

Environmental Performance and Ecology

Building B5 is targeting the highest standards of environmental sustainability for a major office development, using a combination of complementary passive and active design features to obtain very low carbon emissions.

An Environmental Sustainability Plan is provided as part of this submission, which details the measures included as part of the design process and proposals.

The 'bespoke' BREEAM pre-assessment (2011) predicts that the building is on target to achieve an 'Outstanding' rating as a result of a holistic approach to sustainable design, with the building, its components and features designed to complement and work together. In particular, the combination of passive design measures, highly efficient building services and a low-carbon energy supply will deliver an overall carbon saving of over 40% against Part L of the current Building Regulations.

In summary, the 'Outstanding' performance of the building will be achieved through the following:

- high levels of insulation and air tightness in the external envelope;
- high levels of thermal mass, by virtue of the exposed concrete structure which reduces the peak mechanical cooling load;
- optimal proportion of glazing and solid panels within the façade to minimise heat gains;
- high levels of control over solar gain through brise soleil on the south, east and west façades;
- good internal daylight levels due to medium-depth floorplates, enhanced by inset balconies in the façade and high ceilings;

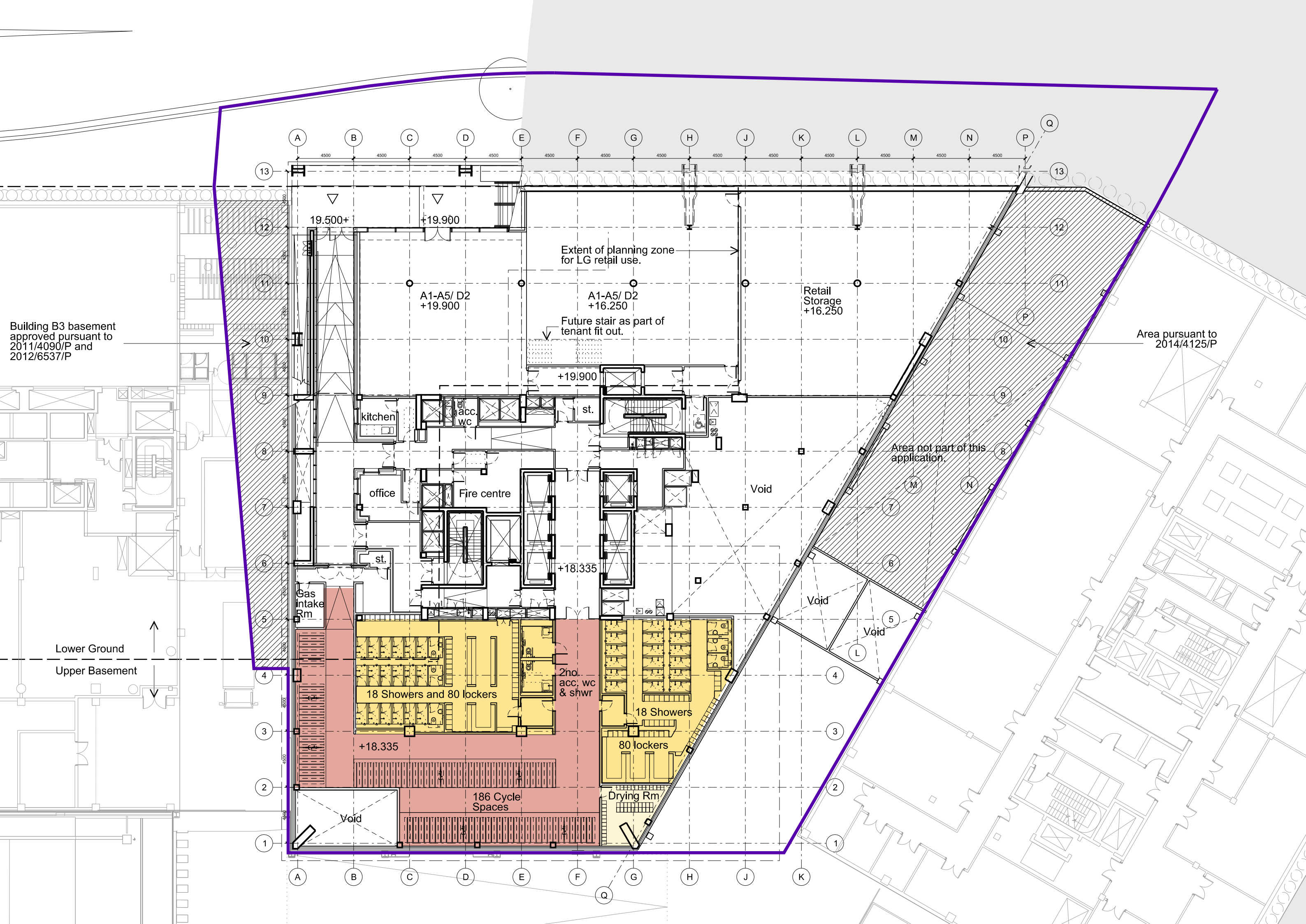
- office floor to ceiling height over 3m allowing high levels of natural daylight penetration;
- 'low tech' ventilation and cooling systems;
- heat recovery to reduce the energy required to heat or cool the incoming fresh air supply to the office space;
- high efficiency and intelligent lighting systems to reduce energy demand;
- high efficiency plant;
- connection to the KXC low carbon district energy system as a source of heating, hot water and to offset the electricity demand of the building;
- rain water harvesting and grey water recycling systems which will reduce demand for treated mains water;
- the use of 'low flow' fittings and water efficient sanitaryware to further reduce water consumption; and
- facilities for the storage and separation of different waste materials in the basement refuse store, as part of a comprehensive site wide recycling strategy.

