



CADWORKS

GLASGOW

Outline Specification





## <sup>01</sup> Sustainability

BREEAM	Excellent
Well	Silver ready
EPC	A
Air tightness	3.5 m <sup>3</sup> /h.m <sup>2</sup> @ 50 Pa
Recycled content	Steel: up to 80%
	Glass: minimum of 56%
	Timber: FSC 100% certified
	Concrete: minimum 50% GGBS in relevant parts of the build
Waste	Minimum 95% (by weight) of waste from demolition and construction diverted from landfill
PV Panels	50m <sup>2</sup> solar surface area, up to 19.5% module efficiency
Biophilia	Nature-led design enhancing air quality and wellbeing

## <sup>02</sup> Occupancies

Means of Escape	1 person per 6m <sup>2</sup> NIA
Internal Climate	1 person per 8m <sup>2</sup> NIA
Sanitary Provision	1 person per 6m <sup>2</sup> NIA
Services	1 person per 8m <sup>2</sup> NIA

## <sup>03</sup> Floor loading

Ground Floor	5.0 kN/m <sup>2</sup>
Upper Floors	5.0 kN/m <sup>2</sup>
Roof (Plant)	7.5 kN/m <sup>2</sup>

## <sup>04</sup> Floor heights

Ground Floor + Reception	4.0m
Upper Floors	2.70m to standard suspended ceiling and raft
	2.87m to underside of steel deck
Raised access floors	Carpet and floor boxes contribution

## 05 Structure

Foundations  
Superstructure  
Floors

Concrete piles  
Steel frame with slip form concrete core  
Metal decking with concrete slab

## 06 External Finishing

Cadogan Street &  
West Campbell Street Elevations

High quality silicone jointed curtain walling,  
with perimeter anthracite grey capping  
White glass fibre reinforced concrete cladding  
in a 2 storey 'superframe'

3.0m glass revolving entrance door

Wellington Lane Elevation

Anthracite grey non-combustible composite cladding

High quality capped curtain walling system

Stacked bonded polished grey blockwork at  
ground floor level

Roof

Intensive green roof, with sedum bio covering  
to central core

'Blue' roof design with ballast/concrete paving slab finish

## 07 Internal Finishes (core areas)

Ceiling

Timber raft ceiling with exposed slab above

White painted plasterboard with access tiles to rear  
circulation corridor

Walls

White painted plasterboard

Floors

600 x 600mm porcelain tile

Doors

White oak veneered doors

## <sup>08</sup> Reception

Ceiling	Timber raft ceiling with exposed slab above
Walls	Full height glazed vision panels to feature cycle ramp White painted plasterboard to remainder
Floors	600 x 600mm porcelain tile High grade entrance matting
Features	Revolving 3.0m tall metal framed mesh panel space dividers Bespoke credenza and catering bar Integrated seating and media wall

## <sup>09</sup> Toilets

Ceiling	Painted plasterboard with metal access tiles
Walls	600 x 600mm porcelain tile
Floor	600 x 600mm porcelain tile
Cubicles	Full height, flush, white gloss doors with stainless steel ironmongery
Vanity	Bespoke acrylic wash trough with stainless steel automatic mixer taps Full length mirror above wash trough
Sanitaryware	Wall mounted white porcelain WC pans with concealed cisterns
Accessible WC	Finishes to match main toilet provision

