



Verbena is attractive to bees



Example of moveable trees, Peckham Rye, London.



Proposed street planting with Foxglove tree, Tulip tree and Japanese cherry tree.



Proposed plan

4. The Tarns

The new blocks proposed to the Former One Stop Shop and Newlands sites face one another across the existing amenity space in front of The Tarns and create a strong built edge along Hampstead Road in response to the future change in context arising from the HS2 Euston station development .

The existing Hampstead Rd edge of the estate is loose on plan, but the green spaces combine to create a softer edge on the approach into central London and upon leaving the city.

Despite there being lots of open space the estate feels uninviting to passersby as legibility of what is public and private/shared is unclear. The new development presents an opportunity to recontextualise this estate edge so that it engages as a piece of the city rather than a estate island.

The estate already defines the approach into and out of London and with the future station development the moment of arrival and departure directly opposite the estate will become more significant.



Green edge to estate on Hampstead Road defined by willow trees on the Former One Stop Shop plot and The Tarns



Existing amenity space to The Tarns with projecting balconies overlooking Hampstead Road

Existing Hampstead Road spaces and links

- Linear sequence of green open spaces provide visual amenity along busy road environment
- Increased physical and visual permeability of estate edge compared to 19th century plan and feels less intimidating than south of the estate.
- Status of open spaces is not clear and estate feels separate piece of the city.



Existing Hampstead Road spaces and links diagram

Proposed Hampstead Road spaces and links

- New buildings with direct relationship with the road to respond to the city context and future changes to Euston Station.
- Open spaces between blocks are activated to respond to this change in context as new civic spaces.
- New pedestrian/cycle link at Varndell Street to provide stronger east-west link from Euston to Cumberland Market and Regent's Park to engage with the wider city context.



Proposed Hampstead Road spaces and links

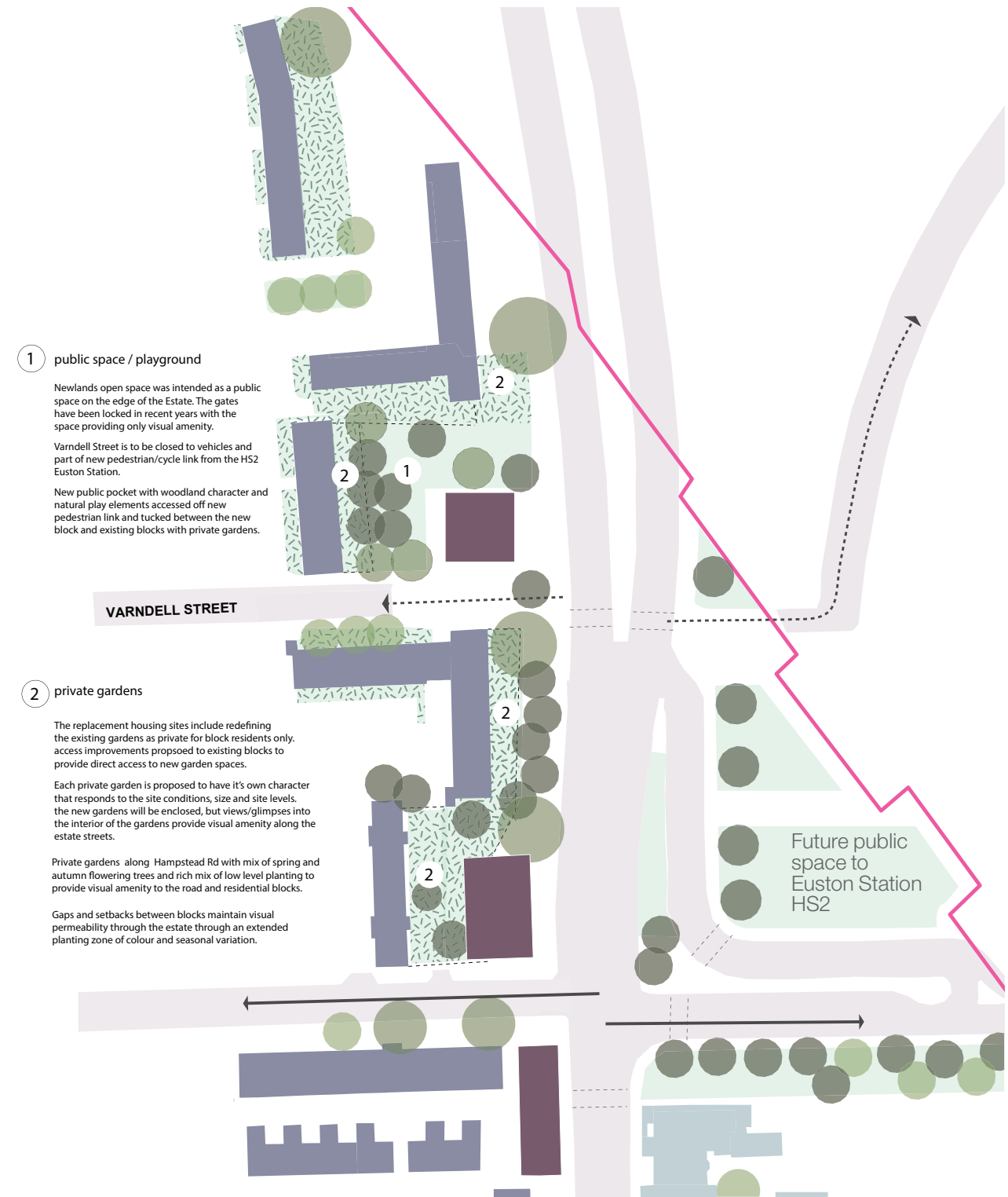


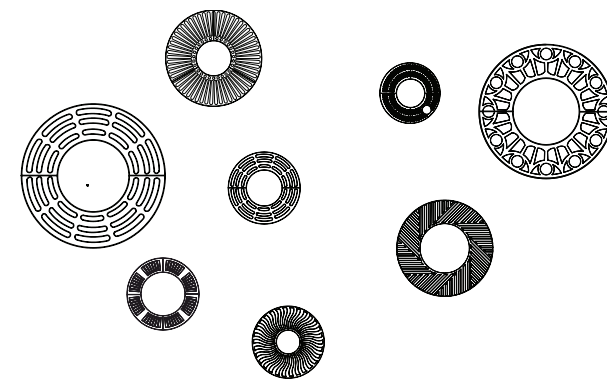
Diagram of proposed public and private open spaces along Hampstead Rd frontage

The proposal is to create a generous and high quality public space along the estate edge.

The existing willow trees are set within the public realm and new trees are proposed in clusters. A mixture of different tree species will be chosen that provide dramatic seasonal variation; including spring flowering species such as the Japanese Cherry and Foxglove Tree, that also has yellow autumn foliage, and summer flowering species such as the Tulip Tree and Pink Silk Tree, with its bright pink flowers. This creates a shifting seasonal display along the road and enhancing the experience of the moment of arrival and departure to the new station. The tree grilles will enhance the mixture of tree species.

The future road alignment and elevated road bridge creates a separation between the road and the ground of the estate. This helps to make a clear distinction between public and private spaces. A linear garden in front of The Tarns at the existing ground level incorporates a new stainless steel frame upon which Wisteria will be trained. The frame widens in areas to form a pergola covering the path and to create a space to sit. The pergola structure rises at the southern end to become more playful and includes a swing within the shared residential garden.

The proposals to the public space of Varndell Street include a fixed bicycle pump, drinking fountain with pebble rill, seating and cycle stands offering a rest stop on the cycle and pedestrian east-west link.



Various sizes and patterns of metal tree grilles for existing and new trees set in granite paving

J F M A M J J A S O N D

Prunus x subhirtella 'Autumnalis'
Autumn cherry

Flowers between October - April



Hyacinthoides non-scripta
Bluebell

Flowers in April and May



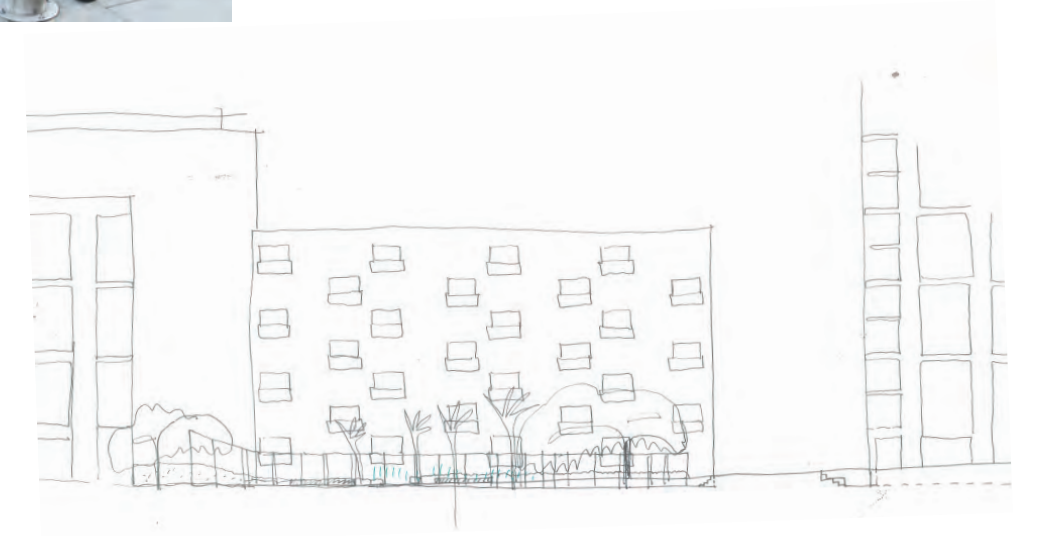
Planting with dramatic displays at different times of the year to vary the backdrop to the new point of arrival and departure to Euston station



