

B&Q Cricklewood ES Volume I

Chapter 5: The Proposed Development

Montreaux Cricklewood Developments Ltd

July 2020

5. The Proposed Development

5.1 Introduction

- 5.1.1 This chapter of the Environmental Statement (ES) provides a summary of the ‘B&Q Cricklewood’ development (hereafter referred to as the ‘Proposed Development’), for which outline planning permission is sought.
- 5.1.2 The planning application reserves all matters (with the exception of access) for later approval by the London Borough of Barnet (LBB) through the submission of future Reserved Matters Applications (RMA). The development parameters which are sought for approval at this stage are set out in the Parameter Plans¹. The planning application is also accompanied by Design Guidelines² which are also seeking approval at the outline stage and will be applied to future applications for the approval of reserved matters (which are when the full details of the Proposed Development will be established).
- 5.1.3 Where relevant, illustrative examples (i.e. artistic impressions) which present selected aspects of the Proposed Development are presented in this ES chapter in order to assist in visualising the scheme. The examples presented have been taken from various planning documents supporting this application (e.g. Masterplan Design and Access Statement (DAS)³ and Landscape and Public Realm Strategy⁴).
- 5.1.4 This chapter has been prepared by AECOM, with input from the Applicant, the Architects and wider design team.

5.2 The Form of the Planning Application

- 5.2.1 The Town and Country (Development Management Procedure) (England) Order 2010 (‘DMPO’)⁵ sets out requirements and guidance for outline planning applications. In accordance with the DMPO, the following matters are reserved for later approval:
- Amount of Development – A defined maximum floorspace is presented;
 - Layout – As defined in the DMPO “*the way in which buildings, routes and open spaces within the development are provided, situated and orientated in relation to each other*” is reserved. Although reserved, the planning application seeks outline approval of the siting of buildings, associated key open spaces, access and routes as set out in the Parameter Plans 10965 0102 and 10965 0103 respectively;
 - Scale – As defined in the DMPO “*the height, width and length of each building in relation to their surroundings*” is reserved. However, in compliance with the DMPO, the planning application seeks approval for the maximum scale of the buildings in metres Above Ordnance Datum (AOD) as shown on Parameter Plan 10965 0106
 - Appearance – As defined in the DMPO “*the aspects of a building or place within the development which determine the visual impression the building or place makes, including the external built form of the development, its architecture, materials, decoration, lighting, colour and texture*” are reserved. However, the planning application seeks approval of a set of Design Guidelines which establish principles and/or a framework in relation to the appearance of the buildings which are to be applied at a reserved matters stage; and
 - Landscaping – As defined in the DMPO “*the means of treatment of land for the purposes of enhancing or protecting the amenities of the site and the area in which it is situated (including hard and soft landscaping, planting, screening, surface materials etc.)*” is reserved. However,

¹ EPR Architects, 2020; B&Q Cricklewood Parameter Plans: Drawings 10965, 0100 - 0109

² EPR Architects, 2020; B&Q Cricklewood Design Codes

³ EPR Architects, 2020; B&Q Cricklewood Design and Access Statement

⁴ Exterior Architecture, 2020; B&Q Cricklewood, Landscape and Public Realm Strategy

⁵ Her Majesty’s Stationery Office (HMSO), (2010); The Town and Country (Development Management Procedure) (England) Order 2010.

the planning application seeks approval of landscaping guidelines which are to be applied at a reserved matters stage. The landscaping guidelines form part of the Design Guidelines and the Landscape and Public Realm Strategy contained in the Masterplan DAS.

Site Plans

5.2.2 To support the planning application, a planning application drawing of the Site have been submitted to improve understanding of the Site context the Proposed Development finds itself in. Details of the plan include:

- *Plan 10965 0100: Outline Application Boundary:*
 - The surrounding context;
 - The planning application boundary;
 - Existing buildings; and
 - Existing roads.

Parameter Plans

5.2.3 In compliance with the DMPO, a series of Parameter Plans are submitted for approval, which provides the design 'parameters' for future RMAs. The Parameter Plans are presented throughout this chapter and have been appended at the end of this ES chapter to support the description of the Proposed Development. The Parameter Plans relate to the following matters:

- *Parameter Plan 10965 0101: Demolition*
 - Existing buildings to be retained;
 - Existing buildings to be removed;
 - Existing vehicular access points to be removed and
 - Existing surface to be levelled and re-landscaped.
- *Parameter Plan 10965 0102: Development Parcels:*
 - Development Parcel areas including enhancement zone for balconies and planting between private residential units that front public realm at ground floor;
 - Public space, roads and infrastructure to be planned with adjacent development works; and
 - Development Parcel areas defined by northing and easting coordinates.
- *Parameter Plan 10965 0103: Access and Circulation:*
 - Car park indicative access points;
 - Cycle routes;
 - Two way vehicular routes;
 - Two way service routes;
 - Two way emergency routes;
 - Safeguarded zone for future pedestrian pathway link to Cricklewood Station;
 - Interim turning arrangements; and
 - Turning head locations.
- *Parameter Plan 10965 0104: Maximum Building Heights*
 - Maximum building heights identified by Development Parcel in metres above ordnance datum (AOD).

- *Parameter Plan 10965 0105: Phasing*
 - Site and operational access required for phase 1
 - Phase 1: Development Parcel A and Development Parcel B
 - Phase 2: Development Parcel C
 - Phase 3: Development Parcel D

The Design Guidelines

- 5.2.4 The Design Guidelines² establish the design principles to be applied to future RMAs. These have been developed as a result of the design evolution and consultation process and have been informed by the findings of the environmental assessment work. The Design Guidelines define a set of 'rules' that should be applied to the future Reserved Matters Applications (RMAs) of the Proposed Development.
- 5.2.5 This Design Guidelines provide a meaningful and useful design guidance and a robust and lasting framework to allow the delivery of a future residential-led regeneration masterplan at Cricklewood Lane. The aim of the document is to ensure that design proposals meet the high standard of quality that London Borough of Barnet and other local stakeholders expect. The main topics covered by the Design Guidelines include:
- Site Wide Layout;
 - Building Massing and Layout;
 - Building Appearance; and
 - Public Realm.
- 5.2.6 The Design Guidelines establish the characteristics of the masterplan and provide guidance to identify how the design proposals may look and feel. The guidance informs future RMAs on site-wide elements, including Development Parcel structure, site movement and open spaces, to building elements, including height, entrances, windows, balconies, landscaping, and architectural language and materiality.
- 5.2.7 The Design Guidelines document should be read in conjunction with the Parameter Plans which set out the overall parameters and quantum of the masterplan. The Illustrative Masterplan shown in the Masterplan DAS demonstrates one of the ways in which buildings can be designed in accordance with the Design Guidelines.