## <sup>10</sup> Cycle Facilities

Bike Ramp

Dedicated bike ramp providing unencumbered access from street level to basement

Bike Racks

Mixed provision for 119 cycles to be stored

Electric bike charging points

Folding bike lockers

Exposed concrete slab

White painted blockwork walls

Feature wall graphics

Ceiling

Walls

Floor

Rubber, high grip flooring

Features

Bike wash and maintenance station

Stretch zone and cool down area

## <sup>11</sup> Changing Facilities

Ceiling

Exposed concrete slab

Floor

Anti-slip vinyl flooring

Cubicles

Full height, white satin finish doors with stainless steel ironmongery

Accessible Shower

Finishes to match main changing provision

Lockers

138 lockers + 10 mini lockers with USB charging points

Features

Cool down air machine

Airing units, towel stations and ironing stations

Dry bar with power outlets for hair dryers

## <sup>12</sup> Passenger Lift

Number	Four 21 person passenger lifts in compliance with BCO standards
Levels served	One lift serves basement to roof, a further three serve ground to level 9
Ceiling	Stainless steel with integrated lighting
Walls	Stainless steel with half height mirror and grab rails
Floor	600 x 600mm porcelain tile
Capacity	1,250kg
Lift Speed	2.0m/sec
Sustainability	Regenerative braking converts kinetic potential energy to electrical energy when the lifts are descending

## <sup>13</sup> Mechanical Installation

Heating and cooling provided by high efficiency air source heat pumps with VRF consisting of internal units in the ceiling void and outside units on the roof. Each floor has two separate systems to allow sub-division of the floor.

Office ventilation via high efficiency air handling units with thermal wheel energy recovery technology and integrated air source heat pumps. Ventilation distribution is split east/west to allow for sub-division of the floor.

Services installation is designed to provide flexibility to meet the tenant needs.

Ninth floor will be fitted out to CAT A standard with air conditioning served by circular ventilation grilles accompanying a raft type ceiling installation.

All other office areas will be finished in shell installation allowing for a tenant to be more flexible with their fitout options.

## 14 Design Temperatures

External Ambient (winter)	6°C db/100% RH
External Ambient (summer)	26°C db/20°C wb
Comfort Cooled Offices	Summer 22°C, +/-2°C Winter 20°C, +/-2°C Humidity uncontrolled
Reception	22°C ± 2°C
Toilets, Lobbies etc.	Summer – not cooled Winter 18°C

## 15 Fresh Air Supply

Offices	Fresh air to occupants at 12 l/s/person based on the occupancy of 1:8 NIA
Filtration Standard	MERV 13
Toilets	10 air changes per hour extract

Ventilation exceeds the BCO requirements and is provided by four AHUs on the roof, allowing for sub-division of the floorplates as well as flexibility to serve different operating regimes of the occupiers. The AHUs incorporate heat recovery measures.

## 16 Electrical Installation

### Two Incoming Utility Supplies

Landlord Supply	300 kVA
Tenant Supply	1,000 kVA total 100 kVA per tenant floor (50 kVA per half floor)

Option to sub-divide floors with dedicated electrical metering.

## 17 Cooling Loads Allowance

### Occupancy Loadings

Sensible	90 watts/person
Latent	50 watts/person

### Acoustic

Open Plan Offices	NR38
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### Electrical

Office Lighting	1.5 W/m <sup>2</sup> /100 lux
Small Power	25 W/m <sup>2</sup>
General Power	5 W/m <sup>2</sup>

## 18 Acoustic Levels

Full BCO Compliance (NR38 in offices)  
Full BREEAM Compliance.

## 19 Electrical Design Criteria Allowance

General Office Lighting	up to 8 W/m <sup>2</sup>
Small Power	25 W/m <sup>2</sup> (100 W/m <sup>2</sup> for ground floor)
Mech Power	25 W/m <sup>2</sup> to 50 W/m <sup>2</sup>
Cleaners/General	5 W/m <sup>2</sup>

Reception fitted with twin sockets complete with USB charging.



## 20 Lighting

Energy efficient LED lighting scheme.

Ninth floor lighting

Low energy LED suspended raft mounted luminaires, perimeter bulkhead illuminated with LED recessed downlights

Reception

Low energy LED feature and functional lighting

Toilets

Low energy recessed LED downlights

Changing Rooms

Low energy recessed linear luminaires

## 21 Lighting Levels

Offices

500 lux

Toilets

200 lux

Stairs/Landings

100 to 200 lux

Plant Rooms

200 lux

Reception

300 lux

Storerooms

200 lux

Bike Store/Ramps

100 lux

Changing Rooms

200 lux

Emergency

To BS EN 50172, BS EN 5266, BS EN 1838

## 22 Lighting Levels

DALI (Digital Addressable Lighting Interface) lighting control system with graphical front end, system incorporates energy saving features such as time channel control, presence detection and daylight dimming throughout the building.