Examples of water fountains



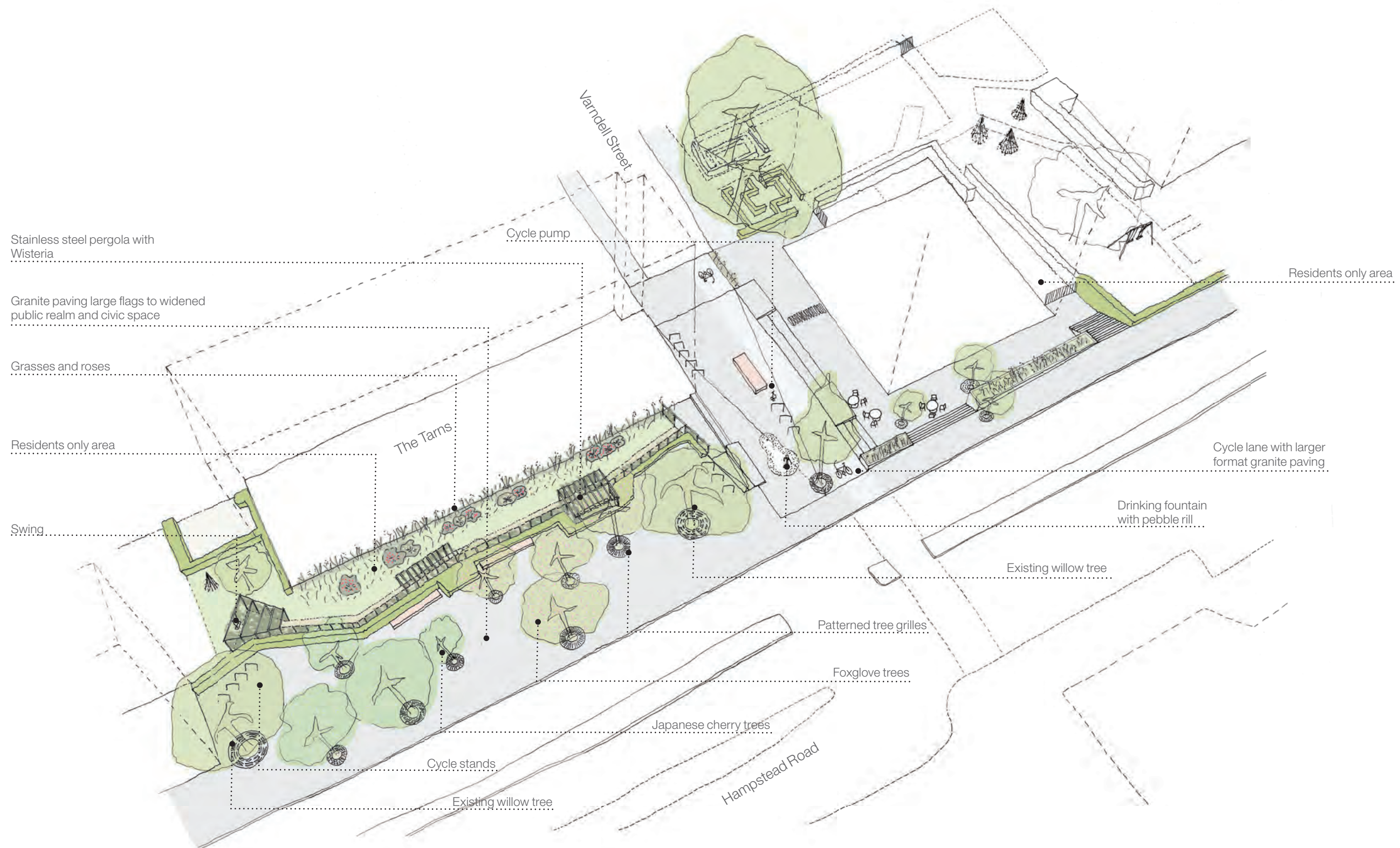
Bicycle pump



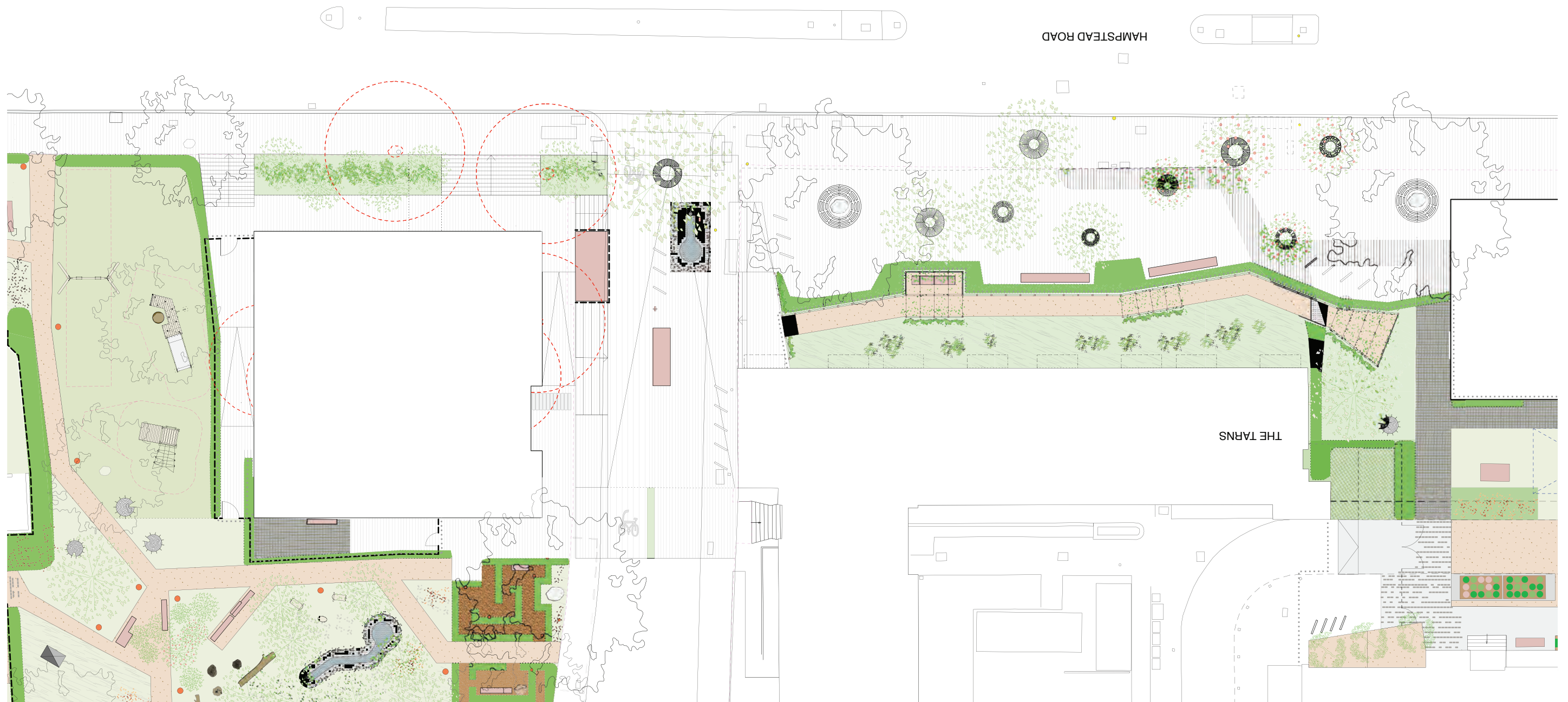
Sketch of pergola structure and varied tree planting



Sketch of new garden path with pergola structure and edge to raised public realm of the street

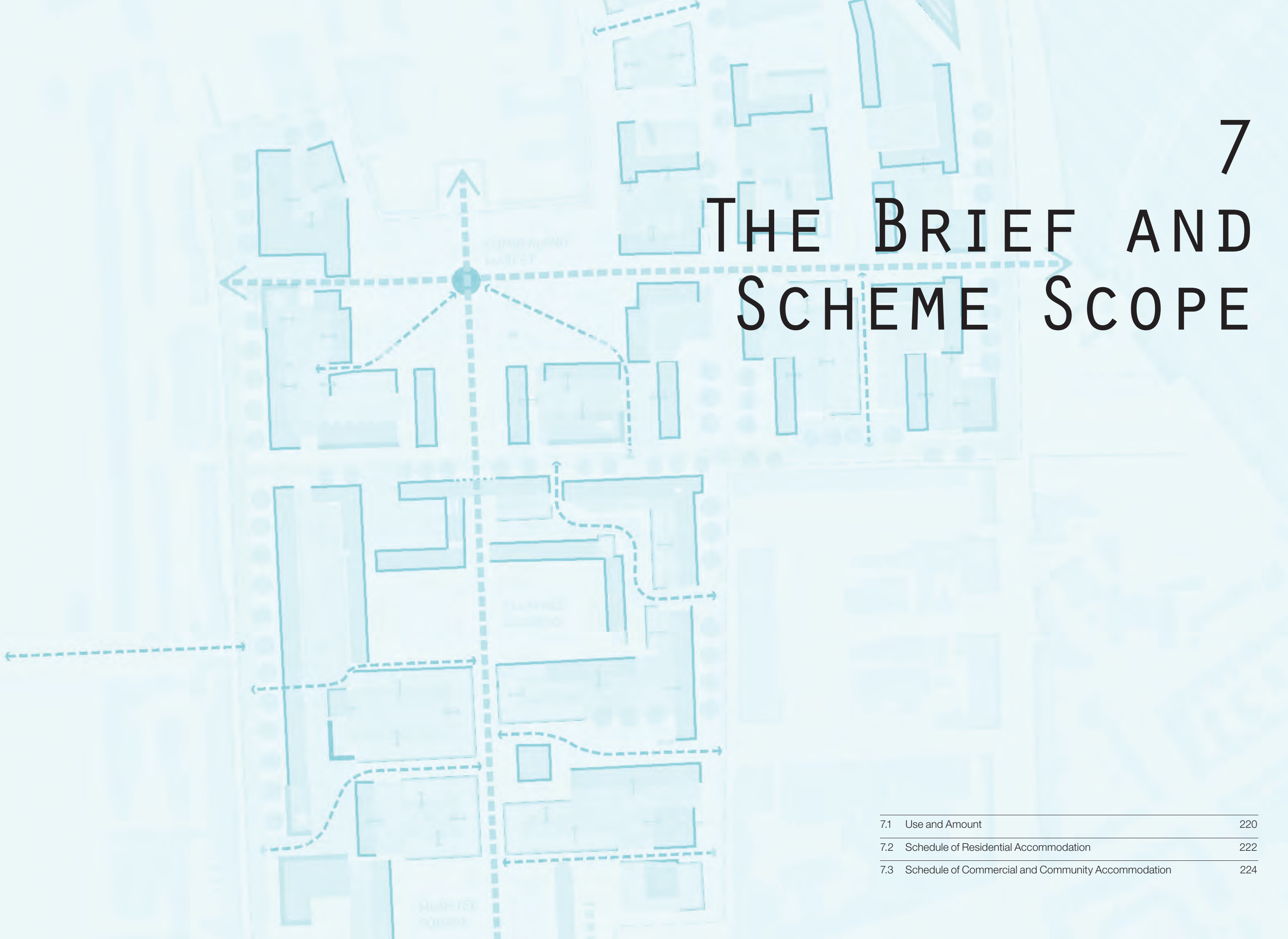


3D view of proposed Hampstead Road public realm following



Proposed Plan

THE BRIEF AND SCHEME SCOPE



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7.1 Use and Amount

The project proposes a total of 116 residential units across 8 plots. 94 of these are directly allocated to replace the homes lost by those residents most affected by HS2. The remaining 22 units are provided as additional homes to allow for a mix of unit types and sizes if the housing need changes and to deliver additional affordable housing.

Of the 94 direct replacement units, the tenure split reflects the current split within the affected homes. 70 units are provided as social rented homes for council tenants and 24 are provided as shared equity homes for resident leaseholders. The number of bedrooms in each unit provided for the replacement homes mirrors the assessed housing need found for the affected homes.

The additional homes are being developed based on the principles of the Community Investment Programme and will deliver 55% affordable housing by floorspace.

The schedules opposite list the full type and number of units for the replacement and additional homes. A detailed schedule for each plot is provided in the following section.

Demolition is required on three of the sites and includes a hall on plot 5 and two pubs on sites 6 and 8. The replacement of these non-residential facilities is covered on the next page.

