

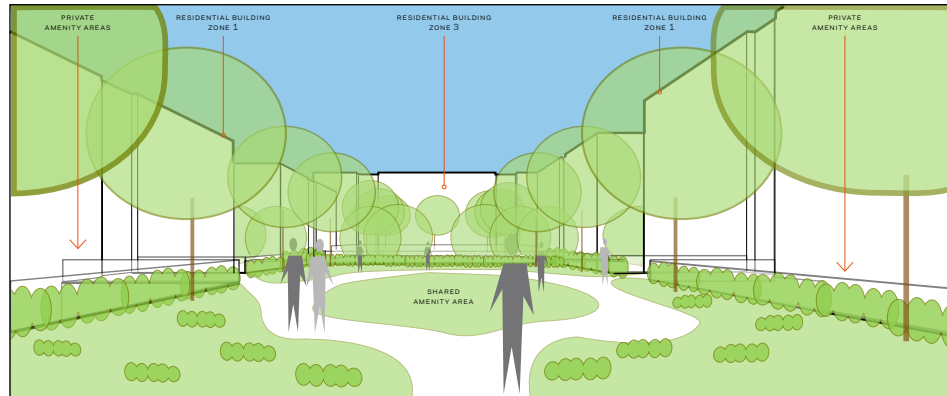


ILLUSTRATION 7 VIEW OF PART OF THE RESIDENTIAL SHARED AMENITY AREA

The shared amenity areas located at the heart of the residential site will provide attractive views for residents in addition to their important open space benefits. The space will be enclosed by the surrounding apartment buildings to foster a sense of ownership and community amongst residents, as well as to provide the space with physical shelter and security.

Planting to the perimeter of the space will provide privacy to the adjoining dwellings' private gardens, while the landscaping of the space is intended to create different areas suitable for a variety of uses accommodating the differing needs of residents of differing ages and abilities, in particular for children and the less mobile.

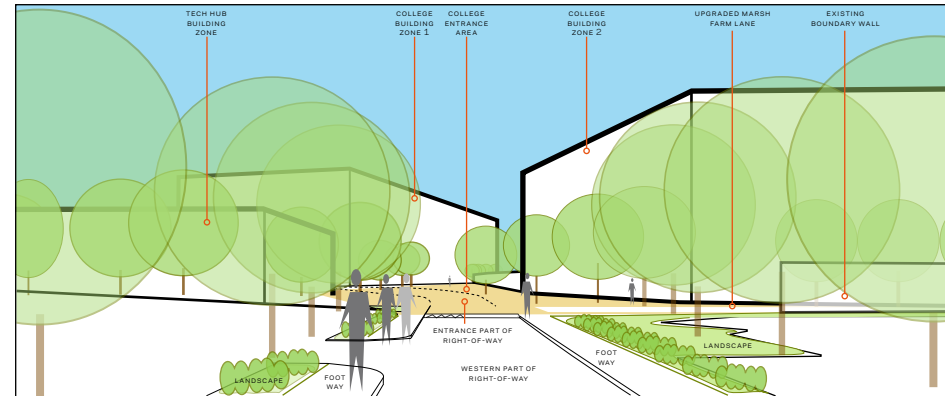


ILLUSTRATION 8 VIEW OF THE APPROACH TO SITE FROM LANGHORN DRIVE

The approach to the site from the west from Langhorn Drive has been designed to ensure good visibility on the approach to the Tech Hub and the College in particular. Accordingly the College building forms a landmark on this vista, while the Tech Hub is designed to not compete with the College building.

Where practical, activities along the ground floor of these buildings engage with the adjoining open spaces, promoting passive supervision of the space and providing visual interest, and opportunities for community access to facilities where appropriate.

Soft landscaping is provided to soften the view on approach to the site and promote good visibility of the junction with Marsh Farm Lane, while surface treatments identify areas where pedestrians have priority over vehicle users.

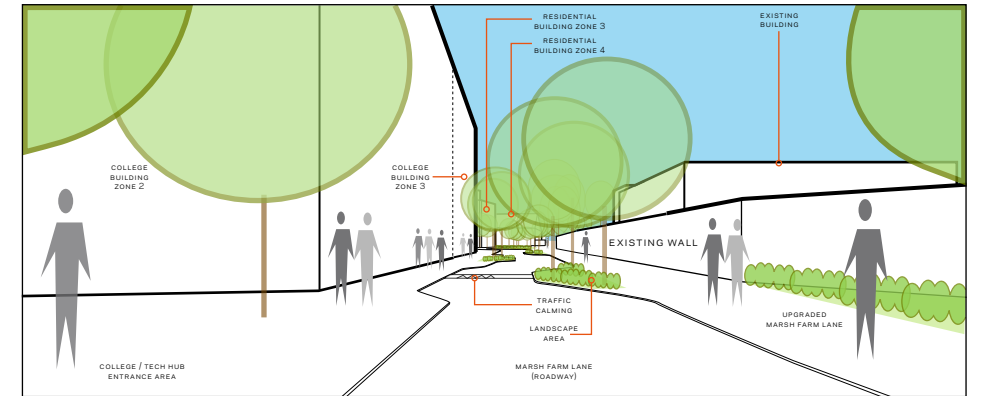


ILLUSTRATION 9 VIEW ALONG MARSH FARM LANE NEAR COLLEGE ENTRANCE PLAZA

The part of Marsh Farm Lane providing access to the residential redevelopment has been designed to provide extensive areas of landscaping and clear separation of vehicles from other users. The roadway design provides a number of traffic-calming measures, including landscaped chicanes, while retaining clear lines of sight for safety and passive supervision of the space. Street trees are located in these landscaped areas, replacing the existing poor-quality trees.

A broad pavement is provided in front of the College STEM building and the Sports Centre to the east of the roadway, allowing for activities to spill out from the buildings (where practical) and to provide adequate room for students to congregate without impeding passing traffic. Activities along the ground floor of these buildings will promote passive supervision of the areas along Marsh Farm Lane, and provide visual interest when seen from the public realm. A widened continuous shared-use pathway is also provided to the west of the roadway, following the natural desire line for those who wish to by-pass the site.

