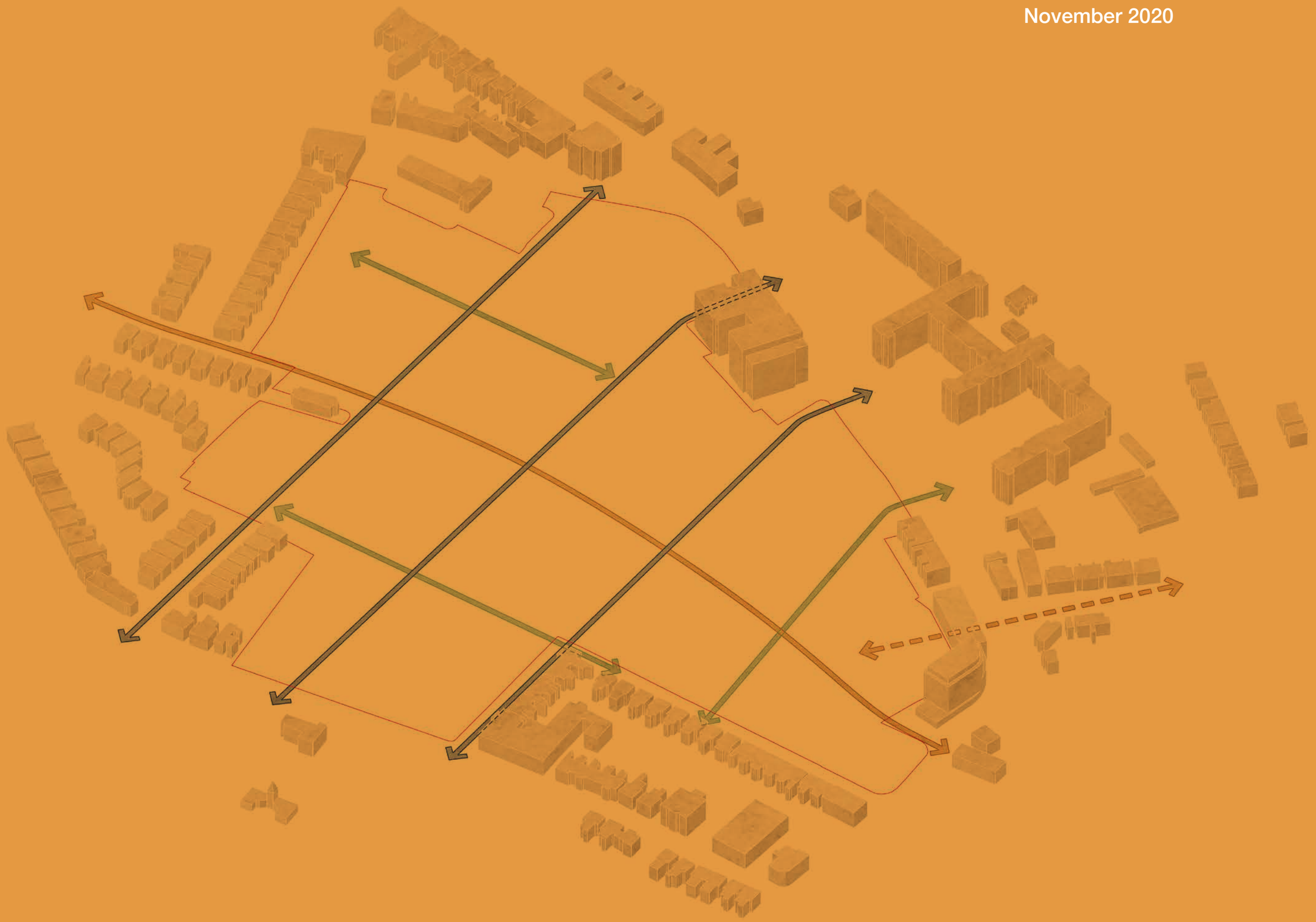
November 2020



5.1 Phase 1 building layouts - GF

Plot E

The ground floor configuration responds primarily to:

- The position of shared lobby entrances plus private maisonette and house entrances
- The location of Piper Green, west of the building
- The location of the residential uses at ground floor and the car park entrance/exit
- The location of the energy centre and associated servicing strategy
- The position of private amenity to ground floor apartments, maisonettes and houses

Plot B

The ground floor configuration responds primarily to:

- The location of the retained willow tree in Piper Green
- The location of the retained cherry tree NW of the building and the semi-private greenspace
- The location of the residential uses at ground floor and the car park entrance/exit
- The desire to provide maisonettes with private doors accessed directly off the public realm
- The form of the ground floor reflects the 'bays' of the neighbouring streets and local context

Plot C

The ground floor configuration responds primarily to:

- The location of the commercial unit on the northeast corner;
- The position of the residential cores and entrance lobbies
- The location of the residential uses at ground floor; and the entrance/exit to the basement car park

The location of the community centre, including its access and servicing strategy.

All

Active uses are distributed around each Plot in order to animate all streets. Houses, maisonettes and ground floor apartments provide private entrances accessed directly from the public realm throughout the ground floors of Plots E and B. Areas of amenity and landscape buffers to these private entrances provide greenery across the building and street.

Refuse stores are located adjacent to each communal entrance for convenience and are accessible from outside to prevent contamination of smells into the internal areas.

Cycle stores are accessed from secure areas, such as inside the podium of Plot E; from within the gated landscape area adjacent to Plot B; and from within the 'through lobbies' of Plot C.

Non residential uses are located to the north and south of Plot C, due to the building's proximity to Cambridge Road and Madingley Gardens, as well as its location as a gateway into the masterplan from Norbiton station and surrounding streets.

The position of Piper Green and the retained willow tree provide a key route and activity hub adjacent to Plots B and E. Entrance lobbies and private entrances have been orientated towards the Green where possible, with servicing and access to plant space, refuse stores and the Energy Centre fully considered. The resultant entrance and exits to the car parks of Plot E are at the north and south of the building.

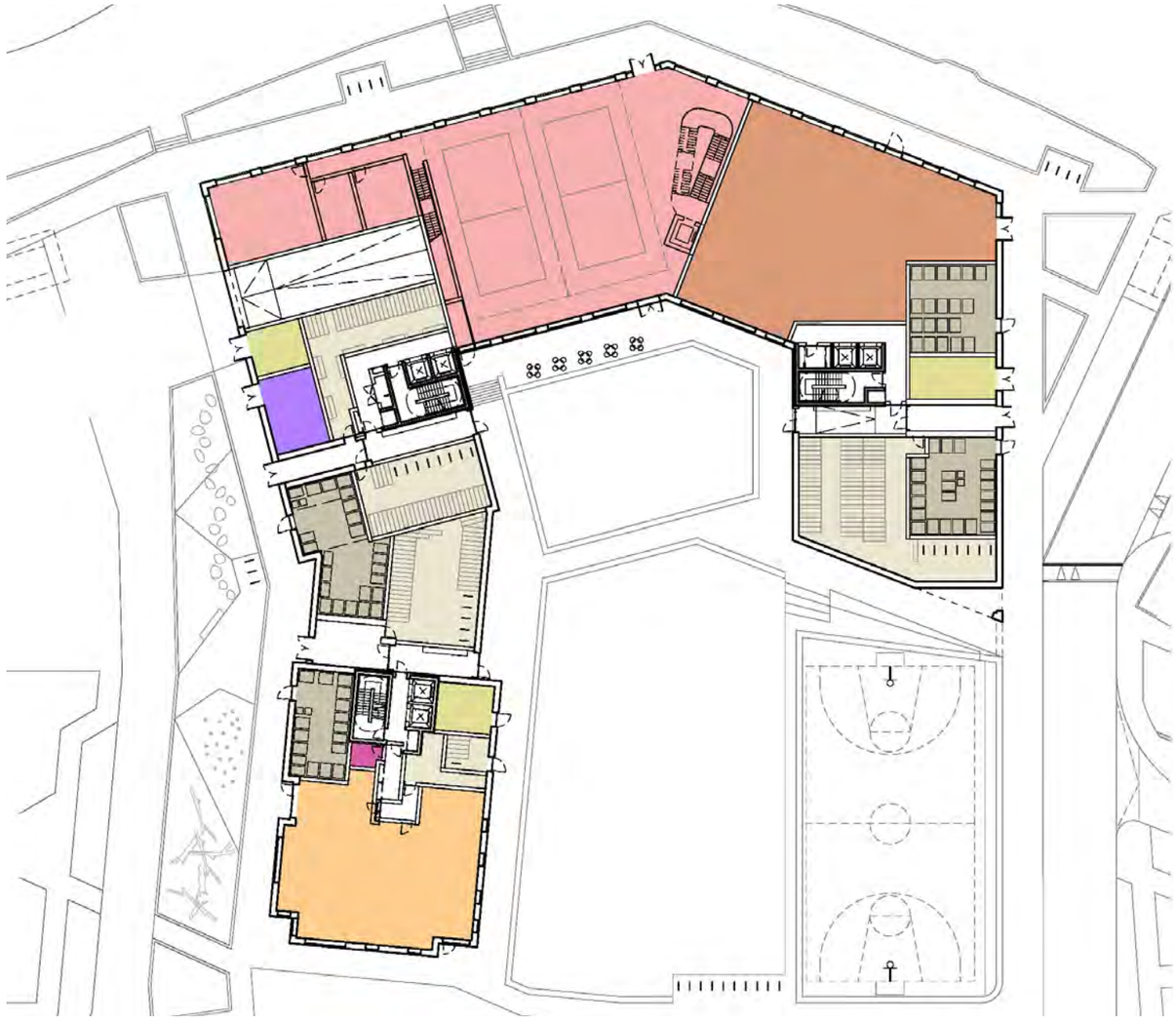
Other uses

- Plant
- Cycle
- Substation
- CHP
- Storage
- Refuse
- Community
- Workspace
- Retail

Home sizes

- TH 3-storey townhouse
- M 2-storey maisonette
- A Ground floor apartment
- Accessible home M4(3)
- 1 Bedroom
- 2 Bedroom
- 3 Bedroom
- 4 Bedroom
- 5 Bedroom
- 6 Bedroom

Figure 5.1: Proposed Ground Floor Plan of Plot E



Home sizes

	1 Bedroom		4 Bedroom
	2 Bedroom		5 Bedroom
	3 Bedroom		6 Bedroom

Figure 5.2: Proposed Ground Floor Plan of Plot B

Figure 5.3: Proposed Ground Floor Plan of Plot C

5.2 Phase 1 building layouts - 1F/2F

Plot E

The first floor podium is lined with homes facing into the gardens. Different types of dwelling, including single-storey apartments and the upper floors of maisonettes and townhouses meet the podium directly. These have private terraces (sized relative to home size) which are screened and buffered from shared spaces by planting and boundary walls. The central landscaped amenity area and playspace of the podium can be accessed from the lift and stair cores of Buildings E1/E2/E3/E4, and is shared between all residents of the plot.

All first floor homes facing courtyards will have access to the garden from their external terraces, irrespective of core access. The houses in E5 and E6 will also access the shared courtyards via their respective first floor private terraces/gardens. The courtyards will offer amenity based upon home size. Additionally, the landscape design ensures other residents are not able to approach the first floor windows.

The first floor of E4 includes a wheelchair accessible home which will benefit from level access between the dwelling and the shared gardens. This is achieved via their terraces/gardens as well as communal circulation routes.

Where the distance between building façades is locally reduced at first, second and third floors between the houses (E5, E6) and the adjacent apartment blocks (E1, E2, E3 & E4) privacy is retained through careful internal planning. The house layouts ensure that windows are not required on the gable ends of the blocks. Instead, decorative brickwork will be placed here.

Plot B

The first floor of B includes a mix of apartments and maisonettes; the latter are accessed via private entrances at ground floor. These maisonettes do therefore not have access to the first floor.

The plan is comprised of a series of bays which reflect the local character of the surrounding streets. Apartment amenity is interspersed between these bays, with large balconies to the east providing views onto Piper Green and sheltered balconies to the west providing privacy from the neighbouring streets. Maisonettes have amenity on both the ground and first floors given that they are large three and four bed family homes.

Plot C

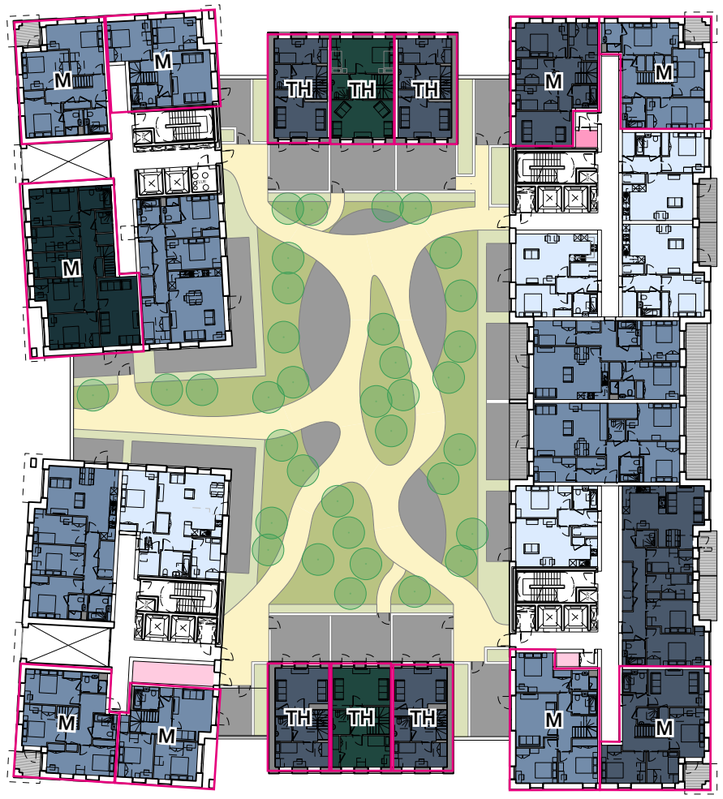
The shared amenity within Plot C is split into two areas and sited on above grade levels between buildings.

External amenity for Buildings C1 and C2 is shared and situated above the Community Centre. Access is provided at second floor. Building C1 flanks the western edge of the amenity space and C1 the west. The amenity space is open to the north and south which provide views along Cambridge Road (towards Kingston) and over Madingley Gardens.

The amenity space associated with Building C3 is located at first floor level and sited above ancillary residential uses on Ground floor. The space is accessed from the residential corridor on the north facade of C3. The south facade of C2 flanks the northern edge of the terrace. This external amenity space is open to the east and west providing views into Washington Avenue and Madingley Gardens.

As with Plot E, the podium is lined with buffer spaces to give privacy to the apartments at this level from the shared area.

The second floor of Buildings C1 and C2 includes a range of wheelchair apartments. Access to the podium garden is either directly from the private amenity space or through the communal circulation routes.



Other uses

- Plant
- Cycle
- Substation
- CHP
- Storage
- Refuse
- Community
- Workspace
- Retail

Home sizes

- TH 3-storey townhouse
- M 2-storey maisonette
- A Apartment
- Accessible home M4(3)
- 1 Bedroom
- 2 Bedroom
- 3 Bedroom
- 4 Bedroom
- 5 Bedroom
- 6 Bedroom

Figure 5.4: Proposed First Floor Plan of Plot E

Home sizes

1 Bedroom
2 Bedroom
3 Bedroom
4 Bedroom
5 Bedroom
6 Bedroom

Figure 5.5: Proposed First Floor Plan of Plot B

Figure 5.6: Proposed Second Floor Plan of Plot C

5.3 Phase 1 building layouts - Typical Floor

Plot E

The typical floors of Plot E include a mix of 1,2,3 and 4-bedroom homes. Each building has its own communal core accessed from either Piper Way or Madingley Avenue. At typical levels, blocks E1 and E4 provide five homes per core, whilst blocks E2 and E3 each provide six homes per floor.

Plot B

Comprised of a mix of 1 and 2 bedroom homes, the typical floor is served by two sets of stairs and two lifts. Plot B typically provides nine homes per floor.

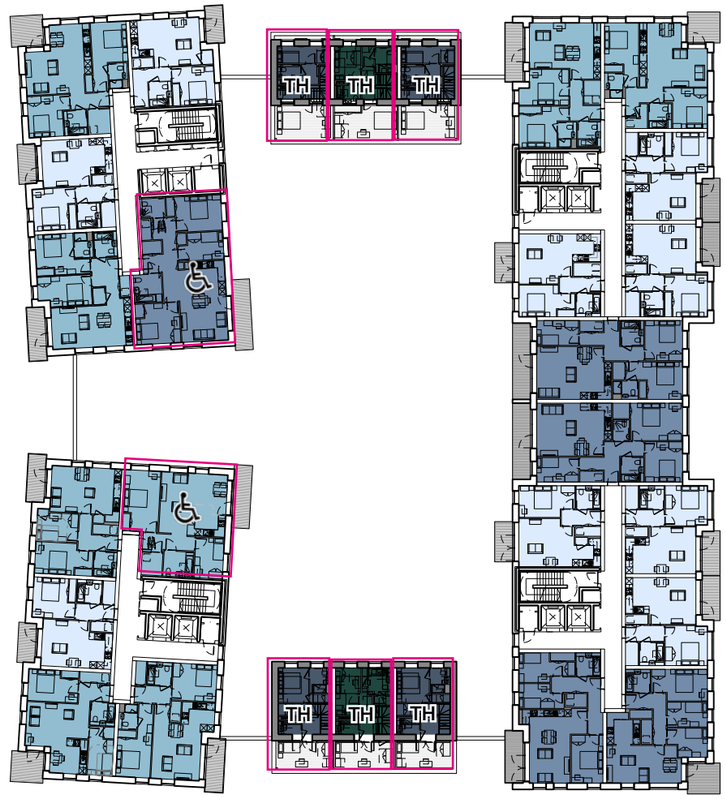
Plot C

At typical levels, blocks C1 and C2 provide seven homes per core, whilst C3 is comprised of up of five homes per floor. The Plot borders Madingley Gardens and landscaping to the west, meaning the apartments will enjoy views of mature existing tress and greenery.

All

All of the floorplates include a range of home sizes, including 1-bedroom 2-person, 2-bedroom 3-person, 2-bedroom 4-person homes, 3-bedroom 4-person, 3-bedroom 5-person, 3-bedroom 6-person, 4-bedroom 5-person and 4-bedroom 6-person homes.

Larger homes such as 4 bedroom 8-person, 5-bedroom 8 person and 6-bedroom 10-person homes are located on the ground and first floor of plots so that they can be either maisonettes or houses.



Other uses

- Plant
- Cycle
- Substation
- CHP
- Storage
- Refuse
- Community
- Workspace
- Retail

- TH 3-storey townhouse
- M 2-storey maisonette
- A Apartment
- Accessible home M4(3)

Home sizes

- 1 Bedroom
- 2 Bedroom
- 3 Bedroom
- 4 Bedroom
- 5 Bedroom
- 6 Bedroom

Figure 5.7: Proposed Typical Floor Plan of Plot E

Home sizes

	1 Bedroom		4 Bedroom
	2 Bedroom		5 Bedroom
	3 Bedroom		6 Bedroom

Figure 5.8: Proposed Typical Floor Plan of Plot B

Figure 5.9: Proposed Typical Floor Plan of Plot C

5.4 Phase 1 building layouts - Upper floors

Plot E

The uppermost floor of blocks E2 and E3 are set back from the streets to create a roof terrace for three to four apartments respectively. This also reduces the block's visual impact from the street.

Plot B

The bays of the typical floor stop at level 04 and therefore can provide amenity for level 05's apartments. This also helps reduce the visual impact of the Plot By reducing the footprint of the top floor. For this same reason, the form of level 05 steps back from the south to reduce the massing when viewing the building from the adjacent existing street, Somerset Road.

The 3-bedroom family home benefits from a large, south facing roof terrace which is bordered by a green, biodiverse roof.

