



Case Study

 **SAPPHIRE**[®]

Eastlands E05,
Wembley

“Install was much quicker. Efficient, good quality design and production and good transport system.”

Project Manager – John Sisk & Son Limited



Eastlands E05

Client: John Sisk & Son Limited
Contractor: John Sisk & Son Limited
Architect: Broadway Malyan Architects
Location: Wembley, London
Balconies: 444

Eastlands E05 is one phase of a substantial development of Wembley Park surrounding Wembley Stadium. Wembley Park is an 85 acre development by Quintain comprising of an astounding 8,400 new homes, a 7 acre park and extensive office and retail space totalling 8.8 million sq ft. Wembley Park is set to be an exceptional place to live with bustling shops and venues and, of course, the stadium right on the doorstep.



Challenge

Given the central location and proximity to the stadium there was extremely limited storage space on site and strict security procedures for deliveries. The lack of space on site meant traditional balcony methods were not suitable and offsite production was essential.

Eastlands E05 also featured precast panels from Techrete which included preinstalled windows. While precast panels bring a host of benefits, particularly for programme speeds, they also require consideration from the anchor design stage.



Solution

Due to the project's prominent location in the capital access to the site was strictly controlled with time slots for deliveries and minimal storage space. Delivery timeslots had to be booked ahead of time for lorries to gain access to the holding area. This required precise timings for our logistics team and working closely with drivers and site to ensure deliveries ran smoothly. Thanks to the careful monitoring of lorries by our logistics team deliveries were well coordinated with the site team and other trades, ensuring the crane was available for installing the Glide-On™ balconies.

One of the ways the logistics and design team worked together to ensure smooth

deliveries to site was by redesigning our double stacking trailers. Eastlands E05 required 444 balconies which were all the same size, meaning they could not be 'nested' together to reduce the number of loads. Instead, the double stacking trailer was carefully redesigned to allow for twice as many balconies to be transported per load while ensuring they remained safe and secure en route. This innovative solution not only met the logistical needs of E05 and other projects but also cut logistical costs and emissions in half.

Upon arrival the balconies were immediately lifted from the lorries and installed directly on to the building for a quick and efficient install using our Remote Locking Device.

To guarantee the rigidity of the balconies and facilitate a quick install a unique socket stub was designed to be fitted between the precast panels. This meant the stubs had to be designed in close coordination with Techrete to an exact specification with strict quality control. In addition, the stubs were manufactured to be installed in line with the installation of the panels. As each panel was positioned and secured, the stubs would be installed into the awaiting slots before the next panel secured them in place.

The use of MMC at Eastlands E05, from modular balconies to precast panels, enabled the challenges of the site location to be overcome without compromising on quality or efficiency.



