QUALITY SPECIFICATION

STRUCTURE AND FABRIC

1. Substructure

1.1 The structural frame is supported on typically 1500mm square mass concrete pad foundations at 1m depth.

1.2 Traditional mass concrete pad foundations within the lightwell areas.

1.3 Reinforced concrete ground beams span between new pad foundations to pick up the columns.

2. Superstructure

2.1 The superstructure is steel-framed, with braced bays at ground floor in Q3 and Q4 and rigid connections in Q1 and Q2. Castellated beams support a composite pre-cast plank and reinforced concrete first floor.

2.2 The ground floor slab is ground bearing.

2.3 The lightwell infill areas are structurally similar to the original construction; castellated steel beams on steel columns with pre-cast concrete first floor. Columns are located adjacent to existing columns or within new partitions.

3. Loading Criteria
The floor slabs are generally designed to accommodate the following uniform live loads (kN/sq m):
First floors 3.50 (plus 1.0kN/sq m for partitions).
Ground floors 25.0.
Roof 0.75.
Roof plant areas 2.50.
In addition, the following superimposed design dead loads have been allowed for in the office areas (kN/sq m):
Suspended ceiling and building services 0.4.
Raised floor 0.45.

4. External Cladding
External walls finished in buff brickwork and zinc/aluminium cladding to key focal points of the design. All external walls and windows to meet Building Regulations.

5. Roofing System
The roofing system consists of a fully bonded waterproof membrane, insulation board, precast paving slabs along access routes, ballast, flashings for copings and upstands and provides a maximum average 'U-value' in order to meet Building Regulations.

6. Dry Lining
Dry wall construction comprising metal studs or gyp-liner type systems with plasterboard finished face to concrete walls around and within core areas where necessary.

7. Internal Metalwork
Stainless steel hand railing with tension wire or glazed balustrades to the stairs.

FINISHES

8. Receptions

8.1 The main entrances to the buildings will be through a fully glazed screen with swing/sliding door. The swing/sliding doors have a disabled call post mounted externally and internally, which is able to automatically open the door as needed. All doors have manifestation.

8.2 Lighting consists of ceiling mounted recessed downlighters and wall washer type lighting.

8.3 The floor finishes will be stone/porcelain tiles with honed finish for slip resistance with carpeted areas inserted where appropriate and entrance matting.

8.4 Wall finishes between ground and first floors will be white painted drylining or a panelised system or similar, capable of suspending tenant artwork. The wall behind the reception desk and leading to the lifts is clad with coloured lacquer finished MDF panels.

8.5 Ceiling finishes are to be painted white plasterboard with downlighters.

8.6 Lift entrances have stainless steel doors and frames.

8.7 Each building to have a new entrance facade. This facade will be constructed from double glazing supported on a curtain walling system (or similar) providing maximum transparency into the entrance area behind.

9. Toilets

9.1 Typical units comprise internal finishes, toilet cubicle partitions, vanity units, mirrors, sanitary fittings, associated plumbing, lighting, power and concealed ductwork.

9.2 The quantity of fixtures provided is based on the applicable codes and regulations, and will meet the requirements, per net floor area, for the building based on BCO Guidance and British Standards.

9.3 The internal toilet finishes are as follows:
Walls: Ceramic or stone tiled skirtings, with glass or laminated wall panels.
Floors: Honed ceramic or stone tile.
Ceilings: White painted plasterboard and downlights.
Doors: Laminate or veneer.
Lighting: Downlighters adjacent to mirrors above vanity units.
Vanity tops: Slate or composite.
Sundry toilet items: Full length mirrors, double toilet roll holders in brushed stainless steel, paper towel dispensers and electricity spurs with blanking plates for hand dryers and shaver sockets.
Toilet lobby: White painted drylined walls and ceiling.
Raised floors, to accept carpet finish or similar.

Toilet partitions: High quality partitioning/full height cubicles, with laminate surface.
Entrance doors to be solid core.

