



SANCROFT  
PATERNOSTER SQUARE

# BASE BUILDING DEFINITION



A project by

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# SECTION A: STRUCTURE

## 01. OCCUPANCY (BASED ON NIA)

### Occupation Density

Means of Escape	1 person per 6 sqm
Internal Climate	Lower Ground Level, Ground Level and Level 1: 1 person per 6 sqm (cooling and fresh air) Level 2-7: 1 person per 8 sqm (cooling and fresh air)
Lift Provision	Lower Ground Level, Ground Level and Level 1: 1 person per 6 sqm Level 2-7: 1 person per 8 sqm
Sanitary Provision	Lower Ground Level, Ground Level and Level 1: 1 person per 6 sqm Level 2-7: 1 person per 8 sqm 60:60 male and female facilities to BS6465-1 2006 + A1 2009

## 02. TENANCY SPLIT OPTIONS

Levels 1-7	2 tenancies per level
Ground Level	2 tenancies per level
Lower Ground Level	2 tenancies per level

## 03. STRUCTURAL GRID

The building grid is approximately 9.0m along the east-west axis with varying spans in the north-south direction up to 16.5m at the perimeter.

## 04. PLANNING MODULE

The ceiling is designed to a 1.5m x 1.5m planning grid. Fixed ceiling tiles free of M&E devices should be located at 3m spacing for the ready installation of 3m and 6m cellular offices. Partitions should also be installable on intermediate fixed tiles by relocating M&E devices; this enables 4.5m cellular offices.

## 05. FLOOR LOADINGS

Office Levels Generally	3.5+1.0 kN/sqm
Toilet Areas	4.0 kN/sqm
Plant Rooms	7.5 kN/sqm
Roof Terraces	4.0 kN/sqm
Car Park	2.5 kN/sqm
Basement Plant Areas	7.5 kN/sqm

## 06. FLOOR HEIGHTS

Top of slab to top of slab	Level 7: Varies Levels 3-6: 3.915m Levels 1-3: 4.515m G-Level 1: 4.265m LG-G: 3.49m  Note: A reduction of 50mm for base build tolerances and deflections is to be allowed for in the above figures.
Raised Level (including Level Tile)	Level 7: 300mm Levels 3-6: 165mm (overall) Levels 1-2: 315mm (overall) LG-G: 165mm (overall)
Office Floor to Ceiling (top of raised level to underside of ceiling)	Level 7: 2.7m Level 6: 2.85m Levels 3-5: 2.75m Levels 1-2: 3.2m Ground: 3.1m LG: 2.43m
Ceiling Lighting Zone	150mm
Structure	The following information has been derived from the As Built structural drawings from 2000. The existing structural zones are verified on site by a topographical survey.  Typical Level – Generally 680mm deep Lattice Girders + 130mm slab + 50mm tolerance & deflection  Lower Ground Level – Generally 275mm deep RC slab with column heads + 50mm tolerance & deflection  Ground Level – Generally 380mm deep Slimflor construction + 50mm tolerance & deflection

## 07. EXISTING STRUCTURE

The basement slab is 400mm thick and is cast on top of the existing basement slab from the previous building. The Lower Ground Level slab is a 275mm thick reinforced concrete slab, with 1.5m square x 150mm deep column heads, supported on shelf angles welded to the steel columns.

The structure above the Lower Ground Level is framed in steelwork using a solution integrated with the services distribution. Structural slabs are generally 130mm thick on composite trapezoidal profile metal decking based on an average grid of 9m x 15.0m. Plant area levels have 200mm thick slabs to aid sound attenuation. Part of the Ground Level is framed using Slimflor construction using the smaller column grid projected from the Lower Ground Level below.

Lattice Girders are used to aid services distribution for the secondary beams around perimeter bays of the floor plate, these are substituted with universal column sections in certain internal bays adjacent to cores.

The steel structure around the two 9m x 15m square atria on the upper levels appear to have been designed to allow them to be infilled at a future date. Lateral stability is provided by braced frames within the cores.

## 08 . EXTERNAL FINISHES ( EXISTING )

Façade (Ground to Level 4)	Typically a bespoke panel system comprising a variation of either buff sandstone stonework, fair faced brickwork or metal panels aligned on the structural column and surrounding various sized infill areas of aluminium framed double-glazed units with brise-soleil solar shading and aluminium fins.
Façade (Levels 5 & 6)	Curtain wall comprising a unitised aluminium framework supporting dry glazed storey height double glazed vision units.

