

3 Design and Layout

The proposals have been arrived at through careful consideration of the various constraints and opportunities of the site and the client's aspirations for the development. Special attention has been paid to how the development aligns with the proposed draft masterplan issued by the GLA.

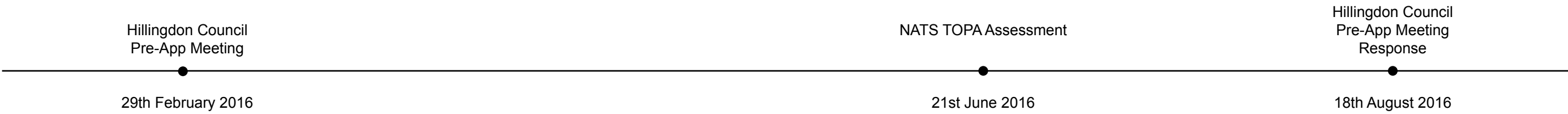
The following sections demonstrate the design processes undertaken and the reasoning for the decisions made.

3.1 GLA Height Guidelines

The height guidelines provided in the GLA Masterplan document sets out a gradation of the residential blocks, with the tallest (12+ storeys) adjacent to the railway. By doing this, the tallest blocks act as an acoustic shield and landmark for the entire development. Additionally, the shadows cast by the tallest buildings is cast over the railway tracks, rather than onto neighbouring buildings.



3.2 Design Evolution



3.2.1 Hillingdon Council Pre-app

Hillingdon Council’s response to the Pre-Application are summarized as follows:

- Building height of 16 stories considered to be excessive.
- Advised to contact NATS for a Technical and Operation Assessment (TOPA).
- Support of tall buildings (above 6 storeys) will only be supported if proposed as part of a wider masterplan
- Believed that 16 storey building would have a negative impact on the adjacent Nestle Conservation Area.
- Higher proportion of family sized accommodation is required, in accordance with emerging Local Plan Part 2.
- High density, exceeding London Plan guidelines, would need to be justified.
- Any future planning application should include a Transport Assessment justifying a lower car parking ratio.
- Advised to contact Metropolitan Police Crime Prevention Officer to discuss Secure by Design strategy.



3.2.2 TOPA Assessment (NATS)

The height of the previous pre-application proposal (16 storeys) was tested in a NATS TOPA Assessment.

The impact of the scheme was tested on the radar system and it was deemed that changes to the radar system would be required due to reflection issues. The mitigation would require a financial contribution to the upgrade of the radar by the applicant.



Proximity to Heathrow radar systems

Source: NATS TOPA Assessment (ref: SG22901)

GLA Pre-App Consultation
Meeting

17th October 2016

3.2.4 GLA Pre-app Consultation

GLA's response to the Pre-Application are summarized as follows:

- The principle of high-density residential-led mixed use redevelopment is strongly supported in strategic planning terms.
- Request for a more comprehensive approach to redevelopment along east side of Viveash Close.
- Provision of affordable workspace at approximately 50% of what is currently on-site, is strongly encouraged.
- High residential density (375 units per hectare) is above-standard range, but supported in the context of the Opportunity and Housing Zone designation, and its proximity to both station and town centre.
- Provision of at least 35% affordable housing is expected. At this level a viability report is not required.
- GLA jointly working with Hillingdon Council and local stakeholders to prepare a Hayes Opportunity Area Planning Framework masterplan. Particular aspects of the OAPF that should be considered included the masterplan's primary north-south block orientation, 12-storey height datum (informed by safeguarding for Heathrow airport)

GLA Pre-App Consultation
Response

4th November 2016

3.2.3 Responding to Pre-app Comments

Primary Design changes:

Modifying the building design and orientation to respond to the GLA's draft OAPF masterplan:

- Recognising that a height of 16 storeys was deemed excessive by the Local Council, the units were redistributed across the building footprint, creating two smaller towers with east-west aspects.
- Increased provision of affordable workspace (83% of requirement).

Additional steps:

- Met with Secure by Design officer on-site to discuss crime prevention strategy, with particular focus on the ground floor and secure residential access.
- Engaged a transportation consultant to comprehensively assess parking needs and tracking requirements.
- Engaged a landscape architect to assess playspace requirements and to design quality amenity space for residents.
- Attempted to bring adjacent site owners together to discuss proposed scheme.



Secure by Design Meeting

14th February 2017

3.2.5 Secure by Design

The following changes resulted from a meeting with the Designing out Crime officer, in order to improve the quality of the spaces and to minimise antisocial behaviour:

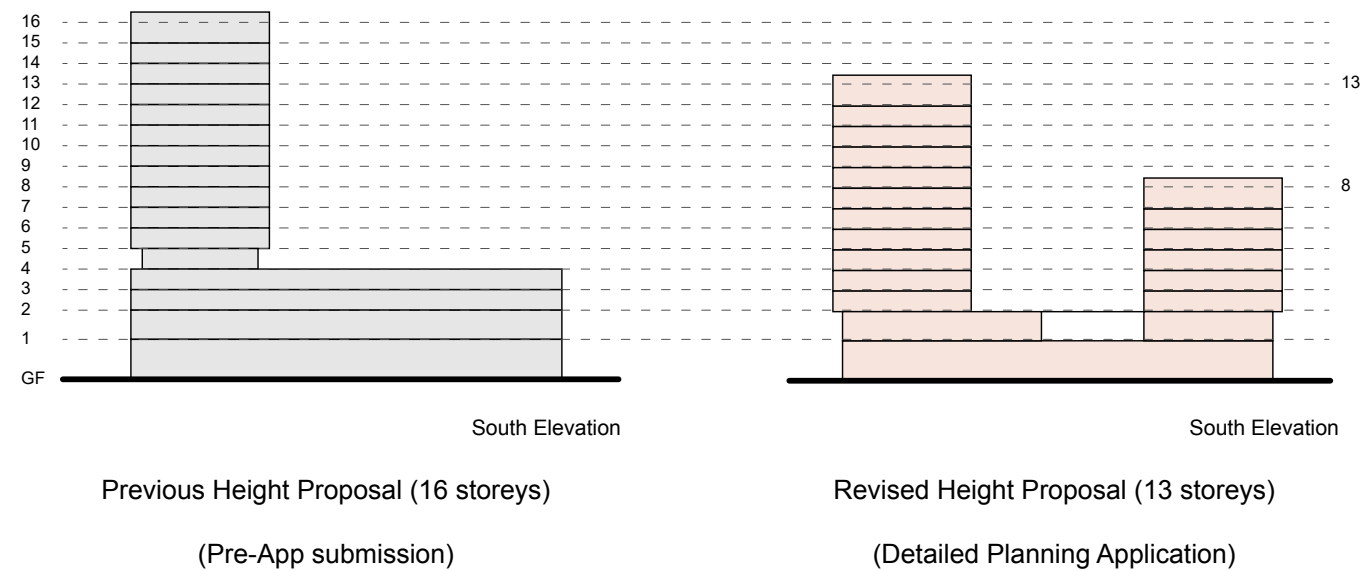
- Reconfiguration of the Ground Floor plan to minimise the number of entry doors into the development.
- All doors to buildings and individual units to be SBD approved, accessed by fob-key and utilise an air lock system
- SBD approved letter boxes provided in the entrance lobby
- Reconfiguration of the cycle store to only have one access door and access available only for bicycle owners.
- Using hit and miss brick for car park wall to provide ventilation and passive surveillance.