Clear building lines and continuous edges provided by the new buildings and existing wall simplify the streetscape and ease wayfinding for blind and partially-sighted students, staff and visitors.

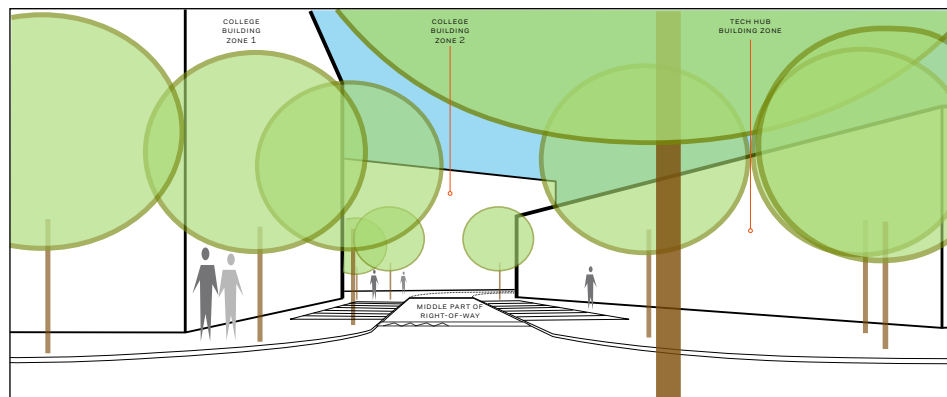


ILLUSTRATION 10 VIEW BETWEEN COLLEGE AND TECH HUB FROM THE A316

The view between the College and Tech Hub from the A316 will provide a prominence to the College buildings and entrance plaza, and the detailed design of the College buildings should reflect the role they will serve as a landmark in its context, and assist in local way-finding. Where practical, activities along the ground floor of these buildings will engage with the adjoining space, promoting passive supervision of the space and providing visual interest, and opportunities for community access to facilities where appropriate.

Clear building lines and continuous edges to footways ease wayfinding for the blind and partially-sighted, while streetside car parking is provided to improve safety for pedestrians and discourage high traffic speeds, while minimising area given over to car parking.

Views north through this space will provide a connection from the entrance plaza to the prominent mature trees along the A316 that are protected as part of the proposals.

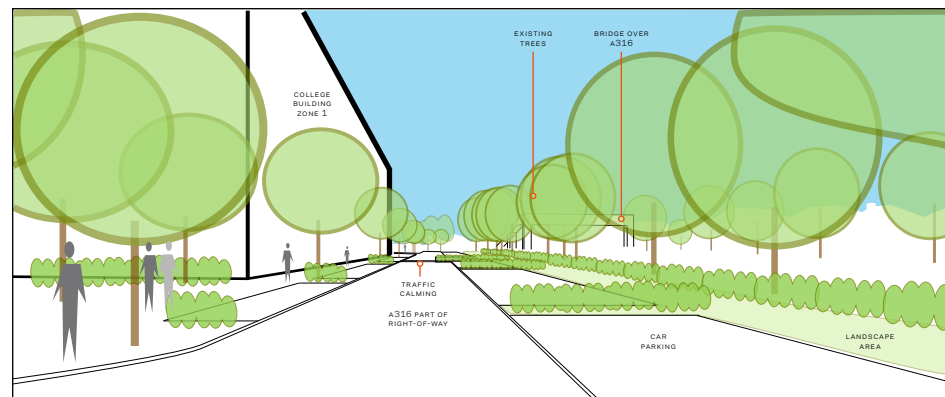


ILLUSTRATION 11 VIEW WEST ALONG THE RIGHT-OF-WAY ALONGSIDE THE A316

Views along the rerouted right-of-way will be characterised by the existing trees to the north, new planting breaking up the car parking, and the new College building to the south. This building shelters the rest of the site from the noise of the A316 and acts as a landmark in the context and in the arrival sequence into London from the west. Activities along the lower floors of this building will promote passive supervision of the areas along the A316, and provide visual interest when seen from the public realm. The clear line of College building promotes easy wayfinding.

The space between the new College building and the A316 boundary is used to reroute the existing right-of-way across the site, and distribute car parking around the periphery of the Campus - thereby allowing the more sheltered areas of the site to be used for recreational and social spaces. The car parking along this route will be designed to be compatible with the preservation and protection of the mature trees and to incorporate areas of planting.

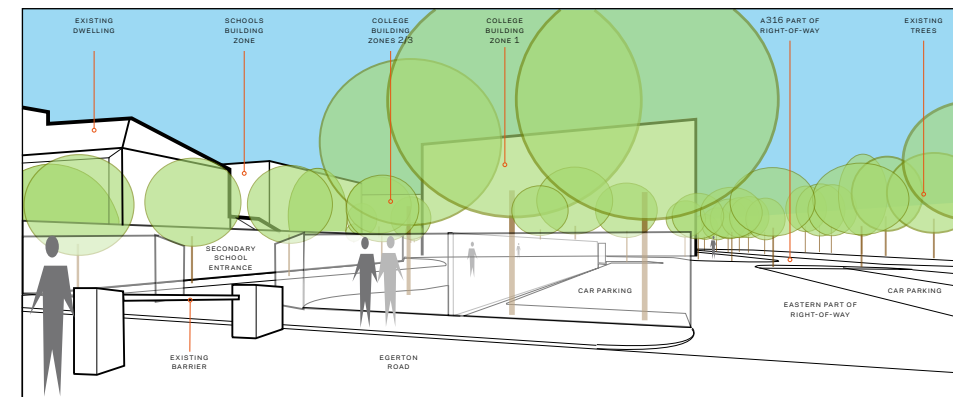
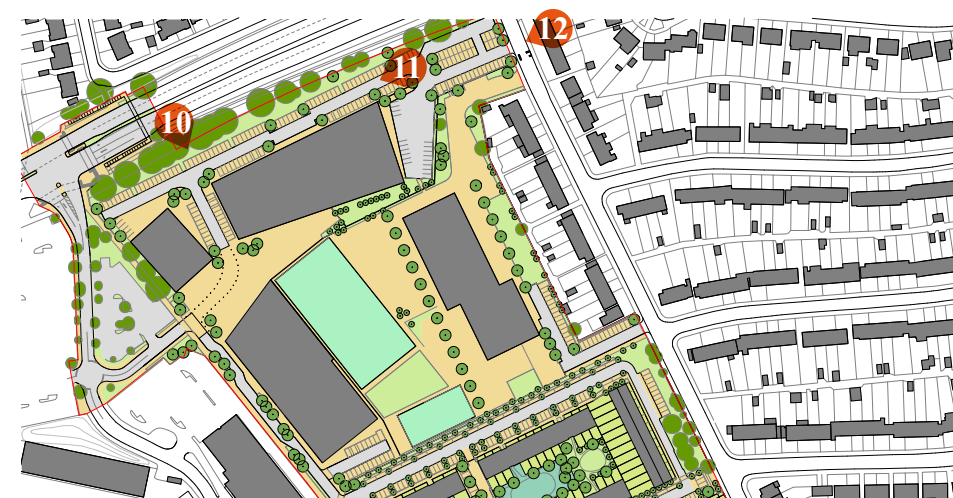