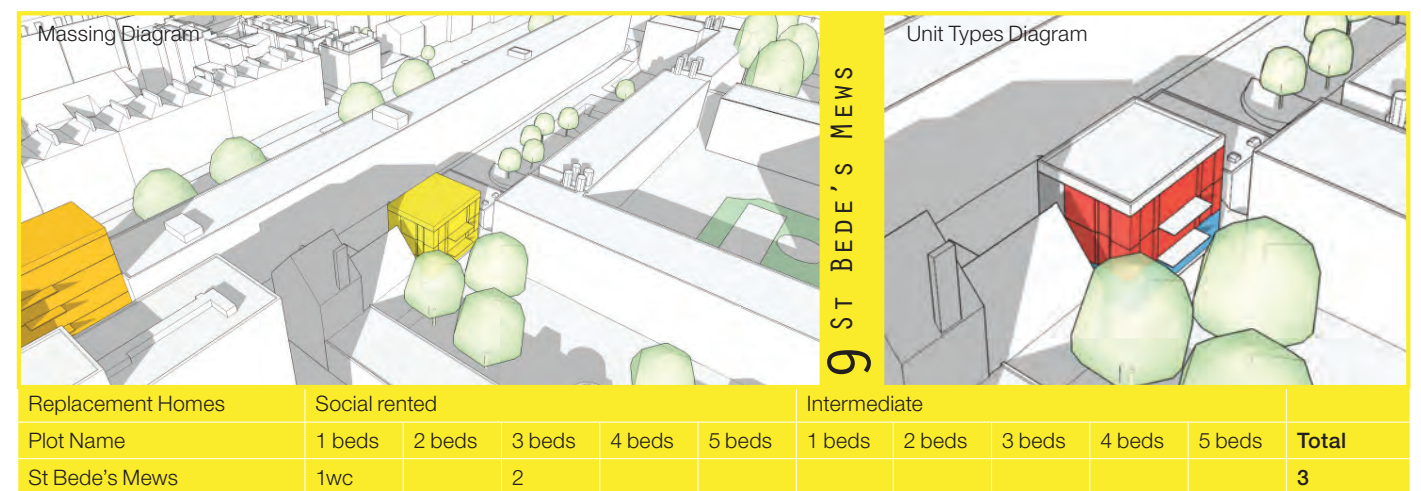
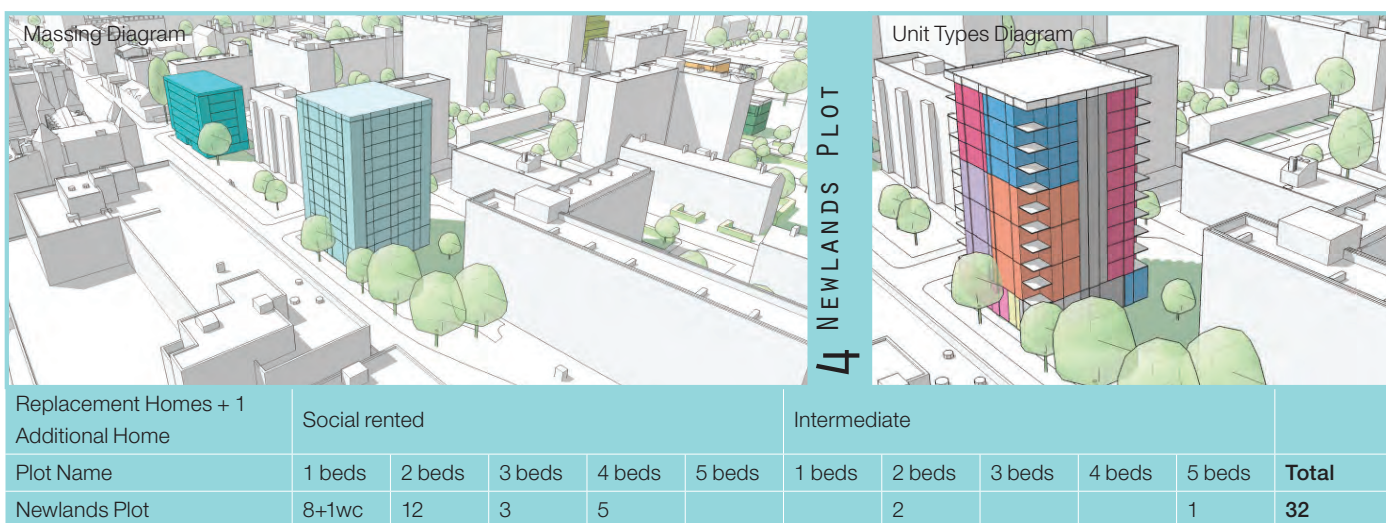
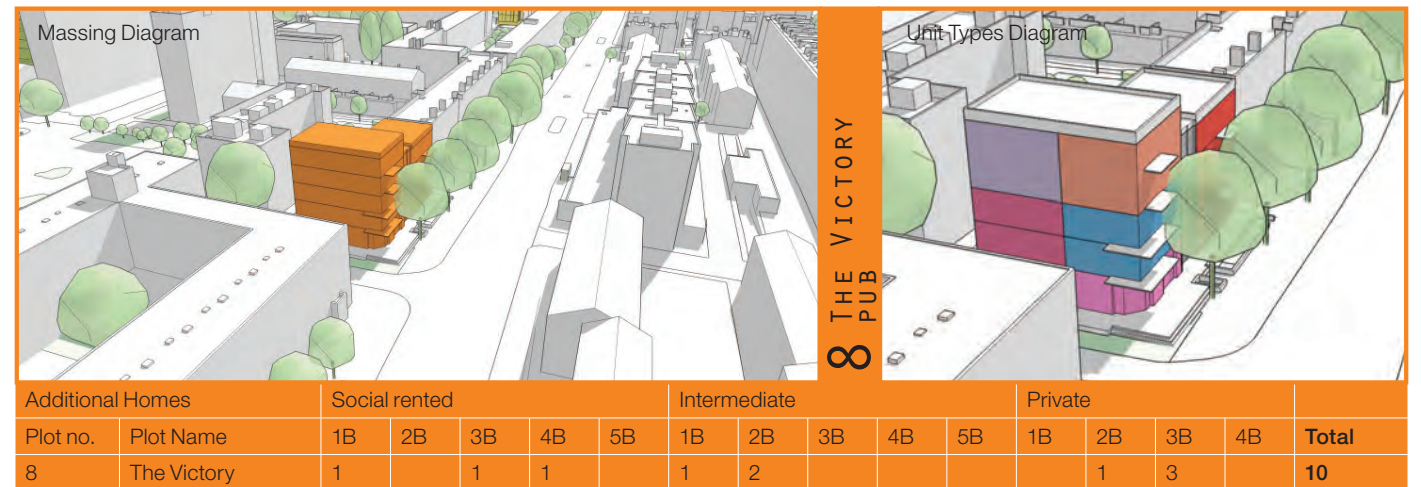
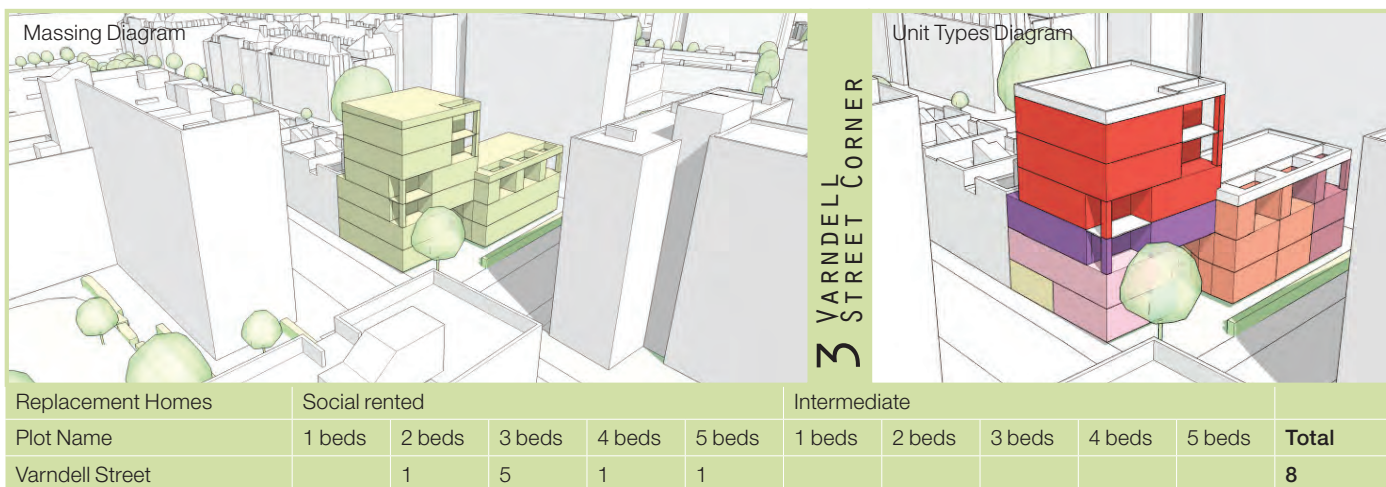
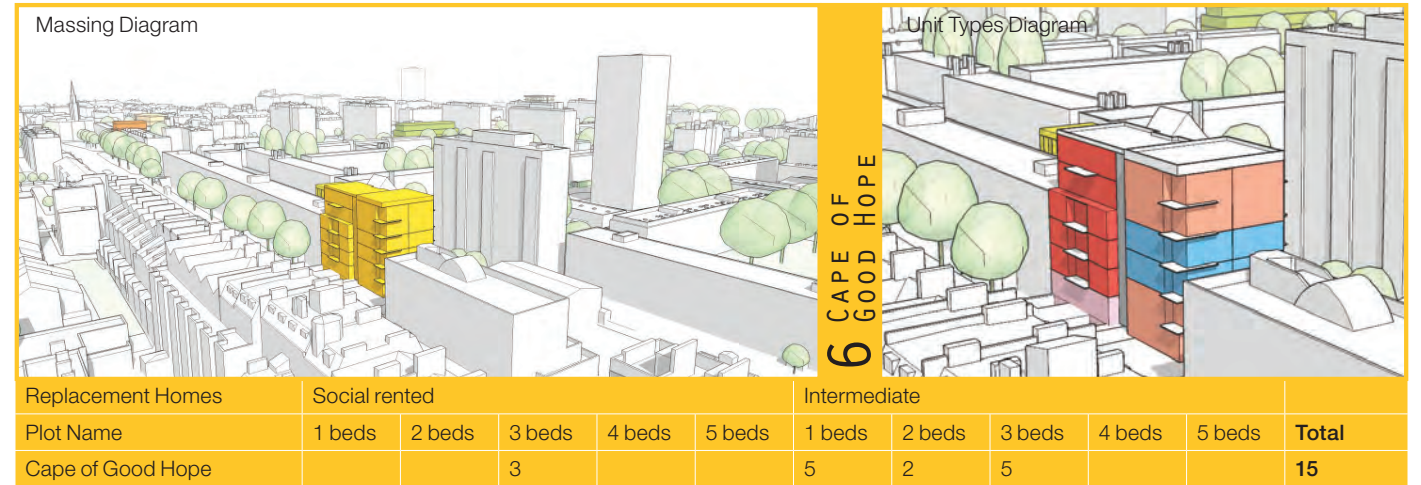
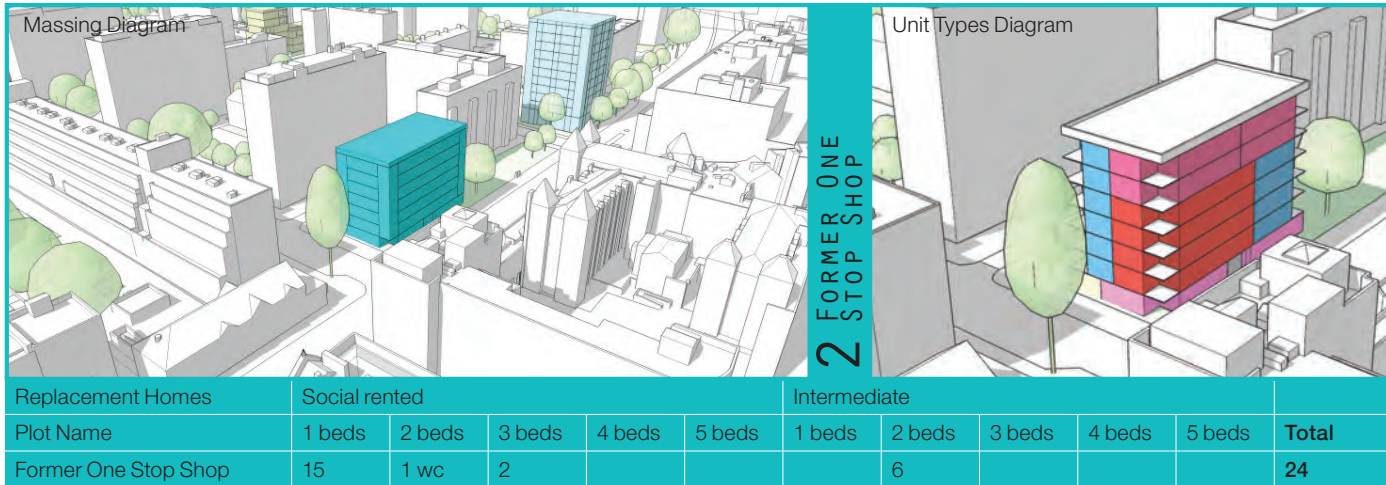
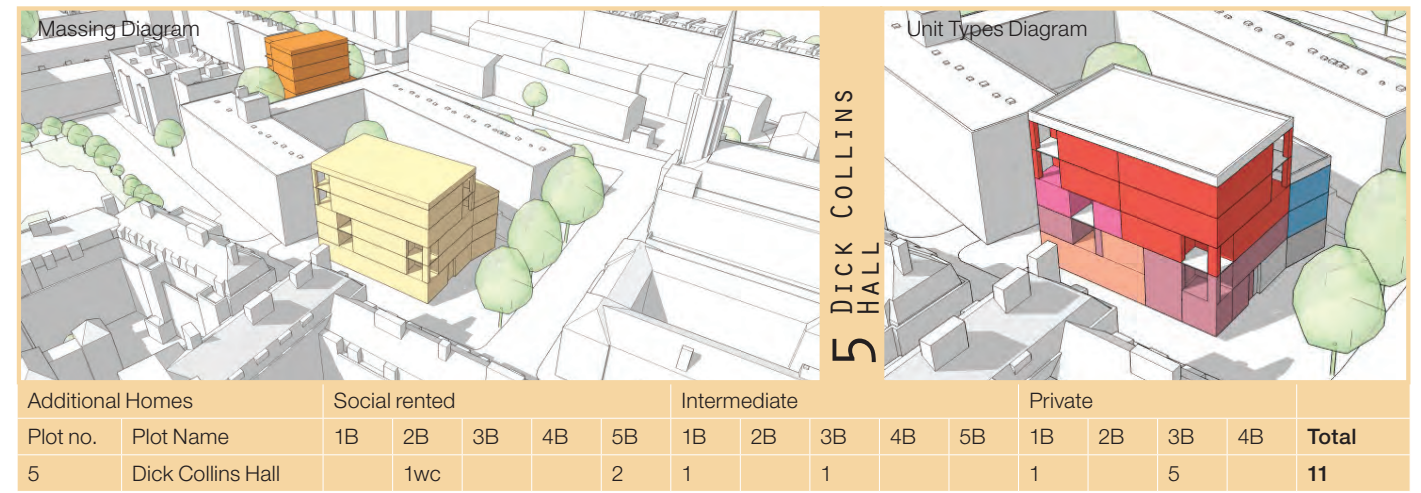
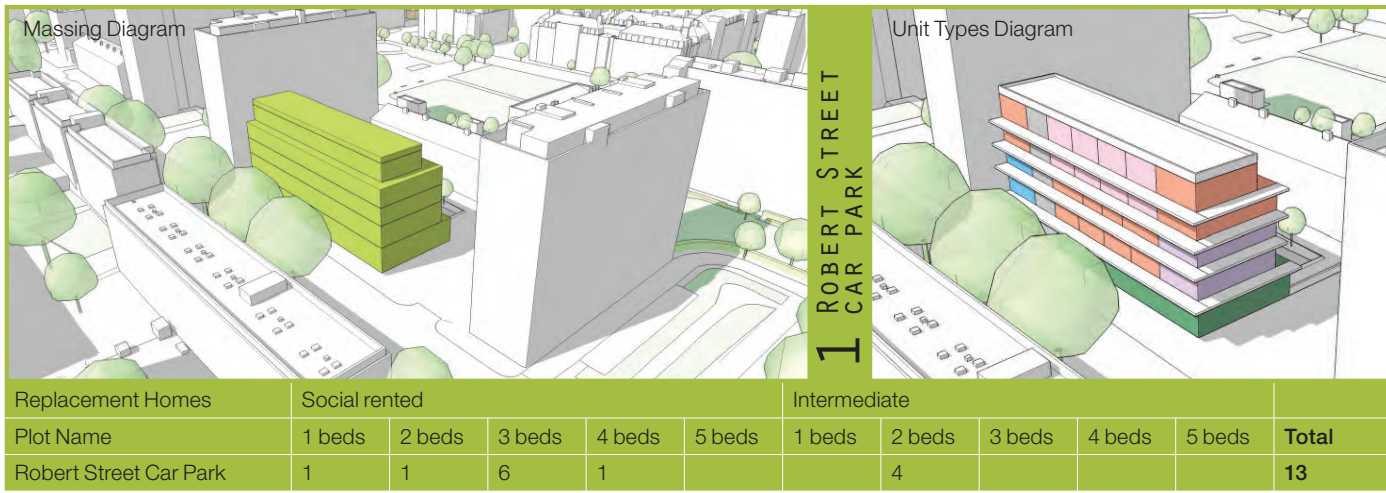
Key to show the allocation of the unit types across each of the sites (opposite page)