5.3 Overview of the Proposed Development

- 5.3.1 The Proposed Development aims to provide a sustainable, high-density residential-led mixed-use development at the Site in line with aspirations set out within the Draft London Plan⁶ and the Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework and Brent Cross – Cricklewood Opportunity Area Framework⁷.
- 5.3.2 Outline approval with all matters reserved (with the exception of access) for future determination is sought for development comprising:
- “Outline planning application for the demolition of existing buildings and comprehensive redevelopment of the site for a mix of uses including residential and flexible commercial and community floorspace in uses classes A3/B1/D1 and D2; associated access; car and cycle parking; landscaping; and associated works.”*
- 5.3.3 All the floorspace figures within this document are expressed as Gross Internal Area (GIA) and Net Internal Area (NIA).

⁶ Mayor of London (2019), Draft London Plan – Consolidated Suggested Changes Version July 2019 [online]. Available at: <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/draft-london-plan-consolidated-suggested-changes-version-july-2019> (Accessed December 2019).

⁷ LBB, 2005; Cricklewood, Brent Cross and West Hendon Regeneration Area Development Framework Supplementary Planning Guidance

- 5.3.4 The Proposed Development will centre around four Development Parcels – Development Parcels A, B, C and D. The layout of the building Development Parcels are shown on Parameter Plan 10965 0102.
- 5.3.5 These Development Parcels provide a framework for the buildings to be developed within which allow for phasing and delivery flexibility. The four proposed Development Parcels are linked by unifying public realm which consists of four-character areas. The distinct character areas within the public realm ensure a variety of public spaces are created with building frontages that respond appropriately.
- 5.3.6 Development Parcels are defined by the maximum extents of the urban Development Parcels as illustrated on the Parameter Plans. The maximum extent of the urban Development Parcel includes building footprint, allowance for front gardens and defensible zones, residential amenity spaces and projecting balconies. This is to define the spaces between urban Development Parcels to ensure the extent of public realm is safeguarded, and access and servicing strategies remain effective.

5.4 Floorspace

- 5.4.1 Table 5-1 sets out the Maximum Parameters area schedule for the amount of development that is proposed and the land uses proposed by this outline planning application.

Table 5-1 Summary Area Schedule – Maximum Parameters

Use Class	Unit Numbers	Area (m ²) GIA (Gross Internal Area)	Area (m ²) NIA (Net Internal Area)
Residential (C3)	1,100	114,255	85,376
Flexible Commercial (A3/B1/D1/D2)	-	Up to 1,200	-

Commercial

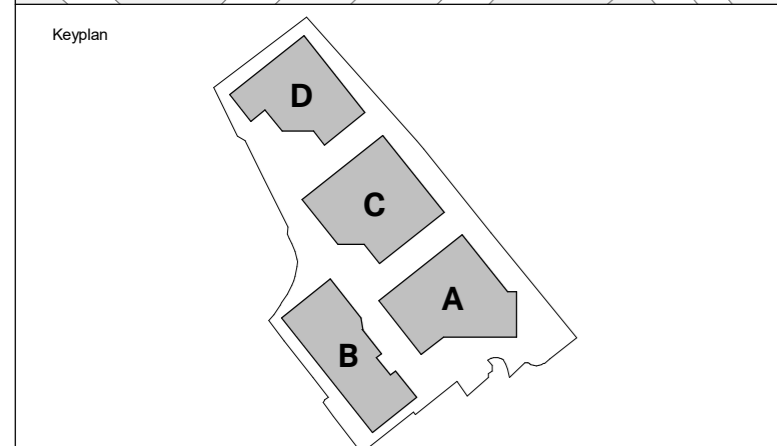
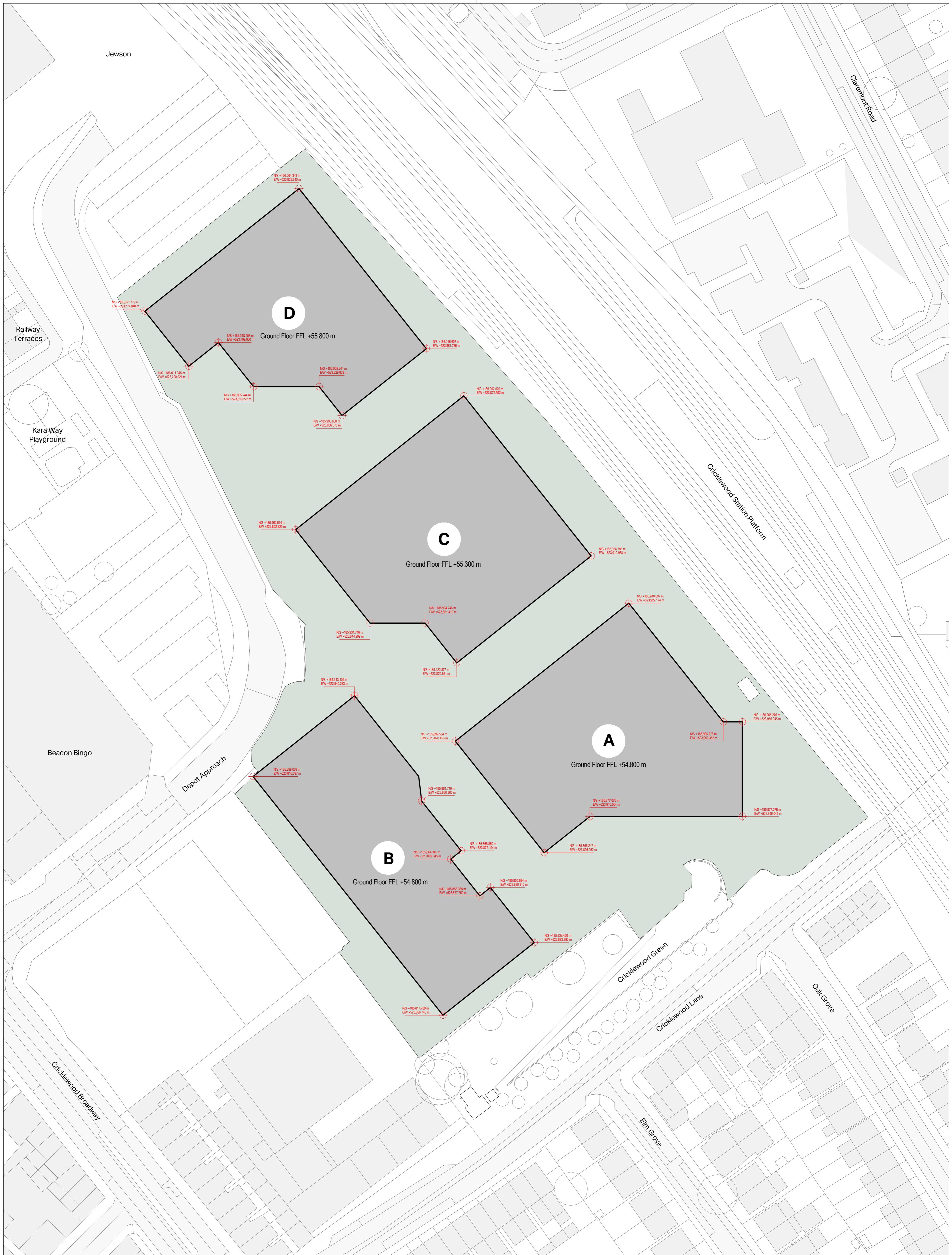
- 5.4.2 Of the 1,200m² flexible commercial floorspace, it is considered unlikely that any one use class (A3/ (restaurants and cafes) B1 (services) / D1 (non-residential institutions) /D2 (leisure)) will comprise 100% of this space. *Chapters 8 – 15* will outline within their methodology sections as to what mixture of uses their assessment has used to form a ‘worst-case scenario’.

