APPENDIX B

Table of Contents

Part 1
INTRODUCTION

Part 2
SITE WIDE GUIDELINES

Part 3
BUILDING DESIGN GUIDELINES

Part 4
SUSTAINABILITY

Part 5
GLOSSARY

Part 1

INTRODUCTION

1.0 Introduction

This Design Guidelines document will help to ensure that Phase 2 of The Hillingdon Hospital Redevelopment is well designed and built to a high standard.

It has been prepared on behalf of The Hillingdon Hospital NHS Foundation Trust in support of a Hybrid Planning Application for the Hillingdon Hospital site. The document must be read in conjunction with:

i. The Parameter Plans;

ii. Development Specification & Framework;

iii. The Design and Access Statement.

The design code is intended to help the interpretation of these documents and inform the reserved matters design process.

Compliance with The Design Guidelines will ensure the delivery of a coherent high quality development. It provides a framework within which architectural diversity can be achieved and where the public realm is an integrated element which provides continuity with the surrounding area.

1.1 Purpose and status of the Design Guidelines

1.1.1 The Design Guidelines provide a series of indicative controls for the future development of the site. The guidelines submitted for information and, together with the parameter plans, establish the acceptable scale and nature of the proposed development before fully detailed proposals are put forward.

1.1.2 The Design Guidelines focus on two and three dimensional elements of design that build upon a vision. It is the Design Guidelines aim to provide clarity over what constitutes acceptable design quality and thereby provide a level of certainty for planning authorities and other stakeholders of the type of development that may come forward.

1.1.3 The Hillingdon Hospital (THH) Design Guidelines have been prepared as part of The Hillingdon Hospital Hybrid Planning Application submitted by The Hillingdon Hospitals NHS Foundation Trust for the development of the new hospital building, and the long term future development of the remaining area of the site.

1.1.4 THH Design Guidelines, as part of the Design and Access Statement (DAS) **should** be read alongside the Development Specification Framework containing the detailed description of development and submitted for approval and the Parameter Plans (see next page for a list of plans submitted for approval and plans submitted for illustrative purpose only).

1.1.5 The DAS establishes a series of design principles across the Application Site, setting out the vision for the Proposed Development as well as details of access, scale, character, use and landscape. Illustrative examples of how these principles could be implemented are included within the DAS. However it **should** be noted that these are for illustrative purposes only and are not for approval.

1.1.6 The Design Guidelines for The Hillingdon Hospital Redevelopment provides the next level of detail for design parameters other than those set out in the Parameter Plans within the Planning Application. Compliance with the Guidelines will ensure a consistently high quality outcome is achieved on the Hillingdon Hospital site. The Design Codes will form the basis of the design assessment for Reserved Matters Applications that come forward on the THH site. Each application will need to include a Design Guidelines Compliance Statement, which **should** indicate how the designs put forward in the application relate to the Design Code.

1.1.7 The Design Guidelines have been produced in accordance to The National Model Design Code which provides detailed guidance to promote successful design. The ten characteristics identified are:

- Context
- Identity
- Built Form
- Movement
- Nature
- Public Space
- Uses
- Homes and Buildings
- Resources
- Lifespan

1.1.8 The primary purpose of the Design Guidelines is to:

- Provide robust and tested guidance to inform the development of future RMAs.
- Ensure high quality design and public realm.
- Define the character of the physical environment and the requirements placed on proposed buildings to support that character.

1.1.9 The design will be subject to all relevant statutory guidance, in particular the2021 London Plan and Hillingdon Development Local Plan.

1.2 Relation with the planning application documents

1.2.1 In addition to the Design & Access Statement of which these Design Guidelines are part of, a number of other documents have been submitted as part of The Hillingdon Hospital Redevelopment Hybrid Application submission, setting out strategies for the delivery of the new hospital and its opportunity area. Please refer to Figure 1.1 and the Development Specification Framework.

Parameter Plans

Parameter Plans provide information for approval related to the layout and scale of the Proposed Development. The plans show how and where development plots, routes and open spaces will be provided and situated. They describe the geometry of development plots, routes and open spaces according to defined limits of deviation.

Design Access Statement

This is the core document for understanding the Hillingdon Hospital Redevelopment site and its design vision. It describes the overall approach to the design development of the Site and the Masterplan and it includes a description of the design process, including how the design has evolved through consultation and collaborative working with stakeholders. The Design and Access Statement should be read by designers prior to the Parameter Plans and Design Codes.

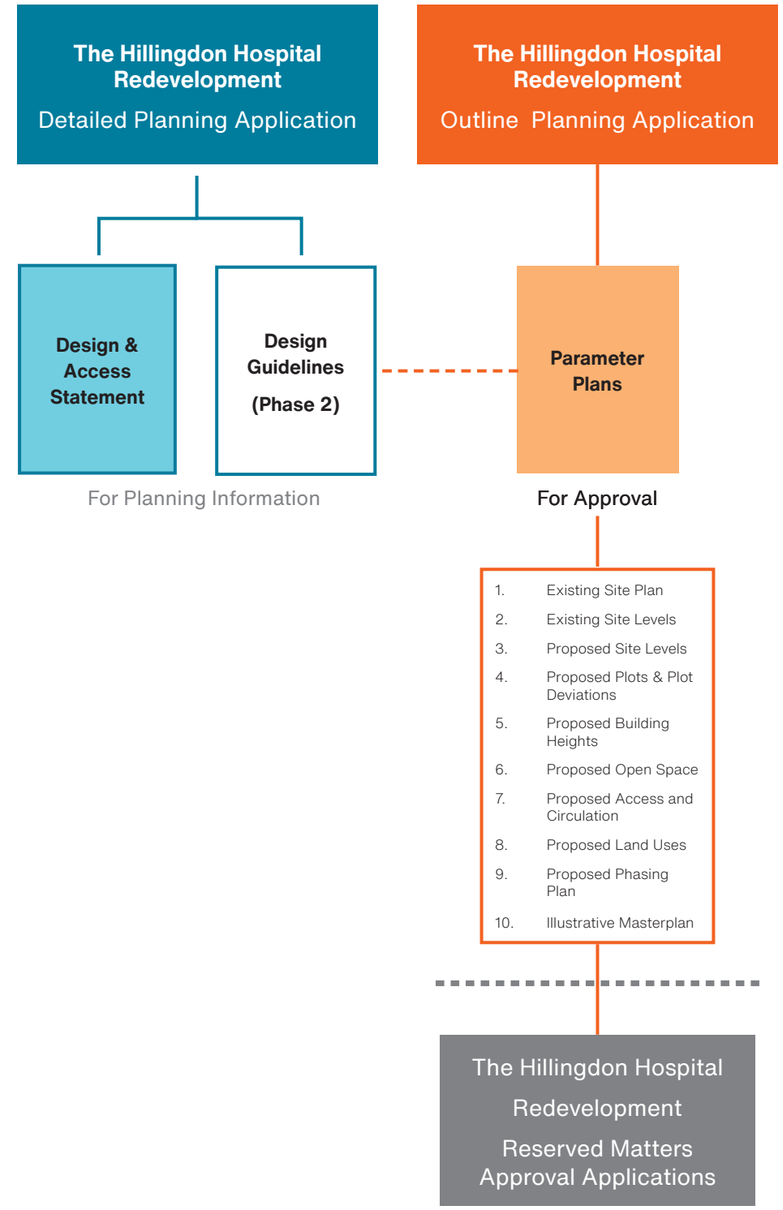


FIGURE 1.1 The Hillingdon Hospital Redevelopment Outline Application Document Structure, this does not include all the application documents

1.3 Design Guidelines document structure

- The Guidelines provide a manual for the design of the Proposed Development and comprise both written and diagrammatic instructions. The instructions build on the Parameter Plans and provide the next layer of guidance. Before designers (and others involved) start work on a particular part of the New Hillingdon Hospital, they shall first familiarise themselves with the general content of this document, which is summarised below.
- The Masterplan for the Hillingdon Hospital Redevelopment has been defined by a series of key site-wide structuring principles. These relate to built form, open space and streets. Layered and unified they form a network of public spaces and building plots which in their entirety form the urban grain of the Proposed Development. The over-arching vision for the Site is explained in Part 2 of this document.
- The vision of the Masterplan is to create a new Hospital with a residential offer and mixed public spaces in Hillingdon that integrates with existing residential context with a high quality, accessible and inclusive world-class environment. It will provide much needed Hospital facilities to meet its future needs, enhance the connections between Hospital and the existing and emerging communities.
- For the Vision and Site Wide Principles to be achieved, a series of Guidelines, relating to Architecture, must be adhered to. These are set out in Part 3 of this document.

Key Terms

The New Hillingdon Hospital proposal is described in a number of ways within this document, which are defined below:

Masterplan / Masterplan Proposal

“Masterplan” or “Masterplan proposal” describes the overall design of the THH site, a result of the design development process. It is an amalgamation of the contextual analysis, design consideration, testing and decision making process. This process has resulted in the design principles and design framework on which the Proposed Development is based.

Proposed Development

“Proposed Development” describes the THH proposal as a set of development parameters for which outline consent is sought. The development parameters are a combination of development quantum as set out in the Development Specification Framework), Parameter Plans, and Design Guidelines (this document).

Illustrative scheme / Illustrative Masterplan

“Illustrative scheme”or “Illustrative Masterplan” describes a version of the Proposed Development, demonstrating one way in which the development could come forward within the parameters.

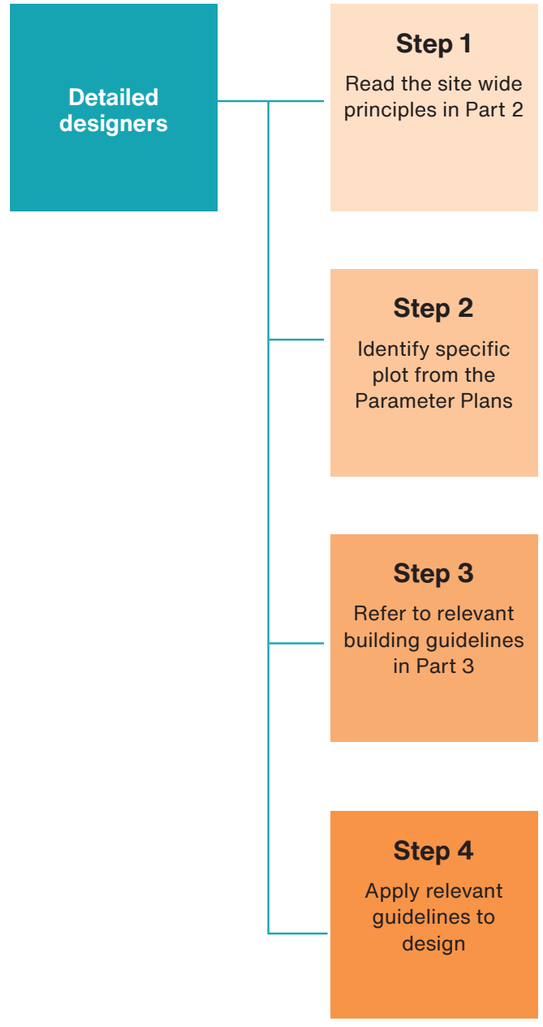


FIGURE 1.2 Using the Design Guidelines

Part 2

SITE WIDE CODES

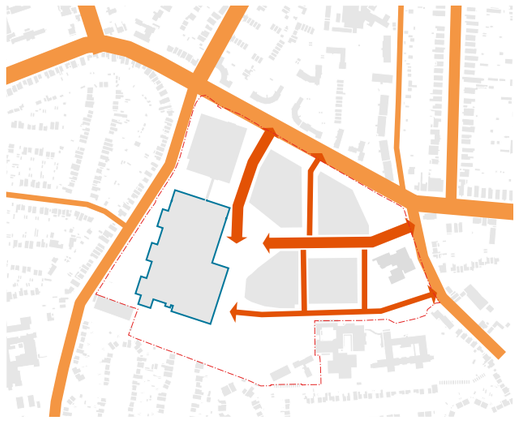
2.0 Design Principles

The Site is to be made up of a network of spaces and streets. The spatial composition of the buildings and landscape is critical to ensuring that the development succeeds as an overall Masterplan. Future buildings, public realm and landscape need to work together to fulfil the criteria of the vision as well as being of the highest quality. Each building and landscape element will need to respond to its neighbours, adjacent areas of open space, respective uses and the surrounding public realm

Design Principles

The following principles will guide future design:

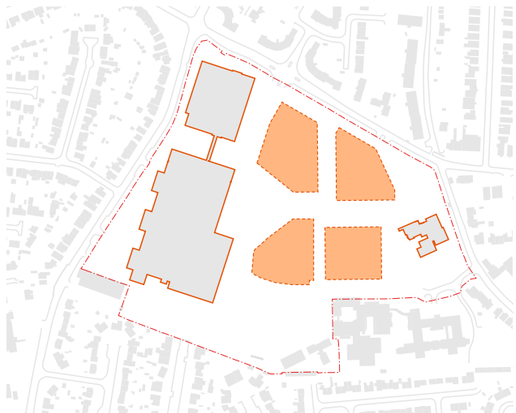
To establish **character, legibility and cohesion** to ensure that the Hospital is integrated into its context.



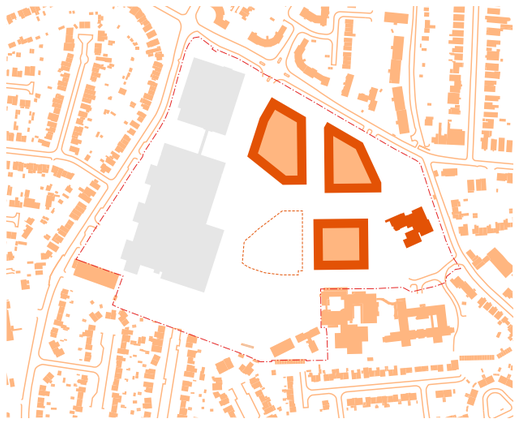
To establish a **permeable and legible** network of routes and spaces that reinforce the identity and character of their setting.

To incorporate, celebrate and complement the existing **built assets** (e.g. The Furze) and **natural assets** (e.g Wooldlands & Protected Trees).

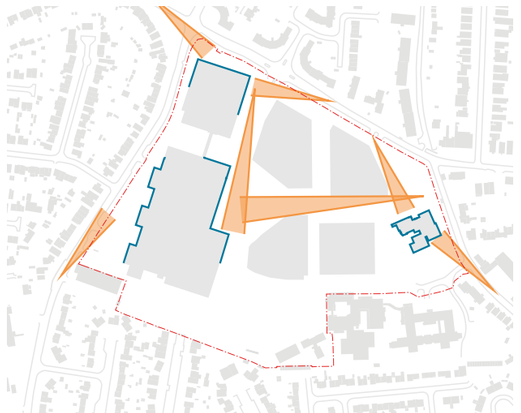
To create a sequence of **diverse open spaces** catered to different users, which enhance the accessibility to the Hospital and neighboring areas while creating a contiguous public realm throughout.



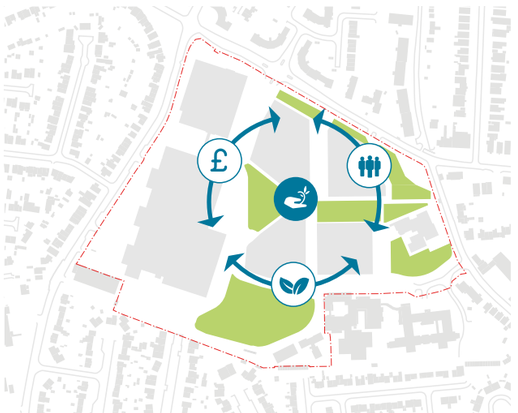
To establish **a flexible framework** to accommodate a residential led development which will support the role of the health provision institution in the community.



To provide the setting for **considered architectural expressions** to bridge between the existing residential context and the appearance of the Hospital.



To create a framework where the proportions of built and non-built environment ensure that the Hospital is appropriately set within its context while providing considered **vistas and views** into, out of and across the site.



