

Chapter 4: The Proposed Development

INTRODUCTION

4.1 This ES chapter presents a description of the Proposed Development for which full (detailed) planning permission is being sought. It provides the relevant and sufficient information on the Proposed Development to aid the identification and assessment of potential impacts and likely effects across the technical topic areas addressed in the EIA as presented in **ES Volume 1, Chapters 6 to 9** and **ES Volume 2: Townscape and Visual Impact Assessment (TVIA)**. Further details on the Proposed Development can be found within the Design & Access Statement (DAS), detailed plans and area schedules that have been submitted to accompany the planning application.

THE PROPOSED DEVELOPMENT

Overview of the Proposed Development

- 4.2 Whilst an indicative phasing strategy has been prepared and considered where necessary within the ES, it is anticipated that a phasing condition will be attached to the permission, requiring details of phasing to be discharged in due course. The below has been considered (and comprises the Proposed Development) at this stage:
- Enabling works and operations;
 - Residential development (Use Class C3), comprising an affordable housing block, commercial floorspace (Use Class E) within the block, and the immediately adjacent public realm that enables access to the block. This phase includes the play space and car parking spaces which relate to the affordable homes;
 - Shared living accommodation (Sui Generis), comprising a shared living block, the community and commercial floorspace within the block (Use Classes E and F2) and the immediately adjacent public realm that enables access to the block. The phase also includes the ground floor communal amenity spaces accessible only to shared living residents, and the blue badge parking space associated with the shared living block; and
 - Site-wide (and/or phase-specific) access, servicing, public realm, cycle-parking, open space, hard and soft landscaping, utilities, plant and all other associated works.
- 4.3 The Proposed Development will be car free save for blue badge parking. Provision will be made for vehicle, cycle and pedestrian access arrangements as well as cycle storage in accordance with current policy requirements.
- 4.4 The Energy Strategy will be electricity-led and consists of Air Source Heat Pumps (ASHP). Mechanical Ventilation with Heat Recovery (MVHR) units are expected to be provided for each of the residential units, with local commercial MVHR units to also be provided in non-residential areas.
- 4.5 Although construction works will be carried out simultaneously, the Proposed Development will be delivered sequentially, with Block B (affordable residential) being complete and operational first. For more information on the indicative phasing of the Proposed Development, see **ES Volume 1, Chapter 5: Enabling and Construction Works**.
- 4.6 The Proposed Development is shown in Figure 4.1, with further details provided throughout this ES chapter.

Land Uses and Quantum of Development

4.7 Table 4.1 defines the proposed quantum of development and land use areas by use class for the Proposed Development in terms of Gross Internal Area (GIA).

Table 4.1 Proposed Quantum of Development (GIA m²)

Uses	Use Class	Total (GIA m²)
Shared Living	Sui Generis	20,625
Residential (Affordable)	C3	9,258
Commercial/Community	E/F2	355.72
Total	-	30,238.5

Figure 4.1 The Proposed Development



Affordable Residential (C3):

4.8 The Proposed Development will provide a total of 87 affordable socially rented residential units. The split of affordable residential units is displayed below in Table 4.2.

Table 4.2 Affordable Residential Block¹

1B2P	2B4P	2B4P-M4(3)	3B5P	3B5P-M4(3)	4B6P TH	4B6P TH-M4(3)	Total
14	46	5	8	4	9	1	87

Shared Living (Sui Generis)

4.9 The Proposed Development will provide a total of 522 shared living units within the shared living block, which are split across different typologies: Studio units (split between R Studio and L Studio layouts), Premium units (larger studio units), and accessible units (wheelchair accessible), shown in Table 4.3 below. R and L Studio units differ only in their orientation depending on where they are situated within the Proposed Development. Of the total number of shared living units, 10.1% will be accessible.

¹ M4(3) units refer to wheelchair accessible units

Table 4.3 Shared Living Block

R Studio	L Studio	Premium	Accessible	Total
385	44	40	53	522

Non-Residential Uses (E and F2):

4.10 The Proposed Development will include areas of community and commercial/employment space on the ground floor levels of both blocks. Details of the split between the shared living and residential blocks can be seen below in Table 4.4.

Table 4.4 Non-Residential Land Uses and Areas

Use	Area (GIA m²)			Use Class
	Block A	Block B	Total	
Commercial/Employment	75.8	154.41	230.21	Use Class E
Community	-	125.51	125.51	Use Class F2
Non-Residential Total*	75.8	279.92	355.72	-

*excluding BoH and servicing

Site Layout and General Arrangement

Site Layout

- 4.11 As illustrated in Figure 4.2, the Proposed Development comprises two blocks which are located on the northern and southern boundaries of the site. Between them is the proposed new public realm (“Ashley Link”).
- 4.12 The affordable residential block is located along the northern boundary of the site, adjacent to the off-site Rosa Luxemburg Apartments. The shared living block is located along the southern boundary, adjacent to off-site West Apartments and 1-21 Hale Road terraced housing.
- 4.13 The site is located along Ashley Road, from which vehicular and pedestrian access can be gained. Both blocks will be residential-led and will also include a small provision of community and commercial/employment space, in addition to communal amenity space.

General Arrangement

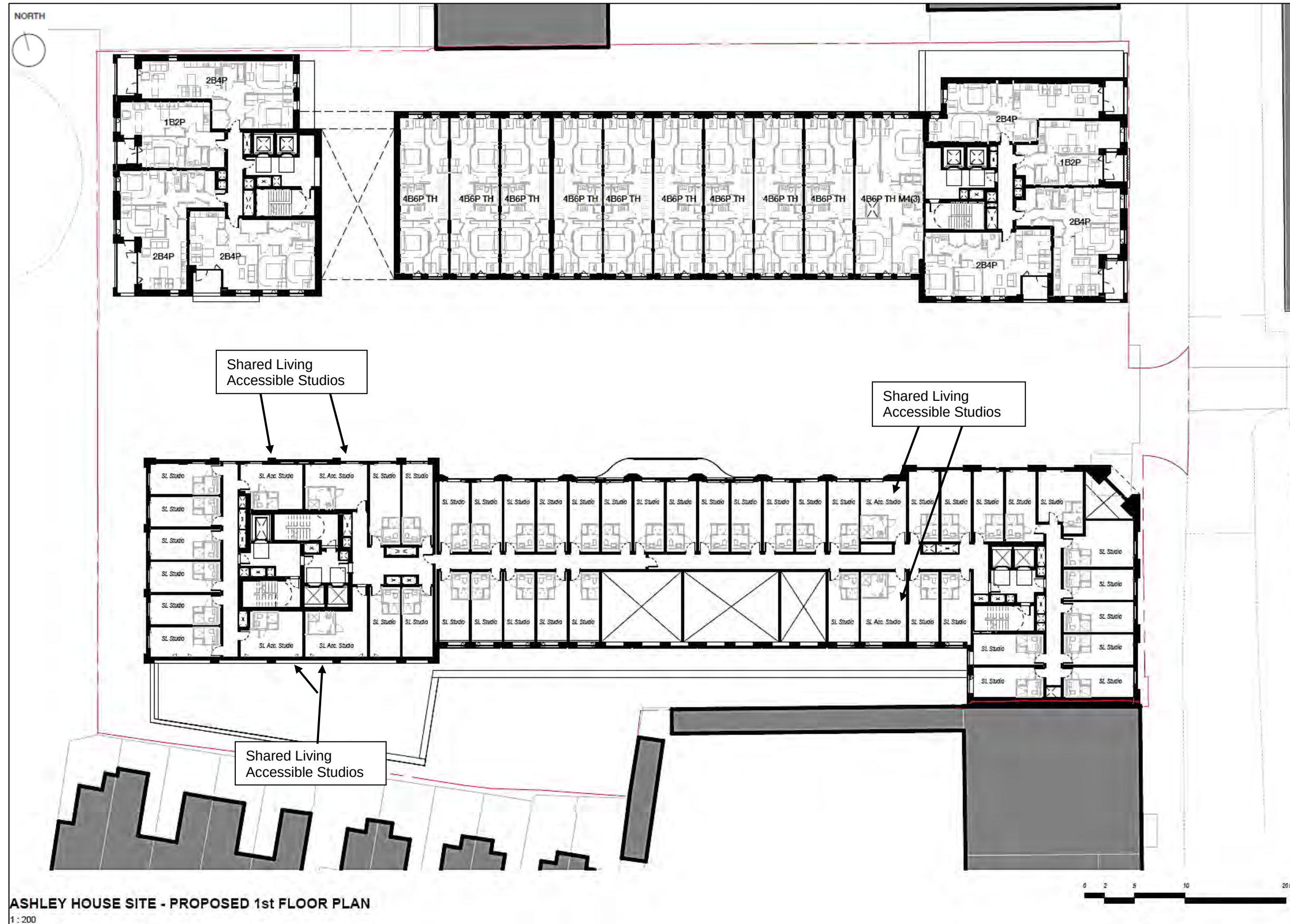
- 4.14 General Arrangement (GA) plans for the ground level, Level 1, one typical floor below the 6th level (Level 2), Level 7, one typical floor above the 6th level (Level 8) and roof level, are illustrated in Figure 4.2 to Figure 4.8. As the shared living block is a part six, part 23 storey block, the GA plans vary below Level 6, at Level 6 (part roof level), and above Level 6. The detailed drawings of the GA for each level of the Proposed Development can be viewed in the General Arrangement Drawings within the DAS, submitted alongside the planning application.