Residential

- 5.4.3 The Proposed Development will deliver up to 1,100 residential units across the four Development Parcels which will include affordable housing.

Development Parcel Floorspace Limits

- 5.4.4 The Development Parcels Parameter Plan (Figure 5-1) shows the location of each Development Parcel and the maximum extent within which built development may be delivered. An enhancement zone has been included for the plant at rooftop level and the addition of balconies or defensible planting at ground floor level. The precise form and design of each Development Parcel will be established at the future RMA stage in accordance with the Parameter Plans and Design Guidelines.



North

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Ground floor public realm, roads and infrastructure

Development Parcels including enhancement zone for balconies and defensible planting at ground floor

OS Northing and Easting coordinates

NOTE:
 All site boundaries and legal demises are indicative and shown for information only, based on desktop studies of land registry and record information, and are subject to survey and verification on site.

EPR Architects
 30 Millbank, London SW1P 4DU
 +44(0)20 73227000
 www.epr.co.uk

B&Q Cricklewood Lane NW2 1ES

Parameter Plan Development Parcels

Scale	Status	Suitability	Revision
1:500	For Approval	S4	P1

Project Code: 10965 - EPR - XX - DR - A - TP-0102

5.5 Built Form

Maximum Height

- 5.5.1 The Maximum AOD Building Heights Parameter Plan (Figure 5-2) identifies the maximum proposed building heights within each Development Parcel, including allowance for roof top plant. It is assumed that the ground level across the Site range between 54.8 and 55.8m AOD (Figure 5-1).
- 5.5.2 Given the proximity to the Cricklewood Railway Terraces Conservation Area and the scale and character of the Proposed Development, the approach to height has been carefully considered with views from the conservation area tested and discussed as part of the consultation process with LBB. Generally, the Proposed Development scales upward as it progresses south along the railway lines. This sense of progression allows the tallest elements toward the south to provide a screen against the railway lines and act as a waypoint in the skyline as marker buildings for pedestrian navigation in and around the Site.