ILLUSTRATION 12 VIEW OF THE SITE FROM THE NORTHERN PART OF EGERTON ROAD

The view from the existing access from northern part of Egerton Road will be improved by an increase in landscaping - including new trees, a reduction in car parking and new boundary treatments. The existing mature trees along the A316 will remain prominent in the view, while views to the school and College buildings will improve wayfinding.

The entrance area to the new Secondary School will be located in this area, and will provide an appropriately sized and designed space to accommodate the arrival of students and visitors. The design of this space will ensure a more attractive aspect to the site when viewed from the street, and will provide a buffer between the existing dwellings to the south and the areas of car parking to the north.

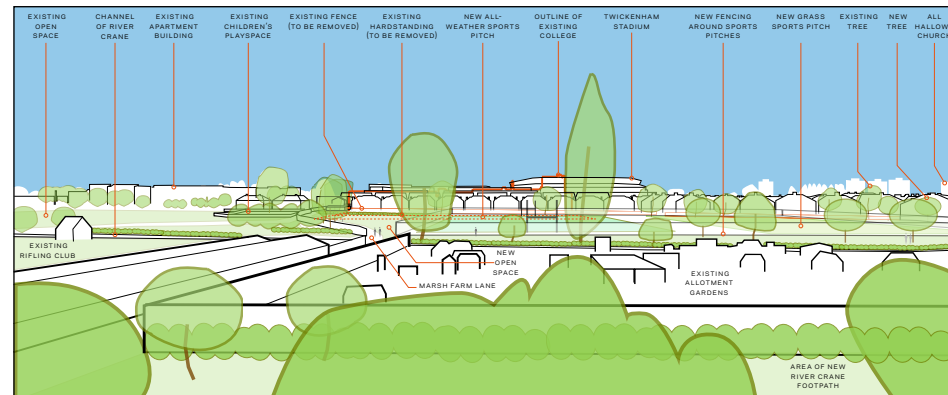


ILLUSTRATION 13 VIEW NORTH ACROSS COLLEGE PLAYING FIELDS SITE

The view north across the MOL and towards the site from the footbridge over the main-line railway south of the River Crane in the illustrative scheme remains significantly in keeping with the existing view.

While some aspects of the view change - Marsh Farm Lane will be upgraded, the existing hardstanding will be removed, fencing will be provided around the sports pitches, and the location of high points on the redeveloped site are moved from the eastern side of the site to the west - the overall view will remain similar: characterised by open space, mature trees, views over open spaces including sports pitches, and a building profile similar in overall height to the existing one.

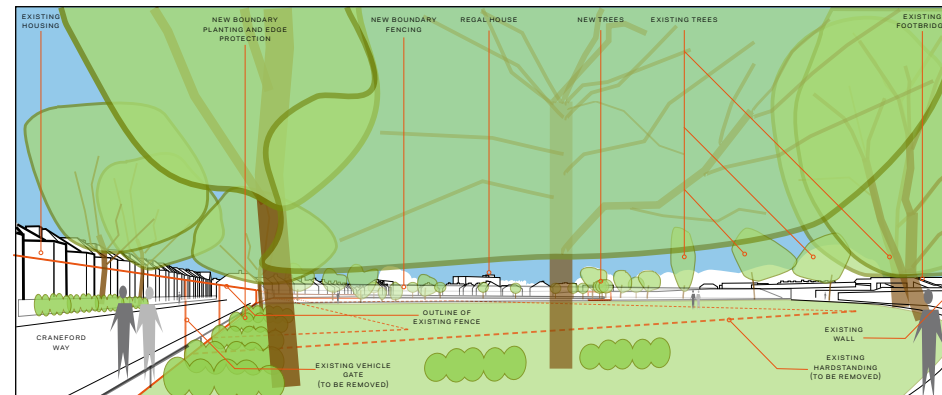


ILLUSTRATION 14 VIEW EAST ACROSS COLLEGE PLAYING FIELDS SITE

The view east across the College Playing Field Site from Marsh Farm Lane near Craneford Way in the illustrative scheme will be improved, particularly by the removal of the existing hardstanding and vehicle access from Craneford Way. This will increase the area of greenspace in the mid-ground of the view, while long views will be protected through the specification of new fencing to the pitches that preserves views across the sports pitches.

While some aspects of the view change - Marsh Farm Lane will be upgraded, the existing hardstanding will be removed, existing boundary fencing replaced with boundary planting and a low barrier, and new fencing will be provided around the sports pitches - the overall view will remain similar: characterised by open space, mature trees, and views over open spaces including sports pitches.