3.3 Design Development

3.3.1 Height Reduction

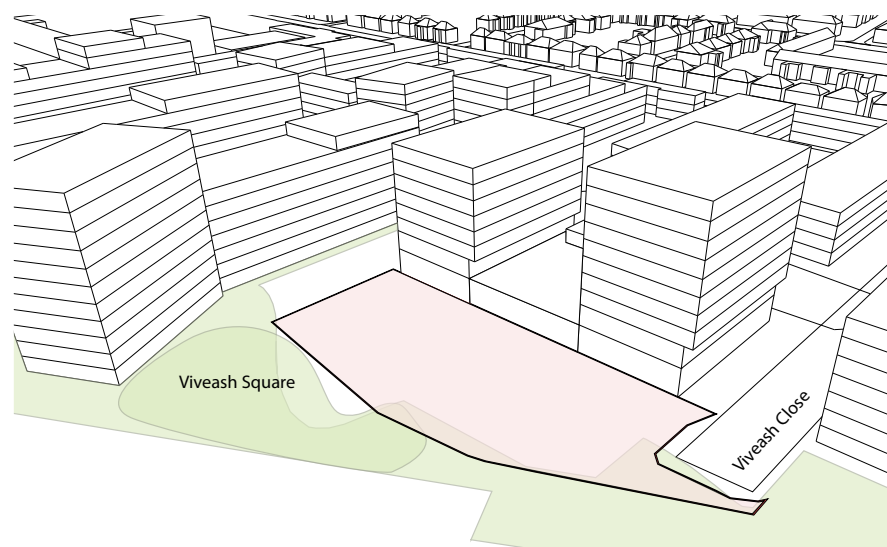
The current proposal reflects the GLA guidelines in terms of height. The scheme consists of two residential blocks of 8 and 13 storeys respectively.

The reduced height is a combined response to suggestions from the Local Council, the GLA, and also results from the NATS TOPA Assessment.

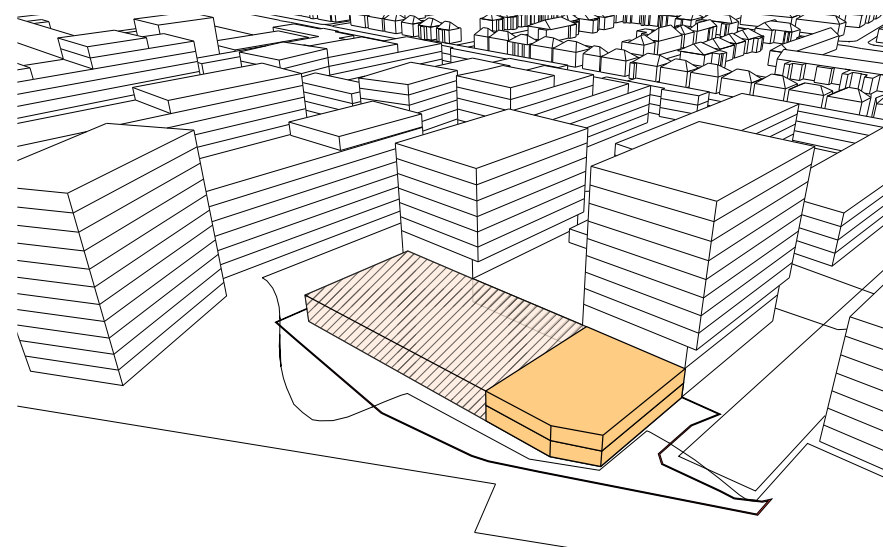


3.3.2 Key Design Drivers:

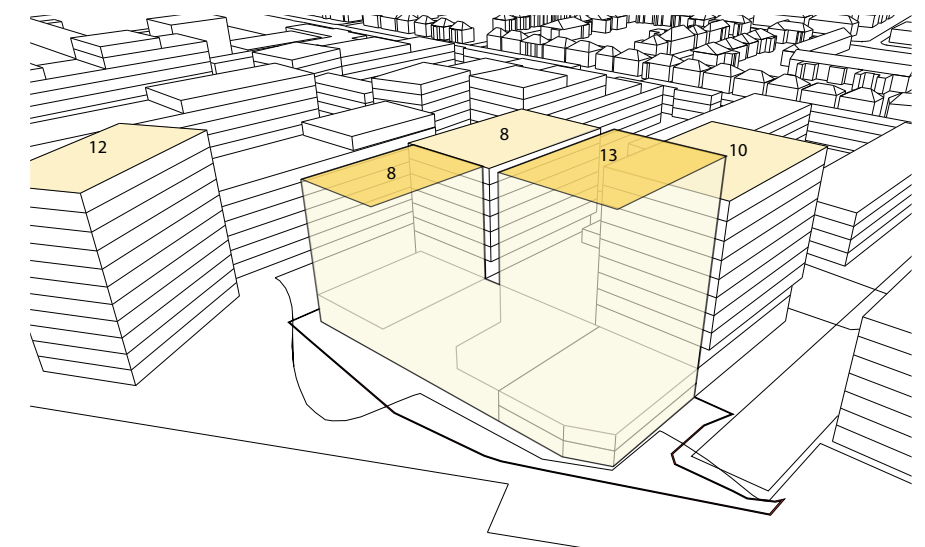
- Model the massing to respond to masterplan character and orientation
- Maintain an East-West facade orientation and maximise window openings
- Use the North facade as an acoustic shield and minimise openings facing the railway
- Enhance private and communal amenity space by introducing full width balconies, communal terraces and protected roof play areas
- Introduce height to block A to address its prominent location and create a landmark element
- Introduce active frontage to North by placing all communal entrances and services to face the proposed 'Green Route' along the railway
- Respond in character to the emerging urban landscape, whilst respecting the recent (and still relevant) industrial past.



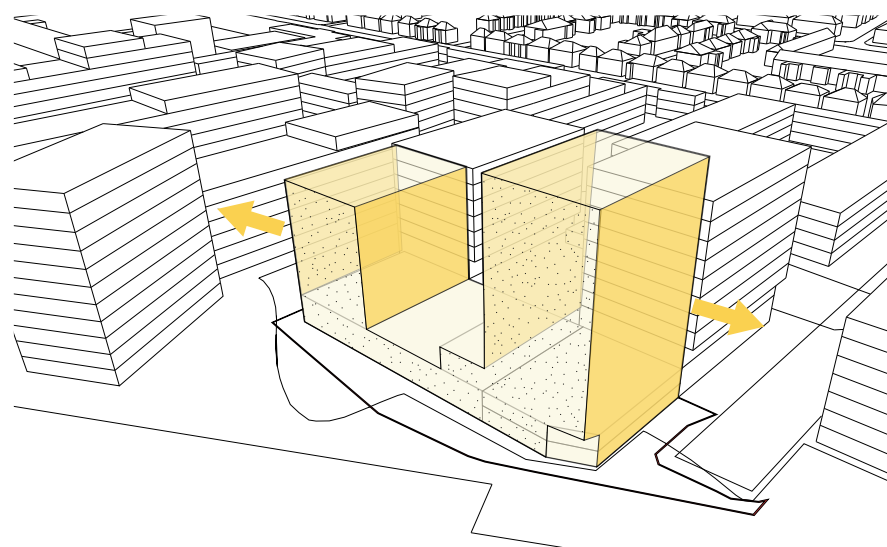
1. Existing site condition: Site location at the end of a suburban street, facing the railway. Indicative masterplan context, including proposed Viveash Square and 'Green Route'



