



FIVE

HANOVER QUAY

DUBLIN 2



# BUILDING SPECIFICATIONS

## Architectural Specification

Means of Escape	1 person per 6 sq. m.
Internal Climate	1 person per 8 sq. m.
Sanitary Accommodation	1 person per 8 sq. m. (Provisions as per BS6465 4-1 2014)

## Planning Module

1.5 X 1.5m Typical throughout

## Structural Grid

7.5 X 7.5m and 7.5 X 9.0m

## Floor Loadings

Office Floors	5.0kN/m <sup>2</sup> UDL
Reception Area	5.0kN/m <sup>2</sup> UDL
Car Parking Area	2.5kN/m <sup>2</sup> UDL
Roofs	0.6kN/m <sup>2</sup> UDL
Plant Areas	7.5kN/m <sup>2</sup> UDL

## Floor Heights

Reception Ceiling Height	Double height space Approx. 7.8m
Ground Floor Ceiling Height	4.0m
1 <sup>st</sup> – 6 <sup>th</sup> Floor Ceiling Height	2.75m
Typical Floor to Floor Height	4.1m

## Service Zones

Raised Access Floor –	200mm
Typical Floor to Ceiling Height –	2750mm
Ceiling zone –	650mm

## Structure

Insitu reinforced concrete structure with typical 275mm flat floor slabs, with insitu reinforced concrete columns and core walls.

## EXTERNAL FINISHES

### Facade

- Unitised high performance curtain wall system with structural glazing and polyester powder-coated internal frames. High-performance solar glazing and insulated spandrel panels.
- Feature high quality reconstituted stone outer frame.

### Main Entrance Doors

Feature clear glass, frameless revolving door and single leaf door to each side for accessibility and fire escape.

### Roof

Sedum Green Roof System on proprietary waterproofing membrane on high density roof insulation on reinforced concrete roof laid to falls.

### Landscaping & Terraces

- High quality natural aggregate paving with feature planters to terrace areas.
- High quality granite and concrete paving to external footpaths with feature planters and integrated lighting to building perimeter.

### U-Values

External Wall	= 0.21 W/m <sup>2</sup> k
Floor	= 0.21 W/m <sup>2</sup> k
Roof	= 0.18 W/m <sup>2</sup> k
Glazing	= 1.50 W/m <sup>2</sup> k (tbc)
Spandrels	= 0.85 W/m <sup>2</sup> k (tbc)
Airtightness	= 3.5M <sup>3</sup> /M <sup>2</sup> /HR@50Pa





## INTERNAL OFFICE FINISHES

### Walls

Painted plasterboard lining to internal office walls and cores with painted MDF skirtings.

### Floors

600 X 600 Raised access flooring.

### Ceilings

600 X 600 Mineral fibre tiles with feature plasterboard band to perimeters and core junctions.

### Columns

Painted finish to reinforced concrete.

### Joinery

- Flush American White Oak Doors and Frames with painted MDF skirting
- Stainless steel ironmongery throughout

## RECEPTION

### Walls

- Double height space with views of the first floor lift lobby
- Painted plasterboard walls with bronze-lined effect featured recesses with integrated seating
- Selected feature wall behind reception desk

### Floors

Polished concrete with underfloor heating throughout.

### Ceiling

MF Plasterboard ceiling with feature lighting.

### Reception Desk

High-Quality 'Solid Surface' feature reception desk with bronzed effect panelling.

## STAIRS

### Walls

Painted plasterboard lining with painted MDF skirtings.

### Floors

Proprietary rubber floor coverings with integrated stair nosings in contrasting colour.

### Ceiling

Painted concrete to underside of stair flights and half landing.

### Joinery

- Flush White Oak Doors and Frames including vision panels and painted MDF skirting
- Stainless steel ironmongery throughout

### Balustrades

Satin finished stainless steel handrails (grade 316L) supported on floor mounted support posts or wall mounted with stainless steel perforated guarding panels.

## SANITARY ACCOMMODATION

### Toilet Provision

- Toilet provisions are calculated on 1 person per 8 sq. m.
- Toilet requirements are calculated on a floor by floor basis
- Toilet numbers are calculated based on BS 6465-1

### Walls

Porcelain wall tiling.

### Cubicles

- Proprietary toilet and shower cubicle system, full aluminium frame with HPL laminate facings
- Proprietary IPS panel system to match toilet cubicles with selected HPL laminate finish

### Floors

Large format porcelain floor tiling.

### Ceilings

600 X 600 Mineral fibre tiles with feature plasterboard band to perimeter wall junctions.

### Vanity Units

- Bespoke vanity unit with Corian finish and fully recessed countertop wash hand basins
- Mirror with integrated lighting and separate hand dryers, soap dispensers and taps

### Sanitary Fittings

High quality sanitary ware and fittings throughout.

### Joinery

Flush American White Oak Doors and Frames. Stainless steel ironmongery throughout.



## CAR & BICYCLE PARKING, LOCKER & SHOWER PROVISIONS

### Parking Provisions

40 Car Parking Spaces.

The basic dimensions required for the layout of car parking areas are as follows:

Parking bays shall be 2.4m wide by 4.8m in length.

Parking bay widths for people with disabilities will be a minimum of 4.8m wide by 6.0m long.