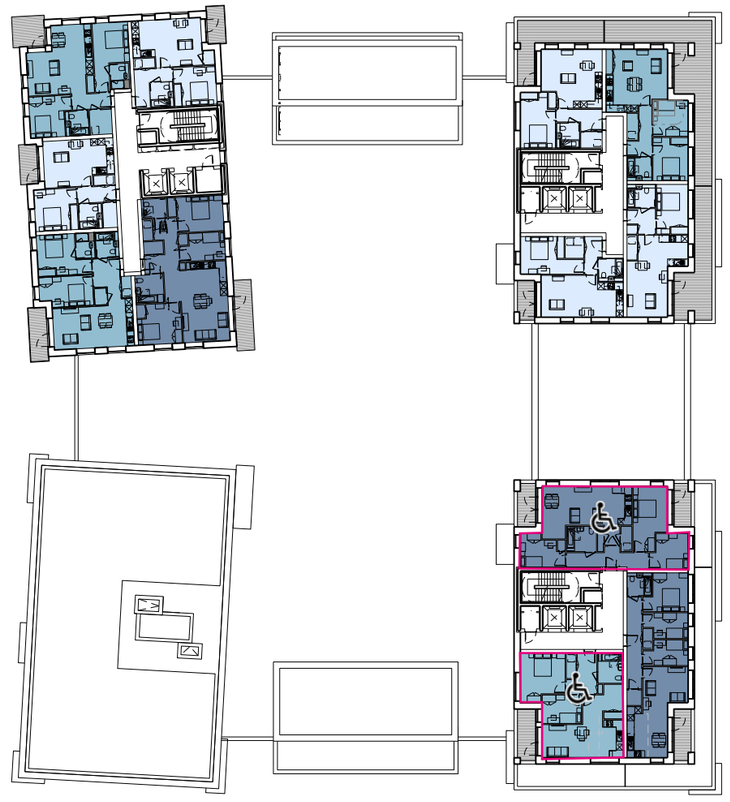
Plot C

The upper floor is the same as the typical floor.

All

All of the floorplates include a range of home sizes, including 1-bedroom 2-person, 2-bedroom 3-person, 2-bedroom 4-person homes, 3-bedroom 4-person, 3-bedroom 5-person, 3-bedroom 6-person, 4-bedroom 5-person and 4-bedroom 6-person homes.

Larger homes such as 4 bedroom 8-person, 5-bedroom 8 person and 6-bedroom 10-person homes are located on the ground and first floor of plots so that they can be either maisonettes or houses.



Other uses

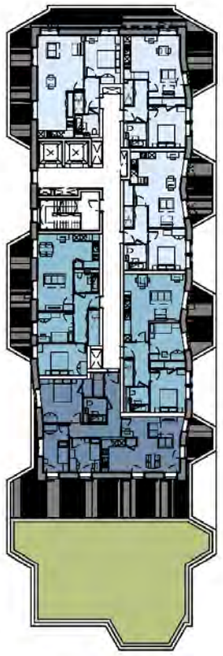
- Plant
- Cycle
- Substation
- CHP
- Storage
- Refuse
- Community
- Workspace
- Retail

TH 3-storey townhouse
M 2-storey maisonette
A Apartment
Accessible home M4(3)

Home sizes

- 1 Bedroom
- 2 Bedroom
- 3 Bedroom
- 4 Bedroom
- 5 Bedroom
- 6 Bedroom

Figure 5.10: Proposed Upper Floor Plan of Plot E



Home sizes

	1 Bedroom		4 Bedroom
	2 Bedroom		5 Bedroom
	3 Bedroom		6 Bedroom

Figure 5.11: Proposed Upper Floor Plan of Plot B

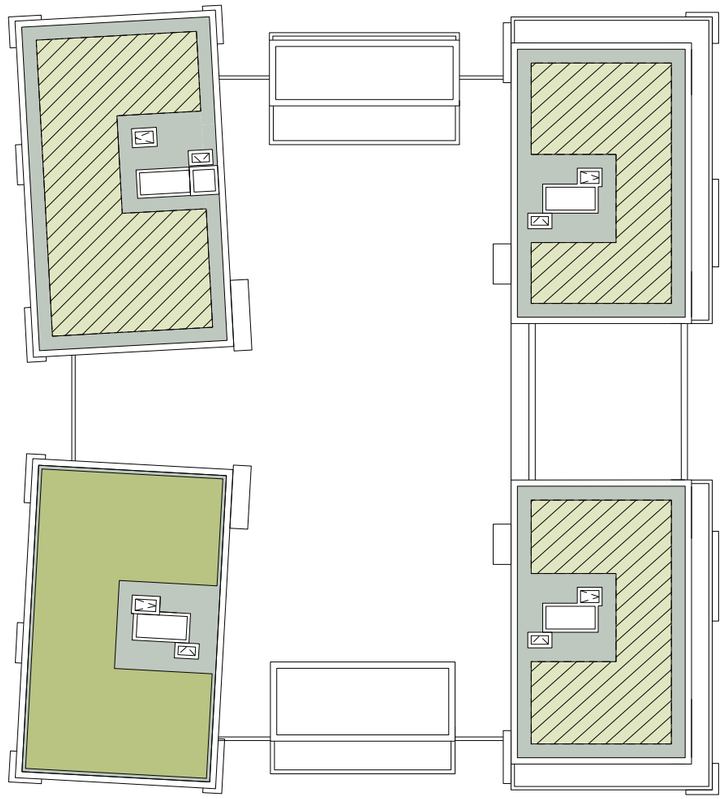
Figure 5.12: Proposed Upper Floor Plan of Plot C

Roof

The roofs of all three Phase 1 plots have been designed to maximise contributions to the ecology and sustainability strategies simultaneously. The majority of the roof area is therefore designed as a biodiverse roof contributing to biodiversity and urban greening.

Photovoltaic panels will be integrated on most roofs and will be concealed by a solid parapet 1500mm high (maximum) which will also work as edge protection. The roofs of blocks E4 and C3 (the southwest blocks of E and C) will not include photovoltaic panels given that these blocks are lower than the surrounding blocks and are therefore visible to occupants on higher floors. Instead, green roofs will provide visually appealing and ecological roofs.

The plant on the roof of B will screened. This provides secure access for safe roof maintenance and screens off plant equipment, mitigating any negative visual impact to the public realm and adjacent residential properties.



Other uses

- Green roof
- Biodiverse roof
- PV panel zone
- Access and maintenance route

Figure 5.13: Proposed Roof Plan of Plot E

Figure 5.14: Biosolar roof. Photovoltaic panels and biodiverse roof.

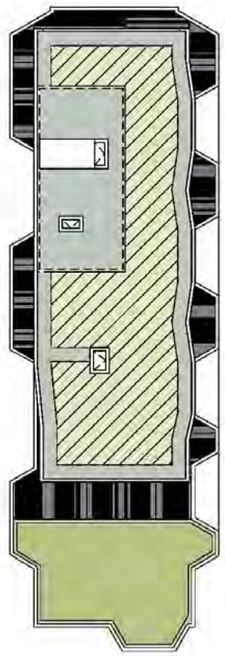


Figure 5.15: Proposed Roof Floor Plan of Plot B

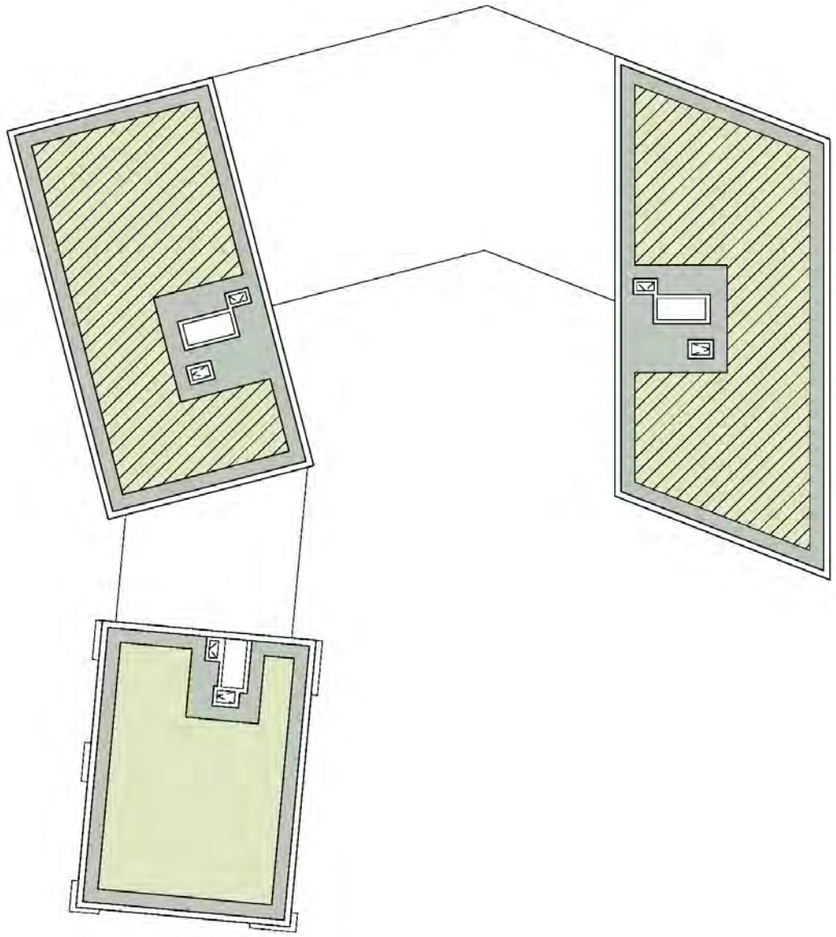


Figure 5.16: Proposed Roof Floor Plan of Plot C

5.5 Amount

Residential dwellings

The Detailed Component and first phase of buildings in the Development proposes to deliver **452 homes** in a mix of tenures.

The new homes will provide a range of homes from 1 Bed to 6 Bed, and a total of **1,392 habitable rooms**. 604 habitable rooms would be in affordable tenure which equates to a **43.4% affordable** provision on a habitable room basis. Of this provision, 16.6% would be Shared Equity and 83.4% would be Social Rent.

The residential mix for the Social Rent and Shared Equity tenure homes reflects the Housing Needs Assessment for reprovision of existing homes which will be demolished in the first two phases of the masterplan.

The residential provision is split between the three plots and individual buildings of Plots B, C and E, with lateral flats, duplex maisonettes and 4-storey townhouses.

All homes have been designed to meet or exceed the minimum criteria defined in the Technical Housing Standards - **Nationally Described Space Standard**.

10% of all homes provided are designed to be wheelchair accessible in compliance with Building Regulations Approved Document M4(3). These are described in detail later in this chapter. The remaining 90% homes are compliant with Building Regulations Approved Document M4(2)

Other uses

The Detailed Component will also comprise of additional building uses supporting the new homes, including:

- Common areas such as entrance lobbies;
- Plant and maintenance areas;
- Internal parking for vehicles and bicycles; and
- A sitewide Energy Centre

Non-residential occupied spaces in Plot C include:

- 290sqm GEA Affordable workspace;
- 395sqm GEA Retail/commercial space; and
- 1,250sqm GEA Community Centre

Figure 5.18: Tenure mix by floor area

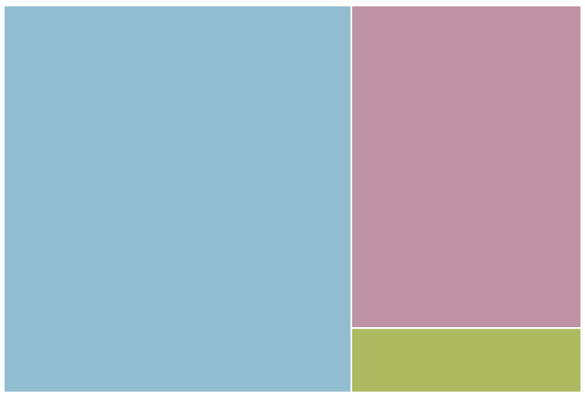


Figure 5.17: Dwelling tenure mix by number of homes

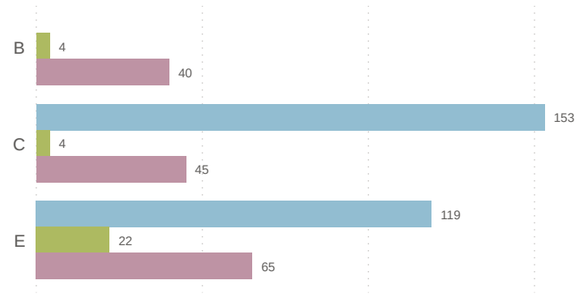


Figure 5.20: Dwelling tenure mix by plot

Tenure

- Private
- Shared Equity
- Social Rent

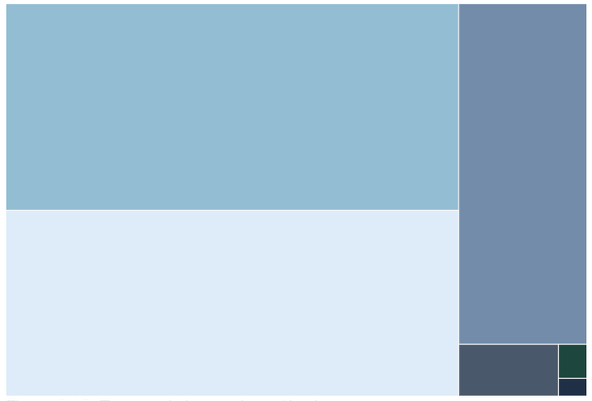


Figure 5.19: Tenure mix by number of bedrooms

Home sizes

- 1 Bedroom
- 2 Bedroom
- 3 Bedroom
- 4 Bedroom
- 5 Bedroom
- 6 Bedroom

Figure 5.21: Mix by use class

Use

- Residential homes and common areas
- Internal parking for vehicles and bicycles
- Plant and maintenance areas
- Community Centre
- Sitewide Energy Centre
- Flexible commercial / retail space
- Affordable workspace

Phase 1 **Number of homes**

Aff **Affordable Social Rent**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal
B	1	13	23	2	0	0	0	2	0	0	0	40
C	1	18	18	9	0	0	0	0	0	0	0	45
E	1	23	2	25	4	0	2	2	4	2	1	65
		54	43	36	4	0	2	4	4	2	1	150
		36%	29%	24%	3%	0%	1%	3%	3%	1%	1%	33.2%
					26.7%			6.7%				

SO **Affordable Shared Equity**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal
B	1	2	0	0	2	0	0	0	0	0	0	4
C	1	4	0	0	0	0	0	0	0	0	0	4
E	1	5	5	12	0	0	0	0	0	0	0	22
		11	5	12	2	0	0	0	0	0	0	30
		36.7%	16.7%	40.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.6%
					46.7%			0.0%				

Affordable tenures

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal
B	1	15	23	2	2	0	0	2	0	0	0	44
C	1	22	18	9	0	0	0	0	0	0	0	49
E	1	28	7	37	4	0	2	2	4	2	1	87
		65	48	48	6	0	2	4	4	2	1	180
		36.1%	26.7%	27%	3%	0%	1%	2%	2%	1.1%	0.6%	39.8%
					30.0%			5.6%				

PD **Private**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal
B	1	0	0	0	0	0	0	0	0	0	0	0
C	1	52	79	22	0	0	0	0	0	0	0	153
E	1	50	58	9	2	0	0	0	0	0	0	119
		102	137	31	2	0	0	0	0	0	0	272
		37.5%	50.4%	11.4%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.2%
					12.1%			0.0%				

All tenures **private factored**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal
B	1	15	23	2	2	0	0	2	0	0	0	44
C	1	74	97	31	0	0	0	0	0	0	0	202
E	1	78	65	46	6	0	2	2	4	2	1	206
		167	185	79	8	0	2	4	4	2	1	452
		36.9%	40.9%	17.5%	1.8%	0.0%	0.4%	0.9%	0.9%	0.4%	0.22%	
					19.2%			2.2%				

Flats	433	95.8%
Maisonettes	13	2.9%
Houses	6	1.3%
	452	

Phase 1 **Net Internal Area**

Aff **Affordable Social Rent**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal	tenure % of plot
B	1	672.74	1,635.34	187.41	0.00	0.00	0.00	248.93	0.00	0.00	0.00	2,744.42	89.9%
C	1	938.49	1,206.91	701.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,846.49	22.2%
E	1	1,176.37	144.32	2,007.28	418.47	0.00	204.94	215.49	532.04	298.99	157.18	5,155.08	35.2%
		2,787.60	2,986.57	2,895.78	418.47	0.00	204.94	464.42	532.04	298.99	157.18	10,745.99	35.2%
	check	15376.75	22927.14	6501.50	626.68	695.03	318.49	1554.18	3704.57	298.99	157.18	71.6	
		26%	28%	27%	4%	0%	2%	4%	5%	3%	1%	average dwelling size	

SO **Affordable Shared Equity**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal	tenure % of plot
B	1	103.98	0	0	202.95	0	0	0	0	0	0	306.93	10.1%
C	1	201.28	0	0	0	0	0	0	0	0	0	201.28	1.6%
E	1	252.83	366.47	1129.39	0	0	0	0	0	0	0	1,748.69	12.0%
		558.09	366.47	1,129.39	202.95	0.00	0.00	0.00	0.00	0.00	0.00	2,256.90	7.4%
		24.7%	16.2%	50.0%	9.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	
					59.0%			0.0%					

Affordable tenures

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal	tenure % of plot
B	1	776.72	1635.34	187.41	202.95	0	0	248.93	0	0	0	3051.35	100.0%
C	1	1139.77	1206.91	701.09	0	0	0	0	0	0	0	3047.77	23.7%
E	1	1429.2	510.79	3136.67	418.47	0	204.94	215.49	532.04	298.99	157.18	6903.77	47.2%
		3345.69	3353.04	4025.17	621.42	0	204.94	464.42	532.04	298.99	157.18	13002.89	42.6%
		25.7%	25.8%	31%	5%	0%	2%	4%	4%	2.3%	1.2%	42.6%	
					35.7%			9.2%					

PD **Private**

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal	tenure % of plot
B	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0%
C	1	2,627.03	5,216.71	1,949.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,793.72	76.3%
E	1	2,592.70	4,101.45	820.15	213.91	0.00	0.00	0.00	0.00	0.00	0.00	7,728.21	52.8%
		5,219.73	9,318.16	2,770.13	213.91	0.00	0.00	0.00	0.00	0.00	0.00	17,521.93	57.4%
		29.8%	53.2%	15.8%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.4%	
					17.0%			0.0%					

All tenures

Plot	Phase	1BF	2BF	3BF	3BM	3BH	4BF	4BM	4BH	5BH	6BM	subtotal
B	1	776.72	1,635.34	187.41	202.95	0.00	0.00	248.93	0.00	0.00	0.00	3,051.35
C	1	3,766.80	6,423.62	2,651.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12,841.49
E	1	4,021.90	4,612.24	3,956.82	632.38	0.00	204.94	215.49	532.04	298.99	157.18	14,631.98
		8,565.42	12,671.20	6,795.30	835.33	0.00	204.94	464.42	532.04	298.99	157.18	30,524.82
		28.1%	41.5%	22.3%	2.7%	0.0%	0.7%	1.5%	1.7%	1.0%	0.51%	
					25.0%			3.9%				

Flats	28,236.86	92.5%
Maisonettes	1,456.93	4.8%
Houses	831.03	2.7%
	30524.82	

Phase 1 **Residential GIA**

Affordable Social Rent

Plot	Phase	GIA
B	1	3,617.32
C	1	3,374.30
E	1	6,570.54
35.8%		13,562.16
90.4		
average dwelling size		

Affordable Shared Ownership

Plot	Phase	GIA
B	1	404.55
C	1	238.60
E	1	2,228.84
7.6%		2,871.99

Affordable tenures

Plot	Phase	GIA
B	1	4,021.9
C	1	3,612.9
E	1	8,799.4
43.4%		16,434.2

Private

Plot	Phase	GIA
B	1	0.0
C	1	11,609.7
E	1	9,850.2
56.6%		21,459.9

All tenures

Plot	Phase	GIA
B	1	4,021.9
C	1	15,222.6
E	1	18,649.6
100.0%		37,894.1

Figure 5.22: Schedule of residential accommodation

Figure 5.23: Residential mix divided by tenure

5.6 External amenity strategy

External amenity spaces play a fundamental role in residential developments, promoting outside living, encouraging social interaction and contributing to the wellbeing of the residents.