## 09 . EXTERNAL FINISHES ( NEW )

Façade (Level 1)	Buff Sandstone cladding to match existing. Anodised aluminium surrounds to main entrance door bays. Anodised aluminium double-glazed curtain walling infill main entrance to buff sandstone clad surround.
Roof (Level 7)	Lightweight sedum blanket to reinforced bitumen warm roof on metal decking.
Roof Terrace (Level 7)	Reinforced bitumen warm roof with composite decking.
Main Entrance (Rose Street)	1No. new revolving doors to Rose Street with metal clad lightbox canopy at 1st floor level.  2No. of existing refurbished revolving doors with bonded glass (visually frameless) double pass door on Rose Street with metal clad lightbox canopy at 1st floor level.
Basement Unit (Warwick) Entrance	1No. new anodised to match existing double-glazed full height double doors and 1No. of new aluminium anodised to match existing full height double-glazed window to match door. The columns which separate the door and window to be existing buff sandstone with lighting.
Ground Level Unit (Warwick) Entrance	1No. new aluminium anodised double-glazed full height double doors with retained buff sandstone cladding to columns with lighting.

## SECTION B: FINISHES



### 10. MAIN RECEPTION (ROSE STREET)

Walls	Feature metal clad ribbon wall, polished plaster and tiled terrazzo cladding.
Columns	Tiled terrazzo cladding.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.
Floors	Terrazzo poured in situ with metal trims.
Security Turnstiles	Glass leaf speed gates to include enlarged lane.

### 11. GROUND FLOOR A3 / A4 UNIT

Shell and core unit – fit-out allowance to be granted to the ingoing tenant.



## 12. OFFICE LEVELS (INTERNAL FINISHES)

All office space will be completed to a Shell & Floor condition, save as for one or two levels to a full Category A condition (nominated levels to be confirmed). A capital allowance of £52.50 per sq ft in lieu of the Category A works will be granted to all office occupiers for those floors granted in a Shell & Floor condition.

The Category A specification has been designed to the following:

Air Conditioning	Designed to accommodate a 4 pipe fan coil system, with FCUs at 4.5m intervals.
Lighting	Design criteria TBC.
Raised Floors	Installed throughout to the specification in Section A Structure, paragraph 5 above (page 3).
Carpet	Allowance including laying at £25/m <sup>2</sup> .
Floor Boxes	Allowance including installation at £75/floor box and 1 per 10m <sup>2</sup> .
Blinds	Allowance including installation included above.

## 13. LIFT LOBBIES (GROUND)

Walls	Polished plaster on drylined walls.
Floors	Terrazzo poured in situ with metal trims.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.
Doors	Fully glazed PPC metal framed.

## 14. LIFT LOBBIES (OFFICE FLOORS)

Walls	Emulsion painted suspended plasterboard ceilings on metal framing.
Floors	Technical stone tiles on screed.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.
Doors	Fully glazed PPC metal framed.

## 15. TOILETS

Walls	Emulsion painted dry lining with feature porcelain tiling and paper towel bins.  Mirrors with feature lighting above Cubicle system with access panels (back of all cubicles) for access to cisterns.
Floors	Technical stone tiling on raised floor.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing Doors/Partitions. Cubicle system with access panels to back of all cubicles for access to cisterns.
Sanitaryware	Wall hung WCs with dual flush concealed cisterns Porcelain sinks on Corian countertop with stainless steel fittings.

## 16. CLEANERS CUPBOARDS

Walls	Emulsion painted dry lining with tiled splashback to cleaners sink.
Floors	Vinyl tile on raised access floor.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.

## 17. SHOWERS & CHANGING ROOMS

Basement	Separate changing facilities for male & female cyclists provided at Lower Ground Level, including showers, toilets, a combined DDA shower and WC.  Changing facilities with benches, lockers (split between changing rooms) and drying lockers.
Walls	Emulsion painted dry lining & studwork walls with ceramic wall tiling to showers & toilet enclosures. Cubicle system of doors & pilasters to showers & toilets.  Mirrors and Hairdryer points.  Cubicle system access panels (back of all toilets) for access to cisterns.
Floors	Ceramic tile on raised floor.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.

