Urban Design Report

Zone B Basement

King's Cross Central General Partner Ltd

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King's Cross

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Introduction

This document forms the Urban Design Report ('UDR') to accompany the Reserved Matters submission for the Zone B basement at King's Cross Central ('KXC'). When complete, the basement will cover the majority of Development Zone B within the mixed use development scheme granted outline planning permission in December 2006 (ref. 2004/2307/P) (the 'Outline Planning Permission').

Details of a shared Zone B basement were previously granted Reserved Matters approval in April 2010 (ref. 2010/0862/P) alongside a wider package of Reserved Matters submissions, specifically Buildings B2, B4 and B6 and new areas of public realm including Turnhalle Square, Pancras Square, Canal Square² and the secondary streets between the Zone B buildings.

The design of the approved shared Zone B basement was premised on a phased build-out of the Zone B buildings. Flexibility of delivery was maintained through the retention of a central 'island' of soil with the basement service areas and loading bays emanating from a circular vehicle service route. Access was provided via a single entrance/exit ramp from Pancras Road, set into the west facade of Building B1.

Since that basement was approved, Agreements for Lease have been signed with BNP Paribas and the London Borough of Camden in relation to Plots B1 and B3, respectively. Neither of these buildings fell within the scope of the original basement submission or indeed the suite of submissions within Zone B, and do not at this stage have approval. Details of Building B3 were recently submitted for Reserved Matters approval in August 2011 (ref. 2011/4090/P), whilst B1 is currently subject to pre-application discussions with officers at the London Borough of Camden. Subject to approval, construction of these buildings is anticipated to commence in 2012. Works on Buildings B2 and B4, which already have Reserved Matters approval, are likely to start at around the same time or earlier.

The revised development programme within Zone B, in particular the consolidation of a number of buildings into a single phase, has prompted a review of the basement design to allow the development to be brought forward more quickly, hence this submission.

The concept of the proposed scheme remains broadly the same as the approved basement, comprising an access ramp from Pancras Square, a communal service road linking the building basement areas, car/cycle parking and loading bays, and details of the basement service areas for Buildings B2, B4 and B6. However, the scheme has been revised to reflect occupier requirements on the emerging scheme for B1, detailed design work on Buildings B2 and B4, and the need to accommodate Estate Management facilities and plant relating to public realm features. In summary:

- The communal service road has been moved outside the footprints of Buildings B1, B4 and B5. Save for the access ramp through B1, the route is now independent of all building basements.
- The basement service areas in Buildings B2, B4 and B6 are now double-height in some areas.
- The centre of the basement is fully excavated to provide space for additional cycle, car and motorcycle parking, and public realm plant and Estate Management functions.
- Loading bays assigned to each building are provided in the "fingers" between the buildings.
- Car parking for Buildings B4 and B6 is now provided within the building footprints or in the centre of the basement, away from the loading areas.

The Zone B basement will ultimately be utilised by all of the buildings within this zone and by Building E1, providing servicing, plant and cycle/car parking facilities. Details of the basement service area for B3, including a new leisure centre, have already been submitted for approval as part of the aforementioned Reserved Matters submission for that building. Details of the basement service areas for B1 (including a police office and bicycle storage facility required by the KXC Section 106 Agreement), B5 and E1 will similarly be brought forward alongside separate Reserved Matters submissions for those buildings.

The design team has collaborated closely with the architects for the above-ground buildings and landscaping to ensure that the basement responds to and supports the designs and uses of these buildings. As well as Buildings B2, B4 and B6, for which approval has already been granted, the proposals are consistent with the submitted proposals for Building B3 and the emerging scheme for Building B1.

Report Structure

This UDR explains the design of the shared basement within Development Zone B of KXC in line with the requirements of the Outline Planning Permission.

The document is organised as follows:

Section 1.0: Design Approach and Proposals

Describes in detail the current proposals, including the layout and mix of uses. This section also covers the servicing, waste and refuse strategy, including the relationship with Pancras Road and the proposed Zone B buildings.

Section 2.0: General Design Guidelines

Describes the detailed response to the relevant General Design Guidelines attached to condition 16 of the Outline Planning Permission in so far as they relate to a basement submission.

In the preparation of the scheme a number of detailed technical studies have been undertaken which have informed the design. These studies are reported in documents which accompany the submission, in particular:

- Investigation for Zones B and E.

