

FULL SPECIFICATION

1.0 Building specification

1.1 Structure

Commodity Quay's superstructure consists of an in-situ reinforced concrete frame to the quayside and steel frame to the East Smithfield Road side.

The quayside building consists of a series of reinforced concrete toughed slabs spanning north-south onto wide shallow band beams. Beams are supported on a series of reinforced concrete columns spaced at approximately 5.5m along the building elevation.

At 4th floor the building façade steps out along the north and south façade. A series of deep wall transfer columns are used to cantilever outward and provide continuity of load. At 7th floor a transfer slab consisting of 200mm deep downstand beams supports the penthouse office which is stepped in to form terraces. Transfer beams run north-south and are positioned at each 5.5m grid position.

The roadside building consists of a steel frame with varying floor construction. At 1st & 3rd floors the floor construction consists of 100mm composite steel and 'holbro' slab supported on intermediate steel members. These levels are suspended from perimeter columns and hangers from beams which span the full width of the building (approximately 15m) at 2nd & 4th levels.

The basement is of reinforced concrete construction throughout. To the roadside structure perimeter columns are continuous to foundation level. Quay level and intermediate basement floors consist of in-situ reinforced concrete slabs spanning between downstand beams. Reinforced buttress walls exist along the road elevation supporting the retained masonry wall to East Smithfield Road. The quayside is supported upon a pile cap positioned centrally. The buttresses cantilever either side to pick up perimeter columns.

1.2 Roof Terraces

Inverted protected membrane roofs & terraces:

4th floor roof terrace garden – paving throughout with central artificial grass croquet lawn and perimeter planters.

7th floor terrace – paving around south, east and west elevations overlooking St Katharine Docks.

8th floor roof and 4th floor plant areas – washed large diameter gravel with precast concrete paver walkway.

1.3 Dimensions

- Finished floor to finished ceiling height for upper office floors: Up to 2.6m
- Finished floor to finished ceiling height for first floor offices: Up to 3.0m
- Finished floor to finished ceiling height for main entrance lobby: 6.15m
- Raised floor zone: This is typically 90mm, although in some instances this figure is more or less
- Structural grid: 8.23m x 5.49m
- Planning grid: 1.65m x 1.83m

1.4 Occupancy Standards

- Heating and cooling: 1:10m² NIA
- Lifts: 1:10m² NIA. The performance is based on the net lettable areas for all office space, including the new core arrangements, 20% absenteeism and 50% of office staff using the stairs to the first floor. Average interval time 26 seconds and 18.5% handling capacity (Above BCO and Excellent CIBSE)
- Means of escape: 1:6 m² NIA
- WCs: 1:10m² NIA at 60% male and 60% female split

1.5 Floor Loadings

The floor slabs are designed to accommodate the following uniformly distributed live loads:

- Office floor areas (typical): 2.5 kN/m²+ 1.0 kN/m²
- Ground floor: 5.0 kN/m²
- Terraces: 2.5 kN/m²
- Storage areas: 10.0 kN/m²

1.6 Acoustics

The building fabric including internal structure, partitions and shafts shall be designed to meet the following noise criteria:

- Offices NR40
- Washrooms NR45

1.7 External Envelope

The retained facade incorporates thermally broken, drained and ventilated aluminium curtain walling with new double glazed units. Glazing incorporates laminated inner panes, neutral solar control and low-emissivity coatings. 2nd to 6th floors incorporate new south facing 'Juliet balconies' with high quality sliding doors overlooking St Katharine Docks. New roof terrace doors are incorporated into the glazing system.

The central core incorporates stepped access at 4th floor into a new walled roof terrace. Allowance for future tenant installation of platform lift, 7th floor penthouse office incorporates perimeter sliding doors onto terrace overlooking St Katharine Docks and River Thames.

High quality fully glazed revolving doors with hinged electrically operated glazed side doors (Part M compliant) to East Smithfield Road and St Katharine Dock's entrances.

High quality, full height folding sliding doors to retail units opening onto the dockside walkway.

1.8 Terraces

External terrace areas are provided at 4th (7,700 sq ft) and 7th floor (2,400 sq ft).

2.0 Internal Finishes

2.1 Internal Surfaces

Walls: Internal walls within office floorplates are generally drywall; quay and roadside entrances have plastered block walls. Structural new core walls are reinforced concrete to receive plastered finish. Dividing walls between office and retail units are of block construction to acoustic engineers specification.

Floor: Office areas; medium grade fully accessible raised floor.

Ceiling: Good quality powder coated 900 by 300mm wide perforated lay-in planks hinged and perforated metal ceiling planks with a suspended plasterboard perimeter margin. Painted linear air supply grilles.

2.2 Washroom Areas

Walls: Central core 'unisex' cubicles formed with drywall partition walls. Side core 'same sex' toilets incorporate full height cubicle systems.

Floors: Mid grey ceramic tiling.

Ceiling: Painted plasterboard with small zone accessible ceiling.

2.3 Staircase and Lobbies

Walls: Painted plaster/plasterboard.

Floors: Paint finish solid core doors with softwood frames generally.

2.4 Lifts

Passenger lifts fully refurbished with remodelled interior back-painted white glass, bronze effect metal linings and leather handrails.

2.5 Sanitary Fittings

High quality mirrors with hidden light source detailing, Corian shelf and individual concrete basins within urinal toilets and cast concrete trough wash-basins within same sex office toilets.

2.6 Bicycle Racks

There are currently 84 'secure' bicycle spaces.

2.7 Showers

15 shower rooms.