## 18. CYCLE FACILITIES

Basement	Painted blockwork walls.
Floors	Anti slip floor paint to existing concrete floor.  Impact absorbent high density rubber tile on screed (levelling) to cycle store access route from ground.
Ceilings	Painted concrete soffit with exposed services.
No. of Cycle Parking	574 long-stay and 48 short-stay.
No. of Showers	49
No. of Lockers	575

## 19. BACK OF HOUSE OFFICES

Basement	Emulsion painted insulated plaster board fixed to blockwork walls.
Floors	Carpet tile to offices and porcelain tile to kitchen/WCs.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.

## 20. BACK OF HOUSE BASEMENT

Basement	Dust sealed exposed blockwork walls.
Floors	Dust sealed concrete slabs.
Ceilings	None.

## 21. STAIRS

General	Existing stairs, balustrade and handrails retained.
Floors	New vinyl floor finishes and nosing strips.
Walls	Existing retained surfaces made good and redecorated.
Ceilings	Emulsion painted suspended plasterboard ceilings on metal framing.
Stair Extension to Level 7	Extended to match retained lower flights.
Back of House Stairs (Plant, etc.)	Generally galvanised proprietary stair systems/handrail and balustrades.



## SECTION C: VERTICAL TRANSPORTATION

### 22. PASSENGER LIFTS

The lifts provision is as follows:

8 New Passenger Lifts	3No.	PL1 to PL3	Lower Ground Level to Level 6
	3No.	PL4 to PL6	Lower Ground Level to Level 7
	2No.	PL7, PL8	Lower Ground Level to Level 1

The lifts are to achieve the performance stated and have a future life of 15-20 years without the replacement of any major components.

Lift Performance

The 8 passenger lifts are to comply with BCO given the following densities:

Lower Ground Level to Level 1 office areas 1 person per 6m<sup>2</sup>

Levels 2-7 1 person per 8m<sup>2</sup>

Internal Lift Finish To suit architects' finishes requirements but are limited to approximately 1000kg of applied finishes to the main passenger lifts.

Finishes: Metal cladding to walls and ceiling, leather handrail and technical stone floor tile.

Fire Fighting Lifts 3 new firefighting lifts 3No. FLA, FLB, FLD in Cores A, B & D, Lower Ground to Level 6.

### 23. GOOD LIFTS / CYCLE HOISTS

1No. goods lifts are located in core D between basement and Level 6.

Platform goods lift in Core D transfer between Level 6 and 7.

1 new cycle lift – 1 No. CL 1 in core A Basement, Lower Ground Level to Ground Level.

## SECTION D: MECHANICAL & ELECTRICAL SERVICES

### 24. INCOMING SERVICES

Electrical Power Supply The building is currently serviced via 2No. HV supplies from the UKPN Network. Landlord transformers are utilised to step down the voltage.

Main Water Supply Using existing 76mm diameter Thames Water supply to serve the existing basement cold water storage tanks.

Gas Supply Existing incoming gas main being retained.

Telecomms Existing comms rooms and cable ducts have been retained. Two diverse routes from separate incoming locations within the basement have been provided.

## 25. DESIGN PARAMETERS

### Winter temperature:

Outside	-4°C, saturated
Internal Offices	20°C +/-2°C*
Toilets	19 dec C min
Reception	20°C +/-2°C*
Showers/Changing Rooms	22°C min
Cleaner's Cupboard	19°C min
Circulation	19°C min
Plantrooms	16°C min
Electrical Switchgear Plant Room	5°C min, 35°C maximum (with re-use of existing plant)
Lift Motor Rooms	5°C min, 40°C maximum (with re-use of existing plant)

### Summer temperature:

Outside	30° db, 20°C wb
Internal Offices	24°C +/-2°C*
Toilets	No maximum
Reception	24°C +/-2°C*
Showers/Changing Rooms	No maximum
Cleaner's Cupboard	No maximum
Circulation	No maximum
Plantrooms	No maximum
Electrical Switchgear Plant Room	35°C maximum (with re-use of existing plant)
Lift Motor Rooms	40°C maximum (see with re-use of existing plant)
Plant	Heat rejection 35°C db

\*Humidity control is not provided.

Note: The winter and summer conditions in the reception depend on the usage of the doors. These are target temperatures that the mechanical system return the space to following a recovery period after door usage.