9.4 The sanitary fittings and plumbing provisions for the toilet units are in white vitreous china as follows:-
WC pans together with seats and covers together with duct mounted flushing valves, flush pipes and push type flushing mechanism.
Wall mounted urinal bowls with concealed flushing valves.
Basins with mixer taps.

9.5 Services provisions for the toilet units are as follows:-
Hot and cold water, soil waste and ventilation piping.
Extract ductwork.
Lighting and power sub-circuit wiring, and light fittings.

10. Disabled Person Toilet
Q1 and Q2 will have one disabled wc on the ground floor accessed directly from the core. Q3 and Q4 will have two disabled wc's (one on the ground floor and one on first) both accessed from the main core. All disabled toilets incorporate a shower.

11. Cleaner's Cupboards

11.1 A cleaner's cupboard is provided within the main core incorporating a cleaner's sink, hot and cold water and lighting.

11.2 The cupboards have the following finishes:-
Walls are white painted drylining with a splash back behind the sink.
Floors and skirtings are tiled.
There is extract ventilation to each cupboard served from the toilet extract system.

12. Showers
A shower is provided within all disabled toilet facilities.

13. Floor Finishes
Office Areas: Medium grade metal pan raised floor. Raised floor left ready to take carpet.
Internal Stairs: carpeted.
Lobbies: Stone/Porcelain tiles at ground floor; raised floor with carpet to be installed to lobbies.
Plant rooms; incoming service rooms: Sealed concrete or slip resistant paint finish.
Telecom & EUC (Electrical Utility Company) incoming service rooms: Sealed concrete.

14. Wall Finishes
Stairs and fire fighting lobbies: Painted drylining.
Office core walls: White painted drylining.
Walls in the plantrooms are undecorated.
Telecom and EUC incoming service rooms: Fairfaced.

15. Ceiling Finishes
Stair Lobbies: Painted drylining.
Offices: 600 x 600 mm quality mineral fibre tiles.

16. Lighting
Stair: Wall mounted fluorescent fittings.
Lift lobby and core corridor: Recessed downlighters in ceiling.
Plantrooms: Fluorescent fittings.
Offices: LG7 intent.

17. Lift Finishes
Lift cars: Brushed stainless steel internal and external doors.
Wall finishes are brushed stainless steel and opacified glass, coloured back painted panels with operating panels and half-height mirror. The floor will match the entrance hall floor. The ceiling is stainless steel (white finish) perforated sheet with fluorescent lighting above.

18. Doors, Frames and Ironmongery
Timber doors, frames and skirtings are provided to accommodation levels opening onto office areas (except for external doors). These doors have stainless steel brushed finish ironmongery.
Painted flush doors and frames will be provided in general service areas, such as risers, plantrooms, storage areas, service corridors, etc.
Suited locks are provided where required.

SERVICES

19. Design Criteria for Building Services

19.1 Mechanical:
Outside temperature:
Summer design 29°Cdb 20°wb.
Winter design -4°Cdb.
Inside temperature: (Offices)
Office internal design 22°C +/- 2°C.
Space is allocated to allow the tenant to provide humidification to the office supply air, if required.

19.2 Lighting and Power Load Densities for Cooling:
Office floor Base Loads:
Lighting 15 W/m^2.
Small Power 25 W/m^2 diversified to 15W/m^2 at switchgear.
VRF on floor systems are to be designed on small power allowance of 25W/m^2.
Population density criteria for cooling and outside air provisions.
Office Floors 10sq m/person.
Outside air provision:
Office floors 12 litres/sec/person (average) + 10% additional duty for tenant's use.

QUALITY SPECIFICATION

19.3 Electrical Design Criteria for Office Floors:
Lighting 12watts/sq m.
Small power 25watts/sq m.
Distribution boards to each floor including sub-metering to allow for floor-by-floor lettings in all buildings and wing by wing lettings in Q4.

