



9.0 Typologies

9.1 Townscape composition

Townscape settings = Landscape + Typologies

As described earlier in **Chapter 5** of this report, the masterplan townscape is composed of **landscape character areas** and **building typologies**. Together, these form a **setting**, and the combination of settings forms the **townscape**.

The previous **Chapter 8** described the nature of the different landscape character areas and their contribution towards the establishment of settings and neighbourhoods.

This chapter will describe the different building typologies and give precedent examples of the kind of buildings which might be brought forwards in the later stages of the masterplan.

Hybrid application

This planning submission is a hybrid Outline Masterplan application with reserved matters, and one development plot, Plot A, which has been designed and will be submitted in detail.

In planning, **Reserved Matters** refer to the aspects of design which are expected to be addressed in a detailed application for an individual plot. These would typically include the massing and detailed architectural expression, but not the overall amount or scale of the development, or the configuration within the masterplan.

Illustrative proposals

As the specific design of the Outline plots is not being submitted in detail at this time, the proposals over the following pages explain the design intent which has been developed to consider the future appearance and feel of Grahame Park.

Masterplan Design Guidelines

For these Outline plots, a set of mandatory and advisory guidelines have been prepared to control aspects of the design to ensure that the spirit and intent of the building typologies and landscape character areas will be developed.

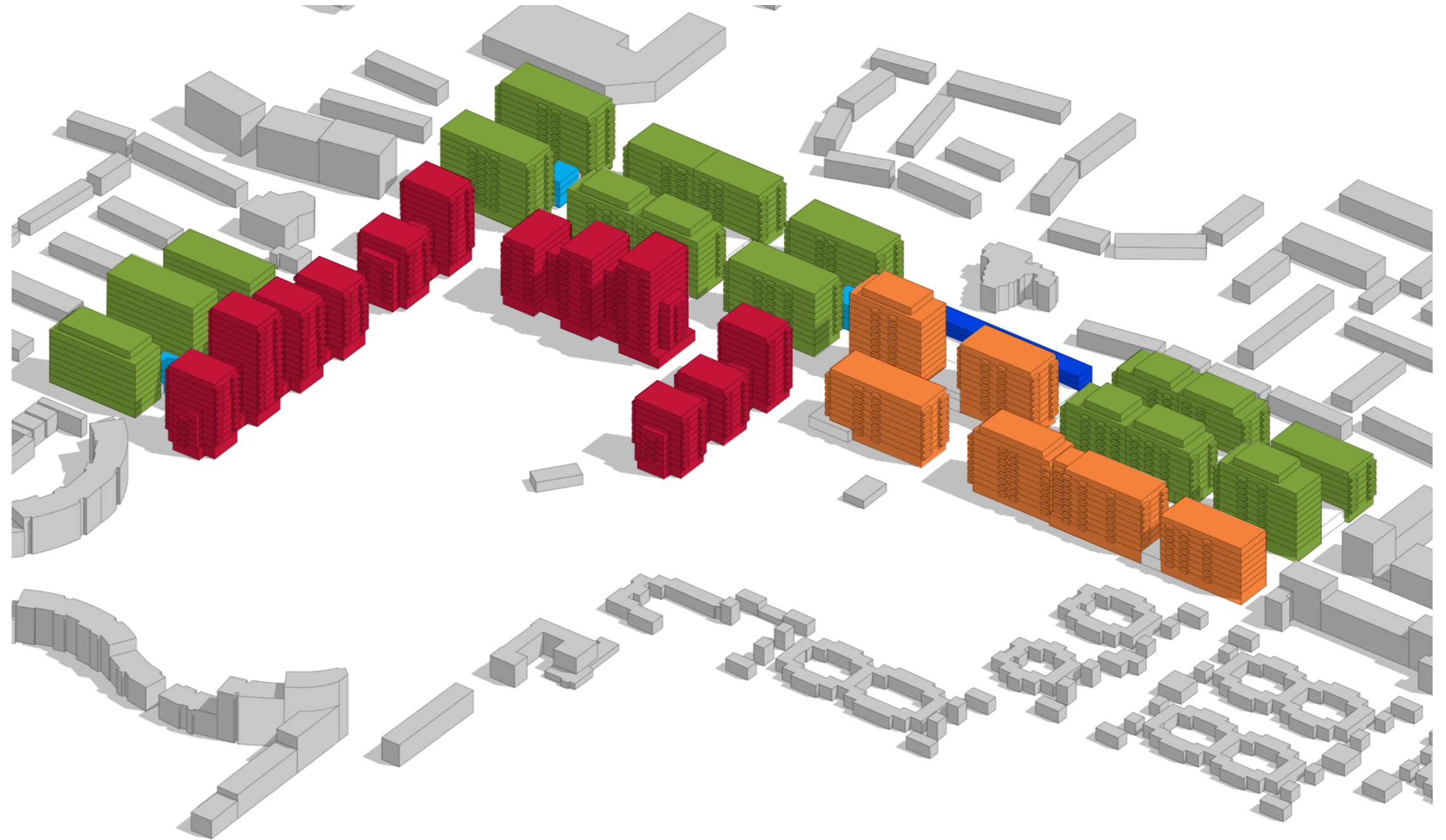


Figure 1: Axonometric diagram showing different building typologies and massing

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9.2 Key typologies

There are five key building typologies which are used within the masterplan. Variations on each typology, based upon the location and landscape setting, create a rich architectural palette across the site.

Linear typology

A building seen from public space on all four sides, the Linear typology is used to line the Bristol Avenue and defines the outer boundary and significant elements of the southern neighbourhood.

Courtyard typology

Combining two parallel linear buildings across a raised landscaped podium, the Courtyard Typology addresses both the public realm and a more private shared courtyard garden.

Mansion typology

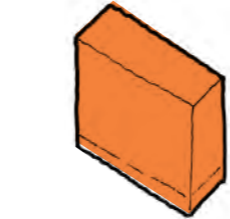
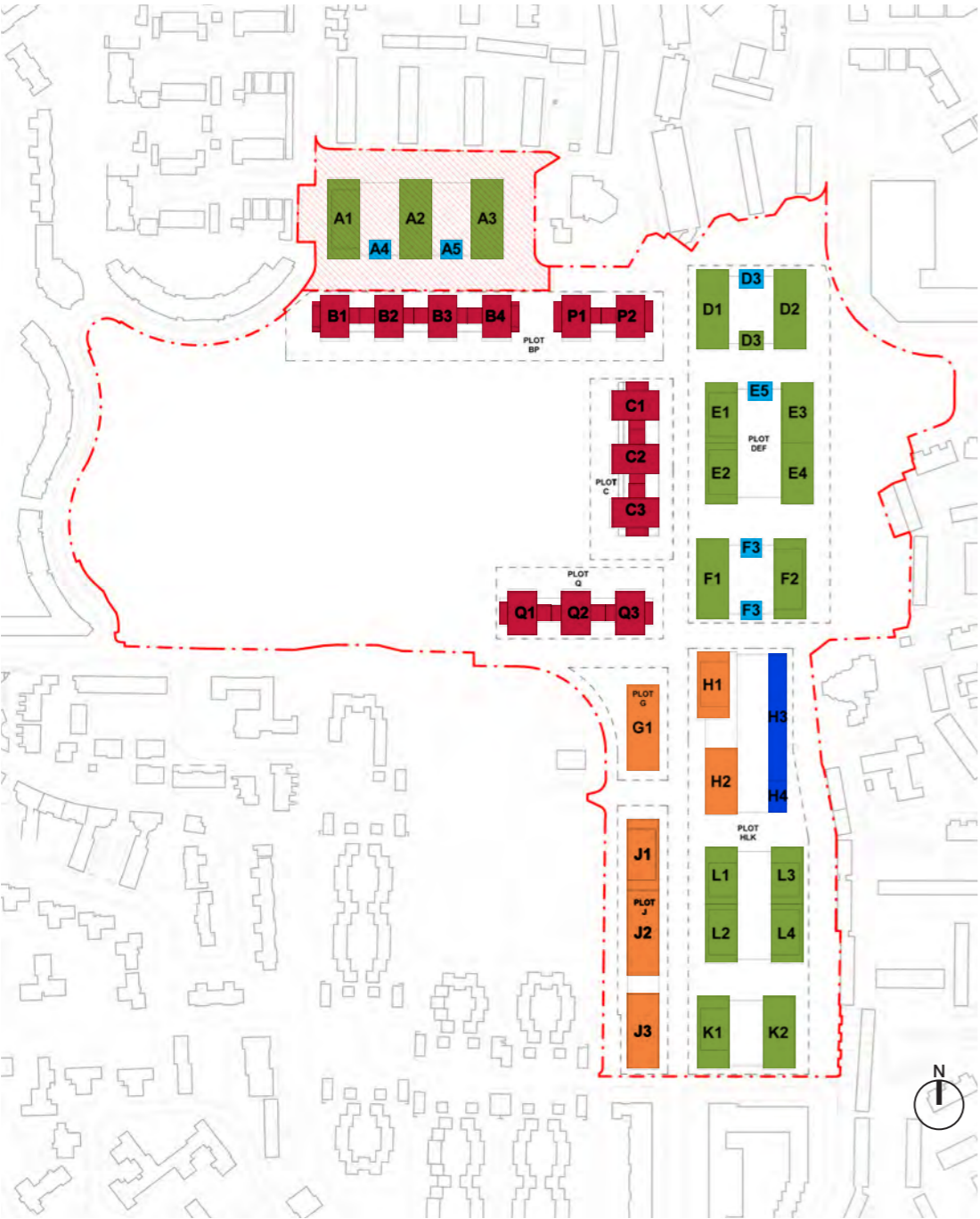
Heavily articulated in plan and in height, the Mansion Typology creates a strong edge to Heybourne Park and opens up the streets to create pockets of landscaping by folding in and out from the roadside.

Townhouse typology

Pairs of 3-storey Townhouses sit on the north and south sides of the Courtyard blocks, keeping heights low and placing front doors and gardens on the neighbourhood streets.

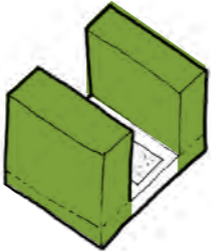
Terrace typology

To the east of the site, a run of townhouses lines Plot H, creating an intimately scaled space and a varied roofline.



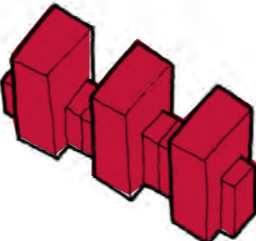
Linear typology

Plots
G / H / J



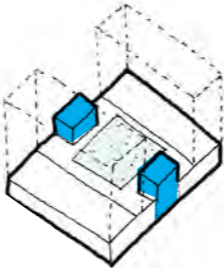
Courtyard typology

Plots
A / D / E / F / K / L



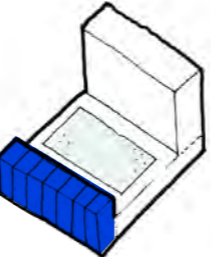
Mansion typology

Plots
B / C / P / Q



Townhouse typology

Plots
A / D / E / F



Terrace typology

Plot H

Figure 2: Principal building typologies

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9.3 Linear typology

Making up the majority of built form within the masterplan, the Linear and Courtyard typologies are the backbone of the proposals.

Orientation and arrangement

Oriented north:south, the Linear buildings line Bristol Avenue, the primary public route in the masterplan. The horizontal nature of the blocks reinforces the perspective of this grand central circulation route, particularly in the connecting south of the site.

A consistent building line on the west of Bristol Avenue is offset by movement to the east, creating wider street section and informal spaces in the public realm.

Street level

At street level, all key non-residential uses open out onto the Avenue creating a rich and interesting public realm.

Built form and facade character

The buildings themselves follow a very simple and efficient rectilinear plan form allowing for a variety of different external treatments.

The lower floors are expressed with a plinth to define a human-scale public frontage and entrances to the residential lobbies.

