

# Mossbourne Academy



## Concrete Floating Floor

CDM-ISO-LAT



**Client**  
**Main Contractor**  
**Architect**  
**Acoustic Consultant**  
**Structural Engineer**  
**Area**

**Mossbourne Academy**  
**MACE Ltd**  
**Richard Rogers Partnership**  
**Sharps Redmore**  
**Whitby Bird Partnership**  
**Ground floor: 9 studios 270m<sup>2</sup>**  
**First floor: 1 large room 320m<sup>2</sup>**

Mossbourne Academy is a new specialist school in Hackney for 990 pupils, aged 11-16 years. The school will specialise in Information and Communication Technology.

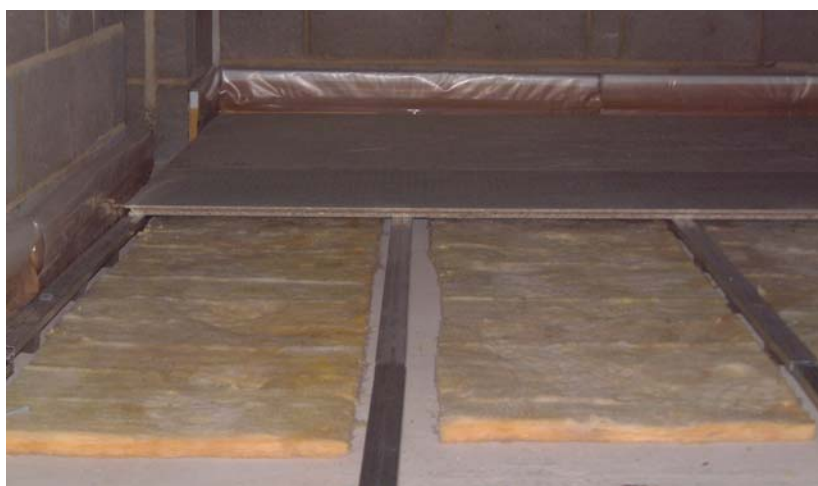
The L-shaped building fits in between two railway lines with the trains passing within only a few metres of the building. In the knuckle of the building several studios are located on the ground floor, and an auditorium is located on the first floor.

The acoustic consultant specified that concrete floating floors should be installed with bearings giving a natural frequency of 10Hz with a maximum overall system performance of 16Hz.

The floating floors in turn support drylining walls and partitions forming partial box-in-box constructions. This ensures that the passing trains do not disturb the activities inside the studios and auditorium.

CDM-UK proposed the CDM-ISO-LAT-50 system with bearing natural frequencies of 6.5Hz. Due to the low imposed loads on the slabs, the overall maximum system performance was calculated as 14Hz, assuming for the full stiffness of the trapped air layer.

The system was fitted on site to form the complex curved and asymmetrical spaces formed within the knuckle of the L-shaped building.



## CASE STUDY – CDM-ISO-FLOOR

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