20. Utilities

20.1 Electrical:
Electrical power is provided via an REL transformer back to the building by the Electricity Utility Company (EUC) at 400 volts. The EUC incoming switchgear and metering shall be strategically positioned.

20.2 Telecommunications:
Incoming ducts terminating in Landlord's riser space allowing British Telecom (BT) and up to three other telecommunications providers to terminate their supplies. A single, twin 13 AMP socket outlet is provided in each telecommunications intake room.

20.3 Water Services:
A metered incoming mains water supply installed by independent statutory water supply company from the mains is located in the site perimeter service trench.

20.4 Drainage and Plumbing:
The building drainage installation is divided into two systems, foul sewer and surface water.

20.5 Gas:
Gas will not be provided to the premises as the buildings are air conditioned by a very high efficiency variable refrigerant flow system utilising air source heat pump renewable energy technologies.

21. Drainage and Plumbing

21.1 The plumbing system consists of a mains water supply service, a storage tank, distribution pipework and all valves, local electric hot water heaters and soil and waste water drainage pipework.

21.2 Interior Water System:
A complete cold water distribution system to supply water to all fixtures, water consuming equipment, hot water heating equipment and valved outlets for the use of other building services is provided.
The systems are complete with all pipes, fittings, valves, mains, risers, branches, air valves, controls, hangers, anchors, test points, etc, as required to make the system complete. The mains pressure system includes domestic supply service with the required meter and meter accessories and supply to the domestic water storage tanks. Hot water is provided to each wash basin within the toilets at each level by electric water heaters.

21.3 Drainage:
A complete drainage system provided to convey all waste water from the buildings into the adjacent sewers. The systems are complete with all pipes, fittings, risers, branches, hangers, anchors, pits, pumps and controls, etc, as required to make the system complete.

22. Provision for Future Tenant Fit-Out

22.1 Suitable provisions for tenants to provide tea points and additional toilets.

22.2 An area at roof level is to be designated for additional tenant plant if required. Tenant plant will require screening by the tenant to match the base building provision.

22.3 The installation and aesthetic treatment of additional tenant plant would need to be compatible with the landlord's specification.

23. Heating, Cooling and Ventilation Systems

23.1 A variable refrigerant flow (VRF) heat recovery inverter driven system shall be provided. BREEAM rating of 'Very Good' and EPC Rating 'A'

23.2 Outdoor condensing units shall be positioned at roof level connected to indoor chassis type fan coil units.
Fan coil units shall generally be spaced to follow the recommendations of BCO.

23.3 The VRF system shall be capable of providing simultaneous heating and cooling. Conditioned air shall be delivered through ceiling mounted supply air grilles.

23.4 Common parts shall be heated by electric panel convector heaters.

23.5 The offices to be provided with supply and extract ventilation from a roof mounted air handling plant incorporating heat recovery or on floor ventilation heat recovery modules.

23.6 Supply and extract air shall be distributed via galvanised mild steel ducts. Extract air from the offices shall be via office light fittings/grilles and the ceiling void.

23.7 The toilet accommodation shall be provided with extract ventilation and a roof mounted twin fan extract unit. Galvanised mild steel ductwork and ceiling extract grilles shall be provided. Make up air for the toilets shall be from the office accommodation.

24. Fire Protection Services

24.1 Buildings to have a fire alarm automatic detection and alarm system to BS5839 category L2.

24.2 Building exits and fire alarm systems are designed for a single-phase evacuation sequence.

25. Automatic Controls and Building Management System (located in roof level plant room)
The Automatic Control and Building Management System is a microprocessor based system utilising the distributed intelligence concept.
The new VRF air-conditioning system shall have integrated intelligent controls supplemented with other control features for central ventilation systems.

26. Electrical Services
On floor electrical services and data services distribution to be by tenant within the raised floor.