• A Planning Compliance Report, including the Access and Inclusivity Statement and Environmental Sustainability Plan;

An Earthworks and Remediation Plan for Zone B; and

• An Archaeological Specification and Written Scheme of

Design Approach & Proposals

- 1.1 Masterplan Context and Planning Background
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Masterplan Context & Planning Background

The KXC Outline Planning Permission encapsulates key masterplan parameters and principles and is supported by a comprehensive set of documents and plans that explain, analyse and justify the development of the site. Notwithstanding the basement's limited interaction at street level, the proposals described in this report have been developed in accordance with the framework and aspirations established within these documents.

Key aspects of the Revised Main Site Development Specification including the revised Parameter Plans and revised Landscape Proposal Plans are effectively bound into the permission. The design team has worked within this framework where relevant, having regard to the envelope for the development within which future designs will evolve and the Development Zones and plot boundaries which give city block form parameters.

The Design Guidelines which form Annex 1 to the Outline Planning Permission reflect an expectation that subsequent detailed designs should demonstrate a commitment to ensuring that architectural diversity and quality can thrive, whilst affording priority to the public realm and achieving an integrated urban grain with continuity and human scale. The Zone B basement contributes to this aspiration by limiting the extent of service frontages within the commercial buildings above and thus increasing opportunities for active facades at street level.

Consultation

evolution on engaging local stakeholders and public Zone B basement, including:

- London Borough of Camden Officers
- King's Cross Design & Access Forum
- Secure by Design representatives

since the approved scheme.

- A strong emphasis has been placed as part of the masterplan representatives. An extensive consultation process was undertaken with a number of bodies on the approved shared
- As noted previously, the concept of the revised scheme remains broadly as for the approved basement, with the outcome of the earlier consultation process informing the proposals. The proposed design was also presented to London Borough of Camden Officers to explain its evolution



Approach to Scheme Design



Figure 4: Extract from Parameter Plan KXC 017 (Servicing) showing Zone B

The primary function of the Zone B basement is to concentrate the servicing of all 6 buildings in Zone B, plus Building E1, away from the public realm. By shifting deliveries off the street and concentrating movements on one entry point (on Pancras Road), vehicle entrances/movements at street level will be minimised in line with Parameter Plan KXC 017 (see Figure 4). This will provide benefits in terms of minimising servicing frontages at street level and unifying the management of service functions in this part of the KXC site.

A further function of the basement is to accommodate plant and Estate Management facilities relating to the public realm in the southern part of the site and provide space for sprinkler tanks to serve Buildings B2, B4, B5 and B6 and the basement. Similarly, space is required for the Metropolitan sub-stations and associated plant/equipment.

As well as meeting servicing, parking and plant requirements for Buildings B2, B4 and B6, the basement will provide access to the service/parking areas for Buildings B1, B3 and B5, including a bicycle storage facility, police office and leisure centre provided in accordance with the requirements of the KXC S106 Agreement. The Zone B basement is designed to be compatible with the submitted scheme for Building B3, which includes the leisure centre alongside building servicing functions, and the emerging scheme for B1, such that the future operation and provision of public/community facilities within these buildings is not prejudiced.

approach:

- one time.
- mode of transport.

1.2

In addition to the functional requirements of the basement, the following considerations have directly informed the design

• The requirements of vehicular circulation, in particular, lorry movements. Swept path analysis has been undertaken for both the approach onto the access ramp from Pancras Road and within the basement itself to ensure that the proposed routes are capable of accommodating the different types of vehicles likely to use the basement at any

• Car and cycle parking requirements for each building, in line with the ratios/standards contained in the Outline Planning Permission. Motorcycle parking has also been considered to respond to the increased popularity for this

• The desire to keep the buildings and their basement service areas structurally separate from the communal parts of the basement and from each other, to facilitate the phased construction of the Zone B buildings. This approach allows completed buildings to be serviced alongside the construction of the remaining Zone B/E buildings.



Figure 5: Plan showing layout of proposed Zone B basement (N.B. Areas edged in blue are subject to separate Reserved Matters submissions)

Scheme Description

Overview

The proposed Zone B basement will total 8,335m² (GEA) across a stepped basement floor with mezzanine levels.

This submission provides details for Reserved Matters approval relating to:

- The detailed layout of the basement service areas for Buildings B2, B4 and B6;
- Basement access, vehicular routes and loading bays; and
- Central plant, estate management and car, bicycle and motorcycle parking facilities.