To create a **sustainable environment** and landscape which protects the existing natural assets and fosters a strong green infrastructure network, including a positive response towards ecology and habitat creation.

2.1 General Guidance

Layout

2.1.1 Areas on Plot P01, P02 and P03 **should** be designed for land use flexibility to allow for future adaptation within the permitted uses. Refer to *Figure 1.4 and to DSF*

2.1.2 Location of entrances and frontages of town centre and residential uses **should** visually engage with the public realm. Refer to section *2.3 Frontages.*

Land uses

2.1.3 Land uses **must** follow Parameter Plan 08 Proposed Land uses *Figure 2.2 Ground Floor Land Uses Diagram.*

2.1.4 Public spaces fronting town centre uses **should** allow for sufficient space for outdoor spill out activities. Refer also to Section 2.2 Public Realm.

2.1.5 Land uses **must** follow Parameter Plan 08 Proposed Land uses *Figure 2.1 Ground Floor Land Uses Diagram.*

2.1.6 Public spaces fronting town centre uses **should** allow for sufficient space for outdoor spill out activities. Refer also to *Section 2.3 Public Realm.*

2.1.7 Retail units **should** be orthogonal and well proportioned to accommodate a range of occupiers and allow for flexible internal layout.

2.1.8 Back of house, storage and ancillary spaces **should** be located within the block and when possible, not on any of its frontage to maximise the extent of active frontage onto the street. Refer also to *Building Design Guidelines Section 3.2 Frontages.*

2.1.9 Where restaurant and café uses are proposed, kitchen ventilation and flue extract **must** be integrated into core risers and discharged at roof level to ensure they have no visual impact onto the street. Refer to *Building Design Guidelines Section 3.2 Roofscape.*

Urban Greening Factor

2.1.10 The overall Urban Greening Factor (UGF) score for the combined planning applications **must** be 0.30 as set in the London Plan for Residential Institutions (Use class C2).

2.1.11 Different surface cover types **should** be incorporated into the development to achieve the overall UGF score. (For indicative guidance to deliver the overall Urban Greening Factor refer to DAS document section Urban Greening Factor)

2.1.12 The design of buildings and private amenity spaces within plots **must** contribute to the UGF by intensive and extensive surface cover types.

2.1.13 The protection and enhancement of semi-natural vegetation across the site **should** be encouraged to achieve the overall UGF score.

2.1.14 Vertical surface areas of proposed green walls **should** be included where possible.

2.1.15 Within the development, permeable paving **should** have precedence over sealed surfaces.

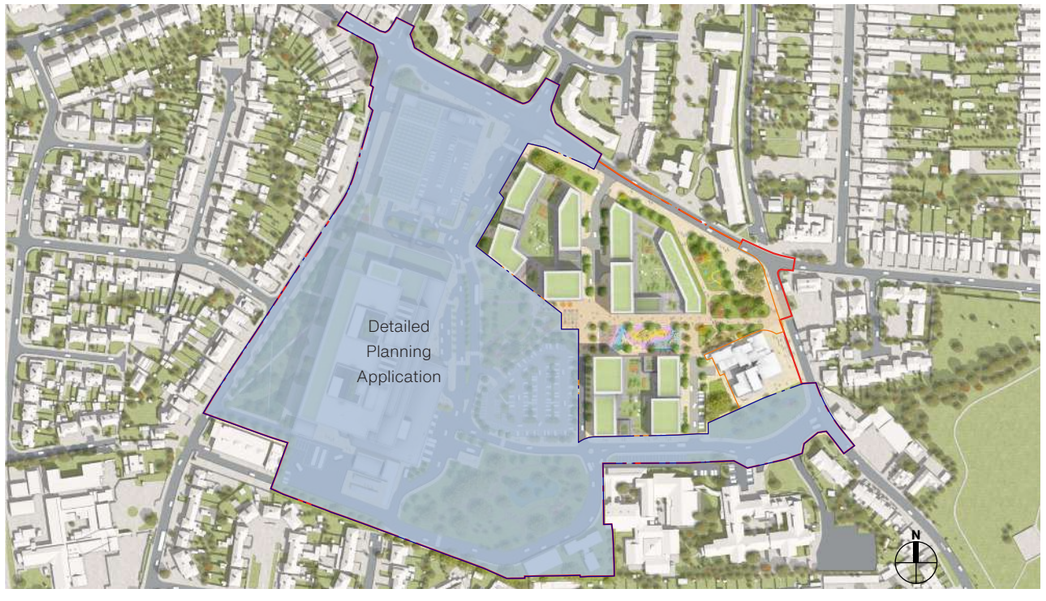


FIGURE 2.1 Illustrative Masterplan of Hillingdon Hospital Redevelopment with planning application boundary and context.

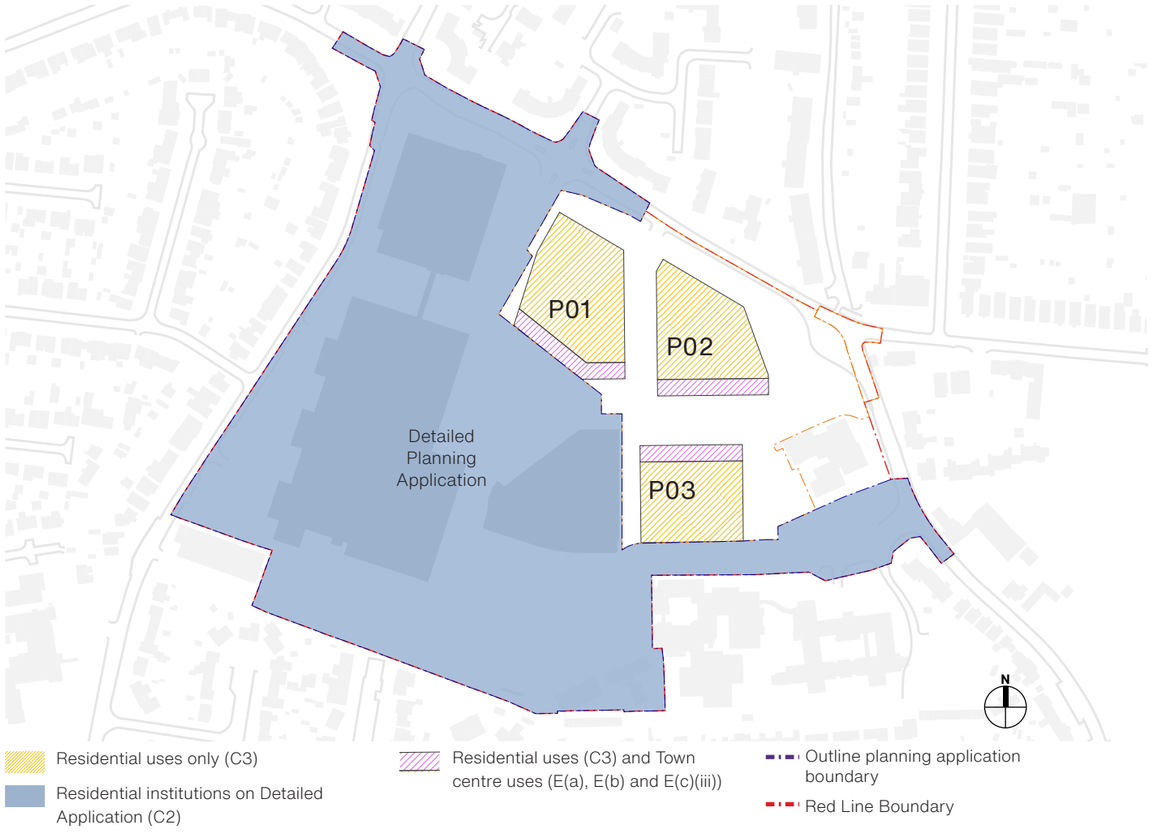


FIGURE 2.2 Ground Floor Land Uses Diagram

2.2 Public Realm

General Guidance

The design of the public realm will be subject to all relevant guidance and standards, including the following:

- London Plan Policy, Policy D8 Public Realm
- Hillingdon Local Plan Part 2 Policy - DMCI 3: Public Open Space Provision
- Hillingdon Local Plan Part 2 Policy DMCI 4: Open Spaces in Development
- London Plan Public London Charter (September 2014)

The design and detail of the public realm will be visually cohesive throughout the development by:

- A selected palette of surface materials and street furniture.
- Palette of street details which are used to reinforce public realm character and identity. (Refer to street sections S1, S2 and S3 in chapter 2.2 Public Realm)
- A structure of tree planting, and planting treatments as identified in each of the public realm areas.
- The street design and detail should aim to balance competing requirements whilst acknowledging and responding to the requirements of likely adjacent building uses.

Public Realm

2.2.1 The public realm **must** prioritise pedestrians where vehicles are permitted, for example through the use of shared surface and flush kerb details.

2.2.2 All streets and open spaces **must** be designed to be accessible multifunctional places for a range of diverse activities along their length throughout the day.

2.2.3 Entrances **must** be clearly identifiable, and designed to create an open and accessible environment, contribute to wayfinding and the language and rhythm of the street.

2.2.4 Any residential ground floor use **should** have a minimum 1.5m deep defensible space to create separation between residences and the public footway and trafficked route beyond.

2.2.5 Public realm elements such as street furniture **must** be cohesive and integrated into the street design.

2.2.6 Streets **should** be designed to integrate pedestrian, cycle and vehicular movement, be accessible for all, safe and legible.

2.2.7 Canopies, outdoor furniture, market stalls and signs all act to animate the zone between inside and outside, and create a lively public realm. These transitional elements **should** be used to soften the building edge and create transitional zones to the perimeter of the public realm.

2.2.8 A specific signage and wayfinding scheme **must** be designed and provided as part of a co-ordinated approach to all public realm elements.

2.2.9 Public realm signage **should** be grouped together with lighting columns or other street furniture to minimise the number of street clusters.

Lighting

2.2.10 Street lighting **must** reinforce character, and the structure of the public realm. This can be achieved by locating a variety of lighting fixtures within the fixed furniture zones or as specified in the following sections on Streets and Open Spaces.

2.2.11 Lighting **must** encourage night time activity and provide a safe and comfortable environment for all users, by following the relevant lighting strategy.

2.2.12 Artificial lighting **should** be avoided within soft landscape areas, and **must** be avoided within biodiversity and ecologically sensitive areas.

Tree Planting, Ecology and Microclimate

2.2.13 The landscape proposals **must** be developed in detail to meet BAP (UK Biodiversity Action Plan 1992-2012) requirements and create an attractive urban environment that accommodates a range of activities.

Utilities

2.2.14 Public realm design **should** be coordinated with utilities and services to take into account the need for easy installation and maintenance access.

2.2.15 Utilities **must** be subordinate to other street functions. Utility covers **should** be recessed and match surrounding materials.

2.2.16 Surface materials **must** be chosen to avoid evidence of repair or installation of below ground services.

2.2.17 Where needed, in-ground power units **must** be integrated into the design to provide power outlets for outdoor activities.

Secure Public Realm

2.2.18 The public realm **must** be designed to minimise opportunities for street crime and other offences. The design **must** achieve 'Secured by Design' accreditation. In particular, routes and spaces **must** be designed to maximise the benefits of natural surveillance and overlooking.

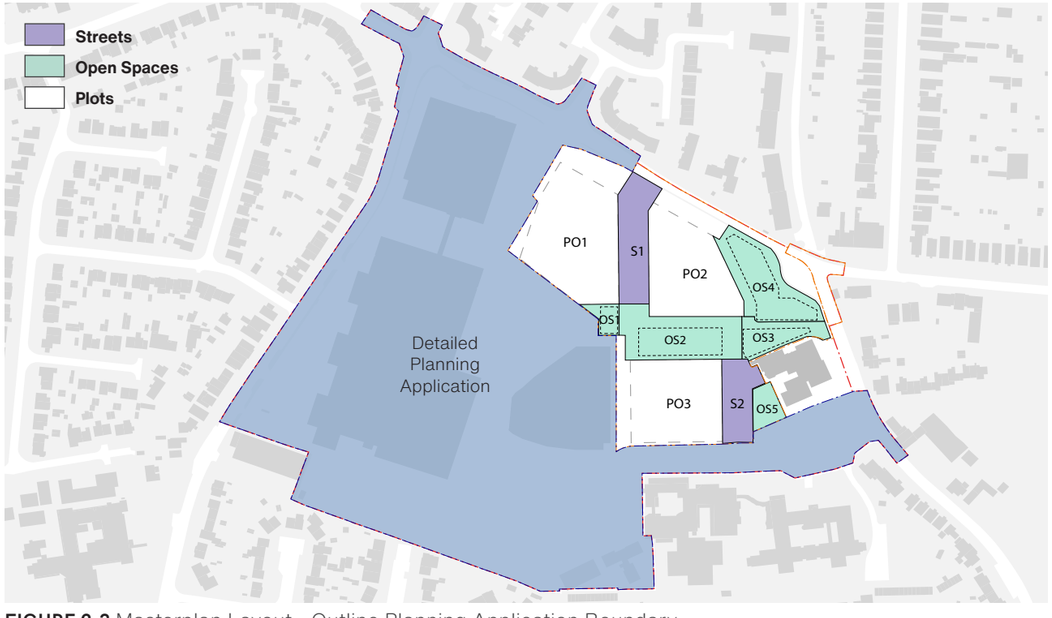


FIGURE 2.3 Masterplan Layout - Outline Planning Application Boundary

Palette of Materials & Textures

Street Furniture

A co-ordinated range of signage and street furniture is to be carefully positioned around the Site to provide amenity and minimise clutter. Other features in the public realm such as low walls to raised planters will all be carefully co-ordinated to create a suite of finishes that are complementary to each other.

2.2.19 Benches and other seating opportunities **must** be designed and integrated into the public realm design at frequent intervals. Their locations **should** respond to local climatic conditions, sunlight, free flow of movement, views and safety.

2.2.20 Specification of street furniture and the detailed design of the streetscape **should** be hardwearing and resistant to vandalism.

2.2.21 A co-ordinated vocabulary of high quality street furniture **must** be provided which **must** include seating, litter bins, cycle storage, bollards and lighting.

2.2.22 Seating **must** be located so as not to impede pedestrian flows, sited in environmentally comfortable locations and at suitable frequency.

2.2.23 The palette of street furniture **must** be restrained in terms of variations of materials and colour. Suitable materials include natural stone; cast stone; hardwood from managed sustainable sources; galvanised steel; and stainless steel.

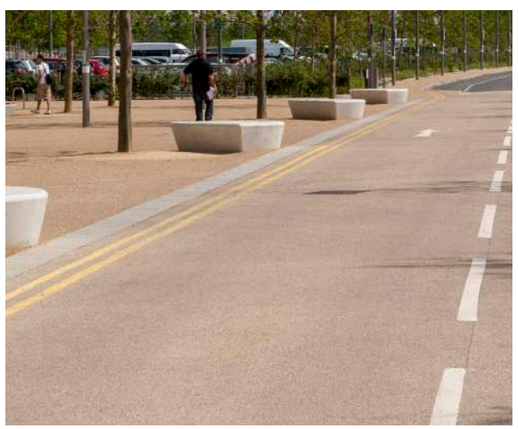
Surface Material

2.2.24 The palette of surface materials **must** be developed as part of a comprehensive streetscape vocabulary of co-ordinated street furniture (seating, lighting and signage).

2.2.25 A simple high quality palette of paving materials and built elements **should** be proposed throughout the development. All paved surfaces **should** be designed with avoidance of ramped approaches and reducing unnecessary furniture clutter.

2.2.26 The colour, pattern and unit size **should** vary to identify the change in character between the different areas and use - for instance smaller units will be used for vehicle areas, whilst elements such as kerb units will be consistent throughout.

FIGURE 2.4 Example of high quality paving © Gehl Architects



Example of vehicle spec high friction surface

Access & Movement

2.2.27 The carriageway of vehicular routes **should** be designed with a high-friction surface that is integrated with the pavement as illustrated in Figure 2.4 to create a pedestrian friendly environment. General Guidance

2.2.28 All street widths stated are determined by the Parameter Plans. Any horizontal deviations **must** be in accordance with the Parameter Plan 07 (Proposed Access and Circulation). For details on street arrangement, refer to street sections on the following pages.