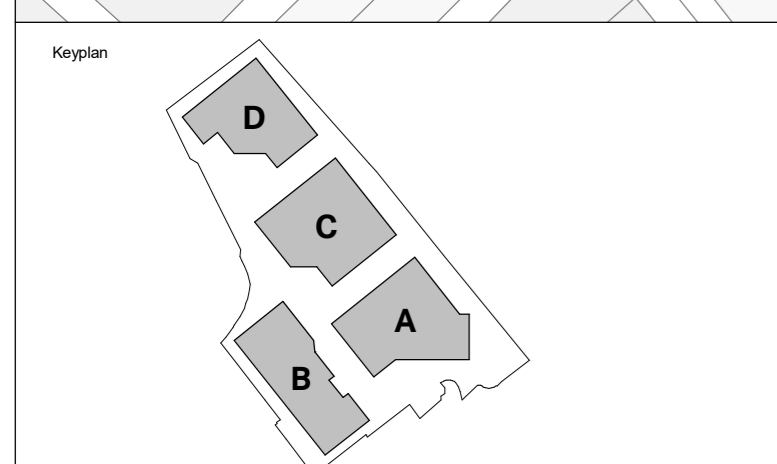
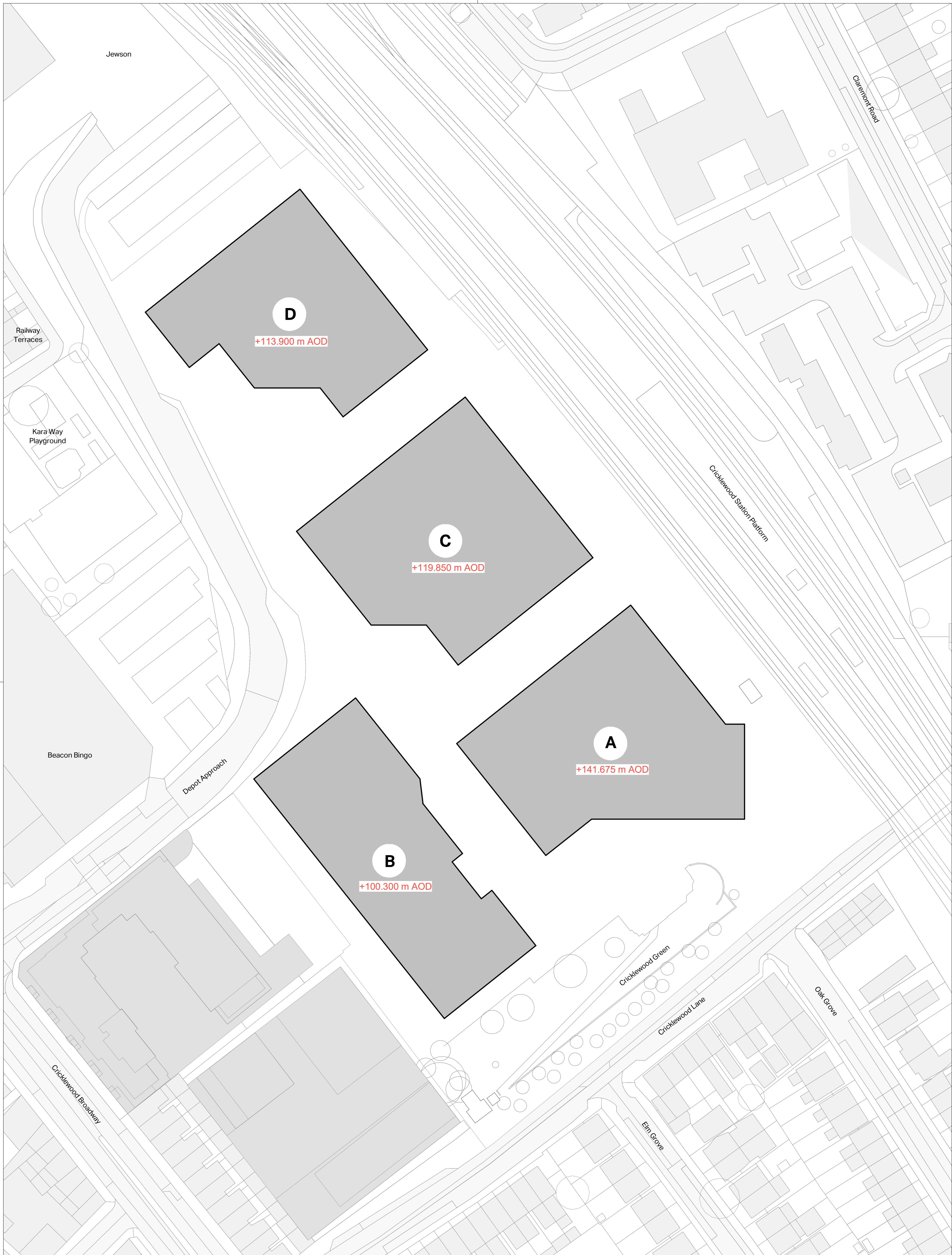
Basement

- 5.5.3 The Proposed Development will not contain a basement beneath any of the Parcels. However, excavation of up to 3 metres below ground level (bgl) may be required for lift pits, attenuation tanks and pumping chambers. The location of these facilities will not be fixed at the outline planning application stage, and will form part of the RMA at a later stage.

Rooftop Plant and Flues

- 5.5.4 The maximum building heights allows for for varying maximum plant (generators and air source heat pumps⁸), lift overruns, stair access to roofs, and Building Management Units (BMU) access. Up to 3.075m is therefore incorporated into the Maximum Parameters across all Development Parcels, which has been set according to the proposed maximum building heights and locations.

⁸ Meinhardt, 2020; B&Q Cricklewood – Energy Strategy



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Development Parcels including enhancement zone for balconies and defensible planting at ground floor

NOTE:

- All site boundaries and legal demises are indicative and shown for information only, based on desktop studies of land registry and record information, and are subject to survey and verification on site.
- Ordnance Datum levels are used to define the maximum Development Heights expressed as a height above mean sea level (AOD).
- Maximum Development Heights have been measured from indicative ground floor levels of the specific Development Parcels as set out in Parameter Plan 10965-EPR-XX-XX-DR-A-TP-0102
- Maximum Development Heights are inclusive of parapets, other architectural features, lift/star overruns and/or plant.

EPR Architects
 30 Millbank, London SW1P 4DU
 +44(0)20 7327800
 www.epr.co.uk

B&Q Cricklewood Lane NW2 1ES

Parameter Plan Development Heights

Scale @A1	Status	Suitability	Revision
1:500	For Approval	S4	P1

Project Code: 10965 - EPR - XX - XX - DR - A - TP-0104

5.6 Green Infrastructure

Open Space and Recreation

- 5.6.1 Landscaping is reserved for future determination during the future RMA stage. However, within the Illustrative Masterplan, the Proposed Development aims to deliver new public realm and open space.
- 5.6.2 The public realm developed to inform the Illustrative Masterplan development is subdivided into five distinct landscape character areas, designed to provide a variety of different spatial and social conditions for both residents and the public. The primary north-south route will act as the central spine to the public realm, providing a street that is activated by retail and commercial land uses, ultimately concluding at Arboretum Place and Cricklewood Green.
- 5.6.3 The landscape character areas are defined within Table 5-2.

Table 5-2 Landscape Character Area

Landscape Character Area	Key Characteristics
Arboretum Place	Flexile open space Grove of trees Seating area under trees Sculptural play element
Cricklewood Green	Levelled terraces Step-free routes Step access Existing retained trees
The Wood Way	Multi-species tree groves Marker Trees Play pockets and trail Seating nodes Play area Playable lawn
Cricklewood Lawn	Play area adjacent internal community space Large playable lawn area Planted edges with play and seating Marker trees
Rail Side	Single surface with flush kerbs delineation Existing trees retained Proposed tree screening with understory planting and wildlife habitats Parking bays

- 5.6.4 Figure 5-3 illustrates the proposed landscaping strategy and located the 6 landscape character areas.