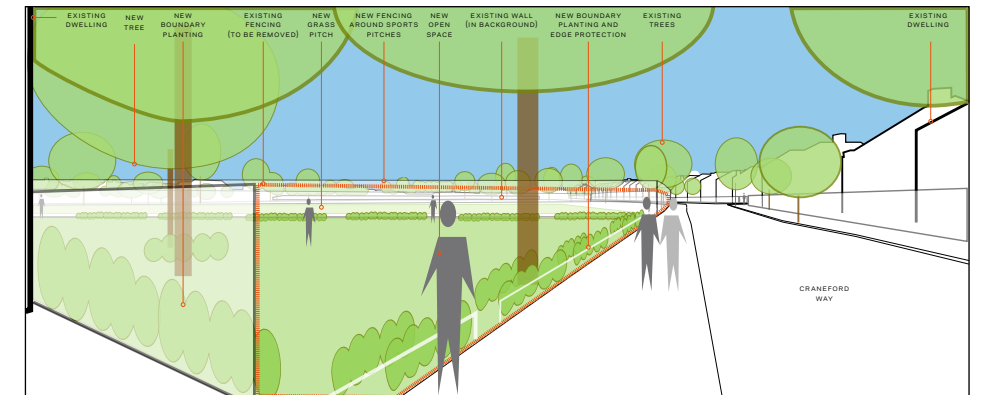


ILLUSTRATION 15 VIEW WEST ACROSS COLLEGE PLAYING FIELDS SITE

The view east across the College Playing Field Site from Craneford Way in the illustrative scheme will be improved, particularly through the replacement of the existing fencing with boundary planting and a low barrier. This will provide access to the open spaces surrounding the playing fields and improve short, middle and long views from the street. Long views will be further protected through the specification of new fencing to the pitches that preserves views across the sports pitches.

While some aspects of the view change, the overall view will remain similar: characterised by open space, mature trees, and views over open spaces including sports pitches.

7.11 SPG COMPLIANCE

In formulating the design proposals we have sought to comply with the policies identified in section 4 of this report.

The illustrative scheme in particular reflects one way to fulfil the outcomes identified as objectives in the Crane Valley Planning Guidelines SPG and the Richmond-upon-Thames College Development Brief SPG. In addition, the illustrative scheme is also designed to meet the requirements of the London Housing Design Guide SPG and other relevant SPGs as identified below.

7.11.1 CRANE VALLEY PLANNING GUIDELINES SPG OBJECTIVES

The development objectives listed in the Crane Valley Planning Guidelines are met by the illustrative scheme:

- To maximise the opportunities for improvements by ensuring that the area is planned in a comprehensive manner;
- To protect and enhance the natural environment of the River Crane, the Duke of Northumberland River and their banks as part of the wider west London Green Chain and Blue Ribbon network as identified in the London Plan;
- To improve the appearance and recreational value of the open space including the provision of a river walk and the associated pedestrian/cycle linkages, taking account river corridor ecology;
- To ensure that new development is compatible in scale and character with the local area, minimising any adverse impacts including flood risk;
- To minimise traffic and other impact on the surrounding area, particularly on the Heatham estate, to reduce severance and to improve pedestrian and cycle linkages within the area and to the surrounding area;
- To seek to secure improved sports facilities and possible improvements but not a significant expansion of student numbers at the College;
- To contribute towards meeting a range of housing needs;
- To ensure the provision of appropriate local community facilities including for education and health and the community use of buildings and playing fields;
- To ensure that developers take account of the Council's Planning Contributions Strategy.

Additionally, the illustrative scheme has been designed in accordance with the following urban design principles included in the SPG:

- Create connections;
- Define a Movement Network;
- Create Walkable Neighbourhoods;
- Define views, vistas and landmarks;
- Create Gateways;
- Maximise the opportunities of the rivers and riverside location;
- Create public spaces and improve the public realm;
- Buildings defining streets and spaces;
- Create a fine urban grain;
- A safe environment/ Minimising impact on the environment;
- Designing an accessible environment usable by the whole community;
- Protecting local amenities such as privacy, sunlight and daylight.

The illustrative scheme does not contradict any of the development objectives or design principles set out in the Crane Valley Planning Guidelines.

7.11.2 RICHMOND UPON-THAMES COLLEGE PLANNING BRIEF SPG

The illustrative scheme has been designed to met the following key objectives as set out in the RuTC Planning Brief SPG:

- Delivers a high quality college campus, offering improved learning and sporting facilities;
- Is achieved in a comprehensive manner, making best use of the site, with development at an appropriate density;
- Responds to the area's existing urban grain, building heights and landscape character and is of the highest architectural quality;
- Ensures appropriate pedestrian, cycle and vehicular access points, which reflect existing links and reduce traffic impacts in neighbouring residential streets;
- Promotes sustainable forms of transport and reduces car parking, through the implementation of a Green Travel Plan;
- Maximises the sustainability of all new buildings, in accordance with relevant national, regional and local sustainability targets;
- Delivers benefits for the wider area, including improving linkages between the main development sites in the Crane Valley and environmental improvements;
- Continues to play an important role in the community and maximises the opportunity for community use of facilities;
- Delivers an appropriate level of enabling residential development, including affordable housing, if required to contribute to the funding for the redevelopment.

In addition, the illustrative scheme has been designed to achieve the opportunities of redeveloping the College site, as identified in the SPG:

- Improve facilities for education, including sports facilities, and create a coherent and high quality College campus;
- Ensure that the College continues to play an important role in the community, by providing opportunities for community use of facilities and sports pitches;
- Increase the sustainability of the College buildings and operations;
- Potential to contribute towards the provision of market and affordable housing in the Borough of high quality sustainable architecture and urban design;
- Ensure that the development fits within the existing townscape and visual character of the surrounding area, in terms of building heights and density, especially on the western boundary to include 'gateway' buildings or markers, development sites in the area and areas of public open space;
- Create and enhance views into and from the site being visually permeable with a range of building footprints;
- Improve the frontage along the A316, whilst retaining the line of protected trees;
- Create gateways to mark the transition to the site, at the main vehicular and pedestrian access points;
- Improve accesses to the site from the A316 via Langhorn Drive, as the main access point for vehicular traffic;
- Improve cycle linkages into the site to help encourage bike use;

- Minimise traffic impacts along residential streets to the east of the College;
- Reduce car parking requirements for the College and need to provide car parking off site at Harlequins;
- Improve the existing Public Right of Way running along the western edge of the site;
- Maintain access for possible future provision of a new Public Right of Way along the River Crane; and
- Create natural surveillance and improve security, through design of buildings and greater use of open space and Public Rights of Way.

The illustrative scheme has been designed to comply with the guidance in the SPG on land uses, with the exception that the SPG does not address the provision of the Tech Hub or other educational uses (ie the secondary and SEN schools). Nevertheless, as these uses are explicitly recognised in the more recent Site Allocations Plan, the inclusion of these uses in the proposals is not believed to contradict the SPG.

