

Unicorn Children's Theatre



Building Isolation

CDM-ISO-SEB, CDM-ISO-BOX



Architect	Keith Williams Architects
Main Contractor	Mansell
Structural Engineer	Ove Arup & Partners
Acoustic Consultant	Arup Acoustics
Acoustic Design Load	8MN

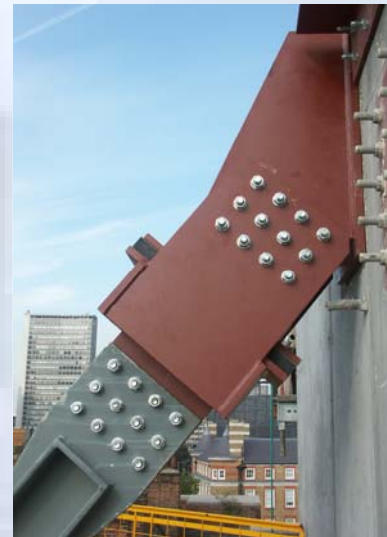


The Unicorn Children's Theatre on the South Bank near London Bridge is the most far reaching theatrical base for young people's drama anywhere in the UK. The building houses many facilities in a very tight space and therefore the acoustic separation of these spaces was highlighted by Arup Acoustics as of main importance in the design of the building.

CDM-UK were contracted to design, supply and install isolation details to de-couple structural elements and create a high performance box-in box construction for the Clore Theatre enabling the stringent sound insulation targets to be achieved. All isolation details were designed to a natural frequency of 10-12Hz.

The most challenging of the details was a diagonal hanger carrying an Acoustic Design Load of 1.2MN (or 120 tonnes). The detail included an isolated sliding sleeve to ensure that deflection could occur without any loss of isolation performance.

Many other isolation details were required including pre-cast concrete plank strip isolators, steel support isolation, and a high performance isolated foundation slab for the Clore Theatre directly beneath the Weston Theatre.



CASE STUDY – CDM-ISO-STRUCTURE

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