As noted previously, details of the layout and floor space of the B3 basement service area (including refuse storage, servicing and parking facilities) and the leisure centre have already been submitted separately for Reserved Matters approval. A decision on that application is still pending. The B1 basement service area, incorporating a police office and bicycle storage facility, and the B5/E1 basements will likewise be brought forward for approval independently alongside details for the relevant building. The basement layout proposed in this submission, shown in Figure 5, has been fully coordinated with the submitted/emerging designs for the remaining building service areas (edged in blue on the same plan).

Design Evolution

As noted in the Introduction to this report, the basement has undergone significant evolution since the previous planning submission. The primary drivers of the changes have been:

- The accelerated delivery of Zone B, in particular Buildings B2, B4, B1 and B3, and the Zone B public realm (see Introduction).
- Occupier accommodation requirements within the B1 basement service area which has prompted the relocation of the service road outside the footprint of B1 into the former central 'island' space;
- The anticipated plant requirements for B4, which necessitate the use of the full basement footprint to avoid blank/louvred facades on the building elevations and thus also result in the service road being shifted outside the footprint towards the centre of the Zone B basement:
- Design development of Buildings B2 and B4 which has confirmed a requirement for mezzanine floors within the basement service areas;
- A review of the likely demand for car, cycle and motorcycle parking.
- The detailed assessment of goods delivery demand for Zone B as a whole and the associated vehicular circulation requirements;
- The need for the basement to function independently of Buildings B5 and B6, which will be constructed at a later date.
- The requirement for estate management accommodation and plant space for public realm landscape features.

Basement Floorplan

This submission is primarily concerned with the layout and function of the communal areas of the Zone B basement, including loading bays, vehicular service roads and the access ramp, and the individual basement service areas for Buildings B2, B4 and B6. The basements for these three buildings will include the following facilities either within the building's footprint or in close proximity to it:

- A cycle storage area;
- Car parking spaces;
- · Shower, changing and toilet facilities;
- Refuse storage;
- Retail/office storage;
- · Lift and stair core; and
- Plant areas.

In addition, the basement area of Building B2 will include the escalators, lift and stairs for the underground subway entrance, accessed at ground level on the north-east corner of B2.

and in Figure 5 opposite.



The configuration of the above uses in the context of the proposed Zone B basement is shown on the submitted plans



Figure 6: Basement plan showing vehicular service route (green) and access ramp (red)

Scheme Description

A two-way entrance/exit ramp provides vehicular access/ egress between Pancras Road and the basement. The position of the ramp, shown in red on Figure 6, has been shifted approximately 6m northwards compared to the approved scheme in order to achieve more efficient and flexible floorplans within Building B1. The revised configuration remains in conformity with the permitted service frontage on Parameter Plan KXC 017, shown as Figure 4 in Section 1.2 A manned security barrier is located around 11m from the top of the ramp, allowing a lorry to fully enter the ramp and obtain security clearance without obstructing Pancras Road.

Once cleared by security, vehicles will follow a circular oneway route to reach the relevant car parking space or loading bay, shown in Figure 6 in green. As indicated previously, the path of this route has been adjusted so that it sits outside of the building footprints, allowing development of the buildings to be phased as necessary. Swept-path analysis has been undertaken which shows that both articulated and rigid based lorries can manoeuvre safely around the completed vehicular service route (see Section 1.4).

The entrance to the basement will be incorporated into the B1 facade, with a roller shutter or similar across the vehicular entrance and an architectural metalwork gate across the pedestrian/cyclist entrance. Details of its integration into the B1 facade will be provided as part of the Reserved Matters submission for that building. Buildings B4 and B6 will have access to two loading bays, while B2 will have one. The locations of these bays are shown on Figure 10 in Section 1.4. The loading bays for B4 and B6 are provided in the "fingers" between the buildings, perpendicular to the vehicular service road, while the B2 loading bay is located at the southern end of the basement away from the path of vehicular service road/turning area. In contrast to the approved scheme, no loading bays are proposed along the service road itself, improving circulation and safety of the operatives. Further details regarding the operation of the loading bays are provided in Section 1.4 of this UDR.

The area in the centre of service road will be fully excavated and will be used to house storage and a workshop for the KXC estate management team, alongside essential plant for the public realm, sprinkler/water harvesting tanks and electricity substations.