1B flat	1B duplex
2B flat	2B duplex
3B flat	3B duplex
4B flat	4B duplex
5B flat	5B duplex

Replacement Homes												
Plot no	Plot Name	Social rented					Intermediate					Total
		1 beds	2 beds	3 beds	4 beds	5 beds	1 beds	2 beds	3 beds	4 beds	5 beds	
1	Robert Street Car Park	1	1	6	1			4				13
2	Former One Stop Shop	15	1 wc	2				6				24
3	Varndell Street		1	5	1	1						8
4	Newlands Plot	8	12	3	5			2		1		32
6	Cape of Good Hope	1		3			4	2	5			15
9	St Bede's Mews	1wc		2								3
	Total units	70					24					94
	Floorspace	5627					1955					7582

Additional Homes																
Plot no.	Plot Name	Social rented					Intermediate					Private				Total
		1B	2B	3B	4B	5B	1B	2B	3B	4B	5B	1B	2B	3B	4B	
4	Newlands Plot	1wc													1	
5	Dick Collins Hall		1wc			2	1		1			1		5	11	
8	The Victory	1		1	1		1	2					1	3	10	
	Total units	7					5					10				22
	Floorspace	690					334					828				
	Affordable / private split by floorspace	1024										828				1852
	Total	1852														

TOTAL (Replacement and Additional homes)															
	Social rented					Intermediate					Private				Total
	1B	2B	3B	4B	5B	1B	2B	3B	4B	5B	1B	2B	3B	4B	
Total no of units (phase 1 and 2)	28	16	22	8	3	6	16	6	1	0	1	1	8	0	116
Floorspace (sq.m)	6317					2289					828				
Affordable / private split by floorspace	8606										828				9434



7.2 Schedule of Residential Accommodation

Replacement Homes

No.	DWELLING REFERENCE	DWELLING TYPE	FLOOR	HABITABLE ROOMS	TENURE	LHDG AREA (sqm)	TOTAL RESI NIA-Flat (sqm)	TOTAL RESI NIA-Flat (sqft)	AMENITY SPACE (sqm)
Robert Street									
1	S1_01_01	1B2P	1	2	S/R	50	57	614	7
2	S1_01_02	3B5P Duplex	1 and 2	5	S/R	96	98	1055	14
3	S1_01_03	3B5P Duplex	1 and 2	5	S/R	96	98	1055	14
4	S1_01_04	3B5P Duplex	1 and 2	5	S/R	96	98	1055	14
5	S1_01_05	3B5P Duplex	1 and 2	5	S/R	96	98	1055	14
6	S1_01_06	4B6P Duplex	1 and 2	6	S/R	107	114	1227	14
7	S1_02_01	2B4P	2	3	LH	70	70	753	7
8	S1_03_01	3B4P Duplex	3 and 4	5	S/R	87	98	1055	14
9	S1_03_02	2B3P Duplex	3 and 4	3	LH	77	84	904	14
10	S1_03_03	2B3P Duplex	3 and 4	3	LH	77	84	904	14
11	S1_03_04	2B3P Duplex	3 and 4	3	LH	77	84	904	14
12	S1_03_05	2B3P Duplex	3 and 4	3	S/R	77	84	904	14
13	S1_03_06	3B4P Duplex	3 and 4	5	S/R	87	98	1055	14
Former One Stop Shop									
1	S2_01_01	1B2P	1	2	S/R	50	56	603	8
2	S2_01_02	1B2P	1	2	S/R	50	56	603	8
3	S2_01_03	1B2P	1	2	S/R	50	60	646	8
4	S2_01_04	2B4P WCH	1	3	S/R		89	958	8
5	S2_02_01	1B2P	2	2	S/R	50	56	603	7
6	S2_02_02	1B2P	2	2	S/R	50	56	603	7
7	S2_02_03	1B2P	2	2	S/R	50	60	646	7
8	S2_02_04	3B5P	2	5	S/R	86	89	958	7
9	S2_03_01	1B2P	3	2	S/R	50	56	603	8
10	S2_03_02	1B2P	3	2	S/R	50	56	603	8
11	S2_03_03	1B2P	3	2	S/R	50	60	646	8
12	S2_03_04	3B5P	3	5	S/R	86	89	958	8
13	S2_04_01	1B2P	4	2	S/R	50	56	603	7
14	S2_04_02	1B2P	4	2	S/R	50	56	603	7
15	S2_04_03	2B4P	4	3	LH	70	75	807	8
16	S2_04_04	2B4P	4	3	LH	70	75	807	8
17	S2_05_01	1B2P	5	2	S/R	50	56	603	8
18	S2_05_02	1B2P	5	2	S/R	50	56	603	8
19	S2_05_03	2B4P	5	3	LH	70	75	807	8
20	S2_05_04	2B4P	5	3	LH	70	75	807	8
21	S2_06_01	1B2P	6	2	S/R	50	56	603	7
22	S2_06_02	1B2P	6	2	S/R	50	56	603	7
23	S2_06_03	2B4P	6	3	LH	70	75	807	7
24	S2_06_04	2B4P	6	3	LH	70	75	807	7

No.	DWELLING REFERENCE	DWELLING TYPE	FLOOR	HABITABLE ROOMS	TENURE	LHDG AREA (sqm)	TOTAL RESI NIA-Flat (sqm)	TOTAL RESI NIA-Flat (sqft)	AMENITY SPACE (sqm)
Varndell									
1	S3-00-01	2B3P Duplex	G and 1	4	S/R	77	90	969	7
2	S3-00-02	3B5P House	G, 1, 2	5	S/R	102	108	1163	12
3	S3-00-03	3B5P House	G, 1, 2	5	S/R	102	109	1173	11
4	S3-00-04	5B8P House	G, 1, 2	8	S/R	126	128	1378	12
5	S3_02_01	4B6P	2	6	S/R	99	104	1119	10
6	S3_03_01	3B5P	3	5	S/R	86	90	969	10
7	S3_04_01	3B5P	4	5	S/R	86	90	969	10
8	S3_05_01	3B5P	5	5	S/R	86	90	969	10
Newlands									
2	S4_01_01	2B4P	1	3	S/R	70	73	786	8
3	S4_01_02	3B5P Duplex	1 and 2	5	S/R	96	110	1184	15
4	S4_01_03	4B6P Duplex	1 and 2	6	S/R	107	122	1313	15
5	S4_01_04	4B7P Duplex	1 and 2	6	S/R	117	128	1378	15
6	S4_02_01	2B4P	2	3	S/R	70	73	786	7
7	S4_03_01	2B4P	3	3	S/R	70	73	786	8
8	S4_03_02	3B5P Duplex	3 and 4	5	S/R	96	110	1184	15
9	S4_03_03	4B6P Duplex	3 and 4	6	S/R	107	122	1313	15
10	S4_03_04	4B7P Duplex	3 and 4	6	S/R	117	128	1378	15
11	S4_04_01	2B4P	4	3	S/R	70	73	786	7
12	S4_05_01	2B4P	5	3	S/R	70	73	786	8
13	S4_05_02	3B5P Duplex	5 and 6	5	S/R	96	110	1184	15
14	S4_05_03	4B6P Duplex	5 and 6	6	S/R	107	122	1313	15
15	S4_05_04	4B7P Duplex	5 and 6	6	LH	117	128	1378	15
16	S4_06_01	2B4P	6	3	S/R	70	73	786	7
17	S4_07_01	1B2P	7	2	S/R	50	55	592	8
18	S4_07_02	1B2P	7	2	S/R	50	55	592	8
19	S4_07_03	2B4P	7	3	S/R	70	73	786	8
20	S4_07_04	2B4P	7	3	S/R	70	72	775	8
21	S4_08_01	1B2P	8	2	S/R	50	55	592	7
22	S4_08_02	1B2P	8	2	S/R	50	55	592	7
23	S4_08_03	2B4P	8	3	S/R	70	73	786	7
24	S4_08_04	2B4P	8	3	S/R	70	72	775	7
25	S4_09_01	1B2P	9	2	S/R	50	55	592	8
26	S4_09_02	1B2P	9	2	S/R	50	55	592	8
27	S4_09_03	2B4P	9	3	S/R	70	73	786	8
28	S4_09_04	2B4P	9	3	S/R	70	72	775	8
29	S4_10_01	1B2P	10	2	S/R	50	55	592	7
30	S4_10_02	1B2P	10	2	S/R	50	55	592	7
31	S4_10_03	2B4P	10	3	LH	70	73	786	7
32	S4_10_04	2B4P	10	3	LH	70	72	775	7

Additional Homes

No.	DWELLING REFERENCE	DWELLING TYPE	FLOOR	HABITABLE ROOMS	TENURE	LHDG AREA (sqm)	TOTAL RESI NIA-Flat (sqm)	TOTAL RESI NIA-Flat (sqft)	AMENITY SPACE (sqm)
1	S6_00_01	2B4P Duplex	G and B	3	LH	83	106	1141	12
2	S6_00_02	2B4P Duplex	G and B	3	LH	83	102	1098	12
3	S6_00_03	3B5P Duplex	G and 1	5	S/R	102	105	1130	7
4	S6_01_01	3B6P	1	5	S/R	95	103	1103	12
5	S6_01_02	1B2P	1	2	S/R	50	53	581	6
6	S6_02_01	3B6P	2	5	S/R	95	103	1103	12
7	S6_02_02	1B2P	2	2	LH	50	53	581	6
8	S6_02_03	1B2P	2	2	LH	50	51	549	7
9	S6_03_01	3B6P	3	5	LH	95	103	1103	12
10	S6_03_02	1B2P	3	2	LH	50	53	581	6
11	S6_03_03	1B2P	3	2	LH	50	51	549	7
12	S6_04_01	3B5P	4	5	LH	86	92	990	18
13	S6_04_02	3B5P Duplex	4	5	LH	83	104	1087	14
14	S6_04_03	3B5P Duplex	4	5	LH	83	101	1119	12
15	S6_05_01	3B5P	5	5	LH	86	92	990	10
St Bedes									
1	S9_00_01	1B2P WCH	G	2	S/R	/	66	710	13
2	S9_01_01	3B4P	1	5	S/R	70	80	861	7
3	S9_02_01	3B4P	2	5	S/R	70	80	861	7

No.	DWELLING REFERENCE	DWELLING TYPE	FLOOR	HABITABLE ROOMS	TENURE	LHDG AREA (sqm)	TOTAL RESI NIA-Flat (sqm)	TOTAL RESI NIA-Flat (sqft)	AMENITY SPACE (sqm)
1	S5-00-01	5B6P Duplex	G and 1	7	S/R	107	127	1367	10
2	S5-00-02	3B4P Duplex	G and 1	5	Market	87	87	936	8
3	S5-00-03	5B7P Duplex	G and 1	7	S/R	117	122	1313	14
4	S5-01-01	1B2P	1	2	Int	50	52	560	8
5	S5-02-01	1B2P	2	2	Market	50	52	560	8
6	S5-02-02	3B5P	2	5	Int	86	90	969	10
7	S5-02-03	2B3P WCH	2	5	S/R	N/A	87	936	9
8	S5-03-01	3B4P	3	5	Market	74	80	861	10
9	S5-03-02	3B5P	3	5	Market	86	89	958	10
10	S5-04-01	3B4P	4	5	Market	74	80	861	10
11	S5-04-02	3B5P	4	5	Market	86	89	958	10
The Victory									
1	S8_00_01	2B4P	G	3	Market	70	70	753	45
2	S8_01_01	1B2P	1	2	S/R	50	53	570	10
3	S8_01_02	2B3P	1	3	Int	61	70	753	5
4	S8_01_03	3B5P	1	5	S/R	86	89	958	10
5	S8_02_01	1B2P	2	2	Int	50	53	570	6
6	S8_02_02	2B3P	2	3	Int	61	70	753	6
7	S8_02_03	3B5P	2	5	Market	86	89	958	12
8	S8_03_01	3B5P Duplex	3	5	Market	96	103	1109	12
9	S8_03_02	4B6P Duplex	3	6	S/R	83	137	1475	12
10	S8_03_03	3B5P	3	5	Market	86	89	958	12
Newlands									
1	S4_00_01	1B2P WCH	G	2	S/R	/	75	807	31

