

West India Quay

Complete	Area	Client	Architect
2004	UK England	West India Quay Development Ltd	Hellmuth Obata & Kassabaum Inc.

West India Quay is a 33-storey tower containing a Marriott five-star hotel with 218 bedrooms and 96 serviced apartments plus 158 high quality residential apartments. Amenities at the hotel include a double-height restaurant, ballroom, business centre and fitness centre.

The site, next to Canary Wharf, is close to the Docklands Light Railway (DLR) line and a busy six-lane road, making the performance of the building envelope an essential feature of the acoustic design.



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Services provided

Sandy Brown was commissioned to advise on the proposed development of the hotel and apartment building. Our scope of work covered full design input from concept and planning through construction and commissioning. Key considerations for the project included:

- environmental noise and vibration surveys
- structure-borne noise and performance of the building envelope
- sound transfer between adjacent rooms and to residential areas
- noise and vibration from mechanical plant.

Special acoustic features

Due to the hotel's busy urban location and proximity to the DLR line, the building is clad with high performance unitised curtain walling, with full-height floor-to-floor glazing. At the time of the development curtain walling had not commonly been used for residential buildings in the UK and was more frequently seen in office developments.

A high standard of sound insulation was specified between apartments and the control of flanking sound transmission via the curtain walling system was a key consideration to ensure this did not undermine the performance of separating walls and floors. Detailed laboratory acoustic tests were undertaken on the cladding and enhancements then made to ensure a high flanking sound performance was achieved.

Internally, sound insulating bathroom pods were pre-fabricated off-site to provide separating wall elements between apartments and guestrooms. Detailing of interfaces between these and surrounding elements was critical to ensure that specified standards were achieved..

Full centralised air conditioning systems were installed to the hotel and apartments. This required large areas of externally mounted plant to be installed in a location containing existing residential buildings. Noise control of external plant to meet local authority planning requirements was consequently a key consideration. Factory noise testing was carried out on cooling equipment to ensure that it met strict acoustic requirements prior to delivery to site.