2.2.29 If deployed, the horizontal deviation permitted at street level **should** be positively integrated into the public realm by following the streetscape design guidance.

Access Points

2.2.30 The development **must** connect with its existing context through a number of access points around the site boundary. (Refer to Figure 2.5)

2.2.31 The pedestrian access points shown in Figure 2.5 **must** be free of obstructions that would prevent pedestrian access.

2.2.32 The emergency vehicle access point **must** have a minimum 4.5m width free of obstructions. It **should** be designed with a pedestrian finish in accordance with other pedestrian areas in the masterplan. (Refer to Figure 2.5)

Vehicular Movement

2.2.33 A series of vehicular routes **must** be provided in accordance to Parameter Plan 07 (Proposed Access and Circulation).

2.2.34 Vehicular routes **should** be designed in accordance with the guidance in Manual for Streets to restrict vehicle speed to a maximum of 20 miles per hour.

Cycle Movement

2.2.35 A 6m wide pedestrian & cycle corridor **should** be safeguarded along Pield Heath Road and part of Colham Green Road, to the central corridor. (Refer to Figure 2.6).

2.2.36 Low speed cycling **should** be encouraged alongside other street users on all streets. Cycling **should** be discouraged in all open spaces.

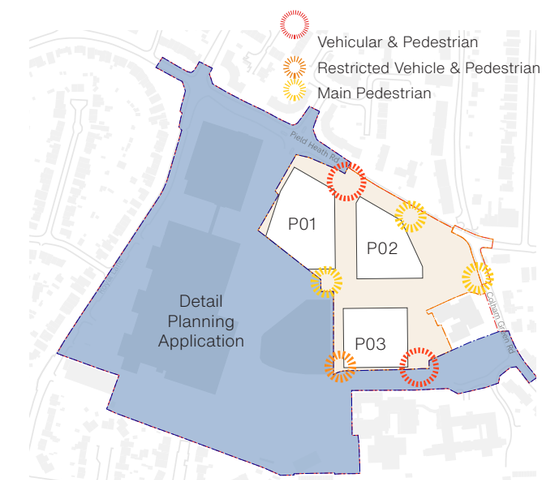


FIGURE 2.5 Access Points Diagram

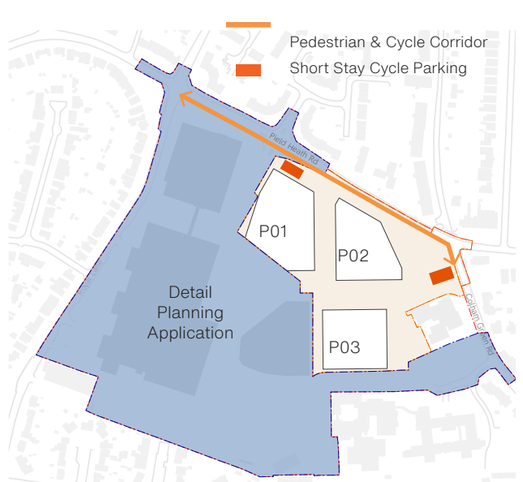


FIGURE 2.6 Pedestrian & Cycle Movement Diagram

Emergency Routes

2.2.37 The proposed emergency and fire access routes **must** be provided in accordance as indicated in Figure 2.7. The demarcated kerb alignment of the shared-surface carriageway **must** provide a minimum 3.7m width between kerbs for vehicle movement, over widened to accommodate suitable vehicle tracking on any bends.

2.2.38 Emergency routes **should** be 'shared surface' streets with a continuous hard material across the full width and no change in level for kerbs.

2.2.39 Pedestrian priority **should** be achieved through provision of minimum 2.0m wide dedicated area on one side of the carriageway and a notional 1.0m service strip the other side.

2.2.40 Shared streets and kerb-free areas **should** have tactile surfaces to segregate path routes and functions and act as a warning device for people with sight loss and learning difficulties; all routes will be designed to be safe and inclusive for all pedestrians.

2.2.41 Where emergency vehicle access is provided on shared surface areas, the carriageway **should** be informally demarcated (traffic) zones through surface treatment or contrasting pavement/material selection.

2.2.42 Planting, trees and furniture elements **should** further assist in delineation of traffic zones.

Pedestrian Routes

2.2.43 In addition to vehicular routes, pedestrian routes with a minimum width of 2.5m **must** be provided in accordance to Parameter Plan 07 (Proposed Access and Circulation). Refer to Figure 2.8.

2.2.44 Pedestrian routes may include soft landscaping but **must** include a minimum width of 2.5m continuous hard surfacing.

2.2.45 Pedestrian routes **should** be safe pedestrian zones, without traffic and with step-free, level or gently-sloping circulation routes. Accessible routes (ARs) **should** be step-free with maximum gradients of 1:20.

2.2.46 Innovative strategies **should** be applied to delineate routes through public realm areas and zones as necessary including the use of (tree) planting and furniture elements.

2.2.47 Seating **should** be provided at least every 50m on pedestrian routes.

2.2.48 Paths within public open spaces **should** have a smooth, firm and slip resistant surface.

2.2.49 Recreational routes and park pathways **should** be constructed using resin bounded gravel.

2.2.50 Pedestrian routes **must** include public lighting and CCTV for security and **should** be directly overlooked for natural surveillance.

Car Parking

2.2.51 Street design **must** include on-street parking provision for blue badge / operational parking. On street blue badge / operational parking is accommodated at specific locations within the site.

2.2.52 Where principal entrances are greater than 50m from parking and drop off, seating **must** be provided between the parking drop off and the entrance.

2.2.53 Public and visitor non-dedicated car parking **must** only be permitted in streets S1 & S2. (Refer to Figure 2.9)

2.2.54 Private dedicated parking for residents **must** be provided within the plots, preferably resolved as undercroft parking . Provision **should** be in accordance with the standards set in the DSF.

2.2.55 Where possible, entrances to parking on plots **should** be located away from intersections and key public spaces.

2.2.56 A minimum of 10 off-street parking spaces **should** be dedicated for Blue Badge holders.

Cycle Parking

2.2.57 All long stay cycle parking **should** be provided within residential plots, in accordance to the DSF.

2.2.58 Short stay cycle parking **should** be distributed around the site in suitable areas within the public realm. They **should** be concentrated near major access points and destinations to encourage cyclists to dismount at the edge of the Site (Refer to Figure 2.5 and Figure 2.6). If insufficient space is available, two-tier stacking solutions could be provided.

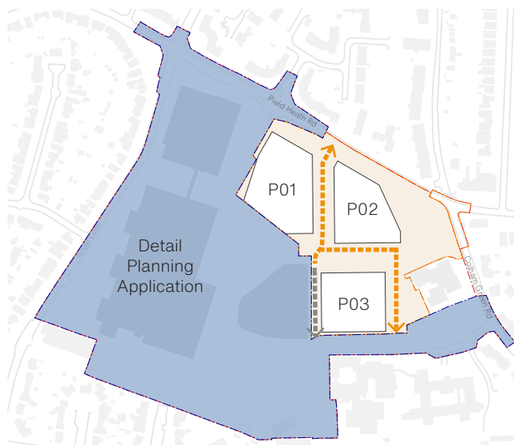


FIGURE 2.7 Emergency Routes

Emergency Routes

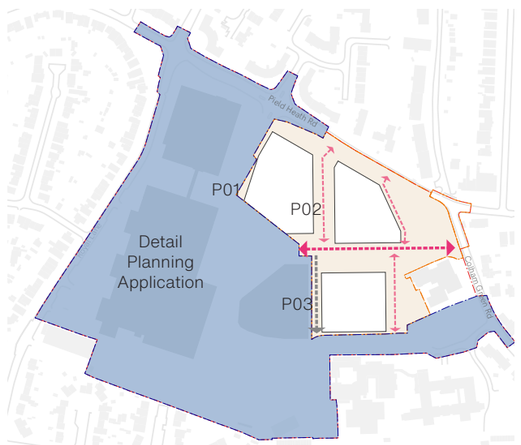


FIGURE 2.8 Pedestrian Routes

Pedestrian Routes

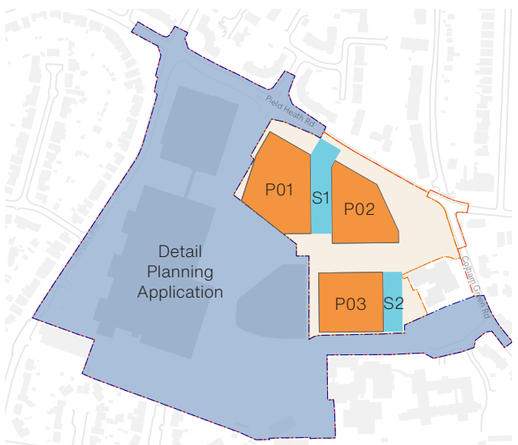


FIGURE 2.9 Car Parking

On-street Public & Visitor Car Parking S1 & S2

Private Residents Car Parking within Plots

Street S1: Vehicular Route

S1 is identified on Parameter Plan 07 (Proposed Access and Circulation). This street, together with S2, will be the principal means of servicing the development. (Refer to Figure 2.10)

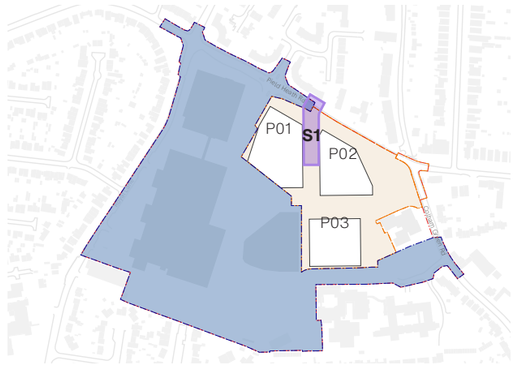


FIGURE 2.10 Key plan

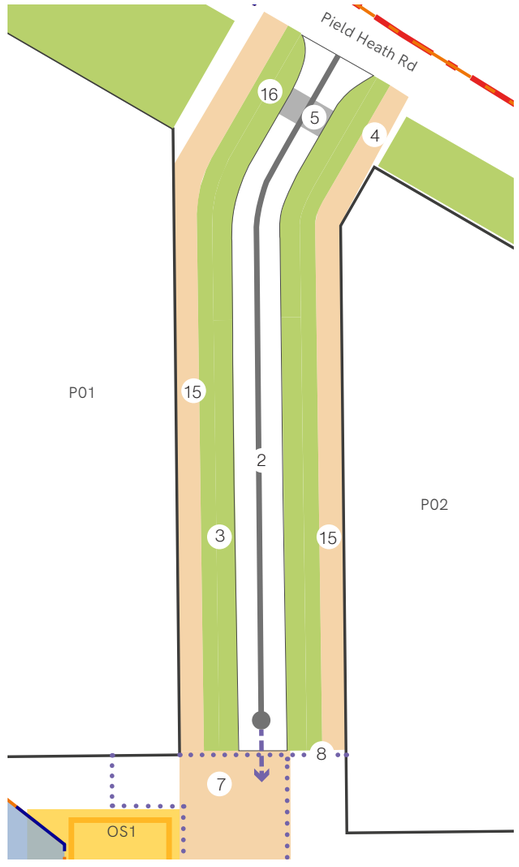


FIGURE 2.11 Plan

Layout

1. The street **must** be designed with 3 differentiated sections: carriageway (Section A), landscape & parking strip (Section B) and pedestrian footpath (Section C). (Refer to Figure 2.11 and Figure 2.12)
2. Section A: The carriageway **must** be centred and 6m wide. (Refer to number 2 in Figure 2.11 and Figure 2.12)
3. Section B: A minimum 4m width strip must be provided on both sides of the street. It **should** contain trees, on-street parking, fixed furniture and street lighting. (Refer to number 3 in Figure 2.11 and Figure 2.12)
4. Section C: Pedestrian footpaths **must** be provided on both sides of the street with a minimum width of 2.5m. (Refer to number 4 in Figure 2.11and Figure 2.12)
5. A pedestrian crossing should be provided in proximity of building entrance to Plot P01 and P02.

Movement

6. Pedestrian movement and security **must** be prioritised. The design **should** avoid visually intrusive solutions, such as lifting barriers.
7. A turning head **must** be provided to allow vehicles up to 12m long to turn around in order to enter and exit from Pield Heath Rd.
8. Transition to OS1 **must** be flush to create a pedestrian-friendly connection. A Hostile Vehicle Mitigation line **must** be provided and **should** be integrated in the public realm design.

Pedestrian areas
Landscape, parking strips and fixed furniture area
Detail Planning Application

Streetscape

9. Any fixed furniture and street lighting **should** be located within Section B, and in accordance with entrances and pedestrian movement.
10. Section B **should** be predominantly green. Formal tree planting with regular planting distances **should** be provided on both sides of the road.
11. Changes of surface material from OS1 should be considered to distinguish the character of both spaces.
12. S1 should be constructed with an engineered asphalt carriage way, bordered by a min. 200mm wide concrete kerb.
13. Associated pedestrian footways should be constructed of concrete paving slabs.
14. Tree planting zones should be defined by kerb and shall be graded to provide for rainwater harvesting.

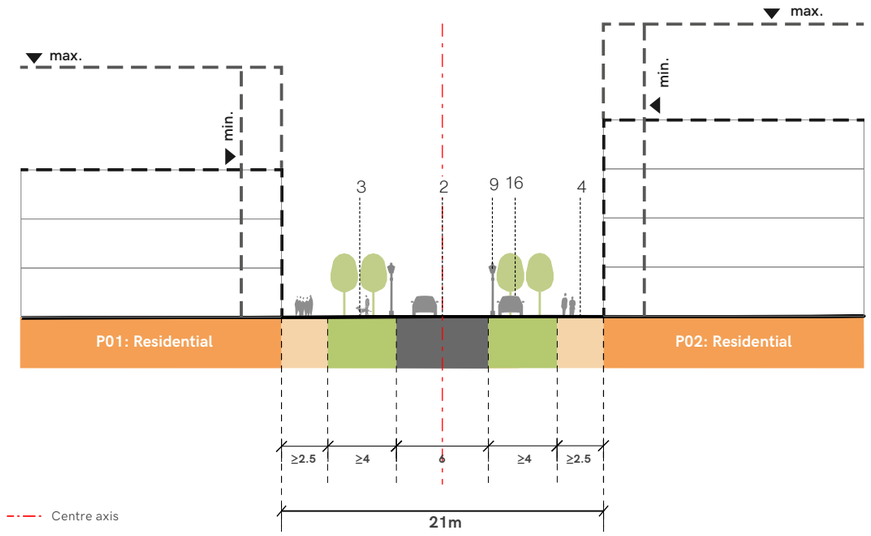


FIGURE 2.12 Mandatory Section (P01 - P02)

Access & Parking

15. Vehicle entrances to the parking within Plots 01 and 02 **must** be provided from S1. There **should** be an offset between facing entrances, and they **should** be placed at a reasonable distance from Pield Heath road to avoid any interaction between car park accesses and vehicle movements to/from Pield Heath Road.
16. If necessary, on street parallel parking bays should be provided within Section B with planting breaks between them. Planting distances must not exceed 20m distance.
17. Parking bays **should** be clearly defined and of a distinct material to the carriageway in order to reduce apparent carriageway widths.
18. Trees **should not** be located in close proximity to vehicle manoeuvre zones to avoid limiting driver visibility.

