

# BBC Egton House

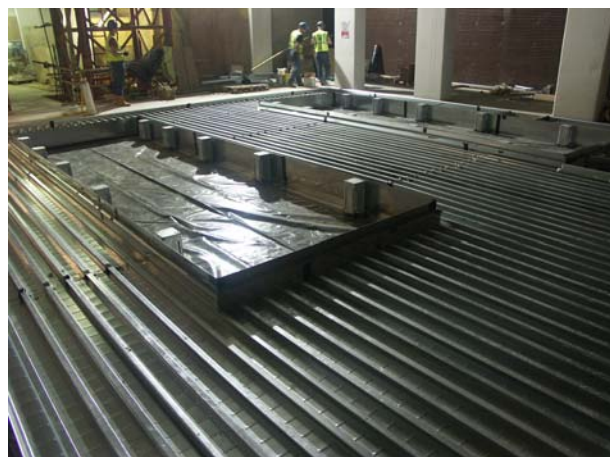
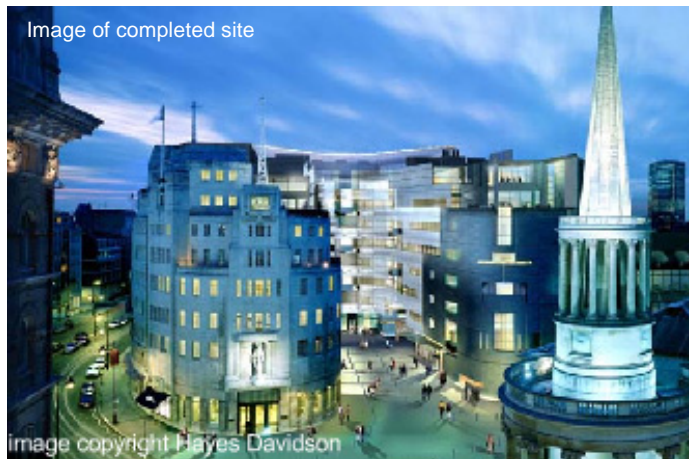


**Box-in-Box construction**  
**CDM-ISO-LAT-SPECIAL**



**Client** BBC  
**Main Contractor** Bovis LendLease  
**Architect** McCormac Jamieson Pritchard  
**Acoustic Consultant** Bickerdike Allen Partnership  
**Structural Engineer** Whitby Bird & Partners  
**Area** Phase 1 Generator Room 160m<sup>2</sup>

Egton House is one of the new buildings directly adjacent to the famous Broadcasting House on Portland Place, just North of Oxford Circus in the heart of London's West End. The sub-basement of the new building houses the stand-by generators for the whole of Broadcasting House. This consists of 2 no. 30 tonne generators which when running generate very high levels of noise and vibration.



The floating floor was designed to support the temporary loads imposed by the generators as they were moved onto the inertia bases. Fail safes were used to minimise the deflection of the slab as each 30 tonne generator was moved across.



The generator room is located near to several studios and as such it was imperative to ensure that noise and vibration from the generators do not disturb the broadcasting capabilities of the BBC.

Each generator sits on a CDM-ISO-MONT sprung jack-up inertia base (please refer to specific project data sheet) and surrounding it is a CDM-ISO-LAT-SPECIAL 150mm thick floating floor over a 100mm void.

The floating floor had to be designed to take very large point loads from the steel structure which formed the frame for a box-in-box construction.

The installed system was designed to achieve a system natural frequency of less than 10Hz with isolation that is oil resistant.



## CASE STUDY – CDM-ISO-BOX

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