Figure 5-3 Illustrative Landscape Character Areas



- 5.6.5 As part of the illustrative landscaping strategy, set out in the Masterplan DAS, public amenity space will be provided throughout the Proposed Development as part of Arboretum Place, Cricklewood Green, Wood Way, Cricklewood Lawn, and Rail Side, as well as on future podium and roof tops.
- 5.6.6 Arboretum Place is characterised by a hardstanding flexible central area for gatherings and events such as food markets, outdoor cinemas and exhibitions overlooking Cricklewood Green. Species-rich shrub, grass and herbaceous planting in raingardens or in-ground planter beds which define the edges of the flexible central area and provide a green periphery.
- 5.6.7 Cricklewood Green is envisioned as an enhancement of the existing local community asset to increase its usability, accessibility, safety and biodiversity while retaining its character and current uses.
- 5.6.8 Wood Way will create a high quality, verdant, active and ecologically diverse succession of pedestrian-centric spaces between proposed buildings. It is to be composed of multi-species groves of deciduous and evergreen clear stem and multi-stem trees and species-rich shrub, grass and herbaceous planting. Planting and tree groves are to co-ordinate with ground floor units and provide a hedged buffer between the public realm and any residential interfaces.
- 5.6.9 Future RMAs should provide an outdoor community asset that supports and enhances the existing Cricklewood Green. As such, there is opportunity to enhance Cricklewood Green in the future to

complement the Proposed Development. The area would be envisioned to provide green open space for recreational purposes. It is an currently area of species-rich amenity lawn adjacent internal community space, the Depot Approach and Kara Way Playground. Cricklewood Green has the potential to provide an area for terraces landscaped with planting, play components and a variety of seating options to take advantage of their south-facing aspect.

- 5.6.10 The rooftops of Development Parcels A – D may also provide opportunity for private rooftop residential amenity or green/brown living roofs. Each Development Parcel will provide private residential amenity space.

Playspace Strategy

- 5.6.11 The Proposed Development will exceed the levels of dedicated play space set out by the Greater London Authority, and will provide dedicated play space across the public and private realms.

Car Parking

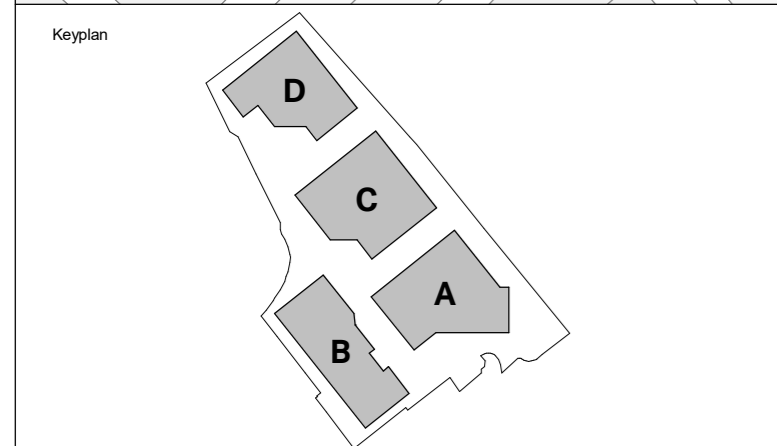
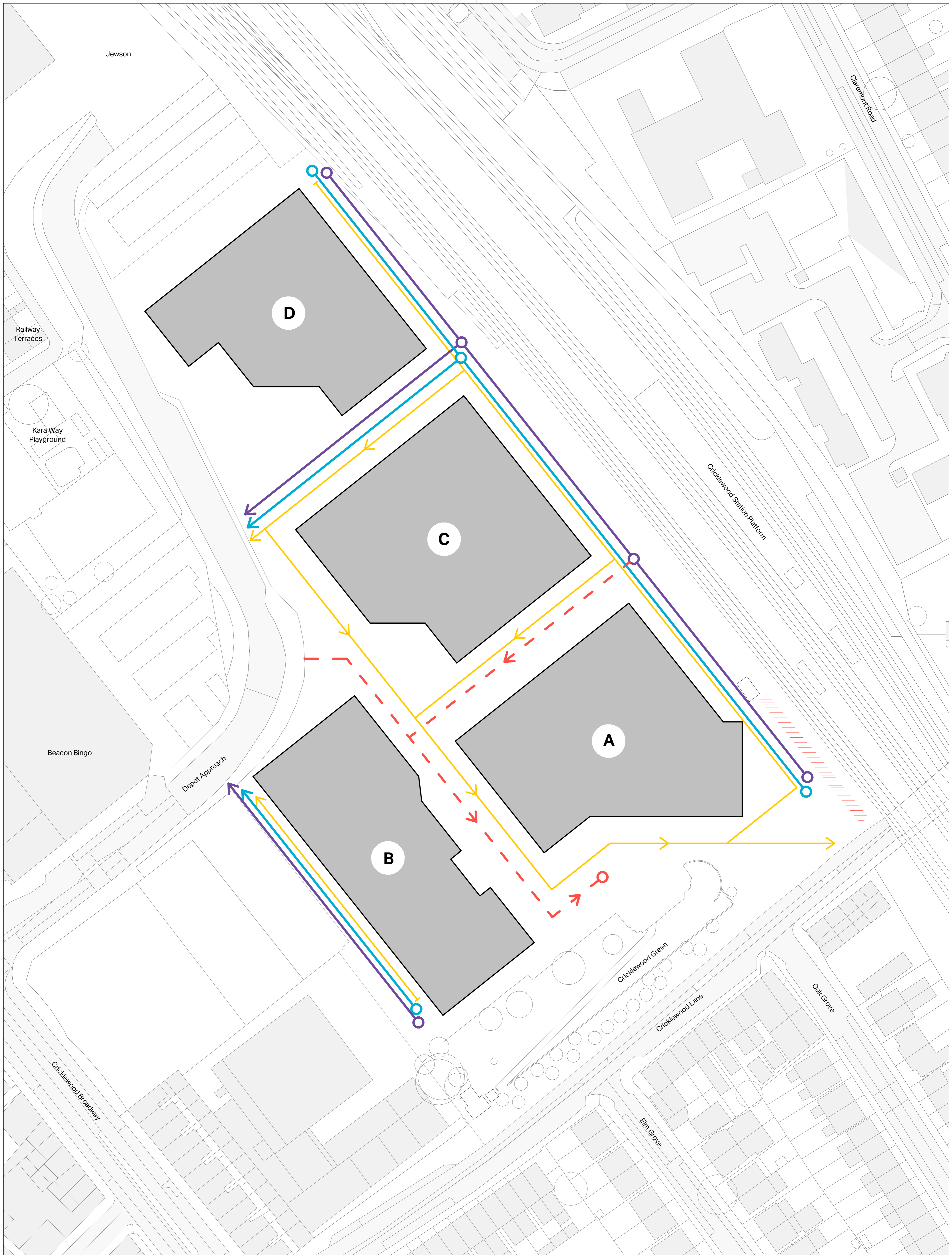
- 5.6.12 The Proposed Development will promote more sustainable methods of transport to and from the Site, and will contain a limited number of car parking spaces in comparison to the number of residential units provided on the Site.
- 5.6.13 There will be no car parking spaces allocated for the flexible commercial element of the Proposed Development, and up to a maximum of 110 car parking spaces for the residential uses. The final car parking strategy will be based on the detailed designs for the Development Parcels (Reserved Matters Application stage)