Upper level façades are common on all sides of the block, reflecting the visibility from all aspects, with no front or back expressed.

Balcony positions alternate between gable and flanking walls to clearly define the ends of blocks and mark junctions in the townscape.

Set back storeys to key buildings provide variety in the skyline and mark moments in the townscape.

Palette and expression

Linear typology blocks are to be predominantly faced in clay or masonry (brick, terracotta, stone, precast concrete) with articulation in natural metal tones such as grey, brass or bronze.

Long blocks will be broken down and expressed as shorter elements to create relief along the Avenue.

Key building

Block H1 is a taller element in the masterplan, marking the key junction between Bristol Avenue and Lanacre Avenue, and locating the Community Centre at the heart of the masterplan.



Figure 3: Linear typology sketch view - Looking North along Bristol Avenue



Figure 4: Primary brick palette with textural variations



Figure 5: Long blocks articulated by steps in massing and material changes



Figure 6: Expressed plinth defines a non-residential ground floor with spill-out



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9.4 Courtyard typology

A variation on the Linear typology, the Courtyard buildings are arranged in pairs across a common, shared podium garden.

Orientation and arrangement

Oriented north:south, the Courtyard buildings line the east of Bristol Avenue, as well as facing onto more residential settings. The horizontal nature of the blocks reinforces the perspective of circulation routes, and minimises overshadowing and overlooking to the north of the plots.

On Bristol Avenue, paired plots move laterally to and away from Bristol Avenue to the west, creating wider street section and informal spaces in the public realm.

In the first phase, a unique arrangement of three courtyard blocks creates two podium gardens and a form which steps down towards existing buildings.

Street level

Bristol Avenue and Clayton Field host key non-residential uses, while on Long Mead and Great Field, maisonettes line the lower floors with front doors and private outdoor space onto the quieter streets.

Built form and facade character

As with the Linear typology, the buildings themselves follow a very simple and efficient rectilinear plan form allowing for a variety of different external treatments.

The single storey plinth to the west steps up to define maisonettes, while upper level façades change between internal and street-facing frontages to express the more private shared garden spaces and enhance lighting.

Balcony positions alternate between gable and flanking walls to clearly define the ends of blocks and mark junctions in the townscape.

Set-back storeys to key buildings provide variety in the skyline and mark moments in the townscape.

Palette and expression

Courtyard typology blocks are to be predominantly faced in clay or masonry (brick, terracotta, stone, precast concrete) with articulation in natural metal tones such as grey, brass or bronze.

Key building

Block K1 is a taller element in the masterplan, marking the threshold from the existing built environment into the new masterplan and defining the northern and southern extents of two wider sections of the Avenue.



Figure 7: Courtyard typology sketch view



Figure 8: Contrasting lighter toned brickwork to courtyard façades



Figure 9: Slots between blocks allow permeability and views through

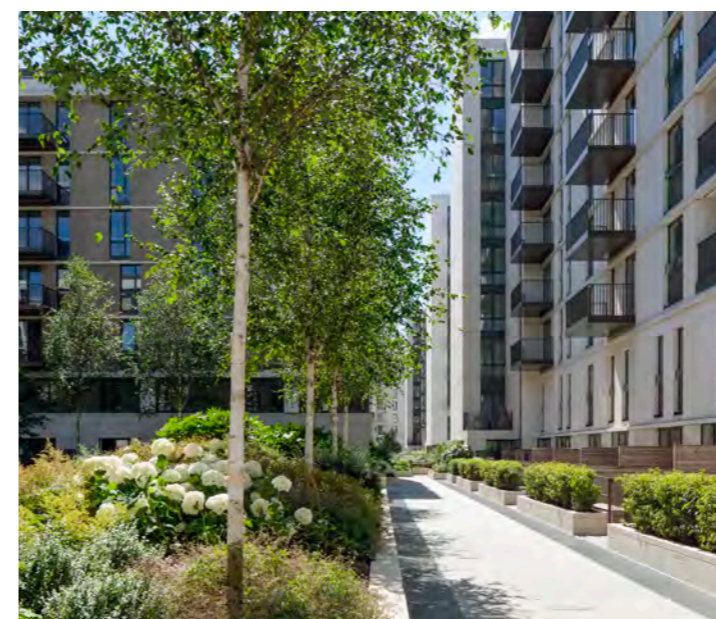
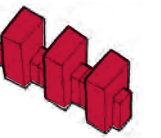


Figure 10: Private terraces line the perimeter, with central shared gardens



9.5 Mansion typology

By contrast with the Linear and Courtyard blocks, the Mansion typology is highly articulated, with steps both in plan and in height to create a dynamic frontage to the streets and a strong urban edge to the Park.

Orientation and arrangement

Arranged in linear clusters of 2:4 blocks and oriented both north:south and east:west, the Mansion buildings have a 100% dual aspect plan form which avoids any north-facing homes.

The vertical nature of the blocks creates a contrast with the Linear and Courtyard typologies, and allows for taller elements to rise up in a slender form.

Street level

At street level, maisonettes with private gardens alternate with pockets of public green allowing for large street trees to grow. Block C, facing onto Bristol Avenue, features workspace and space for a cafe linking between the Avenue and the Park.

On the parkside, shared entrance lobbies to each core give a Heybourne Park address to the buildings, with vehicle access via a private roadway.

Built form and facade character

Inspired by traditional London Victorian and Edwardian block forms, the stepping facade line creates a strong verticality. Each block has a cross-shaped plan with the core at the centre.

The lower floors are expressed with a plinth to define a human-scale public frontage and entrances to the residential lobbies.

Upper level façades are common on all sides of the block, reflecting the visibility from all aspects, with no front or back expressed.

The primary central elements are expressed more prominently than connecting 'wings' which link and terminate the clusters.

Palette and expression

Mansion typology blocks are to be predominantly faced in a vibrant palette of clay or masonry with articulation in lighter masonry with additional elements in natural metal tones such as grey, brass or bronze.

Key building

Block C1 is a taller element in the masterplan, marking the threshold between Bristol Avenue and Heybourne Park, and locating the parkside cafe and public terrace at this key gateway.



Figure 11: Mansion typology sketch view - Looking east along the north side of Heybourne Park

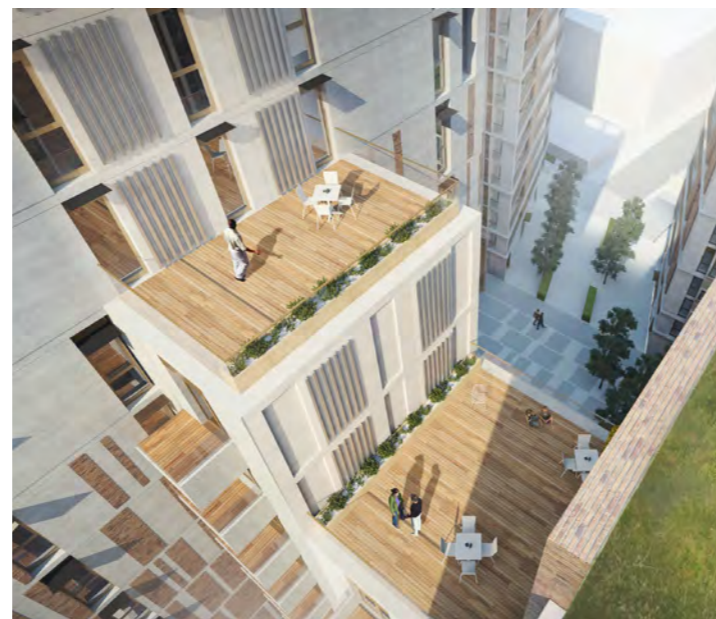


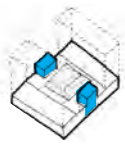
Figure 12: 'Shoulders' step down to create roof terraces between blocks



Figure 13: Stepping plan form creates dual aspect and pockets of landscape



Figure 14: Variable height creates a strong and articulated skyline to the park



9.0 Typologies

9.6 Townhouse typology

Bridging between the neighbourhood streets and landscaped podiums, and flanked by Courtyard typology blocks, the Townhouses create relief along the east:west streets, allowing daylight into the gardens and giving views to the sky.

Orientation and arrangement

The Townhouses are arranged in mirrored pairs, with corner dual aspect living spaces at ground level, and bedrooms facing the streets or the courtyards at first and second floors.

Street level

At street level, private gardens and demised off-street parking evoke a traditional suburban quality which references the street grain elsewhere in the local area.

Built form and facade character

Inspired by Georgian and Edwardian townhouses, the Typology is simple and rectilinear, with a vertical proportion to windows and brick detailing.

Palette and expression

A typically dark brick onto the street connects the Townhouses to the plinth of a Courtyard block, while a lighter gable and rear facade echo the 'front / back' or the historic precedent. Banding, brick bond and pattern can provide variety between pairs of townhouses across the masterplan.

Additional facade elements such as window frames and canopies are in natural metal tones such as grey, brass or bronze.

Key building

The Townhouses are designed to be read as a collection of paired houses, with no one block standing out as a key archetype worthy of special treatment.



Figure 15: Townhouse typology sketch view - Looking west along a neighbourhood street



Figure 16: Townhouses set between taller blocks open up the north and south of the podiums

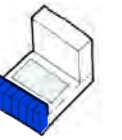


Figure 17: Townhouses read together as a matched pair with a human scale



Figure 18: Off-street demised parking area to townhouses

9.0 Typologies



9.7 Terrace typology

A single row of houses, the Terrace typology is a unique cluster within the masterplan, located on the east of Plot H.

Orientation and arrangement

The Terrace is a row of townhouses facing east:west, with frontages to Long Mead across the Woodland Walk to St Margaret Clitherow church.

The houses are arranged in a continuous run, with entrances and living spaces at ground level, and bedrooms facing the streets or the courtyards typically at first and second floors.

Street level

At street level, private gardens and demised off-street parking evoke a traditional suburban quality which references the street grain elsewhere in the local area.

Built form and facade character

Inspired by Victorian terraced houses, the typology has a vertical proportion to windows and brick detailing, and pitched roofs presenting gables to the street. Varying heights and articulation are possible to create a rich collection of individual homes.

Palette and expression

Variation in brick colour, texture and articulation is encouraged, with all details and palettes prescribed elsewhere in the masterplan permitted in the Terrace.

Additional facade elements such as window frames and canopies are in natural metal tones such as grey, brass or bronze.

Key building

At the northern and southern ends of the Terrace, the houses will be larger, turning the corners of the block and expressing a different roofline.



Figure 19: Terrace typology sketch view - Looking west into the Development from St Margaret Clitherow Church



Figure 20: Flexible height and roof profiles



Figure 21: Green setting with playable landscape trail



Figure 22: Variations in facade tone and massing



10.0 Access

10.1 Topography and site levels

A key factor in universal access is the provision of even ground with relatively shallow slopes to address changes in site levels.

Working with an existing site with retained boundary conditions, we have developed proposed site levels to even out fluctuations within the body of the site to create two main plateaux at key thresholds

Lanacre Avenue / Moorhouse Street

Level plateau at +50.1m AOD giving access to the Nursery (Plot G) Community Centre (Plot H), local retail (Plot F), residential cores in F/G/H/Q, and St Margaret Clitherow Church.

Nimrod Road / Hudson Street

Level plateau at +51.8m AOD giving access to the Park from Plots B/C/ D/P and connecting through to St Augustine's Church.