Figure 4.2 General Arrangements – Ground Floor²



² The southern block represents Block A. The northern block represents Block B.

Figure 4.3 General Arrangement - Level 1³



³All shared living units depicted in Figure 4.2 to Figure 4.7 are standard studio units, unless labelled otherwise.

Figure 4.4 General Arrangement – Level 2

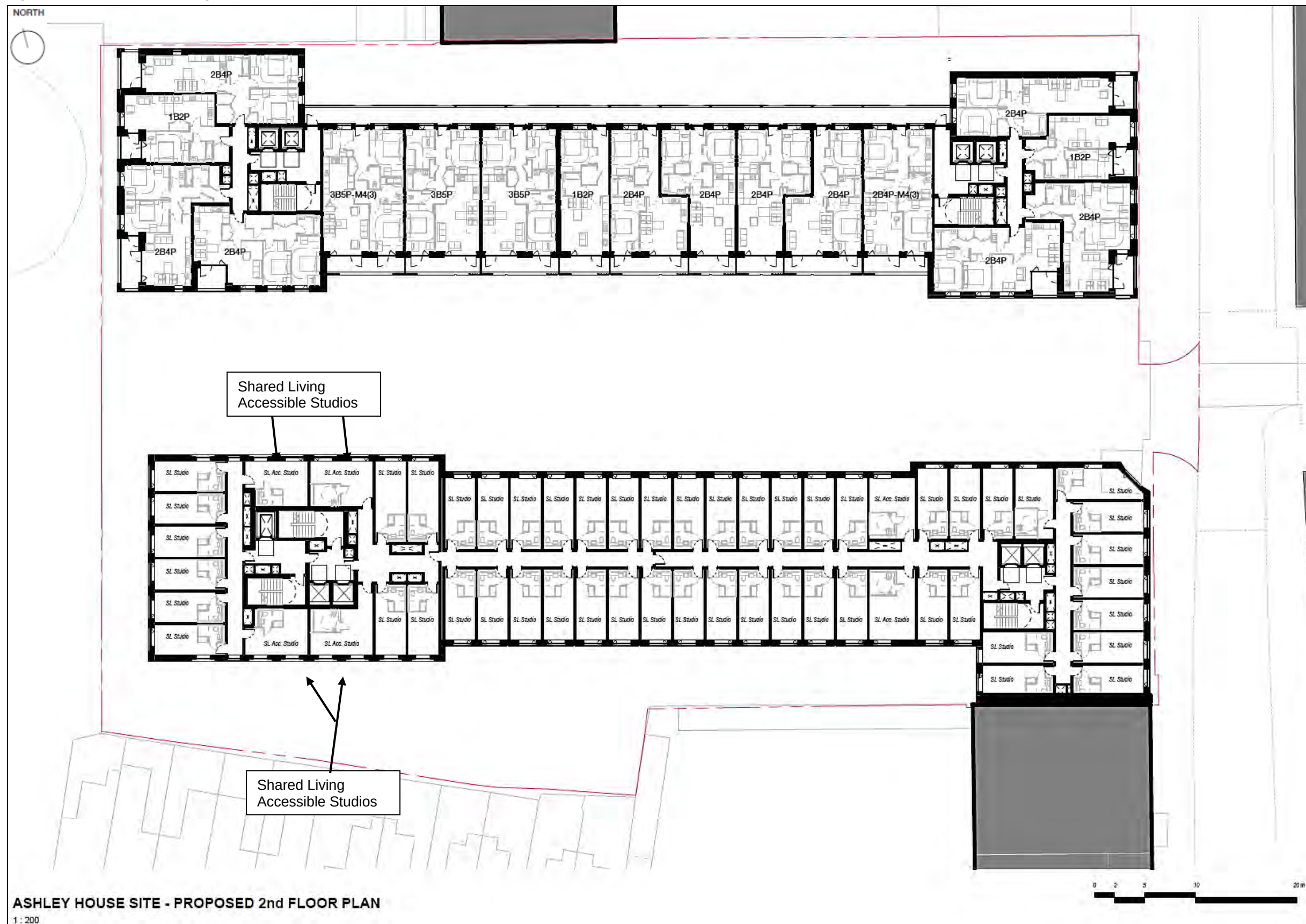


Figure 4.5 General Arrangement – Level 6

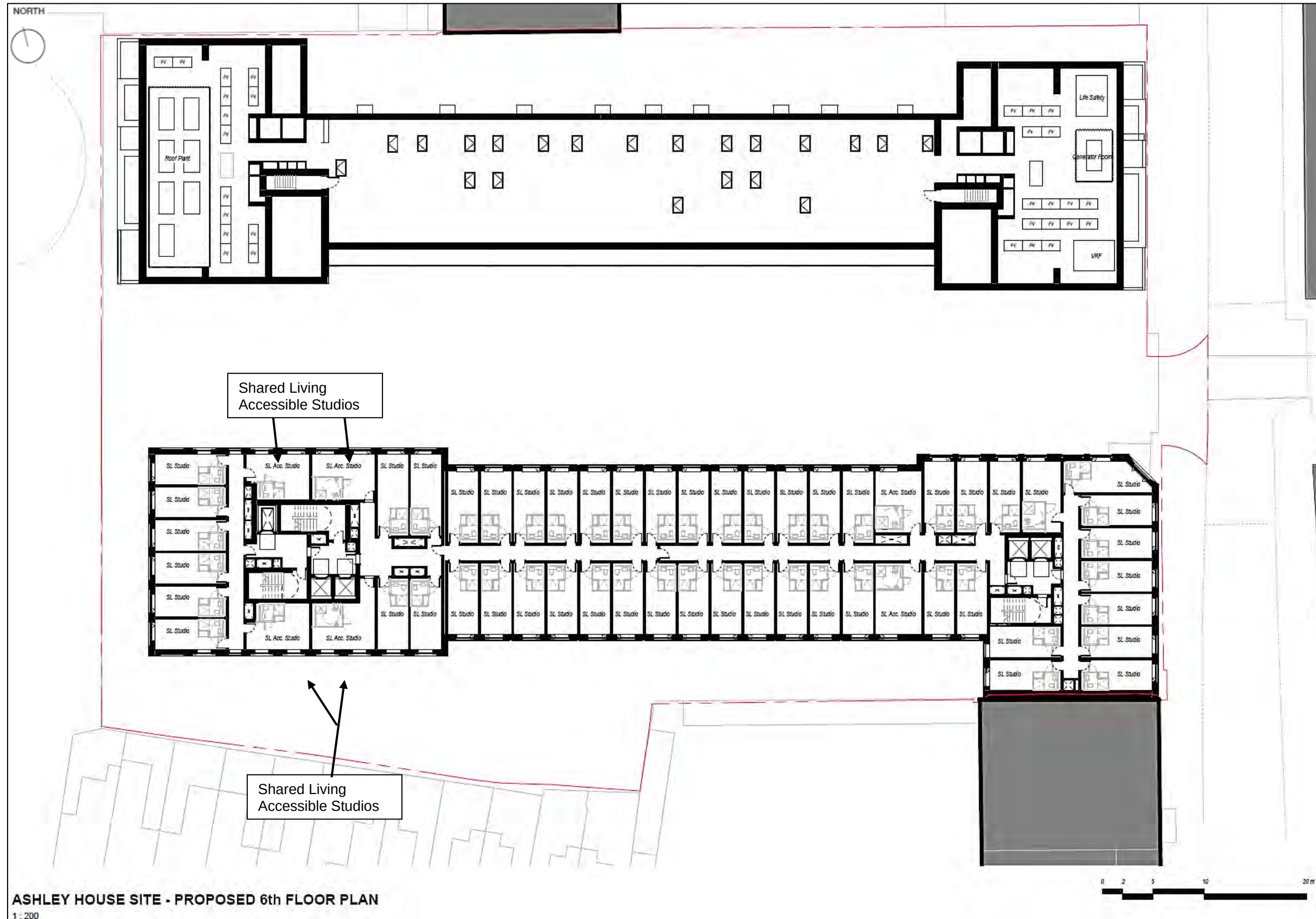


Figure 4.6 General Arrangement – Level 7

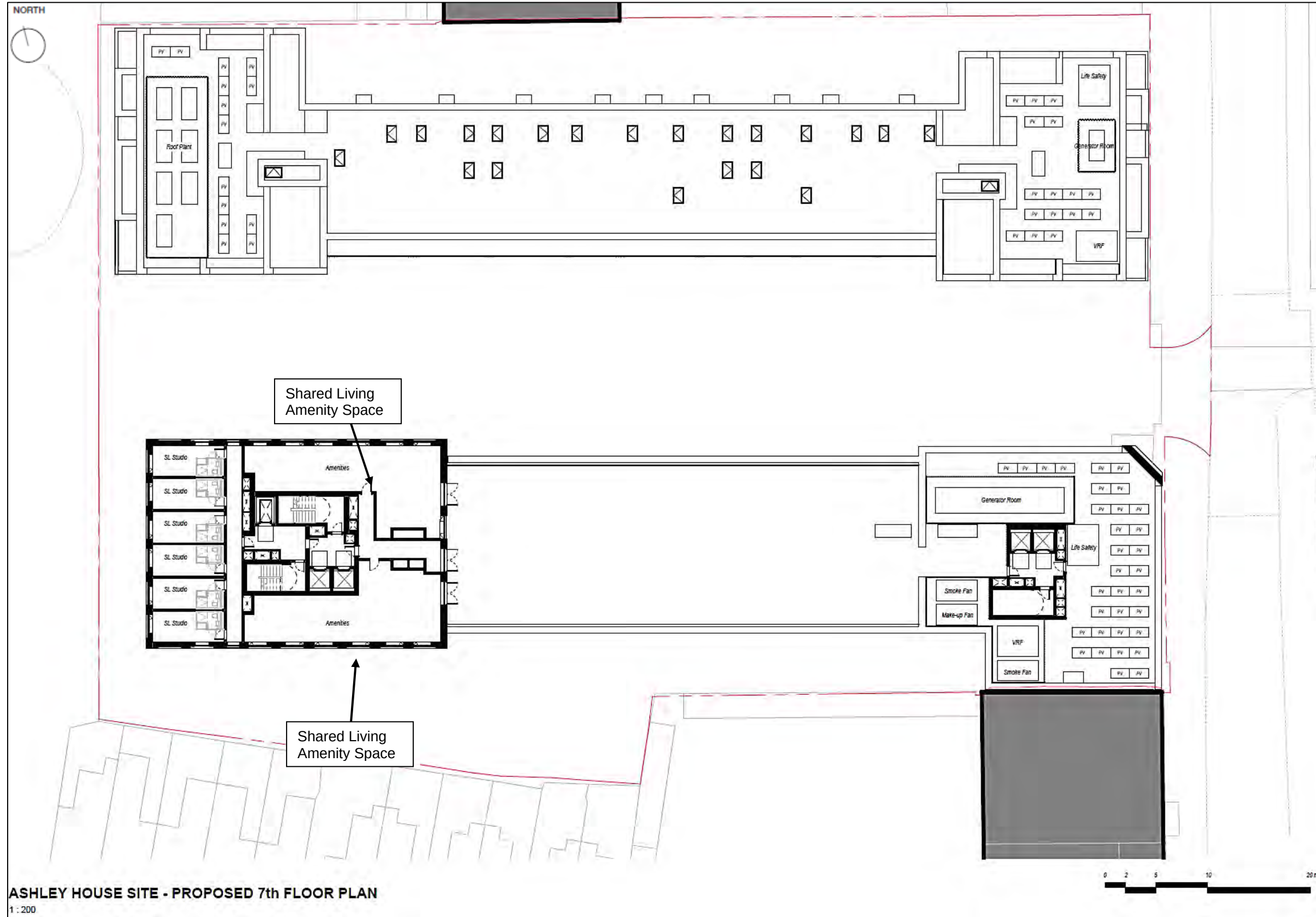


Figure 4.7 General Arrangement – Level 8

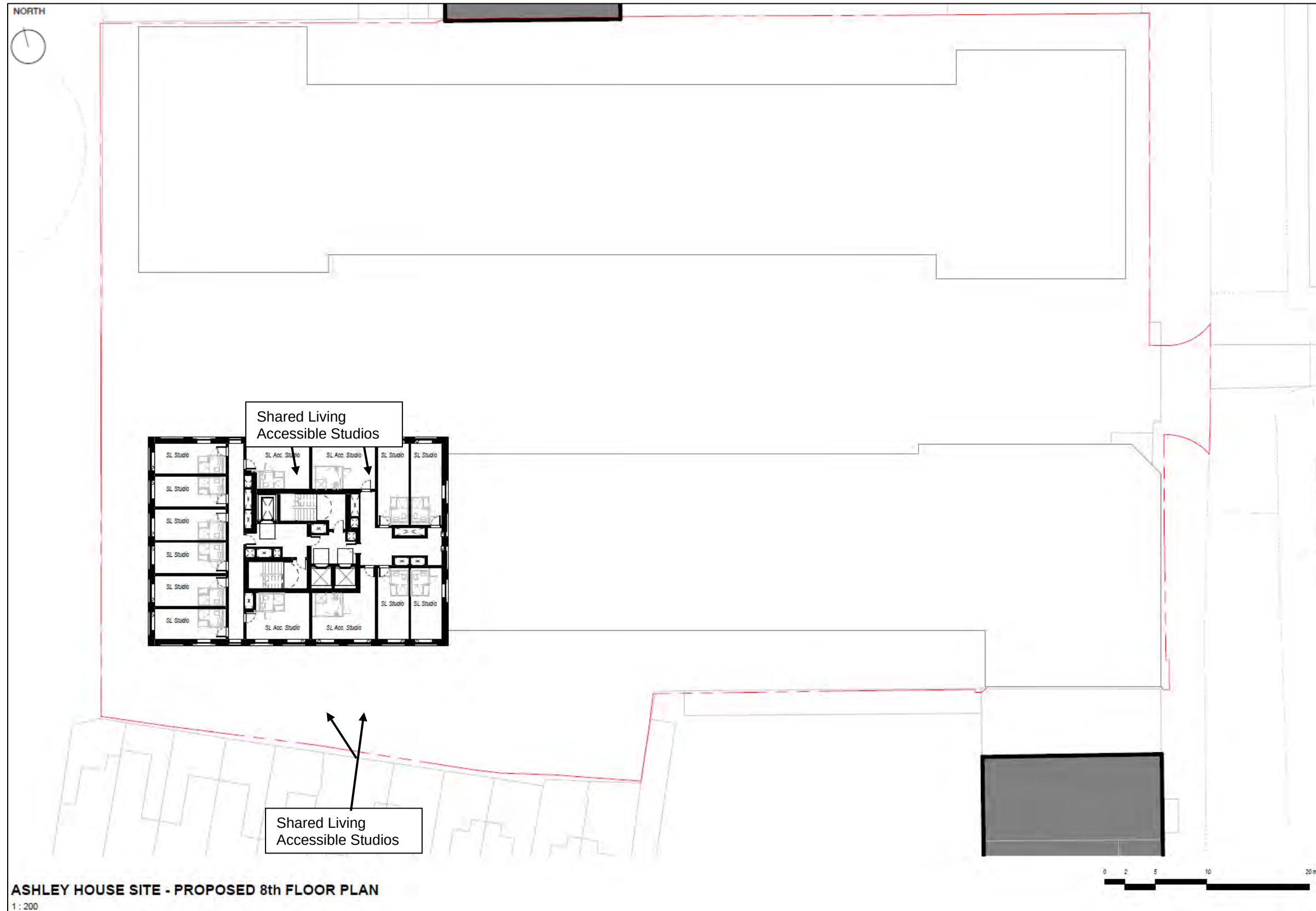
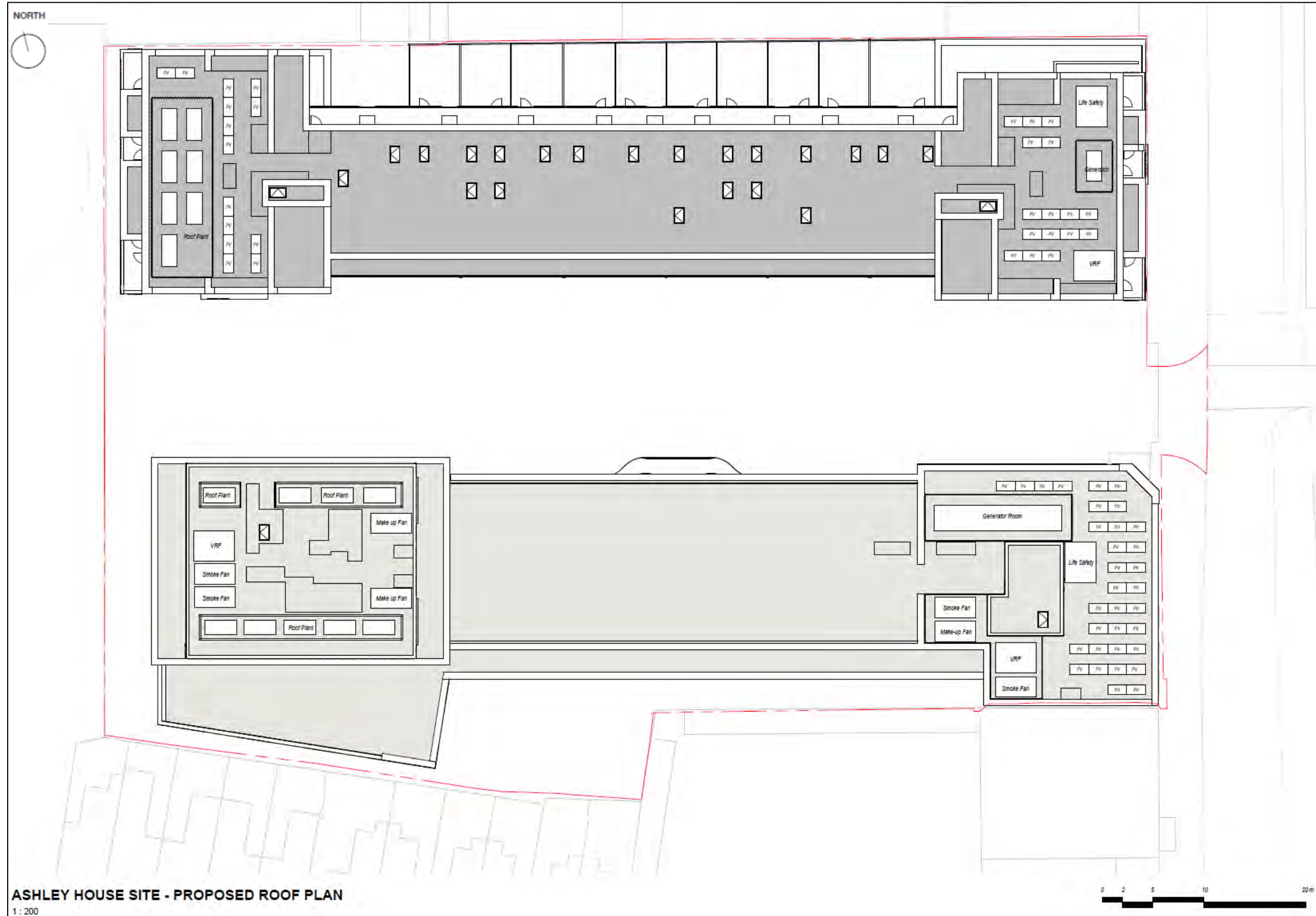