Street S2: Vehicular Route

S2 is identified on Parameter Plan 07 (Proposed Access and Circulation). This street, together with S1, will be the principal means of servicing the development. (Refer to Figure 2.13)

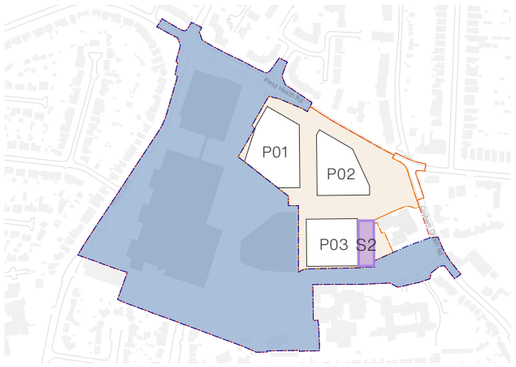


FIGURE 2.13 Key Plan

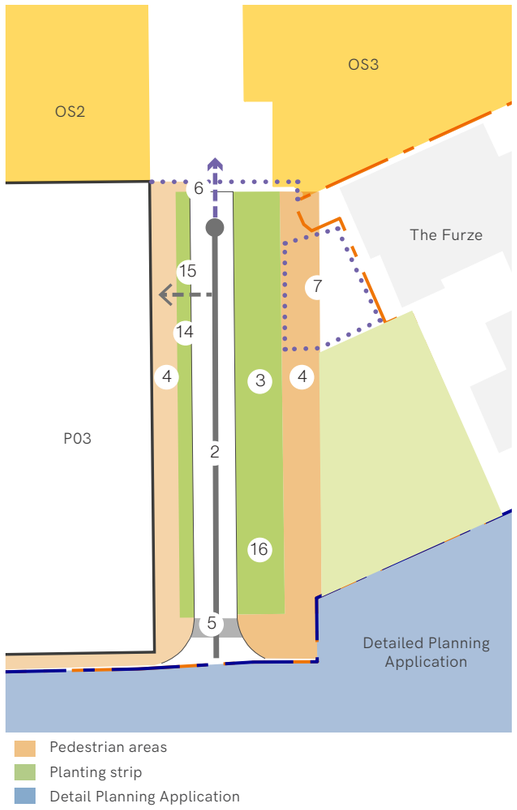


FIGURE 2.14 Plan

Layout

19. The street **must** be designed with 3 differentiated sections: carriageway (Section A), landscape & parking strip (Section B) and pedestrian footpath (Section C). (Refer to Figure 2.14 and Figure 2.15).
20. Section A: The carriageway **must** be centred and 6m wide. (Refer to number 2 in Figure 2.14 and Figure 2.15)
21. Section B: A strip **must** be provided on the east side of the street with a minimum width of 5m. It **should** contain trees, on-street parking, fixed furniture and street lighting. (Refer to number 3 in Figure 2.14 and Figure 2.15)
22. Section C: Pedestrian footpaths **must** be provided on both sides of the street with a minimum width of 2.5m. (Refer to number 4 in Figure 2.14 and Figure 2.15)
23. A pedestrian and cycle crossing should be provided in close proximity to the Southern Service Route.

Movement

24. Pedestrian movement and security **must** be prioritised. The design **should** avoid visually intrusive solutions, such as lifting barriers.
25. A turning head **must** be provided to allow vehicles up to 12m long to turn around in order to enter and exit from southern service route.
26. Transition to OS2 and OS3 **must** be flush to create a pedestrian-friendly connection. A Hostile Vehicle Mitigation line **must** be provided and **should** be integrated in the public realm design.

Streetscape

27. Any fixed furniture and street lighting **should** be located within Section B, and in accordance with entrances and pedestrian movement.
28. Section B **should** be predominantly green. Formal tree planting with regular planting distances **should** be provided on both sides of the road.
29. Changes of surface material from OS2 should be considered to distinguish the character of both spaces.
30. S2 should be constructed with an engineered asphalt carriage way, bordered by a min. 200mm wide concrete kerb.
31. Associated pedestrian footways should be constructed of concrete paving slabs.
32. Tree planting zones should be defined by kerb and shall be graded to provide for rainwater harvesting.

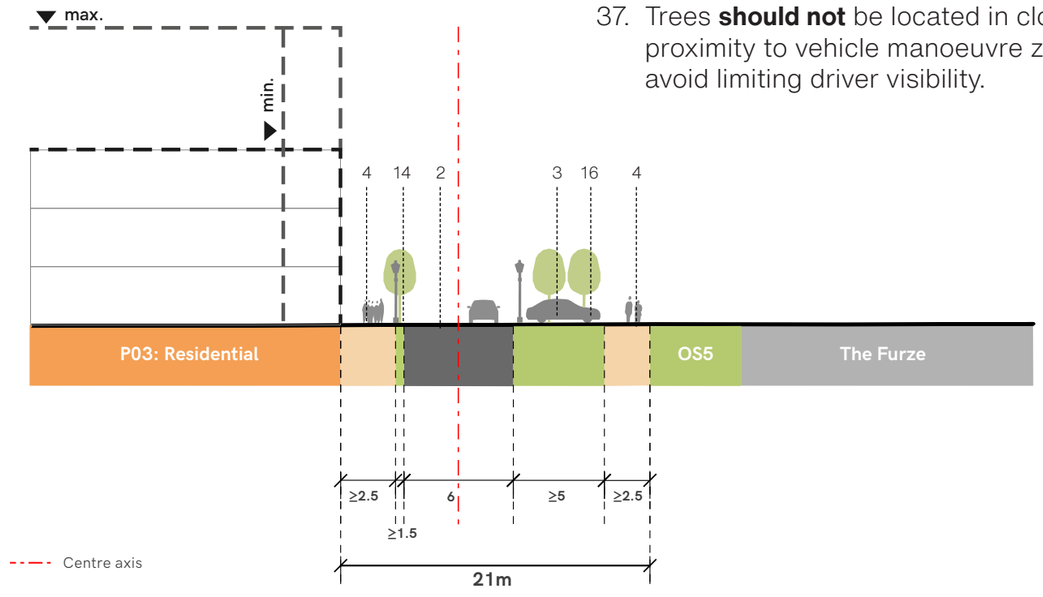


FIGURE 2.15 Mandatory Section (P01 - Furze)

Access & Parking

33. A vehicle entrance to the parking within Plot 03 **must** be provided from S2. It **should** be placed at a reasonable distance from the Southern Service Route to avoid interaction between the car park access and vehicle movements to/from the Southern Service Route.
34. If necessary, on street parallel parking bays should be provided on Section B with planting breaks between them. Planting distances must not exceed 20m distance.
35. If necessary, on street parking bays should be provided on the east side of the street and within Section B with planting breaks between them. Parking bays could be parallel, diagonal or perpendicular. Planting distances must not exceed 20m distance.
36. Parking bays **should** be clearly defined and of a distinct material to the carriageway in order to reduce apparent carriageway widths.
37. Trees **should not** be located in close proximity to vehicle manoeuvre zones to avoid limiting driver visibility.

Street S3: Secondary Pedestrian Route / Emergency & Fire Access Route

S3 is identified on Parameter Plan 09 as a street with pedestrian priority that allows for emergency and fire access.

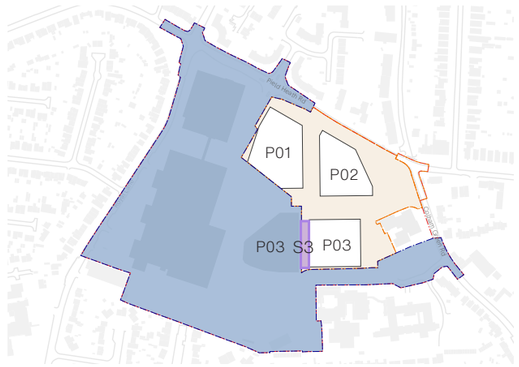


FIGURE 2.16 Key Plan

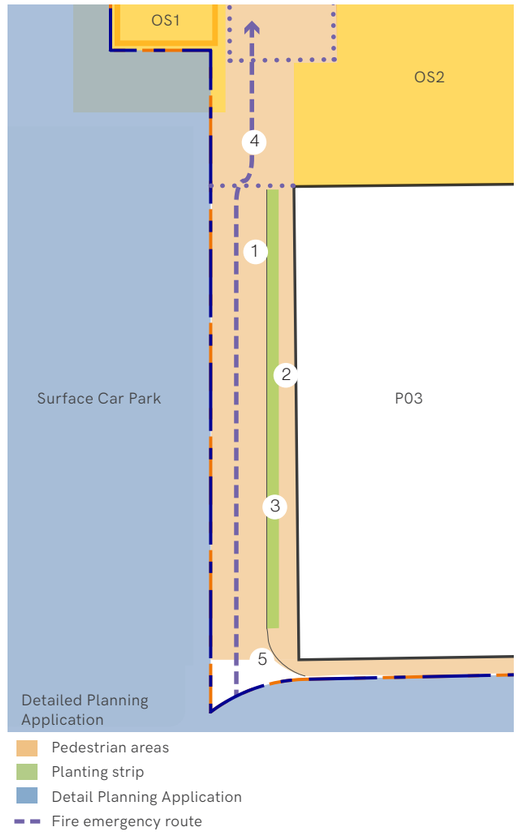


FIGURE 2.17 Plan

Layout

38. An obstacle-free area with a minimum width of 3.7m must be provided to allow flow of emergency vehicles.(Refer to code 2.3.37)
39. A minimum 2.5m wide dedicated footpath **must** be provided next to P03 and a notional 1.0m service strip on the other side of the carriageway. (Refer to code 2.2.37 and to Figure 2.16).
40. A minimum 1.5m width green strip must be provided to the east side of the street. It should be predominantly green to create a buffer from the carriageway and the car parking. It should contain trees, fixed furniture and street lighting.

Movement

41. Transition to OS1 and OS2 **must** be flush and treated as a continuous public space.
42. A Hostile Vehicle Mitigation line **must** be provided to the southern edge of the street. It **should** be integrated in the public realm design and minimised to avoid visual clutter.

43. Streetscape

44. Formal tree planting with regular planting distances **should** be provided along the green strip.
45. Flush details **should** be used along the length of the street and in the connections to the adjacent public spaces, in order to avoid trip hazards.
46. S3 should have tactile surfaces to segregate path routes and functions and act as a warning device for people with sight loss and learning difficulties; it will be designed to be safe and inclusive for all pedestrians.
47. The shared surface should be constructed with informally demarcated (traffic) zones through surface treatment or contrasting pavement/material selection.
48. Planting, trees and furniture elements should further assist in delineation of emergency route zones.

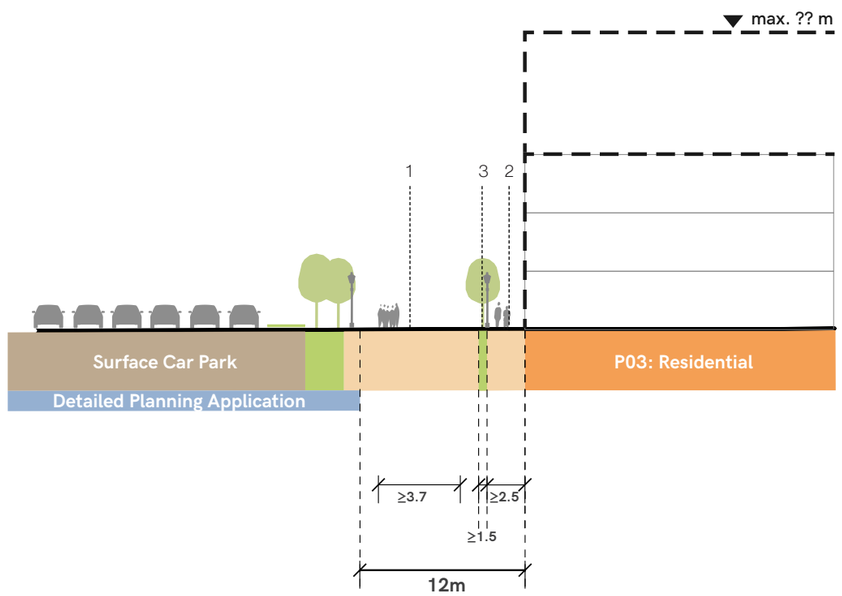


FIGURE 2.18 Mandatory Section (P03 - P04)

Open Space OS1

OS1 is identified on Parameter Plan 06 (Proposed Open Space). It is the main civic square of the development. (Refer to Figure 2.19)

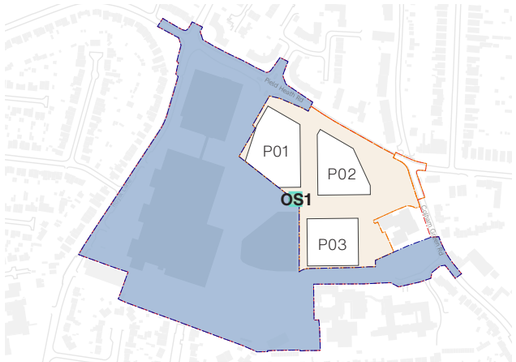


FIGURE 2.19 Key Plan

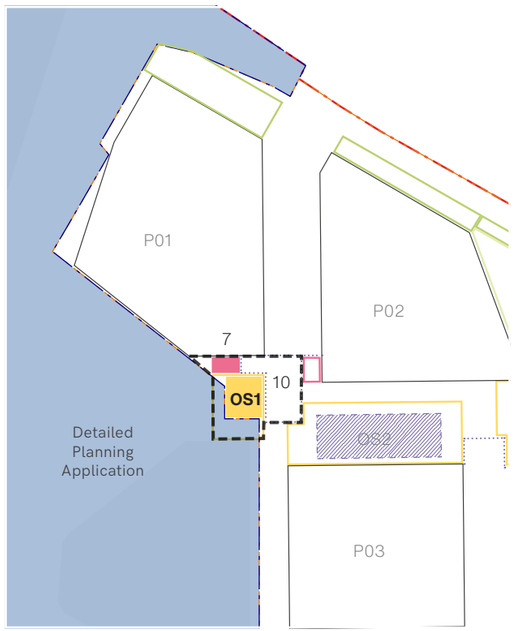


FIGURE 2.20 Illustrative Plan

49. OS2 should be designed as a multifunctional space that accommodates the main civic square of the development.
50. The design should be primarily hard landscape but should contain greenery in the form of hedges, standard trees or water features.
51. Unifying surface treatment should be used to define the square.
52. Unifying tree planting should be used to define the square.
53. Free pedestrian movement must be allowed in the entirety of OS1.
54. Views from the main pedestrian routes to the Furze and the Hospital entrance should be considered. The design should carefully consider tree locations and appropriate canopy heights.
55. Detailed design of the square should take into account the key routes through the space and create opportunity for spill out areas from adjacent cafes and town centre use spaces (Refer to Figure 2.2 Ground Floor Land Use Diagram)
56. A range of seating and street furniture must be integrated within the public realm design.
57. Transition to Central Green Space on the west and OS2 **must** be flush and finishes should be continuous to create a cohesive public realm character.
58. Service vehicles' turning head must me integrated in OS1 design.

Open Space OS2

OS2 is identified on Parameter Plan 06 (Proposed Open Space). It will accommodate an open space for the residents, including a children play area. (Refer to Figure 2.21)

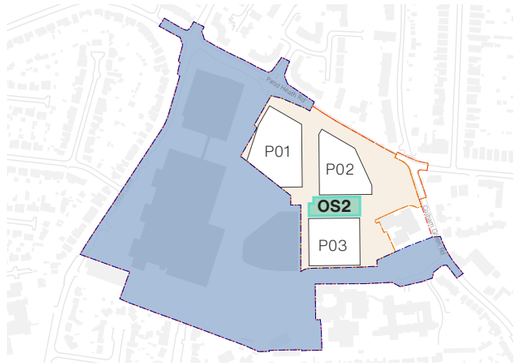


FIGURE 2.21 Key Plan

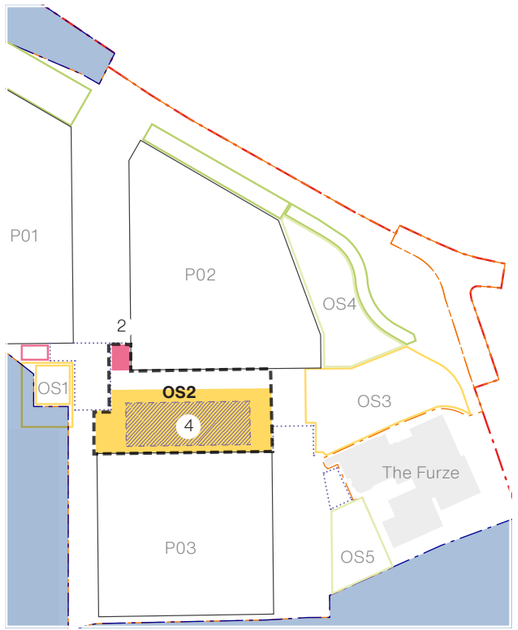


FIGURE 2.22 Illustrative Plan

59. OS2 should be designed as a multifunctional space that accommodates an open area for the community, including a children play space and spill out of town centre uses.
60. Detailed design of OS2 should take into account the key routes through the space and create opportunity for spill out areas from adjacent cafes and town centre use spaces.
61. Children's play area in OS2, in conjunction with play space in OS4, must meet GLA Population Yield Calculator that indicates that each child must have 10sqm of play space.
62. The children play area should be located south of the pedestrian route indicated in Parameter Plan 07 (Proposed Access and Circulation) and include permeable paving and grassland. (Refer to Play Space section)
63. Views from the main pedestrian routes to the Furze and the Hospital entrance should be considered. The design should carefully consider tree locations and appropriate canopy heights.
64. Seating and street furniture must be provided along paths and children play space, respecting obstacle free pedestrian flows.
65. Transition to OS1 and OS3 **must** be flush and finishes should be continuous to create a cohesive public realm character. Surface materials should differ from S1, S2 and S3 in order to create a distinct character.