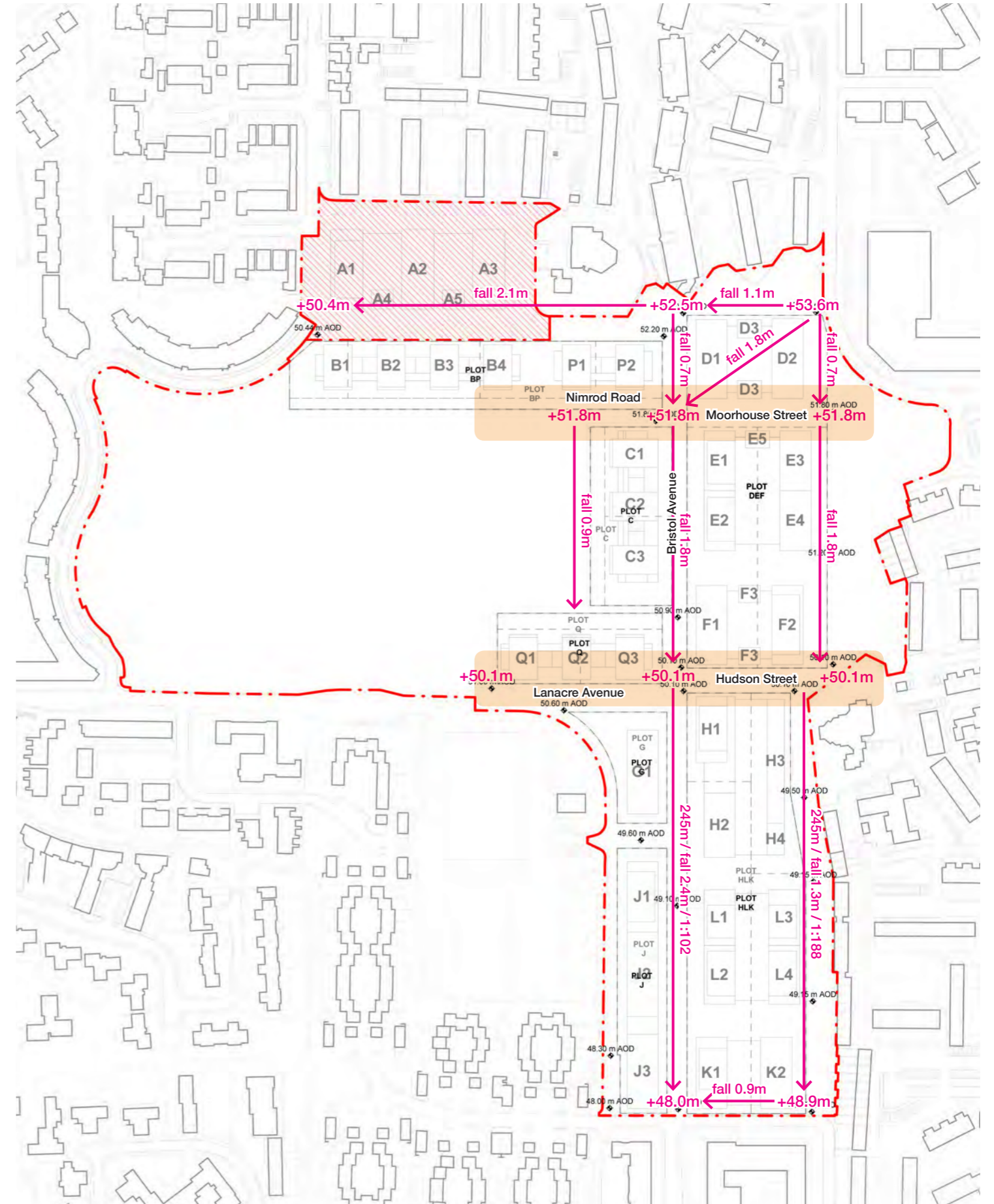


Figure 1: Proposed external ground levels at key zonal plot locations



Figure 3: Existing level change and trees north of Nicolson



Figure 4: Existing level change with the Concourse



Figure 5: Existing level change to the south of Heybourne Park



Figure 2: Existing topographical survey



Figure 6: Existing level change surrounding the Energy Centre



Figure 7: Existing level change locally to South Mead



Figure 8: Existing level changes to the west of Firefly

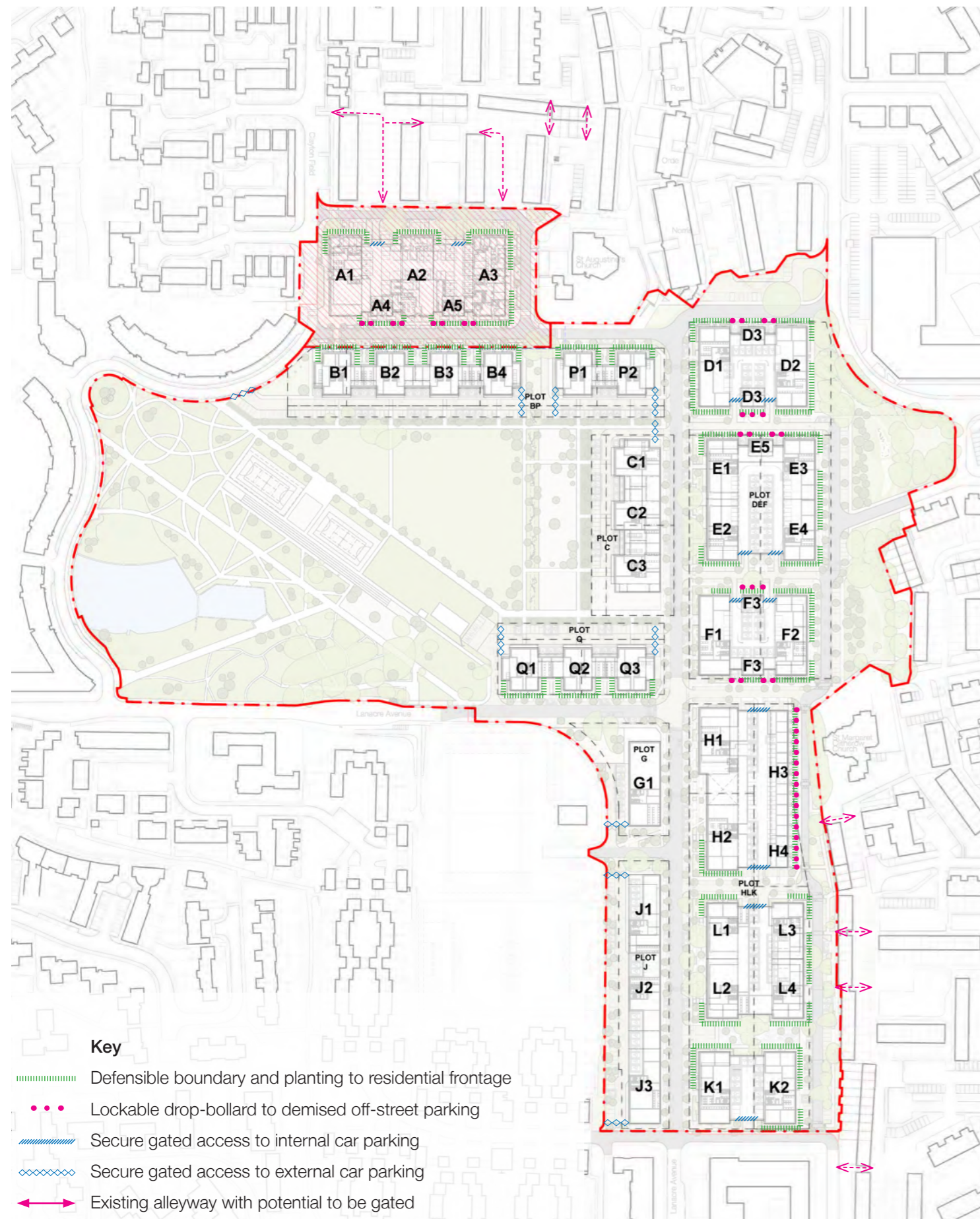


Figure 11: Proposed external ground levels at key zonal plot locations

Application of SbD principles

1. Access and movement

A key principle of the masterplan has been the establishment of clear wayfinding, with direct pedestrian and cycling routes running parallel to vehicle movements to activate the public realm. Movement through the site is based on a hierarchy of well-lit primary routes leading to secondary streets and front doors. The strategy for pedestrian, cycle and vehicle movement is described later in this chapter.

2. Structure

Through the elevation of shared amenity space to podium level and the inclusion of landscaped and enclosed buffer zones around ground floor homes, the masterplan minimises the amount of building frontage directly exposed to the public realm. Non-residential active uses line key thoroughfares, and inactive frontages and routes are minimised through regular spacing of entrances and activity.

3. Surveillance

Passive surveillance of the public realm is delivered through active residential or non-residential frontages overlooking public realm front ground and upper storeys of the buildings, with no blank gables or unobserved spaces. Parking is located in secured car parks or, where in the public realm, in well observed areas at the front of properties rather than in open courts to the rear.

4. Ownership

Critical to delivering a public realm in which all people can feel safe and secure, is the avoidance of uncertainty over the ownership of spaces so prevalent within the existing site: Whether or not people have the right to be within a space can be easily understood through definition of boundaries. The proposals use planting and permanent enclosure to clearly define boundaries between public and private spaces. This clarity effectively communicates the extent of ownership and simplifies the interface of management and responsibilities.

5. Physical protection

Buildings and gated parking areas will be designed to comply with Building Regulations Approved Document Q which required security testing to ensure a safe and robust barrier against crime.

6. Activity

As a primarily residential environment, levels of activity across the site are in keeping with the movement of residents in and around their homes. Where non-residential uses, such as community or commercial functions, are provided, these are located on well-trafficked and well-lit streets, interspersed with residential core entrances, and overlooked by residential frontages at first floor and above.

Areas of daytime activity within the Park which may be a focus for night-time ASB will be designed to allow for secure closure to minimise opportunities for unobserved congregation.

7. Management and maintenance

A robust building and landscape management strategy will be developed in partnership between the Applicant and LBB to ensure continued security.

Officer recommendations

The DOCO recommended the following areas of the masterplan be considered to improve safety and security:

Alleyways and undercrofts

- The existing estate bordering the Development retains a large number of unobserved, narrow alleyways, often with shelter from over-sailing buildings, creating opportunities for crime.
- SbD would support action by the local residents to gate the alleyways to restrict access to those whose gardens back onto the space.

Seating in public spaces

- To allow flexibility to react to unforeseen ASB attractors, seating should not be 'permanently' fixed as part of the landscape design, but should be able to be unfastened and relocated in the event of unwelcome congregation.
- Medium-height (~1100mm) walls addressing the public realm (for example bin / cycle stores associated with townhouses and maisonettes) should be designed to discourage seating, especially near building entrances and bus stops.

Ventilation to cycle stores and car parks

- Hit and miss brickwork should be used sparingly due to risk of climbing and contraband concealment. Metal perforated screens are preferred.

Planting in the public realm

- Planting immediately adjacent to footpaths should be sparse at ground level to limit opportunities for unobserved concealment and recovery of contraband items such as drugs or weapons.

Meanwhile activation

- During phased development, re-use of retail units and spaces in the existing estate should focus 24/h activities in areas at highest risk of ASB and crime. Community gyms etc. are encouraged to provide alternatives for at-risk groups.

10.3 Pedestrian access and movement

While the whole site is designed to be accessible on foot or in a wheelchair or mobility scooter, there are key circulation routes indicated on the adjacent diagram which benefit from moves in line with TfL's 10 Healthy Streets Indicators:

Pedestrians from all walks of life

The site levels strategy outlined earlier in this chapter creates a highly accessible site for ambulant and mobility impaired pedestrians. Tactile paving will be provided to aid movement for the visually impaired.

Easy to cross

The road surface will be brought level to the pavement at all junctions between secondary and primary streets, and level access Zebra crossings with Belisha beacons will be located in higher traffic crossing points.

Shade and shelter

Extensive street tree planting will provide shade through summer months, with shelter from rain provided at bus stops and in the entrances to buildings.

Places to stop and rest

Seating will be provided at regular intervals along the principal circulation routes, within public open spaces and gardens, and near to collection points for mobility bus services.

Not too noisy

Low traffic speeds and the provision for electric vehicles will limit traffic noise through the streets. Soft planting will interrupt and attenuate noise to limit echoing and 'canyoning'.

