SANDY BROWN

The Stratford Hotel

Complete	Area	Client	Architect
2019	UK England	Manhattan Loft Gardens Developments Ltd	Skidmore Owings & Merrill

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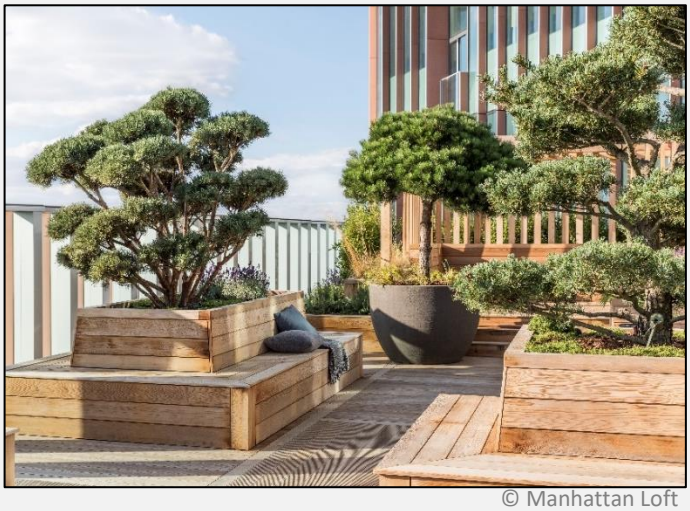
Located near Stratford International station, the 42-storey The Stratford is situated close to the Olympic Park. This building is a mixture of residential loft-style and single-storey apartments, and a five-star hotel with amenity spaces carved dramatically out of the building's profile. The building is a uniquely engineered concrete and steel frame, the double-cantilevered tower allows the incorporation of three sky gardens where residents can meet and interact.

The tower's distinctive stacking produces an array of accommodation, including single studios, split-level lofts, and a three bedroom penthouse. The triple-height main entry lobby is shared between guests staying in the hotel on the lower levels and residents of the apartments.



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Sandy Brown advised on the acoustic design of the project throughout the development of the scheme. The site is immediately adjacent to the Channel Tunnel Rail Link with regular Eurostar trains passing close by. We conducted detailed vibration measurements and carried out a comprehensive ground borne noise assessment to ensure acceptable internal noise levels from trains were achieved throughout the building.

A high acoustic performance facade was specified so that noise from Eurostar trains did not cause any sleep disturbance to hotel guests. The serrated facade design created complex interfaces that required careful acoustic detailing. The facade was tested in an independent laboratory to determine the direct airborne sound insulation and the flanking sound insulation both horizontally and vertically. This was necessary to verify that the facade would achieve high levels of sound insulation that formed the project brief.

We also provided detailed advice on noise control from the building services systems and noise from cooling towers to the penthouse, which was one of the challenges.

A computer model of the triple height entry lobby was created to determine how best to incorporate acoustic finishes with the design aesthetic. Strategically located acoustic plaster was used, combined with furnishings to provide a comfortable and welcoming environment in this space.

Enhanced sound insulation measures were adopted for the restaurant areas and sky gardens. We conducted comprehensive sound insulation testing on completion to determine that the required standards had been successfully achieved. The sound insulation of dual aspect facades was an area that required close attention during construction due to the complex facade details in these locations.