Cycle Parking

- 5.6.14 Cycle parking will be provided as part of the Proposed Development, and will be in accordance with the standards set out in the Draft New London Plan. Based on a fully built out scheme it is expected that the Proposed Development will provide up to 1,866 long stay cycle spaces and 106 short stay cycle space.

5.7 Servicing and Access Strategy

- 5.7.1 The primary servicing route for Development Parcels A, C and D will pass between Development Parcel C and D from Depot Approach. The servicing route will then span the extent of the 3 Development Parcels on their north east side, parallel to the railway tracks and eastern façade of the Development Parcels. This will enable non-service vehicles to access the car parks parking bay entrances situated on the eastern façade of the Development Parcels. Turning circles will exist for both service and non-service vehicles at the end of the route. The route will serve as the primary Light Goods Vehicles (LGVs) route and car connection through to Development Parcels A, C and D. Pedestrians and cyclists will also be able to utilise the route, which will provide through site access to Cricklewood Station from Depot Approach. The Route will also include a turning head between Development Parcels A and C, which will allow emergency vehicles to pass south west between Parcels A and C, before passing south east between Development Parcels B and A to reach Arboretum Place.
- 5.7.2 Access to Development Parcel B will be from a turn off on Depot Approach. The south east route will be accessible to both service and non-service vehicles. Non-service vehicles will be able to access the car parking bays entrances on the western façade of Development Parcel B. The route runs parallel to the western façade of Development Parcel B, and a turning point will be situated at the southern end of the route. Cyclists and pedestrians will also have access to this route
- 5.7.3 Cycle routes permeate the Site, promoting the use of more sustainable forms of transport. A safe guarded area is shown for a potential future pedestrian link to the railway line (see Figure 5-4).



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- Two way vehicular route
 - Two way service route
 - - - Two way emergency route
 - Pedestrian / cycle route
 - Development Parcels
 - Safeguarded zone for future pedestrian link to station
 - Turning head for non-service vehicles
 - Turning head for service and emergency vehicles
- NOTE:
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EPR Architects
 30 Millbank, London SW1P 4DU
 +44(0)20 7327800
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Parameter Plan
Key Points of Access and Circulation

Scale	Status	Suitability	Revision
1:500	For Approval	S4	P1

Project Code: 10965 - EPR-XX-XX-DR-A-TP-0103

5.8 Fire Strategy

5.8.1 Although the Proposed Development will be submitted as part of an outline planning application with all matters reserved (with the exception of access), the scheme has considered fire safety from the outset to ensure the Parameter Plans and design guidance seeking approval allow for a successful and safe scheme to be developed at the reserved matters stage. The Fire Strategy for the Proposed Development will include the following elements:

- The residential accommodation shall be designed in accordance with BS9991;
- The residential accommodation shall undertake a stay-put policy where only the affected apartment shall be evacuated;
- Where the travel distances in the common corridors are limited to 15m, the corridors can be ventilated either naturally or mechanically, with the smoke shafts located anywhere in the corridor. In the case of Development Parcel B, since the travel distances are extended, the common corridors shall be ventilated via a mechanical smoke ventilation system, with the smoke shaft provided at the dead end of the corridor;
- The cores that serve a floor over 18m in height shall be provided with a firefighting shaft incorporating a firefighting stair, firefighting lift and dry rising main (in the staircase). To satisfy the hose distances, the cores that do not serve a floor over 18m in height will be provided with a dry riser (in the staircase);
- Buildings under 18m in height shall be provided with 60mins fire resistance to the elements of structure. Buildings with a floor over 18m but less than 30m shall be provided with 90mins fire resistance to the elements of structure. Buildings with a floor over 30m shall be provided with 120mins fire resistance to the elements of structure;
- The apartments in all cases shall be enclosed in 60mins fire resistance;
- The escape staircases shall be enclosed in the same fire resistance as the elements of structure unless they are designed as a firefighting stair, in which case, they will require to be enclosed in 120 mins fire resistance;
- The car parks, amenity spaces / ancillary spaces and commercial units shall undertake a simultaneous evacuation strategy of the affected accommodation only;
- The car parks shall be accessed via a protected ventilated lobby from the residential accommodation. Additionally, the car parks will require to be provided with ventilation to both dissipate the build-up of car fumes and to provide smoke clearance. This could be achieved naturally (via the provision of openings) or mechanically;
- The commercial units shall be designed to be completely independent from the residential accommodation. They shall be compartmented from the residential accommodation with the same fire resistance as the elements of structure; and
- Where a building has a floor over 30m in height, it shall be provided with a sprinkler system. The sprinklers will need to be provided in the entire building (i.e. including the amenity spaces, commercial units and car parks).