People choose to walk, cycle and use public transport

An integrated approach to mixed-mode public transport allows walking short distances to bus stops, or walking and cycling to stations. Bus stops heading north and south are now located on the Avenue, with new stops sited close to the threshold between north and south, alongside the Community Centre.

People feel safe

Traffic speeds will be controlled through signage and speed control measures such as road narrowing and tables. Front doors and active non-residential uses place 'eyes on the street' passive observation so there are no unseen corners to foster criminal behaviour. Street lighting will ensure a year-round safe environment on principal circulation routes.



Figure 13: TfL Healthy Streets diagram (TfL February 2017)

Things to see and do

The main north:south Avenue is the primary distribution road, with all community and commercial uses clustered along this route to avoid unnecessary journeys and to maximise footfall for retail property. Extensive tree planting, local gardens and play spaces make the rest of the streetscape an attractive place to explore on foot.

People feel relaxed

Wide pavements to the principal routes, one-way side streets and pedestrian-only zones will help to lower the impact of vehicle movement in the public realm.

Clean air

Extensive tree planting and electric vehicles will help to improve the local air quality.

10.4 Movements of school pupils

Saracens School is currently proposed for redevelopment on the Corner Mead site, with the associated conversion of their existing property, on the corner of Lanacre Avenue, into all-weather playing fields.

Along with the potential use of the sports and play facilities within Heybourne Park by pupils attending the nurseries and schools at Blessed Dominic's Primary School and St James' High School, this creates the potential for high volumes of foot traffic during the day.

Pavement widths, age appropriate local play space and street furniture will be considered in responding to these external site users.

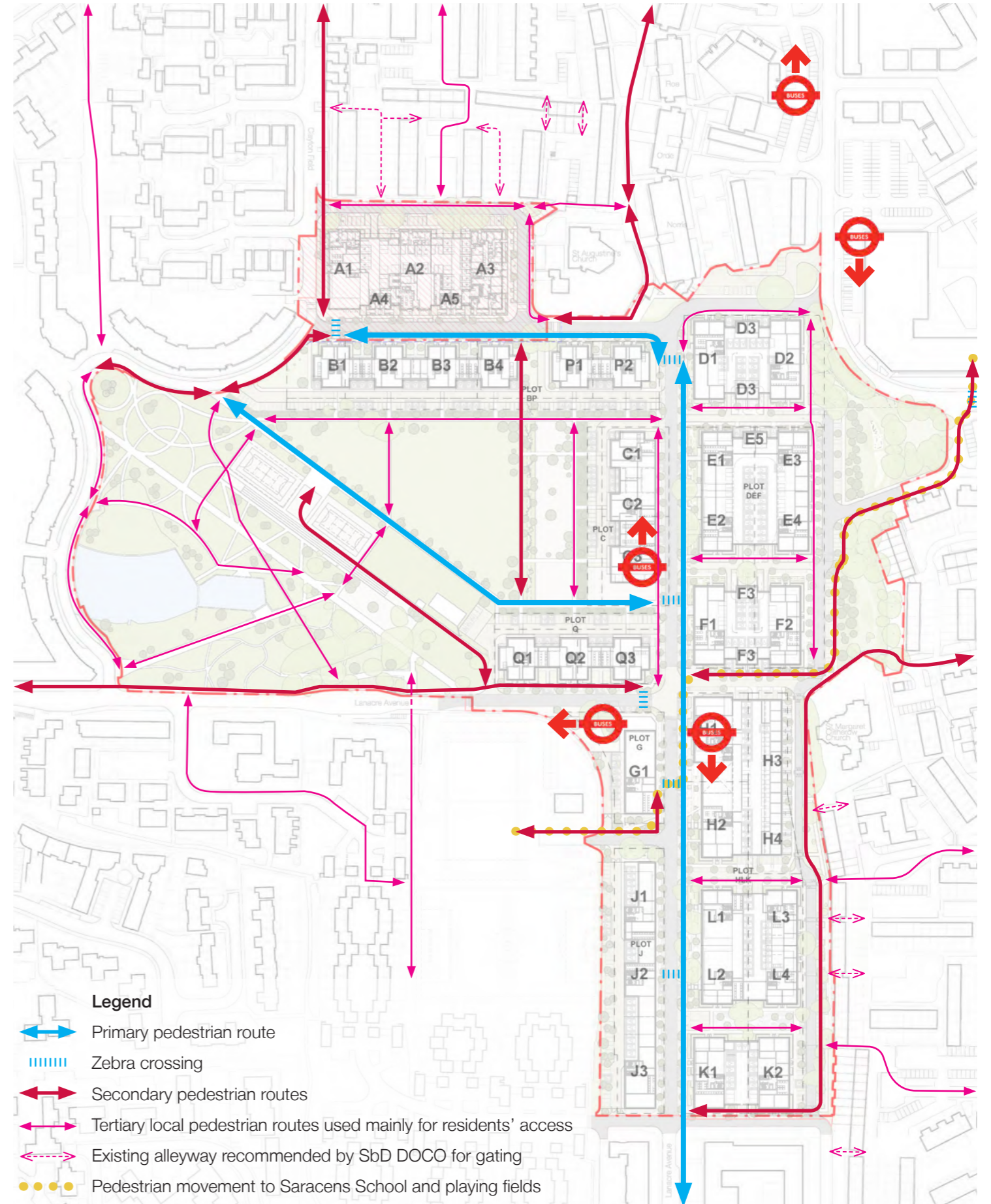


Figure 12: Pedestrian access plan and key building

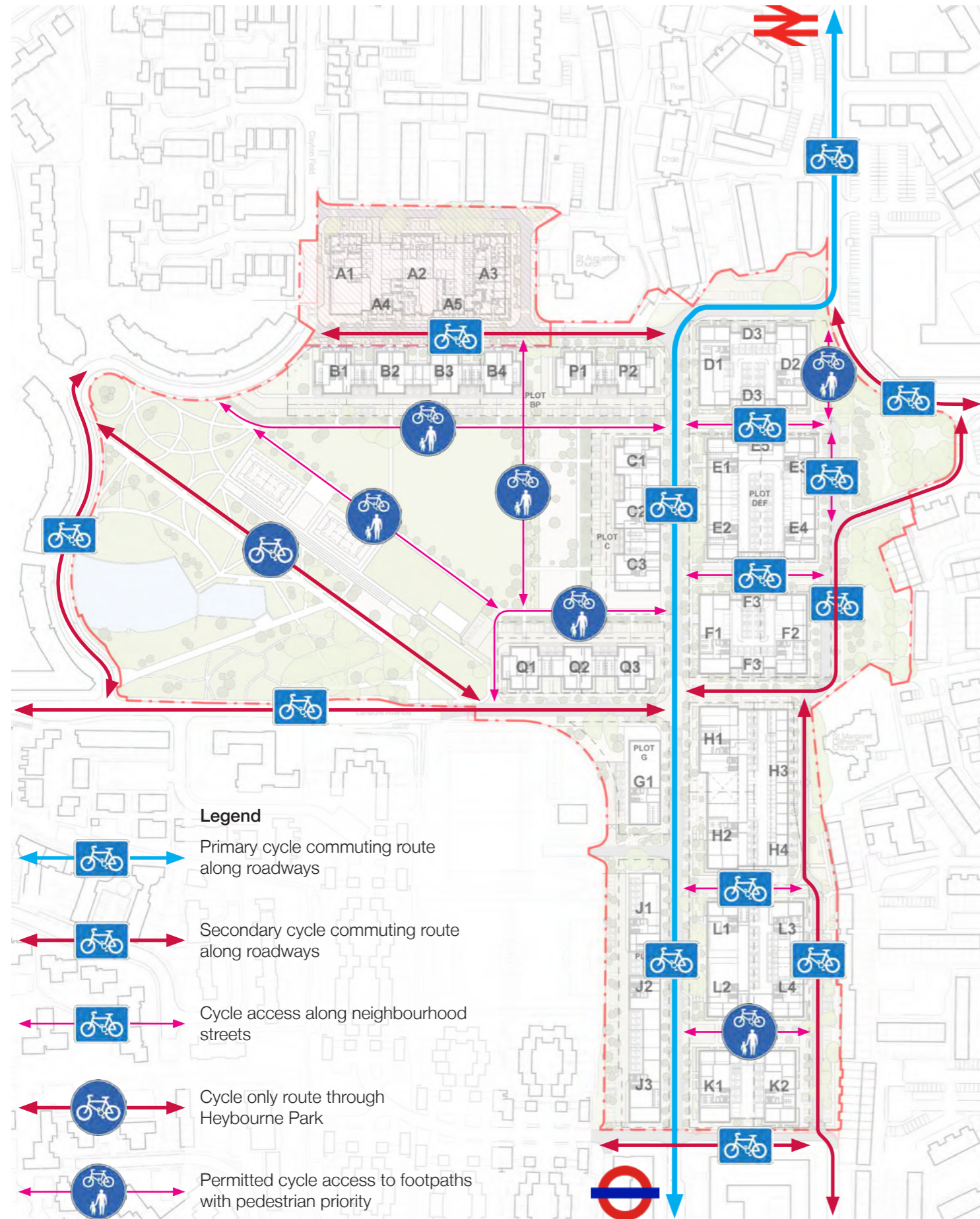


Figure 14: Pedestrian access plan and key building



Figure 15: Guidance documents on pedestrian and cycle movements

10.5 Cycle access and movement

Cycling as a means of transportation and cycling as a leisure pursuit often have competing needs and can result in conflict between different groups of cyclists along with pedestrians and other road users.

DfT Local Transport Note 1/12 (2012) “Shared Use Routes for Pedestrians and Cyclists” and the independent study “Sharing the Space” (2012) have been consulted in the preparation of a strategy which:

- Prioritises safe road use for vehicles and cyclists;
- Provides convenient, segregated short-cuts for cyclists where pedestrians are discouraged and vehicles are not permitted; and
- Allows for leisure cycling to share vehicle-free pedestrian routes where alternative commuting cycle routes and segregated pedestrian routes are available.

In so doing, the strategy aims to strike a balance between cyclists and pedestrians in the public realm.

Commuting

A key commuting route has been identified between Mill Hill East Station (north) and Colindale Station (south) where it is anticipated that many residents and school pupils may cycle.

Cycling will be permitted in all roads through the site and be signposted for vehicles to be more aware of the additional road users.

Leisure cycling

Along with the roads, cycles will be permitted on key access routes through Heybourne Park.

A dedicated diagonal route will be signposted for cycle priority on the south of the ‘Runway’ through the park. This will be parallel to a pedestrian-only running route in the centre, and a shared pedestrian/cycle route to the north. Additional pedestrian priority routes will be shown bordering the main open lawns.

Cycle parking

Visitor cycle parking stands will be provided in the public realm, located along principal routes in areas with higher footfall and passive observation to minimise the risk of theft.

Locations and stand types are described in Chapter 8 of this document.

10.0 Access

10.6 Cycle parking and storage

As part of the cycling strategy for the site, and in line with Mayoral priorities for Healthy Streets, secure cycle parking will be provided for residential and non-residential uses to meet or exceed standards in both current (LP Policy 6.9) and draft (DNLP Policy T5) London Plans.

This will be provided for both long and short-term storage, in secure parking areas as well as in the public realm.

Internal storage will typically be semi-vertical racks with some standard hoop racks for less physically able cyclists. Stores will be in visually permeable secure 'cages' subdivided to limit the number of residents accessing each enclosure. External racks will be cross-barred "Sheffield" stands.

In line with guidance, 5% of spaces will make provision for larger cycles such as cargo bikes, 'family' bikes for child transport, and accessible bikes such as hand-cycles for wheelchair users.