7.3 Schedule of Commercial and Community Accommodation

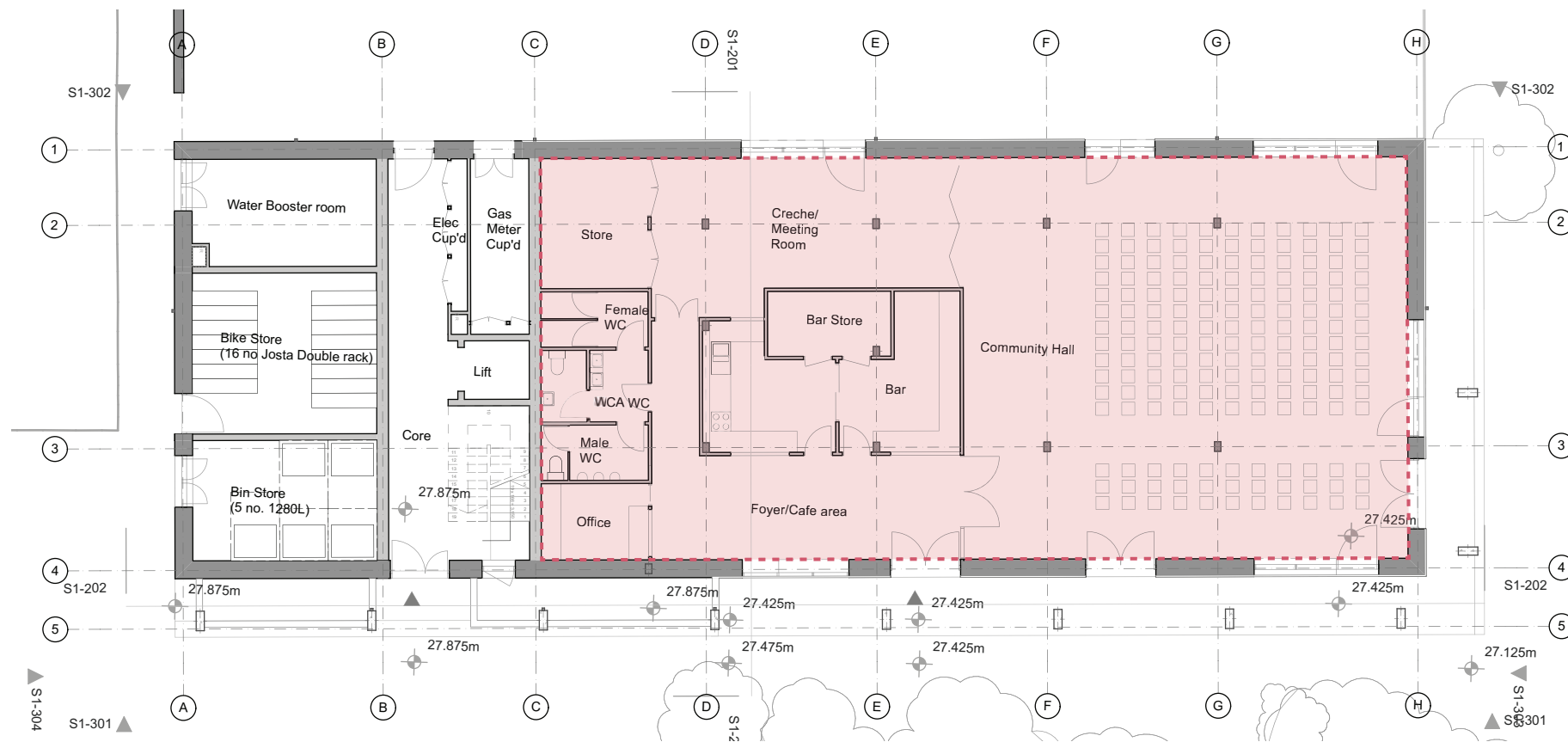
Plot 5 has an existing TRA hall. It is a one storey building with blank street facades and is located to the north-east of the estate. It will be replaced by a new hall on Robert Street that is central, accessible and will provide an active frontage on the street. Camden have committed to not demolishing the existing hall before a new one is complete. The plan opposite shows the plan for the new community hall which is the same size as the existing hall. The proposed hall has been designed to make the space flexible for a variety of community uses.

Community				
Name	Existing		Proposed	
Dick Collins TRA hall	Location	Size (sqm)	Location	Size (sqm)
	Plot 5	330	Plot 1	334

The page opposite shows the commercial units to be provided as part of the scheme. These include:

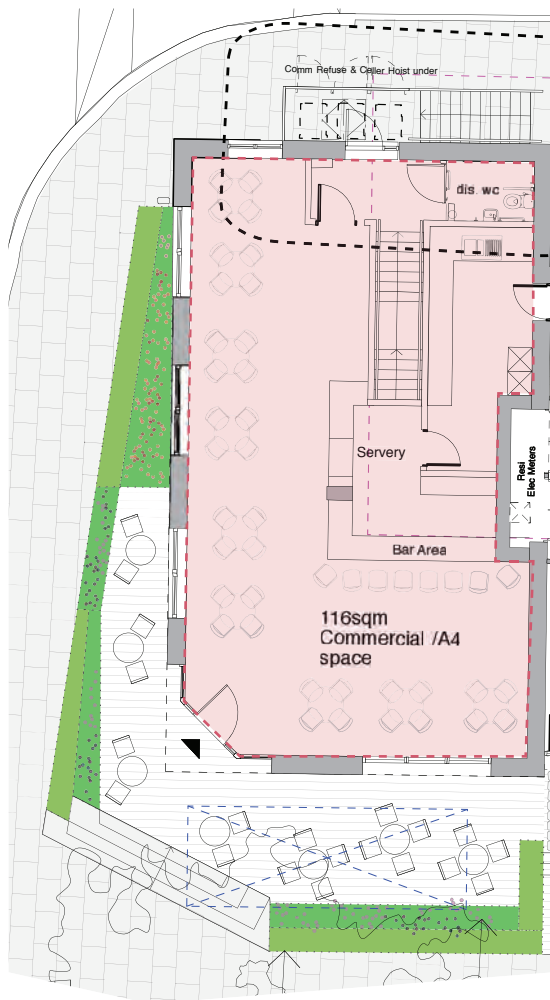
- a replacement of the pub on Plot 8
- two A1/A3 commercial units on Hampstead Road on the Newlands plot and the Former One Stop Shop plot. Together these new commercial units are an area of 253m².

Dick Collins TRA Hall

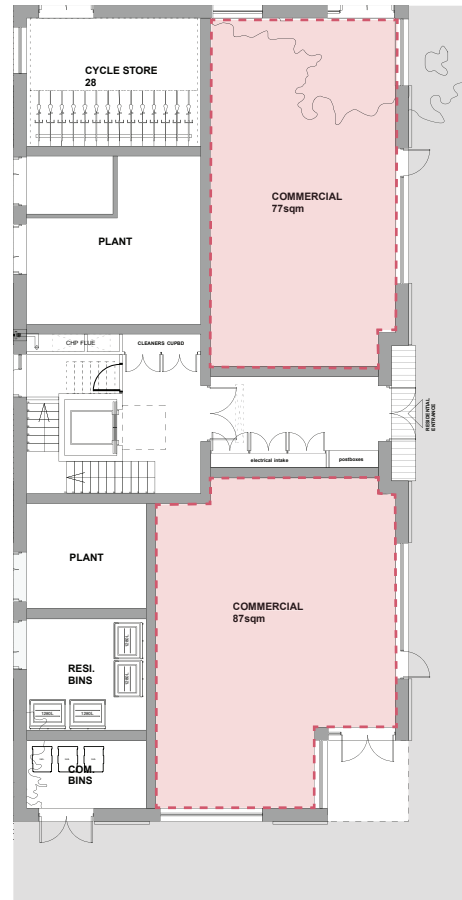


Commercial				
Type	Existing		Proposed	
	Location	Size (sqm)	Location	Size (sqm)
Public House	The Victory Pub	375	The Victory Pub	179.5
Public House	Cape of Good Hope	391	n/a	n/a
A1/A3 use	n/a	n/a	Former One Stop Shop	162
A1/A3 use	n/a	n/a	Newlands Plot	91

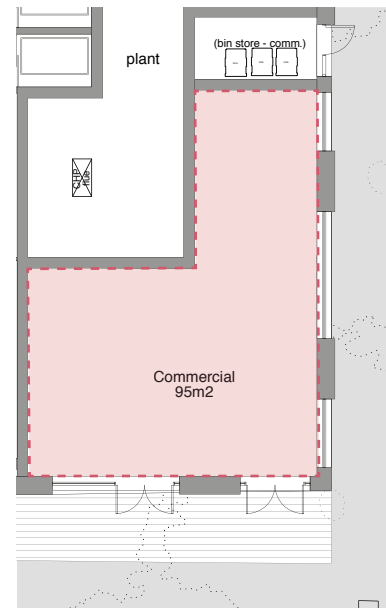
Public House: Plot 8, The Victory Pub



A1/A3 use: Plot 2, Former One Stop Shop



A1/A3 use: Plot 4, Newlands



THE PROPOSALS: TECHNICAL STRATEGY



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8.12	Roof Strategy	240

8.1 Building Servicing Strategy

Incoming gas, water and electricity services will be provided to the site from the adjacent statutory services infrastructure.

Fabric performance has been improved significantly beyond the requirements of Building Regulations Part L and the building envelope has been improved to minimise thermal bridging and increase air tightness. This has resulted in a reduced building energy demand prior to the application of any renewable technologies.

High efficiency heat recovery ventilation will be provided to deliver fresh air and exhaust from the occupied zones. Wherever possible, air intake locations have been positioned away from highways and other sources of pollution. Through consultation, LBC sustainability department has supported the inclusion of heat recovery ventilation in the scheme.

Central Systems

The large blocks will have a central, communal heating system, located at ground floor level, these blocks are as below:

- Plot 2: Former One Stop Shop
- Plot 4: Newlands

A central plant room located at ground floor level will house high efficiency gas fired boiler plant which will generate primary thermal energy. This will be delivered to Heat Interface Units (HIUs) located in each dwelling. Plate heat exchangers within the HIU will transfer the thermal energy to the dwelling heating or hot water system as required.

A central programmer will be used to control the operation of the installations and local temperature control will be provided in each space.

Local Systems

The small and mid size blocks will be have heating and hot water provided via individual boilers, the servicing strategy for these blocks is described below, these sites include:

- Plot 1: Robert Street Car Park
- Plot 3: Varndell Street Corner
- Plot 5: Dick Collins Hall
- Plot 6: Cape of Good Hope
- Plot 8: The Victory Pub
- Plot 9: St Bede's Mews

Heating and hot water within each dwelling will be generated locally by combination boilers. Heating will be delivered to individual spaces within dwellings by either conventional radiators or underfloor heating.

Consideration was given to an interconnection with existing central plant serving the adjacent Rothay Building but the age and capacity of this installation were barriers to potential integration.

A central programmer will be used to control the operation of the installations and local temperature control will be provided in each space.

Each dwelling will be provided with a dedicated gas service from a common meter room at ground floor level. Natural gas will be supplied to the boiler only.

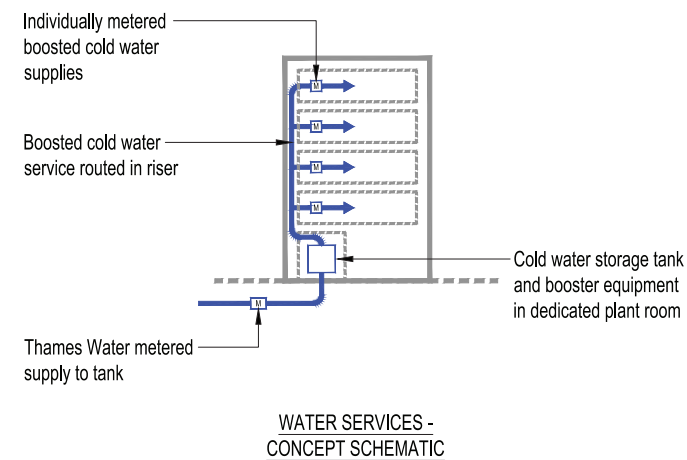
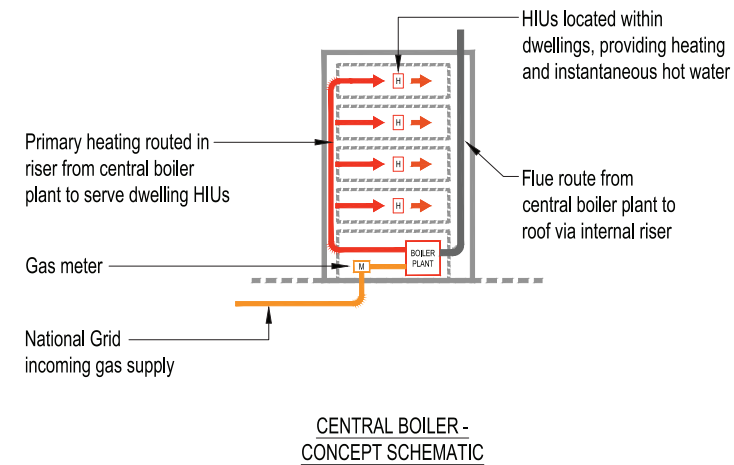
Cold water will be derived from a central tank located at ground floor. Individual water meters, double check valves and pressure reducing valves shall be installed in the supply to each dwelling.

A fully ventilated drainage system will be installed to convey waste water from the various sanitary appliances within dwellings to soil vent pipes (SVP's) located across the floor plate. SVP's shall drop to ground level and connect to the below ground drainage system before connecting to the nearest municipal combined sewer.

Solar photovoltaic panels will be installed on the roof of the building to generate electricity and provide the renewable energy content to the scheme. Electricity generated will be used throughout the building, offsetting carbon emissions from other sources.

A dedicated electrical service will be provided to each dwelling served from new switchgear at ground floor level. High efficiency lighting incorporating LED technology will be provided throughout.