27. Cable Management
Space is provided in tenant's risers with slots in mesh flooring
for future cable tray provision.

28. Lightning Protection
A lightning protection system is installed to BSEN 62305. All equipment at roof level is connected with the roof lightning protection system.

29. Security
Containment is provided for ground floor security devices from reception desk to the entrance door threshold.
Containment is provided from the reception desk to an accessible floor void in ground floor office accommodation.
Power supply from landlord's board is provided for the security control systems at ground floor.
Electrical containment systems are provided and may be used for security cabling.

30. Lift Installation
Each building will have an appropriately sized passenger lift with traffic performance as BCO 2009.

31. BREEAM
Each building will achieve a Very Good rating.

EXTERNAL WORKS

To be read in conjunction with latest revision of HLM drawing L(PA)902 P1 - Proposed Site Layout.

32. Parking Provision
Standard spaces 255no.
Disabled spaces 14no.
Total spaces 269no.

33. External Surfacing

33.1 Access Roads, Service Areas and Parking Spaces:
Access roads black-top tarmacadam.
Service areas black-top tarmacadam.
General parking spaces black-top tarmacadam with thermoplastic white line markings.
Disabled parking spaces blue-coloured tarmacadam with thermoplastic yellow line markings.
Kerbs to general areas - textured pre-cast concrete, standard half-battered.
Kerbs to central square - textured pre-cast concrete, square kerb units.

33.2 Feature Paved Areas:
Shared surface entrance corridor - concrete sett paving.
Central square natural stone paving, granite or similar.
Building entrances concrete/ granite sett paving.
Vehicle rumble strips to site entrances - concrete sett paving.

33.3 Pedestrian Ramps and Steps:
Tactile/corduroy indicator to top/bottom in accordance with building regulations.
Concrete sett, granite or tarmac dependant on prominence of location.

34. Street Furniture, External Lighting and Fencing

34.1 Street Furniture:
Benches - Polished pre-cast concrete/ steel frame with hardwood timber seats.
Cube seats - Polished pre-cast concrete.
Litter bins - Mild/ stainless steel with treated-timber cladding.
Vehicle bollards - Stainless steel retractable bollards electronic/ manual.
Cycle storage - Mild steel cycle hoops.

34.2 External Lighting:
Lighting columns - Stainless steel with L.E.D light source.
Lighting bollards stainless steel with L.E.D light source.
Recessed up-lighters stainless steel unit, toughened glass inset, L.E.D light source.

34.3 Fencing:
Timber / mild steel knee rails to boundary with Randalls Way.
Powder coated mild steel security fence to North and South boundary.

35. Other Built Features

35.1 Water Fountains/Features:
Water feature within the central square detail to be confirmed.

35.2 Retaining Walls and Raised Planting Beds:
Mass gravity gabion baskets, stone filled with hardwood timber seats where required.

35.3 Handrails - To Ramps and Steps:
Stainless steel with hardwood timber handrails.

35.4 Refuse Store:
Timber clad steel frame with steel mesh infill panels and lockable gated access, keypad controlled.

36. Planting Works

36.1 Trees:
Parking areas British native variety, fastigiate form.
Topiary box-headed trees Carpinus betulus or similar.
Ornamental trees Acer/Carpinus or similar.
Trees to include timber stakes, ties and irrigation pipes, root barriers where necessary to protect foundations/buried services.
Species list to be developed/confirmed.

36.2 Hedgerows:
Carpinus betulus/Fagus sylvatica or similar.
Full species list to be developed/confirmed.

36.3 Shrub/Herbaceous Planting:
Mix of British native and non-native species including evergreen species.
Species list to be developed/confirmed.

36.4 Biodiversity Grassland:
Grasses/wild flower planting mix british native/locally indigenous species.
In accordance with national/local biodiversity guidelines to support invertebrates/wildlife.
Species list to be developed/confirmed.

36.5 Amenity Grassland:
Turfed.