RBK's Residential SPD (Policy 13 & 14) requires large developments to provide a minimum of 10 sq.m of external amenity per dwelling plus 1 Sq.m per additional occupant. The balconies and terraces have been designed to achieve, and where possible, extend beyond the minimum standards of the Draft New London Plan (Policy D4). Where there is a shortfall against the RBK's SPD, this area should be added to the communal amenity space (which should be a minimum of 50 Sq.m per development.)

Plot B has also be designed alongside a semi-private shared garden (approx. 470 Sq,m); Plot E has a podium garden (approx. 840 Sq.m) and Plot C also has a podium garden (approx. 600 Sq.m)

Residential amenity: upper floors

Typically, upper floor homes will be provided with external balconies to suit apartment size, in compliance with the requirements in the Mayor of London Housing SPG (Standard 26) and Draft New London Plan (Policy D4), as follows:

1-2 person dwellings: 5 sq.m.

3+ person dwellings: 5 sq.m for the first 2 occupants + 1sq.m for each additional occupant.

The location of balconies responds to orientation, setting and internal layout configuration:

Type 1: courtyard facing balconies oriented west / east, providing views of the courtyard gardens in plots E and C, as well as views over Madingley Gardens.

Type 2: south facing balconies take advantage of the south orientation. Houses have been designed with south facing terraces on their third floor and include perforated metal canopies for shading. The southern 'bay' balcony to Plot B reinforces the relationship between the plot and the neighbourhood street, providing a strong viewpoint when approaching the site form Piper Road.

Type 3: street facing balconies are on the more exposed side streets. To counter this, these balconies are semi-recessed. The recessed element provides privacy from both neighbours and pedestrians, whilst the projection offers rhythm and articulation to the streetscape, as well as providing glimpses of neighbouring streets and parks.

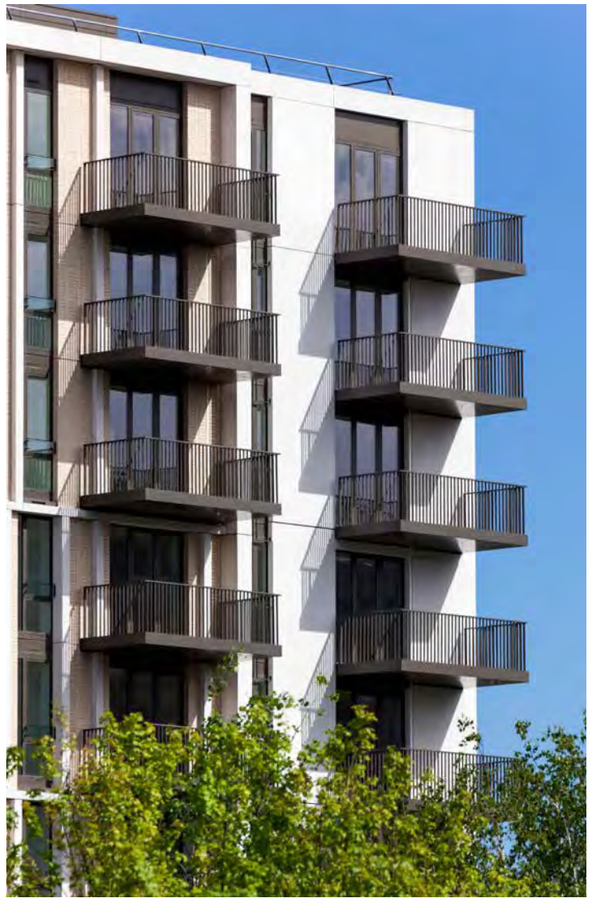


Figure 5.24: Precedent: projecting balconies

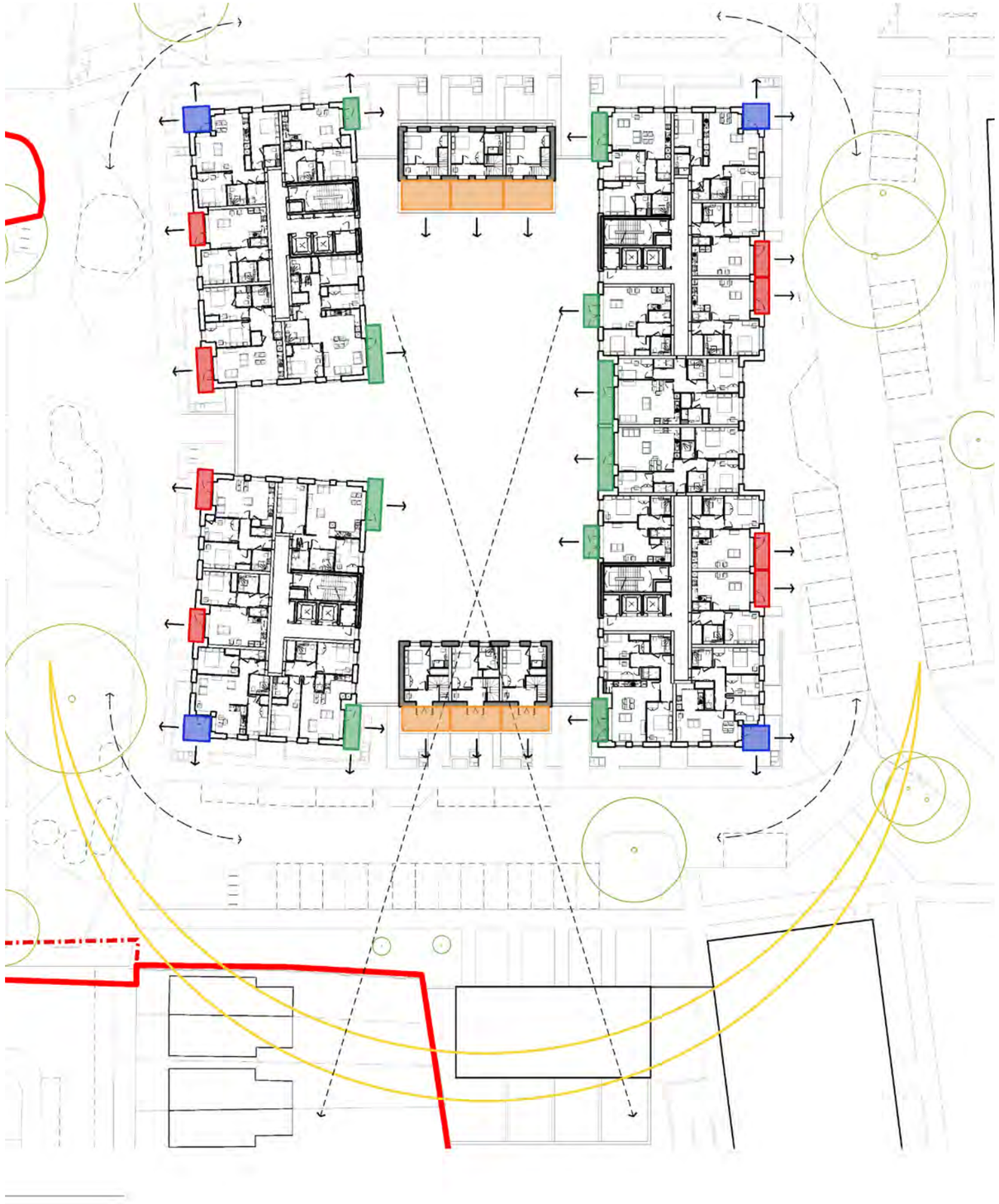


Figure 5.25: Plot E Upper floors amenity strategy

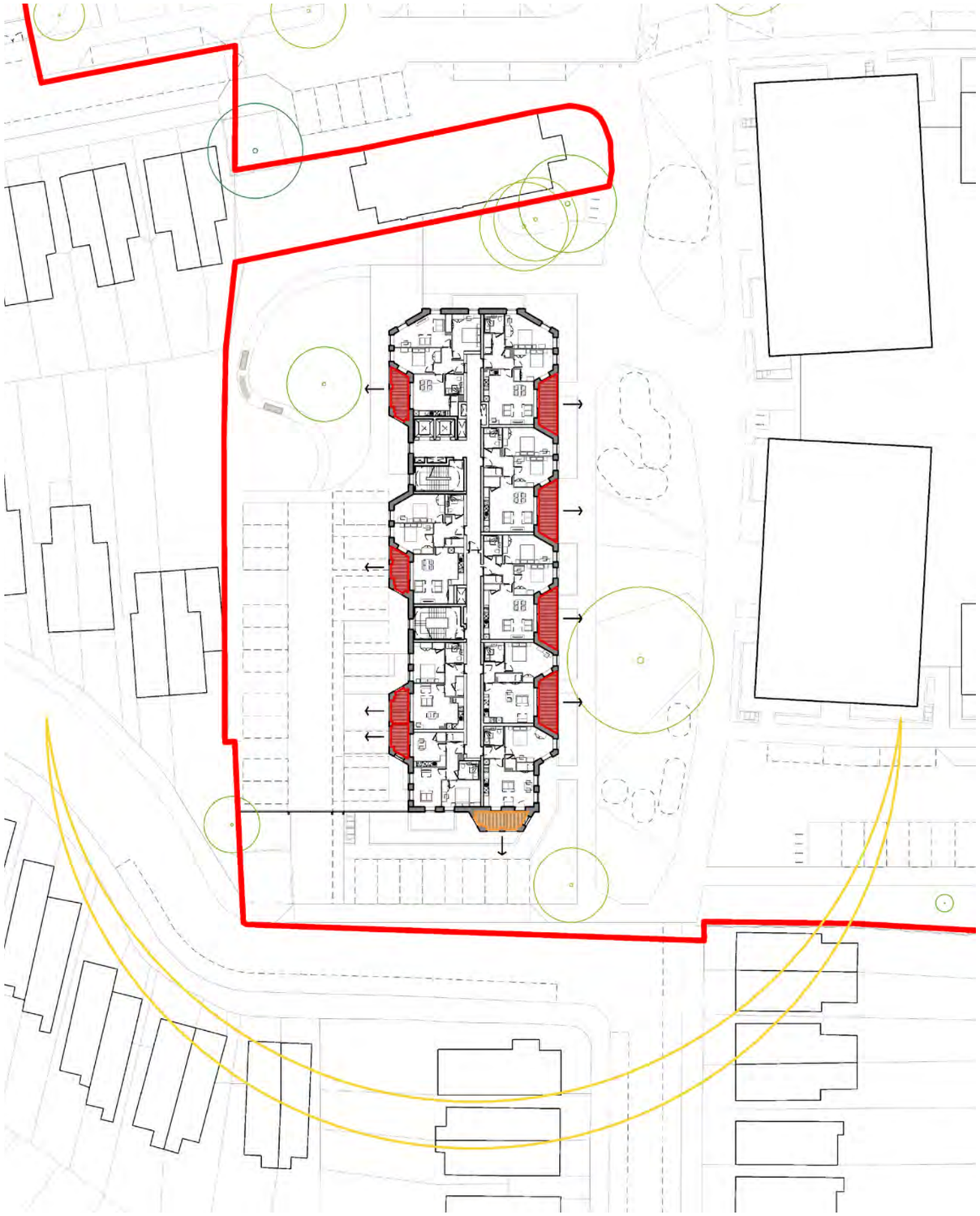


Figure 5.26: Plot B Upper floors amenity strategy

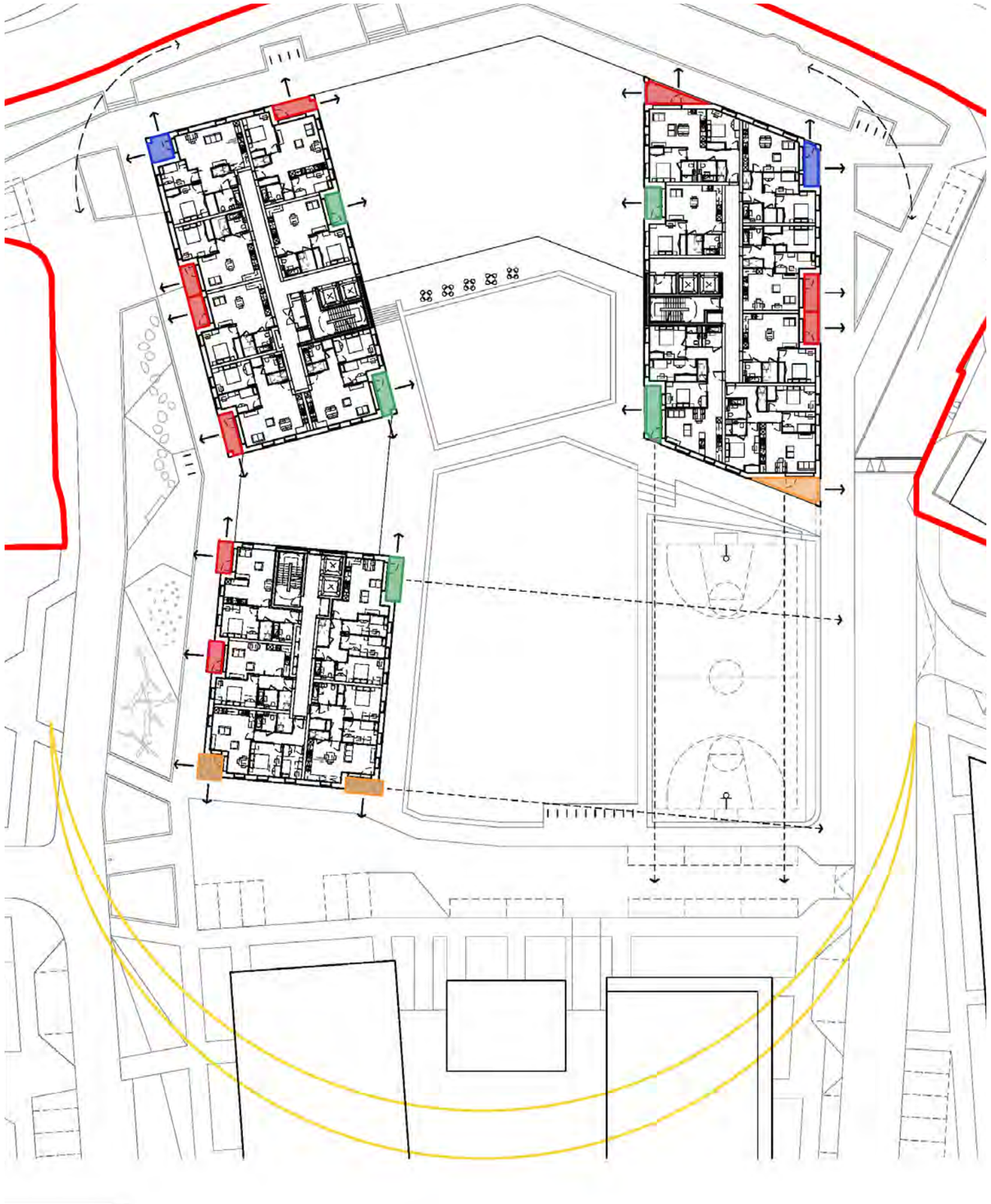


Figure 5.27: Plot C Upper floors amenity strategy

Type 4: street corners. Located on the prominent outer corners of plots E and C, these balconies provide visual interest to the corners and, by extending past the building footprint, all balconies receive light from the south and benefit from long views.

For details of the balcony treatment and how privacy is addressed refer to Chapter 6.7.

Terraces

All dwellings located at the top floor of E2 and E3 will enjoy residential terraces instead of balconies, accessible from the living rooms. The southern family apartment on the top floor of Plot B will also have access to a large south facing terrace.

First floor

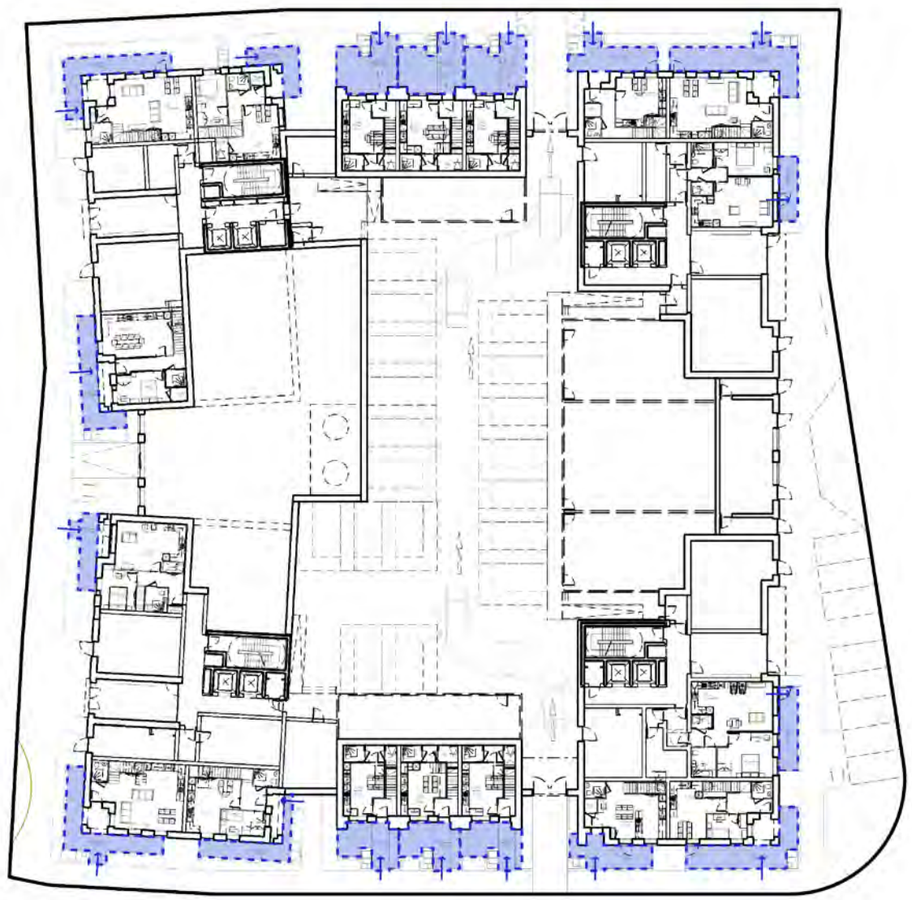
The first floor amenity is provided as a mix of balconies serving the street facing apartments and terraces to the courtyard apartments, maisonettes and houses.

The terraces have a minimum depth of 1500mm and provide direct access to the shared gardens through a low level metal gate.