Figure 16: Staple parking hoops for transport / accessible cycles

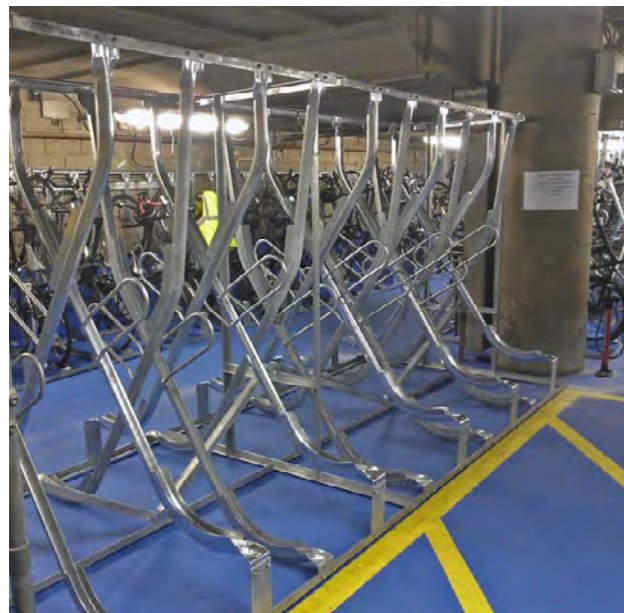


Figure 17: Semi-vertical cycle parking within secure internal areas

Illustrative residential cycle parking provision

Plot	Homes	Long stay	Visitor	Total
Plot A	209	364	7	371
Plot B	219	380	7	387
Plot C	169	317	6	323
Plot D	166	298	6	304
Plot E	206	354	7	361
Plot F	136	237	5	242
Plot G	72	132	3	135
Plot H	152	267	5	272
Plot J	220	341	7	348
Plot K	113	215	4	219
Plot L	196	328	6	334
Plot P	106	167	4	171
Plot Q	124	217	5	222
Total	2,088	3617	72	3689

Illustrative non-residential cycle parking provision

Use class	Long stay	Visitor	Total
A	14	41	55
B	8	3	11
D	25	0	25
Total	47	44	91



Figure 18: Accessible hand-cycle



Figure 19: Barred hoop cycle parking for visitors and non-residential uses

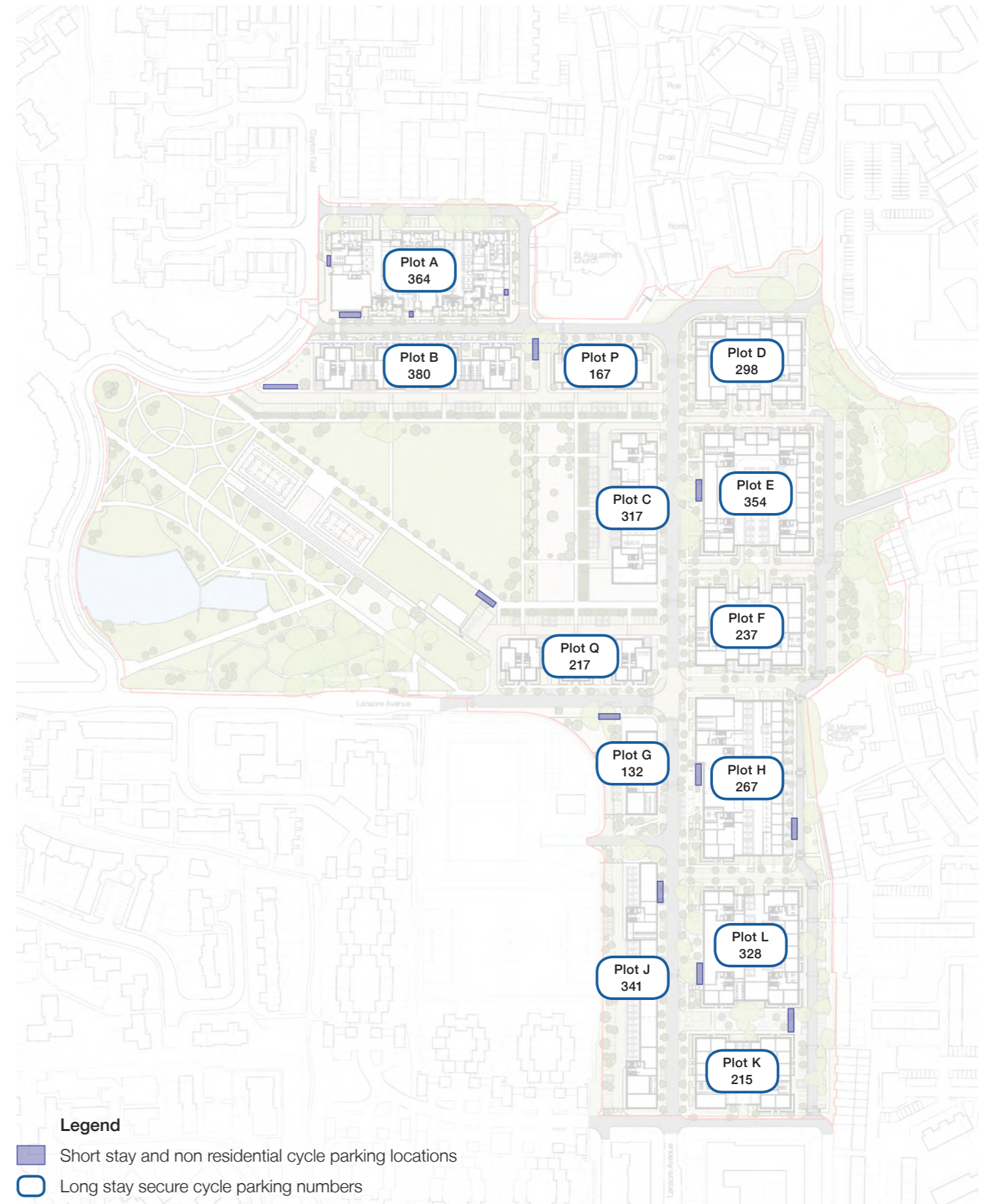


Figure 20: Illustrative masterplan showing numbers of cycle parking for residents, non-residential uses and visitors

10.0 Access

10.7 Access by public transport

In line with GLA guidance on 'Healthy Streets' the development has been designed to help provide safe, pleasant and accessible walking routes to public transport connections.

The site located within walking distance of three train stations and served by three daytime buses linking to the wider rail network within London and surrounding areas.

Trains

Colindale Underground Station (Zone 4) is located approximately 6 minutes' walk from the southern boundary of the site. The station is on the Edgware branch of the Northern Line, with southbound trains into Central London via Euston running every 5-10 minutes.

A slightly longer walk west of the site is Burnt Oak (Zone 4), one stop north of Colindale on the same line.

To the north is Mill Hill Broadway (Zone 4) with Thameslink trains southbound towards Farringdon and Blackfriars, or north towards St Albans and Luton.

Buses

Three daytime buses run through the site, each passing along the southern section of Bristol Avenue via Colindale.

Routes 186 and 204 run along the south of Heybourne Park, while the 303 currently loops back down Bristol Avenue before detouring along Grahame Park Way past the RAF museum, with no stops along this stretch.

As part of the proposed development, the 303 would be diverted north through the site to join Corner Mead via Long Mead, before following the route of the 642, rejoining Grahame Park Way via Field Mead.

In addition to the redirected 303, TfL are considering redirecting route 186 to also pass through the site to follow the 303 to Mill Hill Broadway.

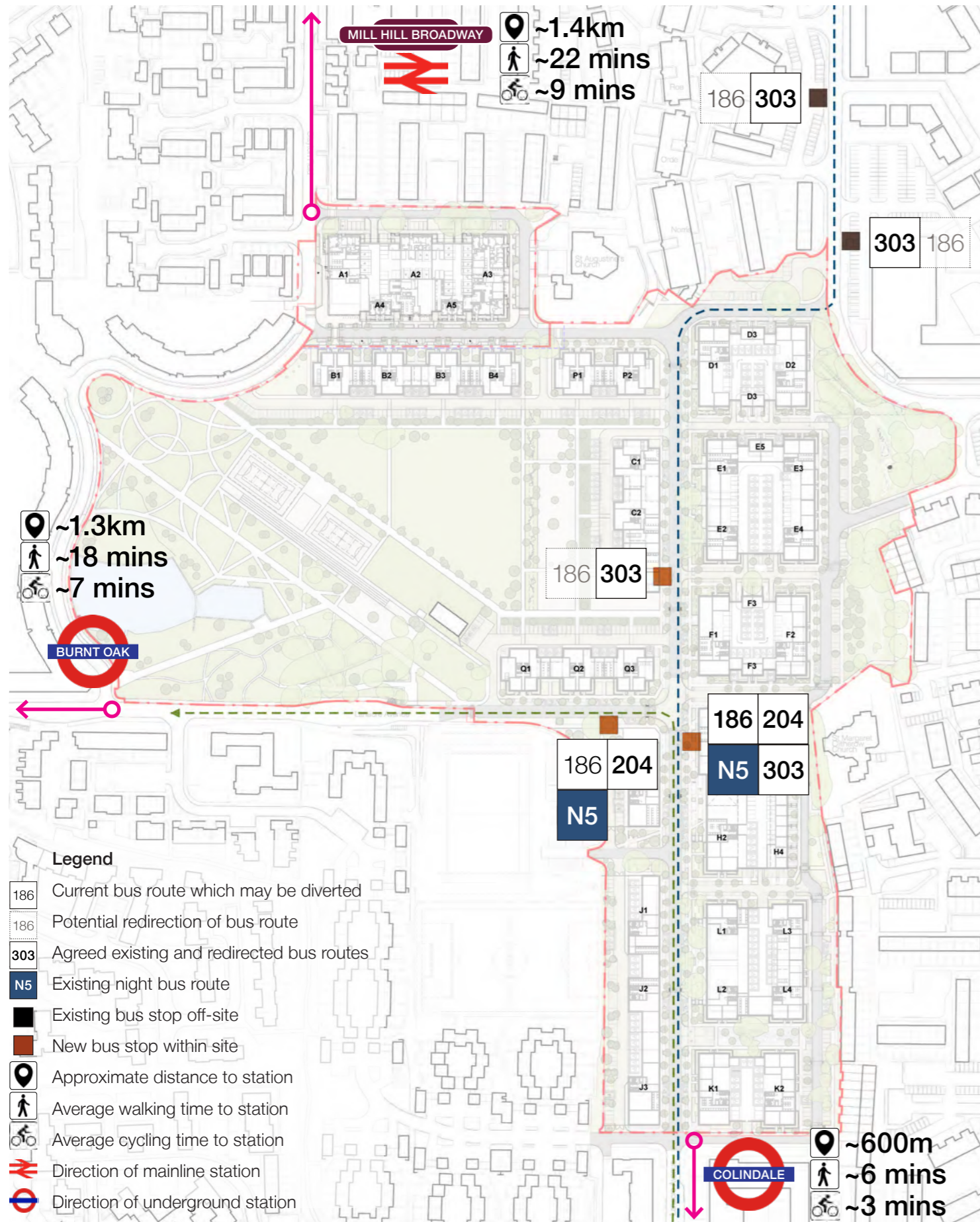


Figure 21: Masterplan showing bus stops and routes, distances to public transport