Allocated car parking spaces for B4 are now provided within the building footprint rather than alongside the vehicular service road as original proposed. The smaller footprint of B2 and the inclusion of the LUL subway which takes up a significant area of the proposed basement, means that car parking for this building is located alongside the perimeter of the service area. This remains consistent with the arrangement of the B2 parking bays under the approved scheme. Car parking is also provided at the northern end of the central island, 4 spaces of which will be allocated to B6 (having been relocated from the finger between B4/B6). The remainder will be made available to tenants of the Zone B buildings. An additional cycle store and motorcycle bays will also be provided off the western ramp within this area. Further details on the number and allocation of car, cycle and motorcycle spaces across the Zone B basement are provided in Section 1.5 of this UDR.

Alongside the vehicular ramp is a separate cycle and pedestrian lane, accessed by a security fob or similar. Cyclists will be required to dismount at the security gate and use the segregated pedestrian routes and crossings around the basement. Cycle parking for each building is generally located inside the respective basement service area, with direct links to showers and changing facilities. The exception to this is Building B2, whose allocated cycle parking is within the communal area of the basement along the building perimeter.



Figure 7: Cross Section showing entrance/exit ramp from Pancras Road



Figure 8: Cross section through ramp adjacent B4



Scheme Description



Figure 9: Exploded diagram of shared basement

Construction and Materials

A package of early Enabling Works was approved in September 2011 to facilitate the construction of the basement and the Zone B buildings. These works seek to advance certain site preparation works into a single early phase, including excavation (to varying degrees) to allow the investigation and removal/remediation of remnant gas holder structures. Additional excavation and remediation work will be required across the communal areas of the basement and on plots B1, B3 and B6, to reach formation levels in line with the strategies set out in the submitted Earthworks and Remediation Plan. In particular, the proposals now envisage the complete removal of spoil in the central area (which was to be left intact under the approved scheme), to allow for additional plant space, storage and parking provision.

Subject to approval, it is intended that Buildings B1 and B3 (and their respective basement service areas) would be constructed alongside approved Buildings B2 and B4 and the communal areas of the Zone B basement, such that these four buildings would be fully serviced by the basement on their completion. Nonetheless, the basement design allows for each of the Zone B buildings to be constructed independently of each other and of the shared basement if necessary, supporting the future addition of Buildings B5, B6 and E1.

As indicated on Figure 9, columns on either side of the building perimeters support separate slabs; a structural strategy which accommodates differential movement and provides flexibility for phasing and sequencing.

A concrete slab forms a base for the public realm above. The slab structure comprises concrete beams spanning between basement-level reinforced concrete columns with a 350mm thick infill slab between the beams. This infill slab can be raised or lowered to accommodate proposed tree pit locations and other landscaping features within the overall structural zone. Notwithstanding that Pancras Square was originally developed to sit on the central island of earth, the removal of that island and the proposed slab do not give rise to any significant changes to the concept or layout of the approved public realm design.

The minimum clear unrestricted height below the structure and services will be 4.5m to all vehicle servicing routes. The headroom can reduce to a minimum of 2.4m in other areas.

The basement walls are typically fair faced concrete block work walls painted white. All concrete columns in the basement will be painted yellow for increased visibility. The basement floors shall be a tamped or power coated reinforced concrete slab with a clear sealer coat finish. Pedestrian 'safe routes' will be painted in a solid colour to make them easily identifiable. The basement soffit shall be concrete with a white paint or sealer coat finish.

External Facades

The details submitted as part of this Reserved Matters submission do not include any external facades. However, certain end uses, such as the leisure centre in B3 and the bicycle storage facility in B1, will be visible along the Pancras Road and Goods Way facades. Details of the facade treatment along these routes incorporating these uses will form part of the relevant Reserved Matters submission for those buildings.

Vehicular access to the basement will be provided via an entrance/exit ramp in the façade of Building B1 on Pancras Road in accordance with Parameter Plan KXC 017. Details of how the ramp will be integrated within the facade will be provided in the forthcoming Reserved Matters submission for Building B1.



Figure 10: Plan of the proposed basement, highlighting the loading bays and refuse stores for B2, B4 and B6

Servicing, Waste & Refuse Strategy

Servicing

Service Vehicle Access

Servicing of the Zone B buildings will take place via the Zone B basement, which is the subject of this submission. This means that, in line with Parameter Plan KXC 017, there will be one service entrance/exit for all of the Zone B buildings off Pancras Road.