## 26. FRESH AIR SUPPLY / VENTILATION RATES

Offices	12 litres/second/person to suit the occupation density as stated in Section 1, +10% densely populated areas/meeting rooms.
Toilet	Make-up air from adjacent offices
Reception	12l/s per person
Showers/Changing Rooms	8 air changes per hour
Cleaner's Cupboard	Air make-up from office space
Circulation	None
Plantrooms	3 air changes per hour

Refuse Store	As existing
Service Bay	As existing
Storage Areas	As existing

#### Extract Ventilation Rates

Office Space	90% of the fresh air after deducting the toilet extract volume
Reception Area	90% of the fresh air
Toilets	12 air changes per hour
Showers/Changing Rooms	10 air changes per hour
Cleaner's Cupboard	10 air changes per hour
Circulation	None
Plantrooms	3 air changes per hour (where new)

Note: For Primary fresh air ventilation, Air Handling Units (AHUs) are provided at roof level. The AHUs provide fresh air to office areas. Each AHU serves a single riser with supply and extract air. The supply air is provided to each level with a fire damper and volume control device.

## 27. COOLING

Chilled water (CHW) is provided by roof mounted air cooled chillers. CHW is distributed through the building from the roof plantroom to 3No. risers with connections at each level. Each on-floor branch is equipped with valve arrangements.

## 28. HEAT GAINS

Occupancy	80W/person sensible. 60W/person latent
Lighting	10W/m <sup>2</sup>
Small Power	25W/m <sup>2</sup> diversified to 15W/m <sup>2</sup> over 1000m <sup>2</sup>

Note: Heating is provided to ancillary areas of the building where required via radiators, underfloor heating or fan coil units.

## 29. ACOUSTIC LEVELS

Open Plan Office	NR38
Toilets	NR45
NR40 stated in MTT document	

Staircases	NR40
Reception Area	NR40
NR45 stated in MTT document	

Loading Bay/Car Park	NR55
Plantroom	NR50

NR45 targeted in MTT document but can be left at NR50. Base building is designed to achieve limiting noise levels from engineering services operating under normal conditions.

Acceptable external noise limits to be determined by Acoustic Survey. The tenant may wish to install a noise masking system to accompany the base-build variable speed FCU installation but noise masking is not included within the base build provision.

### 30. VENTILATION RATES

See above combined section '26. 'Fresh Air Supply/Ventilation Rates'.

### 31. ELECTRICAL INSTALLATION

Tenant electrical load allowance to meet BCO requirements, indicatively:

Lighting	8W/sqm
Small Power	27W/sqm
Mechanical Services Provision	70W/sqm
Lifts	5W/sqm

### 32. LIGHTING LEVELS

Offices	300-500 lux-maintained illuminance at working plane dependent on tasks (screen based or paper). UGR<19 (for office space fitted-out to Category A, otherwise provided by Tenant).
Staircases	100-150 lux-maintained illuminance on all treads
Lift Lobbies	150-200 lux
Toilets	150-200 lux-maintained illuminance at floor level
Reception	200 lux-maintained illuminance at floor level general areas, 300 lux maintained illuminance over desks and sitting areas
Common Areas	100-150 lux
Plant Areas	150-200 lux

### 33. EXTERNAL LIGHTING

The roof level has a lighting installation to provide safe access to the items of mechanical plant. The artificial lighting levels provided are for works to the equipment, not flood lighting the building.

External light fittings are controlled through a sensor combined with a PIR to prevent operation during daylight hours.

The luminaires installed on the plantroom at roof level are IP65 LED luminaires direct downwards onto the surface of the roof to prevent light pollution. IP65 LED luminaires are fitted to the terrace areas.

Feature lighting uplighters are in front of the reception, Ground Level extension sitting flush within the pavement and on top of the extension to provide feature lighting to the façade Level 2 and above. Feature lighting also features in the colonnade.

### 34. EMERGENCY LIGHTING ILLUMINANCE LEVELS

General Open Plan Areas	0.5 lux average at floor level
Plant Rooms and High-Risk Areas	10% of the normal illumination level or 15 lux at floor level
Escape Corridors	1.0 lux at floor level
Reception Areas	15 lux average at Floor level

A new emergency lighting system is going to be installed complete with 3-hour battery packs. The system comprises self-monitoring ballasts to enable real time system status on the BMS system. Automatic testing is provided via the lighting control system.

## 35. LIGHTING CONTROL

A combination of PIRs, Timeclocks, Dimming and Daylight dimming is used to control the lighting and minimise the energy consumption via a DALI system.