Figure 22: Route 186: St Marks Hospital to Brent Cross Shopping Centre



Figure 23: Route 204: Sudbury Town Station to Edgware Station

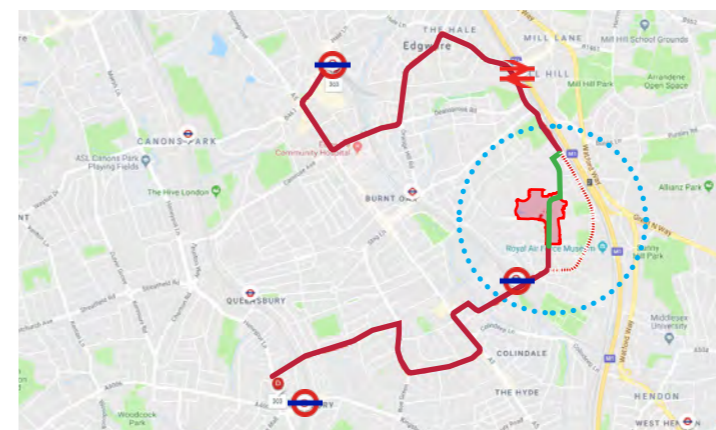


Figure 24: Route 303: Edgware Station to Kingsbury Circle

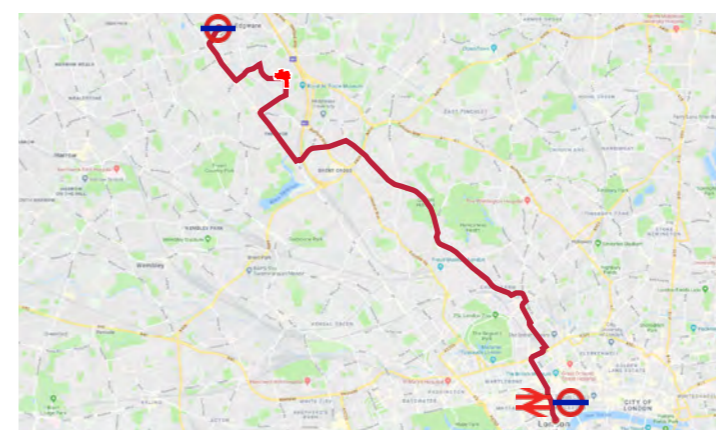
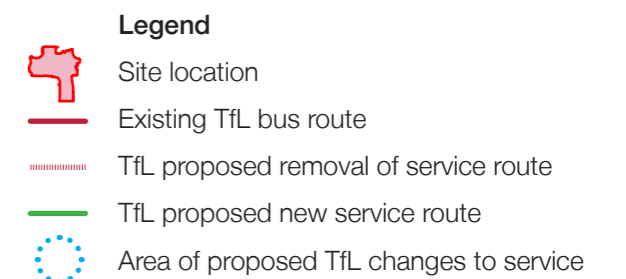


Figure 25: Route N5: Edgware Station to Trafalgar Square



10.0 Access

10.8 Emergency access

Emergency access considers the need for a police vehicle, ambulance or fire tender to come within a reasonable distance of the front door or building entrance of every home and non-residential area within the Development.

Fire strategy

The strategy for residential fire-fighting within the Development will be residential sprinklers within flatted dwellings, and fire-engineered solutions for the easily accessible non-residential units at ground level.

For buildings below 50m tall dry-riser vertical pipes will be provided to each core, with a dry-riser inlet point clearly marked and located externally adjacent to the core entrances. Any buildings >50m tall will be served by a wet riser in compliance with regulations.

Townhouses and maisonettes not served by the main fire-fighting cores will have access to all parts of the dwelling within 45m of a fire appliance on the street.

The requirements

Approved Document B and **BS 5588-5(2004)** describe the statutory requirements for vehicle access, and state that the minimum width of road between kerbs is 3.7m, and 3.1m at any pinch point or gateway.

Dry riser inlets must be located within 18m of a fire appliance in the street.

Fire hydrants should be provided in the public realm at a suitable frequency and locations to serve the development.

Turning facilities should be provided in any dead-end access route that is more than 20m long.

Masterplan provision

The network of vehicle-accessible streets provides for compliant access for Police vehicle, ambulances and fire tenders.

Dry riser inlets will be located onto public streets, typically between 7-10m of the carriageway with unobstructed route for hose connections to the fire tender.

There are no dead-end streets within the development which would require fire tender access.

The play street between plots K and L will be provided with a 4m unobstructed clear path for emergency vehicle access, secured against other vehicles with Fire Brigade access drop-bollards.

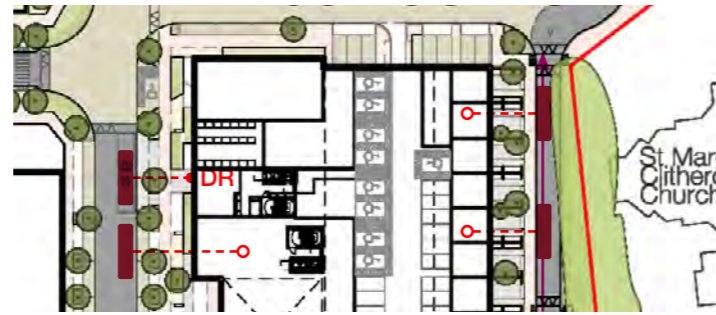


Figure 27: Typical street conditions with <45m fire fighting to non resi / houses



Figure 28: Play street condition with emergency vehicle access route

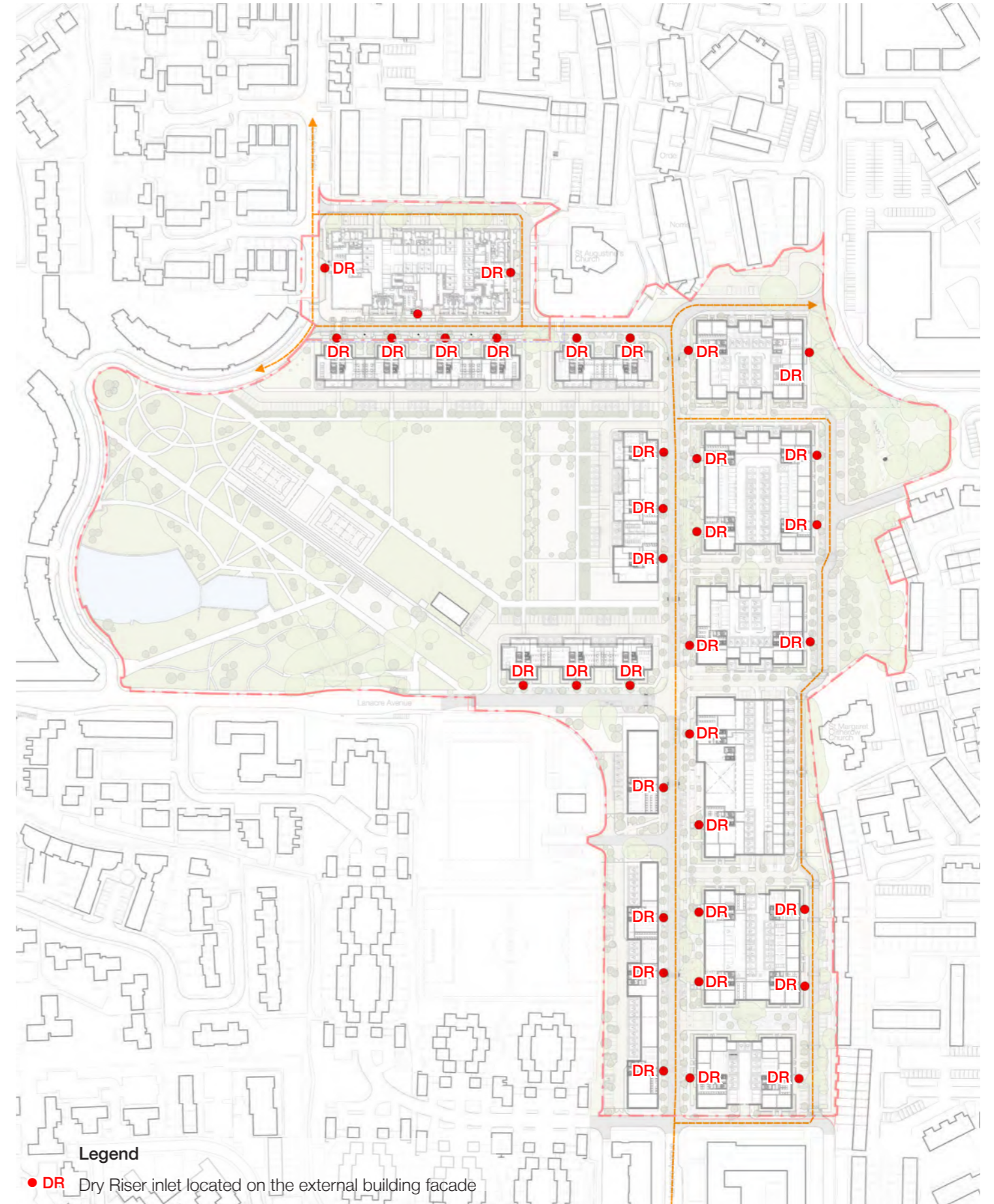


Figure 26: Masterplan showing principal emergency vehicle access routes and location of dry riser inlets

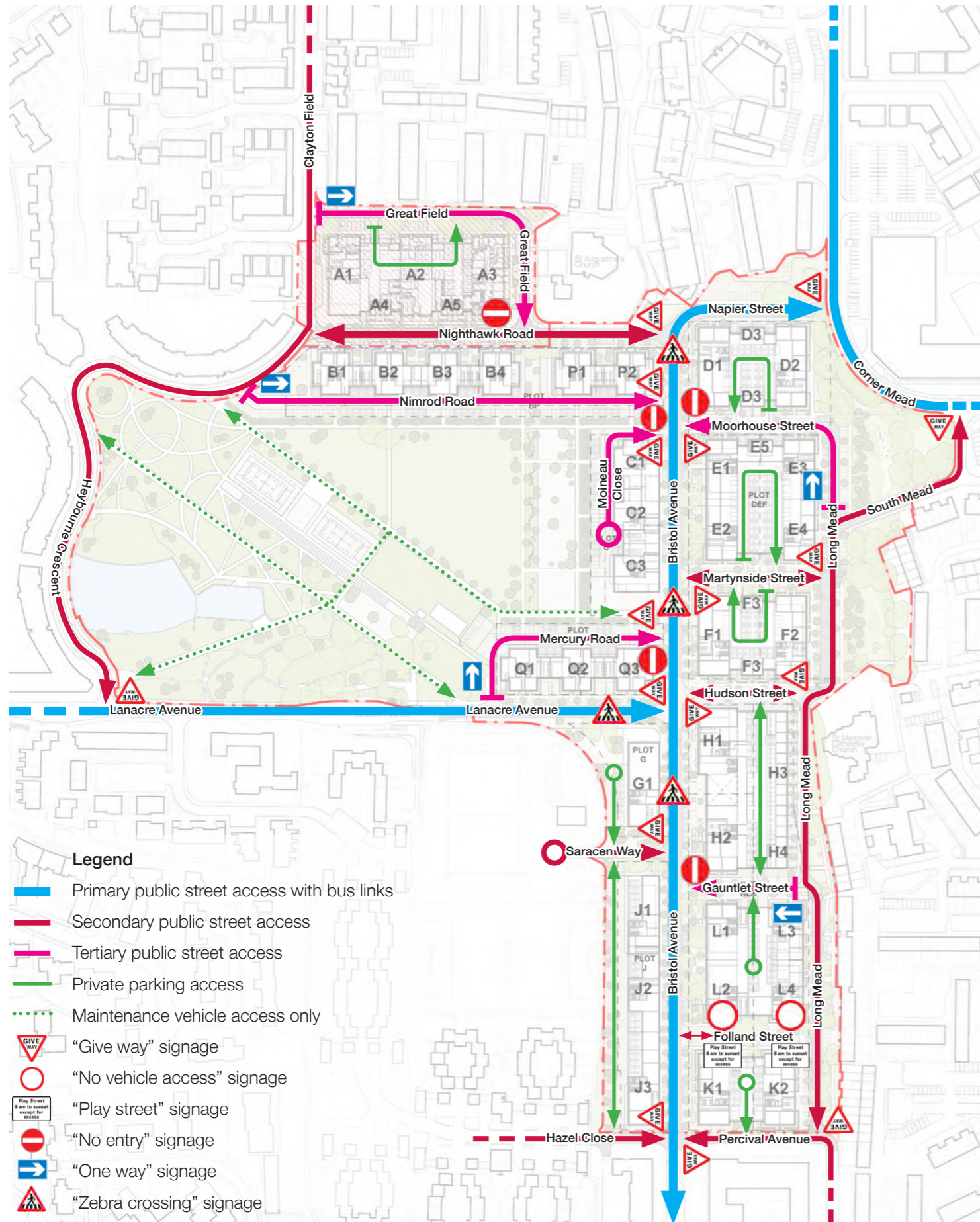


Figure 29: Masterplan showing vehicle accessible roads, direction, and access to car parking. Illustrative signage locations.

