

Case Study | The Jazz Yard

Mechanical smoke control and environmental ventilation systems at new residential development



Project

The Jazz Yard is a new housing development in Walthamstow, London, consisting of two cores of 8 and 12 storeys.

The project is named the Jazz Yard in honour of the nearby commuter railway line in Central London once called the 'Jazz Railway service'.

Systems

D+H UK provided a full turn-key package for supply and installation of the mechanical smoke control, day-to-day environmental ventilation, and car park ventilation systems.

Project specific CFD (Computational Fluid Dynamic) modelling ensured the correct system performance for means of escape and firefighting operations to the corridors, and to provide effective smoke clearance to the car park area.

Location:

Walthamstow, London

Products:

- Smoke Extract and Environmental Fans
- Multi-compartment smoke dampers
- Fire rated ductwork
- NSHEV louvred smoke ventilators
- Controls system + fire rated electrical wiring



Mechanical Smoke Ventilation Systems (MSVS)

comprises of a single smoke shaft with smoke dampers at each level with duty/standby smoke extract fans at roof level. Inlet air is provided by the head of stairwell vent.

The **Environmental Ventilation System** reduces effects of corridor overheating by utilizing the smoke shaft, with a dedicated inlet air shaft. The system has separate above ceiling smoke dampers and an attenuated environmental fan.

Clever use of the corridor acoustic ceiling tiles provides cross ventilation to remove stale air both above and below ceiling level, without the requirement for separate ceiling grilles.

The **Car Park Ventilation System** features an induction fan type system (+ fire rated ductwork) to provide the required air movement/extract for general ventilation and smoke clearance.