2.8 Signage

Door signage to match ironmongery. Stainless steel 'Commodity Quay' lettering on the back painted directory signage within reception.

2.9 Tenant Provisions

The building is capable of being occupied by up to two separate tenants per floor, apart from the second and third floors which could be occupied by up to four separate tenants. Space for a tenant generator provided, as part of the base build.

Roof space allocation for tenant's supplementary cooling plant based on 18 VRF heat rejection units. On each floor of the offices there will be connections available at the core for soil, vent and cold water risers for extension by tenant.

2.10 Servicing

Service access is provided via the shared service yard accessed off East Smithfield Road leading into first floor goods lift lobby. Retail and health club units serviced via back of house corridor at quay level linking to goods lift lobby.

3.0 Mechanical Services

3.1 Design Criteria

Outside Conditions:

- Summer 31°C db 20°C wb
- Winter -4°C db -4°C db
- Heat rejection plant

Inside Conditions:

Internal Offices:

- Summer 24°C db +/- 2°C
- Winter 22°C db +/- 2°C
- Washroom areas 19°C min (no max)

Reception:

- Summer 24°C db +/- 2°C
- Winter 22°C db +/- 2°C

Base Cooling Loads:

- Lighting power (Tenant) 12 W/m² @ 400 lux
- Small power (Tenant) 25 W/m²

Ventilation Rates:

- Offices: 16 litres/second/person based on 1 person per 10m²
- Washroom supply: Make-up air from offices
- Washroom extract: 12 air changes/hour

Noise Levels:

- Office: Open plan NR40
- Toilets: NR40

3.2 HVAC Strategy

Cooling:

The central refrigeration plant consists of two air cooled water chillers with their associated primary and secondary pumps, valves, controls, lagging, etc. Each chiller is sized to meet 50% of the base build cooling load. The plant is provided with an automated control system. Dedicated secondary chilled water pumps circulate chilled water to the central air handling plant and separate pumps circulate chilled water to valved connections on each floor to serve inline fan coil units. The fan coil units are of the Waterside control type and comprise of an inlet filter, chilled/low temperature hot water coils (including condensate drainage tray and connection), EC/DC motor fan and discharge plenum.

Heating:

Heating is provided to the building using 3No. gas fired boilers at basement level with their associated primary and secondary pumps, valves, controls, lagging etc. Each boiler is sized at 33% of the total output. The plant is provided with an automated control system. Dedicated secondary low temperature hot water pumps circulate heated water to the central air handling plant, separate pumps circulate heated water to valved connections on each floor to serve inline fan coil units and separate pumps provide heated water to the basement calorifiers serving the local showers.

Ventilation:

Outside air ventilation is provided to the office areas via a number of air handling units at 4th and 8th floor levels, complete with heat recovery.

Tempered air is distributed to each floor via a number of risers with horizontal branch connections into the ceiling void. Sub-branches are provided to the rear of each fan coil unit.

Where the fresh air ventilation ductwork would normally be reduced in size as branches were taken off, this has remained the same size for long sections allowing for flexibility to install meeting rooms in most areas without altering the base build services (subject to final tenants layouts).

Hot Water:

Hot water is provided to the on-floor washrooms using local electric hot water heaters.

4.0 Electrical Services

4.1 Design Criteria

- Office lighting power (tenant) 12 W/m² @ 400 lux
- Office small power (tenant) 25 W/m²
- Reception power for reception 25 W/m²
- Mechanical services 60 W/m²

4.2 Incoming Supply

The Building has an agreed service capacity of 2.6MVA via 2No. 11KV Incoming supplies. The allocated maximum demand to suit the requirements of BCO standards is 1.7MVA. Additional spare capacity shall be allocated to suit the future tenants based upon application and Landlord's approval.

4.3 Metering

The building is metered at the HV incoming supplies, a distributed metering strategy shall be provided to cater for the local metering demands to suit the future tenants fitness.

4.4 Low Voltage Installation

The building is serviced via an incoming HV 11KV power arrangement within the basement plant level.

The HV supply is connected via a Landlord owned 11KV switchboard which in turn supplies 2No. fully rated 11kV/400V transformers.

The transformers shall be arranged to service the low voltage requirements of the building's tenants and Landlord's supplies.

Connection points shall be allowed for within the main LV switchboards for future standby generation.

The main tenants services shall be a fed via 2No. rising busbar configurations with local on floor tap offs serving the tenants distribution boards. The distribution boards shall be fitted with incoming CT sections to allow for the fitment of tenant metering.

4.5 Standby Power Provision

A 250kVA diesel generating packaged silenced set shall be provided at basement level to provide secondary power to LIFE safety generator.

Space provision shall be provided at roof level for standby tenant generator.

4.6 Lighting

Lighting is designed and installed generally in accordance with the requirements of CIBSE code for interior lighting together with specific lighting guide LG7 – office lighting and BS:5266 emergency lighting.

The following criteria have been adopted at the relevant working plane height:

- Offices area: 400 lux maintained average open plan at working plane
- Emergency lighting: Provides an average of 1 lux on the floor level

The lighting controls utilises automatic presence and daylight sensors to maximise energy savings.

4.7 Lifts

Passenger Lifts:

4 x 16 person passenger lifts. Average interval time 26 seconds and 18.5% handling capacity (Above BCO and Excellent CIBSE). Calculation based on 1 person per 10m² of the net lettable areas for all office space, including the new core arrangements, 20% absenteeism and 50% of office staff using the stairs to the first floor.

Goods/Fire Fighting Lift:

1 x 1,600 kg goods lift serving all floors.