10.9 Vehicular access

In contrast to the Radburn model separating vehicles from pedestrians, the Development will permit vehicles into the circulation network to allow residents to drive up to their front door and avoid the challenges of unobserved parking areas.

Speed

To control traffic movements through the Development in keeping with a safe, residential environment, it is anticipated that all vehicle movements through the development will be restricted to a 20mph limit.

Width restricted zebra crossings will be sited along Bristol Avenue and the new connection to Lanacre Avenue, and a large raised table will be installed at this junction as passive measures to reinforce the statutory signage limiting speeds.

Parking

A mixture of demised off-street, CPZ permit controlled on-street, secure external, and secure covered parking areas will be provided across the Development. Parking is described in more detail later in this chapter.

Road naming strategy

For the purposes of the application, indicative road names have been proposed for ease of description and cross-referencing.

Existing road names have been retained, and new roads are named for some of the existing buildings they are replacing.

In turn those buildings were originally named for flights from the aerodrome.

Classification and hierarchy

Avenue

A major thoroughfare lined on both sides with trees:

- Lanacre Avenue (existing east:west; retained);
- Bristol Avenue (north:south; extended); and
- Percival Avenue (existing; legacy naming);

Street

A connecting east:west road with buildings on each side, on street parking and landscaping:

- Napier Street (new, replacing a section of Long Mead at the junction with Corner Mead);
- Moorhouse Street (new);
- Martynside Street (new);
- Hudson Street (new);
- Gauntlet Street (new); and
- Folland Street (new).

Road

A secondary east:west connecting route with buildings on at least one side, blocks typically set back from the carriageway with landscaped foreground:

- Nighthawk Road (new);
- Nimrod Road (new); and
- Mercury Road (new).

Field

Legacy naming for roads leading towards the Park:

- Great Field (existing; extended to join Nighthawk Road).

Mead

Legacy naming for meandering routes named to evoke open space and greenery:

- Long Mead (existing north:south; extended south and truncated north).

Close

A no-through-road vehicle route typically providing access to parking courts:

- Moineau Close (new).

10.0 Access

10.10 Car parking

Mayoral priorities

Homes, businesses and community facilities within the Development will be served by car parking at a level which has been developed in dialogue with LBB and the Mayor of London.

For this site, the GLA's planning requirements are for a maximum provision of one parking space for every two dwellings, expressed as a ratio as 0.5 spaces / dwelling.

As one of a series of initiatives to create Healthy Streets and improve the air quality for all Londoners, The GLA (LP Policies 6.7,6.13,7.14 / DNLP Policy T6.1) seeks to encourage alternatives to private, fossil-fuel burning vehicle ownership.

The GLA encourages car clubs and trip sharing, along with walking / cycling and public transport as alternatives to private vehicle ownership. Electric Vehicles (EV) are encouraged as an alternative to fossil fuels, with active EV charging points to be provided to 20% of all parking spaces, and infrastructure provided for later installation of charging points to the remaining 80% of spaces.

Controlled Parking Zone (CPZ) and ownership

A CPZ was introduced by LBB during the preparation of this application. Analysis of vehicle movements and parking levels before and after the introduction of the CPZ has influenced the proposals.

A study of local vehicle ownership levels and projections based on the anticipated population of the Development suggests that vehicle ownership within the site will be no greater than 0.35 spaces / dwelling.

Existing and new residents will be able to apply for a 'permit to park' within the CPZ, which will allow permit holders the right to park in any on-street space within the zone.

Long stay accessible parking

An approved Document M (2015) compliant wheelchair accessible parking space will be provided for every wheelchair accessible home which requires a space, with a minimum 30% of the total potential spaces being provided on completion of each phase of development regardless of requirements.

Proposed provision

Averaged out across the Development, the provision of residential overnight parking will not exceed 0.4 spaces / dwelling. Short-stay parking for drop-off, deliveries, visitors and non-residential uses will be provided in line with policy.

Illustrative residential long-stay parking provision

Plot	Homes	Internal	External	Total	Active EVCP
Plot A	209	47	60	107	21
Plot B	219	-	72	72	14
Plot C	169	-	48	48	10
Plot D	166	27	45	72	14
Plot E	206	48	45	93	19
Plot F	136	30	38	68	14
Plot G	72	-	26	26	5
Plot H	152	51	27	78	16
Plot J	220	-	64	64	13
Plot K	113	21	35	56	11
Plot L	196	25	47	72	14
Plot P	106	-	33	33	7
Plot Q	124	-	52	52	10
Total	2,088	249	592	841	168
			0.4 spaces / dwelling		20%

The illustrative masterplan assumes the same level of wheelchair homes being provided in each plot; 10% of the total number of homes

Over the 841 residential spaces, nine additional spaces will be provided for the use of non-residential permit holders such as the Community Centre and Health Centre.

A Transport Assessment (TA) has been prepared in support of this application and submitted alongside this report.

The TA describes flexible parking to accommodate demand associated with the community uses, visitor parking, commercial parking and loading bays. The proposed flexible parking approach will be implemented by way of flexible CPZ parking restrictions.

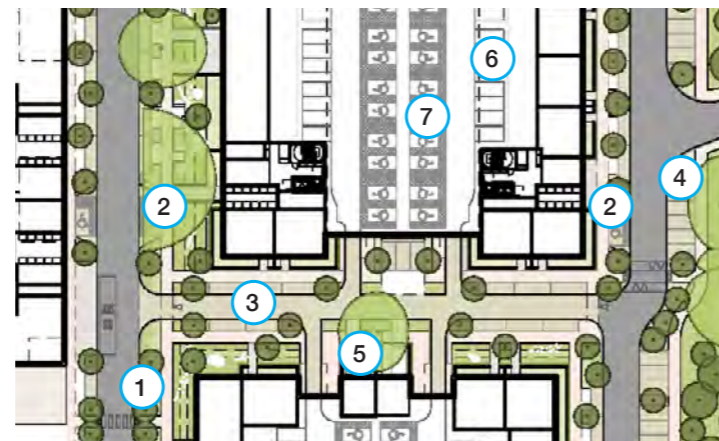
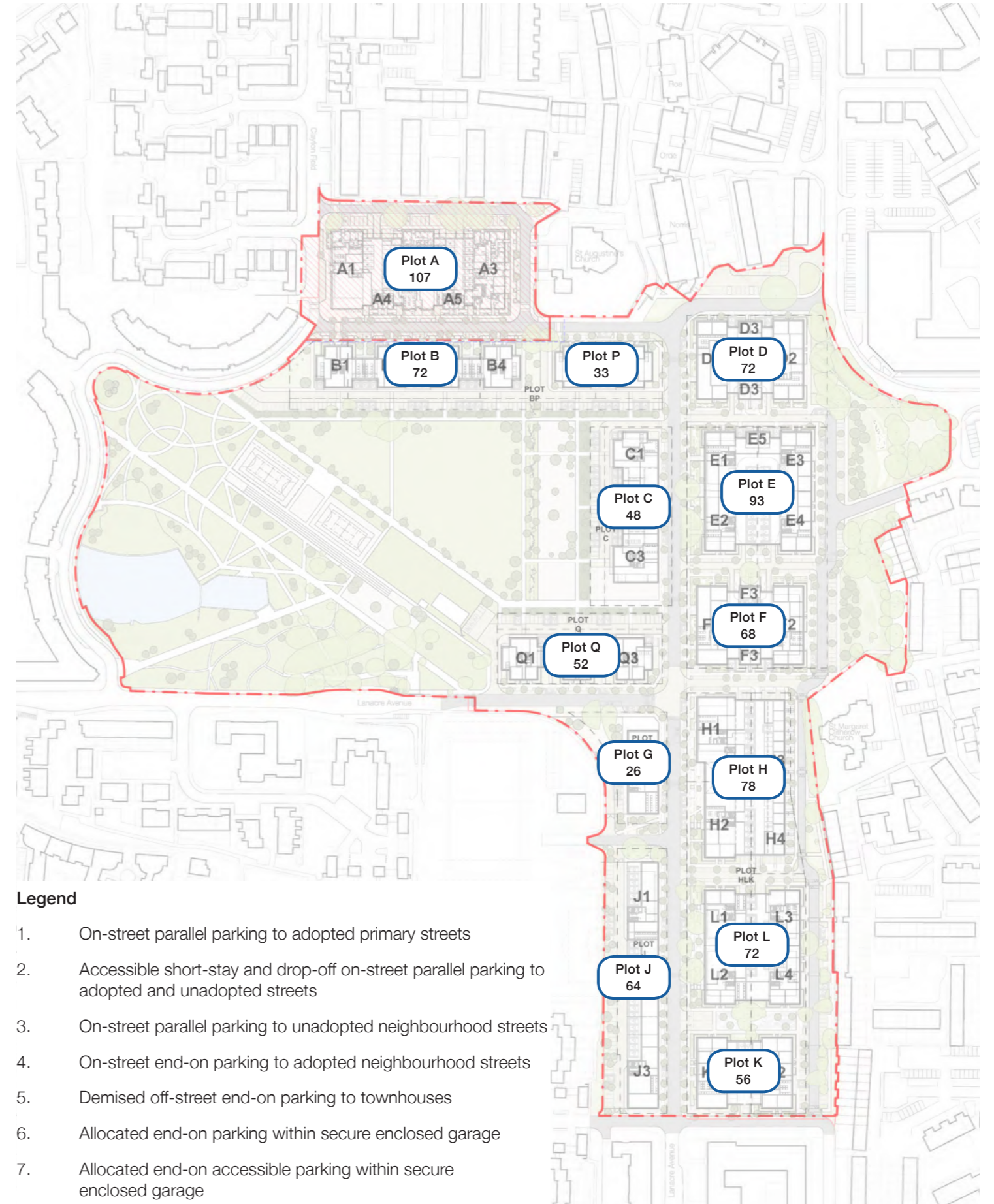


Figure 30: Typical parking arrangements



Legend

1. On-street parallel parking to adopted primary streets
2. Accessible short-stay and drop-off on-street parallel parking to adopted and unadopted streets
3. On-street parallel parking to unadopted neighbourhood streets
4. On-street end-on parking to adopted neighbourhood streets
5. Demised off-street end-on parking to townhouses
6. Allocated end-on parking within secure enclosed garage
7. Allocated end-on accessible parking within secure enclosed garage

Figure 31: Masterplan showing secure parking spaces within individual plots and additional on-street parking