In addition, Building B5 will incorporate a 'biodiverse' roof garden, which will take up approximately two thirds of the roof area, will to provide a natural living habitat and encourage a wider spread of native species of plants, birds and insects in the area. The roof garden will also attenuate rainwater, reducing the strain on the surface drainage system. In other areas rainwater harvesting and grey water recycling will produce an overall reduction in the water demand of the building. Water saving fittings, such as dual flush toilets etc, will be specified.



Figure 35: Precedent images of planting and wildlife

Building B3 basement
approved pursuant to
2011/4090/P and
2012/6537/P



Cycle and Vehicle Parking



Figure 37: Precedent images of Josta Parker two-tier racks (top) and Sheffield stands (bottom)

Figure 36 (left): Plan showing staff cycle store in orange and associated showers / drying room in yellow

General access

Access to the accessible car parking, motorcycle parking and service facilities is proposed via a shared basement service area and loading bay, located between Buildings B5 and B6 at Basement level. This area will be accessed via the Zone B shared basement, which links each of the buildings via a shared access ramp and subterranean road.

It should be noted that Building B5 has a dedicated cycle entrance direct from street level, off Goods Way, which separates the cycle access from the vehicular service access, as described below.

It is envisaged that most staff and visitors to Building B5 will arrive via public transport, given the direct connection from the King's Cross / St Pancras transport hub.

Cycle Parking

The Building B5 cycle parking is proposed both in the basement of the building and in the surrounding streets.

Secure cycle parking facilities for staff, incorporating toilets, showers and a drying room, are located at Upper Basement Level, as shown on Figure 36 to the left.

The cycle store allows for a total of 93 Josta Parker two-tier racks, equating to 186 cycle spaces. This number exceeds the cycle parking standards set out in the London Borough of Camden Unitary Development Plan 2006 (UDP) and referred to in Condition 51 of the Outline Planning Permission. The building seeks to provide exemplary facilities and the provision also stands at double the current British Council for Offices ('BCO') recommendations.

Unlike the other Zone B buildings, the cycle facilities can be accessed directly via a ramp from street level. This is in part thanks to the position of Building B5 on Goods Way and to the street level in the north west corner of the submission site. This reduces cycle and vehicular traffic cross over in the Zone B basement and on the access ramp off Pancras Road and provides a dedicated front of house cycle entrance for the building.

Cyclists will dismount on the Goods Way pavement and push their bike down the secure and semi-enclosed ramp. The enclosure to the ramp will take the form of 'hit and miss' glazing to provide necessary security. This also applies the concept of a transparent, fully glazed enclosure to the building at Ground and Lower Ground floor to this corner of the building.

