

Broome Soho

New York

Case Study



A bespoke building access solution for glass facade of 565 Broome Soho

565 Broome Soho (formally known as Soho Towers) is a luxurious condominium building rising high above the bustling New York streets and offering stunning views across the city and the Hudson River. A myriad range of specific architectural and design features called for Manntech's experience and expertise as a world-leading provider of facade access solutions and building maintenance systems. The building design by Renzo Piano Building Workshop is defined by two tower structures which present a beguiling mirror image effect. The twin towers rise as two separate entities from the roof of the amenities section of the building at level eleven, reaching 25 storeys at 88.4 metres or 290 feet in height. From the eleventh floor down to street level, the building footprint increases significantly where the towers are linked by a glass-walled atrium. Not only the atrium, but the whole building is entirely encased by glass facades, with every corner featuring long panels of curving glass with no right angles. The challenging form of the structure and its all-important glass facades required a number of tailored facade access solutions which the clients were confident Manntech's building maintenance systems could provide, having seen the proven results of our Building Maintenance Units throughout an existing relationship.

The project required comprehensive access for every exterior surface of the building from the roof to ground level. Manntech developed a system of two identical Building Maintenance Units located in fixed positions on the roof of each tower. Both BMUs provide for a high degree of functionality with a 26 metre outreach and a cradle of four metres in length capable of supporting 500 lbs (over 226 kg) in weight, with the additional feature of a 1100 lb (nearly 500 kg) capacity glass handling unit for the convenient replacement of the crucial glass facade panels. The curved corner sections of the structure required careful consideration as the building design necessarily means that the cradle extends beyond the edge of the structure.

Another significant challenge during this project was the widening building footprint where the two towers are connected at the level 11 amenities roof. In the particular context of New York City, soft rope reelers were not an available method of transitioning the cradle over the terrace. In close collaboration with the client, Manntech's expert team explored a number of possible alternatives before developing a bespoke solution which combined the benefits of two different stabilisation approaches. The client was interested in deploying intermittent stabilisation anchors (ISAs) which secure the platform against the side of the building itself and can offer a lower risk of the cradle causing damage to the facade during high wind conditions. Purely ISA based building maintenance systems, however, would not be capable of safely navigating the cradle over the terrace section. The twin Building Maintenance Units therefore utilise a hybrid combination of these two methods. The majority of drops are completed using ISAs, in line with the client's preference, while the terrace roof is navigated using mullion tracks for safe and secure transition of the cradle over this awkward feature, providing complete access to every inch of the facade.

Facts and Figures

Completion:
November 2016

Commencement:
October 2019

Building Height:
88.4 metres / 290 feet

Floor Count:
25

Number of BMUs:
2

Outreach:
26 metres

Building Type:
Residential

For more information

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