needs of the site. This meant balconies could be installed on the upper floors while scaffold was still in use on the lower levels, adapting the install to fit with the other active trades and ensuring a seamless hand over.





Step 1

Cast in anchors were cast into the slab & incorporated thermal break connections offering superior rigidity to the balconies.

Step 2

Cassette® balconies were preassembled offsite, including the balustrades, decking & soffits.

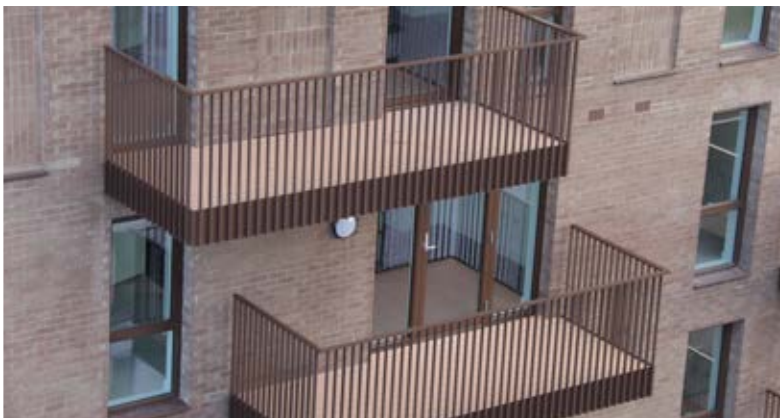
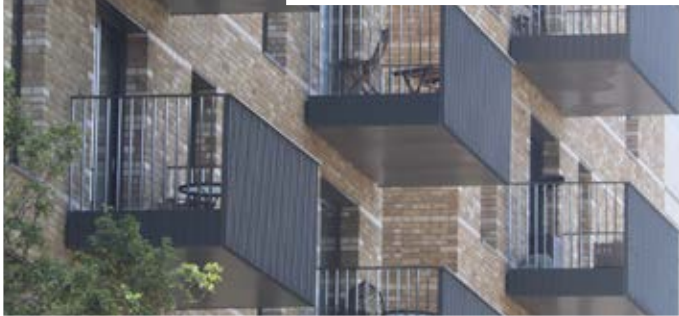
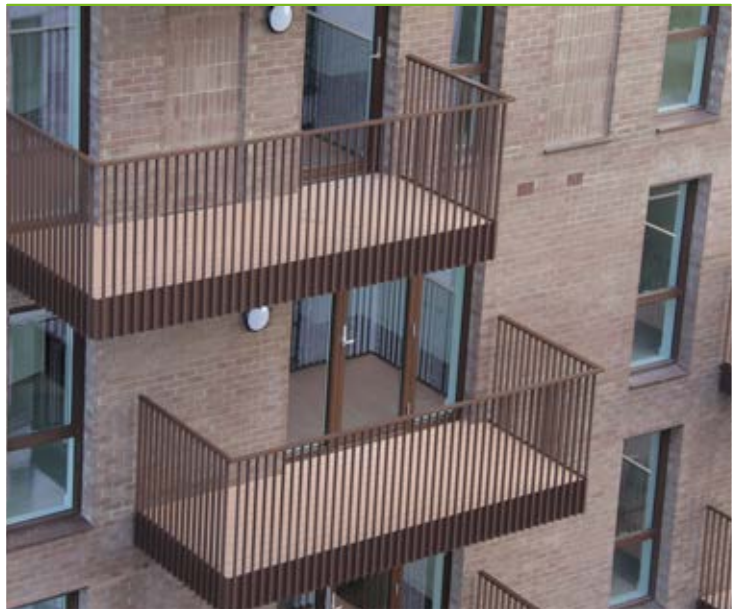
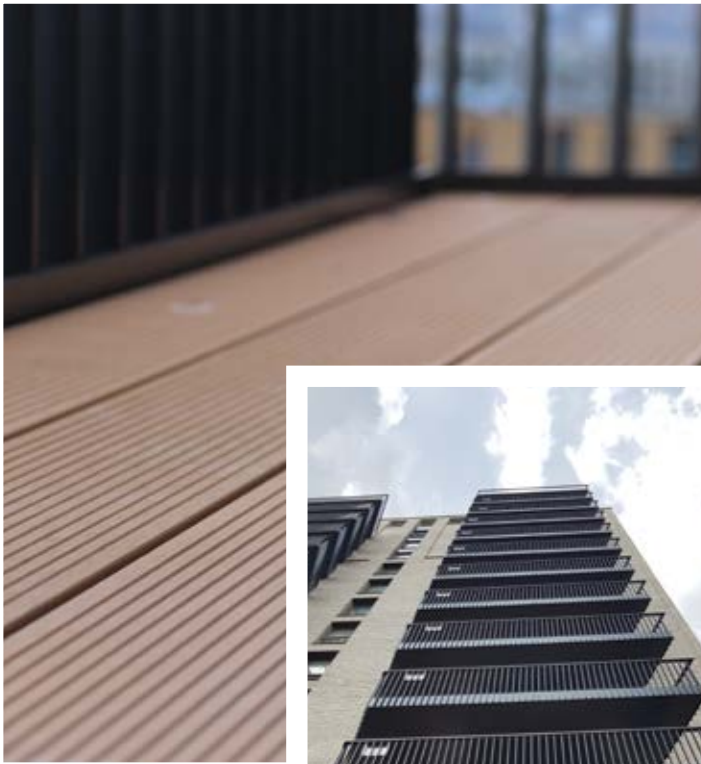
Step 3

Cassette® balconies were transported with balconies secured to each pallet making transport both cost effective & safe. Balconies were pre-slung offsite ready for installation upon arrival.

Step 4

Once lifted into position, the Cassettes® simply Glide-On™ to the pre-erected support arms, before completing the simple mechanical fixings.





NBS Specification

Pontoon Dock

Manufacturer	Sapphire Balconies Ltd 11 Arkwright, Road Reading, RG2 0LU 0844 88 00 553 sales@sapphire.eu.com www.sapphire.eu.com
Reference:	Glide-On™ aluminium Cassette® balconies with vertical bar balustrades.
Balcony anchor:	Cast-in anchors incorporating thermal breaks.
Arms:	2-piece galvanised steel.
Cassette® structure:	Standard 400mm modular Glide-On™ Cassette® balconies.
Soffits:	A mix of polyester powder coated aluminium controlled draining soffits and some balconies free draining without soffits.
Deck finish:	Enjura WPC composite decking fixed with hidden clips.
Toprail:	Profiled polyester powder coated aluminium using a sloped profile directed back towards the balcony for safety.
Guarding:	40 x 12mm flat polyester powder coated aluminium vertical infill bars with some featuring low level solid end panels.
Base fixing:	Mechanically fixed to Cassette®
Fascias:	Polyester powder coated aluminium fascia trim to conceal edge of balcony frame fascia raised above the level of the decking to provide a safety kick plate for vertical bars.





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