It is envisaged that entry will be controlled by a swipe card system or similar, both off Goods Way at the top of ramp and at the bottom of the ramp, where automated sliding doors will be provided. The proposed ramp also serves as the primary means of fire and emergency escape from the building and is generously sized to allow for both passing bikes and foot passengers.

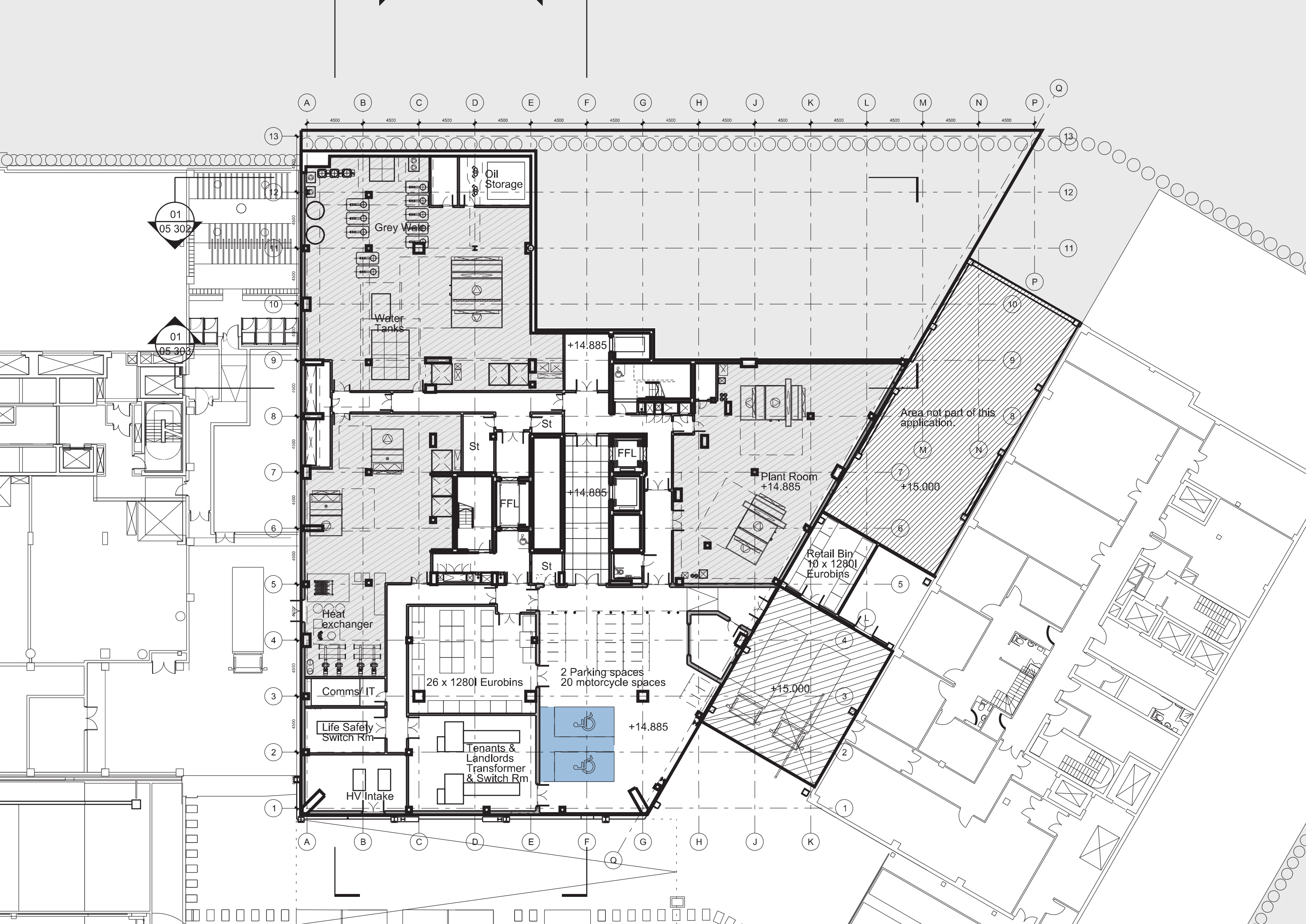
Inside the building, access between the cycle store and the rest of the building is obtained via the main lift shafts which extend to lower ground floor.