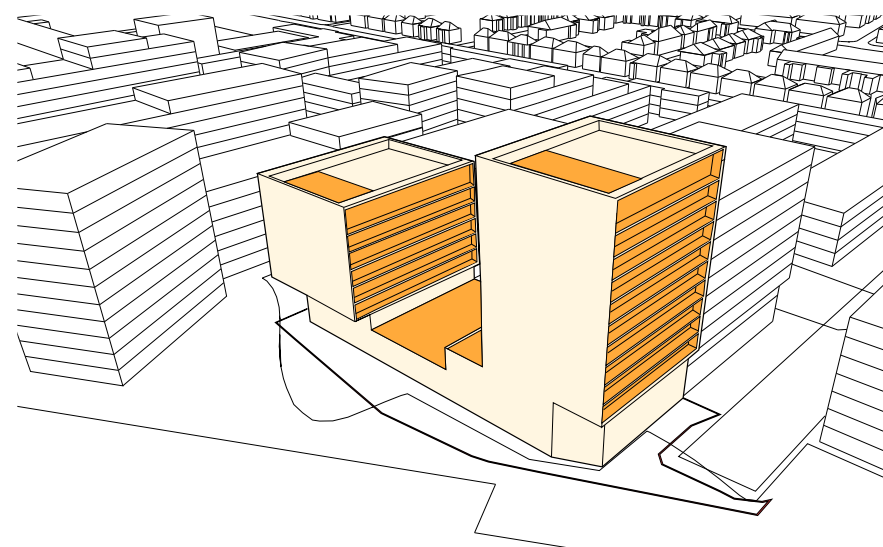
2. Introduce podium and define street frontage: Maximise street frontage for commercial use by introducing a ground floor mezzanine and providing on-site parking behind.



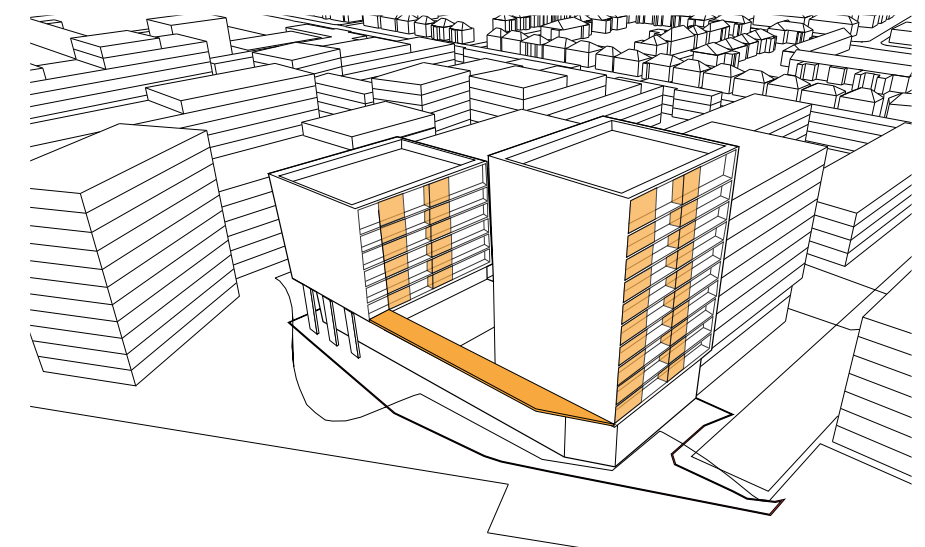
3. Proposed height: Suggested building height of 12+ storeys used to determine scale and density of development. in line with the urban grain of the proposed masterplan.



4. Elevations maintaining E-W orientation: Maximising openings on East and West facades. North facade acts as an acoustic buffer with minimal openings.



5. Maximise amenity space: Introducing full width balconies as private amenity space. Two communal terraces and two roof play spaces provide generous communal amenity space



5. Detailing: Winter gardens enhance the quality and flexibility of private amenity space and provide an additional acoustic buffer. A cantilevered canopy visually connects the two blocks.

3.4 Proposed Layout

3.4.1 Site Strategy

The form of the proposed residential building is predominantly informed by the Masterplan guidelines and suggested massing. Additionally, the variation in height between the proposed blocks addresses the visual character of ‘stepping down’ suggested by the Masterplan and breaks the symmetry of the scheme.



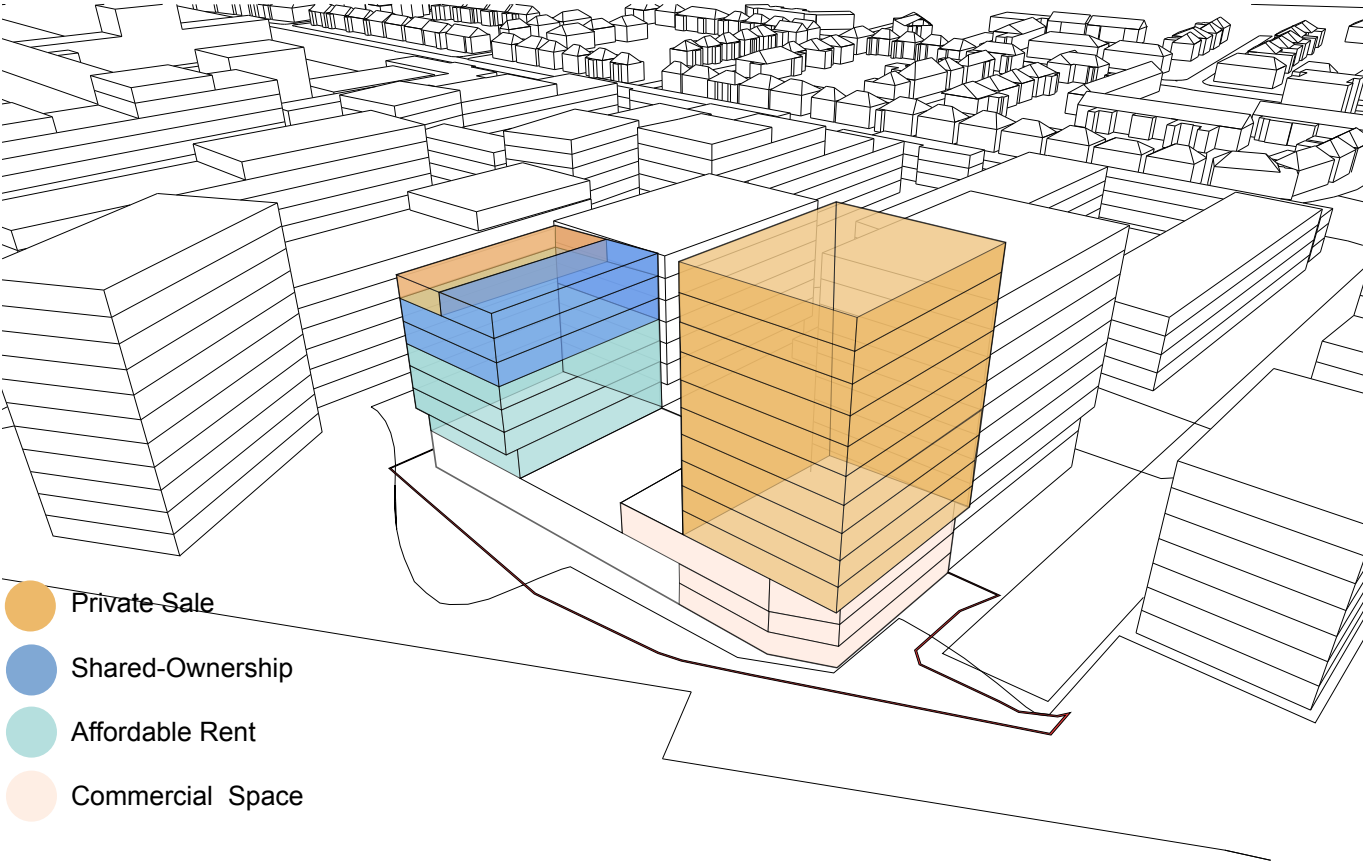
Landscape Masterplan

3.4.2 Organisation

The residential part of the scheme comprises of 88 units across the 0.23ha site at 594 dwellings/ha (1126 hab. rooms/ha).