Figure 4.8 General Arrangement – Roof Level



Affordable Residential Block – Block B

- 4.16 The residential component of the ground floor level of Block B consists of 10 4B6P Townhouse (TH) affordable units, one of which is wheelchair accessible. Commercial space is provided on the southeastern corner of the block, adjacent to Ashley Road and opposite the commercial space in Block A. Cycle and refuse storage is also provided at ground level, along with plant and BoH space.
- 4.17 Access to the commercial space can be gained via an eastern entrance on Ashley Road, as can entrance to the upper levels. Access to each of the above-mentioned residential units can be gained via Ashley Link, as can access to the upper levels. A thoroughway between Ashley Link and the adjacent Rosa Luxemburg Apartments is also proposed.
- 4.18 Level 1 of Block B consists of the second floor of the 10 central TH units, three 2B4P units at both the eastern and western sections of the block (six in total), in addition to a single 1B2P unit on either side (two in total).
- 4.19 Levels 2 to 5 of Block B consist of the same layout. Each floor provides 10 2B4P units, three 1B2P units, two 3B5P units, one 3B5P M4(3) unit and one 2B4P M4(3) unit.

Shared Living Block – Block A

- 4.20 The ground level of the shared living block consists of shared living amenity space, cycle stores, refuse stores, BoH space and dedicated community and commercial/employment floorspace. Entrance to the commercial/employment floorspace can be gained via the northeastern entrance to the block, adjacent to Ashley Road. Access to the shared amenity space can be gained from the central entrance located on the block's northern elevation.
- 4.21 Level 1 comprises of a total of 43 studio units, two premium units and four accessible units. Levels 2 to 6 are comprised of a mix of studio (50 units), premium studio (two units) and accessible studio (five units) shared living units. The GA of these units remains consistent across Levels 2 to 6.
- 4.22 The number of shared living units decreases substantially from Level 7 upwards as the general arrangement changes. Above Level 6, the block will only consist of the much smaller number of units (and floorspace by level) up to the 23-storey section of the Proposed Development. Level 7 itself will provide six shared living units and shared living communal amenity space.
- 4.23 Levels 8 to 20 are comprised of shared living units with a consistent layout. They consist of eight shared living studio units, two premium units and two accessible units, aside from Level 20 where this provides four premium units rather than the 50:50 split between premium and accessible units on Levels 8 to 19. Levels 21 and 22 are comprised of shared living communal amenity space.
- 4.24 The roof level (Level 23) will consist solely of plant space.

Scale and Massing

Block Heights

- 4.25 The Proposed Development comprises the construction of two new blocks. The shared living block will be part-six, part-23 storeys in height, while the affordable residential block will be six storeys in height. The maximum height of the tallest block (Block A - the shared living block) is +85.475m AOD. The overall height of the Proposed Development is consistent with the scale of development within its immediate surroundings, which predominantly consist of medium-to-high rise blocks. The maximum height of each of the blocks are provided in Table 4.5.

Table 4.5 Maximum Block Heights (Storey Heights Inclusive of Ground Floor Levels)

Block	Storeys	Maximum Heights (mAOD) ⁴	
		6 th Storey	23 rd Storey
Affordable Residential	6	+31.700	-
Shared Living	Part 6, Part 23	+23.150	+85.475

Massing

- 4.26 Both blocks are linear and consist of a broadly rectangular, even footprint. The two blocks are broken up by the proposed Ashley Link public realm, which enables permeability through the site. When viewed from the east along Ashley Road the massing is broken with the provision of the Ashley Link public realm between the blocks, which also improves the streetscape.
- 4.27 This aligns the massing of the Proposed Development with that of the adjacent Rosa Luxemburg Apartments, which also features evenly spaced, similarly sized blocks between which is a landscaped public realm.
- 4.28 The height and massing of the Proposed Development can be seen in Figure 4.9 and Figure 4.10.

Appearance of the Proposed Development

Façade Materiality

- 4.29 The materiality of the Proposed Development consists of brickwork, aluminium and a “concrete-style” material interspersed across both blocks. Block A also includes the use of glazed terracotta. This responds to the general use of materials within the site's locality, both in terms of the materials used and the colour palette. materials and façade detailing for each Block has been outlined below, with details on each elevation shown in:
- **Shared Living** – Features a mixture of brickwork, Polyester Powder Coated (PPC) aluminium, a “concrete-style” material and glazed terracotta. The materiality of the façade will include several different visual styles of each material listed above; however, all will have a colour palette including light to dark grey (with the exception of the green hues used for the glazed terracotta); and
 - **Affordable Residential** – This block will feature the above use of materials, with the exception of glazed terracotta which does not feature on the façade of this block. The block will utilise strong horizontal banding and datum lines. The middle part of the block will utilise lighter grey brickwork, creating contrast with the darker grey ‘bookends’. The elevations of the block will also feature staggered perforated privacy screens.
- 4.30 The proposed materiality of the façade is shown in Figure 4.11 and Figure 4.12.

⁴ Taken for the highest point of block including any lift overrun structures.