A generous number of showers is proposed, with some 38 showers, including 2 accessible. These are located beyond the cycle storage to ensure that the smooth transition from arrival, to showering, changing, then accessing the upper levels of the building via the lifts is managed in succession when entering the building.

As part of the Zone B Public Realm Reserved Matters Approval (ref. 2010/0872/P), 70 Sheffield stands were approved in the secondary streets surrounding Pancras Square.

Of the total 70 consented spaces, 16 spaces were allocated for retail staff and visitors to Building B5: four stands (8 spaces) in the B3/B5 'finger' and four stands (8 spaces) in the B5/B6 'finger'.

It is proposed to retain four stands (8 cycle spaces) in that the B5/B6 secondary street, albeit it reconfigured as part of the revised landscaping proposals, whilst it is now proposed to locate the four B3/B5 'finger' cycle stands between the trees along Goods Way, along with four new stands amongst the same row of trees.



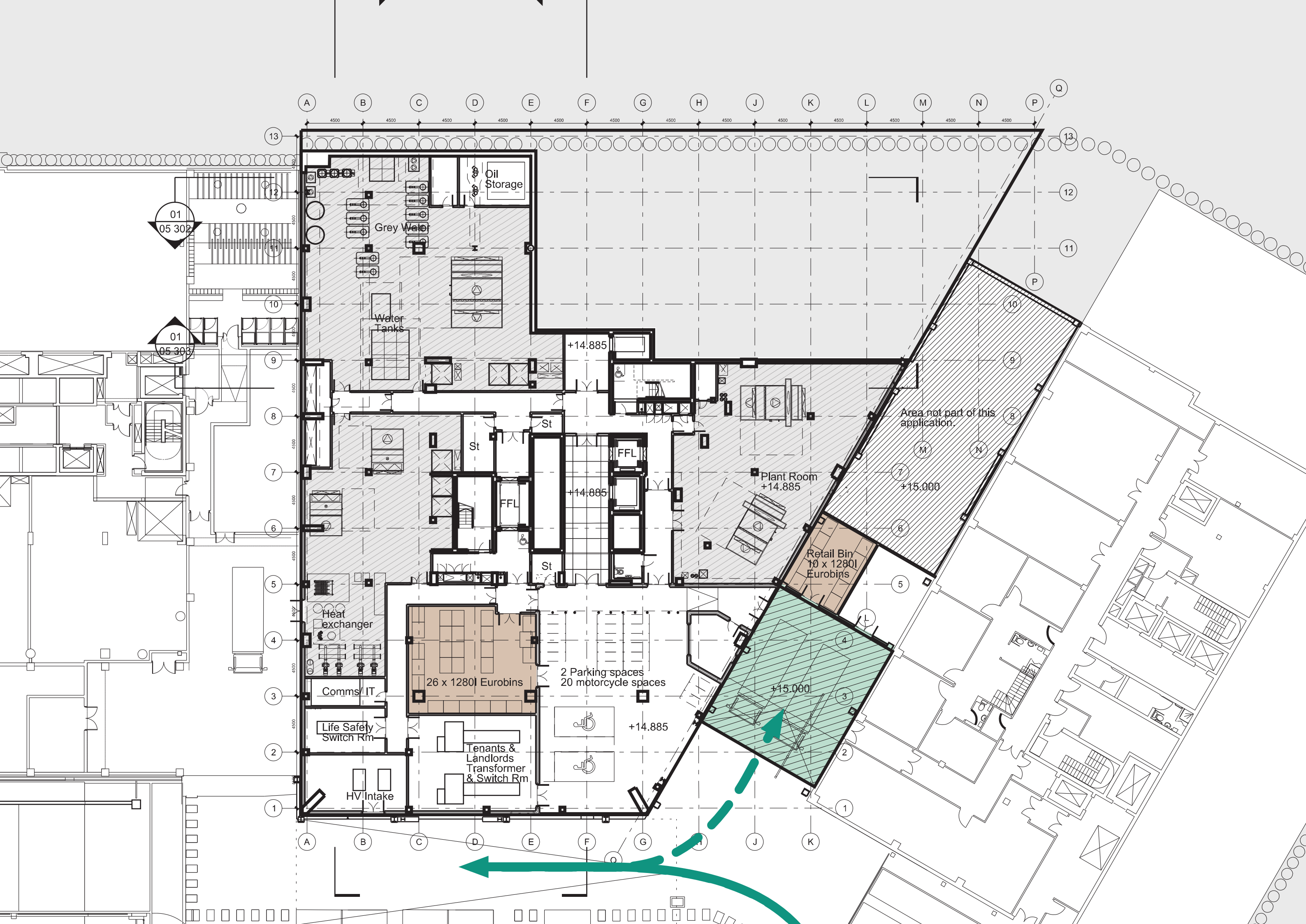
Car Parking

Two disabled parking bays will be provided in Building B5 for use by employees and visitors of the building. The location of these spaces within the basement service area is shown in blue on the adjacent plan in Figure 38.

Access to the basement parking will be via the access ramp off Pancras Road. Vehicles will pass through a manned security barrier and once cleared, will follow the service road to the allocated spaces located between Buildings B5 and B6. The parking bays will be clearly demarcated with floor markings in order to keep a clear route for disabled drivers and visibly define the B5 servicing zone. The basement has direct lift and stair access from the main core, secured by swipe card access.

Twenty motorcycle spaces are also provided.

Figure 38 (Left): Plan showing accessible parking in blue



Servicing, Waste & Refuse Strategy

Servicing

As noted in Section 1.5 in relation to car and cycle parking, Building B5 will have a designated servicing area at Basement Level, including a loading bay, refuse stores and disabled parking. The lower ground floor contains the cycle store, shower/WC and locker facilities, which are directly accessible from street level on Goods Way.

Many of the servicing functions (such as plant, refuse, storage etc) are located at this level (along with additional plant rooms at Level 1, Level 10 and Roof Level) and are accessed via the shared basement for maintenance and replacement.

A large proportion of the building footprint at this level, (including the 'finger' that sits between the basement areas of B5/B6), is not utilised, due to the overall floorspace cap on the Basement GEA (gross external area) for the areas south of the Regent's Canal.

The proposed B5 service areas will be accessed via the shared Zone B basement and access ramp off Pancras Road.