Of these 88 units, 65% are market sale and 35% are affordable. Of the affordable dwellings, 18 units will be allocated to rent (58%) and 13 units will be for shared ownership (42%). A detailed unit-by-unit schedule is included in the appendix of this document.

The diagram opposite illustrates the distribution of tenure types across the two blocks.



	Affordable			Shared Ownership			Private			
	1bed	2bed	3bed	1bed	2bed	3bed	1bed	2bed	3bed	
G										
1	1	2	1							
2	1	1	3				1	1	2	
3	1	1	3				2	3		
4	1	1	3				2	3		
5				1	1	3	2	3		
6				1	1	3	2	3		
7				1		1	2	4	2	
8							2	2	1	
9							2	2	1	
10							2	2	1	
11							2	2	1	
12							2	2	1	
Subtotal	4	5	10	3	2	7	21	27	9	
Total	19			12			57			88

3.4.3 Ground floor

Both blocks A and B are served by separate cores, with entrances on the North side. This is the primary pedestrian pathway, a desire line between the train station and future developments on the North side of the overall masterplan. This generates an active street frontage and passive surveillance. Secure access is provided for all entrances to the building, in line with Secure by Design guidelines.

Commercial space

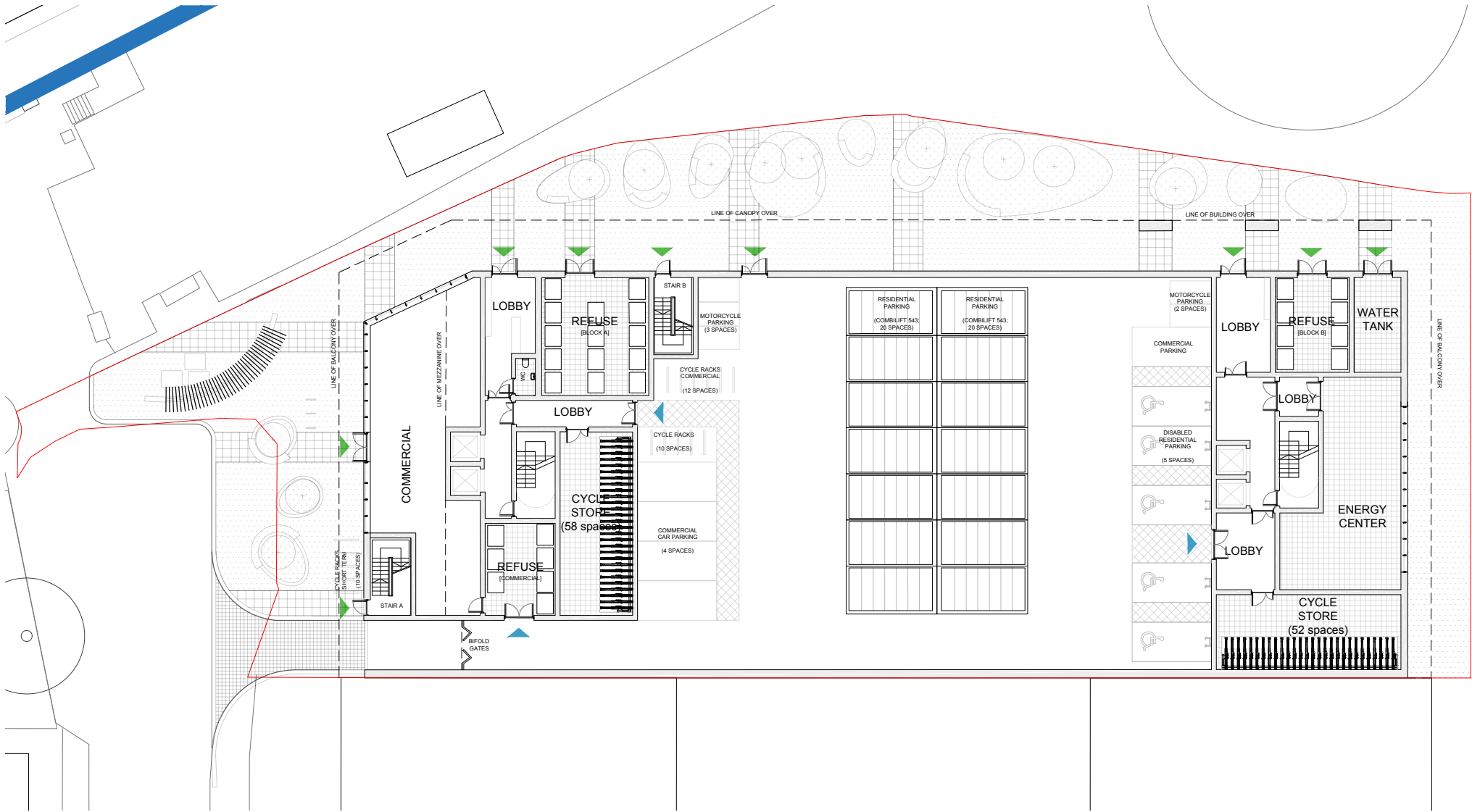
Commercial space is accessed from Viveash Close and is situated on the ground, mezzanine and first floor levels. The space takes exclusive advantage of the limited street frontage. The curtain wall facade provides good visual connections between the interior space and the exterior.

Car Parking

The parking proposals for the site, 0.5 spaces per residential unit, is based on pre-application comments by the GLA and Hillingdon Council. Residential parking will be located within automated car stacker systems, within a secure car park.

Cycle Parking

Cycle stores are located within the ground floor of the building and accessed either from the communal entrances or through the car park entrance on Viveash Close. Refuse and recycling stores are also incorporated within the ground floor, accessed along the northern boundary.



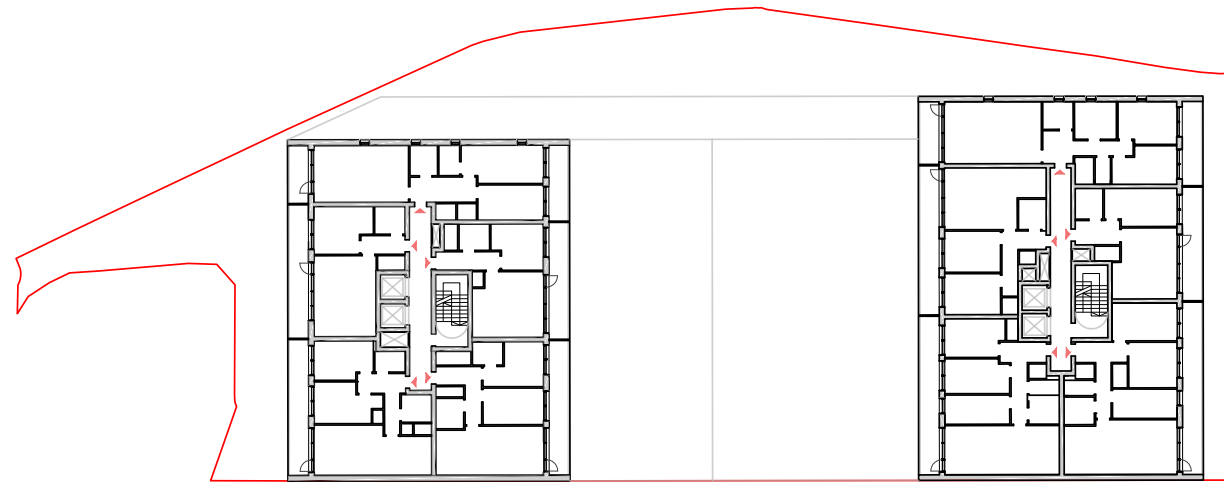
3.4.4 Upper Floors & Amenity Space

The building features a balanced mix of 1, 2 and 3 bed units divided between the two blocks in order to respond to the needs of the users. Block B, which contains mostly affordable units has a majority of 3 bed units, minimising 1 beds, whilst the private sale block maximises 1 and 2 bed units.