Open Space OS3

OS3 is identified on Parameter Plan 06 (Proposed Open Space). It is the main pedestrian access to the development from Colham Green Road and a green buffer for the Furze building. (Refer to Figure 2.23)

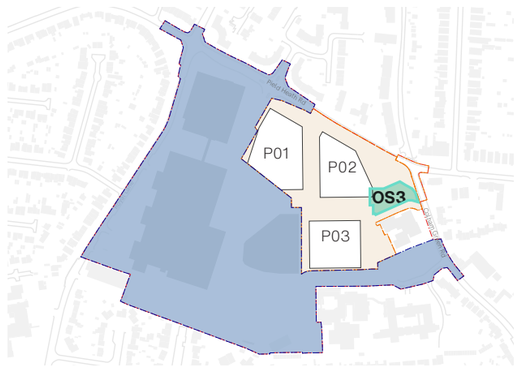


FIGURE 2.24 Key Plan

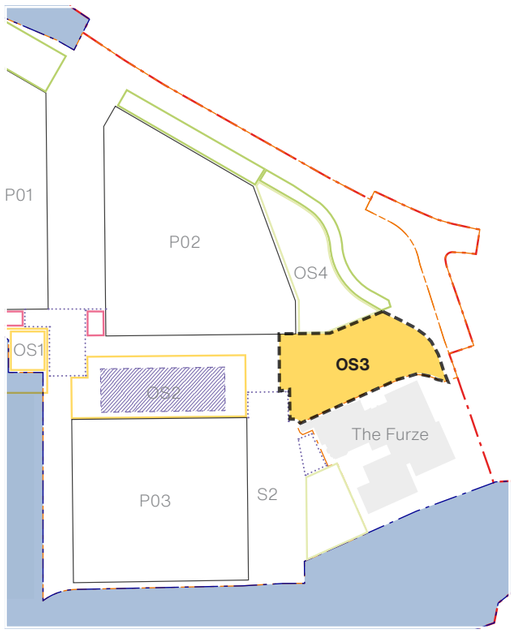


FIGURE 2.23 Illustrative Plan

66. OS3 should be designed as the main pedestrian access of the development from the East, connecting to the Furze, the hospital and the residential plots.
67. The design should ensure that a permeable pedestrian flow through OS3 is enabled prioritising the east-west connection.
68. The main entrance to the Furze must be celebrated and clearly identified with easy access. The adjacent space to the main entrance must be designed free of obstacles.
69. Views from the main pedestrian routes to the Furze and the Hospital entrance should be considered. The design should carefully consider tree locations and appropriate canopy heights.
70. Cycle stands should be provided in close proximity to Colham Green Road in order to facilitate cyclists demounting when entering the development.
71. A range of seating and street furniture must be integrated within the public realm design.
72. Transition to OS2 and OS4 **must** be flush and finishes should be continuous to create a cohesive public realm character. Surface materials should differ from S2 & Colham Green Road in order to create a distinct character.
73. OS3 must contain informal children play space to meet GLA Population Yield Calculator that indicates that each child must have 10sqm of play space.
74. OS4 must be predominantly green. It should include a multifunctional lawn that accommodates children play space and a green area for the community. Design also should include a variety of trees, plants and seating areas.

Open Space OS4

OS4 is identified on Parameter Plan 06 (Proposed Open Space). It is a green recreational space with an integrated play space. (Refer to Figure 2.25)

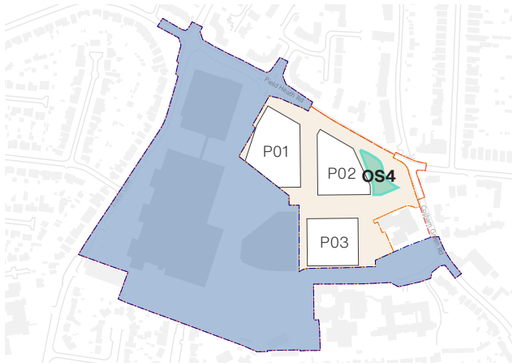


FIGURE 2.25 Key Plan

FIGURE 2.26 Illustrative Plan

75. Views to the Furze from Pield Heath Road and from the main pedestrian routes should be considered in the design and location of trees and appropriate canopy heights.
76. The north and east edges of OS4 should contain formal tree planting with regular planting distances alongside Pield Heath Road and Colham Green Road.
77. Children's play area in OS4, in conjunction with play space in OS2 and informal play spaces in OS3 and OS5, must meet GLA Population Yield Calculator that indicates that each child must have 10sqm of play space.
78. The children play area should be located south west of the space, away from existing vehicular roads, in Parameter Plan 07 (Proposed Access and Circulation). Refer to Play Space section
79. A 6m wide pedestrian & cycle corridor should be safeguarded along Pield Heath Road and part of Colham Green Road in order to accommodate pedestrians and cyclists. Refer to code 2.2.36.
80. A range of seating and street furniture must be integrated within the public realm design of OS4 along paths, the children play space and the green area, respecting obstacle free pedestrian flows.
81. Changes of surface material from OS4 should be considered to distinguish the character of both spaces.
82. SuDs rain gardens should be provided within the green area as part of the drainage strategy.
83. The existing trees and vegetation in OS4 must be preserved and integrated into the landscape design.

Open Space OS5

OS5 is identified on Parameter Plan 06 (Proposed Open Space). It is a green open space that protects and enhances the existing vegetation and trees, as part of the River Pinn ecosystem. (Refer to Figure 2.28)

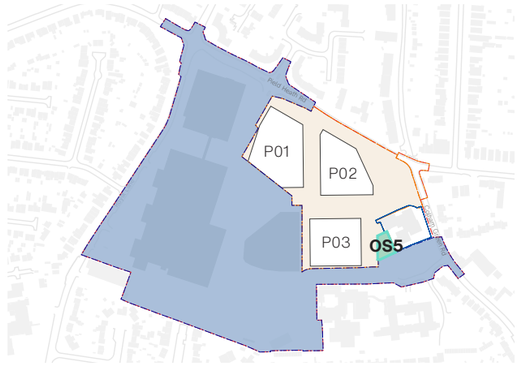


FIGURE 2.28 Key Plan

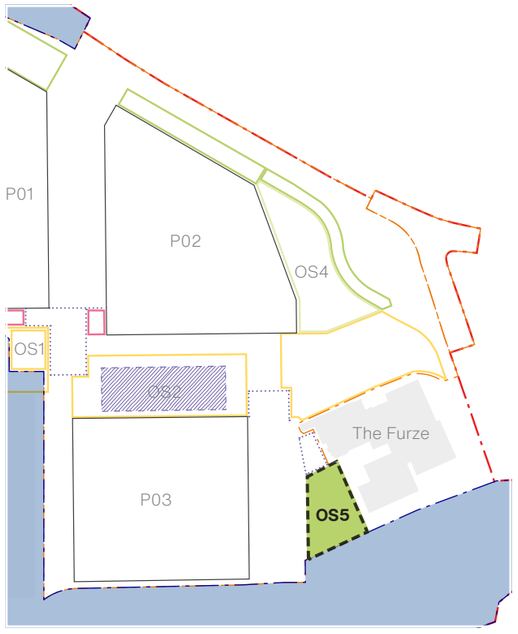


FIGURE 2.27 Illustrative Plan

84. The design of OS5 should support the natural character of the open space. Design should include a variety of trees and plants, as well as informal children play space and seating areas.
85. The existing trees and vegetation in OS5 must be preserved and integrated into the landscape design.
86. There should be a seamless transition between the Detailed Planning Application area and the Outline Planning Application area of the green space, achieving a cohesive landscape throughout.
87. OS5 must contain informal children play space to meet GLA Population Yield Calculator that indicates that each child must have 10sqm of play space.
88. A range of seating and street furniture must be integrated within the design of OS5 along paths and the green area, respecting obstacle free pedestrian flows.
89. SuDS rain gardens and ponds integrated in the green area should be provided, also as a recreational feature. The location and size must be coordinated with the drainage strategy.

Green Buffer (Pield Heath Road)

Green Buffer (Pield Heath Road) is identified on Parameter Plan 06 (Proposed Open Space). It will serve as a green buffer to Plots P01, P02 and OS4, while contributing in defining the character of Pield Heath Road. (Refer to Figure 2.29)

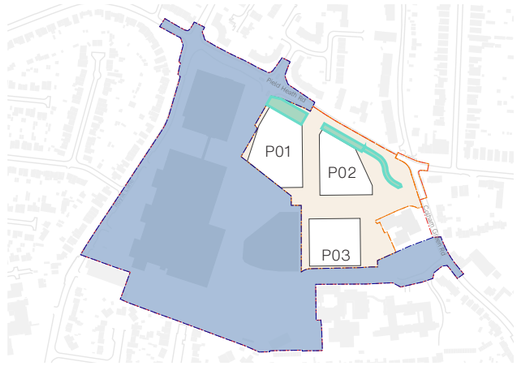


FIGURE 2.29 Key Plan

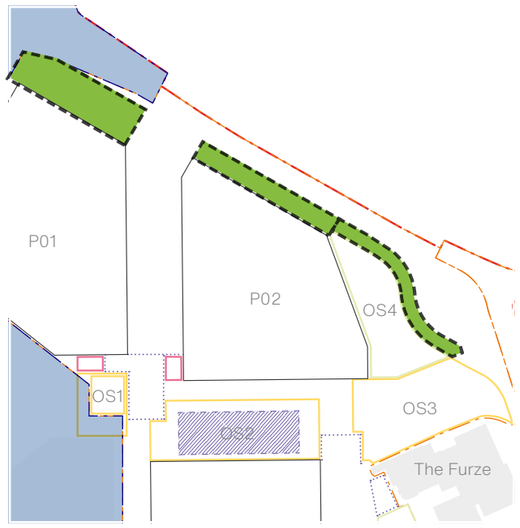


FIGURE 2.30 Illustrative Plan

90. The existing trees in the Green Buffer must be preserved and public realm design must be integrated with Pield Heath Road.
91. Formal tree planting at regular distances should be provided alongside Pield Heath Road to create a continuous tree line in conjunction with tree in the junction with Colham Green Road.
92. A 6m wide pedestrian & cycle corridor should be safeguarded along Pield Heath Road and part of Colham Green Road in order to accommodate pedestrians and cyclists. Refer to code 2.2.36.
93. Cycle stands should be provided in close proximity to Hospital Way in order to facilitate cyclists demounting when entering the development.
94. A range of seating and street furniture must be integrated within the public realm design of the Green Buffer along paths and the green area, respecting obstacle free pedestrian flows.
95. Transition to S1 **must** be flush and finishes should be continuous to create a cohesive public realm character.
96. SuDs rain gardens should be provided within the green area as part of the drainage strategy.

Play Space

2.2.1 Play space provision **should** be provided in accordance with the Development Specification Framework and the following policies:

- London Plan Policy S4.
- Policy DMHB 19 'Play Space' of the Local Plan: Part 2 - Development Management Policies (2020)
- Policy DMCI 5 'Children's Play Areas' of the Local Plan: Part 2 - Development Management Policies (2020)

2.2.2 The play spaces **should** include:

- Doorstep play space for children under 5 within 100m of dwellings (residences with private/ semi-private gardens are excluded from the requirement);
- Local play space for children aged 5-11 within 400m of dwellings;
- Neighbourhood and youth play space for children aged 12+ within 800m of dwellings;
- Open space that would be playable for children of all ages and their families.

2.2.3 Playable space **should** be provided within residential courtyards where necessary to complement the play spaces in the public realm.

2.2.4 Play space **should** be formally provided where possible but if not, informal play space is encouraged as well.

2.2.5 Public realm areas **should** include 'playable space' providing settings and elements as play incentives rather than any particular designated 'playground' with prescriptive equipment.

2.2.6 Playable space **should** be non-prescriptive about usage by age groups and will aim to invite, encourage and challenge the ability level of all target ranges.

2.2.7 Play opportunities **should** cater for children of all abilities, however dedicated 'disabled play equipment' shall be avoided.

2.2.8 Areas where children may play **should** have surface treatment to accommodate anticipated usage: e.g. grass for fields and low use; bark or grit in medium usage areas; wet-pour (rubber or asphalt) for high intensity use.

2.2.9 Play space **should** provide seating.

2.2.10 Unnecessary segregation of play space from the rest of the public realm, through railing etc., **should** be avoided.

FIGURE 2.31 Example of doorstep play space for children under 5

FIGURE 2.33 Example of local, neighbourhood and youth play space

FIGURE 2.32 Example of informal play space

Part 3

BUILDING DESIGN GUIDELINES

3.0 Form and scale

The Building Design Guidelines aim to bring together a set of design guidelines that ensures site-wide visual and spatial harmony to the Masterplan. They are not intended to inhibit creative expression nor encourage homogeneity, but shall be read as a breakdown of architectural elements with generic site-wide guidelines that seek to ensure visual cohesion while permitting appropriate architectural expression.

Frontages

General

3.0.1 All buildings design **should** aim to create safe and active public realm with all buildings addressing the open space positively.

3.0.2 Buildings **must** be designed to meet site and context design objectives, providing edges or enclosure to streets and open space, creating linkages as well as framing or terminating the views and meeting the corner conditions shown

3.0.3 Breaks in blocks **must not** create uncertainty about the status of private and public realm and **must** be designed to meet the criteria for residential privacy.

3.0.4 Where frontage setbacks are possible, frontage setbacks **must not** exceed 2m. (Refer to Figure 3.1)

3.0.5 Buildings **must** establish their frontage line from adjacent developments to create a common building line.

3.0.6 Buildings **must not** exceed the maximum envelope defined by the maximum Development Plots set in Parameter Plan 04 (Proposed Plots and Deviations) and the Maximum Building Height set in Parameter Plan 05 (Proposed Building Heights).

3.0.7 The minimum envelope that a building **must** occupy is defined by the deviations defined in Parameter Plan 04 (Proposed Plots and Deviations). All deviations are from the maximum development plot line to the inside.

3.0.8 Any deviation **must** be vertically aligned on these elevations and upper floors **must not** set back behind the Base.

Primary Frontage

3.0.9 Primary frontages **should** follow the strategy represented in Figure 3.1.

3.0.10 Primary frontages **must** be predominantly active and have a relationship with the public realm. Service access **must** be avoided on primary frontages.

3.0.11 On a primary frontage, no more than 1/3 of the ground floor **should** be taken up with refuse, car parking entrances, services entrances, cycle parking storage or blank walls.

3.0.12 Lobbies **should** be designed to have a direct relationship with the adjacent public realm.

Secondary Frontage

3.0.13 Secondary frontages **should** follow the strategy represented in Figure 3.1

3.0.14 On a secondary frontage, no more than 1/2 of the ground floor **should** be taken up with refuse, car parking entrances, services entrances, cycle parking storage or blank walls.

