

FIRE STRATEGY

The fire strategy has been developed by Bureau Veritas.

Key Points:

The Fire Strategy is based on requirements of BS9999:2017

Risk Profile A3.

Occupancy - Awake & Familiar with building = A

Fire Growth – Laboratory (Fast) = 3

Occupancy Numbers = 1430

Based on 1 person per 6m² of floor space

Travel Distance are within the requirements of BS9999:2017

Means of Escape - Simultaneous Evacuation

Evacuation of Upper floors - Via three protected stair cases - Each 1600 wide serving all floor and roof

Disabled refuges with voice communication are to be provided in all three stairs link to reception & building facilities office.

Fire detection & alarm system - Min L2 in accordance BS5839-1

Emergency Lighting to BS 5266-1:2016

Escape & Safety Signage to BS5499-4:2016

No sprinklers are to be provided

Internal Surfaces are to meet the following standards:

Circulation & Escape Routes B-s3,d2
Rooms <30m² C-s3,d2



Small Rooms >30m² D-s3,d2
Fire Resistance - A3 Risk profile <18m high
Structural Fire Resistance 90mins
Fire Fighting Stair 120min

Fire Brigade Access -
Access to the building will be via two fire fighting stairs located at each end, with dry-risers, an additional dry riser will be provided within the central stair, to achieve 45m max. Coverage.
Fire Appliance vehicles access will be provided within 18m of all dry riser inlets.
A fire hydrant is located within 90m of each fire

fighting entrance into the building.
The two proposed site entrances off John Smith Drive have been tested with the largest possible vehicle that may enter the site, which in this case is a fire truck which was able to successfully track around the loop road and enter/exit the site without impact on parking or landscaping.
The inner access road to the rear has since been tested and a fire truck could get closer to the rear of the building if required, this would then need to reverse out due to the rear landscaped courtyard.

KEY

- 1 Escape door and fire-fighting access
- 2 Main reception escape
- 3 Rear reception escape
- Protected fire fighter stair with lobby
- Protected stair lobby
- Reception stairs
- Fire Truck Tracking

ACCESS AND INCLUSIVITY STATEMENT

The proposals for Plot 4200 have been reviewed against planning policy, statutory and good practice guidance. The statement describes the scheme in terms of the requirements of the relevant sections of the following standards:

- BS 8300-1:2018 Design of accessible and inclusive built environment Part 1: External Environment
- BS 8300-1:2018 Design of accessible and inclusive built environment Part 2: Buildings
- Building Regulation Approved Document K – Protection from falling, collision and impact 2013
- Building Regulation Approved Document M – Access to and use of Buildings Vol. 2: Buildings Other Than Dwellings, 2015

National Planning Policy

Under the National Planning Policy Framework there is a presumption in favour of sustainable development, which should be seen as a thread running through both plan-making and decision taking. The NPPF sets out that planning policies and decisions should ensure that developments create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users.

Approach to the Site

The new development is situated within ARC Oxford on its western edge. The site is bounded by residential properties to the west, and commercial properties to the remain sides. John Smith Drive runs along its eastern boundary and a pedestrian foot path runs along its south boundary.

As part of the proposals two new vehicle access' are to be created to the North East & South East corners of the site improving site access and a new pedestrian / cycle access created from the path running along the south boundary, This will improve access for cyclists on to the site and create better access for pedestrians using the bus stop on Barns Road.

Landscape

The design for external spaces and access routes throughout the site focus on access for all; ensuring all visitors to the site can easily access the buildings and the associated rest, parking and amenity areas. The scheme has been designed to meet the requirements of part M of the building regulations and with consideration given to BS 8300-1:2018.

The key access considerations which have been implemented across the site are as follows:

- Rest points are located immediately adjacent to both the front & rear entrances creating an easily accessible amenity for all building users and visitors to the site. These seats also nestled into the landscape to create a comfortable environment for breaks.
- Flush access is available from the car parking areas into the buildings and DDA compliant spaces are available adjacent to the buildings entrances on both building plots.
- Bicycle parking is located both within the building, accessed directly off the rear entrance, with additional covered cycle parking provided to the rear of the site adjacent the new cycle access point.