Each building within Zone B will have a designated service area within, or in close proximity to, its footprint, comprising waste/refuse facilities, car/cycle parking and toilet, shower and locker facilities. The servicing areas will be linked to the relevant building by a goods lift/staircase which will be accessed by a security fob or similar. As explained in Section 1.3, this submission provides details of the layout of the servicing areas for Buildings B2, B4 and B6 only.

It is proposed that delivery vehicles will access/exit the basement from Pancras Road via a two-way ramp which passes through the northern part of the demise of building B1. The ramp will also be used by private cars, cyclists and motorcyclists to access parking, cycle storage and associated changing/shower facilities within the building service areas. All vehicles will be required to pass through the 24-hour manned security checkpoint provided approximately 11m down the entrance/exit ramp to the basement.

The ramp will give access to a one-way, anti-clockwise, service road which will link each of the basement service areas for the Zone B buildings.

A temporary ramp will be provided between plots B5 and B6 (approved under the recent Enabling Works application 2011/3564/P) to provide construction access to the basement and Zone B buildings, and potentially service access to other buildings prior to completion of Building B1.

Service Vehicle Design Parameters

The ramp will have a minimum width of 8.0 metres while the communal service road will have a minimum width of 6.5 metres.

Headroom of at least 4.5 metres will be provided in all areas to which service vehicles will have access, based on the largest vehicles expected.

The ramp and the service road have been designed in accordance with the Freight Transport Association's guidelines for gradients for service vehicles. The maximum gradient for service vehicles in transit within the development will be 10%. The maximum gradient for stationary service vehicles will be 5%. A change in gradient of 10% will be provided with either a transition slope at 5% or a transition radius of 6 metres.

Basement Service Areas

As described in Section 1.3, each of the buildings within Zone B will have access to a loading bay area (used for deliveries and waste collection), typically located in the 'fingers' in between the buildings, perpendicular to the roadway, with direct access from the unloading area to the 'goods in' entrance. The loading bays are nominally allocated to each building as indicated on Figure 10. However, it is intended that they could be shared to provide flexibility during busy periods for deliveries. It is proposed that each building operates a booking-in/scheduling system for its deliveries, which will help to ensure that sufficient bays are available at all times and avoid vehicle congestion within the basement. The table below shows the number of loading bays provided for each building. Although Buildings B1, B3, B5 and E1 are not within the scope of this submission, the anticipated number of bays are included in the table for information.

Building	Proposed No. of	
	Loading Bays	
B2	1	
B4	2	
B6	2	
B1	41	
B3	1	
B5	2	
E1	1	

¹ includes two waste compactor bays





Figure 11: Plan of the proposed basement, highlighting the swept paths for the basement service road, loading bays and access ramp

Servicing, Waste & Refuse Strategy

Service Vehicles Expected to Access the Site

The following service vehicles are expected to access the basement regularly:

- Rigid Medium and Light Goods Vehicles (M/LGV) up to 7.5 tonnes;
- Rigid Large Goods Vehicles (LGV) up to 17 tonnes;
- Refuse Collection Vehicles (RCV) up to 10m and small skiptype compactor vehicles;
- Couriers motorbikes, cars and small/medium vans;
- Postal Vehicles small/medium vans;
- Plant Replacement Vehicles; and
- Maintenance Vehicles generally small/medium vans or estate cars.

The most frequently visiting service vehicle types will be rigid Medium and Private Light Goods Vehicles (up to 7.5 tonnes), which are expected to represent 80-90% of the total service vehicle numbers.

Articulated deliveries, including large low-loader plant replacement vehicles, are expected infrequently, for example for major office or retail re-fits. These vehicles will not park in loading bays and therefore will be scheduled to arrive during the evening or weekend when the service areas are not busy.

Maintenance vehicles will make use of the basement car parking spaces or loading bays wherever possible.

Delivery Process

It is envisaged that goods will be delivered directly to the relevant tenant by the delivery driver. Drivers will generally have their own material handling equipment. Each tenant will sign for its goods upon receipt and transfer them to a storage room or into the building above via the allocated goods lift.

Typical turnaround times for the types of vehicle generally used to deliver to office and retail type units are expected to be 15mins for light goods vehicles and 20-25mins for medium to heavy goods vehicles.

Vehicle Type	Characteristics	Turnaround Time (Mins)
Private Light	3.5 tonnes, 6m	15
Goods Vehicle	length	
Medium Goods	7.5 tonnes, 8m	20
Vehicle	length	
Large Goods	17 tonnes, 10m	25
Vehicle	length	

Delivery vehicles will generally approach the entrance/exit ramp from the south along Pancras Road, making a right turn into the basement. Occasionally, vehicles may approach from the north, by sharing the southbound taxi lane along Pancras Road. All vehicles will be required to turn right towards Goods Way upon exiting the basement.

