

Highbury Crescent, London



Building Isolation

CDM-ISO-CHR-BOX Springboxes 3.5 Hz



Architect Brady Mallalieu
Main Contractor J Murphy & Sons
Structural Engineer Michael Hadi Associates
Acoustic Consultant Bickerdike Allen Partners
Acoustic Design Load 3 apartment blocks and 10 no. houses totalling 39MN

The new development on Highbury Crescent, which is very near to the new Arsenal 'Emirates' Stadium, is built directly over the Canonbury, Northern City and Victoria Line (southbound) tunnels. Bickerdike Allen Partners carried out a vibration survey which indicated that re-radiated noise from trains would be high and that the building should be isolated using spring bearings with a natural frequency of 3.5Hz.

The main apartment block (A) required the structure to span across the running tunnels and this large block was installed on CDM-ISO-CHR-BOX pre-compressed spring boxes, therefore limiting the deflection of the building during construction.

The other two apartment blocks (B) and the ten houses (C) were installed on CDM-ISO-CHR simple springs. Construction in these buildings was controlled to minimise differential deflection during construction.

In the completed buildings the trains were inaudible, but were clearly audible in the voids beneath the buildings.



CASE STUDY – CDM-ISO-STRUCTURE

CDM-UK
 PO Box 7035
 Melton Mowbray
 Leics LE13 1WG



noise & vibration control

T: + 44 (0) 1664 482486
 F: +44 (0) 1664 482487
 E: info@cdm-uk.co.uk
 www.cdm-uk.co.uk