The specific guidance on the heights and massing in the planning brief has been followed in the illustrative scheme, in particular with regards to building heights, gateway buildings, and massing that reflects the existing context.

It is acknowledged that the illustrative scheme varies from the planning brief with regards to access & movement

- specifically with regards to section 6.15 of the SPG. The illustrative scheme differs from the guidance in two ways:

- The primary pedestrian access to the College is from the western side of the site in order to minimise the amount of pedestrian traffic through the Heatham Estate, minimise mixing of Secondary School and College students, and maximise benefits of new pedestrian access routes to the College that will be realised by the proposals (principally via the upgraded Marsh Farm Lane and the approved River Crane footpath).
- The residential site is not provided with vehicular access off Egerton Road, in response to concerns raised by local residents during pre-application consultations, as described in section 5 of this Design & Access Statement. This change should further reduce the impact of traffic on the Heatham Estate - identified as an objective in the access & movement guidance section of the SPG (section 6.16).

7.11.3 LONDON HOUSING DESIGN GUIDE

While the reserved matters application(s) for the residential site will need to evidence compliance with relevant housing standards, the illustrative scheme is understood to comply with the London Housing SPG as highlighted in the following tables using a traffic light system based on the London Housing Design Guide.¹

1.0	Shaping Good Places	Compliance
1.1	Defining Places	
1.1.1	Development proposals should demonstrate: - how the design responds to its physical context, including the character and legibility of the area and the local pattern of building, public space, landscape and topography; - how the scheme relates to the identified character of the place and to the local vision and strategy or how bolder change is justified in relation to a coherent set of ideas for the place expressed in the local vision and strategy or agreed locally.	Refer to Section 6.2 & Design Code
1.1.2	Development proposals should demonstrate: - how the scheme complements the local network of public spaces, including how it integrates with existing streets and paths; - how public spaces and pedestrian routes are designed to be overlooked and safe, and extensive blank elevations onto the public realm at ground floor have been avoided; - for larger developments, how any new public spaces including streets and paths are designed on the basis of an understanding of the planned role and character of these spaces within the local movement network, and how new spaces relate to the local vision and strategy for the area.	Refer to Section 6.2 & Design Code
1.2	Outdoor Spaces	
1.2.1	Development proposals should demonstrate that they comply with the borough's open space strategies, ensuring that a review of surrounding open space is undertaken and that opportunities to address a deficiency in provision by providing new public open spaces are taken forward in the design process.	Refer to ES
1.2.2	For developments with a potential occupancy of ten children or more, development proposals should make appropriate play provision in accordance with the London Plan SPG, Providing for Children and Young People's Play and Informal Recreation.	Refer to ES
1.2.3	Where communal open space is provided, development proposals should demonstrate that the space: - is overlooked by surrounding development; - is accessible to wheelchair users and other disabled people; - is designed to take advantage of direct sunlight; - has suitable management arrangements in place.	Refer to Section 7.9 & Design Code; management proposals required as part of reserved matters applications

2.0	Housing for a Diverse City	Compliance
2.1	Appropriate Density	
2.1.1	Development proposals should demonstrate how the density of residential accommodation satisfies London Plan policy relating to public transport accessibility level (PTAL) and the accessibility of local amenities and services, and is appropriate to the location in London.	Refer to ES
2.2	Residential Mix	
2.2.1	Development proposals should demonstrate how the mix of dwelling sizes and the mix of tenures meet strategic and local borough targets and are appropriate to the location in London.	Refer to ES

3.0	From Street to Front Door	Compliance
3.1	Entrance and Approach	
3.1.1	All main entrances to houses, ground floor flats and communal entrance lobbies should be visible from the public realm and clearly identified.	Refer to Section 7.9 & Design Code
3.1.2	The distance from the accessible car parking space of requirement 3.3.4 to the home or to the relevant block entrance or lift core should be kept to a minimum and should be level or gently sloping [Lifetime Homes Criterion 2].	Refer to Section 6.2.29 & Design Code
3.1.3	The approach to all entrances should preferably be level or gently sloping [Lifetime Homes Criterion 3].	Refer to Section 6.2.29 & Design Code
3.1.4	All entrances should be illuminated and have level access over the threshold. Entrance doors should have 300mm of clear space to the pull side, and clear minimum opening widths of 800mm or 825mm depending on the direction and width of approach. Main entrances should have weather protection and a level external landing [Lifetime Homes Criterion 4].	Refer to Section 6.2.29 & Design Code

3.0	From Street to Front Door (continued)	Compliance
3.2	Shared Circulation Within Buildings	
3.2.1	<i>The number of dwellings accessed from a single core should not exceed eight per floor.</i>	Refer to Section 7.9 & Design Code
3.2.2	An access core serving 4 or more dwellings should provide an access control system with entry phones in all dwellings linked to a main front door with electronic lock release. Unless a 24 hour concierge is provided, additional security measures including audio-visual verification to the access control system should be provided where any of the following apply: - more than 25 dwellings are served by one core - the potential occupancy of the dwellings served by one core exceeds 100 bed spaces - more than 8 dwellings are provided per floor.	Refer to Section 7.9 & Design Code
3.2.3	Where dwellings are accessed via an internal corridor, the corridor should receive natural light and adequate ventilation.	Refer to Section 7.9 & Design Code
3.2.4	The minimum width for all paths, corridors and decks for communal circulation is 1200mm. The preferred minimum width is 1500mm, and is considered particularly important where corridors are double loaded (they serve dwellings on each side) and where wheelchair accessible dwellings are provided.	Refer to Section 7.9 & Design Code
3.2.5	<i>For buildings with dwellings entered from communal circulation at the first, second or third floor where lifts are not provided, space should be identified within or adjacent to the circulation cores for the future installation of a wheelchair accessible lift.</i>	Refer to Section 7.9 & Design Code
3.2.6	All dwellings entered at the fourth floor (fifth storey) and above should be served by at least one wheelchair accessible lift, and it is desirable that dwellings entered at the third floor (fourth storey) are served by at least one such lift. All dwellings entered at the seventh floor (eighth storey) and above should be served by at least two lifts.	Refer to Section 7.9 & Design Code
3.2.7	Every designated wheelchair accessible dwelling above the ground floor should be served by at least one wheelchair accessible lift. It is desirable that every wheelchair accessible dwelling is served by at least two such lifts.	Refer to Section 7.9 & Design Code
3.2.8	Principal access stairs should provide easy access* regardless of whether a lift is provided. Where homes are reached by a lift, it should be fully wheelchair accessible [Lifetime Homes Criterion 5].	Refer to Section 6.2.29 & Design Code