Open plan office space meets BREEAM zoning and control requirements consisting of 1 switch per 40 sq m. Daylight sensors dim perimeter lighting during hours of sufficient daylight while PIR detectors turn off lights 10 minutes (variable) after last detection. Local switch for master control provided for each office floorplate.

Manual control provided in plant rooms & stores.

Testing and monitoring of emergency lighting via the lighting control system.

## <sup>23</sup> Standby Power

250 kVA generator for life safety and landlord essential services.

Space reserved on rooftop plant area for an additional tenant generator.

## <sup>24</sup> Building Management System

System designed to control, monitor and report the performance of building services. The system will be provided with a dedicated front-end comprising operator's workstation and allowing interface, monitoring and/or set point alterations:

- Flexibility is provided to allow tenants to install their own BMS or make use of the Landlord's BMS by agreement.
- Electrical Power Monitoring System provided to monitor Tenant and Landlord energy usage. Energy trends can be displayed remotely such as in the reception or incorporated into Tenants energy management system.

## <sup>25</sup> Protective Installations

Category L1 automatic fire alarm and detection system throughout the building. Phased evacuation provided via Voice Alarm System (VAS). Additional Visual Indication Devices (VID's) provided in toilets and open plan spaces.

Emergency voice communication systems provided at disabled refuge locations throughout.

Sprinkler installation complying with LPC Rules to OH1 life safety.

## <sup>26</sup> Building Management Facilities

Ground floor facility management office, with supplementary building management facilities at basement level.

Building perimeter and public areas are protected by CCTV.

Access control to perimeter doors. Containment provided for tenants to install their own access control on floor entry doors.

Large cleaners store at basement level to serve the common areas.

## 27 Communications Provisions

**WiredScore certification level of Platinum.** This allows tenants to benefit from the following:

- Large, climate controlled, designated, secure and flood-proof telco room located in the basement which has been sized to allow for up to six racks.
- Major providers including BT Openreach, Virgin and Vodafone aimed to be terminated in the building with pre-negotiated wayleave agreements, speeding up tenant installations.
- Containment system installed through the risers allowing tenants to install their own IT system
- Two diverse comms risers exclusive for tenants' use for diverse routing of containment and the backbone infrastructure.
- Building pre-wired with fibre optic cable to each floor, allowing tenants to quickly interconnect with their preferred supplier.
- Two diverse points of entry into the building for communication services.
- Microwave backhaul for instantaneous day one connectivity.
- Fibre running through two different risers for redundancy.
- Two universal communications chambers enabling faster telecommunication installations.
- Designated roof space for tenant private back-up and communication equipment such as fixed wireless, VSATs and SMATV/IRS systems.

## <sup>28</sup> Energy Metering

### General

Energy metering exceeding the requirements of Section 6/Approved Document L and the corresponding BREEAM requirement.

Multifunctional MID approved meters connected to each distribution board and loads greater than 10kW. All metering linked back to the landlord's energy management system (EPMS) to monitor energy usage and charges. Energy trends can be displayed to the public via information board in the main reception.

7 meters for ventilation.

### Energy Usage

#### Electrical power consumption – 144 meters

- a) 110 meters for lighting and small power
- b) 20 meters for air conditioning
- c) 7 meters for equipment with electrical load of 10kW or above
- d) 7 meters for ventilation (electricity for fans and air handling units)

#### Domestic water services – 27 meters

- a) Incoming water flowrate
- b) Temperature sensors
- c) Flowrate of water services usage (hot and cold). Extensive monitoring through numerous smart meters on each floor
- d) Cold water return loop

## <sup>29</sup> Building Maintenance

All external glazing will be cleaned via abseiling.



<sup>30</sup> **Accessibility**

Fully DDA compliant.  
Level access is provided throughout the building to all levels.

<sup>31</sup> **Waste**

Waste processing and recycling facilities are provided within a dedicated ground floor refuse store.

<sup>32</sup> **Electric Vehicle  
Charging Points**

4 electric vehicle charging points capable of fast charging.



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