Ground floor

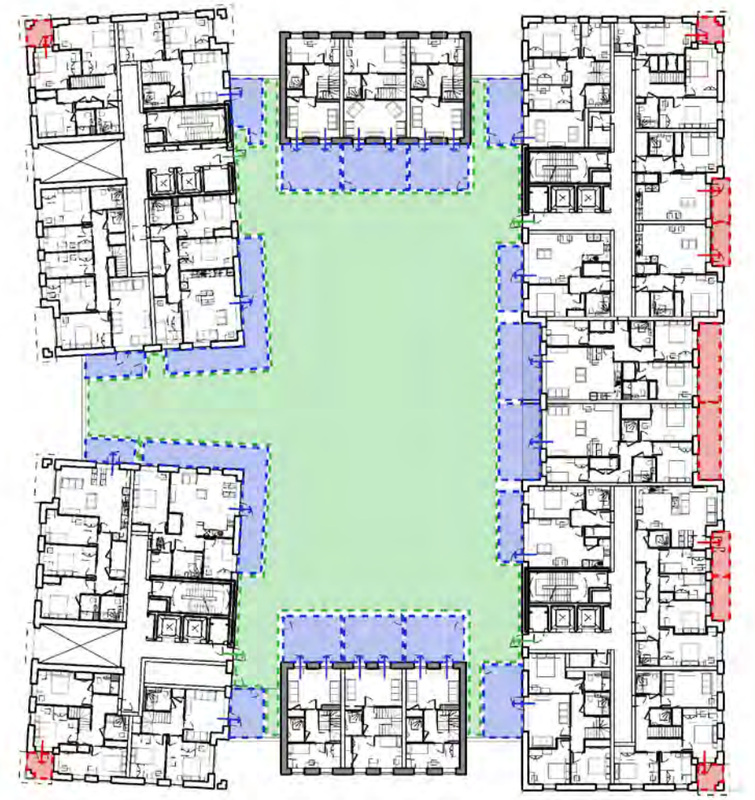
All ground floor homes are provided with a defensible space surrounding the dwelling. This space provides privacy to the internal spaces by keeping the pedestrians an appropriate distance away from any residential windows.

Typically, these zones are maximised to provide usable hard landscaped terraces accessible from the living rooms as well as planting areas for the residents. Further details can be found in Chapter 7.



Private amenity

Figure 5.29: Plot E Ground floor amenity strategy

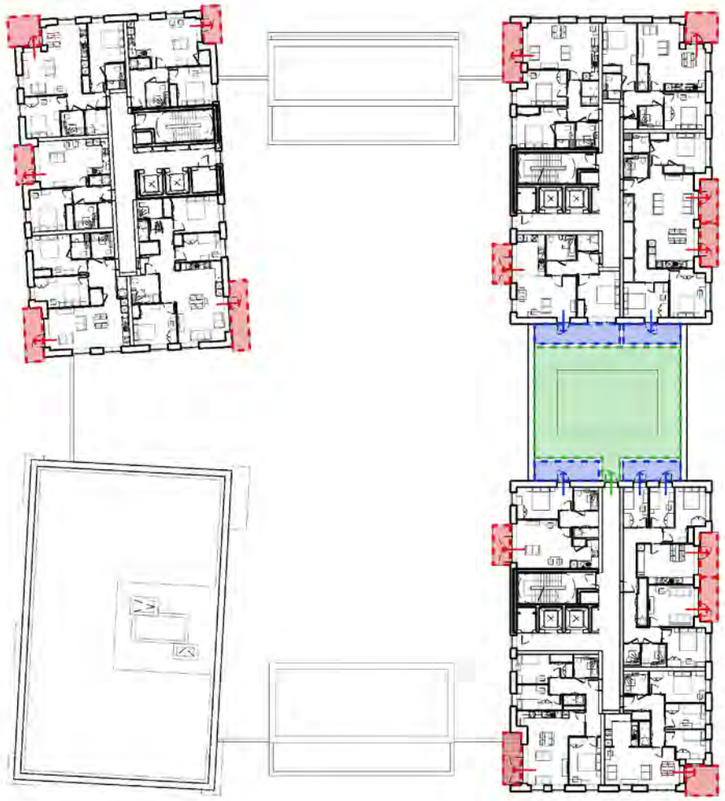


Shared podium landscape
Balcony
Balcony Access
Terrace
Terrace access

Figure 5.28: Plot E First floor amenity strategy

Balcony
Balcony Access
Terrace
Terrace access

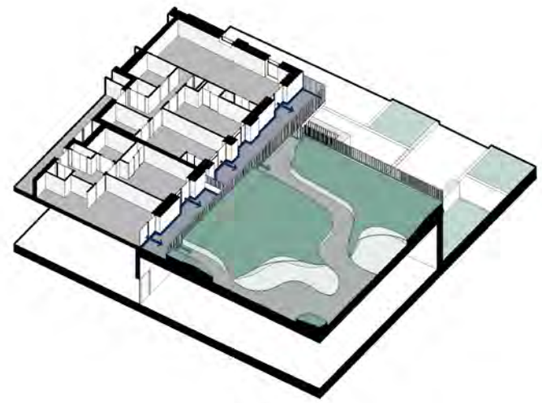
Figure 5.30: Plot E Typical floors amenity strategy



Biodiverse roof
Balcony
Balcony Access
Terrace
Terrace access

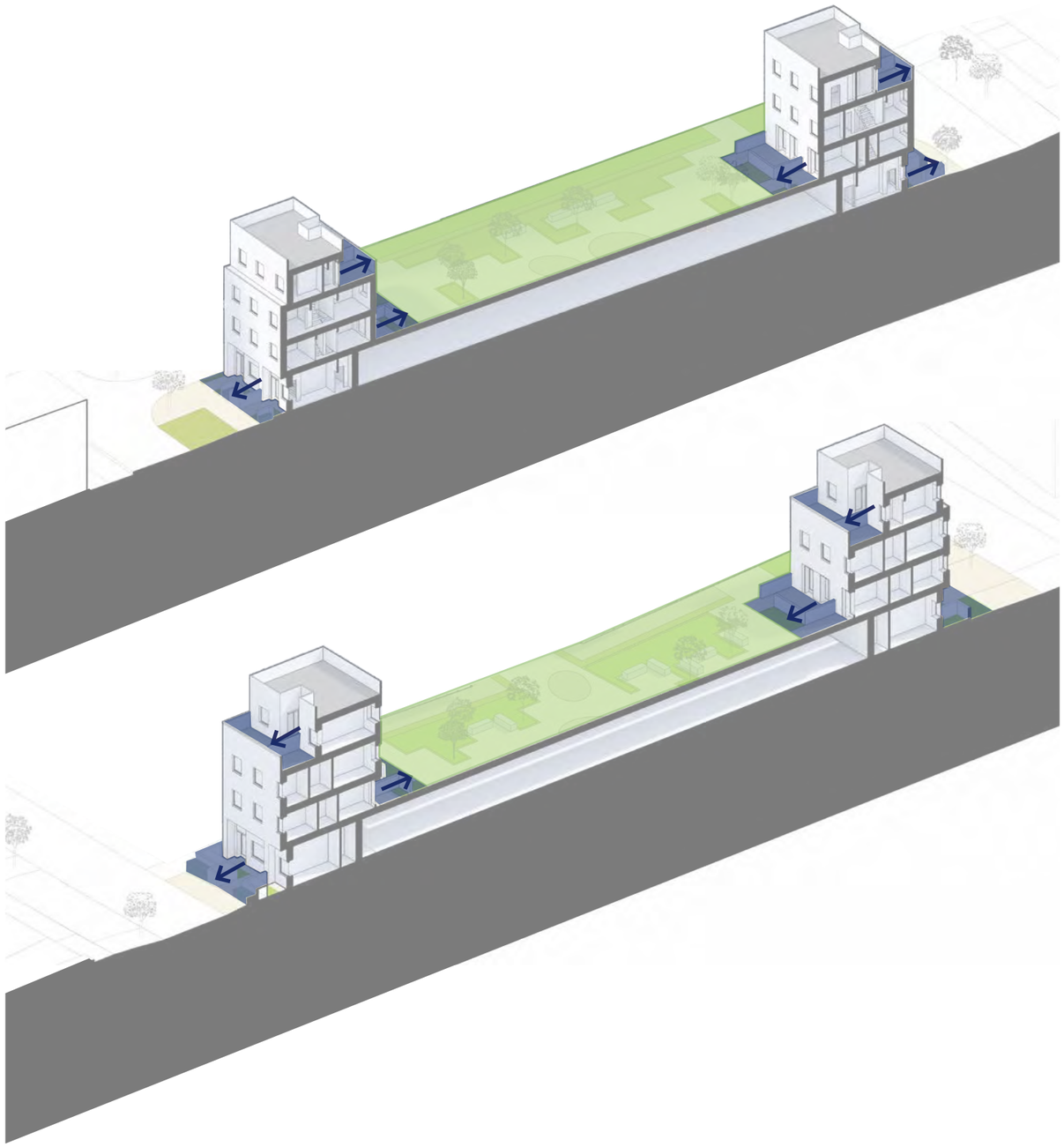
Figure 5.31: Plot E Upper floors amenity strategy

Podium amenity



Terrace
Terrace access

Figure 5.32: First floor homes amenity diagram



Shared podium landscape

Balcony

Balcony Access

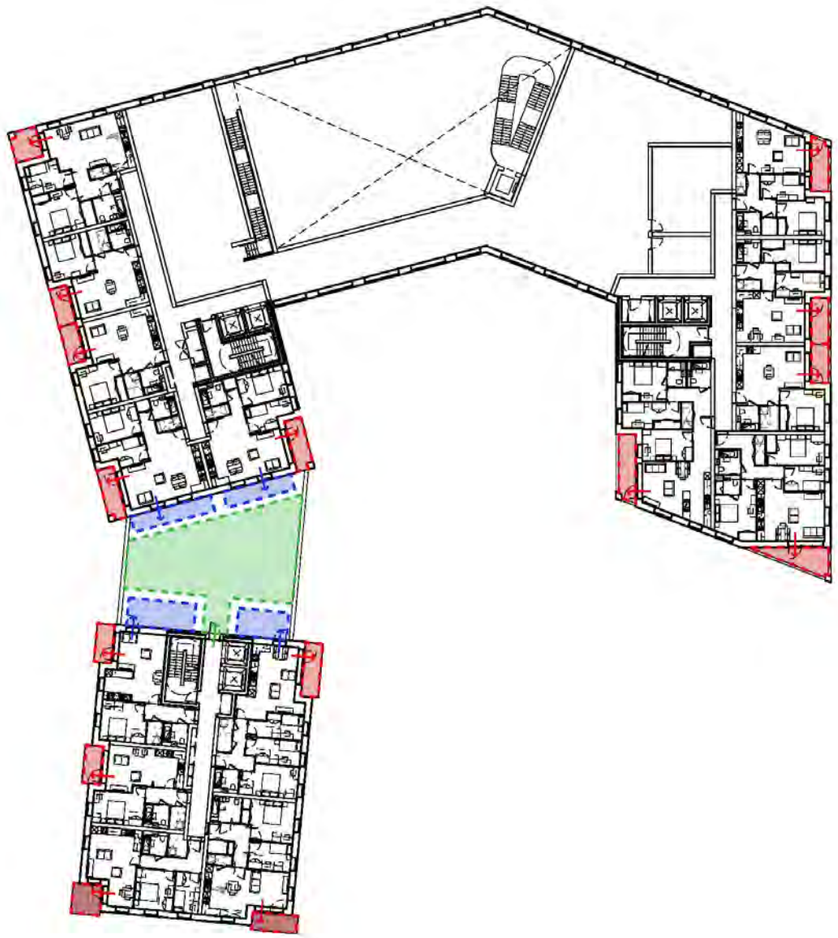
Terrace

Terrace access

Figure 5.33: Plot E Townhouse amenity strategy

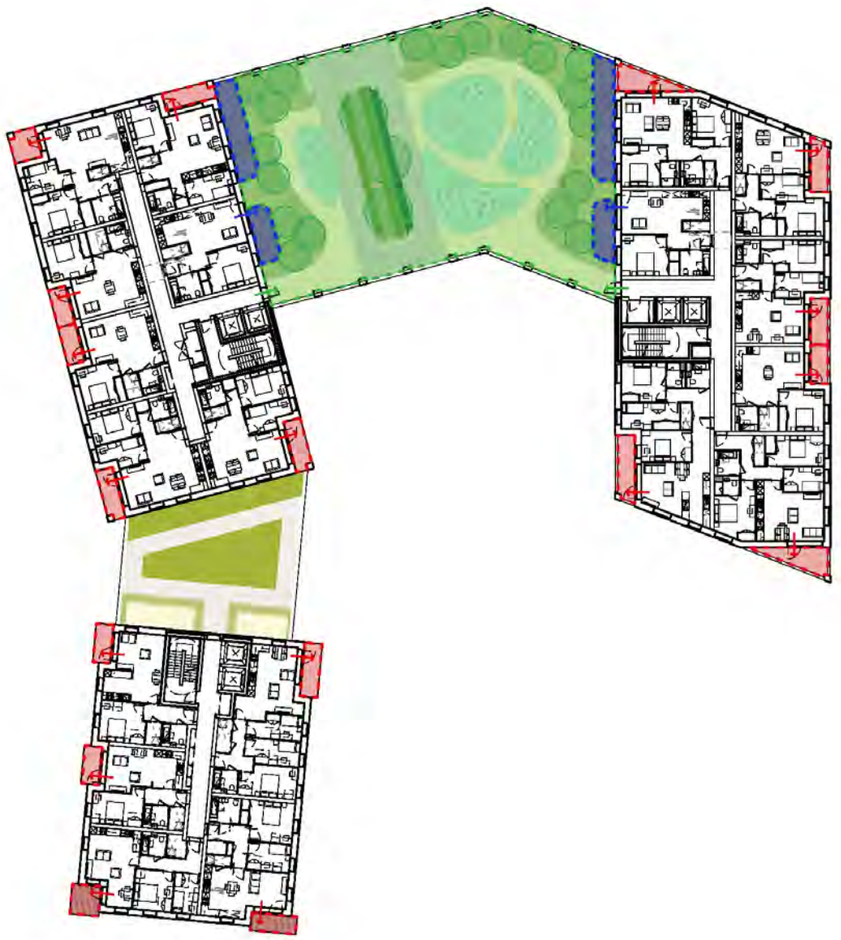
Private amenity (the ground floor of Plot C is commercial / community centre / residential ancillary)

Figure 5.34: Plot C Ground floor amenity strategy



Shared podium landscape
Balcony
Balcony Access

Figure 5.35: Plot C First floor amenity strategy



Terrace
Terrace access

Figure 5.36: Plot C Typical floor amenity strategy

Multi-storey homes within Plot B and E

Plots E and B include a number of multi-storey homes, either in the form of two-storey maisonettes or four-storey houses.

In Plot E these maisonettes benefit from an amenity space at grade as well as access to a private balcony/ terrace at first floor level or direct access to the courtyard.

Townhouses within Plot E

The 4-storey houses are designed to have the kitchen and dining room at the ground floor and living room at the first floor so that both living areas have direct access to an external amenity space, while bedrooms occupy the more private areas of the upper floors.

Amenity is provided in the form of front gardens at ground level, podium gardens at first floor and roof terraces at third floor. The increased amount and variety of amenity space means south facing amenity can be provided at either podium level on E5 or third floor level on E6.

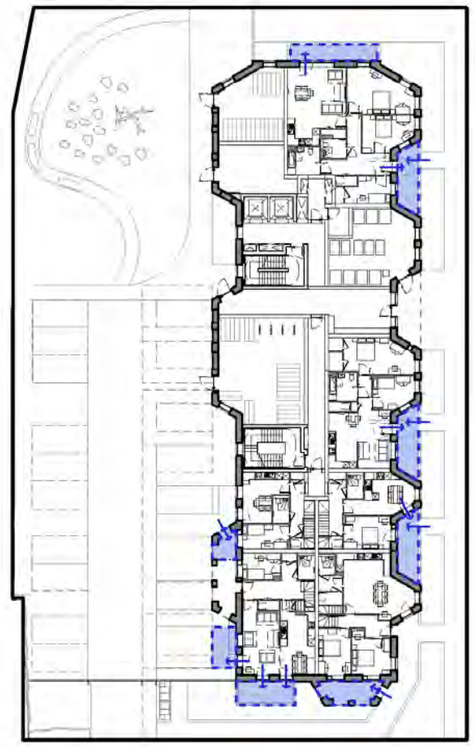
Plot B

Apartment amenity is interspersed between Plot B's bays. Large balconies to the east providing views onto Piper Green, whilst bays provide privacy from adjacent apartments. Brick piers provide shelter to the balconies on the west, ensuring privacy from the adjacent apartments and neighbouring streets, as well as solar shading.

Maisonettes have amenity on both the ground and first floors given that they are large three and four bed family homes.

As the bays of the typical floor only continue to level 04, their 'roof' can provide amenity for level 05's apartments.

The 3-bedroom family home benefits from a large south facing roof terrace, bordered by a sedum roof



Private amenity

Figure 5.37: Plot B Ground floor amenity strategy

Balcony

Balcony Access

Figure 5.38: Plot B Typical floor amenity strategy

Terrace

Terrace access

Figure 5.39: Plot B Top floor amenity strategy

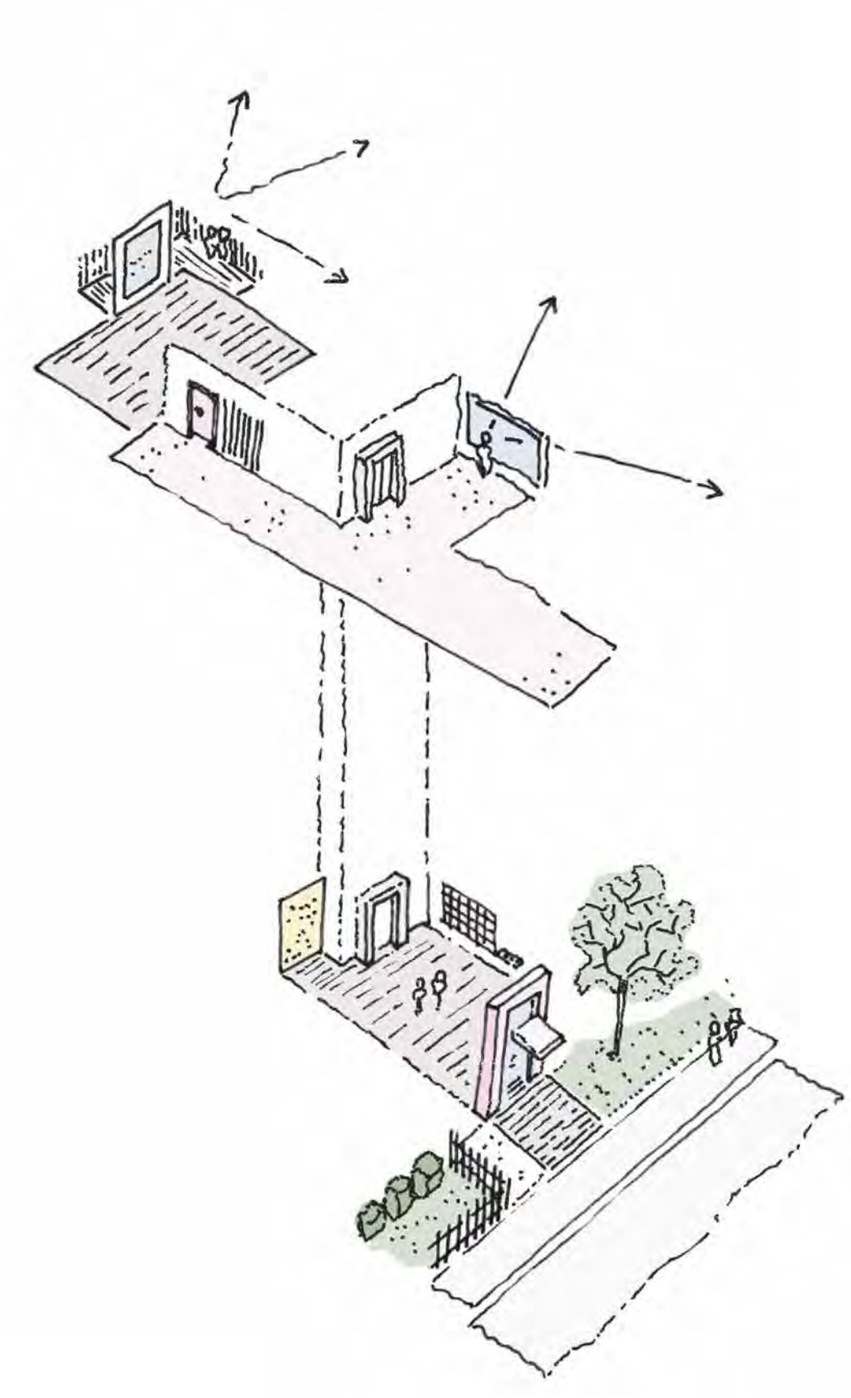


Figure 5.40: The journey home: the residential quality is expressed in the design of the access routes, entrance lobbies, lift lobbies, internal layouts and amenity spaces.