3.0.15 Secondary frontages to Pield Heath Road **should** strategically located uses within the 1/2 active frontage of the ground floor to ensure a successful, lively and secure street environment.

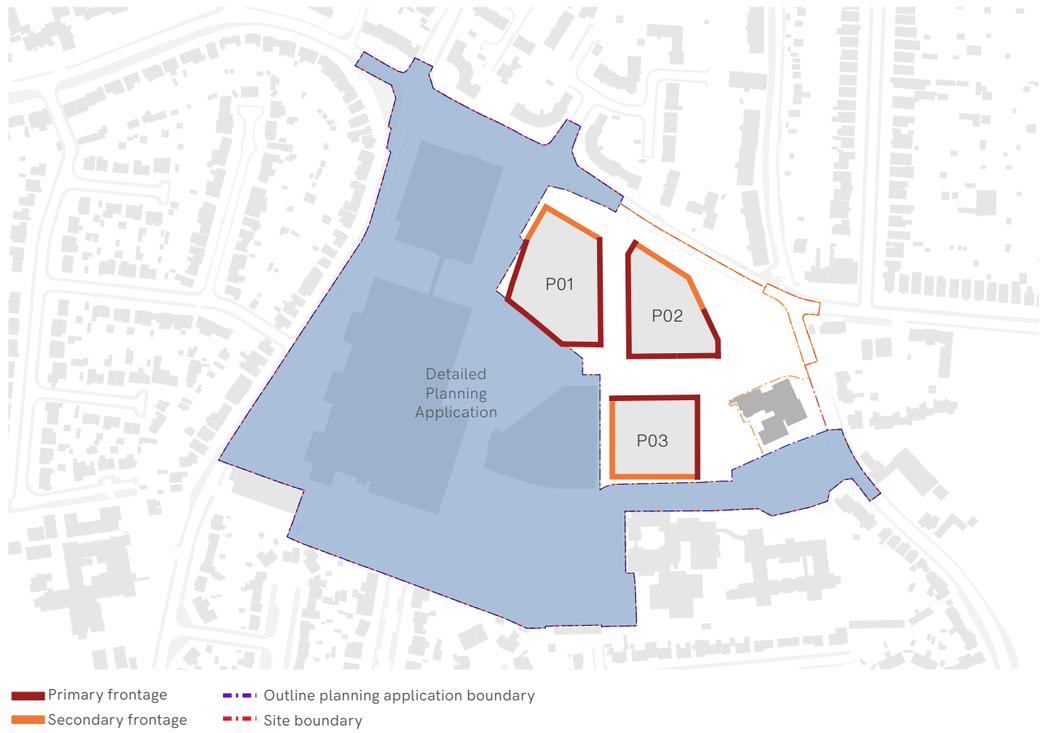


FIGURE 3.1 Building frontage guidance

Massing and articulation

General

3.0.16 To create a building massing that responds to the existing context and optimise the potential of the Site, building height **should** increase towards the centre of the site. (Refer to Figure 3.2)

3.0.17 The massing and form of the buildings in vicinity of The Furze (Grade II Listed Building) **should** be carefully designed to ensure views towards it are enhanced and overall to respect its setting.

3.0.18 The level of articulation and architectural detail of building form and façades **should** read from long, medium and short distances.

3.0.19 Wherever possible development plots **should** be arranged to create a courtyard or yard space within the plot.

Set backs

3.0.20 Where steps in height are required within and between blocks they **should** be deliberate and purposeful. (Refer to Figure 3.3)

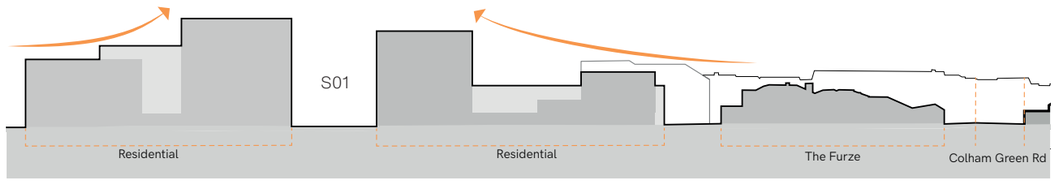


FIGURE 3.2 Building massing diagram

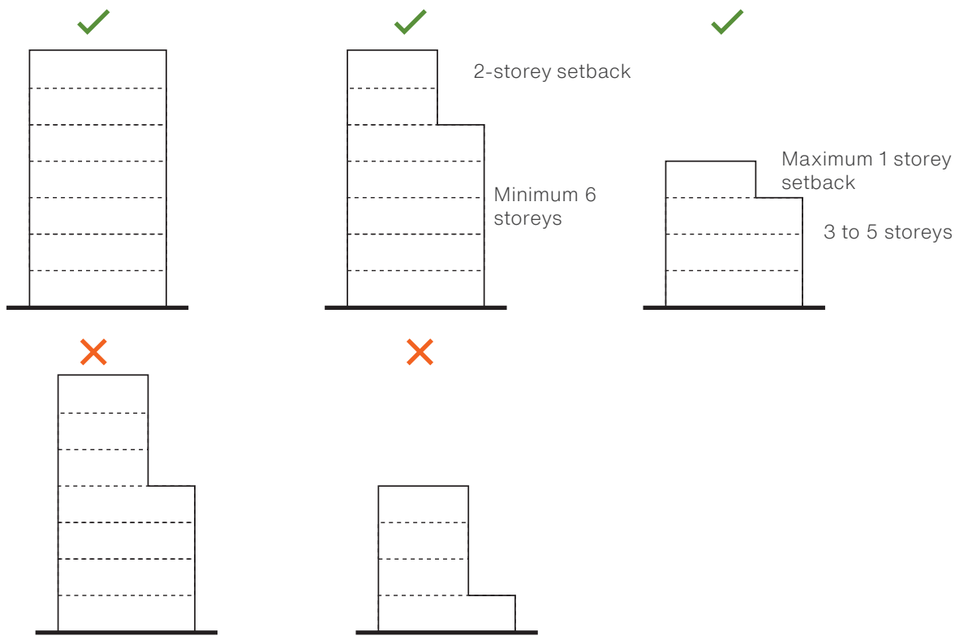


FIGURE 3.3 Buildings setbacks

Privacy

3.0.21 Distance between habitable rooms **must not** be less than 21m. (Refer to Figure 3.4).

3.0.22 The residents' privacy **should** be adequately protected through design solutions such as:

- Use of screens, planting, angled windows or obscure glazing to reduce overlooking.
- Careful sizing and placement of windows to minimise habitable rooms directly overlooking each other.

3.0.23 Distance between blank walls and habitable rooms **must not** be less than 15m. (Refer to Figure 3.5)

Roof Form

3.0.24 Articulation in roof forms **should** be integral to the built form.

3.0.25 Elevations **should** have a predominantly consistent and simple roof line.

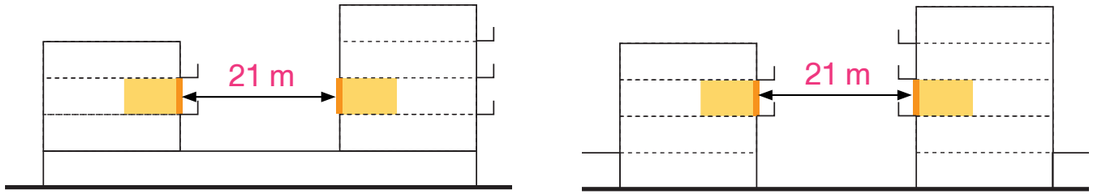


FIGURE 3.4 Minimum 21m setback to all habitable rooms

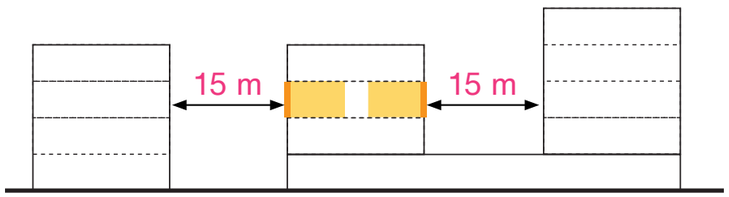


FIGURE 3.5 Minimum 15m setback between blank walls and habitable rooms

Access

General

3.0.26 The design of buildings' access **must** comply with Accessible Hillingdon Supplementary Planning Document (September 2017) or the revised versions of this document.

3.0.27 The design and location of residential and commercial access **should** create a positive sense of destination and wayfinding across the site.

3.0.28 Access to residential and public and town centre uses **should** be located where animation and activity is desired.

3.0.29 Access to car park and refuse areas **must** be in accordance with Code for Sustainable Homes standards.

3.0.30 Access to refuse stores and substations which need to be directly from the public realm **must** be integrated into the facade design.

3.0.31 Access to public and town centre uses **must** be directly from the public realm.

3.0.32 Access to residential **must** follow the strategy represented in Figure 3.6.

3.0.33 All residential primary access at ground floor **must** be directly from the public realm.

3.0.34 Residential communal core entrances **must** be accessed directly from the public realm and not via a podium or courtyard space.

3.0.35 The southern facade of PO3, **must not** have any residential entrances or town centre uses given the flood risk.

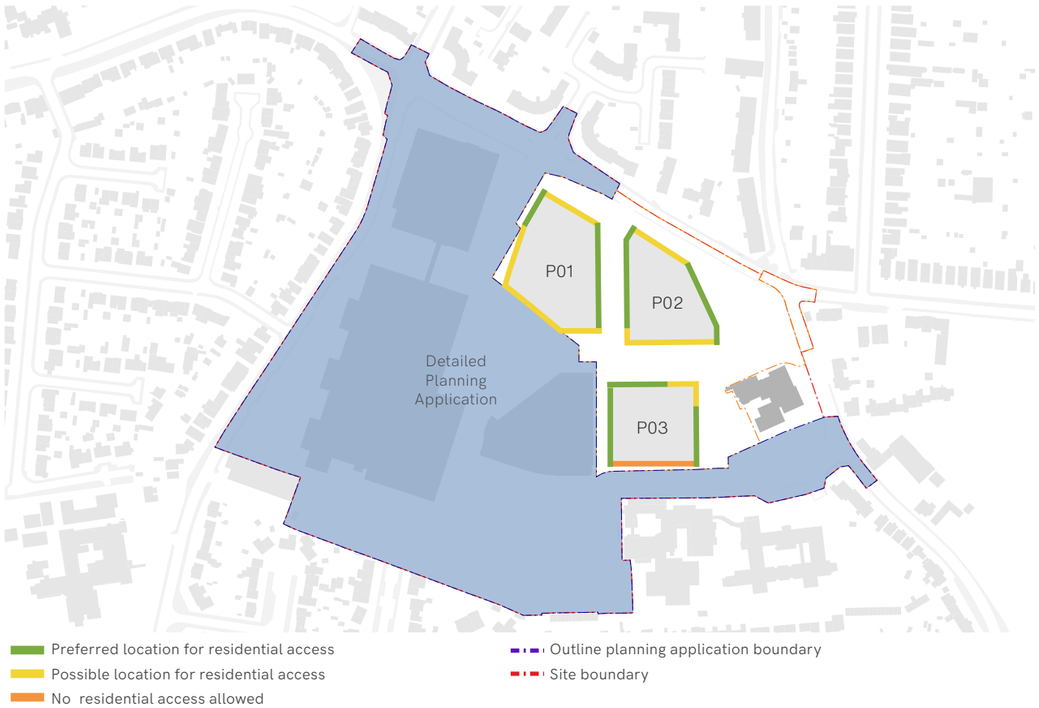


FIGURE 3.6 Location of residential access

Inclusive Design

The following summary is intended to establish the principles for inclusive design that will inform the design process for the future development of the site. The development's intention is to be designed to achieve the highest access standards possible and not just meet the minimum as set out by Building Regulation Standards. The development will be designed to incorporate the following access principles:

- To meet local, regional and national access and inclusive design policies;
- To ensure that appropriate access standards are met at the outset and as part of mainstream, inclusive design wherever possible;
- To design inclusively, which means designing beyond the minimum requirements of the Building Regulations Part M to ensure that all people, regardless of age, sex or ability can use and enjoy the built environment;
- To address the anticipated, substantial increase of older people in proportion to the working-age population in the near future and their needs;
- To meet the aims of the Equality Act, where applicable;
- To follow design guidance given in relevant British Standards and other currently published good practice guidance about meeting the needs of disabled people; and
- To use the Guidance for Lifetime Neighbourhoods , Lifetime Homes standards and Accessible Hillingdon Supplementary Planning Document as a key reference for the project, ensuring that physical barriers to access for all people, including older and disabled people and children are avoided, providing a welcoming and comfortable environment that serves its users.

The Standards

The main access standards and regulations referred to will be:

- Housing Supplementary Planning Guidance, London Plan 2016 Implementation Framework, Mayor of London, March 2016;

3.0.36 The Building Regulations 2010 (As amended), Approved Document B (Fire safety) – Volume 1: Dwellings, and Volume 2: Buildings other than dwellings (2019 edition incorporating 2020 amendments);

- The Building Regulations 2010 (As amended), Access to and Use of Buildings, Approved Document M – Volume 1: Dwellings (2015 edition incorporating 2016 amendments);
- The Building Regulations 2010 (As amended), Access to and Use of Buildings, Approved Document M – Volume 2: Buildings other than dwellings (2015 edition incorporating 2016 and 2020 amendments);
- The Building Regulations 2010, Protection from falling, collision and impact, Approved Document K (1998 edition incorporating 2000, 2010 and 2013 amendments), HMSO, 2013;
- British Standard 8300:2009 (Amended 2010) Design of Buildings and their Approaches to Meet the Needs of Disabled People - Code of Practice, British Standards Institution, 2010;
- The Building Regulations 2010 (As amended), Security, Dwellings, Approved Document Q (2015 edition);
- Accessible Hillingdon Supplementary Planning Document, London Borough of Hillingdon, September 2017.
- Mayor's Accessible London (SPG)(2014)

3.1 Layout

General Guidance

Residential Standards and Guidance

Diverse housing typologies, ranging from urban townhouses to apartment buildings up to eight floors, will create a diverse residential community across the site.

3.1.1 All proposals **must** adhere to all applicable national and London-wide design guidance, including but not limited to the following (subject to future revisions applicable at the time of the Reserved Matters Application):

i. Technical housing standards - nationally described housing standard (NDSS) by MHCLG;

ii. The London Plan Guidance (LPG);

iii. Good Quality Homes for All Londoners SPG;

iv. Building Regulations.

- The Future Homes Standard
- Future Buildings Standard

Residential Layout

3.1.2 All new homes shall be designed in line with the Good Quality Homes for All Londoners SPG.

3.1.3 Residential layout **must** follow Hillingdon LPP2, London Plan Policy H6 and The Mayor Housing SPG.

3.1.4 Housing developments **should** maximise the provision of dual aspect units into building design. (Refer to Figure 3.7)

3.1.5 Single aspect units **should** only be as far as possible and only acceptable if they are proven to be of high quality and in response to podium level car parks. (Refer to Figure 3.7)

3.1.6 All new homes **should** be designed to Accessible Hillingdon Supplementary Planning Document (September 2017) with 10% for Wheelchair.

3.1.7 As set out in the Good Quality Homes for All Londoners SPG, the number of dwellings accessed from a single core **should not** exceed eight per floor.

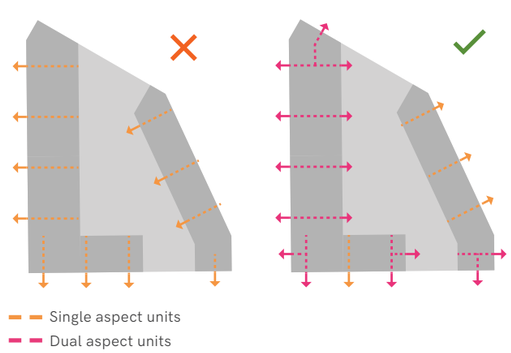


FIGURE 3.7 Residential layout guidance

Residential Amenity Spaces

General Guidances

3.1.8 Residential amenity space **must** be provided by private open space at podium/ ground level, balconies, terraces, rooftops or winter gardens. (Refer to Figure 3.9)

3.1.9 Residential amenity space **should** be provided in accordance with the London Housing SPG.

3.1.10 Terraces and green roofs **must** be encouraged. Refer to section 4.1 for guidance on intensive and extensive green roofs.