The luminaires are individually controlled to achieve a maintained lighting level.

A new lighting system has been installed within back of house and plant areas and tenanted on-floor areas to a Category A standard. If the tenant areas are provided as Shell & Core, the tenant provides a lighting control system which is compatible with the base build system.

## 36. LOW VOLTAGE DISTRIBUTION

New switchboards service the requirements of the main low voltage distribution system for the landlord's and tenants' services.

The main switchboards comprises of new Form 4 type 6 modular switchboards c/w full energy metering, LV surge suppression and space provision for a detuned Power Factor Correction (PFC) as well as space provision for active harmonic filtration.

Low voltage distribution is provided to a number of distributed final circuit distribution boards located strategically throughout the main building to supply all electrical loads.

Cabling from the main switchboard is routed via the main building core electrical riser, where they supply dedicated tenant distribution boards. All feeder cables are multi-core installed on cable ladder or cable tray as appropriate.

Mains distribution wiring systems are installed in XLPE/SWA/LSF cabling and PH120 fire rated cabling for the essential services fire rated power requirements.

Main distribution routes are installed from the main LV switch room in the basement to the electrical risers. Cables are installed utilising both new and existing cable containment within the basement at high level.

Local distribution small power and lighting circuits are carried out in a mixture of LSF singles cables in conduit and trunking as well as making use of pre-wired modular plug and play wiring systems within the main tenant fit out areas.

On floor tenants' power is provided by way of tenants' electrical risers.

Each riser is being fitted with a rising main busbar system and tap offs for connection to the tenants' local on floor distribution boards.

## 37. POWER FACTOR CORRECTION

Power factor correction is provided on a distributed basis at the respective major plant loads. In addition, the new main landlord LV switchboard is provided with the space provision to have stepped banks of power factor correction monitoring the mains supply and maintaining a power factor of 0.95 lagging.

## 38. ACTIVE HARMONIC FILTRATION

Active harmonic filtration is being provided on a distributed basis at the respective major plant loads. In addition, the new main landlord LV switchboard is being provided with the space provision to have active harmonic filtration on the mains supply.

## 39. MECHANICAL POWER

New containment and power supplies are provided to the mechanical equipment from the new switch panels and distribution boards. Additional mechanical equipment for tenant requirements is provided by the tenant.

## 40. METERING SYSTEM

HV meters are used by the landlord for the incoming power arrangements.

The new utility metering is installed to suit the new supply arrangement.

Multi-function MID meters are provided mounted within the distribution boards and switchboards for energy monitoring purposes in accordance with the requirements of building regulations part L.

Energy metering is provided to all main plant and equipment to meet the requirements of building regulations Part L and BREEAM rating.

Provision is made for tenant check metering at each distribution board to suit the current distribution arrangements. All tenant meters are connected via Modbus/M-bus to an EMS system to provide central billing capability by the building management team.

## 4 1 . S T A N D B Y G E N E R A T I O N

A life safety generator is located within the roof plantroom, the generator is provided with a day tank and the fuel is manually topped up. The life safety generator supplies life safety equipment only.

Life safety equipment is provided with automatic transfer switches with dual bypass. Primary and secondary supplies to the ATS are via diverse routes.

## 4 2 . S M A L L P O W E R

Space allowance has been made with the roof plantroom for a tenant standby generator.

Small Power	<ul style="list-style-type: none"><li>• Landlord's small power is provided from landlord's final circuit distribution boards for cleaners' sockets and other ancillary equipment typically as follows:</li><li>• Local point of use electrical water heater units</li><li>• Mechanical &amp; public health plant</li><li>• Reception desk</li><li>• Security system</li><li>• Local HVAC services</li></ul>
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## 4 3 . E A R T H I N G

A new distributed earthing system is connected to the existing PME connection and provided in compliance with the requirements of BS7671 and BS7430. Main earth bars are located within the main electrical switch room.

A dedicated earthing system is installed within the tenant's electrical riser to provide a clean low impedance point of connection for future tenants.

## 4 4 . L I G H T I N G P R O T E C T I O N S Y S T E M

The existing lightning protection system has been modified to suit the new arrangements in accordance with BS EN 62305 and BS 7430. The existing earth pits for the lightning protection are tested and re-used if deemed fit for purpose under the current regulations.