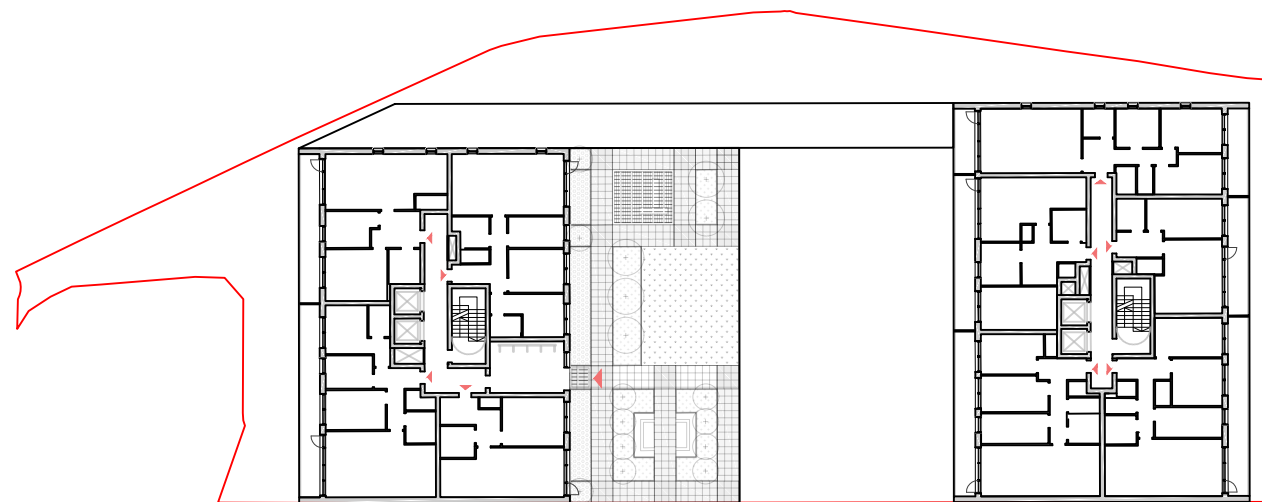
Upper floors possess full-width balconies, providing ample private amenity space.

Providing quality shared communal spaces is a fundamental tenet of the proposed design. A variety of spaces - at ground, podium, and roof levels - allows for a wide range of recreational activities benefitting a diverse profile of future residents.

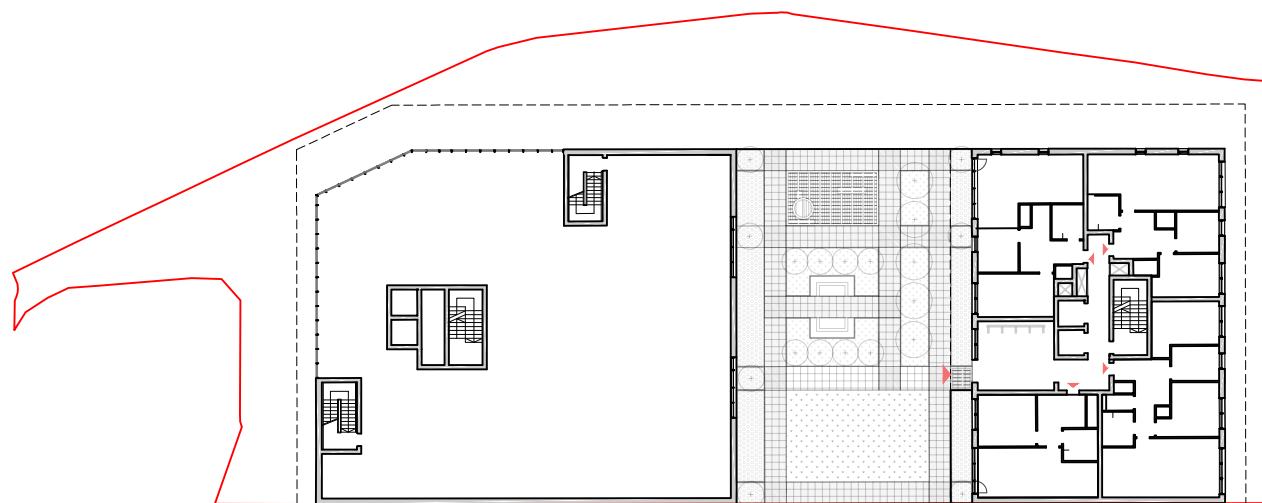
Both first and second floors have access to shared communal terraces. These can be used by residents of both blocks by using a fob key. Access to roof play areas is also open to all residents.



Typical Upper Floor



Second Floor (Communal Terrace)



First Floor (Communal Terrace)

4 Appearance

4.1 Materials

The appearance of the scheme is influenced by the industrial context combined with GLA's vision for the area as a new place to live and work. The opportunities and constraints of the site were also important considerations and led to the following design decisions:

- The minimal finishes and openings on the North facade respond to acoustic issues generated by the railway
- The south facade permits future development suggested in the GLA masterplan
- Glazing and transparency on the east and west elevations is maximised to counterpoint the muted north and south facades.
- Winter gardens are included for living areas in all apartments to increase year-round usability and further mitigate noise from the railway.

Different material finishes have been tested in order to respond to the form and mass of the building. The material and colour palette has been narrowed down to brick, concrete, metal and glass. These materials can be combined in multiple ways and produce results that vary from a heavy monolithic aesthetic, to a light, contrasting finish.



Light material study



Balanced material study



Monochrome material study



Monolithic material study

Two primary materials are proposed - medium coloured brick and light-coloured concrete panels. These are contrasting elements which reflect the mixed-use nature of the building.