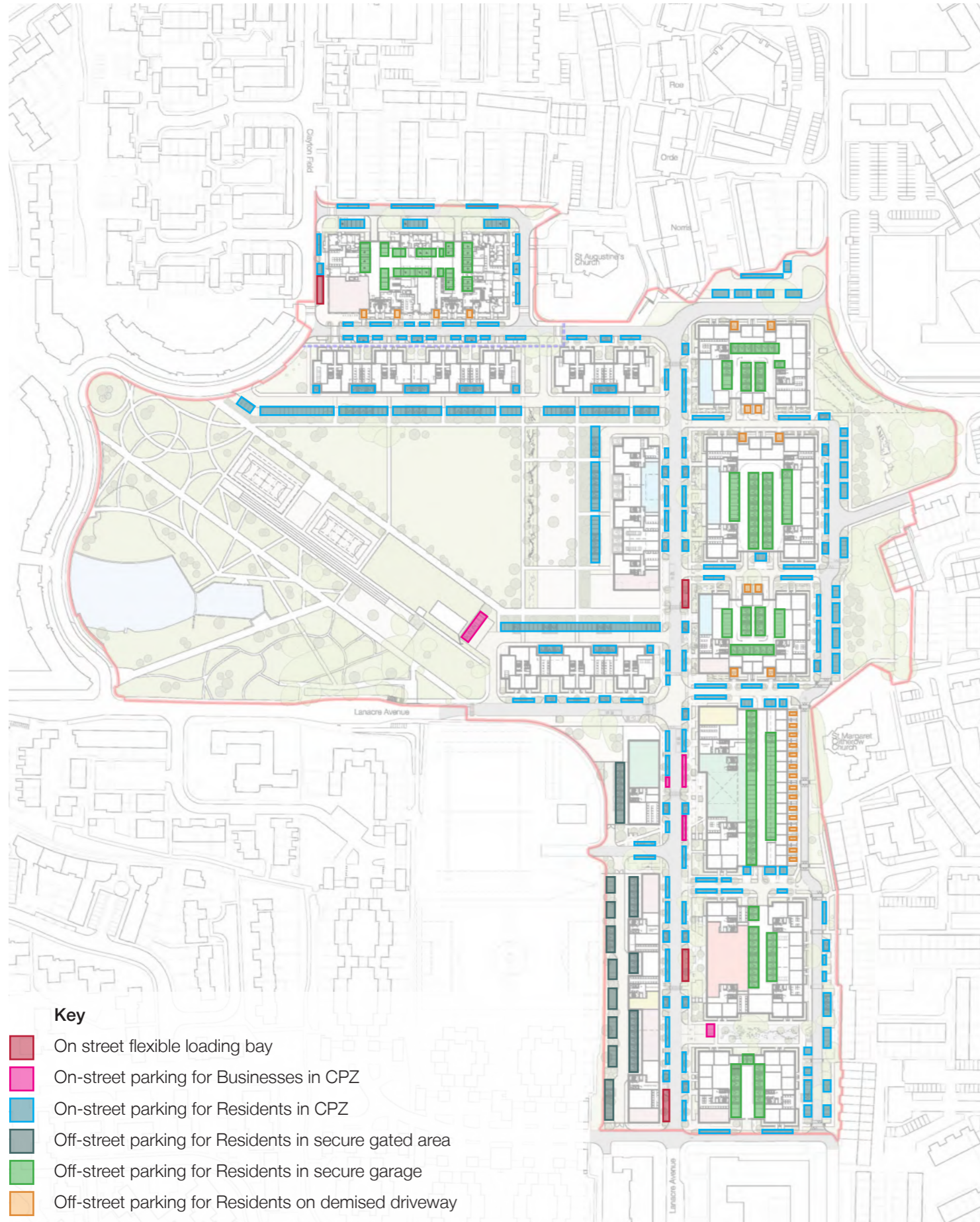


Figure 32: Illustrative parking and loading bay plan



Figure 35: Typical podium block upper floor access



Figure 34: Typical podium block first floor access

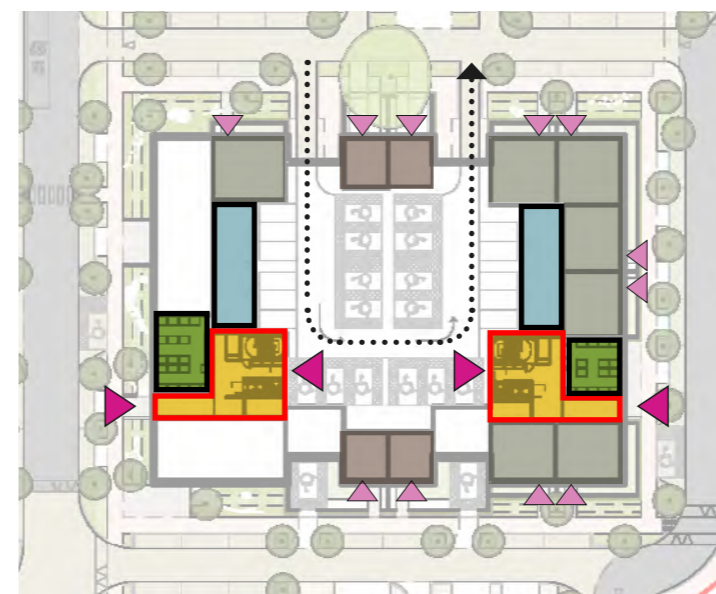


Figure 33: Typical podium block ground floor access

Access from the street

Residents will be able to enter their homes by step-free access across the entire development.

Residents of maisonettes or townhouses will have direct access from the public realm through a landscaped privacy zone to their front door.

Residents of townhouses will have a demised parking space on a private driveway.

Residents of apartments will access their buildings through common lobby areas at ground level, rising up to their floor before accessing their apartment from a common corridor serving between 4 and 9 homes per storey.

Access to car parks

Car parking within podiums (plots A/D/E/F/H/K/L) or in secure external areas (Plots G/J) is controlled by remote-triggered gates.

Residents with parking spaces in these areas will be able to drive into the parking area and then access their core by a secondary lobbied door.

Access to landscaped courtyard gardens

Where present on podium plots (A/D/E/F/H/K/L) shared private amenity space is accessed at podium level via the common core.

Access to bicycle storage

Secure bicycle storage is provided within each block, each enclosure accessed by limited numbers of residents.

Access to refuse stores

Residential, and where present, non-residential refuse stores are accessed from outside of the building via a secure ventilated screen door.

- Key**
- Vehicle access to car park
 - Common access to bin store
 - Private residential access
 - Common building access
 - Residents refuse store
 - Residents' cycle store
 - Common residential lobby
 - Residential maisonette or apartment
 - Residential townhouse

10.0 Access

10.11 Servicing and maintenance

The development will be served by vehicles for a number of different purposes, including:

- Regular commercial deliveries
- Ad-hoc residential deliveries
- Residential and non-residential refuse collection
- Regular building maintenance
- Regular landscape maintenance

Maintenance contractors will be encouraged to utilise zero emission electric vehicles, taking advantage of the 168 Active Electric Vehicle Charging Points (EVCP) distributed evenly around the masterplan.

Vehicles serving the site are expected to be rigid wheelbase Light Goods Vehicles (LGV) ranging from vans to 13m long trucks delivering to the supermarket in Phase 1.

An Outline Delivery and Servicing Management Plan (DSMP) has been prepared in support of this application. Refer to **HP-WSP-MP-XX-RP-TC-0002**.

Building maintenance

Buildings will typically be maintained from within, including regular window cleaning to inward opening panes. Access to plant areas at ground level is possible for maintenance vehicles, and rooftop plant where present can be accessed by lift and stair.

Abnormal facade maintenance and repair can be undertaken by rope access from roofs, or from Mobile Elevated Work Platforms (MEWP) in the public realm.

Large plant in the Energy Centres such as replacement Air Source Heat Pumps can be replaced via mobile crane from the public realm.

Landscape and horticultural maintenance

Ground-level landscape spaces can be accessed by small vehicles moving over pedestrian areas as indicated in **Section 10.7**.

Podium-level landscape spaces can be accessed on foot through the common areas of building cores, with maintenance equipment able to be stored within cleaners' cupboards.

The regime for landscape maintenance is described in **Section 8.0** of this document.

Refuse servicing

Each home will be provided with adequate space to accommodate a general waste and separate recycling bin. Residents in apartment blocks will be able to deposit waste and recycling in a refuse room at the bottom of each core that will provide Euro bins specific to each designated waste stream. Refuse rooms and house bin storage will be accessible from the roadway for local council adoptable standard pickup. Homes with front doors to the street will have kerbside collection.

Quantities of residential and non-residential waste have been calculated using the following guidance documents:

- British Standards 5906:2005 Waste Management in Buildings Code of Practice (BS5906:2005)



Figure 37: Electric vehicle charging



Figure 38: EV delivery vehicle



Figure 39: EV landscape maintenance vehicle



Figure 40: Facade access by MEWP

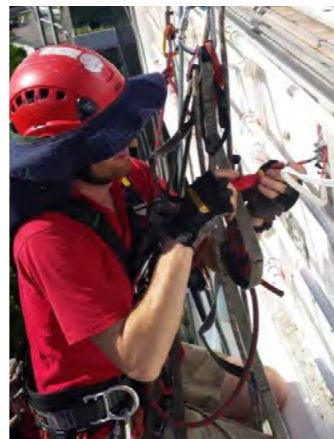


Figure 41: Facade access by abseil

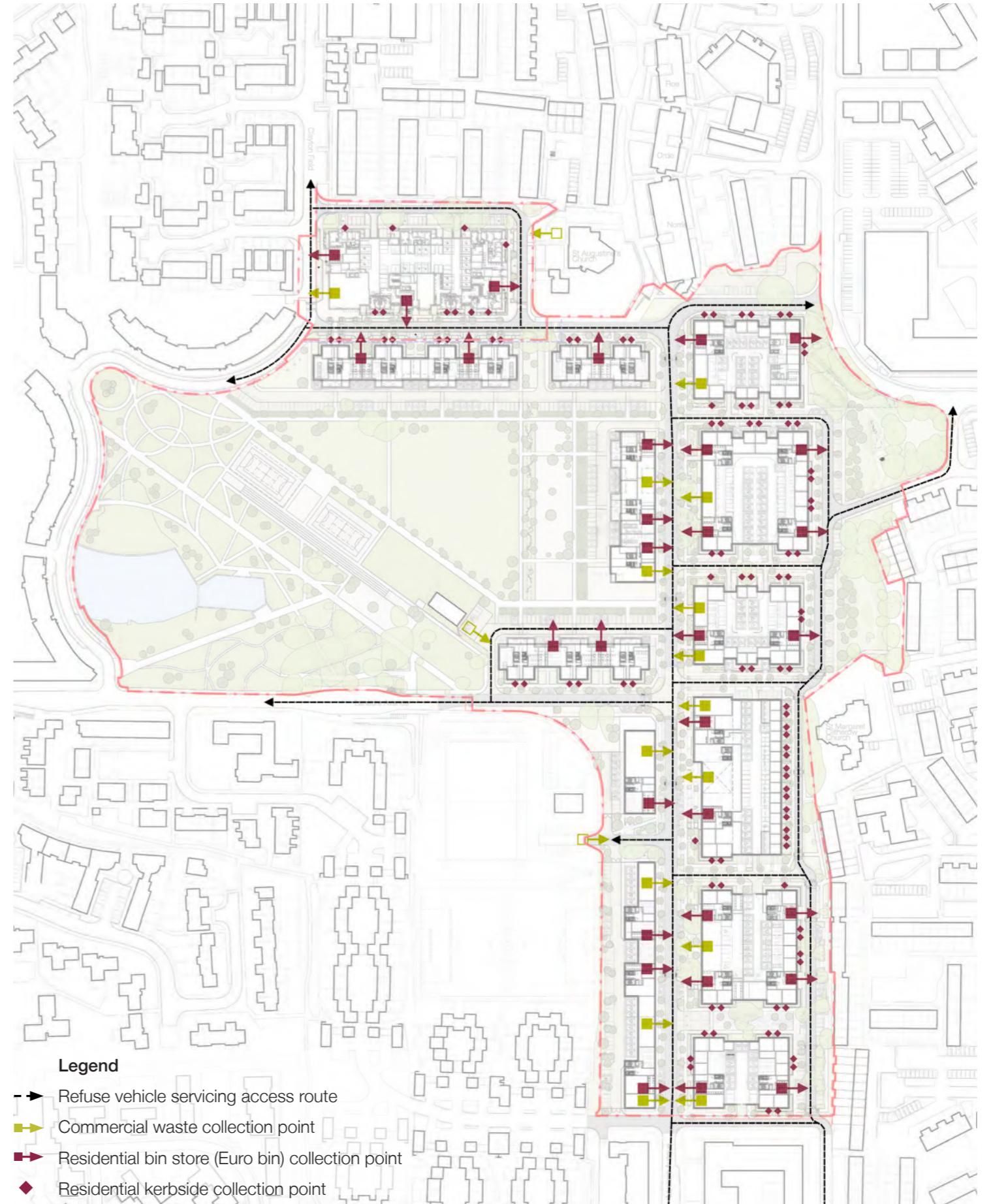


Figure 36: Masterplan showing refuse vehicle routes and collection points