

# Research



**Role:** D&B M&E Contractor

**Client:** Chesterford Park

**Main Contractor:** SDC

**M & E Consultant:** QED

**Architect:** BCR Infinity Architects

**M & E Value:** £2.9M

## B300 Chesterford Research Park

The refurbishment of Building 300 on the Chesterford Research Park is designed to attract science and technology businesses from start-ups to multi nationals. Chesterford's impressive and dynamic accommodation options and central facilities building sit within a stunning 250-acre natural landscape, complete with arboretum and lakes. B300 is a three-storey structure equally divided into four areas delivering state-of-the-art laboratory facilities with fume cupboards and write up areas. The development has the flexibility to cater for a business leasing an individual laboratory or for the complete building to be taken over in entirety with a total of 4200m<sup>2</sup> research space.

The mechanical services include heating and cooling via a VRF air conditioning ducted system. Fume extracts to the fume cupboards are connected to a central fume extract fan in PVC ductwork. Ventilation comprises gas fired air handling plant serving laboratory areas and a heat recovery unit for the offices and toilet facilities. Domestic services are installed in copper with CAT 5 booster sets to the laboratory areas, and vulcathene above ground drainage with fusion weld joints. Our scope also encompassed the provision of sanitaryware, gas and water supplies from existing services and individual controls from the main control panel integrated with the ventilation plant and a sophisticated BMS system.

Three existing panel boards were upgraded to suit the future needs of the facility and two new boards added so each suite benefits from its own independent electricity source. Changeover switches with generator input provision has been incorporated at each suite's electricity incomer position to cater for any future tenant needs. New sub-electric distribution boards have also been installed to each laboratory together with additional circuitry to the existing distribution boards. LED lighting has been provided with independent controls across the new suite fit out areas. Existing landlord areas have also been refurbished with new LED lighting and decorative light fittings are prominent design features of the foyer and reception areas. The new small power services installed to each suite comprise an underfloor busbar system linked to multiple floor boxes within the office write up areas. Dado and bench trunkings are installed within the laboratory areas with various socket outlet positions. Each suite has been fitted out with its own 47U data cabinet serving around 230nr CAT6 data outlets predominantly to write up area floor boxes and lab area wall/bench trunkings. The existing fire alarm system has been upgraded to provide automatic detection and manual fire alarm services to the fit out areas, along with four new networked together fire alarm panels so each suite has its own system and can be notified of any fire alarm activations within the building.

Other features of B300 include a refuge system to both ground and first floor to aid personnel evacuation during an emergency situation, new Salto door access control services interfaced with the client's site wide software system, a 52kW photovoltaic array comprising 168 solar ground mounted panels integrated into the landlord's services board, and lastly, two 22kW and eight 7.4kW electric car charging stations to the front and rear car parks.

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