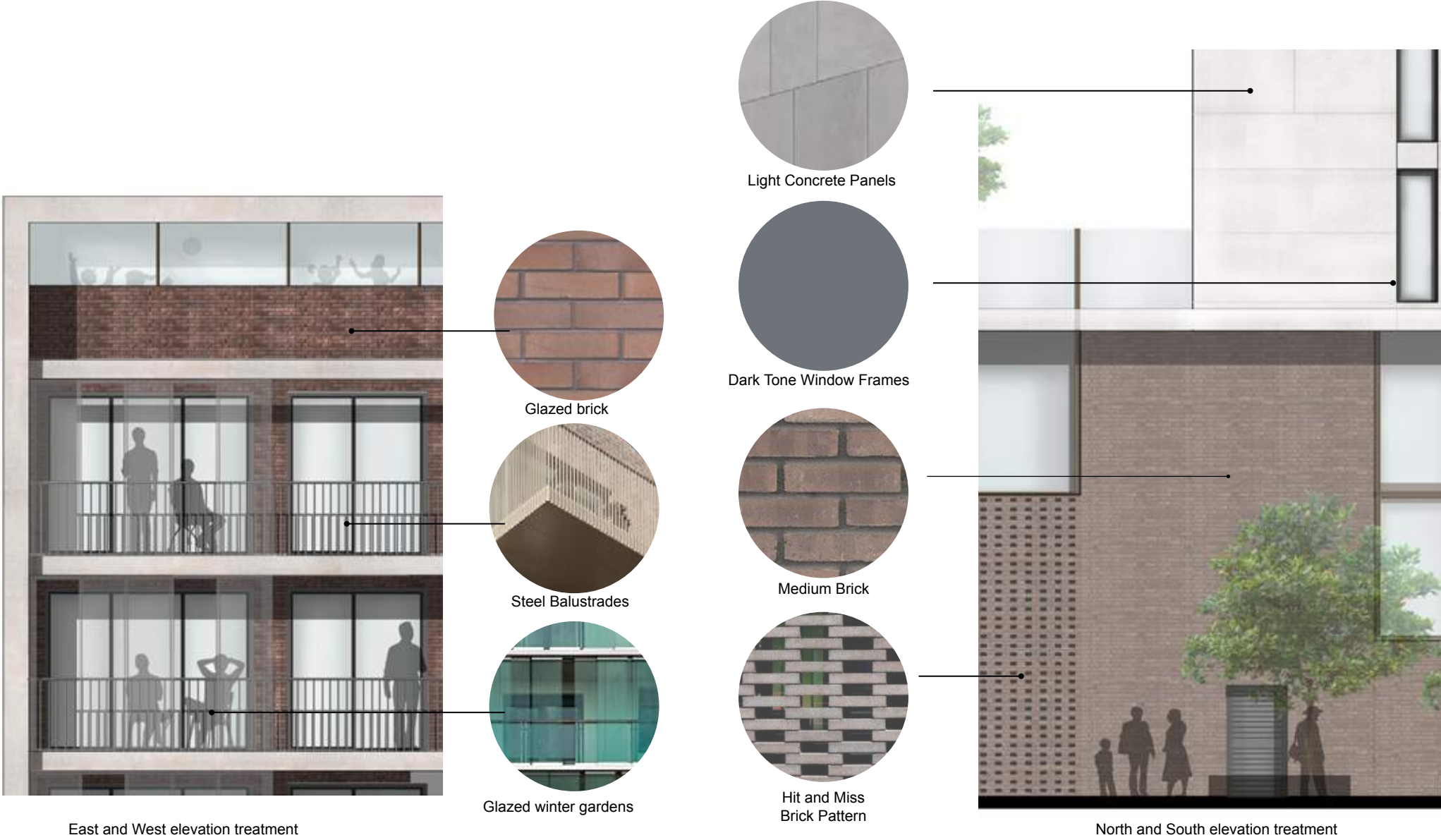
Brick is proposed on the ground and first floors, as a solid, monolithic base. These floors accommodate the commercial spaces, services, car park and access points to the building. Feature hit-and-miss patterned brickwork will add interest in key locations and act to naturally ventilate service and car park areas.

The brick base will support two residential towers. These will be clad in light-weight concrete panels on the North and South facades. The pale white colour and simple architectural form will complement the existing Nestle factory building & the High Point Village development on opposite side of the railway.

The contrast between dark and light will help to create an elegant aesthetic for the two towers. Full height glazing and generous full width balconies on the east and west elevation further add to the lightness of the two primary massings. In addition, winter gardens will be provided for all living areas. These will be openable to allow for user-controlled variation and animation of the facade.

Metal balustrades will be used on the balconies, a practical solution that references the industrial nature of the site context.

Balcony elevation treatments will use a coloured glazed brick that draws attention to the balcony interiors beyond the building line. Fair-faced concrete unifies the structural elements, while window and door frames, railings and flashings will be dark-toned.



4.2 Form

The proposed form has evolved through exploration of the following characteristics and individual building elements, to arrive at a well-considered, holistic scheme.

Footprint

The building footprint is defined by the constrained nature of the site. The southern boundary will likely abut future development, where there is logical reason to build to the property line.

Above this podium sit two blocks of differing height, with an expansive bi-level communal terrace between them.

There are no residential units on the ground floor.

Ground floor open space on the site is primarily located on the northern side of the site, tying-in with the proposed 'Green Route' and the new Viveash Square.

Height

Following the recommendations of the NATS TOPA assessment and comments from the planning officer, it was decided to reduce the height of the proposed development from sixteen storeys to a maximum of thirteen storeys.

This height is distributed across two distinct volumes - or blocks - which fall in line with the GLA's proposed masterplan for the area.

Block A, on the west side, acts as a focal point for the scheme at the termination of Viveash Close. At 13 storeys it is a more appropriate location for increased height because any overshadowing will primarily be limited to the site itself, rather than onto neighbouring developments.

Block B, on the east side, is lower. At 8 storeys, it responds to the character of the adjacent Viveash Square and provides a contrast to Block A.

Profile

The building profile and the relationship of the different building volumes has been developed to create an elegant and varied form that aligns with the proposed masterplan for the site.

The proposed masterplan local street pattern is north-south, with east-west orientation for buildings, and the proposal respects and responds to this. This is also logical when considering the busy railway tracks to the north of the development.

A solid ground floor podium, with split level communal terrace, acts as a base and connector for the two blocks, and helps to unify the scheme.

In addition, a continuous cantilevered canopy acts as a horizontal datum between blocks and podium.

Windows

North facade

The scheme proposes slim profile floor-to-ceiling and counter height windows, ‘punched’ through a solid facade to generate deep reveals on the North facade.

This aesthetic is applied in an ordered manner, directly responding to the internal layout and room functions. Variation in panel size offsets the rigid geometry of the window placements.

East and West facades

All units benefit from floor-to-ceiling glazing on the East and West facades. Window widths are 1000mm and are treated as modules, providing more generous openings of 3 or 4 window modules for the living areas, and 1 or 2 window modules for the bedrooms.



Trinity Long Room Hub - Mccullough Mulvin Architects

Balconies

Full width balconies proposed ensure that generous amenity space is provided.

The balcony structure is articulated in fair-faced concrete. This will complement the concrete panels on the North elevation, to establish a common material language for the building.

The balconies have vertical railings formed in rectangular bar steel to create a delicate, open aesthetic.



Park Tower - Studio Farris Architects

Winter Gardens

Most units benefit from generous winter gardens, accessed via kitchen/dining space and occupying part of the balcony space. The remaining part of the balcony is left open and can be accessed either through the winter garden or directly via the master bedroom.

The floor to ceiling glass panels enclosing the space are mounted on sliding tracks. This enables the space to be used either fully enclosed, partially enclosed or fully open. The degree of openness applied to the winter gardens also adds variation to the facade appearance.

This flexible system allows for the private amenity space to be used all year round and improves its overall quality. Additionally, by providing a shielded outdoor amenity space, the winter gardens also have a noticeable acoustic benefit, blocking noise from the adjacent railway tracks.



Winter garden glazing

Materials & Detailing

Attention has been paid to the junctions of materials, and the experience of the end-user. Detailed consideration has been given to the quality of the ground floor treatments, including building entrances and boundary treatments.

The hit and miss brick detailing on Ground, Mezzanine and First floors provides visual interest, whilst having a practical function of ventilation to service areas and car park.



Ravenscourt - FBM Architects

4.3 Active Frontages

Active frontage on the North elevation has been maximised through a series of measures in order to create visual interest and activity and to ensure a welcoming and safe environment.



Communal Entrances

Entrances are prominent, legible and conveniently located.

Entrances to both cores are treated in the same architectural language, with full height recesses identifying them within the building frontage. Entrances are glazed, providing visual permeability during both day and night.



Facilities & Servicing

Refuse & recycling stores and cycle stores are also located on the North facade, in prominent, visible locations to improve the sense of safety for residents.

Controlled access to these facilities is provided to maintain security. Entrances have been located to minimise travel distances for all users as much as possible.

Commercial Space

The commercial space benefits from direct access from Viveash Close, the main approach. The curtain wall system wraps around the North corner of the building, guiding residents and visitors towards the communal entrances and the beginning of the green link. The cantilevered canopy also provides a visual guide for users of the building.

5 Accessibility

A clear access strategy has underpinned the design approach to this scheme. Considering the needs of all users alongside the requirements of servicing strategies raises a number of issues which influence the design. These include the following:

- User Accessibility
- Car & Cycle Parking
- Fire & Refuse Strategies

These areas are examined on the following pages.