3.1.11 Small playable space **should** be provided within courtyards when possible.

3.1.12 All dwellings with ground floor habitable rooms and front doors accessed directly from the public realm **must** have a privacy zone of 3m depth measured from the back of the pavement to the building line.

3.1.13 Rooftop amenity spaces in form of communal, private or public terraces **must** be encouraged.

3.1.14 Design of first floor flats **must** favour private amenity space on podium instead of balconies.

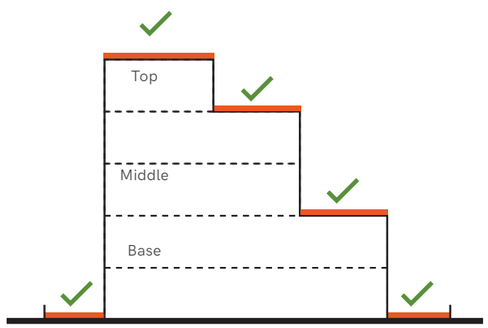
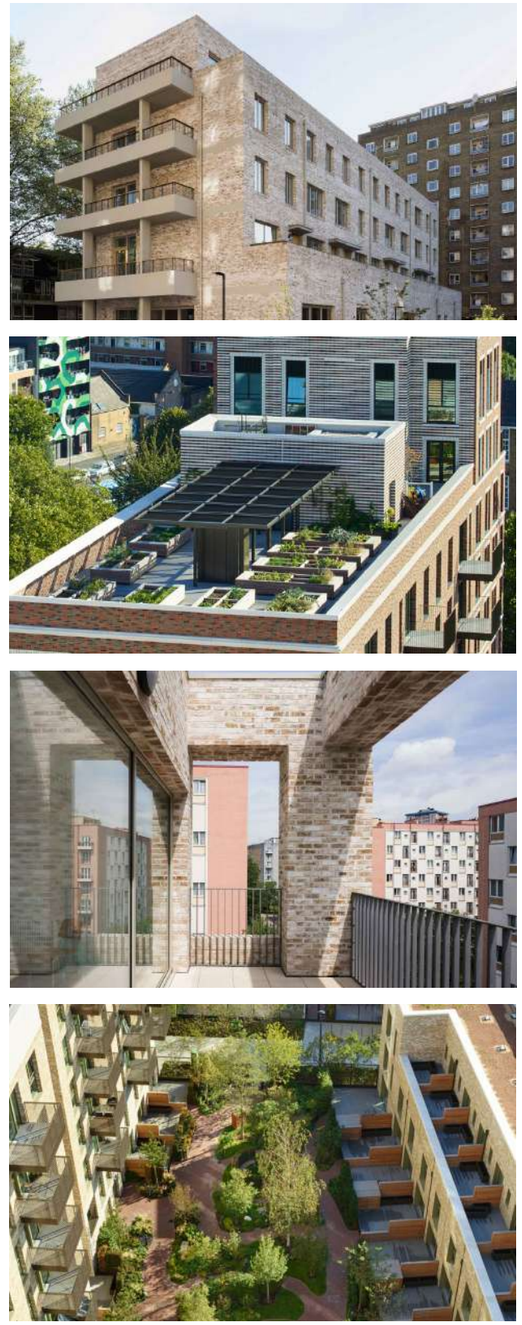


FIGURE 3.8 Section showing where amenity space is permitted within the building design



Examples of private amenity space. References: Kirkfell Camden, South Gardens Elephant Park, Cowleaze Road, Caudale Camden.

Balconies

3.1.15 Balconies **must** be designed only as projecting, and **should** be fully integrated within the composition of the building and the architectural detail of the façades (Refer to Figure 3.10)

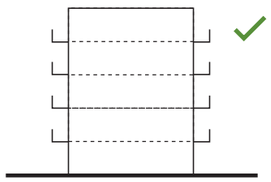
3.1.16 Balconies **should not** have open surfaces that allow water to drip through on those below.

3.1.17 There **must not** be corner balconies. (Refer to Figure 3.10)

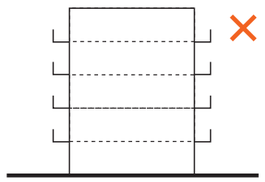
3.1.18 Balconies **should not** be less than 1.5m deep in accordance with Hillingdon Design and Accessibility Statement with a minimum of four square meters.

3.1.19 Balconies' form or materiality **should not** obstruct in any way the key vistas of the masterplan.

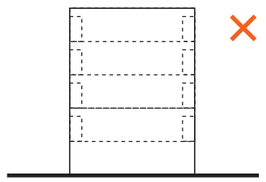
FIGURE 3.9 Examples of projecting balconies. Reference: Hendon Waterside, Kidderpore Green, Peabody Avenue, Grosvenor Waterside



Balconies must be designed as projecting balconies.



Balconies on first level must be avoided where possible. Refer to code 3.1.14



Recessed balconies must be avoided.

Example of balconies on first level.

Example of recessed balconies.

Example of corner balconies.

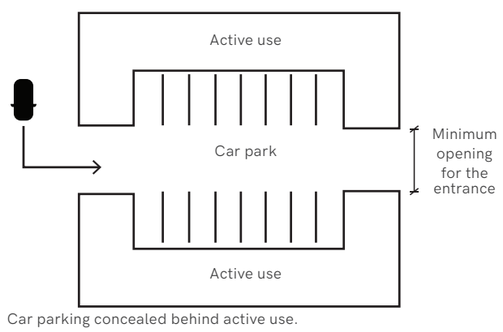
FIGURE 3.10 Location of balconies

Off-Street Parking

3.1.20 Car parking **should** be provided on plot to a ratio of (on average) 0.75 space per unit as set out in the Development Specification and Framework (DSF).

3.1.21 Off-street parking at and above ground level **should** avoid fronting directly onto the public realm, and be set back behind other permitted uses (Refer to Figure 3.11). Openings into the car park are only permitted for vehicular access and ventilation, subject to codes on Appearance in section 3.2.

3.1.22 Accessible car-parking spaces **should** be provided in accordance with the Accessible Hillingdon Supplementary Planning Document (September 2017) and GLA requirements. According to Hillingdon Local Plan.



Car parking concealed behind active use.

FIGURE 3.11 Off-street Car parking location diagram

Cycle Parking

3.1.23 Cycle parking provision **should** be in accordance with the standards set in the Development Specification and Framework (DSF).

3.1.24 Long stay cycle parking **must** be provided within each residential plot.

3.1.25 Cycle parking **should** be designed, either at entrance level or within podium/ basement, so that it is visible but unobtrusive.

3.1.26 Cycle parking **should** be designed and located to be easily accessible for users.

3.1.27 Individual or communal cycle storage outside the dwellings **must** be secure, sheltered and adequately lit, with convenient access to the street.

3.1.28 Cycle parking entrances and openings **should** be minimised as set out in section 3.0 (Frontages).

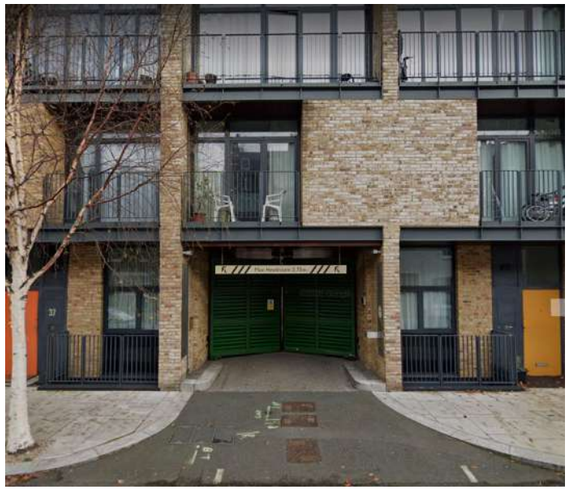
Car Parking Entrances

3.1.29 Car park entrances **should** be legible but recessive in the elevation design of the building frontage in which they are located.

3.1.30 Entrances to car parks beneath buildings, whether to basements or at-grade podium areas, **should** be carefully integrated with building design to minimise their potentially negative impact on streets and public realm for residents and visitors alike.

3.1.31 Car park entrances **must** be enclosed with louvred grilles or gates to minimise inward views when closed.

3.1.32 Entrances to car parks that are opposite to each other **should** be staggered to avoid conflict in traffic flow. (Refer to Figure 3.12)



Examples of car parking entrance alternated with active frontage. Reference: Rodmarton Street W1, London.

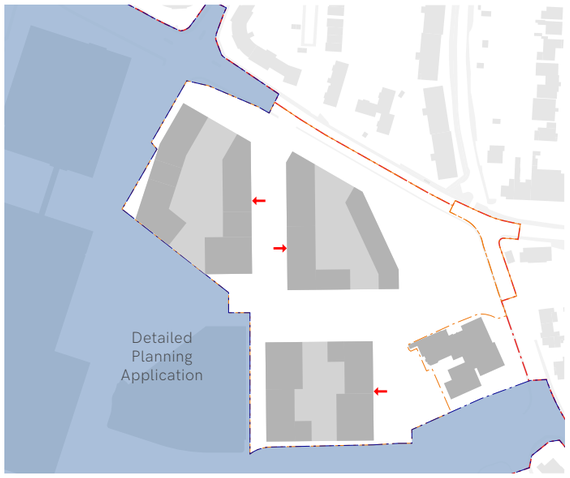


FIGURE 3.12 Car parking entrances location guidance

Service Entrances

3.1.33 Refuse store design **should** be considered within the context of a refuse collection strategy to determine suitable locations and management requirements etc.

3.1.34 As set out in section 3.0 (Frontages), servicing and refuse storage entrances/ openings at street level **should** be minimised.

3.1.35 Residential waste stores **should** be sized for weekly refuse collections and fortnightly collections of recycled waste.

3.1.36 Bins within these waste stores **should not** be more than 10m from the vehicle collection point.

3.1.37 Recycling facilities **should** be as easy to access as waste facilities.

3.1.38 Refuge store and substation frontages **should** be in accordance with the guidance defined in Appearance, section 3.2.

3.1.39 The design of all waste storage, collection and transport provisions **must** be specifically assessed to avoid attraction of birds either directly (food scraps) or indirectly (vermin).

Examples of service entrance alternated with active frontage. Reference: Gants Hill, London.

3.2 Appearance

Frontages

General Guidance

3.2.1 All building frontages facing onto the public realm **must**:

- Positively address the public realm they define by including active frontages, frequent building entrances, windows and balconies to enhance the natural surveillance of the public realm;
- Be predominantly made up by active ground floor frontages;
- Generally not include car parking entrances and vents and service and access doors.

3.2.2 Blank walls at building corners **must** be avoided and **should** positively address the public realm.

3.2.3 Blank walls **should** be avoided.

3.2.4 Building façades **should** be designed to be 'tenure blind'.

Examples of buildings positively addressing the adjecent public open space through the means of ground floor retail, frequent entrances and balconies. References: Project Light Canada Water, Eddington North West Cambridge, Accordia Cambridge

Entrances

3.2.5 Entrances **should** be located and designed in accordance with the guidance in section 3.0 (Access).

3.2.6 Entrances design **should** reflect the uses to which they lead. These entrances may be combined.

3.2.7 Entrances **must** provide adequate weather protection to meet Lifetime Homes guidance.

3.2.8 Recessed entrances **should** be designed in some way so it is visible.

3.2.9 If any residential use is located at ground floor level, the entrances **should** balance legibility and a welcoming sense of arrival with sufficient privacy in relation to ground floor habitable rooms.

3.2.10 Residential entrances **should** be expressed in articulation of elevations, for instance with double-height ordering, strongly legible canopies, signage, or lighting.

3.2.11 Residential entrances **should** create rhythm within street frontages and create a positive sense of address.

3.2.12 Recessed entrances for residential use **should** be designed to be directly overlook.

Examples of expressed residential entrances. References: Silchester Housing Silchester Estate, Porters Edge, Weston Street, East Village, London.

Facade Design

General Guidances

3.2.13 Designers **should** create variety within the overall composition and building mass by employing different opening proportions, materials and details.

3.2.14 The facade treatment **should** respond to orientation and surroundings.

3.2.15 Uniformly flat and unarticulated façade design **should** be avoided.

3.2.16 All buildings **should** be composed of base and middle. (Refer to Figure 3.13)

3.2.17 If more than 6 storeys, façades **should** be layered to reduce the bulk of tall buildings and to avoid monolithic reading of the building.

3.2.18 Rainwater pipes, balcony drainage and sanitary waste pipes **must not** be visible on any façades located in the public realm.

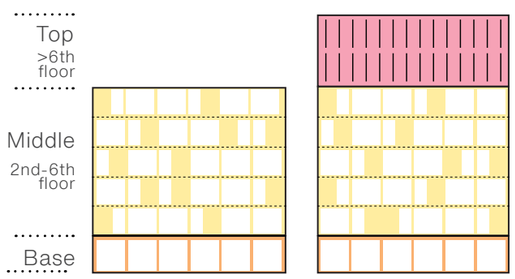


FIGURE 3.13 Facade composition

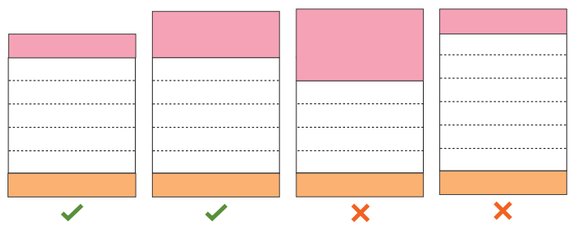


FIGURE 3.14 Facade composition

3.2.19 Blank elevations **should** be avoided as far as possible and in accordance with the Frontage section but where unavoidable, **should** be offset by large and articulated communal entrances.

Base

3.2.20 The Base **should** have vertical articulation as a single volume, fenestrations design **must** be subservient to this.

Middle

3.2.21 The Middle **should** be designed to contrast the Base. This may be achieved through change of rhythm, orientation of the material or a more solid material character.

3.2.22 The Middle **must not** be more than 5 storeys. (Refer to Figure 3.14)

Top

3.2.23 The Top element **must** be applied only if the building is more than 6 storeys. (Refer to Figure 3.14)

3.2.24 The material, proportion and articulation of the Top elements **should** be designed in contrast to the Middle.

3.2.25 The Top elements **should** have a setback from the main frontage alignment to create a more light weight character.

Example of differentiation on the Top part of a building facade. Reference Camden Courtyards

Materials

These Codes have been prepared for a series of residential plots, not individual buildings. As such, the final appearance of any of the emerging architecture / buildings will be the product of a detailed design and then subject to separate Reserved Matters planning applications.

General

3.2.26 The selection of materials for new development plots **should** take into account the design of any other buildings from previous phases, to create a harmonious environment and avoid aggressive differentiation between buildings. (Refer to the DAS document for an indicative guidance on materials)

3.2.27 Material selection and building articulation **should** respond to the form and scale of the proposal and its relationship to the existing context and pedestrian scale.

3.2.28 Material specification **must**:

- Establish a consistent level of material quality and detail throughout each development plot.
- Provide a quality and durability appropriate to the use and long term value of the development that are capable of weathering well over the lifetime of the building and minimising maintenance.
- Retain their appearance and finish over the life time of the building.
- Encourage the construction of resource efficient buildings that utilise, where appropriate, recycled, renewable, pre-fabrication, pre-assembly, and/or reused construction materials.
- Assist in differentiating building mass, particularly to distinguish between the Base, Middle and Top. Refer to Facade Design section.

3.2.29 Materials **should** generally be of an urban character (e.g. masonry composition such as, brick, stone and terracotta) and a quality commensurate with the character of the streets and landscaped areas.

