



Central Business Exchange (CBX)

Client

Home and Communities Agencies

Project

CBX Service Road Smoke Extract and Day to Day Ventilation System

Location

Milton Keynes, U.K.

"Thank you for all your efforts; I would have no hesitation in recommending Airvent to any potential client."

Peter Pollard, MBE Consultants Limited

Overview

Smoke systems and day-to-day ventilation

The CBX (Central Business Exchange) is a 150,000sq ft development in Milton Keynes, housing shops and offices. The building and its service yard were constructed in 1980; since then its day to day ventilation, smoke clearance and sprinkler systems have become dated and are considered to have come to the end of their useful life.

Airvent first put forward a proposal in 2008 to upgrade the ventilation system to meet the requirements of the current building regulations. The design has since been re-worked to take account of various physical constraints on site, working with Milton Keynes Building Control and Buckinghamshire Fire and Rescue Service to create an appropriate solution with a backup power supply.

Operations

The basic requirement is to provide six air changes per hour (ACH) for day to day ventilation to prevent the build-up of dangerous fumes and 10 ACH to provide smoke clearance to assist the fire service in the event of a fire incident.

To satisfy the Building Regulation Requirements a new impulse ventilation system has been installed within the service yard. To achieve the required number of air changes 11 Airvent Guardian Induction fans, each with a thrust of 100N, has been installed within the service yard.

Extract is provided by means of two extract fans, together with necessary attenuation, within the existing CBX smoke extract plant room. Attenuation is provided to limit fan noise in the car park to NR55.

Both main extract fans and all Guardian fans are to be inverter controlled for day to day ventilation but these will automatically revert to direct on line operation in the case of a fire condition. In day to day ventilation mode the extract and Guardian fans will be controlled with a carbon monoxide (CO) monitoring system to minimise energy consumption, operating to achieve 3ACH or 6 ACH as required.

T: +44 (0)29 2077 6160
www.airvent.co.uk