5.1 Transport Connections

The site is well connected to central London and the West country, with trains serving Hayes & Harlington station every 10-15 minutes. The site is within a short walking distance to the station, with access provided through the current car park.

With these transport connections and frequency of service, the proposal site has a PTAL rating of 4.

Hayes & Harlington station will also benefit from major improvements as part of the Crossrail programme, improving journey time and frequency. The improvement works are expected to be completed by 2018.

A full Transport Statement accompanies this application.



5.2 User Accessibility

The proposals include 9 wheelchair adaptable units, which are capable of being fitted out as wheelchair accessible dwellings. This comprises 10% of the overall accommodation.

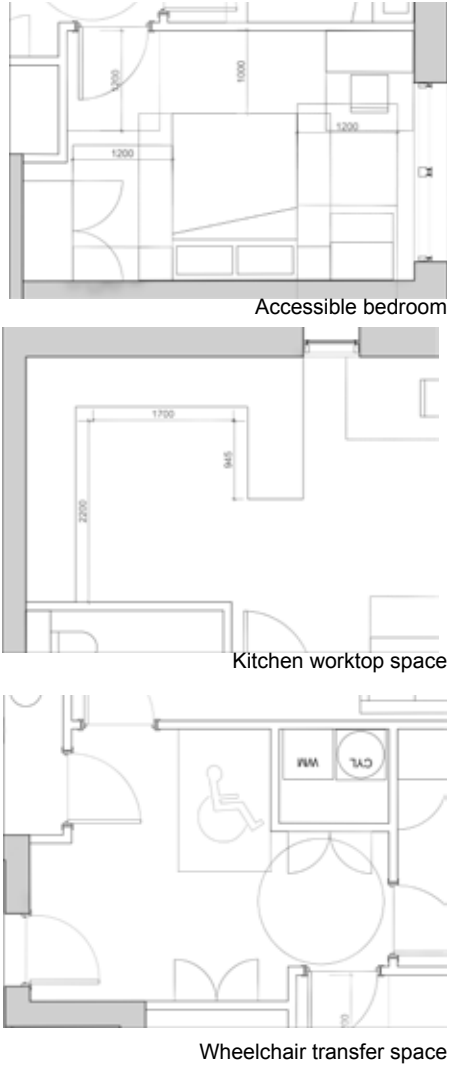
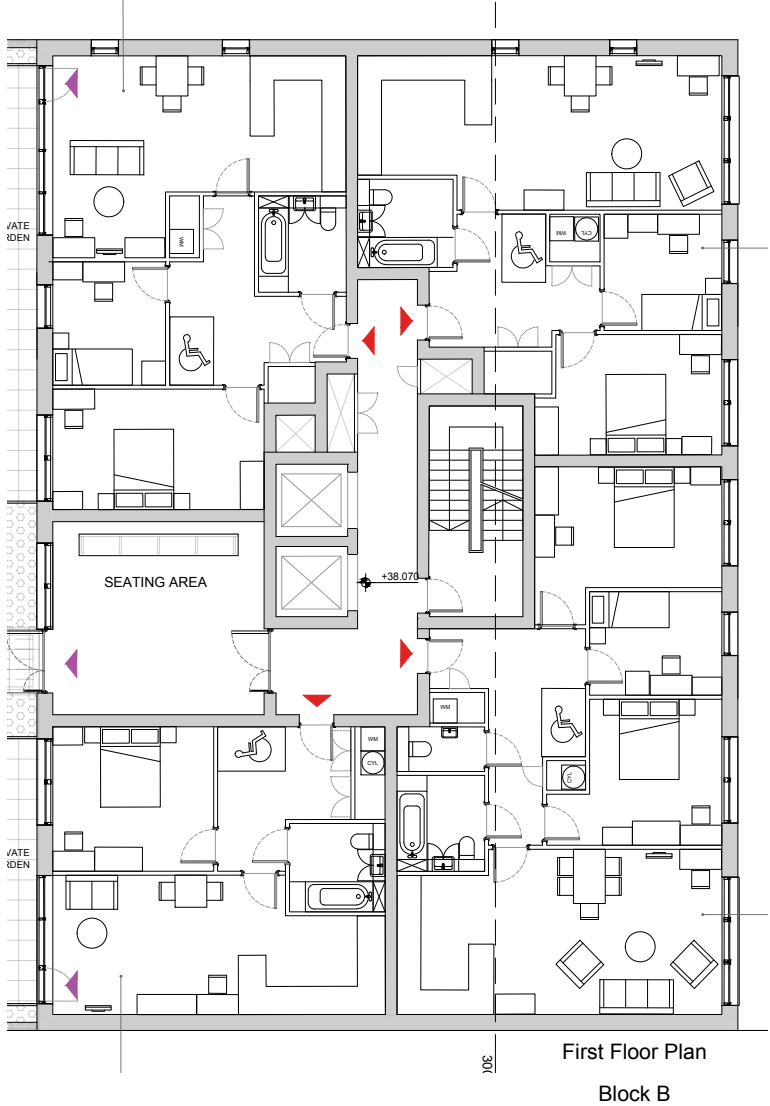
These units have been designed to comply with the standards set out in the Building Regulations Part M(3) for Category 3: Wheelchair user dwellings.

The following criteria set out the key standards which have been addressed in the design of the proposed scheme.

5.2.1 Approach to Dwellings

Both communal and private entrances and approaches to units comply as follows:

- Approaches are step-free, level and clear of obstructions.
- Approach routes have a minimum clear width of 1200 mm.
- There is a level 1500x1500mm landing outside the entrance.
- A clear turning circle, 1500mm in diameter is provided inside the entrance area.
- All communal lifts are designed to be accessible for wheelchair users and 2 lifts per Block are proposed.



5.2.2 Wheelchair User Dwellings

The following key criteria have been addressed for the following spaces:

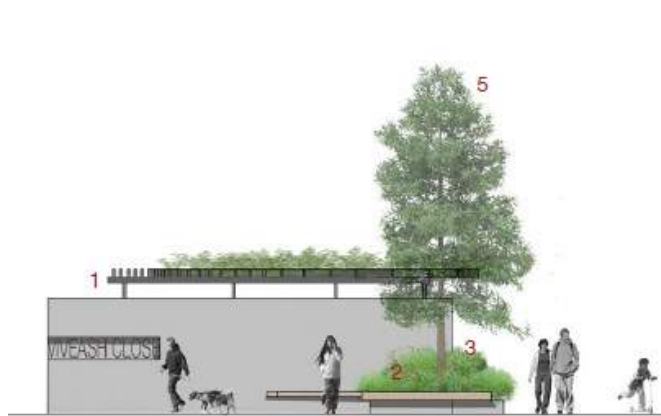
Bedrooms

- Principal double bedroom is 13.5m² and at least 3m wide.
- There is a 1200x1200 clear manoeuvring space on both sides of the bed in the principal bedroom.
- All single bedrooms are 8.5m². and at least 2.4m wide.

Kitchens/Dining Areas

- 1500mm wide in front of all kitchen units and appliances.
- The overall length of kitchen worktop meets the described requirements and there is a continuous section that includes a combined sink and drainer unit and is at least 2200mm long.

Detailed unit layouts are provided within the application drawings.



5.3 Waste Strategy

The scheme will benefit from two separate refuse and recycling stores, serving each of the blocks. These have been sized to provide suitable capacity, as determined by GLA guidelines. Refuse storage is also provided within the commercial space.

Loading of refuse vehicles will be on-street, with vehicles being able to stop within 18m of the refuse and recycling holding area to minimise drag distances. Due to the narrow street frontage and limited vehicular access to Block B, the refuse bins serving this block will be moved to a temporary store located at the end of Viveash Close on collection day.