5.7 Residential design quality

In order to ensure residential quality, careful consideration has been given to internal living standards for each dwelling.

Buildings have been designed from the inside out. Careful arrangement of living spaces, as well as size and positions of windows, will maximise views and sunlight or daylight entering the habitable rooms for part of the day, particularly the living room areas, kitchen dining spaces and bedrooms. Parallel considerations on privacy and overheating ensure a balance is achieved between these objectives.

A variety of dwelling types will be delivered without single-aspect north facing homes. All homes will benefit from good levels of private amenity with level access to one or more balconies or terraces. Dual aspect flats have been designed to achieve living rooms with corner amenity where possible. This will maximise views and inside/outside living.

The internal layouts have been developed to achieve an appropriate separation between social and private spaces, with all bedrooms grouped together and accessed off circulation corridors. Kitchens are arranged in a mix of open plan and close-off arrangements to reflect feedback from the housing needs assessment as well as from consultation with the existing residents of the Cambridge Road Estate. In the open plan scenario, these kitchens are designed to a clearly delineated zones so that they do not dominate the living spaces.

Multi-storey homes within Plots E and B are configured to either accommodate a large, open plan kitchen, dining and living space at grade or as a kitchen and dining room at grade with living rooms above. Wherever practicable bedrooms in multi-storey homes are located on upper floors to provide increased separation between the public realm and residential uses. Where this is not possible, a private terrace or generous buffer zone is provided to offset the public realm and provide additional privacy.

The journey home

The high quality design is not exclusive to the internal residential spaces, extending to the totality of the journey home. This includes the design of the landscape at the approach routes, communal entrances, lobbies and circulation corridors.

At the exit from the lifts at every floor there is a generous lobby area with natural light and a view, giving residents a sense of orientation and belonging.

The interior design of homes and common lobby areas will be developed during the next stage of design to bring a harmonious feel to the whole experience of moving through the buildings.

Figure 5.41: Typical 1 Bedroom 2 Persons (Plot C)

1 Bedroom 2 Person

Minimum area: 50 sq.m

Minimum storage: 1.5 sq.m

Bathrooms: 1 bathroom

Minimum amenity: 5 sq.m

Figure 5.43: Axonometric view

Figure 5.45: Key plan

Figure 5.42: Typical 2 Bedroom 4 Persons (Plot E)

2 Bedroom 4 Person

Minimum area: 70 sq.m

Minimum storage: 2 sq.m

Bathrooms: 1 bathroom + 1 ensuite

Minimum amenity: 7 sq.m

Figure 5.44: Axonometric view

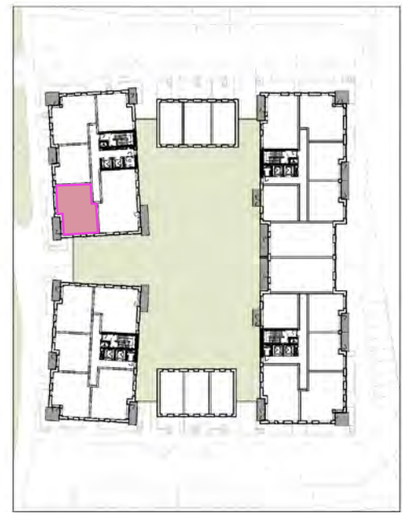


Figure 5.46: Key plan

Figure 5.50: Typical 1 Bedroom 2 Person Wheelchair apartment (Plot E)

1 Bedroom 2 Person (WC)

Minimum area: 57 sq.m

Minimum storage: 1.5 sq.m

Bathrooms: 1 bathroom

Minimum amenity: 5 sq.m

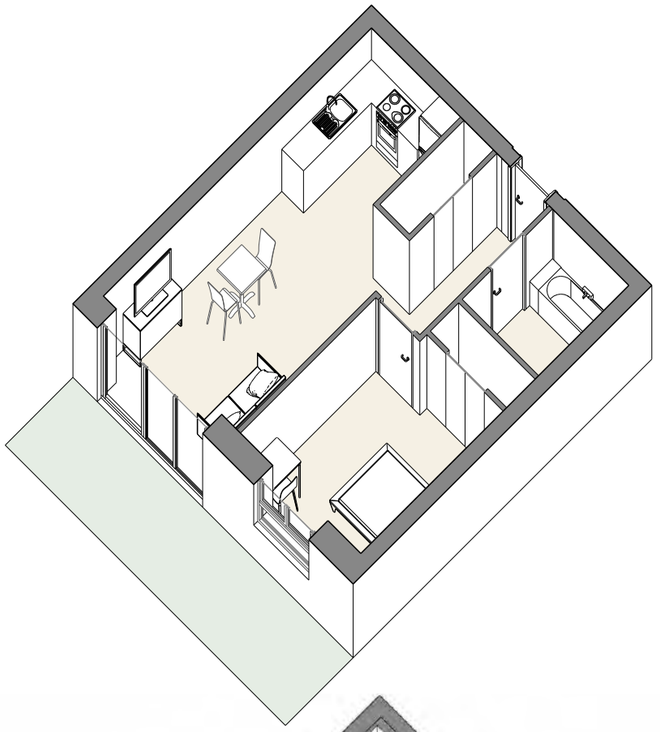


Figure 5.47: Key plan

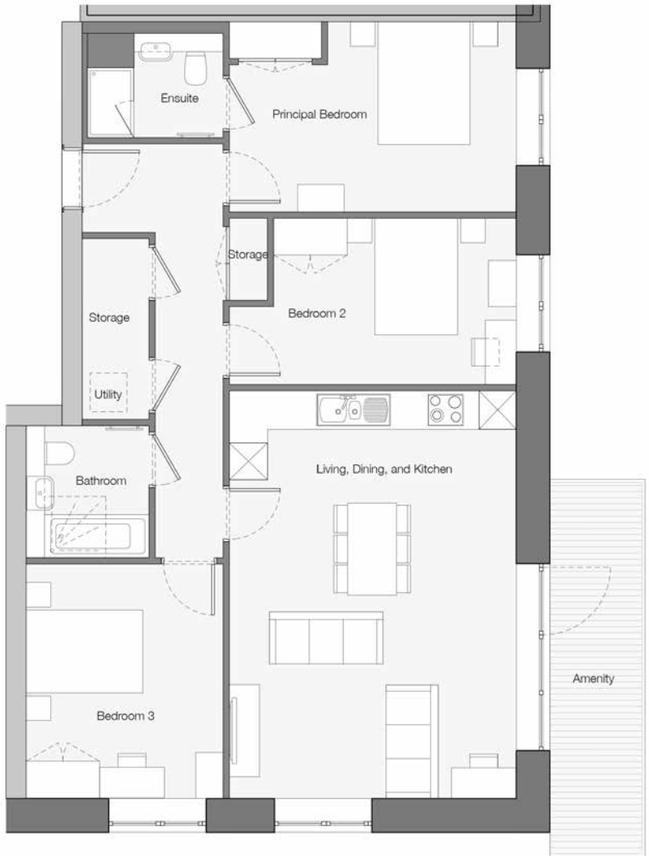


Figure 5.49: Typical 3 Bedroom 6 Persons (Plot E)

3 Bedroom 6 Person

Minimum area: 95 sq.m

Minimum storage: 2.5 sq.

Bathrooms: 1 bathroom +

Minimum amenity: 9 sq.m

Figure 5.48: Key plan

3 Bedroom 6 Person maisonette

Minimum area: 102 sq.m

Minimum storage: 2.5 sq.m

Bathrooms: 1 bathroom + 1 wc at ground floor. Additional en-suite at first floor for some homes.

Minimum amenity: 9 sq.m

First floor

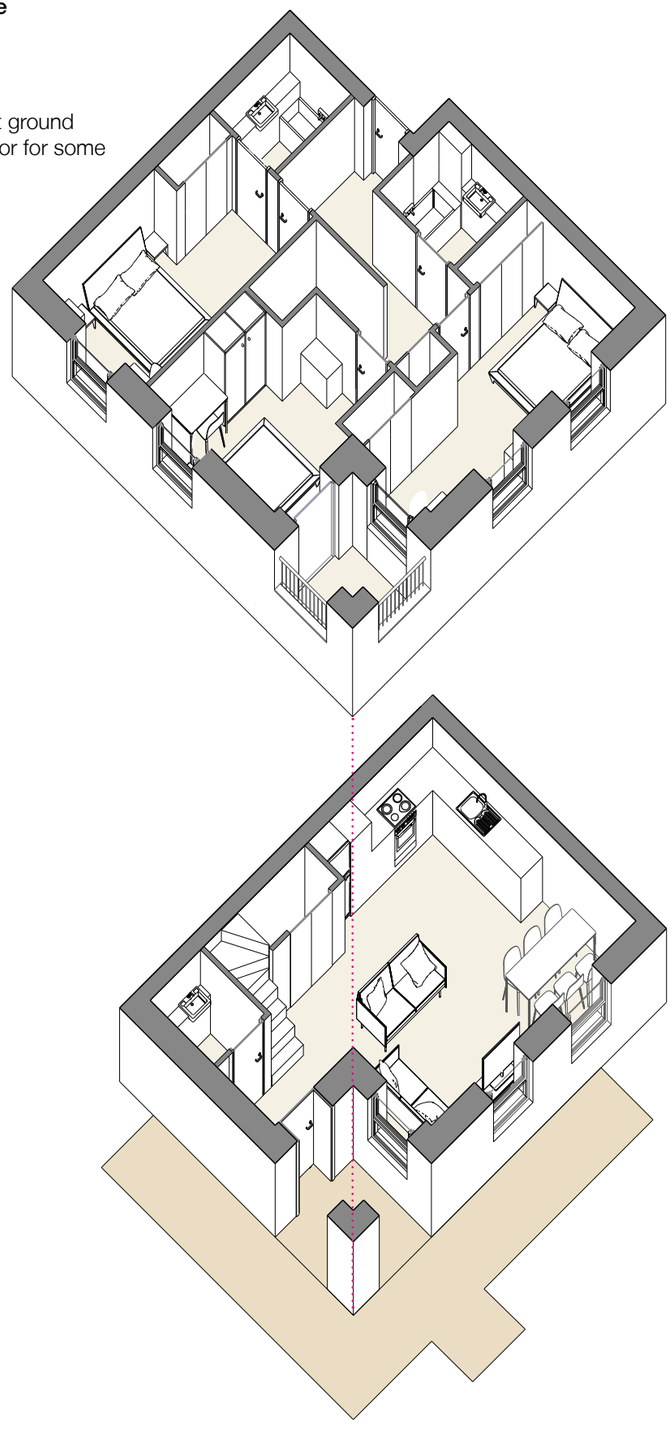


Figure 5.54: Key plan, first floor

Ground floor

Figure 5.53: Key plan, ground floor

Figure 5.51: Typical 3 Bedroom 6 Persons Maisonette

Figure 5.52: Axonometric view

4 Bedroom 5 Person Maisonette

Minimum area: 97 sq.m

Minimum storage: 3.0 sq.m

Bathrooms: 1 bathroom + 1 WC at ground floor

Minimum Amenity: 8 sq.m

First floor

Ground floor

Figure 5.55: Typical 4 Bedroom 5 Persons Maisonette

Figure 5.57: Key plan, first floor

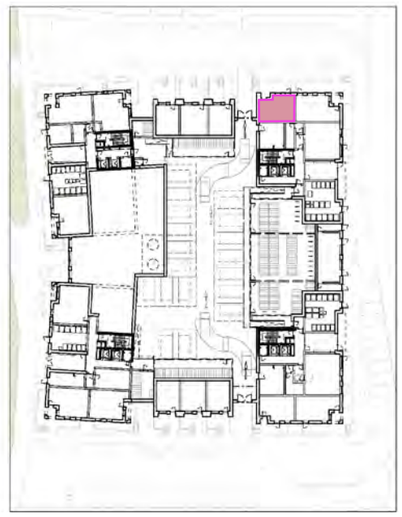


Figure 5.56: Key plan, ground floor

6 Bedroom 10 Person

Minimum area: 152 sq.m (based on GQHFAL instead of NDSS)

Minimum storage: 4.0 sq.m

Bathrooms: 1 bathroom + 2 shower room

Minimum amenity: 13 sq.m

Ground floor

First floor

Figure 5.58: Typical 6 Bedroom 10 Persons Maisonette

Figure 5.60: Key plan, first floor

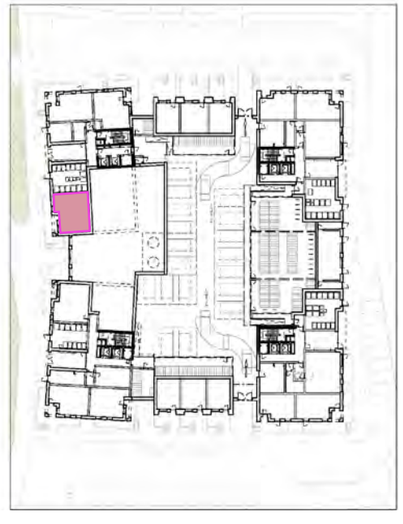


Figure 5.59: Key plan, ground floor

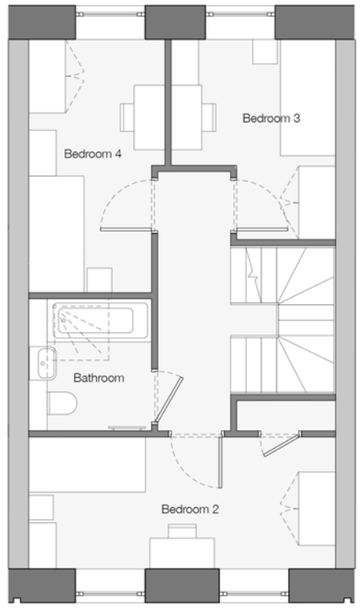
Figure 5.61: Axonometric view, ground floor

Figure 5.62: Axonometric view, first floor

Figure 5.64: Key plan, first floor

Ground floor

First floor



Second floor

Third floor

Figure 5.63: Typical 5 Bedroom 6 Persons House

5 Bedroom 6 Person Houses

Minimum area: 116 sq.m+ (NDSS only goes up to 3 storey homes)

Minimum storage: 3.5 sq.m

Bathrooms: 2 bathrooms + 2 WC

Minimum Amenity: 9 sq.m (NDSS) 50 sq.m (RBK Residential Design SPG)

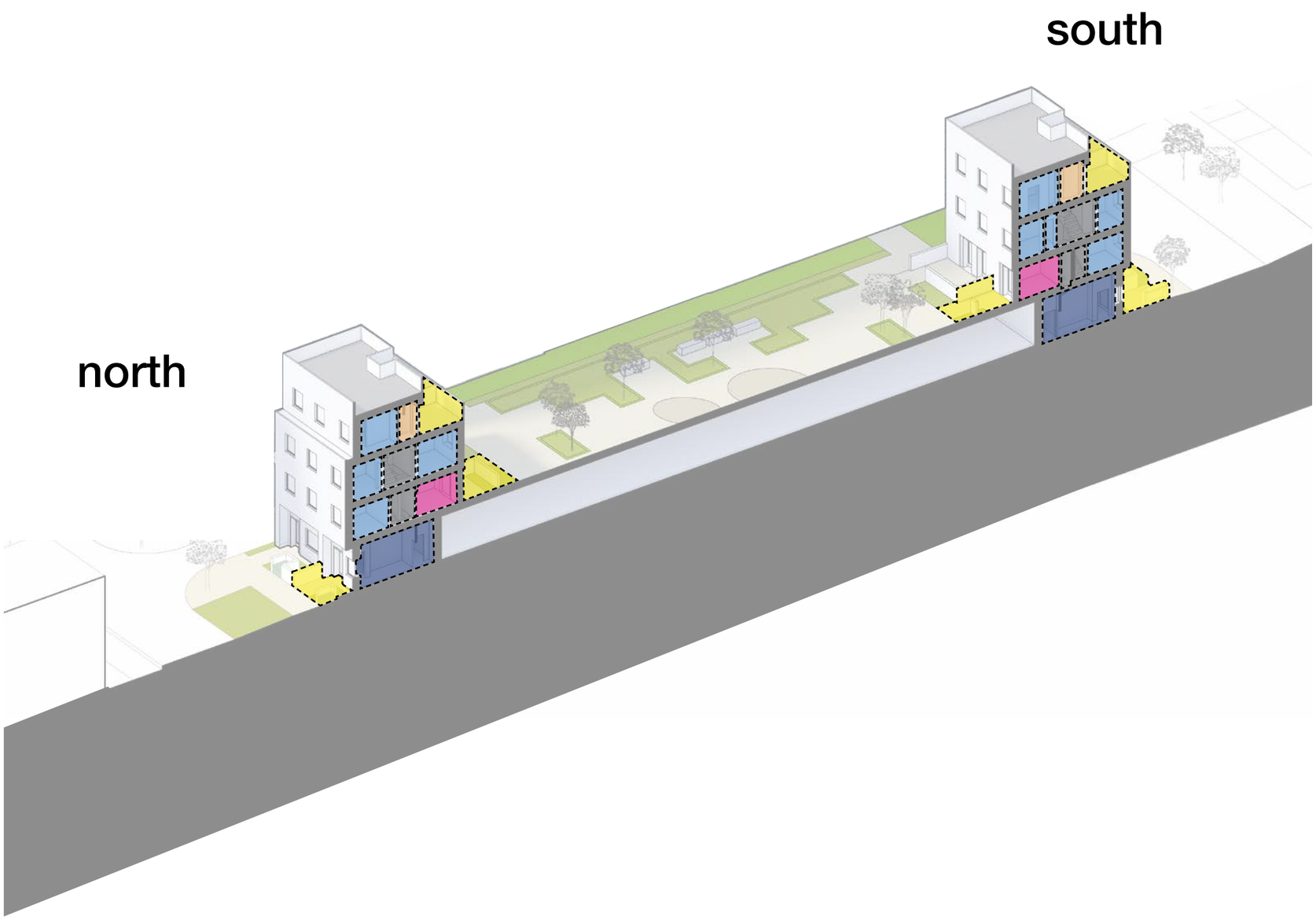


Figure 5.65: Typical 5 Bedroom 6 Persons House

5.8 Design compliance

4.0 DWELLING SPACE STANDARDS		SOURCE	BASELINE	GOOD PRACTICE	COMPLIANCE	JUSTIFICATION
4.1	Internal Floor Area					
4.1.1	All developments should meet the following minimum space standards: **Number of bedrooms(b) / Number of bed spaces (persons) / 1 storey dwellings / 2 storey dwellings / 3 storey dwellings** 1b: 1p 39 (37) *; 2p 50; 58 2b: 3p 61; 70; 4p 70; 79 3b: 4p 74; 84; 90; 5p 86; 93; 99; 6p 95; 102; 108 4b: 5p 90; 97; 103; 6p 99; 106; 112; 7p 108; 115; 121; 8p 117; 124; 130 5b: 6p 103; 110; 116; 7p 112; 119; 125; 8p 121; 128; 134 6b: 7p 116; 123; 129; 8p 125; 132; 138	Ministry of Housing, Communities & Local Government (MHCLG) Technical housing standards - Nationally Described Space Standard (NDSS) 2016 -Good Quality Homes for all Londoners, Standard C4.1.1	✓		✓	100% of the total number of homes comply with the minimum space standards.
4.1.2	Dwelling plans should demonstrate that dwellings will accommodate the furniture, access and activity space requirements relating to the declared level of occupancy.	Building Regulations Approved Document M 2015 + 2016 amendments (ADM) 4(2) / ADM4(3)	✓		✓	100% homes comply
4.1.3	For 8+ bedspaces, applicants should allow 10Sq.m per extra bedspace.	Good quality homes for all Londoners. Standard C4.1	✓		✓	When applied to a 6B10P maisonette, this would mean a minimum area of 152Sq.m is required. This has been achieved in Plot E.
4.2	Circulation in the Home The minimum width of hallways and other circulation spaces inside the home should be 900mm. This may reduce to 750mm at 'pinch points' e.g. next to radiators, where doorway widths meet the following specification: **Table 2.1 Minimum widths of corridors and passageways for a range of doorway widths** Doorway clear opening width (mm) / Corridor clear passageway width 750 or wider / 900 (when approached head on) 750 / 1200 (when approach is not head-on) 775 / 1050 (when approach is not head-on) 800 / 900 (when approach is not head-on)	ADM4(2)	✓		✓	All homes meet the minimum corridor width. Corridors within dwellings are generally 1050mm or over.
4.2.1	Where a hallway is at least 900mm wide and approach to the door is head on, a minimum clear opening door width of 750mm should be provided.	ADM4(2)	✓		✓	All residential doorway clear opening widths are in excess of 775mm.
	Circulation in corridors	Designing inclusive buildings. Access for all SPG, Royal Borough of Kingston Upon Thames (RBK)				
4.2.2	Corridors should have passing places at least 1800mm long and at least 1800mm wide at reasonable intervals.		✓		✓	100% of buildings comply
	Living / Dining / Kitchen					
4.2.3	A living area (living room, dining room or combined kitchen and dining room) shall be provided within the entrance storey*.	ADM4(2)	✓		✓	100% of homes comply
4.2.4	Width of principal living space is at least 3.2m wide in dwellings with 4+ occupants and at least 2.8m for dwellings with less than 4 occupants.	Good quality homes for all Londoners, Policy C4.1	✓		✓	Mix of open plan and separate living/kitchen spaces. Living spaces located adjacent to amenity and to ensure best possible daylight,