¹ The "Minor Alterations to The London Plan Consultation Draft (May 2015)" proposes changes that would affect the language and some details of the tables used in this section, and if adopted it is understood that reserved matters applications will be expected to comply with the revised guidance. While this evolving policy is recognised, as most readers are likely to be familiar with the existing terminology, in order to avoid confusion this table has not been revised to reflect the proposed changes, though the most notable changes have been highlighted where practical.

3.0	From Street to Front Door (continued)	Compliance
3.3	Car Parking	
3.3.1	All developments should conform to London Plan policy on car parking provision. In areas of good public transport accessibility and/or town centres the aim should be to provide less than one space per dwelling. Elsewhere parking provision should be as follows: 4+ bedroom dwellings: 1.5 - 2 spaces per dwelling; 3 bedroom dwellings: 1 - 1.5 spaces per dwelling; 1 - 2 bedroom dwellings: less than 1 per dwelling.	Refer to Development Specification
3.3.2	Each designated wheelchair accessible dwelling should have a car parking space 2400mm wide with a clear access way to one side of 1200mm. Refer to [London Housing Design Guide] appendix 3 for design standards for wheelchair accessible housing.	Refer to Section 6.2.29 & Design Code
3.3.3	Careful consideration should be given to the siting and organisation of car parking within an overall design for open space so that car parking does not negatively affect the use and appearance of open spaces.	Refer to Section 7.9 & Design Code
3.3.4	Where car parking is within the dwelling plot, at least one car parking space should be capable of enlargement to a width of 3300mm. Where parking is provided in communal bays, at least one space with a width of 3300mm should be provided per block entrance or access core in addition to spaces designated for wheelchair user dwellings [Lifetime Homes Criterion 1].	No car parking in dwelling plots provided
3.4	Cycle Storage	
3.4.1	All developments should provide dedicated storage space for cycles at the following levels: 1 per 1 or 2 bedroom dwelling; or 2 per 3 or more bedroom dwelling	Refer to Section 7.9 & Design Code
3.4.2	Individual or communal cycle storage outside the home should be secure, sheltered and adequately lit, with convenient access to the street. Where cycle storage is provided within the home, it should be in addition to the minimum GIA and minimum storage and circulation space requirements. Cycle storage identified in habitable rooms or on balconies will not be considered acceptable.	Refer to Design Code

3.0	From Street to Front Door (continued)	Compliance																																						
3.5	Refuse, Post and Deliveries																																							
3.5.1	Communal refuse and recycling containers, communal bin enclosures and refuse stores should be accessible to all residents including children and wheelchair users, and located on a hard, level surface. The location should satisfy local requirements for waste collection and should achieve full credits under the Code for Sustainable Homes Technical Guide. Refuse stores within buildings should be located to limit the nuisance caused by noise and smells and provided with means for cleaning.	Refer to Design Code																																						
3.5.2	Storage facilities for waste and recycling containers should be provided in accordance with the Code for Sustainable Homes Technical Guide and local authority requirements.	Refer to Design Code																																						
4.0	Dwelling Space Standards	Compliance																																						
4.1	Internal Floor Area																																							
4.1.1	All developments should meet the following minimum space standards. <table><tr><td></td><td>Dwelling type (bedroom/persons)</td><td>Essential GIA (sq.m)</td></tr><tr><td rowspan="8">Single storey dwelling</td><td>1b2p</td><td>50</td></tr><tr><td>2b3p</td><td>61</td></tr><tr><td>2b4p</td><td>70</td></tr><tr><td>3b4p</td><td>74</td></tr><tr><td>3b5p</td><td>86</td></tr><tr><td>3b6p</td><td>95</td></tr><tr><td>4b5p</td><td>90</td></tr><tr><td>4b6p</td><td>99</td></tr><tr><td rowspan="5">Two storey dwelling</td><td>2b4p</td><td>83</td></tr><tr><td>3b4p</td><td>87</td></tr><tr><td>3b5p</td><td>96</td></tr><tr><td>4b5p</td><td>100</td></tr><tr><td>4b6p</td><td>107</td></tr><tr><td rowspan="3">Three storey dwelling</td><td>3b5p</td><td>102</td></tr><tr><td>4b5p</td><td>106</td></tr><tr><td>4b6p</td><td>113</td></tr></table> For dwellings designed for more than 6 people, at least 10 sq m gross internal area should be added for each additional person.		Dwelling type (bedroom/persons)	Essential GIA (sq.m)	Single storey dwelling	1b2p	50	2b3p	61	2b4p	70	3b4p	74	3b5p	86	3b6p	95	4b5p	90	4b6p	99	Two storey dwelling	2b4p	83	3b4p	87	3b5p	96	4b5p	100	4b6p	107	Three storey dwelling	3b5p	102	4b5p	106	4b6p	113	Refer to Section 7.9 & Design Code; Note proposed amendments in draft London Plan Revisions.
	Dwelling type (bedroom/persons)	Essential GIA (sq.m)																																						
Single storey dwelling	1b2p	50																																						
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Three storey dwelling	3b5p	102																																						
	4b5p	106																																						
	4b6p	113																																						
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. Refer to [London Housing Design Guide] appendix 3 for design standards for wheelchair accessible housing.	Refer to Section 6.2.29 & Design Code																																						