Figure 4.9 **Proposed Northern Elevation of the Shared Living Block**

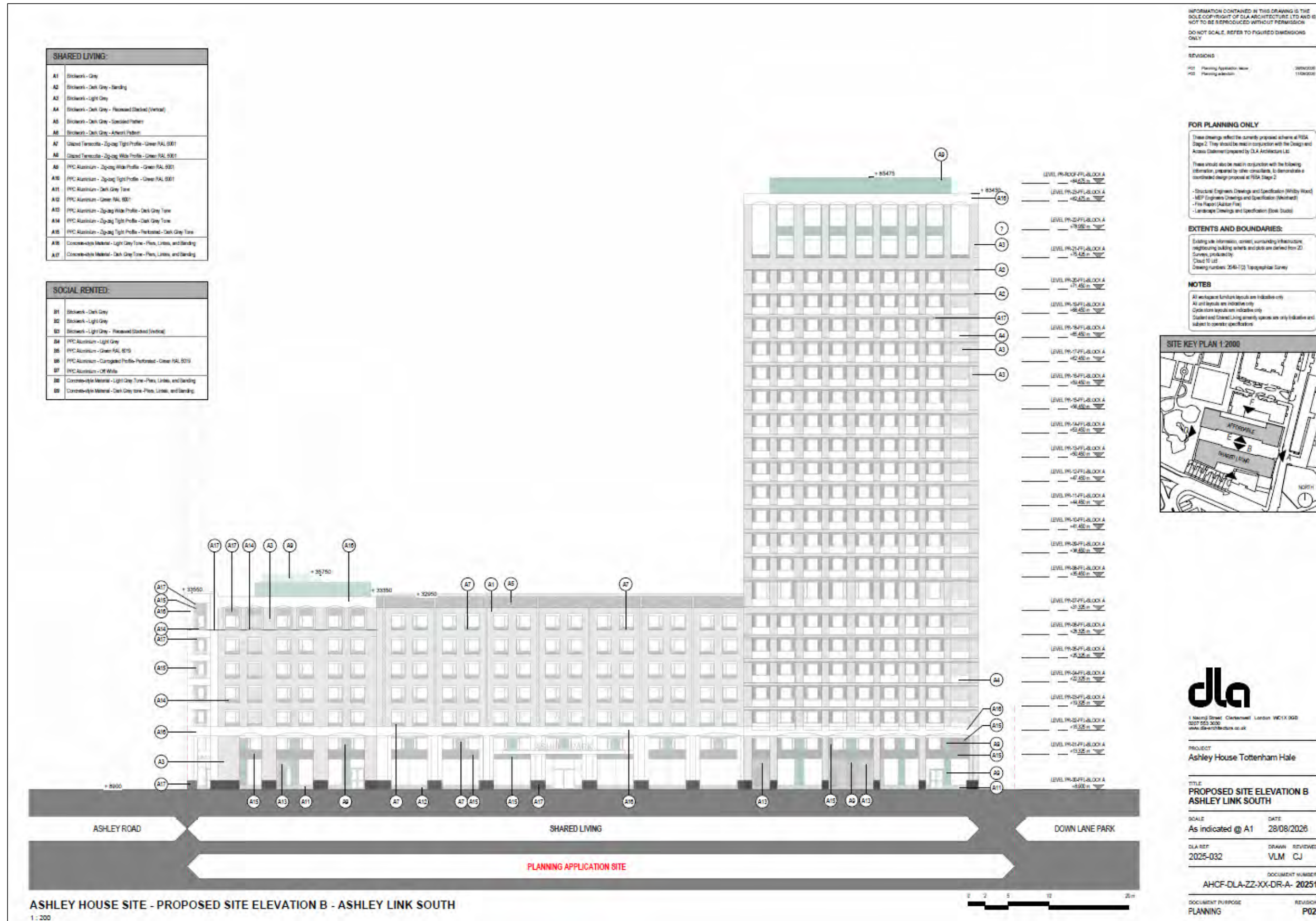


Figure 4.10 Proposed Northern (Bottom) and Southern (Top) Elevations of the Affordable Residential Block

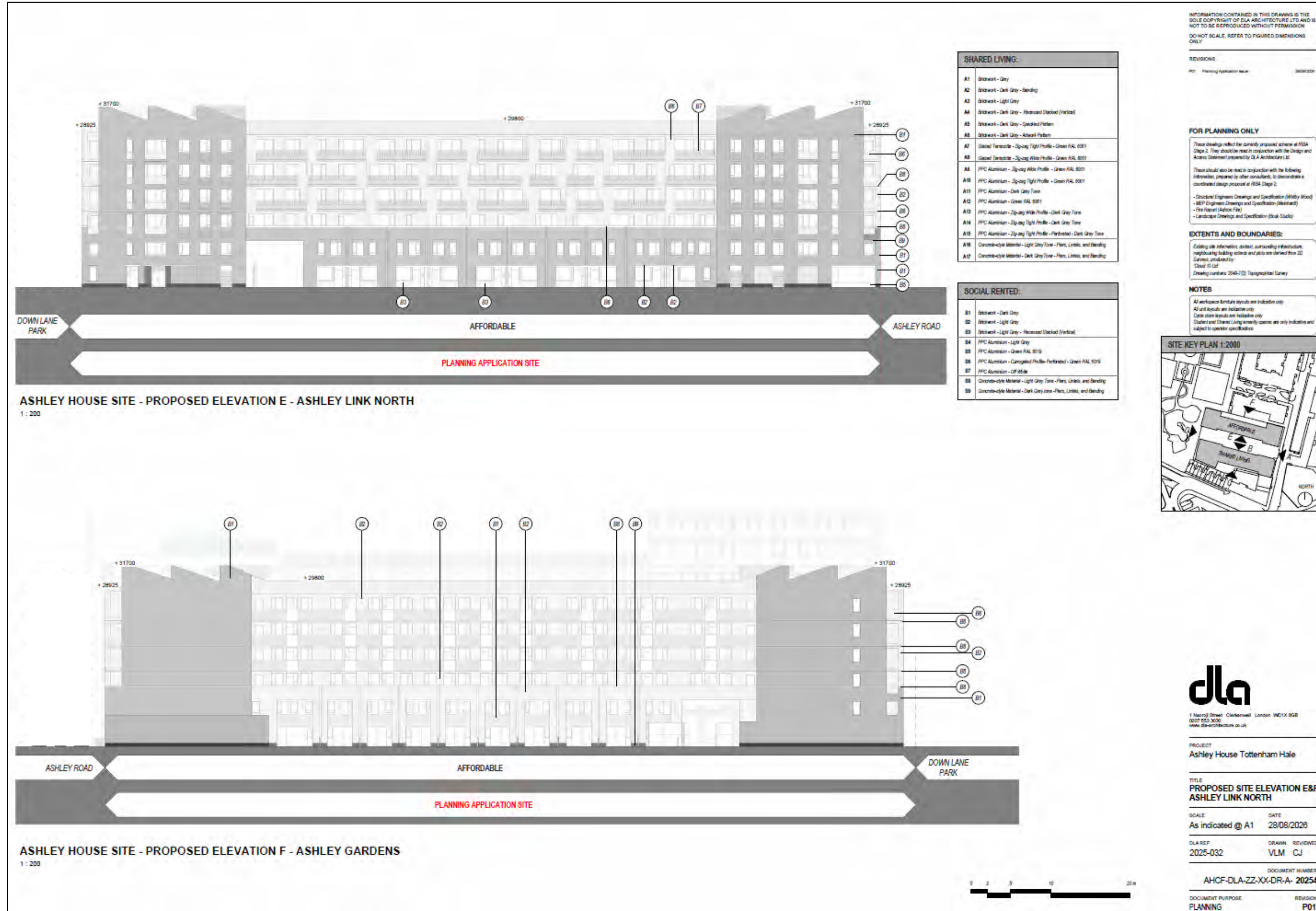


Figure 4.11 Proposed Shared Living Block Materiality



Figure 4.12 Proposed Site Elevation E and F – Ashley Link North and Ashley Gardens



Landscaping, Public Realm and Play Space

- 4.32 The landscape proposals will provide public, communal and private amenity space for those living and visiting the Proposed Development.