		SOURCE	BASELINE	GOOD PRACTICE	COMPLIANCE	JUSTIFICATION
4.2.5	Glazing to the principal window of the principal living area should start a maximum of 850mm above floor level. The handle to at least one opening window in the principal living area shall be located between 450mm and 1200mm above floor level.	MHCLG Technical housing standards: NDSS	✓		✓	100% of units comply.
4.3	Bedrooms					
4.3.1	The minimum area of a single bedroom should be 7.5 sqm. The minimum area of a double or twin bedroom should be 11.5 sqm.	MHCLG Technical housing standards: NDSS	✓		✓	100% of units comply.
4.3.2	The minimum width of the main double bedroom is at least 2.75m and any other double of twin bedroom is at least 2.55m.	MHCLG Technical housing standards: NDSS	✓		✓	100% of units comply.
	Bathrooms and WCs					
4.3.3	Dwellings designed for an occupancy of five or more people should provide a minimum of one bathroom with WC and one additional WC.	ADM4(2)	✓		✓	All apartments with potential occupancy of 5 or more have one family bathroom with WC and one ensuite or additional WC.
4.3.4	Where there is no accessible bathroom at entrance level, a wheelchair accessible WC with potential for a level access shower to be installed should be provided at entrance level * ∞.	ADM4(2)	✓		✓	All multi-storey dwellings provide a WC at entrance level with provision for a level access shower to be installed.
4.3.5	Each dwelling has a bathroom that contains a WC, basin and a bath that is located on the same floor as the principal bedroom	ADM4(2)	✓		✓	100% of the units comply.
4.3.6	Walls in bathrooms and WCs should be capable of taking adaptations such as handrails †.	ADM4(2)	✓		✓	100% of the units comply.
4.4	Storage and Utility					
4.4.1	All dwellings are to have built-in general internal storage space free of hot water cylinders and other obstructions, with a minimum internal height of 2m, in addition to storage provided by furniture in habitable rooms. Built-in wardrobe area in excess of 0.72sq.m in a double bedroom to count towards the built-in storage requirement.	MHCLG Technical housing standards: NDSS	✓		✓	100% of the units comply.
4.4.2	All homes provide the minimum built-in storage areas as follows: 1.5sq.m for 1-bedroom homes, 2sq.m for 2-bedroom homes, 2.5sq.m for 3-bedroom homes, 3sq.m for 4-bedroom homes, 3.5sq.m for 5-bedroom homes, 4.0sq.m for 6-bedroom homes.	MHCLG Technical housing standards: NDSS	✓		✓	100% of the units comply. M4(3) homes may be provided with additional storage as required by ADM4(3).
4.5	Service controls					
4.5.1	Service controls should be within a height band of 450mm to 1200mm from the floor and at least 300mm away from any internal room corner.	ADM4(2)	✓		✓	
4.6	Wheelchair User Dwellings	The London Plan 2016 Policy 3.8	✓		✓	The scheme includes 45 M4(3) compliant units (10% of the total number of units).
4.6.1	Ten percent of new housing should be designed to meet Building Regulation requirement M4(3) 'wheelchair user dwellings'.	Draft New London Plan (DNLP) 2019 Policy D5	✓		✓	
4.6.2	M4(3) homes should be applied across all tenures and should be distributed throughout developments, providing a range of aspects, floor level locations, view and unit sizes	Good Quality Homes for all Londoners SPG. Standard C2.1	✓		✓	M4(3) homes are located across a range of floors, buildings, tenures and unit sizes.

		SOURCE	BASELINE	GOOD PRACTICE	COMPLIANCE	JUSTIFICATION
1.1	**Private Open Space**					
1.1.1	A minimum of 5sqm of private outdoor space should be provided for 1-2 person dwellings and an extra 1sqm should be provided for each additional occupant.	Mayor of London (MoL) Housing Supplementary Planning Guidance (SPG) 2017 Standard 26	✓		✓	All dwellings have access to private Amenity that complies or exceeds the minimum area required.
1.1.2	New flats should provide 10 Sq.m of amenity per dwelling + 1 Sq.m per additional occupant	Residential Design SPD. Royal Borough of Kingston Upon Thames (RBK) Policy 13.	✓		%	Amenity complies with and exceeds minimum NDSS requirements. Balconies sized to exceed NDSS requirements where possible.
1.1.3	New houses should provide 50 Sq.m of private garden per family house (+ 5 Sq.m per extra bedroom over three) where the prevailing character of the area allows.	Residential Design SPD. Royal Borough of Kingston Upon Thames (RBK) Policy 13.	✓		%	Houses designed to have front garden, private podium garden and top floor terrace. Amenity approx. 50 Sq.m
	Communal Open Space					
1.1.4	For all new flat development schemes, 50 Sq.m of communal amenity should be provided per development plus where less than 10 Sq.m private amenity space is provided per flat, the shortfall in provision should be added to communal amenity space	Residential Design SPD. Royal Borough of Kingston Upon Thames (RBK) Policy 14	✓		%	Amenity complies with and exceeds minimum NDSS requirements. Balconies sized to exceed NDSS requirements where possible. Plot B designed with a private shared garden (approx 470 Sq.m); Plot E designed with podium garden (approx 840 Sq.m); and Plot C designed with podium garden (approx 600 Sq.m).
1.1.5	Communal amenity should be overlooked by surrounding development, should be accessible to wheelchair uses and other disabled people; is designed to take advantage of direct sunlight; has suitable management arrangements in place.	Residential Design SPD. Royal Borough of Kingston Upon Thames (RBK) Policy 14.	✓		%	Communal podium amenity designed with level access. Management stores provided on first floor podiums where shared amenity occurs. Amenity orientated to receive maximum daylight.
1.1.6	Private outdoor spaces should have level access from the home.	ADM4(2)	✓		✓	All terraces / balconies have level thresholds.
1.1.7	The minimum depth and width of all balconies and other private external spaces should be 1500mm.	`MoL Housing SPG Standard 27 DNLP Policy D4	✓		✓	All balconies and terraces achieve a minimum depth of 1500mm across the principal usable zone.
1.2	**Privacy**					
1.2.1	Design proposals should demonstrate how habitable rooms within each dwelling are provided with an adequate level of privacy in relation to neighbouring property and the street and other public spaces.	DNLP Policy D4 MoL Housing SPG Standard 28	✓		✓	Dwellings and amenity space positioned and distanced from each other to minimise overlooking. Façades positioned approx. 20m or over from surrounding building windows.
1.2.2	Balcony should have some shelter and privacy from neighbours	Good Quality homes for all Londoners, Policy C4.2	✓		✓	
1.3	**Dual Aspect**					
1.3.1	Developments should avoid single aspect dwellings that are north facing, exposed to noise exposure categories C or D, or contain three or more bedrooms.	DNLP Policy D4 MoL Housing SPG Standard 28	✓		✓	No dwellings are both single aspect and north facing.
1.4	**Noise**					
1.4.1	The layout of adjacent dwellings and the location of lifts and circulation spaces should seek to limit the transmission of noise to sound sensitive rooms within dwellings.	MoL Housing SPG Standard 30	✓		✓	Wall linings to lifts designed to prevent noise transfer by using independent stud construction.

		SOURCE	BASELINE	GOOD PRACTICE	COMPLIANCE	JUSTIFICATION
1.5	**Floor to Ceiling Heights**					
1.5.1	The minimum floor to ceiling height in habitable rooms should be 2.5m between finished floor level and finished ceiling level.	DNLP Policy D4 MoL Housing SPG Standard 31	✓		✓	The minimum finished floor to finished ceiling height is 2.5m in habitable rooms.
1.6	**Daylight and Sunlight**					
1.6.1	All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen dining spaces should preferably receive direct sunlight. Overheating to be considered when designing for sunlight.	DNLP Policy D4 MoL Housing SPG Standard 32	✓		✓	Refer to Daylight / sunlight assessment
1.7	**Air Quality**					
1.7.1	Minimise increased exposure to existing poor air quality and make provision to address local problems of air quality: be at least 'air quality neutral' and not lead to further deterioration of existing poor air quality.	MoL Housing SPG Standard 33 DNLP Policy SI1	✓		✓	Refer to EIA.
1.8	**Shared circulation**					
1.8.1	Each core should be accessible to generally no more than eight units on each floor.	MoL Housing SPG Standard 12	✓		✓	Typically, each core provides access to 6-9 units per floor. Corridors are 1500mm wide with 1800mm passing places
1.8.2	Number of dwellings access from single core does not exceed eight per core. Deviation will need to be justified and mitigated by maximising corridor widths (beyond 1500mm) and introducing natural ventilation to corridors.	Good Quality Homes for All Londoners. Standard 9.	✓		✓	
1.8.3	Where dwellings are accessed via an internal corridors, the corridors should receive natural light and adequate ventilation where possible.	MoL Housing SPG Standard 14	✓		✓	All corridors are provided with ventilation and natural light next to the core.
1.9	**Cycle Storage**					
1.9.1	Provide dedicated cycle parking: 1 per studio, 1.5 per 1-bedroom 2-Persons, 2 per 2-bedroom or larger.	DNLP Policy T5 The London Plan Policy 6.13	✓		✓	Proposals comply with the Draft New London Plan requirements which exceed those of the current London Plan.
1.9.2	1 additional short stay cycle parking space should be provided per 40 units	Good quality homes for all Londoners, Standard C3.3.	✓		✓	Incorporated into public realm design
1.10	**Waste and recycling**					
1.10.1	Housing should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables. Communal refuse stores to be accessible to all, including wheelchair users.	DNLP Policy D4 MoL Housing SPG Standard 22 Residential Design SBD Appendices, Royal Borough of Kingston Upon Thames (RBK)	✓		✓	Waste and recycling facilities designed in compliance with LA Guidance.
1.11	**Environmental Performance**					
1.11.1	All homes should satisfy London Plan policy on sustainable design and construction and make the fullest contribution to the mitigation of and adaptation to climate change.	DNLP Policy SI1 MoL Housing SPG Standard 34	✓		✓	Refer to EIA
1.12	**Energy and CO2**					
1.12.1	Development proposals should be designed in accordance with the London Plan energy hierarchy, and should meet the minimum targets for carbon dioxide emissions reduction.	DNLP Policy SI2 MoL Housing SPG Standard 35	✓		✓	Refer to EIA.

5.0 Configuration and compliance

		SOURCE	BASELINE	GOOD PRACTICE	COMPLIANCE	JUSTIFICATION
	Overheating	DNLP Policy D4				
1.1.1	Development proposals should demonstrate how the design of dwellings will avoid overheating without reliance on energy intensive mechanical cooling systems.	MoL Housing SPG Standard 36	✓		✓	Refer to EIA.
	Water	DNLP Policy SI5				
1.1.2	New dwellings should be designed to ensure that a maximum of 105 litres of water is consumed per person per day.	MoL Housing SPG Standard 37	✓		✓	Refer to EIA
1.1.3	Where development is permitted in an area at risk of flooding, it should incorporate flood resilient design in accordance with PPS25.	DNLP Policy SI12 MoL Housing SPG Standard 38	✓		✓	Refer to flood risk assessment
1.1.4	New development should incorporate Sustainable Urban Drainage Systems and green roofs where practical with the aim of achieving a Greenfield run-off rate. Surface water run-off is to be managed as close to source as possible.	DNLP Policy SI13 `	✓		✓	Refer to Drainage Report
1.1.5	**Ecology**					
	The design and layout of new residential development should avoid areas of ecological value and seek to enhance the ecological capital of the area in accordance with GLA best practice guidance on biodiversity and nature conservation.	DNLP Policy G6 MoL Housing SPG Standard 40	✓		✓	Refer to EIA
1.1	**Car Parking**					
1.1.1	For 3% of dwellings, at least one designated disabled persons parking bay per dwelling is available from the outset	Good homes for all Londoners, Policy C3.4.1	✓		✓	Required % has been achieved
1.1.2	Demonstrate how an additional 7% of dwellings could be provided in he future upon request, as soon as existing provision is insufficient	Good homes for all Londoners, Policy C3.4.1	✓		✓	Standard parking spaces have been configured into blocks to allow for future conversion into M4(3) spaces. Any standard parking spaces lost during this conversion, will be reassigned in the public realm
1.1.3	Should be in accordance with design guidance BS8300vol1	Good homes for all Londoners, Policy C3.4.1	✓		✓	Parking spaces design using BS3000vol 1 as guidance
1.1.4	Should be located to minimise the distance between disabled persons parking bays and the relevant block entrance or lift core. Route should be level or if not possible gently sloping (1:60-1:20) on a suitable firm surface	Good homes for all Londoners, Policy C3.4.1	✓		✓	Disabled persons parking bays located as close to lift cores as possible and on level or gently sloping surfaces.

* In ADM4(2) the entrance level of a dwelling is generally deemed to be the storey containing the main entrance door. Where there are no rooms on the storey containing the main entrance door (e.g. flats over garages or shops and some duplexes and townhouses) the first storey level containing a habitable or non-habitable room can be considered the entrance level, if this storey is reached by a stair providing 'easy access', as defined above.

∞ Dwellings over more than one storey with no more than two bedrooms may instead be designed with a Part M compliant WC at entrance level. The WC should provide a floor drain to allow for an accessible shower to be installed at a later date.

† Adequate fixing and support for grab rails should be available at any location on all walls within a height band of 300-1800mm from the floor.

5.9 Inclusive design

This section of the Design and Access Statement details the philosophy and approach to inclusive and accessible design which has formed part of the development process and is reflected in the Phase 1 proposals.

The design aspiration for Cambridge Road Estate is the creation of an inclusive environment throughout, to be experienced by all residents, visitors, people working or using the commercial space and the wider community, including those with disabilities. This approach considers the requirements of all users; notably those with mobility impairments, blind or partially sighted and people with difficulty of hearing.

- In doing so it also considers the needs of older people and those with small children. The result is a development that maximises independence, comfort and dignity for residents and visitors alike.
- The inclusive design strategy aims to fulfil the following set of goals:
- To maximise access to all parts of the development, its services and facilities as required by local, regional and national policy;
- To ensure that appropriate standards for accessibility are met at the outset and as part of mainstream inclusive design wherever possible;
- To design inclusively, which means designing beyond the minimum requirements of the Building Regulations Part M, to ensure that all people, regardless of age, sex or ability can use and enjoy the built environment;
- To address the anticipated increase of older people in proportion to the working class population in the near future and their needs;
- To meet the aims of the Equality Act, where applicable; and
- To follow design guidance given in relevant British Standards and other currently published good practice guidance about meeting the needs of disabled people.

Design standards

Plots B, C and E has been developed with reference to the following standards:

- The Equality Act 2010;
- Building Regulations 2015 + 2016 amendments Approved Document M: access to and use of buildings;
- Building Regulations 2013 Approved Document K: protection from falling, collision and impact;
- British Standard BS 8300-1:2018: Design of an accessible and inclusive built environment. External environment - code of practice;
- British Standard BS 8300-2:2018: Design of an accessible and inclusive built environment. Buildings - code of practice;
- Good Quality Homes for All Londoners (GQHFAL) Pre-consultation draft (2020);
- National Planning Policy Framework 2019 (NPPF), Ministry of Housing, Communities & Local Government (MHCLG);
- The Draft New London Plan (2019);
- The Mayor of London Housing SPG (2017);;
- Royal Borough of Kingston Upon Thames Residential Design SPD, including appendices (2013);
- Royal Borough of Kingston Upon Thames Designing inclusive buildings, access for all SPD;
- Royal Borough of Kingston Upon Thames Towards a sense of place, Borough Character Study (2011)
- Royal Borough of Kingston Upon Thames Housing Needs Assessment
- CRE Strategic Development Brief

Interpretation of design standards

There are various legislative and guidance documents detailing inclusive accessible design, which is often open to interpretation, and where comparisons are drawn they identify a range of anomalies. Access guidance documentation is often built upon other relevant access guidance. There is no single key guidance document stipulating the requirement for all criteria to be met. Ultimately this results in individual judgement being applied to the implementation of inclusive design and the extent to which good practice should be followed. For example, BS 8300:2018 is a widely referenced document, and much of the Building Regulations Approved Document M is based upon it, however there are other more specific design guidance documents that need to be considered in the design process.

This statement makes reference to the various accessible design standards and explains how they have been taken into account in the proposed design of the scheme.

Development overview

Cambridge Road Estate Plots B, C and E will provide:

- 10% dwellings to be ADM4(3) compliant;
- 90% dwellings to be ADM4(2) compliant;
- Balconies designed in compliance with ADM and GLA standards;
- All wheelchair accessible dwellings located in upper floors to be served by two lifts;
- Public realm to be wheelchair friendly, including the residential courtyards at first floor;
- Public realm to be suitable for those visually impaired;
- Accessible housing to be delivered across Shared Equity, Private Market and Social Rent tenures and in a range of different sizes;
- Accessible parking bays to be provided as close as possible to ADM4(3) compliant dwellings; and
- Enlarged cycle parking to be provided within the cycle stores of each block and accessible to use by residents regardless of dwelling size, tenure or accessibility level.

5.10 Communal spaces and access routes

The approach routes to the residential cores are designed to be inclusive, with gentle gradients, suitably paved surfaces and good lighting levels. This contrasts with the existing Estate where steep level changes are prevalent through the site, restricting access for wheelchair users and resulting in poor connectively across the site.