Provisional allowances have been made for the distribution of services throughout any commercial units at the ground floor level. This includes a nominal allowance for distribution to roof level where it is expected that minor plant may be located.



8.2 Refuse Strategy

Waste storage is provided internally at ground floor within the new blocks. The quantities of this waste is calculated according to LB Camden's Planning guidance document '10 Waste Storage and Recycling', Figure 14, page 96.

Where possible, waste storage is sited within 10 metres of a stopping point for a refuse truck, however in some instances it is necessary to slightly extend this distance, including in Varndell and Rothay, as described in their respective sections of this report.

It is assumed that waste will be stored in 1280l communal eurobins.

For each block, an area of approximately 2sqm is provided where possible for bulky waste storage. This has generally been sized to suit a double mattress or wardrobe. This is sited within the general waste store.

A cleaners cupboard/ room will be included within each block, containing a cleaners sink and a space for storage of cleaning equipment.

Refer to annotated ground floor plans included earlier in the report under Section 6 for ground floor plans showing the location and configuration of bin stores.



8.3 Cycle Strategy

Cycle storage is provided internally at ground floor within the new blocks, generally using Josta 2 tier bike racks, which stack one bike above another to achieve the maximum efficiency in terms of floor area.

The numbers of cycle spaces provided are calculated using Camden's guidance document: '7 Transport'. Where possible, the design team have been able to provide numbers above this standard, in line with the increased requirement set out in Draft Further Alternations to the London Plan January 2014, which increase the number of spaces for 2 bed units to 2 per unit.

Access to the bike storage is step free and min 1m clear opening. The Josta system requires specific clear space to function which simultaneously provides min 1800mm turning circle between the stored bikes and enclosure.

Refer to annotated ground floor plans included earlier in the report under section 6 for ground floor plans showing the location and number of bike stores.



8.4 Housing Standards

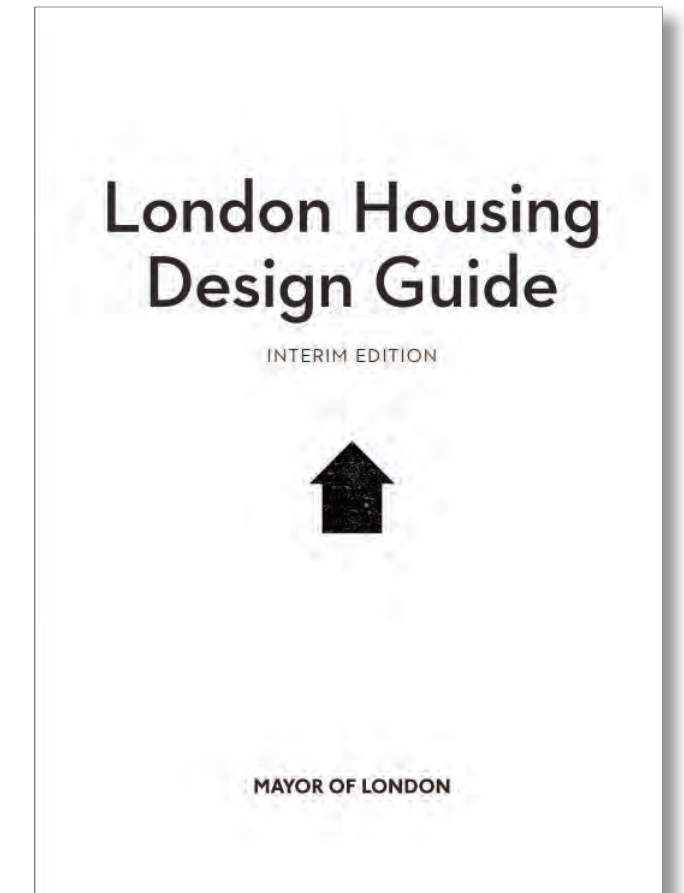
The 16 design criteria set out under lifetime homes are also covered under the umbrella of the London Housing Design Guide (LHDG). These principles have been followed by the architects in designing the dwelling layouts and communal areas of the new build blocks in the scheme, and all new build blocks will meet these standards.

Particular issues to take note of are set out on the compliance pages of the plot by plot descriptions earlier in this report.

Where design issues are a matter of interpretation within the guidance, these have generally been discussed with Michelle Horn at LB Camden, and a solution has been worked out in these instances.

All new build blocks have been designed to the LHDG guidance, and all of these blocks will meet this standard. More detailed guidance is included in the plot by plot compliance sections of this report, where key issues have been picked out.

Wheelchair housing has been provided across the plots to meet the key criteria set out in LB's Camden's Wheelchair Housing Design Guide. The replacement homes element of the scheme delivers two wheelchair units and also identifies units that have the ability to be converted in the future should housing need change. The additional homes element of the scheme delivers 10% wheelchair housing.



8.5 Movement, Access and Parking

Movement

The following diagrams illustrate how the proposed schemes affect movement and parking across the site.

From a vehicular perspective the only significant change proposed is a traffic restriction order on Varndell Street at its junction onto Hampstead Road to stop vehicular traffic but allow the access of pedestrians and cyclists. This alteration is currently already proposed by HS2 due to the rise in Hampstead Road at this point and so it is suggested that this is carried out in tandem with the Newlands plot development. Closing this route off to cars, but keeping it open to pedestrians and cyclists initiates the street as a quieter east-west link, which is a feature that is proposed to evolve with longer term estate regeneration, as set out in the urban design diagram on page 35.

The diagram on the right illustrates how the development sites are being effective in activating key east-west links as well as important pedestrian routes. This is a key principle in the EAP and longer term masterplan objectives for the estate. The sites are critical in beginning to unlock these routes, allowing the estate to connect more effectively to Regent's Park and also integrate into the Euston Station links.

It is also visible how the Hampstead Road sites; Newlands plot and the Former One Stop Shop and the Albany Street sites; Cape of Good Hope and The Victory are acting as key gateways into the estate, demarcating the principle access points into and out of the estate.

Parking

There are a number of different types of parking spaces that currently exist on the estate. These include:

- Estate parking
- Resident parking
- Pay and display
- Business

As there are so many available parking spaces throughout the estate, the spaces have been strategically relocated onto sites that are not expected to be affected by the longer term CIP schemes. It shows that the majority of the sites have been relocated into the Rothay car park, Troutbeck car park and Clarence Gardens area. The proposed parking plan also indicates that there is still a significant amount of available parking spaces after the relocations have taken place.

More detailed information on the parking strategy is set out in the Highways Supporting Document.

Movement + parking



Developing east-west links across the site through gateways and activated edges

8.6 Energy and Sustainability

The energy hierarchy has been used to establish a sensible and efficient approach towards the provision of energy and heating for the scheme. A fabric first approach has been taken with a highly efficient building envelope being designed to near Passivhaus standards to reduce energy demand in the first place.

Secondly, in accordance with the hierarchy, the opportunities to connect into a decentralised energy network have been explored. The following heat networks are on or near the estate:

- The Netley School CHP. This network has also been expanded into the nearby Woodhall plant room to serve this existing block.
- There is an existing communal heating system that serves the existing Rothay block.
- There is an existing communal heating system that serves the existing Newlands block.
- There is potential for a new heat network to be developed in the future as part of the proposals for Euston.

A number of the streets running through the estate are very congested with underground services. In addition, a number of the key internal roads have been identified for major utilities diversions as part of the HS2 construction works. It is therefore felt that putting more underground infrastructure, associated with a new heat network, into these busy routes is not practical. This is also partly to do with the small size (in terms of the number of units) of many of the proposed buildings meaning that communal systems are not efficient. It is therefore proposed that the majority of the proposals are served by highly efficient individual boilers.

The greatest opportunity for connection into a heat network is felt to be connection to a future system developed at Euston. The proposals along Hampstead Road are of the most appropriate size and in the best location for this to be possible in the future. The proposals for these blocks include communal plant that has the ability to be connected into a network in the future.

There is also an opportunity for the communal plant at the Newlands plot to be sized so that the existing Newlands system could connect into the new system in the future. This means that the existing building would then be more carbon

Energy + sustainability



- Local installations
- Central installations
- Existing communal plant location
- Existing roofs for PV installation

and energy efficient. The communal plant in the Newlands plot proposals has therefore been sized to allow this to happen at a future date.

The Netley system is at its current designed for capacity and there is limited space in the plant room for expansion. Despite the relative proximity of some of the plots to this system it is felt that connection is not a practical solution

8.7 Phasing

due to capacity and logistics of the utilities diversions along Robert Street.

The Rothay system is currently running at capacity and the existing plant is old meaning there is little energy and carbon saving to be made by connecting the new buildings into this system.

Phasing

The phasing plan shows the proposed sequence of works for the project.

The plots in Phase 1 are the least constrained sites and most readily available for development, and together have the capacity to deliver the exact housing need requirement from the blocks to be demolished by HS2. These include sites 1, 2, 3, 4, 6 and 9.

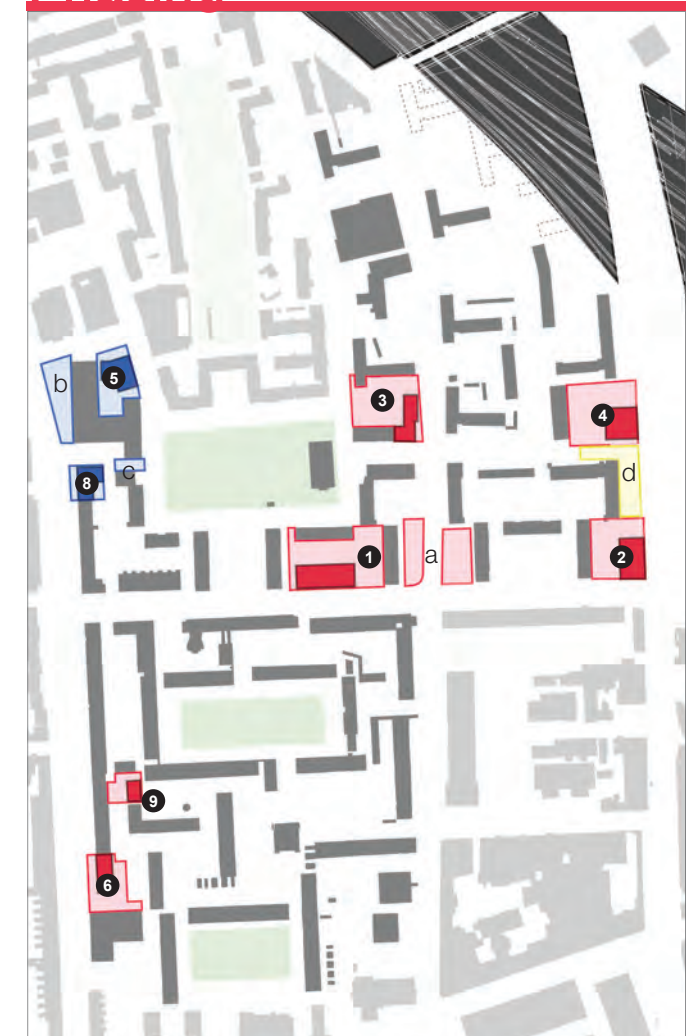
The Phase 2 sites have specific constraints. Phase 2 includes sites 5 and 8. The Dick Collins hall can only be provided in Phase 2 as the London Borough of Camden have promised the estate residents that the community hall will not be closed and demolished before the completion of a new one. The Victory site has third party complications that is currently delaying legal negotiations. The open space mitigation sites that are neighbouring these two Phase 2 sites will be developed during the same later period.

Phase 3 includes one open space mitigation site on Hampstead Road. It is allocated to be developed at a later stage as this area has been included in the HS2 safeguarded area and may be needed for construction works. The improvements will therefore only take place once HS2 no longer needs the area.

- 1 Robert Street car park
- 2 Former One Stop Shop
- 3 Varndell Street corner
- 4 Newlands plot
- 5 Dick Collins hall
- 6 Cape of Good Hope
- 7 Camden People's Theatre (separate application)
- 8 The Victory
- 9 St Bede's mews

- a Stanhope Street / Robert Street
- b Rothay / Albany Street
- c Thirlmere Garden
- d The Tarns and Varndell Street

Phasing



- PHASE 1
 - landscaping
 - building
- PHASE 2
 - landscaping
 - building
- PHASE 3
 - landscaping

8.8 Landscape Furniture

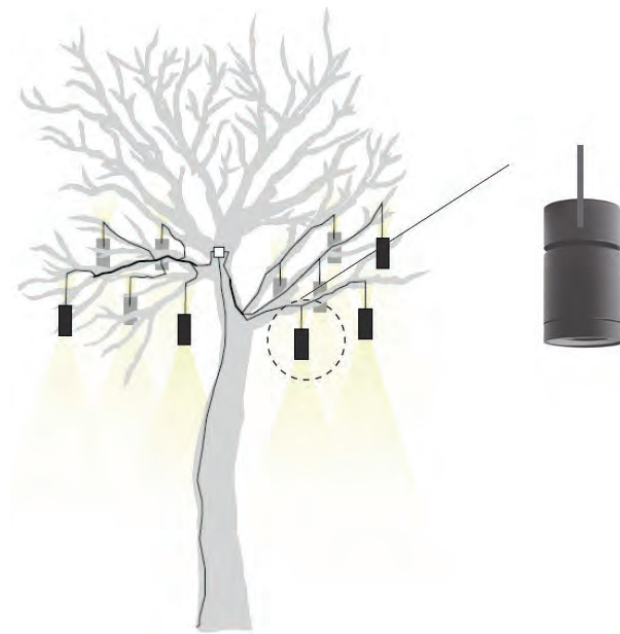
The proposed landscape furniture palette includes a family of benches, bicycle racks, amenity lamp columns and a family of granite bollards.