Figure 4.13 Ground Floor Level Landscaping Plan



- 4.33 At ground floor level (refer to Figure 4.13 above), a number of soft landscaping strategies have been utilised to create an inviting space which responds positively to its surroundings. A wide variety of planting (please see the below 'Planting and Trees' section) will be utilised to frame the entrance from Ashley Road, provide residential amenity and to provide a green façade to parts of the Proposed Development.
- 4.34 A total of 10 blue badge parking spaces will be provided. Although different paving types will be utilised to denote vehicular and pedestrian routes, shared surface principles have been followed to encourage active travel throughout the site.
- 4.35 Play space (please see the below 'Play Space' section for full details) provision which encourages 'on the way play' while creating a dialogue with Down Lane Park, as well as a communal shared living courtyard are also proposed.
- 4.36 At Roof Level, the landscaping plan differs by block. Block B features significant tree planting and mounding to create a focal point. Additionally, communal amenity space including sun loungers, table tennis provision, sociable space and further roof planting is also proposed.
- 4.37 Block A will, in its entirety, be landscaped as a biodiverse green roof free from any amenity space, providing an ecologically valuable space. A similar, but much smaller, green roof is also proposed on the northeastern corner of Block A's roof.

Figure 4.14 Roof Level Landscaping Plan



Amenity Space

- 4.38 The public realm will deliver the following amenity spaces to residents and the public including:

- 1,808m² publicly accessible amenity space;
- 1,229m² communal amenity space; and
- 421m² of external private amenity space.

Public Amenity Space

- 4.39 The Proposed Development will provide 1,808m² of publicly accessible space which will be freely accessible to both end users of the Proposed Development and members of the public and will include all open external areas at Ground Level, which are not situated within the blocks.

Communal Amenity Space

- 4.40 The Proposed Development will provide 1,229m² of shared/ communal amenity space. This is the space that is not publicly accessible but is accessible to end users of the Proposed Development within Block A. This space includes communal areas within Block A including those located on the roof, as well as the shared courtyard along the southern boundary of the site.

Private Amenity Space

A total of 421m² of private amenity space will be provided within the Proposed Development. This will predominantly be in the form of private rear gardens provided for residents within the townhouse units at the Ground Level of the affordable residential block. The site-wide amenity space areas are shown in Figure 4.15.

Figure 4.15 Amenity Space Plan



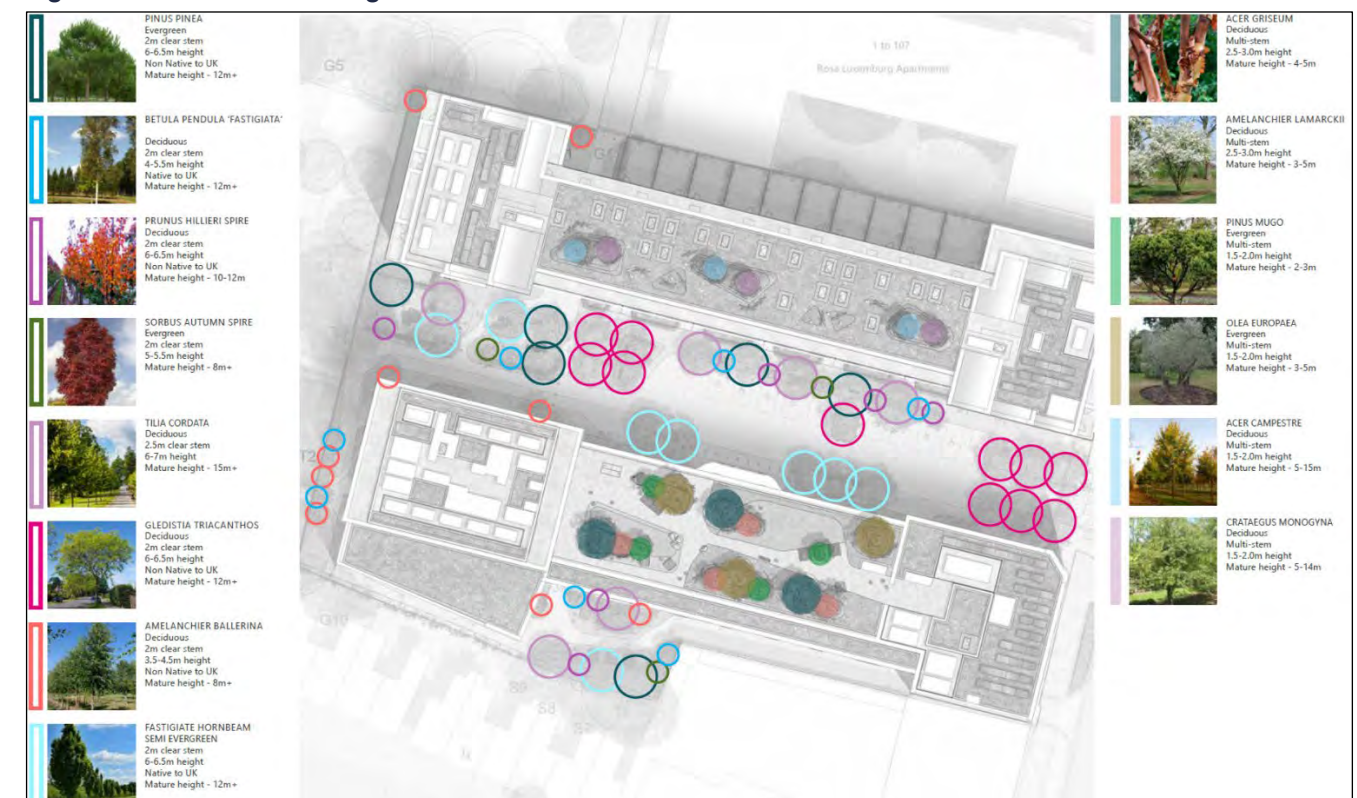
Planting and Trees

- 4.41 The planting strategy for the Proposed Development will consist of a mixture of sun and shade ornamental planting interspersed throughout the site. Wildflower planting is proposed on the roof of Block B, as well as in front of the Blue Badge parking spaces.
- 4.42 The Proposed Development will require the removal of one existing tree off-site, adjacent to the northern boundary of the site, as described in the Arboricultural Impact Assessment. Replacement planting is proposed as part of the landscape strategy, together with any agreed compensatory payment / mitigation.
- 4.43 Hedging is proposed in front of the residential properties, with amenity lawns covering the designated areas for play. Finally, biodiverse green roofs (as discussed above) will also be implemented into the Proposed Development (see Figure 4.16). The green roofs will feature logs, boulders and cobble to maximise their ecological value.
- 4.44 A total of 76 trees will be planted as part of the Proposed Development's landscaping strategy; 56 at ground level and 20 at roof level. These will consist of a wide variety of tree species. Full details are shown in Figure 4.17.

Figure 4.16 Planting Plan



Figure 4.17 Tree Planting Plan



Play Space

- 4.45 The Proposed Development will provide 361m² of combined play space, as detailed in Table 4.6, which will be located across different publicly accessible and communal spaces within the site, as shown in Figure 4.18. Formal and informal on-site provision of play space will be situated within the public realm on Ashley Link .
- 4.46 Whilst the Proposed Development will provide on-site play space for the 0-4 age group, there remains an under-provision for the older age groups, which is proposed to be addressed via an offsite contribution having regard to the site's proximity to Down Lane Park.

Table 4.6 Play Space Provision Per Age Group

Age Group (years)	Area Required (m ²)	Area Proposed (m ²)
0 – 4	449	361
5 – 11	364	0
12 – 17	295	0
Total	1,108	361

Figure 4.18 Play Space Provision



Lighting Strategy

- 4.47 A site-wide lighting strategy will be implemented to facilitate social security whilst avoiding polluting levels of light, and minimising the impact of light spill on local wildlife (as shown below in Figure 4.19). At ground level, lighting will consist of access downlighters, column lights and tree uplighters (in the eastern extent of the site only), while the roof level amenity areas on Block A will also feature planting uplighters and furniture striplights.

- 4.48 Lighting will be integrated within the elements of the block where feasible including within external walls, seats and other structures along with decorative lighting in trees and benches to enhance character of the spaces.

