

MSP GREENHEYS REDEVELOPMENT

Ventilation Statement

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Rev 01



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Amendment Record Sheet

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1. Introduction

This Ventilation Statement has been compiled on behalf of Bruntwood SciTech to demonstrate their commitment to provide effective, efficient and flexible ventilation as appropriate to a modern state of the art workplace / laboratory facility through best practice design principles, efficient plant and equipment selection combined with intelligent control and smart building systems to provide an efficient, comfortable working environment.

2. Ventilation Design

The proposed development has been designed to provide comfortable, stable environmental conditions suitable for the proposed Laboratory Spaces that will also enhance and promote user comfort.

The building is compliant with Approved Document F (ADF) of the Building Regulations 2021, and will be fully mechanically ventilated as follows:

Laboratories	8 Air changes / hour minimum
Write – up Spaces & Office	12 l/s/Person
Toilets	6 Air Changes/Hour
Changing Rooms	6 Air Changes/Hour

All air handling units (AHU) will be of the single pass full fresh air type with plate recuperator type heat recovery devices.

3. Laboratory and Office Ventilation Systems

Laboratories will be ventilated to Containment Level 2 standards through dedicated air handling plant incorporating multiple supply and extract fans to provide resilience in operation and allow efficient operation at low load levels.

The ventilation system will be a variable air volume system with rapid acting Variable Air Volume boxes operate to the dictates of a dedicated control system.

Offices and continuously occupied areas on lower floors will be served from heat recovery ventilation units located in or adjacent to the areas served.

4. WC Ventilation Systems

WC’s, showers, changing and associated areas will be heated and ventilated from dedicated air handling units located in the Roof Level Plant space. WC’s operate under a slight negative pressure to reduce the risk of unwanted airflow out of the space. The Toilet ventilation AHU will operate under timeclock control with ventilation reducing to a minimum background rate outside of office hours.

5. Specialist Ventilation systems

Provision for connection to a local extract ventilation (LEV) system will be provided to each Laboratory. The LEV exhaust will terminate with a mixing manifold at low level on the roof with an attenuated air intake at low level and multiple high velocity high induction fans designed to dilute the exhaust and ensure efficient dispersal. The top of the fans extends 1 metre above the level of the Roof Plant Room and Plant Screen, however the discharge velocity gives an effective stack height of 12m with a 10mph cross – wind, and 9m with a 15mph cross – wind.

Space would be allocated within each riser and on the external roof space for separate LEV ductwork and extract fans should the Tenants wish to install their own independent systems.

Dedicated extract fans will be provided to areas with fire suppression systems.

6. Fire-Fighting Stair Smoke Ventilation

Each Fire-fighting Stair will be provided with a smoke ventilation system comprising a fire rated set of run – and standby extract fans drawing air from a protected smoke shaft with an automatic opening vent (AOV) at each floor level. Air inlet will be through an AOV in the roof at the head of the stair.