Delivery vehicles will access the basement from the access ramp off Pancras Road at the northern end of Building B1, which is located in accordance with Parameter Plan KXC 017. Vehicles will then follow the communal service road leading from the access ramp to the loading bay.

Deliveries will be unloaded in the loading bay to the east of the B5 basement and transported up through the building via the goods lifts located by the parking area, adjacent to the servicing area. A dedicated retail lift and service route is also provided.

The loading bay layout and proposed service road width can accommodate vehicles up to a 10m rigid (17 tonne) lorry.

Articulated deliveries will only be needed for major refits, which can be scheduled to arrive during the evening or week-end when the service areas are not busy.

Typical turn-around times for the types of vehicle generally used to deliver to office type units are anticipated to be 15 minutes for light goods vehicles and 20-25 minutes for medium to heavy goods vehicles.

The service area will be actively managed to ensure the safe co-ordination of vehicle movement and parking within the loading bays across the shared basement. Access to the basement will be controlled by a 24 hour manned security barrier, with arrangements made with primary service and delivery providers, to ensure a managed strategy for deliveries within the hours of operation. Vehicles will then follow the communal service route to the relevant loading bay.

Waste & Refuse Strategy

It has been assumed that commercial waste will be collected daily and brought down to the basement refuse store via the goods lifts. The waste would then be collected by the refuse companies, also on a daily basis.

Building B5 will have its own refuse stores located at Basement Level. Two stores are provided, one for the office waste and one for the retail waste.

The office refuse store is directly accessible from the main goods lift and loading bay and will provide facilities for both recyclable and non-recyclable waste as well as providing sufficient headroom for a compactor if required. A total of 26 no. 1,280 litre Eurobins will allow for the separation of different types of waste, for example, 'residual', 'recyclable', 'organic' and 'difficult'.

The retail unit store is located separately at the back of the loading bay near the dedicated retail access corridor, leading to the retail lift. A total of 10 no. 1,280 litre Eurobins provides sufficient space for non recyclable and recyclable waste.

The location of the refuse stores and the indicative layout of the bins are highlighted in green on Figure 39 opposite.

Figure 39 (left): Plan showing the location of the loading bay in green and the refuse store in brown, as well as access from the Zone B shared service road