The family of benches are proposed in stainless steel with iroko timber slats to provide a robust and low maintenance suite of furniture that varies to provide seating with and without back rests or armrests along with more playful forms to allow for picnics, climbing and lounging. These are set within the shared residents gardens as well as in the new public/civic spaces of Robert Street Square and Newlands play garden.

Cycle stands provide parking for visitors and residents moving through the estate.

A family of granite bollards developed from existing Robert Street service road bollards to define edges and corners across the various sites for both vehicles and pedestrians.

Clusters of new lamp posts are carefully located within the tree clusters, casting soft lighting on the ground surface and informal pedestrian path ways of the new civic spaces.



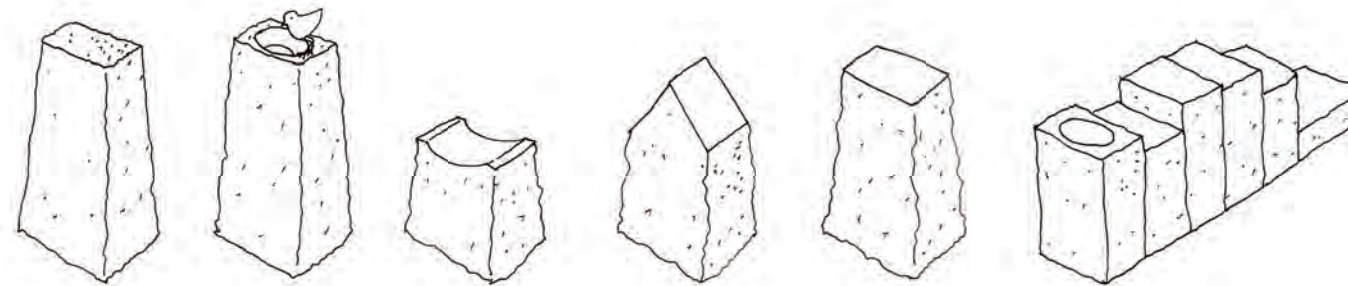
Tree candle lights



LED lamp post



Existing granite bollard in Robert Street



Family of granite bollards



Bench family

8.9 Drainage

The drainage scheme prepared for the proposed sites is designed to meet the requirements of the London Plan and the Camden/North London Strategic Flood risk Assessment [SFRA] and satisfy the planning requirement for developments of 10 dwellings or more to adopt sustainable urban drainage systems.

All the buildings will have biodiverse roofs to improve the biodiversity on the estate as well as attenuate the amount of water discharged off the building roofs.

The Regents Park Estate is located within the London Clay Formation and unsuitable for soakaways. As there are no natural watercourses in close proximity to the site, surface water run-off will be attenuated then discharged to the public storm water sewers, if available or public combined sewers.

The proposed storm water drainage network for each site will conform to the following criteria:

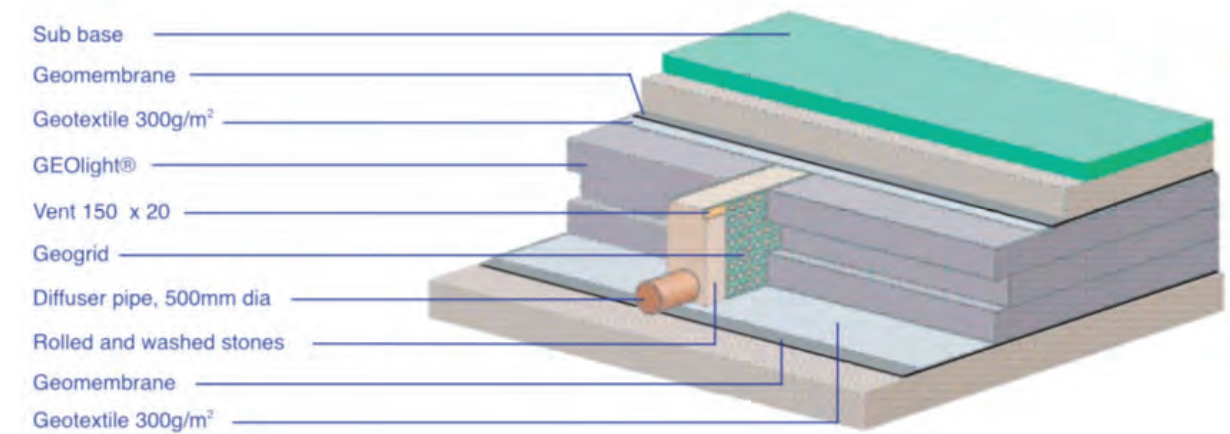
- no pipe surcharge for events up to 1 in 2 year design storm
- no on-site storm water sewer flooding for rainfall events 1 in 30 year
- no flooding to buildings for storm events up to the 1 in 100 year events + 30%
- minimum pipe velocity at full flow = 0.75m/s
- pipe roughness value [ks] = 0.6
- M5-60 value = 20.800
- R = 0.438

Based on the existing peak stormwater flows and the discharge limits as required by the North London SFRA, the

permitted peak storm water discharge from each of the sites requires the following sizes of attenuation tanks per site:

- Robert Street Car Park - 55m³
- Varndell Street Corner Plot - 13m³
- Former One Stop Shop Plot - 35m³
- Newlands Plot - 12m³
- Dick Collins Hall Plot - 28m³
- Cape of Good Hope Plot - 38m³
- Victory Pub - 13m³
- St Bede's Mews - 20m³

The locations of these are detailed on the proposed landscape plans for each site.



Sectional view of Geolight drainage system

8.10 Ecology, biodiversity and trees: Detailed Strategy

Underplanting

The variety of species allows gardens to thrive in texture, scent and colour, with blooming occurring year round.

Native climbers such as *Lonicera periclymenum* (honeysuckle) and *Clematis vitalba* (Traveller's Joy) can be trained up boundary fences between the six courtyard gardens to create additional biodiversity habitats for attracting insects and birds.

Hedera helix (Ivy) could be used as evergreen ground cover as part of the shady woodland underplanting area, which would be especially beneficial to wildlife by providing food and shelter during the winter months.

Allotments

The aim of the allotments is to increase biodiversity within the development and encourage engagement and uses within the communal garden.

A planting strip in front of all allotment areas aim to ensure that visual amenity is still provided even if a specific crop fail.

In the case of failure, these areas can be planted with the surrounding low level planting.

Bird boxes

Several bird boxes can be carefully clustered amongst the existing trees, these are to be of varying sizes to allow use by a wide range of species and enhance opportunities for nesting birds. The house sparrow is a BAP priority species and boxes can be specifically chosen to encourage use by this species.

A dedicated nature or small wildlife garden is proposed alongside the driveway entrance to Dick Collins Hall site with bird boxes fixed to the terrace walls.



Bird box integrated into notice board of Regent's Park Gardening Club allotment site



Insect hotel as an example of integrating play and opportunities for biodiversity



Community allotments

Trees to be removed as part of the proposals

There are no trees subject to Tree Preservation Orders [TPO] within the site area.

30 trees and 3 groups are proposed to be removed across 6 of the 8 sites:

- 1 trees and groups category U
- 22 trees and groups category B
- 10 trees and groups category C

The table below summarises the trees to be removed for each of the sites.

These are shown on each of the landscape proposals for the individual sites in Section 6.

RPE Developemnt Sites_Existing/proposed trees and groups

Plot	Site Name	Existing trees/groups retained	Existing trees/groups removed	New trees
Plot 1	Robert Street Car Park	3	13	15
Plot 2	Former One Stop Shop	1	2	7
Plot 3	Varndell Street Corner	4	5	14
Plot 4	Newlands Plot	6	10	10
Plot 5	Dick Collins Hall	5	2	10
Plot 6	Cape of Good Hope	3	1	1
Plot 8	The Victory Pub	2	0	2
Plot 9	St Bede's Mews	2	0	2

Table showing existing trees retained or removed and new trees

Mitigation

Planting proposals including new trees have been developed for each of the sites to mitigate against the loss of existing trees and presents an opportunity to vary the existing mix of tree species on the estate.

Trees close to the building sites will be protected to BS 5837 : 2012 with works carried out in accordance with BS3996 : 2010 and NJUG guidelines no.4 & 10.

The ground floor slab and beams of the Victory Pub building have been raised above the root zone of a Category A Plan tree at the edge of this site.

Where there are existing clusters of trees we propose selective removal to give a specific tree more space to grow.

New trees species have been selected to be appropriate to the specific site conditions, strengthen key routes, provide seasonal variety and increase the biodiversity to the sites.

This seasonal variation is important in supporting wildlife. For example, Magnolias have large pollen rich flowers for foraging bees and flower in March/April making them ideal early pollen producers.

The blossoms of malus species are good for early foraging bees and the fruits can be left on the trees as a winter snack for the birds.

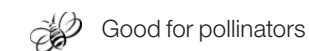
Tree removal that is unavoidable due to site constraints for siting the new residential block will be retained on site and modified into play elements.

See proposals for each of the sites in Section 6.
















Training trees such as espaliers, is a space-saving way of growing fruit on a wall or fence in smaller gardens or courtyards

The planting scheme for each of the sites will have 10+ new plant species to suit location, aspect and size of the site. A planting schedule includes trees, native and non-native hedging, groundcover, grasses, perennials and climbers to create gardens that are rich in colour, texture and interest.



Trees									
<i>Amelanchier lamarckii</i>	Small deciduous tree or shrub with showy white flowers in early spring, red to purple fruits and often good autumn colour		<i>Prunus serrulata</i>	Ornamental tree producing masses of pink blossom, originated in Asia		Full sun / Partial shade	Sheltered / Exposed	Well drained / Moist but well drained	
<i>Acer griseum</i>	Small deciduous tree with attractive peeling, papery bark. Leaves turn orange / red in Autumn		<i>Salix babylonica</i>	Medium- to large-sized deciduous tree, growing up to 20-25 m. The flowers are arranged in catkins produced early in the spring		Full sun / Partial shade	Sheltered / Exposed	Well drained / Moist but well drained	
<i>Betula pendula</i>	Medium sized tree with lender drooping twigs, Catkins		<i>Sorbus hupehensis</i>	Compact medium-sized deciduous tree with leaves composed of about 11 oblong, bluish-green leaflets. Creamy-white flowers in late spring are followed by rosy-pink fruits		Full sun / Partial shade	Sheltered / Exposed	Well drained / Moist but well drained	
<i>Catalpa bignonioides</i>	Spreading medium sized deciduous tree with large leaves. Orchid like flowers in Summer and bean pod hanging fruits.		Native hedging						
<i>Cercis siliquastrum</i>	deciduous shrubs or small trees with heart-shaped leaves and clusters of bright pink pea-flowers opening before or with the leaves		<i>Corylus avellana</i> (Hazel)	Spreading deciduous shrub / small tree		Full sun / Partial shade	Exposed / sheltered	Well drained / moist but well drained	
<i>Magnolia sayonara</i>	Deciduous medium sized tree / large shrub with goblet shaped flowers in late Spring		<i>Runus fruticosus</i> 'Loch Ness' Blackberry 'Loch Ness'	Thornless blackberry that is not too vigorous with fairly upright canes		Full sun	Sheltered	Well drained / moist but well drained	
<i>Magnolia stellata</i>	Deciduous vigorous small tree / medium shrub with scented pink flowers that open before the leaves		Thorny						
<i>Malus sylvestris</i>	Small to medium-sized deciduous tree with showy flowers in spring and ornamental or edible fruit in autumn		<i>Buxus sempervirens</i>	An evergreen shrub growing to 1-9 m		Full sun / Partial shade	Exposed / sheltered	Well drained / moist but well drained	
<i>Morus Nigra</i> (Mulberry Tree)	Treewith a spreading habit and with attractive leaves and tasty fruit		<i>Crataegus monogyna</i> (Hawthorn)	Small deciduous tree with dark red autumn berries		Full sun / Partial shade	Exposed / sheltered	Well drained / moist but well drained	spring
			<i>Prunus spinosa</i> (Blackthorn / Sloe)	Small thorny deciduous tree		Full sun	Exposed / sheltered	Moist but well drained	
			<i>Rosa arvensis</i> (Field rose)	Vigorous thorny deciduous rambling shrub with slightly fragrant white flowers in mid-summer		Full sun / Partial shade	Exposed / sheltered	Well drained / moist but well drained	
			<i>Rosa canina</i> (Dog rose)	Vigorous deciduous shrub with mid-greenn foliage and pale pink / white flowers		Full sun	Exposed / sheltered	Moist but well drained	
			Groundcover						
			SUN						
			<i>Euphorbia characias</i> subsp. <i>wulfenii</i>	medium sized evergreen perennial		Full sun	Sheltered	Well drained	spring