Design Standard: At least 5% of the total number of spaces should be designated disabled car parking spaces.

Total number of spaces provided = 3.

### Bicycle Parking

230+ secure bicycle parking spaces are provided in the basement.

### Shower and Changing Facilities

Shower and changing facilities are provided in the basement, accessed from the main core.

#### SHOWER PROVISION (PROPOSED)

Female	7
Male	7
Accessible	1
<b>TOTAL</b>	<b>15</b>

## MECHANICAL SERVICES

Air-con designed for an occupation of 1 person 8m<sup>2</sup>.

### **Air-conditioning system**

The office areas will be totally air-conditioned and will be provided with a Low Temperature Hot Water (LTHW) and Chilled Water (CHW) system to provide the required energy load to heat and cool the office space throughout the year via 4-pipe fan coil units. Each floor shall be provided with energy monitoring stations and automatic isolation valves to enable each floor plate to be easily metered by the landlord if required.

The 4 central air handling units will extract the return air and discharge to outside via a heat recovery section in the AHU. This will in turn preheat the fresh air to be delivered into the buildings and reduce energy costs. Variable speed fans shall be provided with motorised dampers provided on each floor or sub-tenancy with pressure differential switches controlling the volume delivered to the spaces. The supply and return air will be ducted in the dedicated mechanical risers to each floor at the central core.

Tempered fresh air will be provided to the back of the Fan Coil Units via the central Air Handling Units located on the 6th floor plant area.

### **Heating System**

Two gas fire cascade boiler arrangements and one CHP unit shall be provided to meet the heating load requirement. The building heating system has been designed to achieve the minimum A3 BER rating the building is targeting.

Natural Gas enters the building directly at basement level and metered within a dedicated naturally ventilated Gas Meter Room. The gas pipework is then run in welded steel a short distance to the basement heating plantroom. A provision for a future gas connection to serve a ground floor future canteen space is provided.

### **Cooling System**

The building cooling requirement shall be provided by a minimum of 3 air cooled chillers located on the 6<sup>th</sup> floor plant area. The chillers shall be capable of providing chilled water at 6oC and each chiller can provide 40% of the building load to allow for extra redundancy.





## DESIGN PARAMETER

### Winter Temperature

Outside:	-5°C db (100% saturated)
Internal Office:	21°C±2°
Toilets:	18°C min
Reception:	18°C min

### Summer Temperature

Outside:	26°C db/20°C wb
Internal Office:	23°C±2°
Toilets:	No Control
Reception:	No Control

### Fresh Air Supply

Offices:	10L/s/person based on 1 person per 8m <sup>2</sup>
Toilets:	10 ACH extract (make-up air at 85% of supply)

### Acoustics Level

Office Open Plan:	NR 35
Toilets:	NR 40
Reception Area:	NR 38

### Water Services

24-hour storage for the building population providing 45l/person

## ELECTRICAL SERVICES

### Design Criteria

The building shall be designed on the basis of One person per 8m<sup>2</sup>

<b>Lighting:</b>	10W per sq. m.	<b>Lighting</b>	
<b>General Power:</b>	20W per sq. m.	Offices:	500 LUX
<b>Small Power:</b>	20W per sq. m.	Reception:	200 LUX
		Toilets:	200 LUX
		Basement Car Park:	75 LUX

### Lighting Control

A dedicated lighting control system shall be provided throughout the open plan office areas. The lighting systems will be zoned to allow areas to be controlled in isolation, for example areas benefiting from day-lighting may not require artificial lighting for the same periods as the more internal areas.

### Standby Power

The building firefighting and life safety systems shall be backed up via a Landlord generator located within the basement area. The generator shall be rated to facilitate the life safety energy loads only.

There will be future space available for a tenant generator within the basement level, to back up their floor space. This space allocation shall be suitably sized to meet the requirements of a single tenant floor space.

### Communication

The building shall be provided with a diverse telecommunications route from the existing telecoms network within the vicinity of the development. Diverse routes, both externally and internally, will be provided.

## PROTECTIVE SERVICES INSTALLATIONS:

### Fire Alarm System

A fully addressable fire alarm system in full accordance with I.S. 3218. The fire alarm system will have sufficient capacity to permit extension of the system by the tenant, based on the ultimate partitioning configuration.

### Security Systems

The security installation will consist of access control, CCTV and an intruder alarm system in the landlord areas. These systems shall be IP type and adaptable to an open network and fully expandable to accommodate future tenant requirements.

### Earthing & Lighting Protection

A category LP III Lightning Protection system shall be provided in accordance with ET101 and I.S. EN 62305.

## SUSTAINABILITY

The building is targeting LEED Gold and building energy Rating A3.



## BUILDING MANAGEMENT SYSTEM

Building Management System - control, monitor, record, trend and alarm all of the building services and mechanical systems including any additional heating, ventilation, air conditioning, water services and internal/external metering via Modbus or BACnet.

## PASSENGER LIFTS

- i. Internal finishes – Oak side walls with mirror to rear wall
- ii. Floor – Porcelain tile
- iii. Contract speed 1.6m/s
- iv. Waiting time
  - 15 secs at peak morning times (with destination control)
  - 20.7 secs at peak lunch times (with destination control)



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