Communal routes have been designed to comply with applicable Building Regulations and the Draft New London Plan, in particular with clause 3.5.2 of the DNLP (Policy D5):

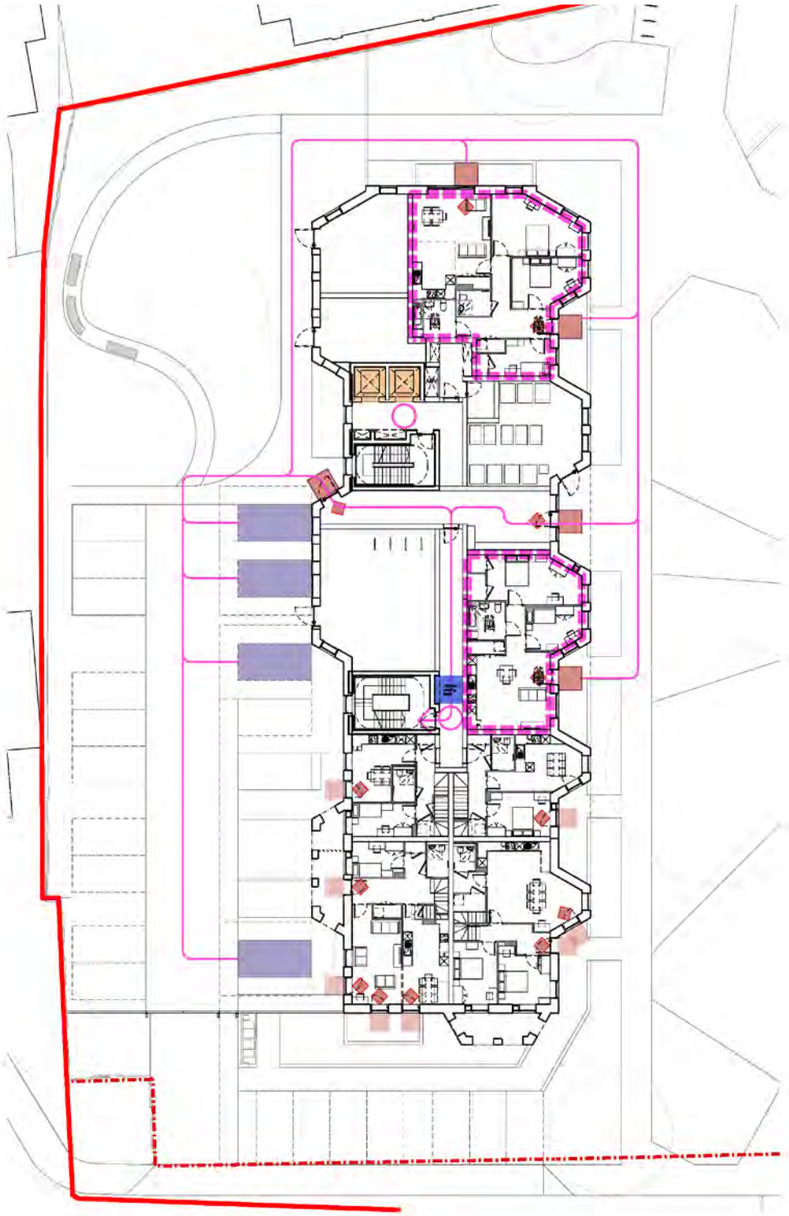
"Where any part of an approach route including the vertical circulation in the common parts of a block of flats is shared between dwellings of different categories (i.e. M4(2) and M4(3)), the design provisions of the highest numbered category of dwelling served should be applied, to ensure that people can visit their neighbours with ease and are not limited by the design of communal areas."

Lifts and stairs

All cores comprise two lifts, for back-up in case of temporary failure or maintenance. During detail design stage, careful consideration will be given to the finishes and design of the lifts to ensure they are not only suitable for those with low mobility but also for users which are hard of hearing, or visually impaired by providing measures such as sound announcements and adequate contrast and lighting. Lift landings at all floors provide a 1500x1500mm clearance zone directly outside the lift and free of any door swings.

All common stairs will be designed in accordance with Approved Document K, with dimensions that suit ambulant disabled people and visual contrast to aid partially sighted users. Handrails will be installed at 900mm above nosings and will extend 300mm beyond the top and bottom riser, with a closed loop to prevent clothing from being caught.

Figure 5.66: Plot E Ground floor plan: accessibility



Access route
Lift core
M4(3) Home
M4(3) Parking space
Accessible threshold / 850mm clear opening
1500mm turning circle
1800mm passing place
1500x1500mm external landing
1200x1200mm external landing

Figure 5.67: Plot B Ground floor plan: accessibility

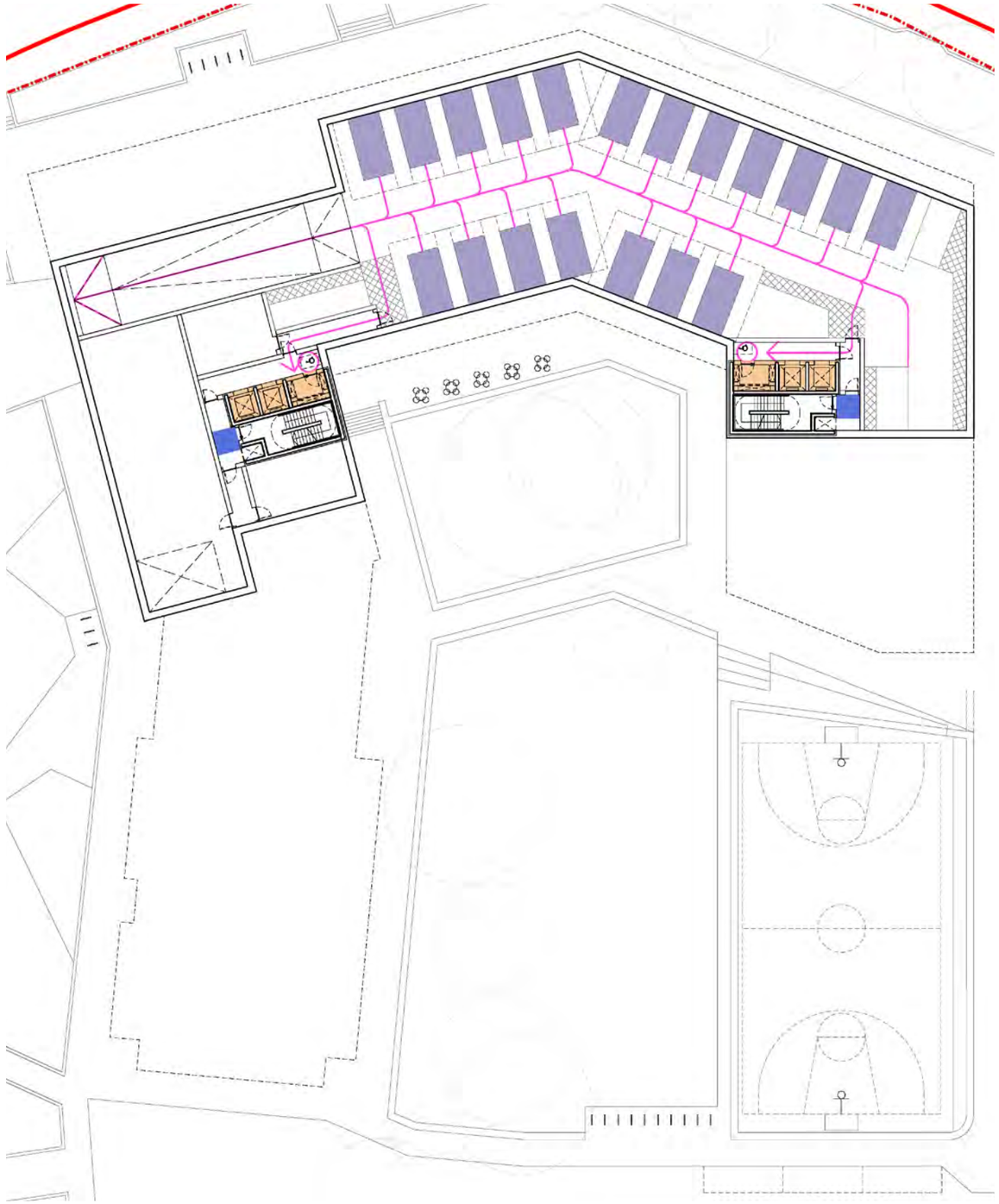


Figure 5.68: Plot C Ground floor plan: accessibility

Entrances and circulation

All lobbies provide a minimum 1500mm distance in front of the lift cores. Entry systems such as video or audio entry systems, fobs or similar are to be designed and located so that they are usable by all visitors and residents. They are to be mounted at an appropriate height and be possible to be activated with a closed fist and using minimal force.

Internal corridors giving access to apartments will be typically 1500mm wide to facilitate circulation. 1800mm passing places are also incorporated at intervals along corridors, in accordance with the Royal Borough of Kingston Upon Thames Access for All SPD.

The commercial unit and community centre in Plot C will be subject to tenant fit-out but it is expected to be compliant with Building Regulations Approved Documents M and K.

Courtyard gardens

The communal gardens at first floor have been designed to comply with the Mayor of London Housing SPG (Standard 4) which requires that communal open space "is accessible to disabled people including people who require level access and wheelchair users."

Access to the gardens will be step free via the communal core and available to all residents of the upper floors. Homes at first floor with private terraces will also have level access into the courtyard from their terraces. All access points to the courtyards will be provided with accessible thresholds of suitable width in accordance with the requirements of Approved Document M.

External routes within the courtyard will be provided with spaces for 1500mm diameter turning circles at regular intervals for ease of circulation and choice of turning points. These areas are integrated into the design in a natural way rather than defined, following the principles of inclusive design.

Figure 5.69: Plot E First floor plan: accessibility

Access route
Lift core
M4(3) Home
M4(3) Parking space
Accessible threshold / 850mm clear opening
1500mm turning circle
1800mm passing place
1500x1500mm external landing
1200x1200mm external landing

Figure 5.70: Plot B First floor plan: accessibility

Figure 5.71: Plot C First floor plan: accessibility

5.11 Approved Document M4(2) compliance

90% of the dwellings provided in the Cambridge Road Estate detailed component will be compliant with "Approved Document M4(2): Category 2 - accessible and adaptable dwellings", in accordance with Policy 3.8 of the London Plan and Policy D5 of the Draft New London Plan.

Typical internal layouts are provided in this section to illustrate how the design of private spaces within the dwellings has met the requirements of Approved Document M4(2), in addition to the internal layouts available in Chapter 5.7 and which include multi-storey homes.

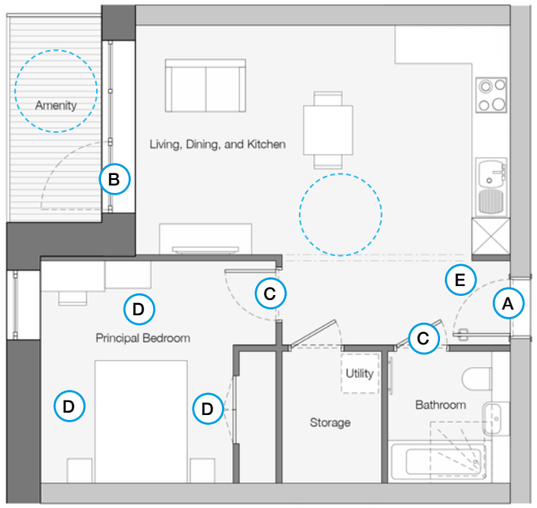
The internal layouts of M4(2) homes have been designed to comply with and exceed access regulations. Flats are typically provided with open space living / dining / kitchen arrangements which reduces the number of doors to be negotiated by the user. However where possible, kitchens have been separated from the living rooms to suit the requests of the current residents in the Estate, following an extensive consultation process. Circulation routes between and around furniture within living spaces and bedrooms are a minimum of 750mm wide and allow an access route to at least the principal openable window and balcony doors.

All homes have an accessible bathroom located in the same floor as the principal bedroom. In dwellings of 2 or 3 storeys, a WC or shower room is provided at the entrance storey which can be adapted to provide a level access shower. All doors to bathrooms, ensuites, shower rooms or WCs open outwards.

All homes have access to external amenity in the form of a balcony or private terrace. External doors will have a 300mm nib on the pull side extending by at least 1200mm. Balconies and terraces are a minimum 1500mm wide and at least one is accessible from the living areas.

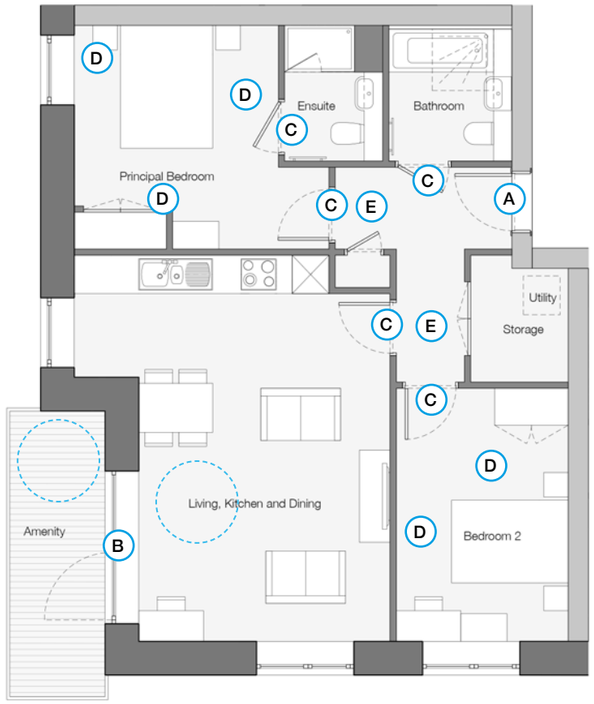
Windows have transoms at 1100mm typically to provide protection from falling in accordance with the requirements of Approved Document K. These are complemented with glazed panels which start at 675mm in both living spaces and bedrooms, as well as glazed doors to balconies, allowing for clear views out from a seated position from all living rooms.

Switches, controls and other devices will be located at a height between 450mm-1200mm above floor level and at a minimum 300mm distance from room corners.



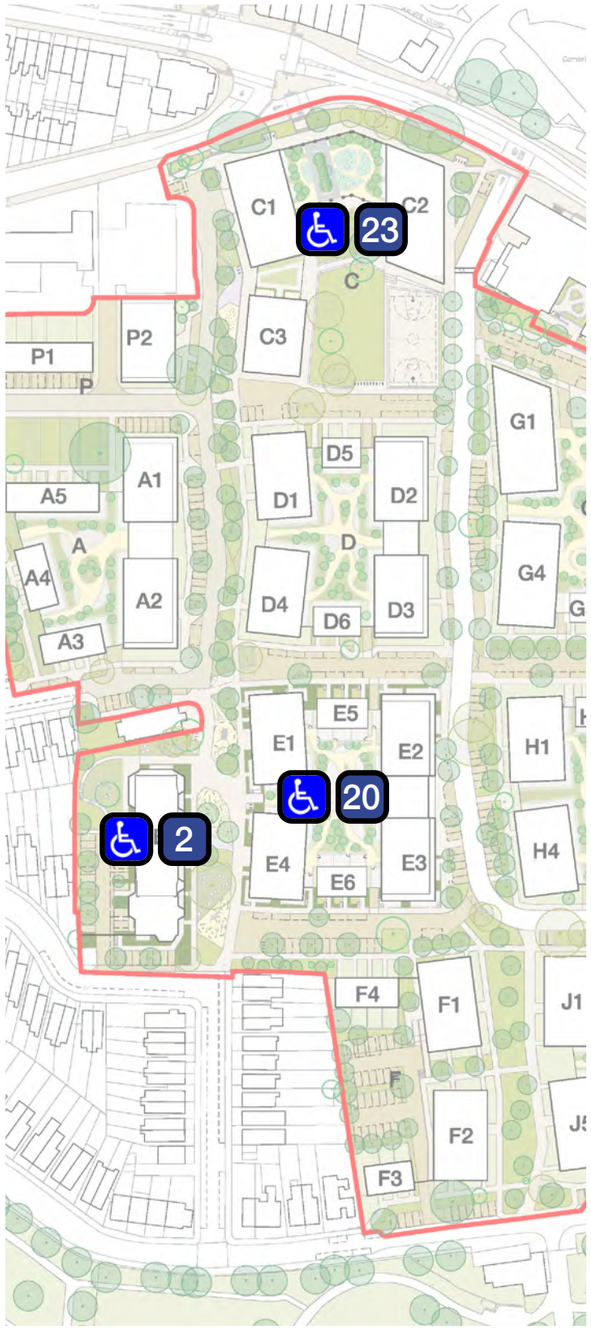
- A Entrance door: 850mm min. clear width
- B External door: 850mm min. clear width
- C Internal door: 775mm min. clear width
- D 750mm clear to bed
- E Corridor: min. 1050mm wide
- 1500mm turning circle

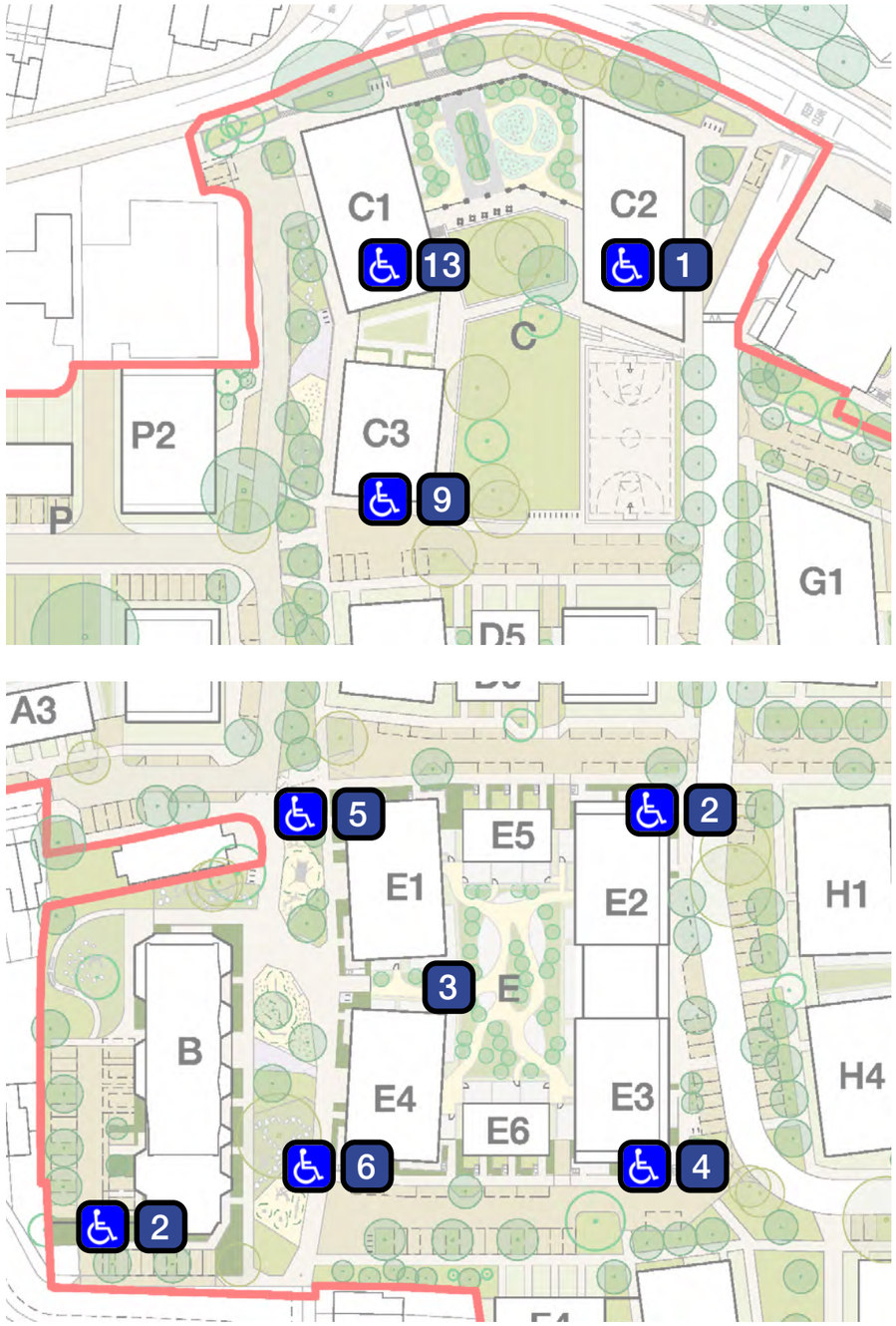
Figure 5.72: Typical 1 Bedroom 2 Persons layout



- A Entrance door: 850mm min. clear width
- B External door: 850mm min. clear width
- C Internal door: 775mm min. clear width
- D 750mm clear to bed
- E Corridor: min. 1050mm wide
- 1500mm turning circle

Figure 5.73: Typical 2 Bedroom 4 Persons layout





11 Quantity of M4(3) homes

Figure 5.74: Phase 1 M4(3) home distribution

Figure 5.75: Phase 1 M4(30 home distribution

5.12 Approved Document M4(3) compliance

10% of dwellings provided in the Cambridge Road Estate detailed component will be compliant with "Approved Document M4(3): Category 3 - Wheelchair user dwellings", a total of 45 homes.