Swept Path Analysis (SPA)

SPA has been undertaken for vehicle movements on the ramp and within the Zone B basement for the vehicle types referred to above, as shown in Figure 11. The SPA uses the following parameters and assumptions:

- 5 kilometres per hour travel speed for vehicle manoeuvring;
- 500mm tolerance allowed for around vehicle; and
- Large articulated vehicles will be managed out of hours and will be able to use the full carriageway width of the ramp for manoeuvring.

Waste and Refuse

Each building will have its own waste room/refuse store, located within the building's basement. The location of the store rooms for Buildings B2, B4 and B6 are shown on Figure 10. Details of the location and size of the waste rooms for Buildings B1, B3 and B5 will be brought forward separately alongside Reserved Matters submissions for these buildings.

The waste rooms will contain a combination of Eurobins which allow for the separation of different types of waste, eg recyclable, organic and residual. Adequate space is also provided for a compactor/baler if required.

It is proposed that commercial waste will be collected on a daily basis from the buildings above and brought down to the refuse stores via the dedicated lifts. It will then be repositioned to the rear of the loading bay, for collection by the refuse companies.

Although waste collection is assumed to be daily, waste rooms have been sized to allow for two days of storage in case of disruptions to the collection service. The size of the waste room includes the manoeuvring area for Eurobins and equipment storage.



Figure 12: Photo showing Eurobin refuse collection





Figure 13: Basement Plan showing car and cycle parking provision

Cycle and Vehicle Parking

It is envisaged that most staff will arrive via public transport as a result of the close connection to the King's Cross/St. Pancras transport hub and local transport infrastructure. However, in addition to its servicing function, the Zone B basement provides allocated car and cycling facilities within, or in close proximity to, the footprint of the relevant building for use by employees or authorised visitors.

Cycle Parking

The proposals include 280 secure cycle spaces using a combination of Sheffield stands and Josta Parker wall-mounted brackets. Of these spaces, 202 will be divided between Buildings B2, B4 and B6 as follows:

- Building B2 28
- Building B4 90²
- Building B6 84

These cycle spaces are located within the footprint of Buildings B4 and B6 and adjacent to the basement service area of B2. The plan opposite (Figure 13) shows the proposed locations for allocated cycle parking for Buildings B2, B4 and B6, highlighted in green, orange and purple respectively.

2 This figure represents an increase of 22 spaces compared to the approved basement scheme.



Figure 14: Precedent image of the Josta Parker cycle storage system

The proposed number of spaces for these three buildings is in line with, and in the case of B4 exceeds, the cycle parking standards set out in the London borough of Camden UDP (i.e. 1 employee space per 250sqm over a threshold of 500sqm).

The remaining 78 spaces, which were not proposed under the previous scheme, are located in the central basement area, as indicated in blue on Figure 13. Although these spaces are not allocated to a specific building at this stage, they are intended for use by the occupants of the Zone B buildings. It is anticipated that demand will be managed by the KXC estate management team.

Access to all of the cycle facilities will be as for the car parking spaces, namely via the basement entrance on Pancras Road, although cyclists will be physically separated from vehicles on the ramp. Entry onto the pedestrian/cycle ramp will be controlled by way of a secure gate, accessed using a key fob or similar. At the entrance, signage will instruct cyclists to dismount and use the safe pedestrian routes and crossings which run alongside the vehicular roadways.

Toilets, showers and lockers (including accessible facilities for those with disabilities) are provided within the B2, B4 and B6 basement areas. They are linked to the building's ground floor reception via the lift core.

Further, it is proposed that the B1 basement service area will eventually include a bicycle storage facility, as required by the KXC Section 106 Agreement. This building is currently subject to pre-application discussions and details, including the bicycle storage facility, will be brought forward shortly for Reserved Matters approval.

Externally, additional visitor provision is made for 70 cycle spaces within the Zone B public realm. Details of these spaces were approved in the Reserved Matters submission for the Zone B Public Realm, although amendments to the location of some of the spaces have been proposed as part of the recent (undetermined) B3 submission.