5.9 Waste Management Strategy

- 5.9.1 An outline waste management strategy has been prepared based on an Illustrative Masterplan and is submitted as part of the Outline Planning Application. This is to demonstrate what a waste strategy could look like based on some assumptions on the floorspace uses.
- 5.9.2 To manage the waste and recycle materials arising from residential units of the Proposed Development, separate bin stores will likely be provided for each residential core. These bin stores should be located at a 30m distance from the residential units they are serving so to comply with the guidance provided in BS 5906:2005 and LBB's guidance document⁹.
- 5.9.3 To efficiently manage space within the bin stores and to provide a robust solution for the waste and recycle materials arising from the residential units of the Proposed Development, lever arm in-bin compaction units may be installed within most of these bin stores.
- 5.9.4 Any bin stores that do not house compaction units will be monitored and managed by the internal management team. Once bins are full within these bin stores, bins will be transferred to the closest compaction units inside of the Development Parcel. After compaction, the bins will be returned back to the specific bin store within the Development Parcel.
- 5.9.5 Residential bin stores which are within 10 m distance from the Refuse Collection Vehicle (RCV) parking point, will see the private collection crew wheel the bins of the required waste and recycle stream directly from the bin store to the RCV for emptying purposes.
- 5.9.6 Residential bin stores which exceed the 10 m distance from the parked RCV will require the internal management team to wheel the bins to a designated presentation area. From the designated presentation areas, bins will be transferred to the RCV (parked within 10 m of the presentation point).

5.10 Drainage

Surface Water Drainage

- 5.10.1 The Drainage Strategy for the Proposed Development is set out in *ES Volume III: Appendix 5-1*. The Proposed Development will provide an improvement on the existing drainage at the Site, as there does not appear to be any attenuation and treatment of runoff. A Sustainable Drainage System (SuDS) will be used where practicable throughout the Site to provide source control, improve water quality, reduce flood risk and provide amenity and biodiversity benefits.
- 5.10.2 The proposed surface water runoff from the site will be restricted to Greenfield runoff rate using a vortex flow control device and discharge by gravity into the existing 300mm Thames Water Utilities Limited (TWUL) surface water sewer located in Cricklewood Lane. The surface water runoff will be attenuated for 1 in 100 year + 40% climate change event. Surface water attenuation and treatment will be provided in the form of biodiverse roof, attenuation tanks and permeable paving to receive the run-off from the Site. Green/ brown roofs, raingardens and increased soft landscaping area have been proposed to reduce runoff, rainwater harvesting will be investigated at detailed design stage.
- 5.10.3 It is recommended that future drainage strategies for the Building Parcels include adequate water quality management to ensure that where required, and in accordance with good practice, appropriate and adequate treatment measures are proposed. Such measures will preferably be based on sustainable drainage techniques but may also include proprietary measures.

Foul Drainage

- 5.10.4 The foul water network is proposed to discharge by gravity into the existing 300mm Thames Water foul water sewers located in Cricklewood Lane. A pre-planning application was submitted to TWUL to confirm sewer capacity. TWUL confirmed their sewerage network will only be able to serve the first 100 properties and do not have sufficient capacity to serve the full development.
- 5.10.5 TWUL advise that to ensure appropriate upgrades or 'off-site reinforcement' to serve the remainder the Proposed Development, TWUL will carry out modelling work and, if required, design a solution and build the necessary sewerage improvements.

⁹ LBB, (2016-2030); Municipal Recycling and Waste Strategy and Future Delivery for Barnet

- 5.10.6 The proposed drainage would be designed in accordance with Building Regulations Approved Document H Drainage and Waste Disposal and BS EN 752 – Drain and Sewer Systems Outside Buildings.
- 5.10.7 New connections to the public sewer system, if required, would be made through a Section 106 Agreement with TWUL under the Water Industry Act 1991.

