

# CB1 Ibis Hotel Cambridge, UK



## Case Study



### Property Owner

Ibis Hotel



### Main Contractor

Galliford Try



### Structural Engineer

Mott MacDonald



### Architect

Formation Architects



### Acoustic Consultant

Hilson Moran

## OVERVIEW

The new Ibis Hotel in the Cambridge CB1 development is right next to the mainline station where several freight trains pass through during the night.

## Stravibase VHS

- Isolate buildings from vibration and structure-borne noise caused by trains or trams running nearby or underneath buildings
- Designed to support very large loads whilst being significantly smaller in plan dimensions than traditional elastomer bearings



## SOLUTION

To minimise disturbance to occupants from structure-borne noise the acoustic consultants, Hilson Moran, specified the building to be isolated on 8Hz bearings.

**Stravibase VHS** bearings, which are capable of supporting very high loads on a small bearing footprint, were used to support the main columns; thereby minimising the column baseplate size.

8Hz **Stravibase SEB** bearings were used to support the cores and the ends of the perimeter beams. The remainder of the perimeter beams had **Stravifloor Deck** rails to support the permanently isolated formwork.

**8 Hz**

Stravibase SEB  
22 MN  
(cores)

**8 Hz**

Stravibase SEB  
5 MN  
(beams)

**8Hz**

Stravibase VHS  
104 MN

**480 m<sup>2</sup>**

50 mm  
Perimeter  
Isolation