3.2.30 Materials chosen **must** have textures, colours, and qualities that reinforce the façade principles stated above. This may be achieved through the following:

- The quality of the selected materials.
- Consistency of selected materials.
- Well designed and durable details.
- Originality of the application of the materials.
- The treatment of the material e.g. as a surface decoration or an expression of either structure or volume.
- Texture being enhanced through repetition.
- Order and layering to add complexity a richness.

3.2.31 Designers **must** ensure that balustrades do not impede views from the interior (including while sitting) to the public realm by the choice of material or detail.

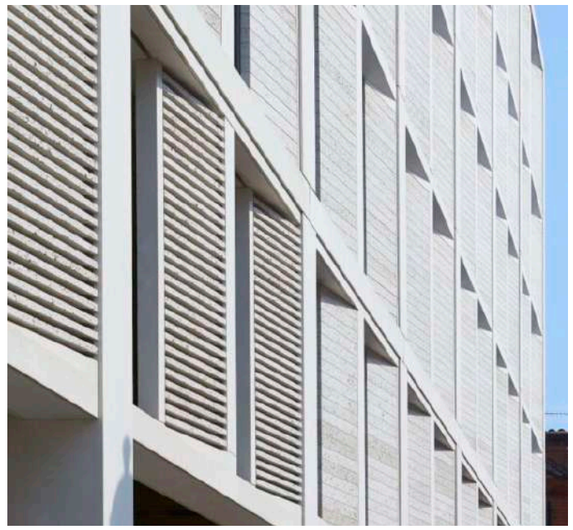
3.2.32 Any frontage allocated for servicing or plant equipment **should** be designed to minimise negative effects on the public realm.

Facade Grilles

3.2.33 Where ventilation grilles are unavoidable, they **should** be limited in extent and integrated into the architecture of the buildings.

3.2.34 The provision of solar shading devices on building façades is permitted but **should** be fully integrated within the composition of the building and the architectural detail of the façades.

3.2.35 Refuse store and substation frontages **should** be integrated within the broader facade treatment of the buildings in which they are located.



Example of grilles integrated intro the architectural expression of the building.

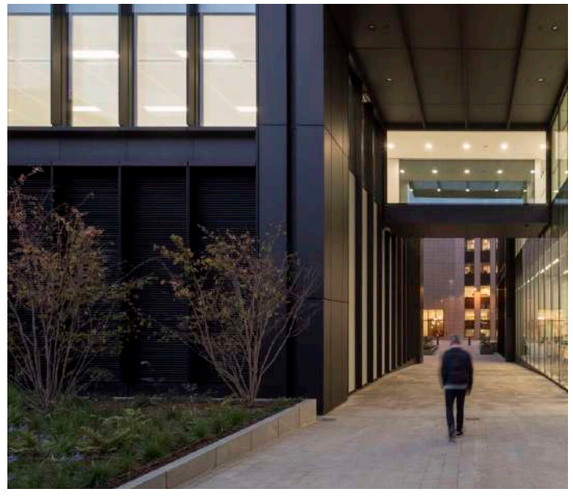
Refuse and Substation Frontage

3.2.36 Entrances to service areas within buildings **should** be carefully integrated with building designs and shall be enclosed with louvred grilles or gates to minimise inward views when closed.

3.2.37 Materials and fixings **should** be suitably robust to withstand repeated heavy treatment by refuse operatives and residents.

3.2.38 Refuse stores **must** be visually screened from the surrounding streetscape.

3.2.39 The extent of their frontages **must** be in accordance with section 3.0 (Frontages).



Example of refuse and sustation frontage.

Roofscape

3.2.40 The roof top **should** be treated as the fifth elevation and the design **should** integrate plant and other roof top equipment into the overall design concept.

3.2.41 Buildings **must** have uncluttered, simple roof profile.

3.2.42 Roof top plant equipment **must** be concealed and housed within solid or perforated roof enclosures to ensure that the equipment is not visible from the street or neighbouring buildings. The exception is equipment such as communications devices which for technical reasons cannot be housed within an enclosure. (Refer to Figure 3.15).

3.2.43 All plant and machinery **should** be accessible for easy maintenance.

3.2.44 Flues **must not** be located on habitable roofscapes.

3.2.45 Flues **should** be located as far as possible from all façades so that they are not directly visible from street level.

3.2.46 Given their visibility from a distance, flues **must** be of exceptional architectural quality. This can be achieved in different ways such as:

- They are designed as an integral part of the architecture of the building.
- They are designed to be an expressed feature of the building.

3.2.47 There **must** be terraces and green roofs. Refer to section 4.0 Ecology for guidance on green and brown roofs.

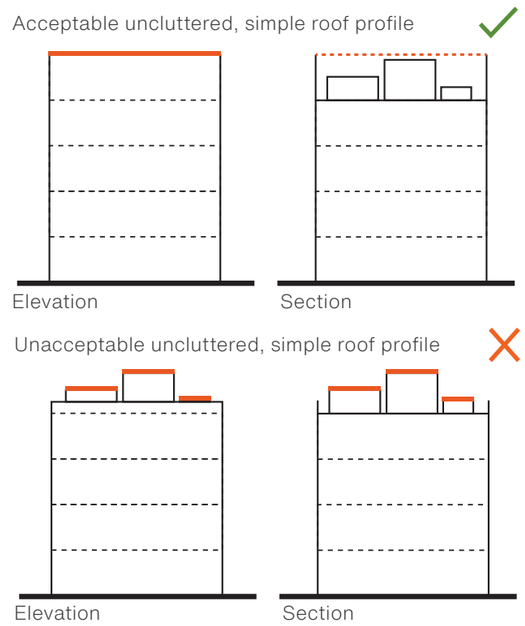


FIGURE 3.15 Roofscape diagram

Example of where the roof top equipment and flues have been integrated with the overall design of the building. Reference: Wilfred Brown Building, Park Royal Building NW10.

Part 4

SUSTAINABILITY

4.0 Site Wide Guidelines

General Guidance

4.0.1 Landscape proposals **should** take in consideration the water-holding capacity of surface cover and associated soil and their relation to rainwater infiltration.

4.0.2 New urban greening **should** help avoid or mitigate the impacts of the proposed development on biodiversity as well as to provide locally relevant greening that complements the site's existing wildlife value.

Circular Economy and Life Carbon

4.0.3 All proposals **must** adhere to all applicable national and London-wide design guidance, including but not limited to the following (subject to future revisions applicable at the time of the Reserved Matters Application):

i. Whole Life-cycle carbon assessments Guidance;

ii. Circular Economy Statement Guidance.

4.0.4 Climate change mitigation **must** be addressed at every stage of the development process.

4.0.5 Low carbon strategies and renewable energy installations **must** be implemented to reduce carbon emissions to meet with London Plan (March 2016) targets.

Material and Waste

4.0.6 Designs **should** be in line with the waste hierarchy, by designing out waste, creating flexible spaces, and selecting materials for easy maintenance and end-of-life reuse and recycling.

4.0.7 Designers **should** specify materials with lower environmental impacts and high reused or recycled content.

4.0.8 The choice of materials **must** consider environmental implications of source and manufacture to achieve the sustainability requirements set out in the Sustainability Statement. Reference **should** be made to the BRE Green Guide.

Ecology

4.0.9 All proposals **must** maximise the opportunity to create habitats for wildlife within the built fabric to enhance site biodiversity and improve connectivity with surrounding green spaces.

4.0.10 The design **must** minimise light pollution, particularly on waterways, green spaces, tree canopies and hedges to reduce impacts on bats.

4.0.11 The design **must** include ecological enhancement measures within the fabric of the buildings - green roofs, living walls, etc. - as well as specific planting in landscape areas.

4.1 Building Guidelines

Flood Defence

4.1.1 All rooms that may be considered "habitable rooms" **must** have a finished floor level of at least +38.213m AOD as per Onsite Mitigation Measures Model run.

4.1.2 Floor uses below +38.213m AOD **should** be prioritised for the most flooding insensitive uses, such as car parking and entrances.

4.1.3 Flood resilient fixtures and fittings **should** be installed on floors below +38.213m AOD, this **should** include raising electrical fixtures.

4.1.4 A Flood Management Plan for the development **must** be prepared in collaboration with London Borough of Hillingdon and the Environment Agency and any requirements arising incorporated into the design of the development.

4.1.5 The southern facade of PO3 **must** be a solid wall. There can be perforations on the facade above 500mm from pavement level.

4.1.6 The southern facade of PO3 **must** be water sealed to avoid damages on residential spaces.

Code for Sustainable Homes

4.1.7 Residential development **must** be assessed against the Code for Sustainable Homes.

4.1.8 The development **must** achieve Level 4 of the Code as a minimum (or the equivalent level of any subsequently adopted national standard on sustainable design and construction).

4.1.9 Designs **should** be in line with the waste hierarchy, by designing out waste, creating flexible spaces, and selecting materials for easy maintenance and end-of-life reuse and recycling.

4.1.10 Designers **should** specify materials with lower environmental impacts and high reused or recycled content.

4.1.11 If timber is specified it **must** be responsibly and sustainably sourced.

4.1.12 Transfer Structures **should** be avoided.

Noise Mitigation

4.1.13 All residential buildings, specially façades facing Blue Line Routes, **must** be designed to avoid adverse internal, neighbouring and external noise effects.

4.1.14 The buildings' design **should** include sound insulation elements such as appropriate glazing, acoustically attenuating louvres, screening balconies and standard brick/block cavity external walls.

4.1.15 Party walls and floors **must** have sound insulation systems to reduce disturbance and provide privacy at indoor spaces.

4.1.16 Where applicable, habitable rooms such as living rooms and bedrooms **should** be located on the quiet façades of residential buildings.

4.1.17 Stacking of rooms with similar uses **should** be encouraged in order to prevent noise nuisance between tenancies.

4.1.18 Buffer zones between communal spaces and bedrooms **should** be considered.

Climate Response

Wind

4.1.19 Any negative impact on the micro climate of existing surrounding buildings and public realm **should** be mitigated having regard to Lawson criteria for wind comfort and safety.

Sunlight

4.1.20 The massing of residential buildings **should** be controlled to allow good light penetration to all units and minimise any overshadowing. Building designs **should** promote sunlight in courtyard spaces. Light and views for the individual residential units and communal amenity space **should** be maximised. (Refer to Figure 4.1)

4.1.21 Residential blocks can be broken up in different distinct volumes to provide views through the blocks and to improve sunlight penetration to courtyard spaces. Breaks in the building line **must not** compromise the creation of strong and consistent street lines. (Refer to Figure 4.1)

4.1.22 Habitable spaces within apartments **should** be located where the sunlight and daylight where good daylight is provide.

4.1.23 Where the Vertical Skylight Component (VSC) is below 27% the windows **should** be increased in size and the layout of rooms **should** be developed considering the room limiting depth. The use of bright colour on the external elevation **should** be considered to improve results.

4.1.24 Residential layout **should** be in accordance to section 3.1 (Residential Layout).

Solar Gain

4.1.25 Designs **must** mitigate solar gain for the south and west facing façades.

4.1.26 Solar control **should** be installed on large west facing façades.

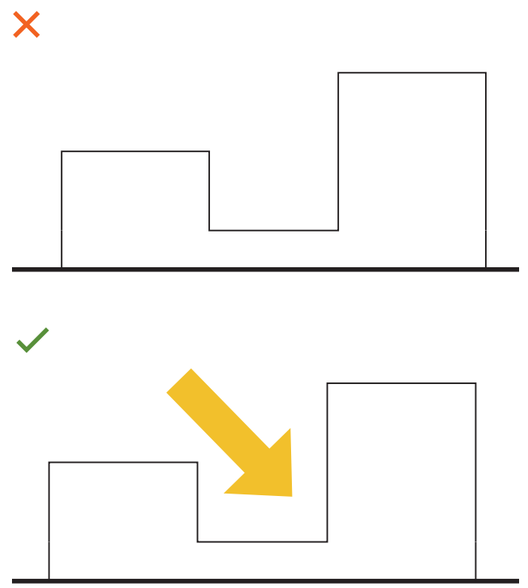


FIGURE 4.1 Massing and sunlight diagram

Ecology

Intensive and Extensive Green Roofs

4.1.27 Intensive and extensive green roofs **must** be integral to the further design of the development.

4.1.28 Approximately 75% of proposed roof space **should** be designed as intensive/ extensive green roofs.

4.1.29 Intensive/extensive green roofs **should** be located on residential roofs and courtyards.

4.1.30 Intensive/extensive green roofs **must** be designed in detail to address restrictions around aircraft movement and prevention of attraction of groups of larger bird species.

4.1.31 Green roofs **should** be seeded/ planted with a mix of species that provides food resources (pollen) throughout the year.

4.1.32 Green roofs **should** have a varying substrate depth and include features for wildlife such as sand/rock mounds and log piles to increase diversity of habitats.

4.1.33 Extensive Green Roofs **should** have more than 100mm to provide adequate water holding capacity to maintain vegetation through summer, to provide evaporative cooling and insulation. Intensive Green Roofs **should** have more than 200mm.

4.1.34 The advice of ecologists with experience in biodiversity and green roof design **should** be sought in the preparation of detailed design.

FIGURE 1.5 Example of intensive green roof.
Reference: Streatham Hill, London

FIGURE 1.4 Example of extensive green roof.
Reference: Tiger Way, London

FIGURE 1.3 Green roof diagram

4.2 Glossary

A

Active Frontage

The animated character of a buildings' ground/ first and occasionally second floor interacting with the public realm. Active ground floors are typically associated with public uses where a high level of engagement with the public is desirable.

B

BAP

Biodiversity Action Plan

BAP Habitat

Habitats identified in the Biodiversity Action Plan.

Blank wall

A wall whose surface is unbroken by a window, door or other opening.

F

Frontages

The external wall/facade/elevation of a building facing a key route or open space.

L

Lawson Criteria

The Lawson Criteria provide wind speed and frequency ranges for pedestrian comfort and safety. It stipulates that for the comfort and safety assessment of wind effects, it is not only the velocity of wind that is considered but also the frequency of occurrence of these velocities.

M

Masterplan / Masterplan Proposal

"Masterplan" or "Masterplan proposal" describes the overall design of Hillingdon Hospital Redevelopment, a result of the |design development process. It is an amalgamation of the contextual analysis, design consideration, testing and decision making process. This process has resulted in the design principles and design framework for Hillingdon Hospital Redevelopment on which the Proposed Development is based.

O

Open Space

This includes public gardens, streets, parks, squares and recreational space - incorporating private, public and visual amenity.

P

Primary Frontage

The external wall/facade/elevation of a building facing a main route.

Public Realm

Streets and spaces accessible to the general public.

R

Roofscape
How a building meets the sky.

S

Secondary Frontage
The external wall/facade/elevation of a building facing a secondary route or space.

Service Access
Access to services within the Site. Shall be avoided on primary frontages, and not interfere with pedestrian movements.

Setbacks
A setback is the part of a building, above the shoulder height, which is positioned behind the main facade. It's position and heights are defined by the maximum and minimum plot parameters.

Shared Surface
Shared surfaces are defined as areas of street which graduate in level from carriageway zone to pedestrian zone. Their purpose is to promote and prioritise pedestrian use and slow traffic.

Signage
Signage refers to building/wall mounted graphic signs relating to the function of that building and or public realm. This includes retail and commercial signage and name and number plates.

Spill Out

The spill out is defined as a transitional zone between a building's frontage and the public realm. It is typically associated with commercial or public buildings and facilitates a high level of engagement with the public realm whilst not impeding free movement. The spill-out zone is outside the maximum building extent.

V

Vertical Articulation

Articulation of façades expressed vertically to counteract horizontality and long frontages.

W

Wayfinding

Wayfinding refers to the act of getting from one point within the Site to another (or through). The development promotes ease of wayfinding through legibility which means clear signposting, use of materials to indicate edges and routes within the public realm and a hierarchy of lighting which identifies with street hierarchy.

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CONTACT US

IBI Group
Black Bull Yard, 18-22 Hatton Wall
London EC1N 8JH

tel +44 (0) 20 7079 9900