## 4 5 . F I R E A L A R M S Y S T E M

The system is arranged to be a controlled 'Open' protocol full analogue addressable fire detection system to provide a managed two-stage seek and search protocol in accordance with BS5839 and the fire strategy.

## 4 6 . T E L E C O M S A N D I T

Statutory telecoms is provided to all key monitored plant items for the day one fit-out, which includes:

- Lift alarms
- Fire alarm system – Redcare
- Security alarm – Redcare

- BMS head-end
- Metering where relevant
- Key mechanical plant

Allowance is made for provision of an internal communication system to service the house internal phone system for the FM department and reception services.

Each tenant's floor is serviced by dedicated comms risers providing on-floor diversity to future tenants.

Local infrastructure and cable support systems is provided vertically within the main comms risers and horizontally at high level linking between risers on each level. Dual diverse routes for incoming connectivity are provided.

## 47. PUBLIC HEALTH SERVICES

Cold Water Storage	Offices Storage is provided based on 15 litres per person based on a half days storage. The tank size is based on either the above criteria or 15 minutes pump run time whichever is greater. The domestic cold water system is designed and arranged so that no stagnation occurs, and adequate backflow protection is provided to meet the requirements of the Water Supply (Water Fittings) Regulations 1999.
Hot Water Provision	Offices Local electric water heaters for office toilets.
Showers	30L/person/use, 4/uses/hr (by means of electric heating). Hot water distribution is at 60°C. Hot water return is provided to maintain the hot water temperature at 55 °C. Hot water distribution dead legs is trace-heated were required to maintain the hot water temperature at 55°C utilising self-regulating tape suitable for repeated long term performance.
Tea Points Offices	Connections available at each core on soil, vent and cold water risers for extension by tenant.
Roof Drainage	This is designed in accordance with BS EN 12056 2000 and Building Regulation 'H' utilising roof outlets. All rainwater outlets and pipe sizing are based upon a storm intensity of 0.056 litres/0.060litres second/m <sup>2</sup> to suit the existing building infrastructure capacities.  Suspended drainage are designed in accordance with BS EN 12056 2000, utilising roof outlets. All rainwater outlets and pipe sizing are based upon a storm intensity of 0.02 litres/second/m <sup>2</sup> in accordance with BS EN 12056 2000.
Pipe Sizing	Pipe sizing of the hot and cold-water distribution systems are carried out using the 'Loading Unit' method.
Soil and Waste	Soil and wastewater sanitary pipe work is designed and installed in accordance with BS EN 12056 2000 and Building Regulation 'H'. The systems are designed as a fully ventilated single stack system. All pipe sizing are carried out using the 'Discharge Unit' method.
Cold Water Systems	A boosted drinking water distribution system to supply water to all fixtures, water consuming equipment, hot water heating equipment, and valved outlets to future tea points are provided. The new boosted water system includes upgrading the existing basement cold water storage tank, providing new cold water booster pumps, valves and distribution pipework. New boosted cold water pipework are extended from the basement booster pumps to each floor via risers. The existing potable water tank is converted into Category 5 tank and a booster set is being provided to serve the various wash down and watering points located throughout the building.
Hot Water Systems	Electric point of use water heaters serve the toilet core and are located on each floor within each block.  The shower block is served via 2No. electric unvented hot water storage cylinders. These are fed from the pressurised cold water system. Hot water storage is set at 60°C.
Foul Water Drainage	A fully ventilated soil and waste pipework in line with BSEN 12056 and Approved Document Part H is provided. The drainage system includes for future tea point risers, and the associated soil and waste branch pipework.



The soil stacks drop through the building in risers to Lower Ground Level where the drainage will discharge by gravity into a combined suspended drainage system, which is routed to connect to the existing retained sewer outfalls.

Foul and waste water discharge from sanitary fittings and showers located at Lower Ground Level and basement discharges into below and above ground foul water pump stations. The contents of these pump stations are pumped up to high level Lower Ground Level, where they connect into the gravity foul water drainage system.

#### Surface Water Drainage

The surface water design is designed in line with BSEN 12056 and Approved Document Part H. The rainwater system drops down through the building to Lower Ground Level where the drainage discharges by gravity into a combined suspended drainage system, which is routed to connect to the existing retained sewer outfalls.

#### Condensate Drainage

Condensate drainage from the mechanical plant connects the foul drainage discharge stacks via waterless traps. Where condensate cannot be run by gravity, local condensate pumps are fitted at the units, with a high level water alarm.

