

Yuanda 'Safety Socket' Level 52-53 Madison 2019 Case Study

Fig. 2



The Challenge

At The Madison the Façade design at roof level to create the penthouse terraces is extremely challenging to realise the vision of both Make architects and the client LBS Properties. (As can be seen from the architects' vision). To be able to install the Façade elements in this design they require a complex network of secondary steelwork to be installed at the building's edge on both Level 52 and Level 53 which is one of the most high-risk elements of the projects. Installing 500kg steel section's at 180m from the ground requires some innovative safety measures.

The Measures

Balfour Beatty worked with Yuanda Europe (Façade Contractor) to see what method could be implemented to tether each of the nuts required to fix the large Steel sections on Level 52-53. Each Steel section requires 4 individual nuts to secure the section to the bracket, and due to the nut needing to be twisted onto a threaded bar, no tether could be installed.

The solution was to fabricate a 'Safety Socket' which each nut could be placed into and held in place with a grub screw. This solution meant that each nut could be secured and safely installed without the risk of falling from the tower. This innovative solution was detailed and provided by the Yuanda site team as no other solution's were available on the current market.

Where:

The Madison, Level 52-53 Façade Secondary Steelwork.

When:

August 2019

The Madison is progressing towards the topping out of the Façade system, with works now being complete up to Level 51. The next section of works is to install the Secondary Steelwork system to support the remaining Façade elements at both Penthouse and roof level.

The Results

- Zero nuts leaving the tower.
- All Secondary Steelwork brackets installed at Level 52 and 53 without incident.

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