4.0	Dwelling Space Standards (continued)	Compliance												
4.2	Flexibility and Adaptability													
4.2.1	Dwelling plans should demonstrate that dwelling types provide flexibility by allowing for alternative seating arrangements in living rooms and by accommodating double or twin beds in at least one double bedroom.	Refer to Section 7.9 & Design Code												
4.3	Circulation in the Home													
4.3.1	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><tr><th>Minimum clear opening width of doorway (mm)</th><th>Minimum approach width (when approach is not head on) (mm)</th></tr><tr><td>750</td><td>1200</td></tr><tr><td>775</td><td>1050</td></tr><tr><td>900</td><td>900</td></tr></table> Where a hallway is at least 900mm wide and the approach to the door is head-on, a minimum clear opening door width of 750mm should be provided [Lifetime Homes Criterion 6].	Minimum clear opening width of doorway (mm)	Minimum approach width (when approach is not head on) (mm)	750	1200	775	1050	900	900	Refer to Section 7.9 & Design Code				
Minimum clear opening width of doorway (mm)	Minimum approach width (when approach is not head on) (mm)													
750	1200													
775	1050													
900	900													
4.3.2	The design of dwellings of more than one storey should incorporate potential for a stair lift to be installed and a suitable identified space for a through-the-floor lift from the entrance level* to a storey containing a main bedroom and an accessible bathroom [Lifetime Homes Criterion 12].	Refer to Section 6.2.29 & Design Code												
4.4	Living, Dining and Kitchen Areas													
4.4.1	The following combined floor areas for living / kitchen / dining space should be met: <table><tr><th>Designed level of occupancy</th><th>Minimum combined floor area of living, dining and kitchen spaces (sq m)</th></tr><tr><td>2 person</td><td>23</td></tr><tr><td>3 person</td><td>25</td></tr><tr><td>4 person</td><td>27</td></tr><tr><td>5 person</td><td>29</td></tr><tr><td>6 person</td><td>31</td></tr></table>	Designed level of occupancy	Minimum combined floor area of living, dining and kitchen spaces (sq m)	2 person	23	3 person	25	4 person	27	5 person	29	6 person	31	Refer to Section 7.9 & Design Code
Designed level of occupancy	Minimum combined floor area of living, dining and kitchen spaces (sq m)													
2 person	23													
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5 person	29													
6 person	31													
4.4.2	The minimum width of the main sitting area should be 2.8m in 2-3 person dwellings and 3.2m in dwellings designed for four or more people.	Refer to Section 7.9 & Design Code												

4.0	Dwelling Space Standards (continued)	Compliance
4.4	Living, Dining and Kitchen Areas (continued)	
4.4.3	<i>Dwellings with three or more bedrooms should have two living spaces, for example a living room and a kitchen-dining room. Both rooms should have external windows. If a kitchen is adjacent to the living room, the internal partition between the rooms should not be loadbearing, to allow for reconfiguration as an open plan arrangement. Studies will not be considered as second living spaces.</i>	Refer to Section 7.9 & Design Code
4.4.4	There should be space for turning a wheelchair in dining areas and living rooms and basic circulation space for wheelchairs elsewhere [Lifetime Homes Criterion 7].	Refer to Section 6.2.29 & Design Code
4.4.5	A living room, living space or kitchen-dining room should be at entrance level [Lifetime Homes Standard 8].	Refer to Section 6.2.29 & Design Code
4.4.6	Windows in the principal living space should start 800mm above finished floor level (+/- 50mm) to allow people to see out while seated. At least one opening window should be easy to approach and operate by people with restricted movement and reach. [Lifetime Homes Criterion 15].	Refer to Section 6.2.29 & Design Code
4.5	Bedrooms	
4.5.1	<i>The minimum area of a single bedroom should be 8 sq m. The minimum area of a double or twin bedroom should be 12 sq m.</i>	Refer to Section 7.9 & Design Code
4.5.2	<i>The minimum width of double and twin bedrooms should be 2.75m in most of the length of the room.</i>	Refer to Design Code
4.5.3	In homes of two or more storeys with no permanent bedroom at entrance level*, there should be space on the entrance level that could be used as a convenient temporary bed space [Lifetime Homes Criterion 9].	Refer to Section 6.2.29 & Design Code
4.5.4	Structure above a main bedroom and an accessible bathroom should be capable of supporting a ceiling hoist and the design should allow for a reasonable route between this bedroom and bathroom [Lifetime Homes Criterion 13].	Refer to Section 6.2.29 & Design Code
4.6	Bathrooms and WCs	
4.6.1	<i>Dwellings designed for an occupancy of five or more people should provide a minimum of one bathroom with WC and one additional WC.</i>	Refer to Design Code
4.6.2	Where there is no accessible bathroom at entrance level*, a wheelchair accessible WC with potential for a shower to be installed should be provided at entrance level ^o [Lifetime Homes Criterion 10].	Refer to Section 6.2.29 & Design Code
4.6.3	An accessible bathroom should be provided in every dwelling on the same storey as a main bedroom [Lifetime Homes Criterion 14].	Refer to Section 6.2.29 & Design Code
4.6.4	Walls in bathrooms and WCs should be capable of taking adaptations such as handrails** [Lifetime Homes Criterion 11].	Refer to Section 6.2.29 & Design Code

4.0	Dwelling Space Standards (continued)	Compliance
4.7	Storage and Utility	
4.7.1	Built-in general internal storage space free of hot water cylinders and other obstructions, with a minimum internal height of 2m and a minimum area of 1.5 sq m should be provided for 2 person dwellings, in addition to storage provided by furniture in habitable rooms. For each additional occupant an additional 0.5 sq m of storage space is required.	Refer to Section 7.9 & Design Code
4.8	Study and Work	
4.8.1	Dwelling plans should demonstrate that all homes are provided with adequate space and services to be able to work from home. The Code for Sustainable Homes guidance on working from home is recommended as a reference.	Refer to Design Code
4.8.2	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 [Lifetime Homes Criterion 16].	Refer to Section 6.2.29 & Design Code
4.9	Wheelchair User Dwellings	
4.9.1	Ten percent of new housing should be designed to be wheelchair accessible or easily adaptable for residents who are wheelchair users in accordance with the GLA Best Practice Guide, Wheelchair Accessible Housing. Refer to [London Housing Design Guide] appendix 3 for design standards for wheelchair accessible housing.	Refer to Section 6.2.29 & Design Code
4.10	Private Open Space	
4.10.1	A minimum of 5 sq m of private outdoor space should be provided for 1-2 person dwellings and an extra 1 sq m should be provided for each additional occupant.	Ground Floor Dwellings provided with larger external spaces in accordance with the LBRuT Development Management Plan.
4.10.2	Private outdoor spaces should have level access from the home * [Lifetime Homes Criterion 4].	Refer to Section 6.2.29 & Design Code
4.10.3	The minimum depth and width of all balconies and other private external spaces is 1500mm.	Refer to Design Code