Accessible homes have been distributed across all buildings in Phase 1. A range of tenures, sizes and positions have been allocated, which includes ground floor homes accessed directly from the public realm and first/second floor homes with level access to a podium garden. Where possible wheelchair homes have been stacked for efficiency of services. The ground floor of Plot B incorporates two accessible homes requested as part of the housing needs assessment; this assessment captures the needs of existing Estate residents, to ensure residents are rehoused in appropriate dwellings.

The mix includes 1-bedroom, 2-bedroom and 3-bedroom dwellings, and all wheelchair adaptable which have been reviewed alongside accessibility consultant David Bonnet Associates. Typical internal layouts are provided in this section to illustrate how the design meets the requirements of Approved Document M4(3).

All communal corridors serving accessible homes are 1500mm wide, and entrance doors into dwellings provide the minimum 850mm clear width. All thresholds will be level and external doors to balconies will provide the same clearance width. Internally, the entrance area is a minimum of 1500mm wide and over 1800mm deep. The wheelchair storage space is located as close to the entrance as possible and will be provided with a power socket.

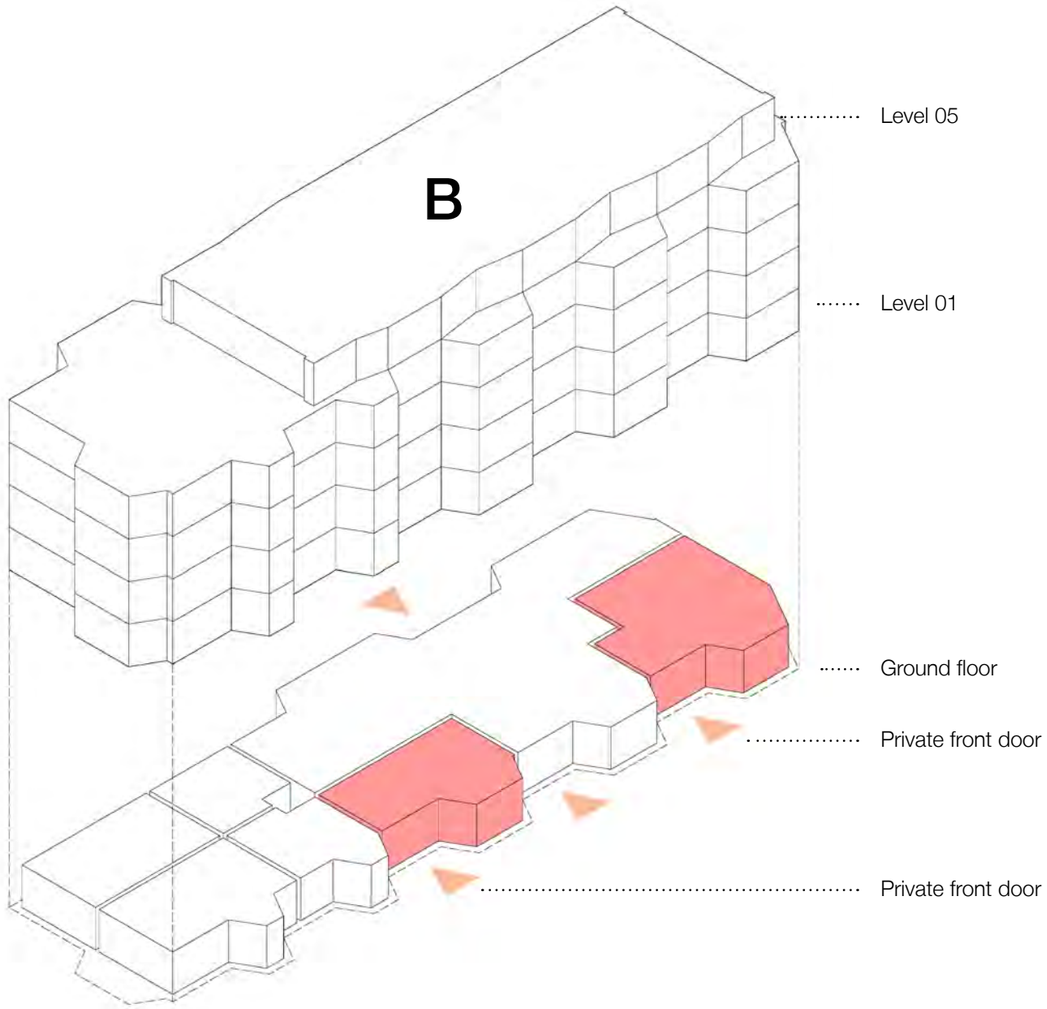
Internal corridors are typically 1200mm wide with doors providing 850mm clear width for both straight-on or 90 degree approach. Bathrooms will have outward opening doors. Where the shower room is fully accessible the bathroom can be provided as a cat. 2 bathroom. All accessible bathrooms and shower room walls are designed to support grab rails.

Bedrooms provide 1000mm clearance to the side of the bed (both sides and foot of the bed in main bedrooms) and in front of all furniture. Bedrooms also provide 1200x1200mm activity zones as required by ADM.

Kitchens are designed with a minimum of 1500mm clear in front of all units, and worktop lengths as required by ADM for the various occupation sizes. The kitchen layouts allow for a lower section of worktop to be fitted at the outset for accessible homes, either as a single run or corner arrangement.

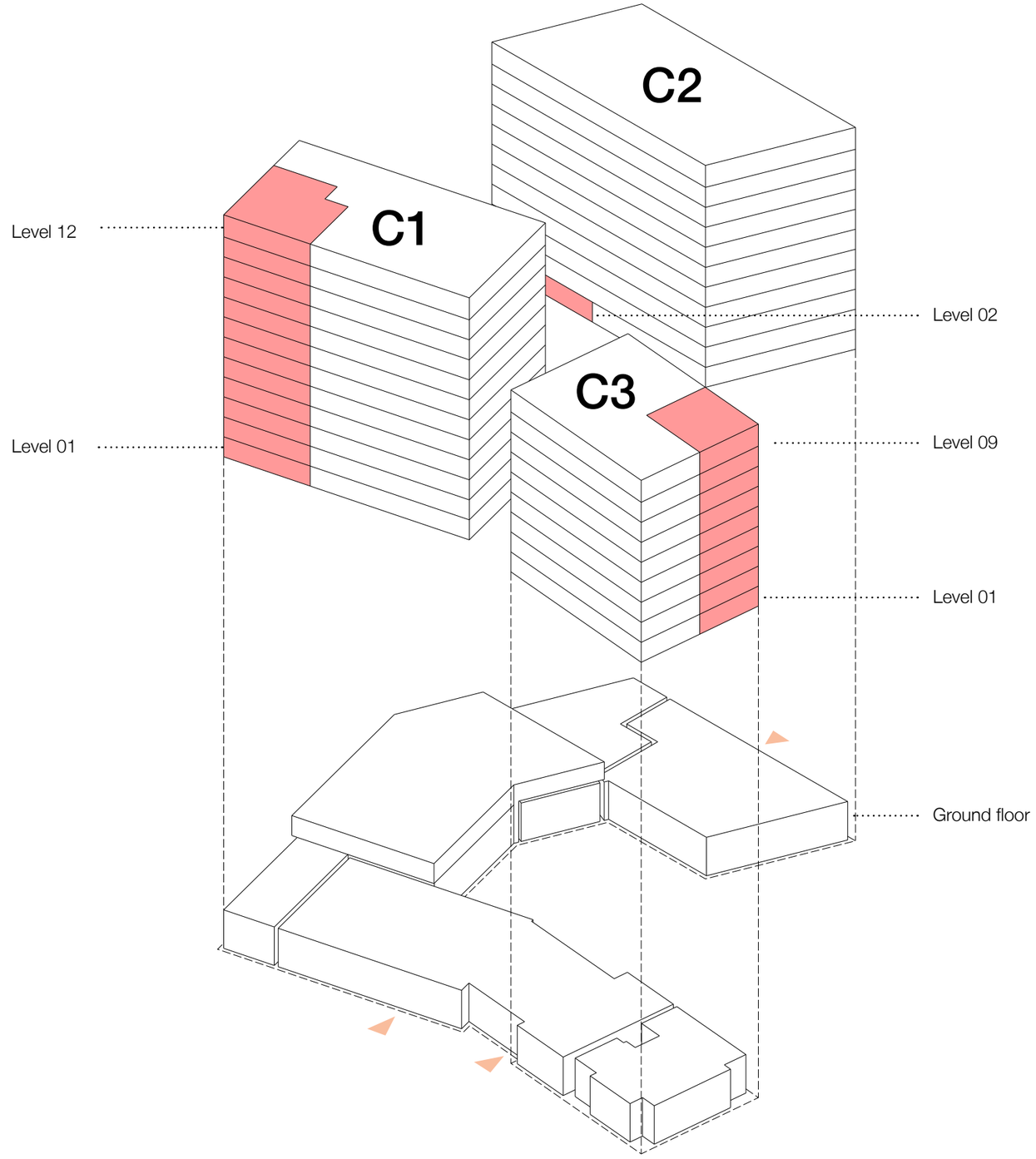
All living rooms are provided with full height glazing to the balconies, allowing views out from a seated position.

Distribution of M4(3) homes



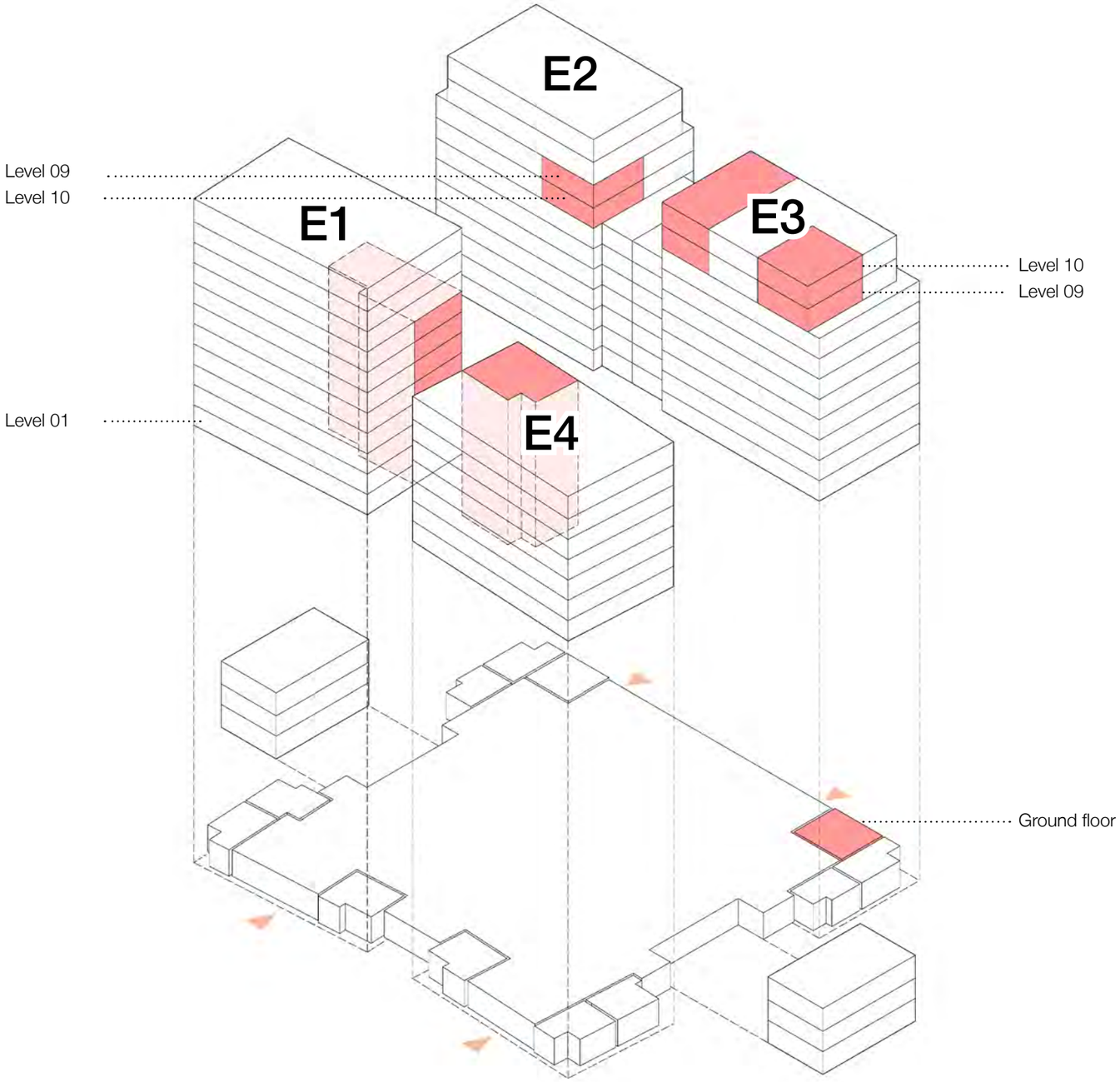
M4(3) accessible home

Figure 5.77: Diagram showing Plot B's distribution of M4(3) homes



M4(3) accessible home

Figure 5.76: Diagram showing Plot C's distribution of M4(3) homes



M4(3) accessible home

Figure 5.78: Diagram showing Plot E's distribution of M4(3) homes

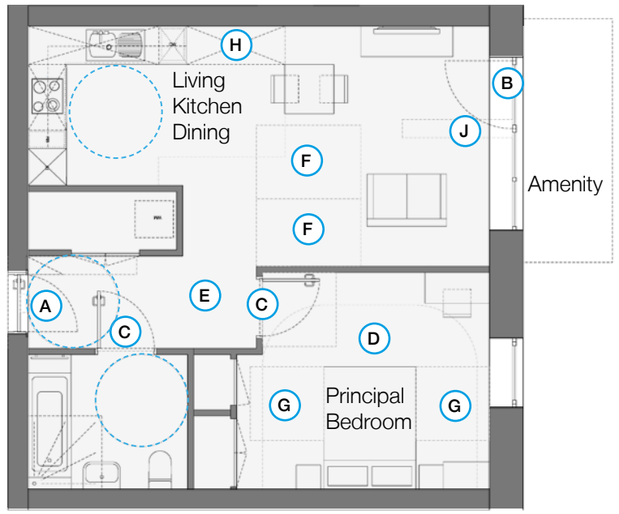
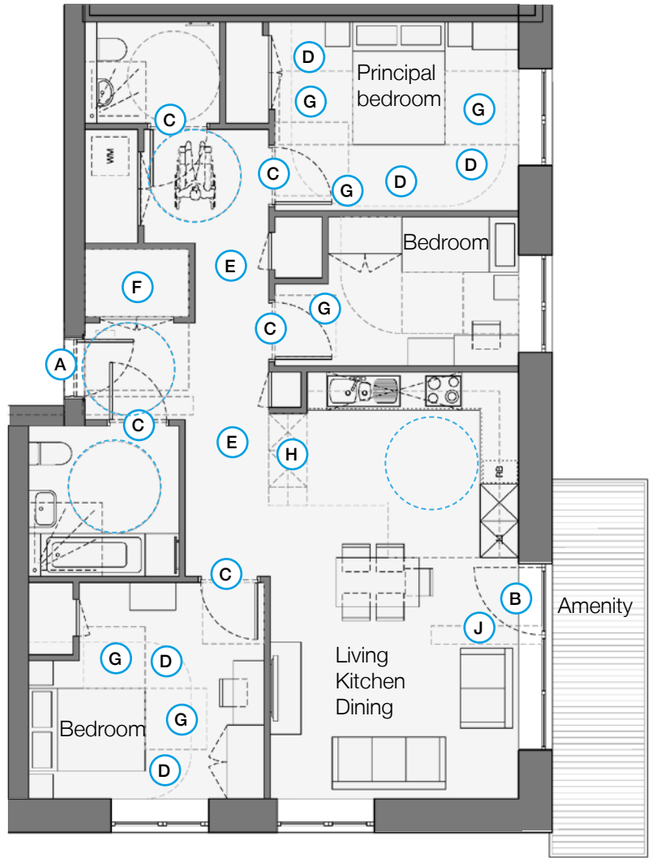


Figure 5.80: Key plan

- (A) Entrance door: 850mm min. clear width
- (B) External door: 850mm min. clear width
- (C) Internal door: 850mm min. clear width
- (D) 1000mm clear to bed
- (E) 1200mm min. corridor width
- (F) Wheelchair storage space and access zone
- (G) 1200x1200 activity area
- (H) Space for additional kitchen units
- (J) Leading edge nib zone, 1800mmx300mm
- 1500mm turning circle

Figure 5.79: Typical 1 Bedroom 2 Persons adaptable layout

- A Entrance door: 850mm min. clear width
- B External door: 850mm min. clear width
- C Internal door: 850mm min. clear width
- D 1000mm clear to bed
- E 1200mm min. corridor width
- F Wheelchair storage space and access zone
- G 1200x1200 activity area
- H Space for additional kitchen units
- J Leading edge nib zone, 1800mmx300mm
- 1500mm turning circle



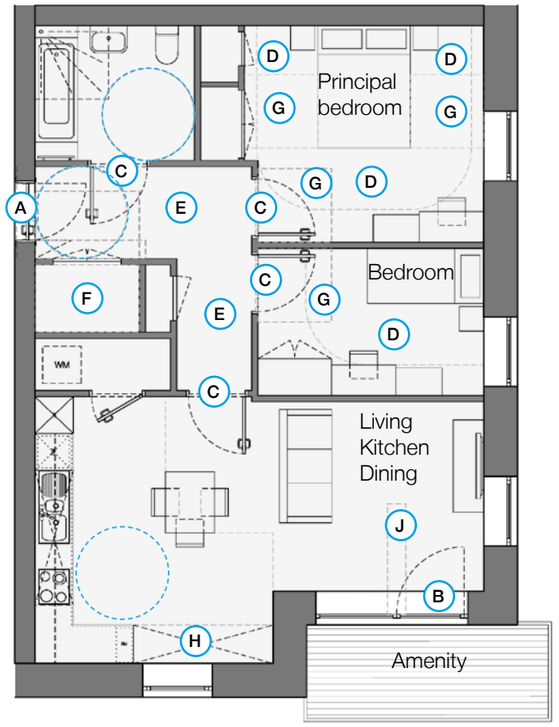


Figure 5.83: Key plan

Figure 5.81: Typical 3 Bedroom 5 Persons accessible layout

Figure 5.84: Key plan

Figure 5.82: Typical 2 Bedroom43 Persons accessible layout