Figure 4.19 Lighting Strategy for the Proposed Development

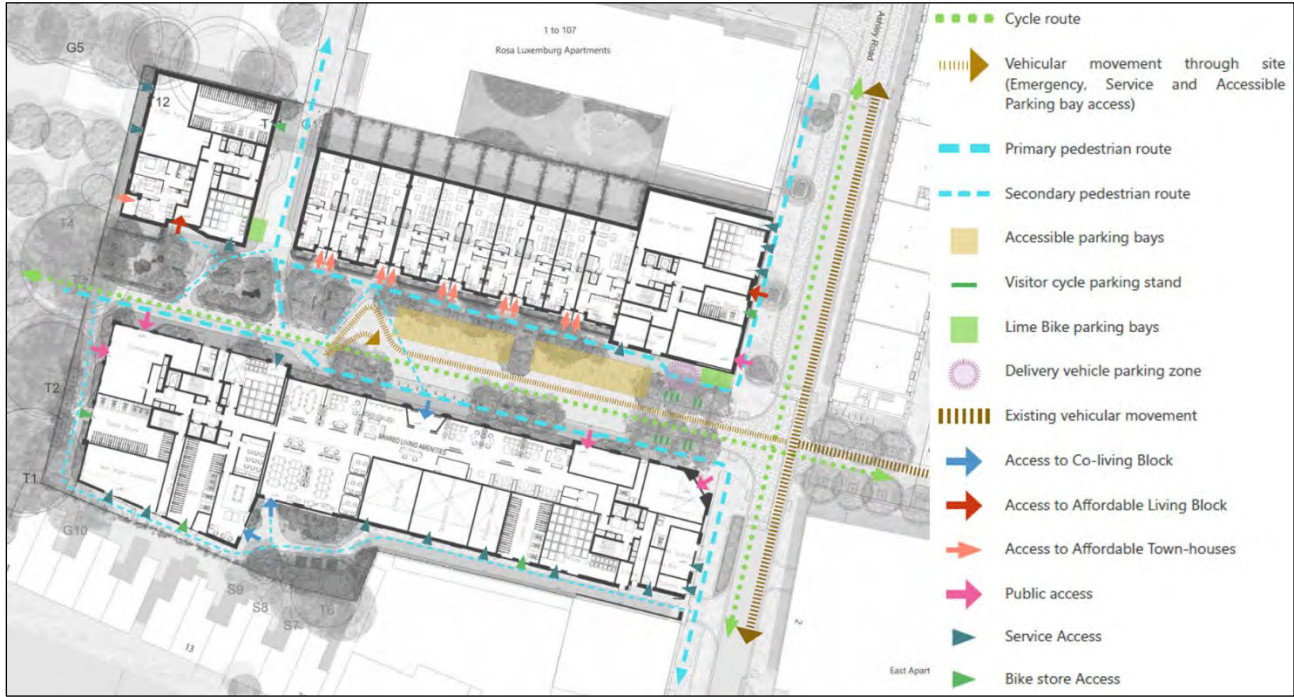


Access, Parking and Servicing

Pedestrian and Cycle Access

- 4.49 The site is highly accessible to both pedestrians and cyclists via Ashley Road. New thoroughfares are proposed within the site, including route links from east to west between Ashley Road and Down Lane Park, as well as a secondary route providing a north to south link between the site and the adjacent Rosa Luxemburg Apartments.
- 4.50 In addition to the above, each of the residential and commercial / communal elements within the blocks of the Proposed Development will have a dedicated pedestrian entrance on the ground level for accessing different areas of the block.
- 4.51 The enhanced routes through the site will provide improved connectivity with the surrounding area, and the provision of benches, suitable lighting and landscaping will create an environment conducive to active travel.

Figure 4.20 Access and Circulation Plan



Cycle Parking

- 4.52 The Proposed Development will provide a total of 409 cycle parking space across the site, of which 252 spaces will be located within cycle stores on the ground level of Block A (shared living), and 116 within cycle stores located on the ground level of Block B (affordable residential).
- 4.53 The cycle parking provision is outlined below in Table 4.7.

Table 4.7 Cycle Provision

Parking Provision	Block B (Residential)	Block A (Shared Living)	Total
Two-tier Cycles	104	224	328
Sheffield Stands (larger cycles)	6	14	20
Sheffield Stands (Normal cycles)	6	14	20
Lime Cycles (external landscaping)	12	12	24
Visitor	3	14	17
Total	131	278	409

Vehicle Access and Parking

Vehicle Access

- 4.54 Vehicles, including emergency vehicles, will be able to access the Proposed Development via Ashley Road.
- 4.55 The Proposed Development will provide 10 wheelchair accessible parking spaces on the shared surface of Ashley Link. Of these, nine will be allocated to the affordable homes (Block B), and one is allocated to the shared living units (Block A). These parking spaces will be located centrally within the site, providing easy access to both Blocks and Ashley Road.

Deliveries, Servicing and Waste Management

Deliveries and Servicing

- 4.56 Site access, loading, and deliveries will be managed in accordance with the Delivery and Servicing Plan and the Travel Plan, both of which accompany the planning application. Servicing and deliveries for the residential, community and commercial elements of the development will be managed through designated arrangements, with particular focus on parcel deliveries, food deliveries, courier activity, cargo bikes, mopeds and e-bike/scooter movements.
- 4.57 Goods ordered by the property team will be pre-arranged and coordinated through the ordering arrangements, with preferred suppliers being used, where possible, to consolidate deliveries and minimise disruption. Post and small parcel items for residents will be delivered through the main reception area to the post and parcel room. Non-perishable items will be signed for by the on-site team, and an email notification will be sent to residents with a QR code for collection.
- 4.58 Reception will be staffed 24 hours a day, and therefore deliveries will be accepted immediately minimising vehicle wait times in the designated delivery area. Perishable goods such as groceries or food deliveries will be collected on their arrival by residents at reception.

Waste Management

- 4.59 An Operational Waste Management Plan (OWMP) accompanies the planning application. The strategy provides information regarding the estimated waste arisings from the shared living, residential, commercial and community uses and handling of storage and collection.
- 4.60 Residents will each be provided with a small general waste and recycling bin within their studios to facilitate the separation of waste into residual, mixed dry recycling and organic/food waste streams. Residents will be responsible for taking their own waste to the dedicated refuse stores. The site maintenance team will then be responsible for ensuring refuse stores are accessible on collection day. Collection will be weekly and conducted by the local authority unless agreed otherwise with a private refuse company.
- 4.61 Clear guidance on waste separation will be provided in the refuse stores and on the resident's app. The site maintenance team will encourage local residents to maximise recycling and minimise residual waste, especially those unfamiliar with UK waste practices.
- 4.62 The estimated waste arising from Block A and Block B are shown in Table 4.8 and Table 4.9 below.

Table 4.8 Block A – Shared-Living Expected Waste Arisings

Waste	Number of Bins	Individual Bin Volume (litres)	Total Bin Volume (litres)	Percentage of Waste (%)
Residual	22	1,100	24,200	45
Recycling	22	1,100	24,200	45
Food	22	240	5,280	10

Table 4.9 Block B – Residential Expected Waste Arisings

Waste	Number of Bins	Individual Bin Volume (litres)	Total Bin Volume (litres)	Percentage of Waste (%)
Residual	15	1,100	16,500	58
Recycling	9	1,100	9,900	35
Food	8	240	1,920	7

Commercial and Community Uses

- 4.63** The majority of operational waste generated by the commercial and community use will be kept inside the block in line with the operator's policies. This is to ensure security and due diligence and to prevent the waste being an attractant and harbourage for pests.
- 4.64** It will be the responsibility of the commercial use operators to ensure that sufficient waste storage is provided to support commercial uses and for the transfer and collection of associated waste.

Circular Economy

- 4.65** A circular economy is typically defined as a closed-loop system where resource value is retained for as long as possible through re-use and subsequent continuous recycling so that there is minimal waste (ideally none to landfill), and minimal new inputs required.
- 4.66** The planning application is accompanied by a Circular Economy Statement (CES). The CES focuses on the embedded circular economy principles within the Proposed Development, which include:
- Reducing construction waste by extending the life of existing materials and avoiding the use of virgin materials (where possible);
 - Design and construction specifications that maximise energy and resource efficiency;
 - Specification of recycled content within hotspot materials where viable;
 - Design for longevity, specification of materials which are durable/resilient;
 - Designing for flexibility and future adaptability to ensure the design can meet current and future needs; and
 - Where possible, block layers will be accessible to allow for alterations, replacements and eventual disassembly.
- 4.67** Full details on the circular economy commitments embedded into the Proposed Development can be seen in the CES submitted alongside the planning application.

Energy Strategy

- 4.68** The Proposed Development has been designed to align with the Energy Hierarchy: Lean, Clean, Green and Be Seen, as described in the updated Greater London Authority (GLA) guidance on preparing energy assessments⁵.
- 4.69** The approach aims to minimise energy consumption from the outset with low energy, passive measures and highly efficient systems before the deployment of low and zero-carbon technologies. Further information is available within the Energy Strategy, which has been submitted alongside the planning application.