5.0	Home as a Place of Retreat	Compliance
5.1	Privacy	
5.1.1	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.	Refer to Section 7.9 & Design Code
5.2	Dual Aspect	
5.2.1	Developments should avoid single aspect dwellings that are north facing, exposed to noise exposure categories C or D, or contain three or more bedrooms.	Refer to Section 7.9 & Design Code
5.2.2	Where single aspect dwellings are proposed, the designer should demonstrate how good levels of ventilation, daylight and privacy will be provided to each habitable room and the kitchen.	Refer to Section 7.9 & Design Code
5.3	Noise	
5.3.1	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.	Refer to Section 7.9 & Design Code
5.4	Floor to Ceiling Heights	
5.4.1	The minimum floor to ceiling height in habitable rooms is 2.5m between finished floor level and finished ceiling level. A minimum floor to ceiling height of 2.6m in habitable rooms is considered desirable and taller ceiling heights are encouraged in ground floor dwellings.	Refer to Section 7.9 & Design Code
5.5	Daylight and Sunlight	
5.5.1	<i>Glazing to all habitable rooms should be not less than 20% of the internal floor area of the room.</i>	Refer to Design Code
5.5.2	<i>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.</i>	Refer to Section 7.9 & Design Code
6.0	Climate Change Mitigation and Adaptation	Compliance
6.1	Environmental Performance	
6.1.1	<i>Designers should seek to achieve a minimum of Level 4 of the Code for Sustainable Homes in all new developments.</i>	Refer to Design Code;
6.1.2	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.	Refer to Design Code; Note proposed amendments in draft London Plan Revisions.

6.0	Climate Change Mitigation and Adaptation (continued)		Compliance
6.2	Energy and CO2		
6.2.1	Development proposals should be designed in accordance with the London Plan energy hierarchy, and should meet the following minimum targets for carbon dioxide emissions reduction.		Refer to Design Code; Note proposed amendments in draft London Plan Revisions.
	Year	Improvement on 2006 Building Regulations	
	2010 - 2013	44 per cent	
	2013 - 2016	55 per cent	
	2016 - 2031	Zero carbon	
6.3	Overheating		
6.3.1	Development proposals should demonstrate how the design of dwellings will avoid overheating during summer months without reliance on energy intensive mechanical cooling systems.		Refer to Design Code
6.4	Water		
6.4.1	New dwellings should be designed to ensure that a maximum of 105 litres of water is consumed per person per day.		Refer to Design Code
6.4.2	Where development is permitted in an area at risk of flooding, it should incorporate flood resilient design in accordance with PPS25.		Refer to Design Code. Note NPPF Framework Changes.
6.4.3	New development should adhere to standards for surface water run-off as set out in the Code for Sustainable Homes.		Refer to Design Code.
6.4.4	New development should incorporate Sustainable Urban Drainage Systems and green roofs where appropriate.		Refer to Design Code
6.5	Materials		
6.5.1	All new residential development should meet the requirements of the Code Level 4 with regard to using materials with lower environmental impacts over their lifecycle.		Refer to Design Code
6.5.2	All new residential development should accord with Code for Sustainable Homes Level 4 and the London Sustainable Design and Construction SPG with regard to the sourcing of materials.		Refer to Design Code
6.6	Ecology		
6.6.1	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.		Refer to Section 7.5 & Design Code

NOTES ON LONDON HOUSING DESIGN GUIDE TABLES

Oblique (or *italicized*) text is used to distinguish priority 2 objectives (which are strongly recommended) from priority 1 objectives (which are requirements).

Details on layout and compliance to be provided as part of reserved matters applications.

* In the Lifetime Homes Criteria a stair providing easy access is defined as one having maximum risers of 170mm, minimum goings of 250mm and a minimum width of 900mm measured 450mm above the pitch line.

* In the Lifetime Homes Criteria 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.

* Balconies and terraces over habitable rooms which require a step up to increase slab thickness / insulation are exempt from the Lifetime Homes level access standard.

° 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.

References to minimum area requirements should refer to the nationally described space standard as adopted into the Minor Alterations to The London Plan and LBRuT planning guidance.

References to Lifetime Homes, after October 2015, will refer to Building Regulations Requirement M4(2) .

References to Wheelchair Housing, after October 2015, will refer to Building Regulations Requirement M4(3), or other successor documents.

References to the Code for Sustainable Homes refer to requirements incorporated into Approved Document Part L, or other successor documents.

References to PPS25 refer to the National Planning Policy Framework or other successor documents.

7.11.4 LOCAL PLAN & SPGS

The LBRuT Core Strategy places additional requirements that are incorporated into the illustrative scheme as follows:

- CP14 - Minimum of 25% 1-bedroom flats - 25% of flats in illustrative scheme are 1 bedroom.
- CP-15 - Affordable housing - the illustrative scheme can provide a mix of housing tenures within the range sought by the Core Strategy and other relevant guidance (London Plan, DMP, etc). (The ultimate mix will be determined in accordance with London Plan policy 3.12 “Negotiating Affordable Housing”.)

The LBRuT DMP places additional requirements that are incorporated into the illustrative scheme as follows:

- DM DC1 Design Quality sets requirements of the design and layout of housing.
- DM HO4 Housing Mix and Standards states that family sized accommodation should normally be provided, except in town centres. 75% of flats in the illustrative scheme are 2-bedrooms or larger.
- DM HO4 - sets additional requirements for internal and internal amenity spaces, including an additional requirement for the size of ground level residential gardens, 70m² for 3+ bedrooms, 40m² for 2 bedrooms.

The Residential Design Standards SPG places additional requirements in the design and layout of the residential site that are met in the illustrative scheme.

The Small and Medium Housing Sites SPD sets preferred minimum setbacks between dwellings that the illustrative scheme complies with.