#### Temperature and Pressure

Pressure and temperature lines are installed in full compliance of Building Control document G3 Relief Lines and discharge over into waste pipework via waterless traps.

#### WC Overflows

WC flushing cisterns are to comply with The Water Supply (Water Fittings) Regulations 1999 and incorporate internal overflows that discharge water via the flush pipe.

#### Sprinkler Installation

A fully automatic sprinkler installation is designed and installed by an LPC approved contractor.

The existing sprinkler storage tank and pumps are reused. These are located within a dedicated plantroom located at basement level. A sprinkler rising main is routed through the building serving the new monitored zone isolation valves with flow switches to each branch, which will be connected to the fire alarm/monitoring system.

All sprinkler works undertaken comply with all requirements detailed herein and those of the following:

- BS 12845:2015
- Loss Prevention Council Technical Bulletins and any insurance company regulations (where applicable)
- The 17th edition of the I.E.E. Regulations
- The Area Building Control Officer
- The Area Fire Prevention Officer
- The Area Water Authority
- The system is designed to Ordinary Hazard Group III and is suitable for Life Safety Protection

Electrically monitored zone isolation valves with flow switches are provided on the main branch supplying each level. These are connected to the sprinkler status panel located adjacent to the fire annunciation panel. The sprinkler panel indicates valve and system status. Visible indicators are also provided locally at each valve location providing status of valve. Piped test facilities from each zone valve arrangement connect to a common drain arranged to discharge within the basement plantroom. The sprinkler panel interfaces with the fire annunciation panel.

## 48. DRY RISERS

The existing dry risers and associated landing valves to all firefighting cores are to be reused. These are in accordance with BS 9990:2015. The dry riser installation comprises of dry rising main fire brigade inlet breaching connectors and inlet boxes located on the building façade at fire service access level. Pipework from the inlet breaching pieces serves the dry rising main outlets situated on each floor located in the firefighting lobbies.

## 49. DDA

Emergency alarm systems are provided in accordance with the Equality Act 2010 comprising:

- Fully monitored disabled WC alarm provision back to central monitoring station
- Dedicated emergency communication system within firefighting stairs back to a central monitoring station
- Disabled refuge communication system within the non-firefighting stairs back to a central monitoring station
- Portable Induction loop for the reception desk

## 50. SECURITY

Security systems are provided in line with the requirements of the estate management and existing site wide strategies for the access and egress to the site and basement areas. The security systems typically comprises:

- CCTV
- Access control system
- Security turnstiles
- Secure goods lift access to tenant bike store at basement level - subject to site wide strategy
- Out of hours' video entry phone facilities to key monitoring stations
- Intruder alarm system to all perimeter access and egress points

Provision is made for panic buttons to be installed within the main reception desk which link to the main site security team.

## 51. BUILDING MANAGEMENT SYSTEM

All landlord plant is controlled or monitored by the landlord BMS system. The BMS utilises controlled enclosures within main plant rooms and on each floor. Energy meters are monitored on the BMS or a dedicated energy metering system [EMS].

## 52. PROTECTIVE INSTALLATIONS

### Fire Service

Fire detection and warning system is based upon phased evacuation in line with Building Control requirements. This 'open protocol' system serves the landlords areas with tenant interface panels to each individual office tenancy. The building is provided with a voice alarm/public address system for fire alarm purposes. Refer to latest version of approved Fire Strategy.

## 53. BUILDING MAINTENANCE

Note: The life safety systems comply with the requirements of the Building Regulations.

### Window Cleaning

External façades cleaned by abseiling and pole reach from Level 5 terraces.

### Internal Cleaning

Cleaners facilities are provided in the main core at all levels to serve the office floor plates.

## SECTION E: MAINTENANCE AND ACCESS

### 54. ACCESSIBILITY

Step Free access is provided into the building and into the office accommodation from the internal circulation spaces. Accessible toilet facilities are provided on all office levels.

### 55. CAR PARKING

Car Parking Spaces                      2No. DDA car parking spaces.

### 56. LOADING BAY

2No. dedicated loading bays.

## SECTION F: CERTIFICATION

### 57. BREEAM

Excellent under RFO 2014 for refurbishment works is targeted, and excellent under BREEAM NC 2018 for areas of new construction is targeted.

### 58. WIRED SCORE

Platinum certification is targeted.

## THE TEAM

Developed & Owned By

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