Case Study

Aybrook Street

24 Volt

52 Actuators

72hrs Battery Back-up

RHB Architects
Aybrook Street, London

Project Brief:

A new development of 89 luxury residential units and 38 affordable units with underground car parking, for the CIT Group. As the site is on a former EDF node and sub-station, major diversion works were required, together with the spatial constraints of an existing part retained facade.

Vent Engineering were brought into the project to provide a smoke ventilation system to encompass the whole site within a very tight budget on a very short time frame. With strict Building Control requirements in this area of London the project was a great challenge.

Products Used:

52 x 24v Chain Actuators
48 x Ventec Mini Plus Local Control Panel
28 x 24v Electro-Magnetic Locks and Gas Springs
4 x BBU 10 Control Panels
1 x Bespoke Control Panel with 72 hours battery back up

Smoke VENTILATION

"From start to finish Vent did what they said, on time."

Mr A May.
CEL

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Smoke VENTILATION

1. Affordable Housing Building

It consists of two smoke shafts fitted with Electro-Magnetic Locks that were required to hold each floor's smoke doors closed for 72 hours. Each door is operated by a Ventec Mini Plus Local Control Panel with a yellow fireman's switch attached and a smoke detector. When activated the Mini Plus activates the Electro-Magnetic Locks on the gas sprung smoke doors and the top of the shaft roof vent. As the Electro-Magnetic Locks required a constant voltage for up to 72 hours a bespoke designed battery backup was commissioned for this special project.

Adjacent to each stairwell floor, another AOV system independently operates opening windows that are operated by a Mini Plus Local Control Panel, each with an actuator, fireman's switch and smoke detector attached. A stairwell roof vent also opens when any of these are activated.

The underground car park has a smoke damper installed at the base of the smoke shaft which operates automatically as the relevant smoke shaft system is activated.

2. Private Building

It consists of one smoke shaft fitted with smoke doors controlled with 24v Ventec smoke door actuators and windows that are operated by 24v Ventec chain actuators. Each are attached to a Ventec Mini Plus Local Control Panel. Together with a yellow fireman's switch for manual operation, and an interface to the fire alarm system that instructs each panel when to operate. Due to the building layout it is necessary for certain windows and vents to operate in unison with some AOV operations.

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vent engineering
natural and smoke ventilation systems

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