6.2 DESIGN

Parking

Parking is provided to the rear of the building. A total of 166 spaces are provided, six of which are designed to be accessible being enlarged and located adjacent to the rear entrance. Step free access is provided from these spaces into the building.

Cycle Parking

A total of 135 cycle spaces will be created as part of the application. 59 within the building accessed adjacent the rear staff entrance and a further 76 are housed in an external covered secure store adjacent the new cycle access point. Entrance doors in to the secure stores will exceed the minimum requirements of Approved Document M Volume 2. Cycle storage is to be in the form of tier systems set above Sheffield stands. Additional to the 135 spaces additional Sheffield stands are to be provided in the landscape, suitable for non-standard and larger cycles such as cargo cycles.

Refuse

Refuse stores are being provided at the ends of each wing. The store locations have been selected to be adjacent to the delivery bays which will be the route refuse leaves the building and the location that the refuse vehicles will park during collections. See the Deliveries & Waste Management section of this document for further.

Building Access

The building is accessible via a public / staff entrance access directly from John Smith Drive and a further staff entrance located to the rear, both provide step free access to the building at the ground floor. Both entrances will consist of power assisted doors exceeding the minimum clear requirements in the Approved Document M Volume 2.

Separate delivery doors are located at each end of the building, each with a delivery bay suitable for 10m long rigid delivery vehicles / refuse vehicles, these doors give direct access to the GF laboratory floor plates and levels 1 & 2 via appropriately sized good lifts.

Vertical Circulation

Step-free access is to be provided to every level of the buildings in via two passenger lifts, each with car dimensions that exceed the minimum space requirements set out in Approved Document M Volume 2, Diagram 11. All passenger lifts will have a clear 1500mm by 1500mm unobstructed landing directly outside each lift.

Horizontal Circulation

All doors will be clearly identifiable within their immediate environment with door widths and clearances are to meet Approved Document M Volume 2, Table 2. The force of operation of doors should not exceed 30N or the doors are to be automated. Ironmongery is to meet the provisions of Approved Document M Volume 2. Internal doors provided along approach routes are to provide a minimum effective clear opening width of at least 800mm, with a clear 300mm unobstructed space to the pull side of all doors. Stepped routes and associated handrails are to be designed to meet the provisions of Approved Document K and Approved Document M.

Corridors that have an unobstructed width of less than 1800mm will be provide with passing places at least 1800mm long and 1800mm wide at reasonable intervals. Visually contrasting nosing are to be included on all stepped routes, to meet the requirements of Approved Document K and the recommendations of BS 8300. Where glazing is used within the facade and entrances, manifestation is to be provided to meet Approved Document K. The Laboratories / Offices will be subject to tenant fit-out and further detail of the office facilities will be addressed as part of developed and technical design.

Sanitary Facilities

Sanitary facilities are provided on each floor in the form of unisex superloos. At least one superloo on each floor will be ambulant accessible and meet BS 8300-2:2018 Figure 46 including an outward opening door.

A unisex accessible WC is to be provided at every level and will meet BS 8300-2: 2018 Figures 30 and 40. WCs will be provided to suite both left and right handed transfers.

Shower Facilities

Shower and change facilities are to be provided at both the ground floor and Level 2 in the building. These will take the form of unisex shower cubicles with changing space, an adjacent unisex accessible shower and WC room will be provided on both floors. The accessible shower will incorporate a corner WC for individual use meeting the requirements of Approved Document M Volume 2 and BS 8300-2:2018.

Internal Finishes, Fixtures and Fittings

Surface materials are to be firm, durable and slip resistant. Particular attention is to be paid to visual contrast, lighting and materials for features such as walls, ceilings and floors. Fixtures and fittings, including ironmongery and controls are to visually contrast with their surrounds, be usable by people with limited dexterity and reachable by those who are seated or standing. In areas where clear communication is required, particular attention should be paid to the reverberant nature of materials.

Emergency Egress

The evacuation strategy for disabled people will be developed in conjunction with the fire strategy and management policies with reference made to Approved Document to Part B of the Building Regulations and good practice recommendations within BS 9999:2017.