Car and Motorcycle Parking

The proposed Zone B basement provides a total of 10 car parking spaces for Buildings B2, B4 and B6, of which 5 (i.e. 50%) will be accessible for people with disabilities. Such spaces will be provided for the use of the employees of or authorised visitors to the commercial buildings above and will be allocated to each building according to the plan opposite. It is proposed that Building B2 will be provided with 2 spaces (including 1 disabled bay), and 4 spaces (2 of which will be disabled) will be provided to each of B4 and B6. In addition the southern area of the basement makes future provision for one accessible space for Building E1.

In a change to the approved scheme, the 4 spaces for B6 have been relocated to the upper basement area, off the northern ramp, to allow for a loading bay between B4 and B6. Four additional spaces are provided in the same location, of which 3 are accessible. These are not allocated to any particular building at this stage, although the accessible routes and gradients from these spaces mean that they are likely to serve B3, B5, B6 and B4 only.

Motorcycle parking, which was not proposed under the original proposals, is now located in a dedicated lot in the upper basement, near the bottom of the access ramp. A total of 42 spaces are provided. It has been agreed with officers at LB Camden that these spaces will be provided in lieu of car parking spaces as permitted under the Outline Planning Permission, with 5 motorcycle spaces equating to one car parking bay.

Access to the basement car park will be via the entrance off Pancras Road. Users will have to pass through a manned security barrier, and once cleared, will follow the one-way route to the allocated spaces. Access from the basement to the offices will be via the lift core for the relevant building. Entrances to the cores will be controlled by key fobs or similar in order to maintain security in both the office buildings and the basement.

The proposed amount of parking provision complies with the standards set by the Outline Planning Permission, being a maximum of 1 space per 1,500 sqm gross floor area of B1 and A1-A5 uses south of the canal and 5% of these spaces being allocated for people with disabilities.



Environmental Performance



Mindful that the proposed basement provides servicing facilities for Buildings B2, B4 and B6, which themselves will set very high standards of sustainability, the design team has sought to incorporate measures which will contribute to the site's overall environmental performance and complement the features in the buildings above. In summary, the proposed Zone B basement includes the following sustainability measures:



- illustrated in Figures 15 and 16.
- improving the efficiency of the electrical supply.

1.6

• Natural ventilation to the communal and building service areas of the basement from louvres beneath the escalators to the LUL subway in B2 and air intakes in the building facades (e.g. above the ground floor retail units). A builderswork plenum fitted with fire rated mechanical supply fans will introduce the air to the communal basement area, with impulse fans assisting air movement around the space. Extract fans located at the base of the access ramp will direct air into ducts along the ramp, with air expelled to the atmosphere at high level above the ramp entrance. Pollution monitoring will be used to control the fan speed, and therefore the ventilation rate. so that the fans are not used unnecessarily. The central island accommodation, in particular the plant rooms and workshop, will also be naturally ventilated via discrete louvres within the public realm landscaping (e.g. set vertically in seating walls). The ventilation strategy is

• Lighting in the communal areas will be controlled by a time clock, which will be used in conjunction with an override switch located in the security room. Lighting within the basement service areas will follow the principles adopted for the buildings above, namely PIR movement sensors to ensure that lights are switched on only when necessary.

• The power correction factor will be 0.95 or greater, thus

• The low-carbon district energy system will be used for the generation of domestic hot water for the basement service areas, for example, in the toilet and shower facilities.

• Water efficient sanitaryware fittings will be installed in the changing facilities to minimise water usage. Further, 'auto shut-off' will be included on all fittings to prevent loss of water due to leakage. Proximity controls to toilet areas will be incorporated to minimise waste of potable water.

• Water storage tanks will be installed within the buildings' basement areas to collect rainwater from the roof areas. The water will be used for flushing toilets in the buildings.

Response to Design Guidelines

- Introduction & General 1 2.1
- 2.2
- 2.3 General 6
- 2.4 General 12



Introduction

This section sets out our responses to the relevant Design Guidelines attached to the Outline Planning Permission, in so far as they are applicable to the proposed basement. Given that this is a below-ground structure with no permanent facades or roof, it is considered that the following Design Guidelines are not relevant for the purposes of this submission and therefore we have not addressed them specifically:

- General 2: How microclimate is addressed
- General 3: Response to listed buildings
- General 4: Adjacent development and townscape
- General 7: Reinforcement of street hierarchy
- General 8: Visual control of occupier's fittings
- General 9: Roofscape
- General 10: External lighting design
- General 11: Daylight and visible sky component

General 1

How the detailed design of the facades, particularly at ground level, integrates with the design and function of adjacent public realm and contributes to the vitality and safety of the streets, providing a human scale, through, for example, entrances, scale of elements, articulation, special features and choice of materials.