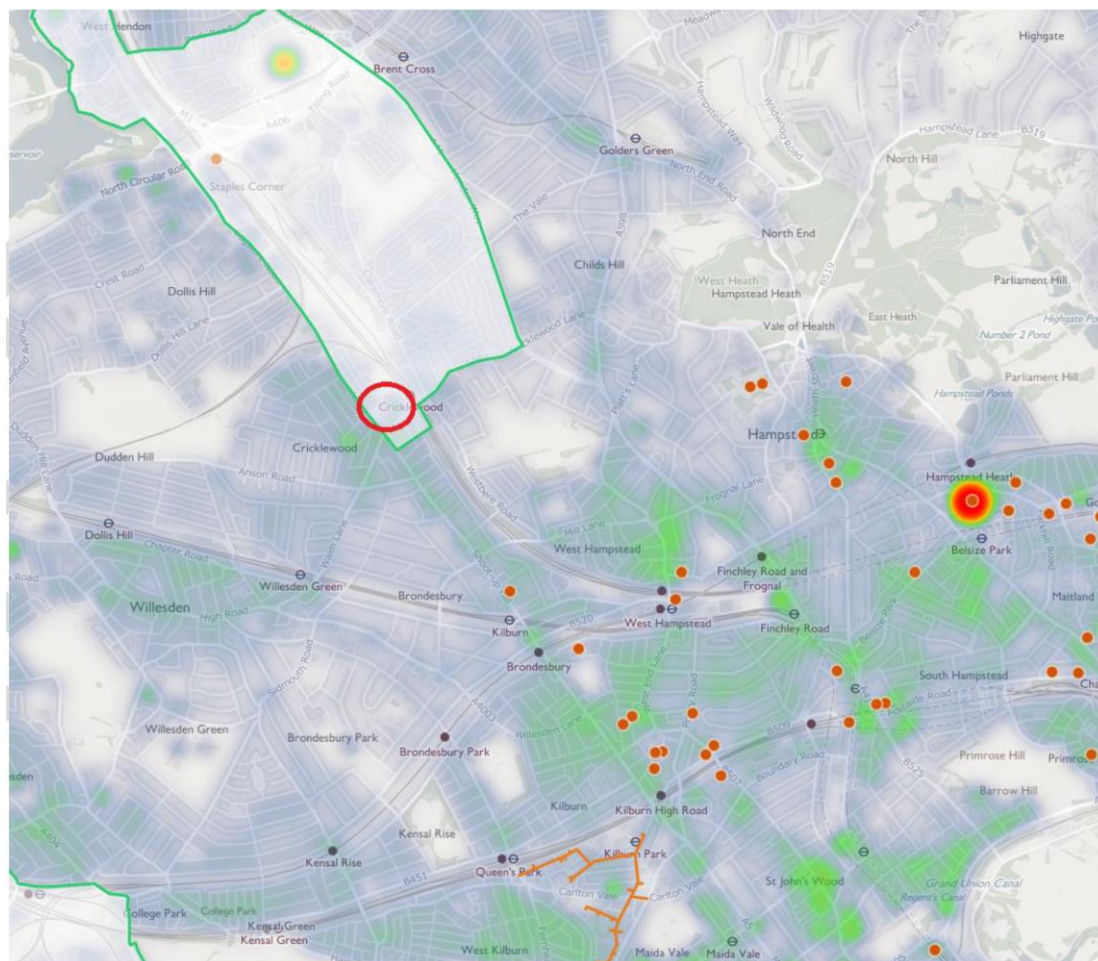
5.11 Energy

- 5.11.1 The Energy Strategy¹⁰ outlines measures for reducing the energy consumption and carbon dioxide (CO₂) emissions associated with the Proposed Development, in line with the Mayor's Energy Hierarchy¹¹:
- Passive design and energy efficiency (i.e. 'Be Lean');
 - Energy efficient supply of services (i.e. 'Be Clean'); and
 - On-site renewable energy technologies (i.e. 'Be Green').
- 5.11.2 The Proposed Development will target an overall on-site reduction in carbon dioxide emissions in excess of the Draft New London Plan minimum requirement of 35% for both residential and non-residential.
- 5.11.3 Energy demand will be significantly reduced beyond Part L requirements, and will target the GLA's aims in the Draft New London Plan for a minimum 10% reduction in residential carbon emissions and 15% in non-residential carbon emissions over Part L 2013 through passive design and energy efficiency measures alone.
- 5.11.4 The reduction will be achieved by a combination of measures, which shall include the following;
- Significantly improved fabric 'U' values;
 - Improved air tightness;
 - Minimising cold bridging;
 - Optimisation of size and g-value of the glazing to provide a balance between minimising heat gain and maximising natural daylight (to reduce lighting energy);
 - Communal heating system to the building;
 - High efficiency ventilation systems including MVHR to residential apartments;
 - Minimising heat loss from heating and hot water systems;
 - Low energy lighting;
 - Controls systems to monitor and operate the plant and equipment as efficiently as possible; and
 - Smart meters.
- 5.11.5 It is expected that the residential elements of the scheme will achieve a carbon reduction of between 8 and 14% through passive design and energy efficiency measures alone, and the non-residential between 12 and 20%.
- 5.11.6 The Proposed Development is close to an area identified for a potential community energy scheme (see Figure 5-5 below).

¹⁰ Meinhardt Energy Assessment (2019)

¹¹ Greater London Authority (GLA), (2016); The London Plan Spatial Development Strategy for Greater London

Figure 5-5 Extract from the London Heat Map



- 5.11.7 It is understood that there are no immediate plans to develop a heat network in the near future, so the Site will be 'future proofed' to allow connection to a heat network should one be developed at a later date, as the Site is in an opportunity area planning framework. Even future proofing the Site, logistically the Site will be hard to connect to from the heat hubs of Hampstead Heath and Brent Cross due to the main train line dissecting possible routes across.
- 5.11.8 It is proposed to provide a site-wide heat network serving all parts of the development, fed by air source heat pumps. This network would operate at a lower temperature than for a boiler/CHP system to maximise the efficiency of the heat pumps, with the domestic hot water temperature raised locally in each apartment by in apartment water-water heat pumps.
- 5.11.9 The Proposed Development will likely contain Solar Photovoltaics (PV) to supplement the air source heat pumps. PV will offer direct contribution to the Proposed Development's overall energy requirements. Provision of PV panels will be assessed and maximised against the other project requirements such as roof plant, external amenity space and surface water run-off control.
- 5.11.10 The remaining regulated carbon dioxide emissions for the residential (to 100 per cent) elements of the scheme will be off-set through a cash in lieu contribution (of £60/Tonne for a period of 30 years) to the local planning authority to be ring fenced to secure delivery of carbon dioxide savings elsewhere.

5.12 Secured by Design

- 5.12.1 The Proposed Development has sought to integrate Secured by Design core principles, based on the Secure by Design (SBD) New Homes 2016¹² standards for security. The general layout and design

¹² Official Police Security Initiative, 2016; Secured by Design Homes 2016 – Volume 1: February 2016

- accommodates these principles to minimise the opportunity for crime and disorder. The level of compliance and accreditation will be dependent on a Parcel by Parcel basis and be set out in each RMA.
- 5.12.2 In terms of development layout and design, road layouts for vehicles and pedestrian and cycle routes have been designed to be direct and visually open, ensuring that they will be well used and that the permeability through the Site is not excessive by minimising the number of routes. The paths, seating and planting areas will be well lit and located in order to avoid the creation of inappropriate loitering places with rear access paths avoided where possible.
- 5.12.3 Communal areas, including entrances, exits, lobbies, landings, corridors, stairwells and private outdoor spaces are designed to be appropriately lit, secure and maintained. They will be well located to allow for natural surveillance from residents and the public, preventing un-authorised vehicle access and restricted access to residents. Boundaries between the private and public spaces are designed to be adequately secure to reduce the risk of crime. Dwelling identification and entry points will be clearly indicated.
- 5.12.4 The communal internal car parking is designed to be well lit and located to again allow for natural surveillance and will also be protected by a mechanized gate to prevent un-authorised access to the car park.
- 5.12.5 Throughout the Site, the Proposed Development will be well lit with energy efficient light sources to allow for natural surveillance. This reduces the likelihood of dark alleys or passageways to occur, thus helping create a safe and secure environment whilst minimising light pollution.
- 5.12.6 With regards to physical security of each residential unit, dwelling security lighting will illuminate each elevation with a door that can be used by public, visitors and residents. All access doors and low level windows will be secure and lockable.