The needs of people with sensory and cognitive impairments are to be taken into account in the development of an evacuation strategy. Evacuation by lift rather than by evacuation chair is the preferred option by disabled people for evacuation.

14.0

SUSTAINABILITY

SUSTAINABILITY POLICY DRIVERS

Sustainability, primarily building performance, has been a key aspect of the project from the start. Driven both by the client and the Cities requirements.

In order to ensure a successful final solution the design has been developed with expert consultants and engineers to drive the innovation and opportunities on the project. The key policy drives and relevant supporting reports are outlined below:

POLICY REQUIREMENTS

BREEM

- All new non-residential development proposals to achieve a BREEAM 'excellent' rating.
The current pre-assessment Breeam score of 77.7%, refer to Sustainably Built's Breeam pre-assessment report.

- Proposals for non-residential developments to meet the minimum standard of four credits under the WAT01 BREEAM assessment (equivalent to a >50% improvement over the baseline).
>50% improvement targeted, refer to Sustainably Built's Breeam Pre-Assessment Report.

Carbon Emissions

- Development proposals of 1,000m² or more must achieve at least: a 40% reduction in carbon emissions compared with a 2013 Building Regulations (or future equivalent legislation i.e. Part L 2021) compliant base case.
45.4% carbon emission reduction against part L, refer to Dalkia's Energy Statement for details.

Energy

- Maximisation of energy efficiency features and the integration of renewable and low carbon energy.
Refer to Dalkia's Energy Statement.

Flooding and Drainage

- Flood risk mitigation must be considered, and a SuDS strategy must be developed, in accordance with the hierarchy.
Refer to Baynham Meikle's FRA and Drainage Strategy Report.

Health

- Provide a Health Impact Assessment.

Ecology

- 10% biodiversity net gain.
Proposed +70.35% from pre to post development, refer to ecology solutions' Biodiversity Metric and BNG report.



PROJECT DRIVERS & CERTIFICATION

ASPIRATIONS

- Passive Design.
- Climate Resilience.
- Reduced Embodied Carbon.
- Reduce Operational Energy Demand.
- Reduce Water Use.
- Reduce Waste Generation.
- Circular Economy.

FABRIC FIRST

- Mindful Demolition Of Existing Buildings.
- Reuse Of Materials On Site.
- Facade Design & Performance.
- Structure.
- Disassemble Strategy.
- Use Of Sustainable Materials.
- Use Of Locally Sourced Materials.

LANDSCAPE & AMENITIES

- Biodiversity Across The Site.
- On Site Cycling Storage.
- Shower & Changing Rooms.
- Cafe & Gym For End Users.
- Accessible Landscaped External Areas And Rooftop.
- Transport Route Connections.
- >10% Biodiversity Net Gain.

MEP & STRUCTURE

- Heating & Cooling.
- Ventilation.
- Lighting.
- Water Consumption.
- Waste Management.
- On Site Renewable Energy (Pv Panels).
- Low Carbon Structural, Travel And Material Assessment.

OPERATION

- Ev Charging.
- Low Carbon Travel Studies.

PROJECT CERTIFICATION & INITIATIVES



A BREEAM rating of Excellent is required by ARC as well as Oxford City Council for new buildings.

Sustainability consultant Sustainability Built have advised within their pre-assessment report that a BREEAM score of 77.7% can be achieved subject to the submission of suitable evidence.



The design of plot 4200 is working to achieve Fitwel Certification. The certification focuses on the health and well-being of both the building's occupants, and the buildings ability to have a positive effect.



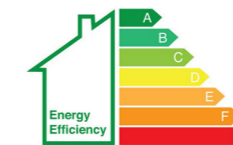
CollectEco was established in 2005 and its mission is to help organisations donate furniture, equipment and materials from offices to good cause, instead of going to waste.



Life Cycle Assessment (LCA) is a methodology for quantifying and analysing the environmental impacts associated with all life cycle stages of a building and its constituent materials.



ARC's Sustainable Procurement Plan has been developed by Sustainably Built Ltd on behalf of ARC as client and developer for the project in the first instance to guide the design process and will be adopted and further implemented by the principal contractor in due course.



The proposed building is on track to receive an EPC A rating.