The proposed access ramp will be located within the ground floor facade of Building B1, as shown on submitted drawing 280_12_07_000, reproduced as Figure 5. Consequently, details of how the entrance is integrated into the building facade and the street scene along Pancras Road will be included in the Reserved Matters submission for Building B1.

The design for Building B1 is currently the subject of preapplication discussions with LB Camden officers and is due to be submitted for Reserved Matters approval shortly.

2.2

General 5: Integration of Service Entrances

General 5

How any service entrances, where they are unavoidable, have been designed to integrate successfully within the street scene, including providing crossings at pedestrian grade. In accordance with Parameter Plan KXC 017, the service entrance/exit to the basement will be located in the western façade of Building B1 along Pancras Road. The use of one entrance to service all of the Zone B buildings and the separate basement in Building E1 enhances the street level environment by providing more opportunities for active frontages and minimising vehicle movements across the pedestrian walkways.

2.3

General 6: Minimised Areas of Louvres/Blank Facades

General 6

How the design of the buildings generally minimises louvres and louvres/vents, blank facades, etc, especially at street level and over large areas of facade. The ventilation requirements for the Zone B basement, including the building service areas and central island accommodation have been carefully considered with respect to minimising areas of louvres/blank facades on the Zone B building facades. In addition, consideration was given to intake louvre locations to avoid sources of pollution i.e. roads and also to achieve suitable distances between intake and exhaust louvres to prevent recirculation.

Air intakes concealed by decorative grilles, have been incorporated into the retail facades of the buildings above to provide natural ventilation to the B2, B4 and B6 basement service areas. Details of these vents were approved as part of the Reserved Matters submissions for B2, B4 and B6.

The office area extract air from Buildings B2, B4 and B6 will not be expelled through the building facades, instead being used to supplement the fresh air intakes into the basement service road areas. The basement service road and communal areas of the completed basement will utilise the basement exit/entrance for air extract. A builderswork plenum, which will extend along the eastern edge of the basement alongside the Boulevard, will enable incoming fresh air (supplied via louvres beneath the escalators to the LUL subway in B2), to be distributed evenly around the basement at key locations. The incoming air will be introduced to the basement via mechanical fans connecting into the builderswork plenum, located within the basement 'fingers' between buildings B2/B4, B4/B6, and B3/B5.

Ventilation to the central 'island' accommodation will be via louvres/slots discretely incorporated into the public realm features such as seating walls. This approach was proposed as part of the approved scheme, albeit in relation to the wider ventilation of the Zone B basement communal areas.

General 12

How the detailed design of the building maintains quality and attention to function and detail on all elevations.

This submission provides details of the servicing areas for Buildings B2, B4 and B6, as well as the communal vehicular route and the entrance/exit ramp off Pancras Road. The basement service areas for Buildings B1, B3, B5 and E1 are not included in the application, though the proposed layout of B3 which was recently submitted for approval, is shown for information on the submitted drawings 270_12_07_000 and 101. As described in Section 1.3, the basement has been designed mindful of the proposed design for the B3 service area and to allow for the later inclusion of the basements/ servicing areas for Buildings B1, B5 and E1.

Vehicular movements and utilities routing required for the servicing of all buildings in Zone B and E1 has been fully considered in the basement design. The configuration proposed, namely the single entrance/exit ramp, the one-way vehicular route and loading bays located perpendicular to the roadway in the "fingers" alongside each building, allows the efficient operation of the space for servicing of the buildings. Each loading bay is notionally associated with a specific building, although the design is flexible to allow for shared use during busy periods. Concentrating service functions in one communal basement in this way avoids the need for separate ground floor refuse stores, loading bays and/or service entrances in each building, thus creating more scope for active ground floor frontages. In addition, the basement proposes the removal of the central 'island' of spoil in order to house functions associated with estate management, for example, plant for the Pancras Square water features and cleaning/events storage. This approach allows an uncluttered footprint at ground level with easy access for the on-going maintenance of the public realm in the southern part of the KXC site.

Service areas will generally sit within the footprint of the building and will be integrated with the uses above by way of a dedicated lift/stair core, such that all basement facilities are within easy reach of the building users. Further, the basement service areas will house much of the plant for the buildings above, thereby minimising the amount of rooftop plant required.





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