



Case Study



Property Owner

AccorInvest



Main Contractor

McAleer & Rushe



Structural Engineer

BW Murray



Architect

Formation Architects
Leach Rhodes Walker



Acoustic Consultant

Rupert Taylor

OVERVIEW

A new 217 bedroom 4-star Novotel hotel has been built right next to Cambridge North Station.

The 6-storey building includes a bar and restaurant, as well as a gym, swimming pool, conference facilities and 160 m² of retail space.

The new hotel development is the opening scheme to the wider Cambridge North mixed-use regeneration masterplan by Brookgate.

Stravibase SEB

- A bespoke structural elastomeric bearing for the structural isolation of buildings and other structures
- Series of elastomer pads laminated to formwork

79MN

Stravibase SEB
7 Hz



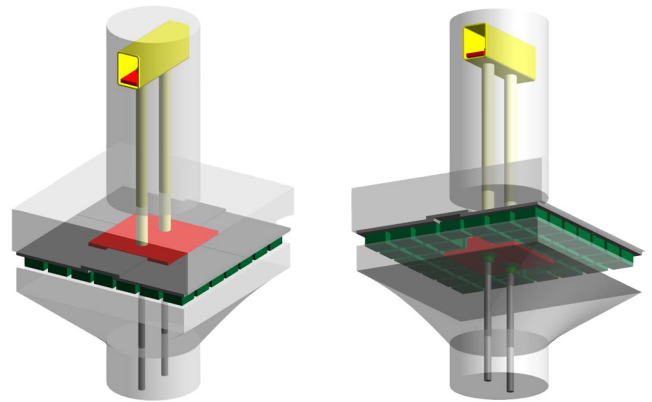
SOLUTION

The railway line is only a couple of metres away from the building and the acoustic consultant specified that the building need to be isolated on 7Hz elastomer bearings to protect the hotel rooms from structure-borne noise.

7Hz [Stravibase SEB](#) bearings were used to support the cores below ground floor level and at the top of every ground floor column.

CDM Stravitec designed, manufactured and installed failsafes, steel plates and tension details to cope with disproportionate collapse and also shear keys to restrict movement in the stability cores.

Architectural Rendering: AccorInvest



3D views of column head bearing

AT A GLANCE

CHALLENGES

- Hotel located directly adjacent to railway line
- Design for disproportionate collapse
- Restrict movement in stability cores

BENEFITS

- Low natural frequency with elastomer bearings
- Stability elements to provide good lateral stability
- Structurally stable in the event of a fire
- All bearings individually replaceable