Full details of the refuse and recycling storage facilities are included within the application drawings.



5.4 Fire Strategy

Automatic ventilation will be provided to the common corridors which will provide smoke clearance in the corridor and stairs.

In the event of a fire, emergency vehicles will be able to stop on the street within 18m of dry riser inlets.

Automatic sprinkler system is provided for the car park at ground floor. This will also benefit from passive ventilation by using hit and miss brickwork facing the North elevation.

Commercial space will be fitted with automatic sprinklers if required.



5.5 Car Parking

The proposed scheme provides a total of 50 car parking spaces and 5 motorcycle spaces. These are divided between commercial, residential and blue-badge spaces. The residential car parking spaces are provided at a 0.5 ratio by using triple car stackers. This system provides a safe and space efficient method of parking. Car stacker systems have been installed successfully in numerous projects in and around London.

Full details of the car parking strategy are included within the Transport Statement and Travel Plan which accompany this application.



5.6 Cycle Parking

As a sustainable mode of transport, cycling is encouraged within the scheme.

Two dedicated cycle storage facilities are provided within the building, shared by all tenants and accessed internally through the main core or through the car park. This provides safe, secure cycle parking in the form of 'double-decker' racks, of the sort used at railway stations etc. These allow safe locking of the frame and wheels, and are robust and space efficient.

Capacity has been sized in accordance with the current London Plan Cycle Storage guidance. This equates to one space for every one-bed dwelling, and two spaces for every other dwelling. A total of 140 spaces is provided.

Commercial cycle parking is also provided in accordance with Hillingdon's standards. This equates to one space per 50m².

In addition, external cycle parking for visitors is provided. This offers 10 parking spaces, located directly outside the building on Viveash Close, in full view of the street. This would be of the traditional 'Sheffield stand' tubular type, proven to be both robust and secure.

Full details of the cycle storage facilities are included within the application drawings.

6 Conclusion

The proposals for this site have been subject to an extensive pre-application consultation process which we believe has improved the proposals at each stage. The result is a high quality development which respects and contributes to the local urban character, whilst meeting all relevant local and national standards.

The desire to enhance the industrial area whilst maintaining employment on site, in conjunction with the high proportion of affordable housing provided represents an excellent contribution to local housing need.



7 Appendices

7.1 Appendix A

Accommodation Schedules

7.1.1 Outline Schedule

	Affordable			Shared Ownership			Private			
	1bed	2bed	3bed	1bed	2bed	3bed	1bed	2bed	3bed	
G										
1	1	2	1							
2	1	1	3				1	1	2	
3	1	1	3				2	3		
4	1	1	3				2	3		
5				1	1	3	2	3		
6				1	1	3	2	3		
7				1		1	2	4	2	
8							2	2	1	
9							2	2	1	
10							2	2	1	
11							2	2	1	
12							2	2	1	
Subtotal	4	5	10	3	2	7	21	27	9	
Total	19			12			57			88

7.1.2 Accommodation Schedule

Site:	Viveash Close
Job Number:	897
Client:	General Food Trading Co
Document:	Accommodation Schedule
FBM Ref	0
Date:	29/03/2017
Related Drawing	0

TOTAL Site Area	2335	m2	0.23	Hectares
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1) RESIDENTIAL BREAKDOWN

	Block A												
	1B (2P)				2B (4P)				3B (5P)				
	P	PR	AR	SO	P	PR	AR	SO	P	PR	AR	SO	
TENURE TYPE													
Hab Rooms per Unit	2				3				4				
Minimum Unit Area m2	50				70				86				
00 Ground	0	0	0	0	0	0	0	0	0	0	0	0	
01 First Floor	0	0	0	0	0	0	0	0	0	0	0	0	
02 Second Floor	1	0	0	0	1	0	0	0	2	0	0	0	
03 Third Floor	2	0	0	0	3	0	0	0	0	0	0	0	
04 Fourth Floor	2	0	0	0	3	0	0	0	0	0	0	0	
05 Fifth Floor	2	0	0	0	3	0	0	0	0	0	0	0	
06 Sixth Floor	2	0	0	0	3	0	0	0	0	0	0	0	
07 Seventh Floor	2	0	0	0	3	0	0	0	0	0	0	0	
08 Eighth Floor	2	0	0	0	2	0	0	0	1	0	0	0	
09 Ninth Floor	2	0	0	0	2	0	0	0	1	0	0	0	
10 Tenth	2	0	0	0	2	0	0	0	1	0	0	0	
11 Eleventh	2	0	0	0	2	0	0	0	1	0	0	0	
12 Twelfth	2	0	0	0	2	0	0	0	1	0	0	0	
13 Thirteen	0	0	0	0	0	0	0	0	0	0	0	0	
Sub total by type & tenure	21	0	0	0	26	0	0	0	7	0	0	0	
SUB TOTAL UNITS BY TYPE	21				26				7				
Private Sale- type/block %	38.9%				48.1%				13.0%				100.0%
Private Rent-Type/block%	0.0%				0.0%				0.0%				0.0%
Affordable Rented - type/block %	0.0%				0.0%				0.0%				0.0%
Shared Ownership - type/block %	0.0%				0.0%				0.0%				0.0%
TOTAL UNITS/BLOCK	54												
Sub TOTAL Hab Rooms	42	0	0	0	78	0	0	0	28	0	0	0	
TOTAL HAB ROOMS/BLOCK	148												

1.2) RESIDENTIAL TENURE -ALL BLOCKS

	1B (2P)	2B (4P)	3B (5P)	TOTAL	%
TOTAL by TYPE	28	34	26	88	Total units
Market	21	27	9	57	64.8%
Of which	36.8%	47.4%	15.8%	100.0%	
Private Sale- Units	21	27	9	57	64.8%
Private Rent- Units	0	0	0	0	0.0%
Affordable	7	7	17	31	35.2%
Of which	22.6%	22.6%	54.8%	100.0%	
Affordable Rented	4	5	10	19	61.3%
Shared Ownership	3	2	7	12	38.7%

Block B											
1B (2P)				2B (4P)				3B (5P)			
P	PR	AR	SO	P	PR	AR	SO	P	PR	AR	SO
2				3				4			
50				70				86			
0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	2	0	0	0	1	0	0
0	0	1	0	0	1	0	0	0	3	0	0
0	0	1	0	0	1	0	0	0	3	0	0
0	0	1	0	0	1	0	0	0	3	0	0
0	0	0	1	0	0	0	1	0	0	0	3
0	0	0	1	0	0	0	1	0	0	0	3
0	0	0	1	1	0	0	0	2	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	4	3	1	5	2	2	0	10	7	
7				8				19			
0.0%				2.9%				5.9%			8.8%
0.0%				0.0%				0.0%			0.0%
11.8%				14.7%				29.4%			55.9%
8.8%				5.9%				20.6%			35.3%
34											
0	0	8	6	3	0	15	6	8	0	40	28
114											

TOTALS
TOTAL PER FLOOR
0
4
9
10
10
10
10
10
10
5
5
5
5
0
TOTAL
88

GIA
m2/ Floor
-
309
687
709
709
709
709
709
326
329
329
329
-
TOTAL
6183

DENSITY - NB Considers whole site	
Total Hab Rooms	262
Hab rooms per hectare	1122
Dwellings per hectare	377

Floors	Private Amenity Space Provision		Communal Amenity Space Provision	
	Block A	Block B	Communal terraces	Roof Space
1		28.5	370	
2	65.4	80.6	245	
3	72	80.6		
4	72	80.6		
5	72	80.6		
6	72	80.6		
7	72	80.6		
8	72			166
9	72			
10	72			
11	72			
12	72			
13				115
TOTAL	785.4	512.1	615	281

2193.5 m2



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