<i>Euphorbia myrsinites</i> (Broad leaved glaucous spurge)	Evergreen trailing perennial		Full sun	Sheltered / Exposed	Well drained
<i>Eriogonum karvinskianus</i> Mexican Fleabane)	Mat-forming herbaceous perennial		Full sun	Sheltered	Well drained
<i>Soleirolia soleirolia</i> (Mind your own business)	Wide creeping evergreen perennial		Full sun / partial shade	Sheltered / Exposed	Well drained / Moist but well drained
SHADE					
<i>Euphorbia amygdaloides</i> 'Purpurea' (Wood Spurge 'Purpurea')	Evergreen perennial with purple stems and leaves		Full sun / partial shade / Full shade	Sheltered / Exposed	Well drained, moist but well-drained
<i>Vinca minor</i> 'Alba' (Small white periwinkle)	Mat-forming evergreen perennial		Full sun / Partial shade / Full shade	Sheltered / Exposed	Well drained / Moist but well drained / poorly drained
Grasses					
<i>Stipa tenuissima</i> (Mexican Feather Grass)			Full sun	Sheltered / Exposed	Well drained / Moist but well drained
<i>Calamagrostis brachytricha</i> (Korean feather reed grass)	Deciduous grass with glossy green linear leaves and purple-tinged plume-like sprays of flowers in early Autumn		Full sun / partial shade	Sheltered / Exposed	Well drained / Moist but well drained
<i>Deschampsia cespitosa</i> (Tufted Hair Grass)	Evergreen grass with arching stems		Full sun / partial shade	Sheltered / Exposed	Well drained / Moist but well drained
<i>Molinia caerulea</i> subsp. <i>Caerulea</i> 'Variegata' (Variegated Purple Moor Grass)	Deciduous herbaceous tufted grass		Full sun / partial shade	Sheltered / Exposed	Well drained / Moist but well drained
Perennials (with grasses)					
<i>Achillea millefolium</i> 'Lansdorferglut'			Full sun	Exposed	Well drained / Moist but well drained
<i>Verbena bonariensis</i>			Full sun	Exposed	Well drained / Moist but well drained
<i>Allium hollandicum</i> 'Purple Sensation'	Deciduous perennial		Full sun	Sheltered	Well drained / Moist but well drained
<i>Echinacea purpurea</i>			Full sun / partial shade	Exposed / sheltered	Well drained



Phlomis tuberosa (Sage leaf Mullein)



Climbers

SUN

Clematis tangutica (Bill MacKenzie)

Large vigorous evergreen climber with single fragrant yellow flowers



Solanum crispum (Potato tree)

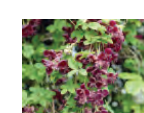
Large scrambling semi-evergreen climber



SUN / PARTIAL SHADE

Akebia quinata (Chocolate vine)

Semi-evergreen climber with fragrant reddish-purple flowers



Passiflora caerulea (Blue passion Flower)

Large deciduous / semi-evergreen climber



Passiflora x violacea (Violet passion flower)

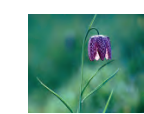
Evergreen climber



Perennial Bulbs / Corms

Fritillaria meleagris (Snake's Head Fritillary)

Bulbous perennial



Narcissus 'February Gold'

Early spring flowering



Narcissus cyclamineus (Cyclamen daffodil)

spring flowering



Full sun Well drained

Full sun Sheltered Moist but well drained

Full sun Sheltered Moist but well drained

Full sun / partial shade Sheltered / Exposed Moist but well drained

Full sun / partial shade Sheltered Moist but well drained

Full sun / partial shade Sheltered Moist but well drained

Full sun / Partial Shade Exposed / Sheltered Well drained / moist but well drained

Full sun / Partial Shade Exposed / Sheltered Well drained / moist but well drained

Full sun / Partial Shade Exposed / Sheltered Well drained / moist but well drained

8.11 Play Provision: Detailed Strategy

New play provision

The GLA Benchmark Standard of play provision is a minimum of 10m² per child.

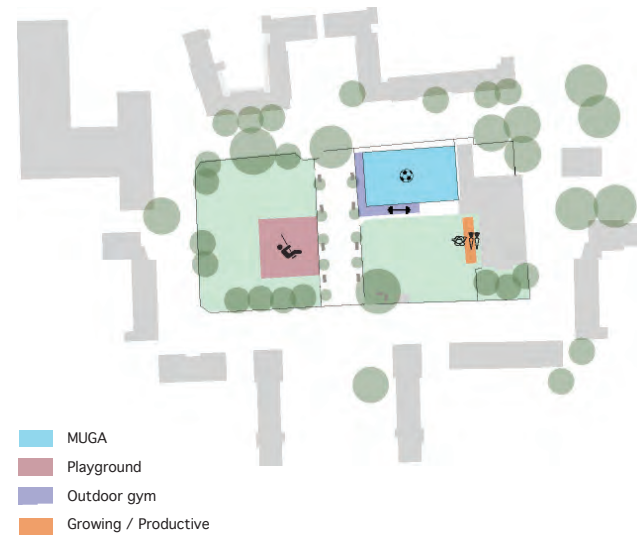
The area of play provision required for the new blocks has been calculated using the GLA calculator tool.

Doorstep playable space is proposed on Plots 2, 3 and 5.

A new playspace for 0-11y olds is proposed on the public garden of the Newlands Plot.

Combining play elements within the landscape setting offers older children a more varied play experience from the existing playspaces with play structures and felled trees to hone climbing and balancing skills.

The playgarden also creates a space that is attractive to both children and their parents/carers; providing places to sit and picnic.



Cumberland Market provides a mix of play opportunities for all ages



Cumberland Market playspace / pocket park: a mix of generic play equipment and timber play equipment for older children within landscaped garden setting to provide seasonal variation and improve biodiversity.

Table assessing child occupancy and play space

The chart was produced using the GLA calculator tool to calculate child yield and requirements for play provision based on numbers of units, type (houses or flats) and tenure (social rented / affordable, intermediate, private) of the proposed development.

Assessing child occupancy and play space requirements

Size of your development:

Number of FLATS

	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	28	14	10	1	0	53
Intermediate	0	6	11	4	0	0	21
Market	0	1	1	6	0	0	8
Total	0	35	26	20	1	0	82

Number of HOUSES

	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	2	12	7	3	24
Intermediate	0	5	2	1	0	8
Market	0	0	2	0	0	2
Total	0	7	16	8	3	34

Proportion of children

	Number of children	%
Under 5	39	35%
5 to 11	42	37%
12+	32	28%
Total	113	100%

Play space requirements

GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sq m play space) required
10		1134.9
	5	567.5

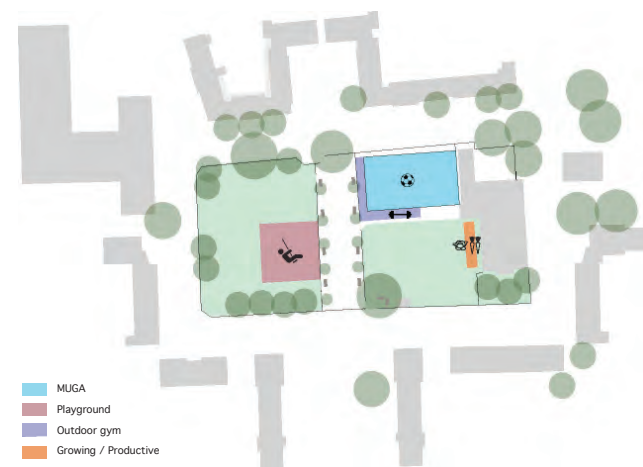
* GLA benchmark standard=minimum of 10sqm of dedicated play space per child

** Borough's local benchmark

Summary of how play provision requirements have been met through existing and new play provision.

Regent's Park Estate Developemnt Sites_Play space accessibility and location

	Age groups	Meet the GLA requirement for accessibility and for a minimum of 10 sq m/child	Play space location
Plot 1	Robert Street Car Park		
	Children under 5	✓	On site play space (180 sq m), Cumberland Market play space Cumberland Market play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 2	Former One Stop Shop		
	Children under 5	✓	New play space Newlands (700 sq m) New play space Newlands (700 sq m), Cumberland Market play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 3	Varndell Street Corner		
	Children under 5	✓	On site play space (160 sq m) New play space Newlands (700 sq m), Cumberland Market play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 4	Newlands Plot		
	Children under 5	✓	On site play space (700 sq m) On site play space (700 sq m), Cumberland Market play space Cumberland Market, William St and Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 5	Dick Collins Hall		
	Children under 5	✓	Cumberland Market play space Cumberland Market play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 6	Cape of Good Hope		
	Children under 5	✓	Munster Square play space Munster Square play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 8	The Victory Pub		
	Children under 5	✓	Cumberland Market play space Cumberland Market play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	
Plot 9	St Bede's Mews		
	Children under 5	X	Munster Square play space Cumberland Market/William St/Stanhope St MUGAs, Regent's Park
	Children 5-11	✓	
	Young people 12+	✓	



Cumberland Market provides a mix of play opportunities for all ages

Table assessing child occupancy and play space requirement for Plot 4 - Newlands Plot.

The chart was produced using the GLA calculator tool to calculate child yield and requirements for play provision based on numbers of units, type (houses or flats) and tenure (social rented / affordable, intermediate, private) of the proposed development.

Assessing child occupancy and play space requirements							
Size of your development:							
Number of FLATS							
	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	9	14	3	6	0	32
Intermediate	0	0	0	0	0	0	0
Market	0	0	0	0	0	0	0
Total	0	9	14	3	6	0	32
Number of HOUSES							
		1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable		0	0	0	0	0	0
Intermediate		0	0	0	0	0	0
Market		0	0	0	0	0	0
Total		0	0	0	0	0	0
Proportion of children							
	Number of children	%					
Under 5	15	36%					
5 to 11	15	36%					
12+	12	28%					
Total	42	100%					
Play space requirements							
GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sq m play space) required					
10		415.4					
	5	207.7					

* GLA benchmark standard=minimum of 10sqm of dedicated play space per child
 ** Borough's local benchmark

Table assessing child occupancy and play space requirement for Plot 3 - Varndell Street Corner.

The chart was produced using the GLA calculator tool to calculate child yield and requirements for play provision based on numbers of units, type (houses or flats) and tenure (social rented / affordable, intermediate, private) of the proposed development.

Assessing child occupancy and play space requirements							
Size of your development:							
Number of FLATS							
	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	0	1	5	1	1	8
Intermediate	0	0	0	0	0	0	0
Market	0	0	0	0	0	0	0
Total	0	0	1	5	1	1	8
Number of HOUSES							
		1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable		0	0	0	0	0	0
Intermediate		0	0	0	0	0	0
Market		0	0	0	0	0	0
Total		0	0	0	0	0	0
Proportion of children							
	Number of children	%					
Under 5	5	25%					
5 to 11	8	42%					
12+	6	33%					
Total	19	100%					
Play space requirements							
GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sq m play space) required					
10		187.9					
	5	94.0					

* GLA benchmark standard=minimum of 10sqm of dedicated play space per child
 ** Borough's local benchmark

8.12 Roof Strategy

To achieve the target carbon reduction set out in the London Plan, a nett area of approximately 10m² of photovoltaic panels for each dwelling will need to be provided covering a large proportion of the roof area. [Refer to Section 6.0 for the proposed roof plans.]

However, this requirement need not limit the choice of type of living roof. Recent studies in Germany and Switzerland demonstrate that the evapotranspiration from plants on a green roof have a positive impact on the energy efficiency of PV panels. These studies have also shown that although shading below the PV array can stunt plant growth this creates a micro-habitat supporting larger numbers of invertebrate species and thereby improving biodiversity. Other benefits of a green roof include reduction in the Urban Heat Island Effect, thermal cooling and insulation, reduction in rainwater run-off and attenuating peak flows.

The surface temperature of roofs can affect the ambient temperature of the air around the PV panels reducing their efficiency by 0.5% per degree C above 25 degrees C. Green and brown roofs help to moderate the roof temperature.

Together this provides the opportunity for the green/brown roof strategy to become an intrinsic and qualitative consideration of the wider landscape strategy, especially in locations where the roof area may be overlooked.

Rainwater harvesting is an important part of the landscape strategy, supporting residents to actively care for the new communal gardens, fostering a greater sense of ownership of these spaces and fulfilling their potential as social outdoor spaces.

The choice of living roof type is influenced by the site location, height of the roof, extent of overlooking from existing blocks in addition to the types of existing and new landscapes at ground level.

Adopting this approach adds to and enriches the use and ecology as part of the same strategy.

For example, a semi-intensive roof supporting a wildflower meadow on the Vardnell Street Corner site provides food for bees to then pollinate the orchard proposed within the garden interior below. This rooftop is also overlooked by a

number of taller surrounding blocks and so will provide a visual amenity to these residents.

All the new roofs are proposed to be living roofs proposed and the diagram opposite shows the locations of the different types.

In summary semi-intensive roofs are proposed on 2 sites in locations where no PV panels are proposed. The remaining sites are a mix of brown and green extensive biodiverse roofs to provide new habitats through natural colonisation and visual amenity where they are overlooked.



PV panels provide shading which supports micro-habitats on extensive biodiverse roofs



Natural colonisation of brown roofs creates new habitat to support biodiversity and changes over time. In an urban context this provides a mix of habitats to support a wider range of bird and insect life eg. Black restarts



PLANNING STATEMENT