Step 1

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

Step 2

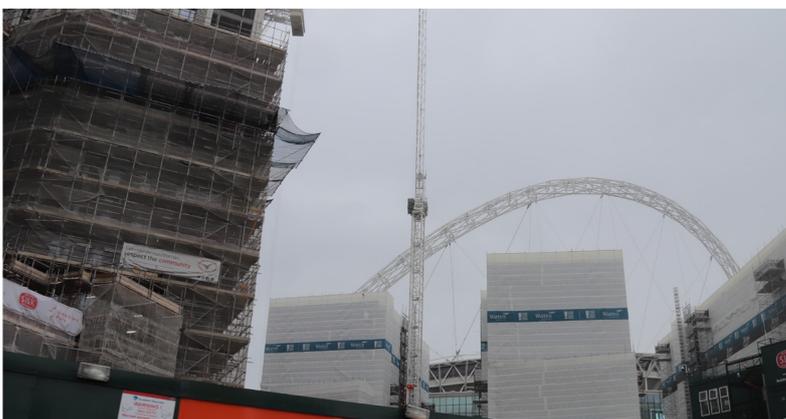
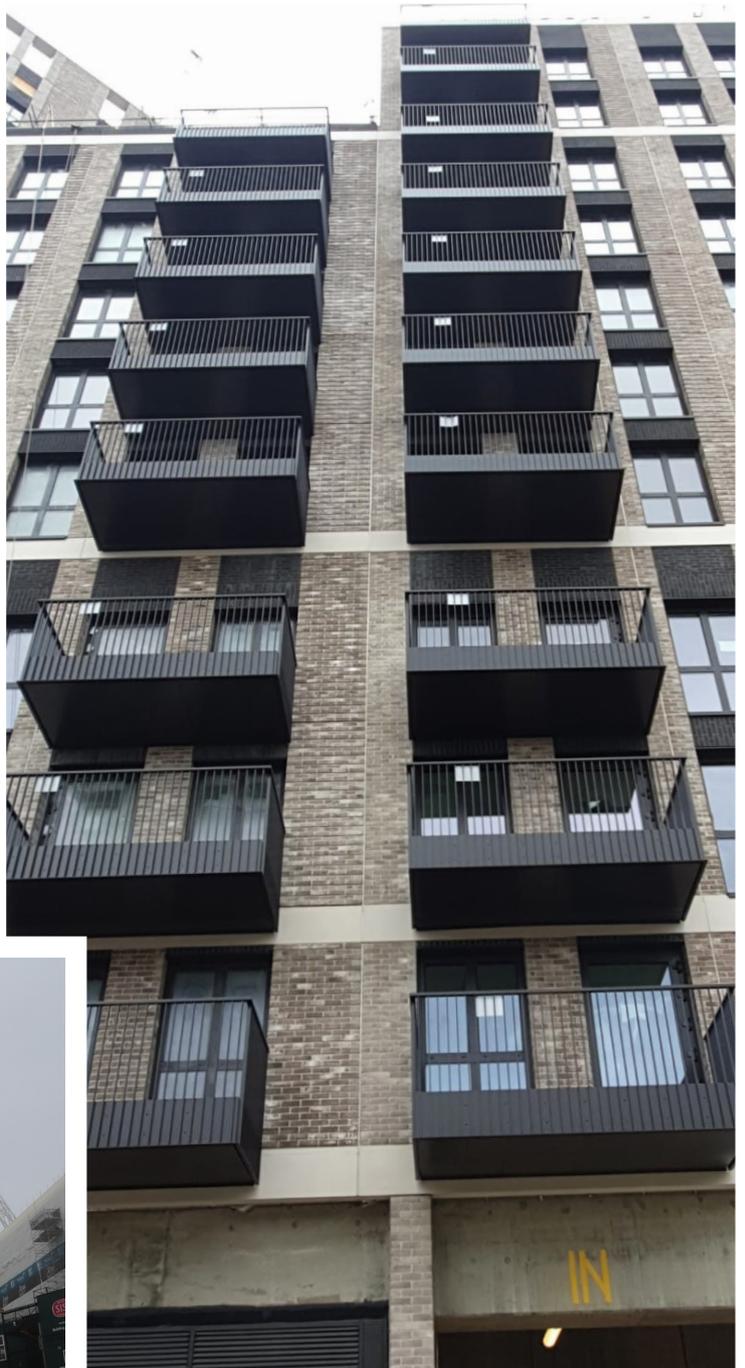
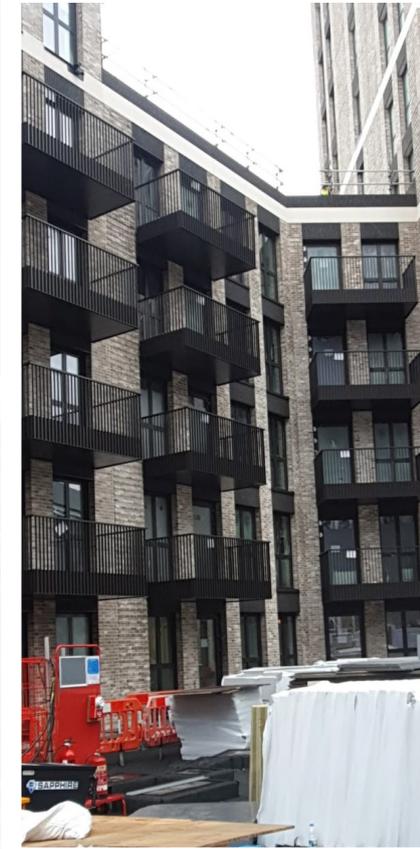
Cassette® balconies were preassembled offsite, including the balustrades, decking & soffits.

Step 3

Cassette® balconies were transported with balconies 'nested' onto 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

Eastlands E05, Wembley

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 Crystal® frameless, structural glass
Balcony Anchor:	Cast-in anchors incorporating thermal breaks.
Arms:	2-piece galvanised steel.
Cassette® structure:	Standard 400mm modular Glide-On™ Cassette® balconies.
Soffits:	Polyester powder coated aluminium free draining soffits
Deck finish:	MyDek aluminium decking boards
Toprail:	22 x 22mm (nominal) 'U' shaped satin anodised aluminium capping to top of glass
Guarding:	Clear toughened PVB laminated glass to meet 0.74kN/m loading
Base Fixing:	Mechanically fixed to Cassette®
Fascias:	Polyester powder coated aluminium fascia trim to conceal glass fixings/edge of balcony frame





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