Be Lean – Demand Reduction

- 4.70** The following design approaches have been considered and incorporated to minimise the energy consumption of the Proposed Development:
- The thermal performance of the block fabric will be a significant improvement over the Block Regulations Part L 2021 minimum requirements;
 - Thermal bridging will be minimised to reduce heat loss and prevent the development of cold spots;
 - Air permeability has been set above the Part L minimum requirements to reduce heat loss during the winter;

⁵ Energy Planning Guidance <https://www.london.gov.uk/programmes-strategies/planning/planning-applications-and-decisions/pre-planning-application-meeting-service/energy-planning-guidance>

- Natural daylight has been maximised, where possible, through the positioning of living rooms and bedrooms on the perimeter and by providing dual aspect glazing (where possible);
- The Proposed Development's heating system will be designed to minimise heat loss; and
- Energy efficient LED lighting will be utilised throughout the Proposed Development, and smart controls/metering are expected to be utilised by future residents.

- 4.71** Windows will be openable within the residential dwellings. Residential apartments will be ventilated through the utilisation of Mechanical Ventilation with Heat Recovery (MHVR) units, to 'temper' the air supply.
- 4.72** Non-residential units will be provided with commercial MVHR units that will achieve a Specific Fan Power of less than 0.9 W/(l/s) and a heat recovery efficiency of at least 90%.
- 4.73** Active cooling is proposed for commercial areas within the Proposed Development via water-to-refrigerant heat pump (VRF) systems, which will allow rejected heat from the space cooling to be recovered by water-to-water heat pumps.

Be Clean – Heating Infrastructure

- 4.74** The GLA promote that once the demand for energy has been minimised, all planning applications must demonstrate how their energy systems will exploit local energy sources (such as secondary heat) and supply energy efficiently and cleanly to reduce their carbon emissions. At present, there are no existing heat networks within the vicinity of the site.
- 4.75** The site is located within a Heat Network Priority Area, and therefore it is proposed to provide a communal heating system to service the whole site in accordance with the GLA Energy Assessment Guidance⁶.
- 4.76** In accordance with the heating hierarchy outlined in London Plan Policy SI 3, it is not feasible to connect to an existing heating network. The proposed strategy is therefore a site-wide communal heat network, utilising Air Source Heat Pumps (ASHPs), with heat distributed to each block via insulated pipework and designated to allow future connection to a wider district network (should such a network become available).
- 4.77** Within both the affordable residential and shared living blocks, the ASHPs and associated plant are located at roof level, with the rest of the plant located at ground level (including substations, Low Temperature Hot Water (LTHW) tank rooms and low voltage (LV) switch rooms).

Be Green – Renewable Energy

- 4.78** A strategic approach relevant to renewable energy to achieve the necessary carbon reduction requirement has been implemented across the Proposed Development.
- 4.79** To further reduce carbon dioxide emissions across the Proposed Development, the viability of various renewable sources of energy for the provision of heating and electricity requirements were considered. Solar Photovoltaic Panels (PVs) were considered viable options for the Proposed Development.

Flood Risk and Drainage Strategy

- 4.80** The Proposed Development is located within Flood Zone 2, meaning it is at medium risk of river (fluvial) flooding (0.1 – 1% annual probability). As such, a Flood Risk Assessment has been produced and submitted alongside the planning application.
- 4.81** Sustainable Urban Drainage System (SuDS) will be provided at the Proposed Development (shown in Figure 4.21) in the form of:
- An attenuation tank;

⁶ Greater London Authority (2022), Energy Assessment Guidance

- Green and blue roofs; and
- Permeable paving.

4.82 These combined measures provide approximately 927.8m³ of attenuation. Surface water runoff from the Proposed Development will discharge at manhole 3601 which is designated as a surface water sewer on Ashley Road. Foul water drainage will discharge to the foul water or combined Thames Water sewer on Ashley Road.

4.83 The estimated peak foul discharge rate for the Proposed Development has been calculated at approximately 4.35l/s for the affordable residential units and 26.1l/s for the shared living units.

Figure 4.21 Proposed Sustainable Urban Drainage Features



EMBEDDED ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURES

4.84 Embedded mitigation refers to ‘*measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment*’⁷. Throughout the design process, environmental considerations have been raised with the design team resulting in a number of environmental measures being incorporated into the Proposed Development to prevent, reduce, and offset potential adverse effects on the site and the surrounding area. In addition, environmental enhancements have been incorporated where practical to further improve the existing environmental conditions in the area. These are described in the sections below. Further detail is provided within relevant technical reports and ES chapters which accompany this planning application.

Daylight, Sunlight and Overshadowing

- 4.85** During the design stage, the Proposed Development has been iteratively designed to reduce the impact on neighbouring receptors where possible.
- 4.86** *Suggest: This process resulted in the taller element being located in the south-west corner of the site, positioned further from certain neighbouring residential receptors and adjacent to the Hale Road frontage, where contextual and fallback considerations are relevant.*
- 4.87** Other design mitigation included the access decks being located in proximity to the neighbouring residential blocks, allowing for a set back from the neighbouring receptors, rather than a continuous wall of development on the boundary line.

Noise and Vibration

- 4.88** The Noise and Impact Assessment has reviewed options and considered the use of openable windows during periods of overheating. In most locations an enhanced mechanical system will be adopted so that occupants do not need to rely on an opening window to reduce night-time overheating. The issue of overheating, including noise impacts, is covered by Requirement O of The Block Regulations. An assessment is provided within the Energy Strategy prepared by Meinhardt.

Wind Microclimate

- 4.89** Computational Fluid Dynamics (CFD) modelling was undertaken on the Proposed Development as it has been described throughout this ES chapter. This identified two instances of comfort exceedance; one in the ground level play space and one on the proposed terrace at Level 7 of the shared living block.
- 4.90** In response to this, the tree planting strategy was revised to incorporate 11 more trees than the tested layout. This revised scheme was not subsequently tested as a qualitative analysis based on professional judgement deemed this addition would be sufficient to prevent the above comfort exceedances.
- 4.91** Further details relating to the Computational Fluid Dynamics Assessment and the included wind mitigation measures can be found in **ES Volume 1, Chapter 8: Wind Microclimate**.

Ecology and Biodiversity

- 4.92** In line with national and local planning policies, Defra’s Biodiversity Metric Calculator (v4.0) was used to demonstrate the delivery of a net gain for biodiversity.
- 4.93** A number of ecological enhancements will be included with the designs for the Proposed Development in an effort to improve biodiversity within the site. The finalised landscaping strategy for the site has included the

following ecological enhancements which have been detailed within the Ecological Appraisal submitted alongside this planning application:

- Biodiverse Roof – A principle means of delivering green infrastructure within the urban environment, green roofs will provide a range of ecosystem services. Blocks will provide green roofs with intensive planting which includes native grasses and flowering plants to maximise biodiversity and provide habitat for several species;
- Public Realm Enhancements – Includes semi-natural planting, extensive green roof, trees, hedges and flower rich perennial planting to enhance the public realm and improve the biodiversity of the area; and
- Ecological Enhancements – Bird boxes, sand and log piles, insect blocks, and bat boxes will all be incorporated into the Proposed Development, with the majority being situated on the biodiverse rooftops and away from external amenity spaces.

Biodiversity Net Gain

- 4.94** The ecological enhancements incorporated into the Proposed Development will have an increased biodiversity value in comparison to the existing value of the site. The result of the assessment shows that the Proposed Development could deliver +10.58% biodiversity net gain.

Urban Greening Factor

- 4.95** Policy G5 ‘Urban Greening’ of the London Plan⁸ indicates that major development proposals should contribute to the greening of London and urban greening should be a fundamental element of the site and block design, considered at the beginning of the design process. Urban greening can help to meet other policy requirements and provide a range of benefits including amenity space, enhanced biodiversity, addressing the urban heat island effect and sustainable drainage.
- 4.96** The Urban Greening Factor (UGF) is a tool that evaluates and quantifies the urban greening proposed in new developments. The UGF works by assigning a factor to each surface cover type proposed in a planning application. Factors range from 1 for semi natural vegetation, through to 0 for impermeable sealed surfaces. The UGF score is calculated for each surface cover type by multiplying the assigned factor by the proposed area. The individual UGF scores are added together and dividing by the site area, calculating the overall UGF score.
- 4.97** The policy recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development. The UGF score for the Proposed Development is 0.40 (including ground and upper floors).
- 4.98** A number of surface cover types make up the UGF of the site. These include semi-natural vegetation (wildflower meadows), intensive green roofs, extensive green roofs, trees, flower rich perennial planting, standard trees with soil volumes less than 2/3 of their canopy areas, amenity grassland and permeable paving.

⁷ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017
<https://www.legislation.gov.uk/uksi/2017/571/schedule/4/made?view=plain>

⁸ The London Plan, The Spatial Development Strategy for Greater London, March 2021.
https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf