



Waltham Forest Council

High Density Housing Qualitative Study

Presentation of Findings

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HIGH DENSITY HOUSING
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PRESENTATION OF FINDINGS

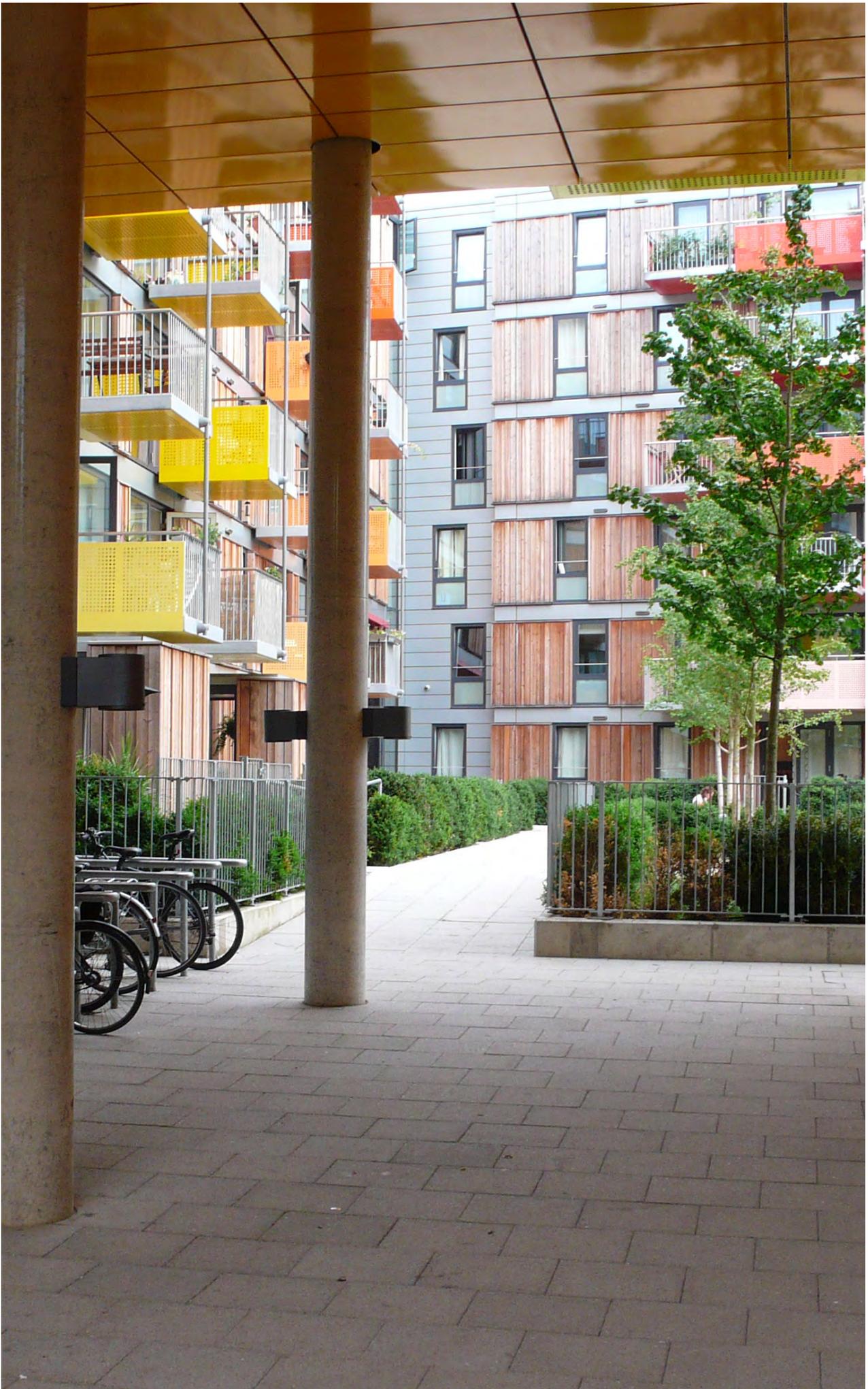
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Adelaide Wharf, Shoreditch



Background

Introduction

- 1.1 Waltham Forest Council commissioned Urban Initiatives to undertake a high density housing qualitative study in May 2009. The study is an in-depth investigation into the key issues Waltham Forest residents have about high density housing and the ingredients of a successful high density housing development.
- 1.2 The need for the study arose from Members' concern about the issues being raised in the council's Local Development Framework consultation. The consultation, carried out between June and September 2008, identified issues around high density housing, including some reluctance to see tall buildings and the need for high quality design, materials and construction.
- 1.3 Nevertheless, limited opportunities for housing development in the borough, combined with challenging housing supply targets from the Mayor of London, means that some level of higher density development in the borough may be necessary. Therefore, this research was commissioned to unpack some of the residents' concerns about high density, including the false assertion that high density means high rise, and to understand their observations of exemplar high density housing developments.
- 1.4 This report will be used to inform council decisions about high density developments, guide the design principles for high density housing and help in communicating the issues in the most effective manner.



The Pepys Community Forum which was used for interviews

Study Objectives

- 1.5 The specific information objectives of the study are to:
 - Identify the factors behind residents' decisions to live in high density housing
 - Identify the negative and positive physical features and aspects of high density housing to identify the ingredients of a successful high density development
 - Identify the negative and positive experiences and issues with living in high density housing
 - Identify specific issues with regards to families with children living in high density developments

Research Format

- 1.6 The research is based around four exemplar high density housing developments located around London, which have been used to test participants' perceptions of high density living.
- 1.7 Sixteen families were chosen to take part in the study, one family from each exemplar development and 12 Waltham Forest families. At each of the exemplar developments, one family currently living in the development was interviewed, followed by three interviews with visiting Waltham Forest families.
- 1.8 The research was focused on families with infant, primary and secondary school children and young professional couples. A ethnic mix, broadly representative of the borough was also sought.
- 1.9 A diverse range of research methods was employed, including a recorded structured interview, lasting approximately an hour; a walkabout and photo survey; a mini-placecheck task; an interactive density exercise and drawing activities for the children.

Selection of Exemplar Developments

- 1.10 Exemplar developments were chosen to demonstrate a range of densities, housing typologies, settings and tenures, so that the impact of these variables could be investigated in the research.
- 1.11 Schemes were sought with densities between 70 dwellings per hectare (dph), which is generally held as the lower threshold of high density, and 350 dph, which is the upper limit of density likely to be provided in the borough, based on London Plan policies.



Exemplar Developments

- 1.12 The exemplar developments chosen for this study were New River Village, Adelaide Wharf, Pepys Estate and Angell Town. The table below summarises their main characteristics.
- 1.13 The exemplars chosen range in density - from borderline high density to examples of 'superdensity' (classed as over 150 dph) and above.
- 1.14 As very few developments in London are wholly private (market) housing, we chose New River Village as having a large proportion of private housing (three-quarters). Adelaide Wharf has 50 percent private housing; 50 percent affordable housing. Pepys Estate has a mix of affordable tenures: affordable intermediate and affordable social rented. Angell Town is a wholly affordable social rented housing development.
- 1.15 Adelaide Wharf was chosen as an exemplar development because of the way the development handles the integration of tenures within the scheme and the way it has embraced sustainable development, resulting in the scheme being awarded a Ecohomes Excellent-rating.
- 1.16 New River Village was chosen as an exemplar development because of its bold and widely praised architectural form; its extensive and attractive communal open space and its good on-site facilities for residents.
- 1.17 The Pepys Estate was chosen as an exemplar development because it used new residential development to transform a run-down housing estate with crime and anti-social behaviour problems; because it combines flatted and housing typologies and because it is family-oriented.
- 1.18 Angell Town was chosen as an exemplar development for similar reasons to the Pepys Estate in that it is a regenerated housing estate; because it combines flatted and housing typologies and because it is family-oriented. The scheme is also celebrated as an "outstanding example of community led design and of architects working with residents to produce livable and well-liked built forms" (Building for Life).

Development	Location	Completed	Density (dwellings per ha)	Site area (ha)	No. of units
Adelaide Wharf	Shoreditch, London Borough of Hackney	Oct 2007	342	0.43	147
New River Village	Hornsey, London Borough of Haringey	Dec 2007	178	3.5	622
Pepys Estate	Deptford, London Borough of Lewisham	Oct 2007	142	1.19	169
Angell Town	Brixton, London Borough of Lambeth	Nov 2006	68	9.3	632



Adelaide Wharf viewed across the Regents Canal



Communal open space at the centre of Adelaide Wharf



The entrance to New River Village and the main reception area



Open space and landscaping in New River Village



A short terrace of townhouses in Pepys Estate



The rear of one of the apartment blocks in Pepys Estate



Modern terraced houses at Angell Town



Rear of refurbished 1970s housing block in Angell Town

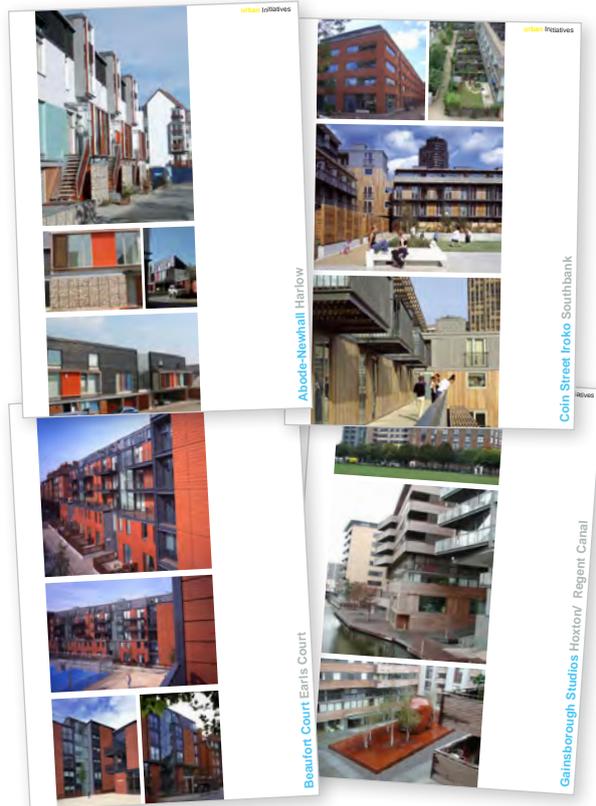
Summary of Findings

Housing Choice Factors

- 1.19 Participants' attitudes and perceptions when choosing a home are complex – housing choice is affected by many factors including past housing experiences. Location and affordability are also important factors in housing choice, however, it is the provision of sufficient space in the property, particularly room size and storage space and the provision of private open space, particularly a garden that were the two most important factors to our site visit participants.
- 1.20 Density itself, along with property typology, were not identified as significant choice factors when choosing a home. It is the characteristics of the individual home and the neighbourhood which factor most heavily. This may be because the site visit participants (from Waltham Forest) are already living in and would be looking for a house rather than a flatted typology: seven of the 12 participants already live in a terraced house, and all the site visit participants said they wanted their next property to be a house (detached, semi-detached or terraced).
- 1.21 Due to these type of strongly-held views, high density housing needs to be exceptional, and aspirational, in order to convince people, such as those we interviewed, that it is an acceptable housing choice. Furthermore, if high density apartment living is to be adopted by families, the two key choice factors identified by the study: sufficient internal space and the provision of private outdoor space, will need to be successfully addressed in larger units.

Perceptions of Density

- 1.22 Participants were not necessarily opposed to high buildings. In fact, most participants perceived 'medium density' to be between 3.7 and 5.2 storeys. This storey height can accommodate high and very high density developments. For example, a development of mews houses, maisonettes and low rise apartments can produce densities of up to 120 dwellings per hectare and developments of five stories can produce densities of up to 250 dph.
- 1.23 Design plays an important role in how density is perceived and good urban, architectural and landscape design can soften the impact of superdense schemes. It was revealing that participants underestimated the density of Adelaide Wharf (at 342 dph), considering it to be lower density than a 200 dph scheme. Adelaide Wharf, the highest density scheme visited, was also the scheme which drew the most praise from participants.



Density flashcards

Participants' Attitudes to Density

- 1.24 For the people we interviewed, high density is associated with risk. This risk is focused on not having control over your immediate and surrounding environment. The perceived lack of control ranged from concern over potential noise from multiple neighbours to how the overall buildings were being maintained and the future cost implications if this was done unsatisfactorily.
- 1.25 Therefore, if people are to be attracted to live in high density housing, addressing their concerns becomes crucial. Identified below are the most important priorities for high density housing as perceived by the on-site and site visit participants in this study.
- 1.26 Participants considered the exemplar developments in the context of their own homes, most of which were houses. It was clear that with houses in general, quality of life is 'built in', in that there is sufficient space, flexibility and adaptability and open space to enable a successful living environment in most forms of the typology. When considering high density housing, focused consideration needs to be given to internal space, private and communal open space, urban and architectural design, safety and security, noise insulation and management and maintenance arrangements to ensure sustainable homes are created.



Key Ingredients of High Density Housing

1.27 Key ingredients of successful high density housing:

- High density housing must be built in appropriate locations. This means being well located to transport and local shops and services. Participants were looking for a 'trade off' in terms of an improved commute or walkability to local amenities to accept higher densities.
- Good quality design is crucial for successful high density housing: this encompasses fitness for purpose, thoughtful and functional design, durability and character. Striking architecture makes a positive impact, but participants saw beyond the design and colours and questioned the durability of the materials and functionality of the design.
- Homes must be spacious enough for daily activities and storage space. Rooms have to be big enough to accommodate a standard set of furniture. This includes lounge seating and a dining table to seat the occupants plus visitors in living space and chests of drawers as well as a wardrobe in bedrooms. Furniture should be capable of being rearranged in rooms.
- An additional living space, rather than a fully open plan format, should be provided for larger (three bedroom plus) units which are expected to accommodate older children.
- A greater proportion of four bedroomed units should be provided for families in high density private housing as a spare bedroom is often required for a variety of uses.
- Larger, family units should be provided with private open space, whether this be a garden, balcony or roof terrace. Where private open space is provided, it should be large enough to be functional, whether this be defined by a set area or a functional measure, such as being able to seat all occupants around a table on a balcony. However, participants' preference is for gardens!
- Homes should be provided with their own front doors where possible, and where not, communal access should be managed carefully from a security, convenience and design perspective.
- Communal open space is perceived as a visual amenity, however, where it is provided it should be functional and appealing to use. Potential users should be identified and space and equipment/furniture/landscaping designed in. Adults' as well as children's needs should be accommodated.
- The management and maintenance arrangements need to be effective and responsive. These arrangements should be considered at design stage, commence at handover and be undertaken with a responsible, long term perspective.
- Due to the risk perceived over service charges, they should be considered alongside the management and maintenance arrangements with equal regard for affordability and effectiveness.
- In future, the environmental performance of buildings will be a statutory requirement, but developers should aim above this minimum. Participants expected new developments to have environmental features built into them as standard and that this should not cost them any more.

“It's a great opportunity for Waltham Forest to go one step further than fulfilling an obligation from the Mayor. It's a great opportunity to be seen as a progressive council and this has a massive knock on effect on the kinds of people who move to a borough, to the way people who already live in the borough to see the council and make them want to stay there.”

Family 8 (with an infant) visiting New River Village



This picture was drawn by a seven year-old girl living in the Pepys Estate. Her home is a ground floor flat in a four storey block of apartments, yet she has drawn her home as the black shaded door on the ground floor in the centre of the picture, with seven storeys above.



Generously-sized balcony at Adelaide Wharf

“The room sizes are a critical thing. They make the rooms just wide enough to get a bed in and be able to walk past it, but if you make it just another 18 inches wider, which is not a huge amount bigger, you could get furniture all the way down that wall. So you can get a more than proportionate increase in utility for not a lot of extra space”

Family 9 (with children at secondary school) visiting New River Village

“The outside space, the balconies are fantastic. This one is 17ft by 7ft that’s a proper size for a balcony because we can sit all the family out there, especially for meals in the summer and there’s enough room for me to grow things.”

Family 1 (with infants) living in Adelaide Wharf

- Secure, sheltered and accessible bicycle parking, rather than car parking, is a key ingredient in well located high density schemes. It is accepted that car parking comes at a cost in high density developments. Participants were split over whether they would give up their cars. All questioned thought that provision of a convenient car club space in the development was a good idea and some said this would be sufficient for them to give up theirs. Communal cycle parking was seen as an advantage, but only if it was secure.
- Concierges and gyms were seen as bonuses for accepting high density living, however, it was recognised that this came at a cost. Other features of high density living, such as shared refuse and maintenance of communal areas, were expected to be handled well and are essential for high density schemes to function effectively .



The on-site participant on the Pepys Estate spoke of the poor sound insulation of the properties

- The relationship between private and affordable units was one of the clearest conclusions of the study. Most participants agreed that mixed tenure is preferable to single tenure estates, that separation by circulation core is an effective way to make mixed tenure work and, most importantly, that there is a practical and moral necessity to make developments tenure blind.



Policy Considerations

Provision of high density development

- 1.28 For the Waltham Forest families we interviewed, aspirations in terms of housing choice were significantly skewed towards more traditional forms of housing. Furthermore, many participants said that the reason they have moved to the borough of Waltham Forest was because they would have the opportunity of owning a house rather than a flat. This is an important policy consideration for the borough - intensification may need to incorporate more high density housing typologies as opposed to flatted ones.
- 1.29 As housing choice is complex, no one form of high density typology can provide for the infinite variety of preferences and considerations held by families. It is essential therefore to provide a range of densities of development, and a range of typologies within this.



A ball court for active play in Angell Town.

Location of high density development

- 1.30 The site-visit families from Waltham Forest were asked to identify locations within the borough that they considered would be suitable for high density development. Walthamstow was clearly identified as the first choice, with Blackhorse Road, Hoe Street, High Street and Lea Bridge Road and around the market identified as suitable locations. Participants also suggested Leyton (Leyton High Road), Chingford and Highams Park as appropriate locations.
- 1.31 Participants were also asked where they thought the exemplar developments they visited would be appropriately located in Waltham Forest. Where schemes were perceived as attractively designed, participants said that while the buildings did not reflect local styles or materials, their contemporary design and use of colour created their own unique character which had a highly positive impact on surrounding areas, and therefore they could be located in a variety of areas.

Form of high density development

- 1.32 It is fundamental that the quality of housing is assured in high density schemes. The two key housing choice factors identified by the study were the provision of sufficient internal space and private outdoor space. These factors are important to families, and therefore must be adequately provided in family units. Participants were looking for high density housing to be exceptional and aspirational; they also perceived high density housing to be associated with risk. Incorporating the key ingredients identified above into schemes is crucial to delivering successful high density schemes in future.
- 1.33 Whereas the site visit to the exemplars was not enough to convince many of our Waltham Forest participants to choose high density housing in the future, perhaps the people to convince are young people living in high density typologies now. The high density homes we build for the future should meet the needs and challenges set out in this report so that the young couples of today can see how the typology can work for them as the young families of the future.

“**With high density housing you’ve got to go the extra mile**”

Family 13 (with children at secondary school) visiting Pepys Estate



Angell Town, Lambeth



Background

- 2.1 Waltham Forest Council commissioned Urban Initiatives to undertake this high density housing qualitative study in May 2009. The study is an in-depth investigation into the key issues Waltham Forest residents have about high density housing types and the ingredients of a successful high density housing development.
- 2.2 Waltham Forest Council want to ensure that future housing development caters to the needs of existing and future residents, and will attract families to live in the borough, whilst making the most efficient use of land resources. This necessitates some consideration of higher density housing, and how this might be developed in a Waltham Forest context.
- 2.3 The need for the study arose from Members' concern about the issues being raised in the council's Local Development Framework consultation. The comprehensive programme of engagement carried out by the council, conducted between June and September 2008, identified issues around high density housing, including a reluctance to see tall buildings. The need for quality design, materials and construction was seen as important in any housing development, but especially where high density housing is proposed.
- 2.4 Nevertheless, limited opportunities for housing development in the borough, combined with challenging housing supply targets from the Mayor of London, means that some level of higher density development in the borough may be necessary. Therefore, this research was commissioned to unpack some of the residents' issues about high density, including the false assertion that high density means high rise, and to understand their observations of exemplar high density housing developments.
- 2.5 This report will be used to inform council decisions about high density housing developments, inform the design principles behind any high density developments and inform the communications around any such developments.

Study Objectives

- 2.6 The specific information objectives of the study are to:
 - Identify the factors behind residents' decisions to live in high density housing
 - Identify the negative and positive physical features and aspects (including both inside and external of properties) of high density housing to identify the ingredients of a successful high density development
 - Identify the negative and positive experiences and issues with living in high density housing
 - Identify specific issues with regards to families with children living in high density developments
- 2.7 In carrying out the study, we combined the second and third objectives as the physical features and aspects of high density housing tend to be closely related to people's experiences and issues, for example, poor sound insulation being linked to noise transfer and disturbance.

Structure of the Report

- 2.8 Section 3 sets out the methodology adopted for this study and the research methods that were used; section 4 describes the exemplar developments and why they are special; section 5 sets out the findings and analysis of the research and finally, section 6 details the conclusions of the research.



New River Village, Hornsey



Research Format

- 3.1 This study is an in-depth investigation into the key issues residents have about high density housing types and the ingredients of a successful high density housing development. It involves investigating perceptions of high density housing held by Waltham Forest residents and residents of the exemplar developments.
- 3.2 The research is based upon selecting four exemplar high density housing developments located around London, which will be used to test participants' perceptions.
- 3.3 Sixteen families were chosen to take part in the study, one family from each exemplar development and 12 Waltham Forest families. At each of the exemplar developments, one family currently living in the development was interviewed, followed by three interviews with Waltham Forest families.



An interview room in the community project office, Angell Town



A walkabout around Angell Town

Selection of Case Studies

- 3.4 A longlist of 16 case studies was drawn up from various sources, including CABA case studies, recipients of design and planning awards and Urban Initiatives' experience of exemplar housing schemes in London.
- 3.5 Shortlisting was based upon selecting four schemes which represented a range of identified qualities to ensure we could gather a wide range of responses from participants. Our selection qualities were:
 - Density: As explained in the density box on page 13, a range between 70 dwellings per hectare (dph) and 350 dph was sought.
 - Housing typology: A range of schemes, from predominantly flatted to predominantly housing was sought, with mixed developments also to be represented.
 - Setting: A range of locations from more urban/central to suburban/urban.
 - Tenure mix: From private-sector led developments, to mixed tenure to affordable housing developments.
- 3.6 The selected case studies are:
 - Adelaide Wharf, Shoreditch, London Borough of Hackney
 - New River Village, Hornsey, London Borough of Haringey
 - Pepys Estate, Deptford, London Borough of Lewisham
 - Angel Town, Brixton, London Borough of Lambeth
- 3.7 The first two developments are new build properties on land formerly occupied by other uses and the second two represent partial redevelopment of housing estates. Adelaide Wharf and New River Village are predominantly flatted developments, whilst Pepys Estate and Angel Town contain a mix of housing and flats.
- 3.8 The densities range from borderline high density (classed as over 70 dph) to examples of superdensity (classed as over 150 dwellings per hectare). Adelaide Wharf is 342 dph; New River Village is 178 dph; Pepys Estate is 142 dph and Angel Town is 68 dph.



- 3.9 As very few developments in London are wholly private (market) housing, we chose New River Village as having a large proportion of private housing (three-quarters). Adelaide Wharf has 50 percent private housing; 50 percent affordable housing. Pepys Estate has a mix of affordable tenures: affordable intermediate and affordable social rented. Angell Town is a wholly affordable social rented housing development.
- 3.10 Section 4 considers each exemplar in turn, describing its characteristics and why it was chosen as an exemplar.

Target Audience and Sample Structure

- 3.11 The study focused primarily on families with children. In order to make sure a variety of family types were represented four groups were targeted:
- Families with infants (up to 5 years)
 - Families with children in primary school
 - Families with children in secondary school
 - Young professional couples
- 3.12 A ethnic mix, broadly representative of the borough was also sought. Appendix 1 contains the sample structure used to guide recruitment of participants in the study in order to ensure each of the target groups was equally represented, as well as a mix of ethnic groups.

Recruitment

- 3.13 The study participants were recruited from a range of sources. For the on-site interviews, the managing agents of the developments and residents' groups recommended a room within the development to carry out the interviews, and provided contact details for families they thought might be appropriate for the study.
- 3.14 The site visit participants were recruited from the Waltham Forest Residents' Panel and the Local Development Framework (LDF) Panel. The council provided contact details for members of each of these groups.
- 3.15 All participants were offered a cash incentive to take part, and the site visit participants were provided with transport to the developments. The on-site interview families were offered an additional incentive if they were willing to show the visiting families around their home.



The Pepys Community Forum which was used for interviews



Conducting an on-site interview



Research Methods

3.16 Each of the interviews was 75 to 90 minutes long, for the on-site interviews and site visits respectively. In order to engage the whole family and to provide a range of outputs, a variety of research methods were used, these were:

- Recorded, structured interview
- Walkabout with photo survey
- Visit to a property on-site
- Mini placecheck exercise
- Density exercise
- Drawings for children

3.17 The on-site interviews were in two parts. The first part involved a recorded interview with the participants in their home, during which the families were asked a number of questions about living in the exemplar development from an interview script. A copy of the interview script is at Appendix 2.

3.18 The second part involved taking the family on a walkabout of the development, where they were asked to explain how different spaces and facilities were used and what was successful and/or unsuccessful about the development.

3.19 The site visit interviews were carried out in three parts. Firstly, participants were asked a number of questions on their home, the types of property they would like to live in and their perceptions of density. In order to help participants understand what is meant by density, and in order to see how they judged density, they were asked to look at four density flashcards, each showing a selection of photos of residential developments. Participants were to put the cards in order of ascending density. In addition, they were given a fifth card, showing photos of the development they were visiting, and asked where they thought this fit in to the sequence.

3.20 The second part of the interview involved taking the families on a walkabout around the development, including a visit to the home of the family that had participated in the on-site interview. During the walkabout participants were asked to fill in a mini placecheck form, which asked what they liked and did not like about the development and what they thought could be improved. They were also given a digital camera to carry out a photo survey of the development. Both were used in the final part of the interview to enhance their answers to the questions.

3.21 For the final part of the interview, participants were taken back to the interview room and asked a series of structured questions on their perceptions of the development, the reasons they would or would not choose to live in a development like this and where high density housing should be located in Waltham Forest. A copy of the interview script is provided at Appendix 3.

3.22 As part of the interviews, we asked younger children to draw pictures of their homes, and if receptive, to draw another picture of the homes that they were visiting as part of the study. This simple exercise, despite being unscientific, did yield some interesting results, which are included throughout Section 6.



A walkabout around the Pepys Estate





DENSITY

This study uses 'dwellings per hectare' (dph) as a measure of density and uses a 'net site density'¹ for calculating density, as used by Planning Policy Statement 3: Housing and the London Plan.

To determine what housing densities were appropriate to the study, the existing density of Waltham Forest was considered by considering the main housing typologies in the borough.

For example:

- Inter-war semi detached houses:
20 – 30 dph
(generally in the north of the borough)
- Garden city housing:
30 – 40 dph
(areas in central and north of the borough)
- Victorian and Edwardian terraces:
60 – 70 dph
(Victorian generally in the south of the borough, Edwardian throughout the borough)
- There are also comparatively small pockets of: Early Warner half-houses (around **80 dph**), Post-war flats (around **60 dph**) and modern apartments (over **100 dph**) located across the borough.

This existing density was compared against the future housing density levels anticipated by the London Plan's density matrix (Policy 3A.3: Maximising the potential of sites). Based upon an analysis of public transport accessibility levels (PTAL) in the borough² and the setting of areas, whether central, urban or suburban³, it was determined that new development in the borough would need to be built at a significantly higher density.

For example:

- The recommended density range for areas within 800m of Walthamstow is **175 to 355 dph**
- The recommended density range for areas within 800m of the borough's district centres – Bakers Arms, Leyton, Leytonstone, South and North Chingford and Wood Street – is **55 to 225 dph**.

It is not easy to define high density, but it is generally held that **over 70 dph**⁴, considerations relating to high density living need to be taken into account. **Over 150 dph**⁵ is considered to be 'superdensity' and further considerations need to be taken into account at densities above this level to ensure that living conditions are acceptable.

Therefore, for this study schemes were chosen with densities from 70 dph (the threshold of high density) to 350 dph (the upper limit of density likely to be provided in the borough).

-
- 1 Net site density includes only those site areas which will be developed for housing and directly associated uses, including access roads within the site, private garden space, car parking areas, incidental open space and landscaping and children's play areas.
 - 2 On a scale of 1 to 6, areas around Walthamstow, Leyton and Leytonstone achieved levels 4 to 6 (good to excellent accessibility), whilst most of the rest of the borough only achieved levels 1 to 3 (very poor to moderate).
 - 3 Broadly, areas within 800 metres of Walthamstow are considered to be central; areas within 800 metres of the boroughs 6 district centres (Bakers Arms, Leyton, Leytonstone, South and North Chingford and Wood Street) are considered to be urban and the rest of the borough is classed as suburban.
 - 4 Delivering Successful Higher Density Housing: A Toolkit, East Thames (2006)
 - 5 Recommendations for Living at Superdensity, Design for London (July 2007)



This section describes each of the four exemplars, setting out in turn, why they were chosen as exemplars, key facts about the scheme and an explanation of their design and environmental performance.

Adelaide Wharf

Selection as an Exemplar

- 4.1 Adelaide Wharf was chosen as an exemplar development because of the way the development handles the integration of tenures within the scheme and the way it has embraced sustainable development, resulting in the scheme being awarded a Ecohomes Excellent-rating.

Key Facts

- Adelaide Wharf is located in Shoreditch, Hackney and was completed in October 2007. The site was formerly used as a timber warehouse.
- The scheme is a mixed use development of affordable business space (690 sqm, including 22 workstations for the Shoreditch Trust) and 147 residential units. It is also mixed tenure, with 50 percent private apartments, with 28 percent intermediate properties and 22 percent social rented.
- Development is provided in a five storey 'U' shaped block and is all flatted, however, the ground floor units have their own front door access.
- The apartments are completely tenure blind with equally attractive outlooks. Separate entrance for private housing units and one for social housing units, with intermediate (key worker) apartments pepper-potted throughout.
- It has a good mix of units, with a balanced number of one, two and three bedroomed properties and a small (three percent) number of four bedroomed units.
- It has a low ratio of car parking (22%) with approximately seven spaces in a courtyard and the rest (26 spaces) in an underground car park. 183 secure bicycle storage are provided – some at ground floor level by the pedestrian entrances and the rest in a secure compound in the underground car park.

Design and Environmental Performance

- 4.2 An attractive palate of materials has been used, including glossy, enamel clad panels in red, and yellow hues wrapping bold double height pedestrian entrances and Siberian larch vertical panelling on upper levels. Colourful balconies are suspended from beams at upper levels which are cantilevered over the roof to mimic lifting beams on the original warehouses. The entrances open out onto a spacious courtyard garden, which includes some back gardens to ground floor apartments, defined by raised planters. In the public space there are robust benches which are set within lines of boxed hedges and mature ginko trees (which change colour throughout the seasons). There is also a dedicated small children's playground. The car parking area is set at a lower level to reduce its prominence. Inside the building, there is a generous and welcoming reception and concierge area and the stairwells are staggered rather than stacked and are lit by double height glazing. Glazed balustrades further add to the sense of light and space. A local artist has designed a timber mural for the lobby, which reflects the sites history as a timber warehouse.
- 4.3 Access to the flats is double loaded off three long corridors served by just two cores. However the corridors are wider than usual at 1750mm and have natural light brought in through large glazed panels at each corridor end. Most of the apartments are single aspect, however, the site benefits from two attractive outlooks: onto Regent's canal and onto Haggerston Park and to the city skyline beyond. Many apartments have generous balconies which, even for the one bedroom flats, are large enough for two chairs and a table. Balcony size increases proportionately with the number of bedrooms in the apartments. Modern methods of construction, including pre-fabrication of exterior and internal panels and bathroom pods, were used to reduce construction cost, waste, delivery time and improve quality. The scheme is rated Ecohomes Excellent. Sustainable features include a combined heat and power (CHP) plant on the roof, providing communal heating and hot water. Low energy light fittings are used and movement sensors for lighting are fitted in the communal areas. Aerated taps, duel flush cisterns and low flow showers are specified to reduce water consumption. The building has a brown roof and over 40 bird boxes. Rainwater is collected from the roof and stored for landscape irrigation. The timber used was FSC certified.



Adelaide Wharf viewed across the Regent's Canal



Colourful post boxes add further vibrancy to the development



A view into the communal open space and play area



Density	Project	Location Type	Borough	Completion	Client/ Developer
01	Queens Bridge Road, Shoreditch, London E2 8PD Adelaide Wharf	Urban	Hackney	October 2007	English Partnerships First Base Ltd Family Mosaic Housing Association

Awards

- Building for Life (Gold Award), 2008
- Housing Design Award, 2008
- RIBA Award for Architecture, 2008
- Planning Award for Best New Places to Live, 2009
- Hackney Design Award, 2009 GLA London
- Civic Trust Award, 2009
- Building Magazine: Housing Project of the Year, 2009

342 🏠 / ha
Dwellings/ Hectare

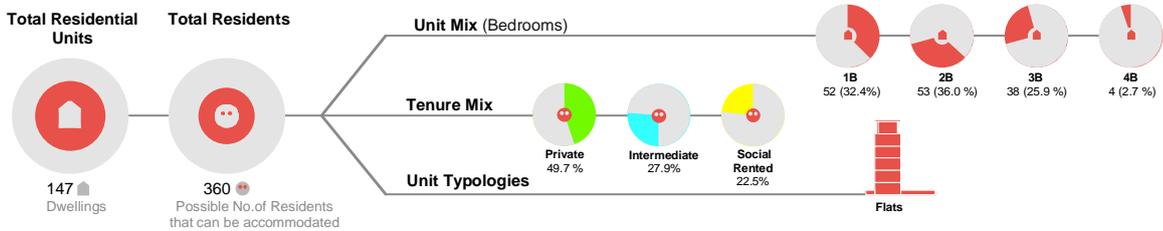
837 👤 / ha
Residents/ Hectare



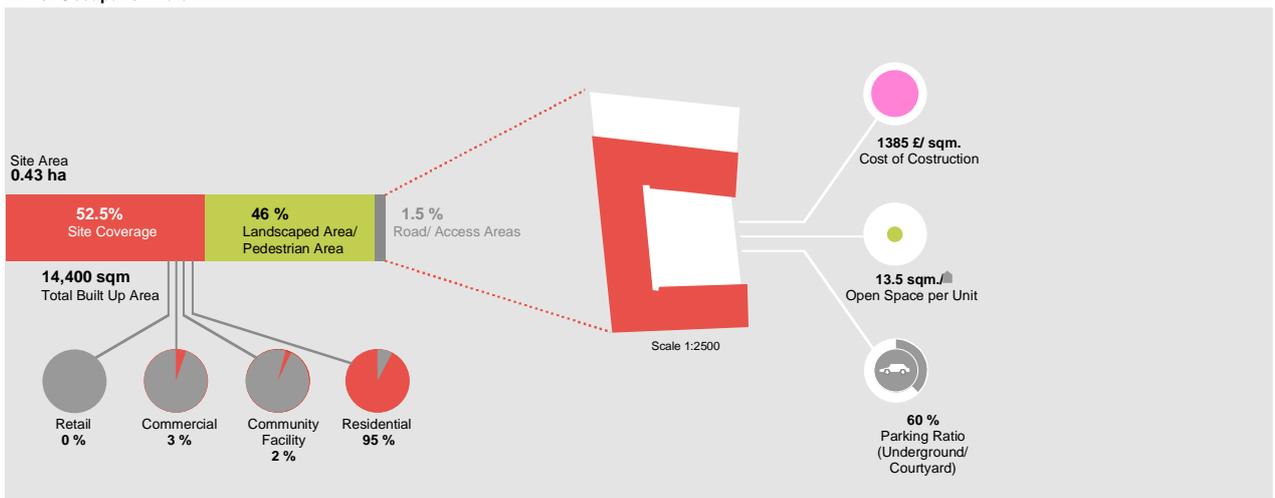
Site Location in Relation to Borough & London



Site Location in Relation to Local Context



Plot Occupation Data





New River Village

Selection as an Exemplar

- 4.4 New River Village was chosen as an exemplar development because of its bold and widely praised architectural form; its extensive and attractive communal open space and its good on-site facilities for residents.

Key Facts

- New River Village is located in Hornsey, Haringey and was completed in December 2007. The site was formerly the Thames Water pump station.
- The scheme comprises 622 residential units and the refurbishment of the 1901 listed pump house to provide a restaurant and bar, with a gallery and gymnasium attached.
- The majority of units in the scheme are market apartments (75 percent) with the remainder being affordable tenures.
- There is a distinction between private and social housing, with the social housing being plainer in appearance with less generous landscaping and a less than optimal positioning in the development.
- Housing is provided in seven separate blocks of up to seven storeys high, two of which are social housing.
- All of the blocks are flatted except one of the affordable blocks which is in the form of terraced housing.
- The majority of units are one and two bedrooms (66 and 30 percent respectively) in accordance with the policies of the council, with a smaller number of three and four bedroom units.
- The scheme has a relatively high proportion of car parking (65 percent) compared with its relatively accessible location, with all 406 spaces being provided in an underground car park. Secure bicycle storage sheds are provided in most blocks and there are communal racks available in the underground car park.

Design and Environmental Performance

- 4.5 The seven buildings present a variety of angular forms and façade treatments providing visual interest. They are designed with a contemporary palette of materials, with stainless steel louvers shading the exposed facades with balconies and walkways breaking down the visual impact of the larger blocks. Large areas of colour on the gable ends of buildings are accompanied by coloured glass balconies and infill panels to provide interest to the façade. The main spine of the site runs in parallel with the waterway/rail lines and residents benefit from a 450 metre long, two hectare linear park which has been attractively landscaped. This includes wide walkways and cycleways that connect Hornsey High Street with Wood Green and Alexandra Palace, helping to integrate the scheme with existing communities. The orientation of the open space also provides 5 of the 7 blocks with elevations and views across the green space. Internally, a tight floor plan and limited internal space allows for little potential for future adaptation/conversion. However many of the apartments have balconies or terraces and some buildings have communal roof gardens for the use of residents. Residents have access to the services of a concierge and an on-site gym. The buildings achieved a Good Ecohomes rating. Post-tensioned concrete was used in conjunction with a light steel frame to reduce the amount of raw materials used and limited prefabrication (in the form of bathroom pods) was employed to improve build quality.



The entrance to New River Village with the main reception area occupying a double height space in the building ahead



Several building types are used providing architectural variety



Character is developed with long, balconies, splashes of colour and integrating tree planting



Density	Project	Location Type	Borough	Completion	Client/ Developer
02 178	Homsey High Street, London, N8 7QB New River Village	Urban	Haringey	December 2007	St. James Group Ltd Circle Anglia Metropolitan Housing Trust



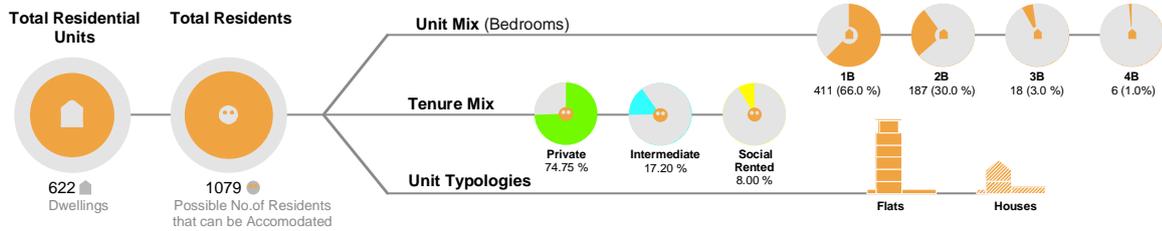
- Awards**
- Building for Life (Silver Award), 2006
 - Housing Design Award, 2005
 - Built in Quality Award, 2005



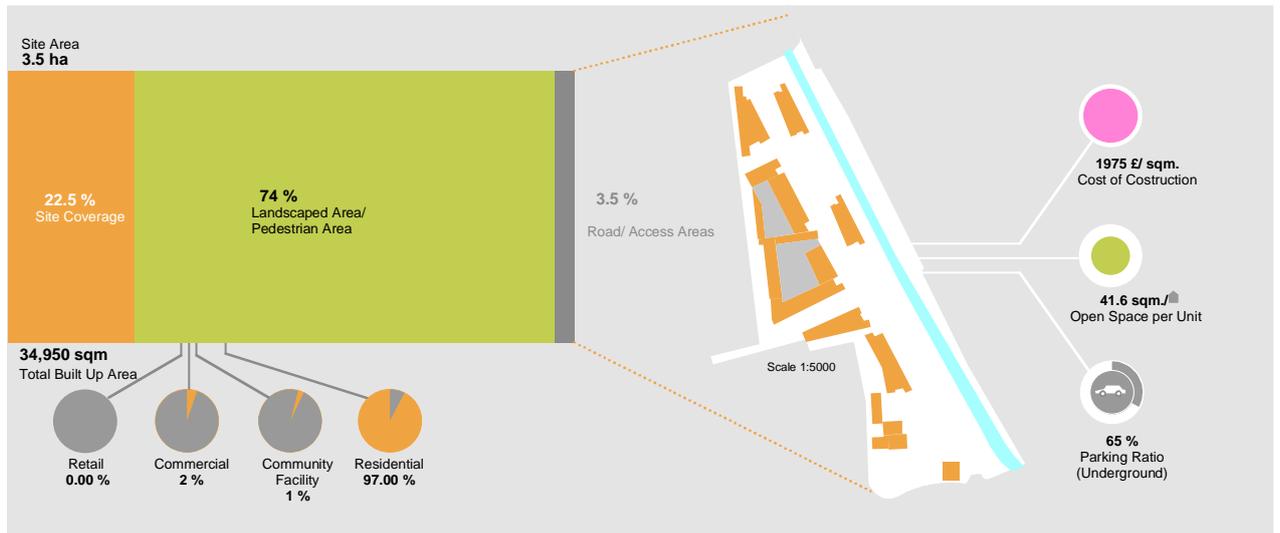
Site Location in Relation to Borough & London



Site Location in Relation to Local Context



Plot Occupation Data





Pepys Estate

Selection as an Exemplar

- 4.6 The Pepys Estate was chosen as an exemplar development because it used new residential development to transform a deprived housing estate; because it combines flatted and housing typologies and because it is family-oriented.

Key Facts

- Pepys Estate is located in Deptford, Lewisham and was completed in October 2007. The project represents the first two phases of a staged replacement of several blocks of 1960s and early 1970s corridor access council flats. The area was long notorious for crime and racial tension before redevelopment.
- The scheme is a wholly residential scheme of 169 units, 74 percent of which is social rented and 26 percent affordable intermediate.
- The scheme comprises four blocks of flats plus two terraces of three storey housing (phase one) and a block of 42 flats overlooking the River Thames (phase two). (There is a third phase of development which didn't form part of this study).
- The scheme has a relatively balanced mix of apartments with 29 percent being one bedroom, 47 being two bedroom and 24 percent being three bedrooms or above.
- The scheme was formerly 100 percent social rented and the new intermediate units have the same plan and appearance as the new social rented units. The difficulty of mixing tenures is addressed through locating tenures on the same staircase and alternating them throughout the blocks.
- The scheme has a relatively high proportion of car parking (60 percent) due to the nearest underground station being over one kilometre away. All car parking is provided in front of buildings in demarcated bays as part of a shared space approach. This is broken up by tree planting and shrubbery. Cycle parking is not available, although some units have back gardens.

Design and Environmental Performance

- 4.7 The scheme integrates well with its surroundings, which are very diverse, including listed Georgian buildings, 1960s and 1970s deck access blocks and tower blocks. The scheme provides a mix of typologies and retains all the existing green open spaces (including a Georgian square, a children's playground, the riverside walkway and several green open spaces) and a number of mature London Plane trees which provides character to the development. The timber frame construction and brick cladding of the buildings in phase one reflects the historic buildings, but the addition of coloured render, glazing panels and timber boarding produces variety and informality. The concrete framed phase two block is raised on two storey piloti, similar to the 1960s estate, to permit views from within the scheme to the Thames riverside. However, windows and an entrance area have been included to ensure surveillance of the space beneath, which previously created security problems. Inside the properties, long internal corridors were replaced by lifts and staircases with a maximum of three flats on each landing. Glazing stairwells ensures plenty of daylight and illuminates external spaces at night. All except the smallest units are dual aspect with windows on both sides of the block and private external space – either a ground level garden or balcony. All dwellings incorporate storage cupboards capable of accommodating prams and bicycles. The scheme is rated Ecohomes Very Good. The layout of the estate follows the principles of passive solar design as the starting point for energy efficiency and modern methods of construction were used to improve the quality and efficiency of the build.



A short terrace of townhouses in Pepys Estate, viewed against the existing buildings on the estate (phase one)



The rear of one of the phase one apartment blocks



Phase two apartments raised on pilotis to allow views of the Thames



Density	Project	Location Type	Borough	Completion	Client/ Developer
03 142	Foreshore Street, Deptford, London SE8 3DG Pepys Estate	Urban	Lewisham	Autumn 2007	Hyde Housing Association



- Awards**
- Building for Life (Silver Award), 2006
 - Civic Trust Design Award

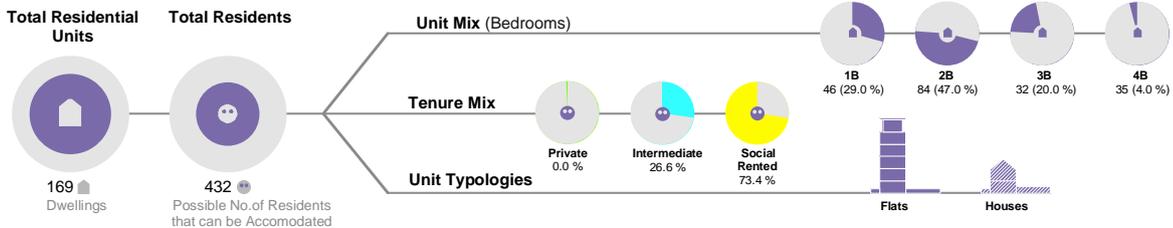


Site Location in Relation to Borough & London

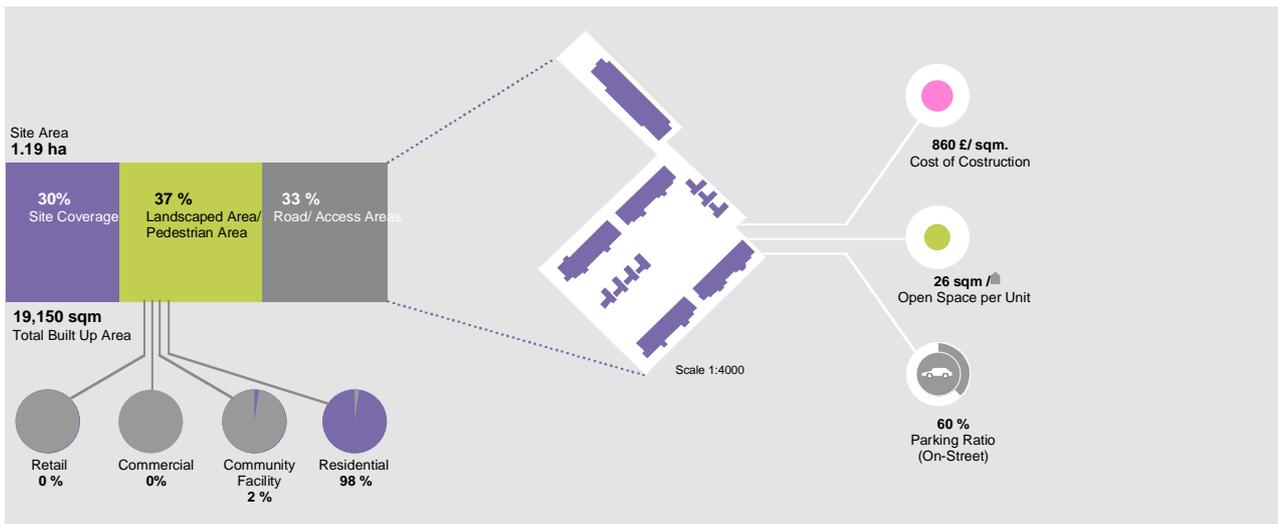


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Site Location in Relation to Local Context



Plot Occupation Data





Angell Town

Selection as an Exemplar

- 4.8 Angell Town was chosen as an exemplar development for similar reasons to the Pepys Estate. It used new residential development to transform a deprived housing estate; because it combines flatted and housing typologies and because it is family-oriented. The scheme is celebrated as an “outstanding example of community led design and of architects working with residents to produce livable and well-liked built forms” (Building for Life).

Key Facts

- Angell Town is located in Brixton, Lambeth and was completed in November 2006.
- The regeneration scheme was initiated by residents in 1987 after the estate came to epitomise neglect and decline with significant crime problems, all of which was exacerbated by the physical design of the environment (including bridged walkways, deck access and unsurveilled pedestrian spaces). The scheme has taken many years to complete and has involved working with at least six different architects’ firms as well as initiating a self-build project.
- There are 632 dwellings on the estate, all of which are affordable social rented.
- 370 of these dwellings are new-build and 262 are refurbished. There are also 27 retail, business and community units.
- The refurbished deck access blocks on the estate’s edges have been dramatically reorganised with vertical circulation rather than the former walkways. These have ground level entrances and dramatic new stairwell towers which give access to upper flats.
- The new blocks are mostly two and three storey houses accessed from the street (reinterpreting the character of surrounding 19th century terraces and villas) with some three storey apartment blocks at prominent corners.
- Car parking is provided at a ratio of 50 percent. Most car parking is on-street, with some spaces in small walled parking courts parallel to the street or car ports on mews streets. Communal cycle parking is not available, however most units have storage room inside or back gardens.

Design and Environmental Performance

- 4.9 The scheme is characterised by its variety of interesting new architectural designs. Properties are light, modern and low rise, despite their classification as borderline high density. The variety of materials is also striking, with the pilot scheme using sandstone-buff brick, later schemes using brick hues in red, purple/grey and light yellow with contrasting untreated western cedar and zinc details. Work by other architects use white render, engraved glass and coloured glass block inserts, and elsewhere timber cladding, render, tiles and decorative metalwork. The street layout has been improved by opening additional, formerly access-only streets and using refurbishment of existing buildings to open up pedestrian links to the main Brixton Road. There are a variety of green spaces provided in the development. These include communal spaces to serve each development phase and Little Angells’ Park which serves a wider area. This is a large (0.4 hectare), undulating, mainly grassed space, with mature trees and two children’s play areas. The scheme also incorporates a multi-use court for ball games. Environmental responsibility has been built into the scheme and two of the latest developments achieved an Excellent Ecohomes rating. Methods used are specifying a very good insulation standard (reducing energy costs by 50 percent in one scheme), roof-mounted photovoltaic panels powering ground floor flats for disabled people, grey water recycling providing 90 percent of toilet flushing, recycled insulation material and passive air extraction from kitchens and bathrooms.



Modern terraces with front parking courtyards and occasional mews streets were built in early phases of regenerating Angell Town



Rear of refurbished 1970s housing block



Warwick House new build apartments completed in 2005



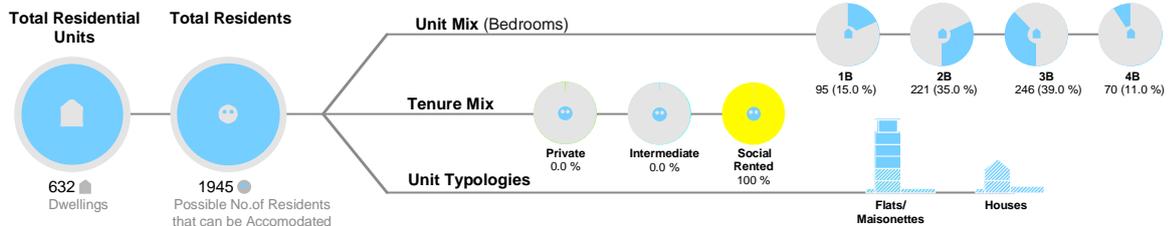
Density	Project	Location Type	Borough	Completion	Client/ Developer
04 68	Angell Town Estate, Brixton, London SW9 7JP Angell Town	Urban	Lambeth	Late 2006	Lambeth Housing



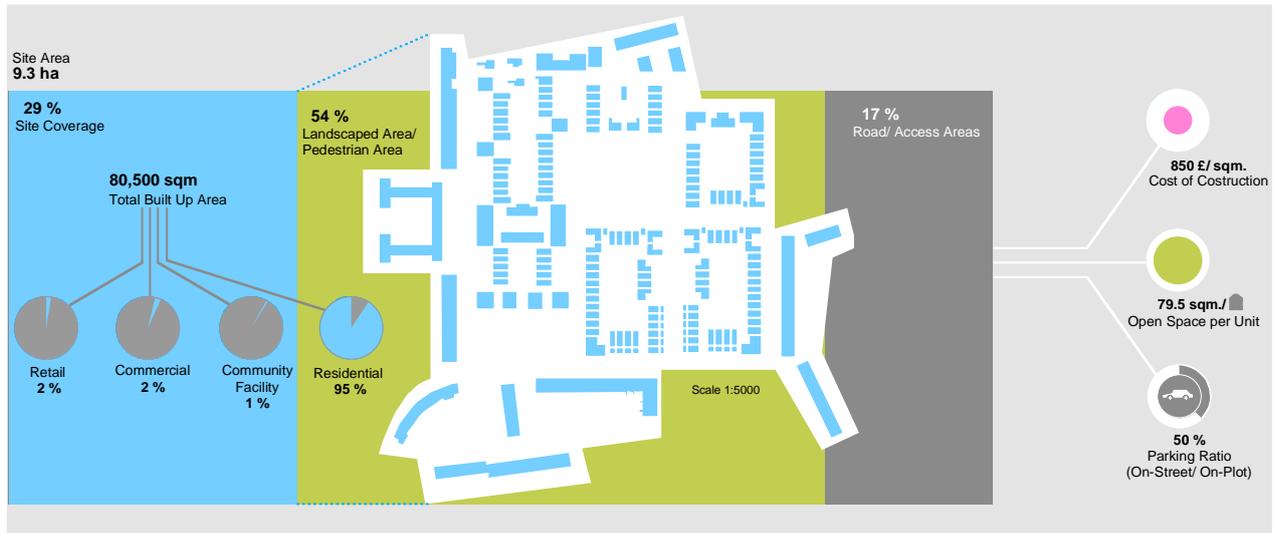
Site Location in Relation to Borough & London



Site Location in Relation to Local Context



Plot Occupation Data





Pelican House on the Pepys Estate. The estate regeneration replaced several similar blocks of 1960s and early 1970s corridor access council flats.



The front of the Pepys Estate phase one apartment blocks



Building on Past Research

- 5.1 The following section outlines some of the documents that were used to inform the study and to generate the questions upon which we were seeking further insight from our participants in the interviews.

Design Reviewed Urban Housing: Lessons Learnt (CABE, April 2004)

- 5.2 CABE's expert design panel reviews numerous projects, many of them housing schemes at high densities. This publication brings together the lessons learned from these design reviews in order to illustrate that the goals of high density and higher design standards are compatible. It states that "the development of high density housing is a complex chemistry of urban planning, architecture, finance and creativity" (page 3). The report concludes with the message that variety is key to making higher density housing successful – in unit mix, tenure and typology and in the shops, services and open space that are provided. Integration with the existing neighbourhood is essential and each development will be tasked with finding its own response to both site and neighbourhood.

Better Neighbourhoods, Making Higher Densities Work (CABE, March 2005)

- 5.3 This useful publication attempts to provide an overview of the high density debate whilst demystifying high density by illustrating the link between typology and density. It sets out the challenges to providing high density housing and follows this with an assessment of the benefits and barriers to providing higher densities. The key factors it sets out for success include understanding the economics of the scheme, building consensus through collaborative working, investing in design quality and high standards and creating sustainable neighbourhoods. The five case studies illuminate the points raised in the report.

Recommendations for living at Superdensity (Design for London, July 2007)

- 5.4 This was the first report to define 'super density' at 150 homes per hectare. This is a level beyond which housing schemes require special attention and advise to ensure that homes created provide an appropriate living standard for their residents.

- 5.5 The report attempts to refocus the (then) current agenda from streetscapes and aesthetics to quality of life and long term sustainability. Ten recommendations are made which focus on the essential factors to consider when designing at superdensity.

5.6 Superdensity: 10 recommendations

- Neighbourhood context: New developments should be regarded as an opportunity to create benefits for the wider community
- Balanced communities: Many of London's most vivacious quarters combine a mix of dwelling sizes, housing types, income range and tenure
- Making flats work for families: Houses tend to have more appeal than flats especially to families with children, but there are ways of replicating the benefits of houses in other dwelling forms.
- Management: Superdensity intensifies pressure on management, so preparing the ground for clear practice and protocol is fundamental
- Organising and accessing flats: Shared halls and corridors bring their own set of design and management criteria to underpin success
- Privacy: When it comes to privacy issues, noise has overtaken the visual as demanding most care in layout and construction
- Outdoor space and the public realm: The quality of planning and design of spaces around new homes will affect their appeal and safety as a place to live
- Environmental sustainability: Higher density offers opportunity to make the most efficient methods of heating and lighting economic without the need for renewable technologies which impact on the shape or size of homes
- The role of local authorities in procurement: The planning authority has the best chance to encourage sustainable qualities in superdense development by identifying what is expected early in the process with the support of civic leadership
- Meeting the cost of service charges: Superdensity leads to service charges not found in low density development, so new economic models are needed to deal with higher bills and a range of incomes expected to pay them.



Warwick House new build, with the existing 1970s deck-access flats in the background



Participants and Properties

6.1 Table 1 below describes the profile of our on-site participants. Each of the family types were represented in the on-site interviews and two were white British families and two black and minority ethnic families (BME). These characteristics were controlled for in our sample.

6.2 We were fortunate that all families had lived in the developments since they were first completed. The two families on the redeveloped estates (Pepys and Angell Town) had lived on the estate in its original form, had been decanted and had chosen to move back once the new properties were complete.

6.3 Table 2 describes the key details of our on-site participants' properties. Property type was not controlled for, so we were fortunate that a good mix of typologies and three different types of tenure were represented. Each property had a different number of bedrooms – from a small one bed roomed flat to a five bed roomed terraced house.

Table 1: On-site families

Development	Family	Gender	Age	Ethnicity	Occupation / School Status
Adelaide Wharf	Family 1 (Infant)	M	35-44	White British	Nurse
		F	25-34	White British	Medical legal assistant
		M	5-11	White British	At primary school
		F	0-5	White British	(Infant)
New River Village	Family 2 (Couple)	M	25-34	Asian	Recruitment
		F	25-34	British Asian	Marketing manager
Pepys Estate	Family 3 (Primary)	F	35-44	White British	Homemaker
		F	5-11	White British	At primary school
Angell Town	Family 4 (Secondary)	F	45-59	Black African	Youth worker
		F	11-16	Black African	At secondary school

Table 2: On-site properties

Development	Family	Typology	Tenure	No. of bedrooms
Adelaide Wharf	Family 1 (Infant)	Second floor flat with balcony	Owner-occupier under key worker (shared ownership) scheme	3
New River Village	Family 2 (Couple)	Ground floor flat with terrace	Owner-occupier	1
Pepys Estate	Family 3 (Primary)	Ground floor flat with garden	Social rented	2
Angell Town	Family 4 (Secondary)	Terraced house with garden	Social rented	5



6.4 Table 3 describes the profile of our site visit participants. Ethnicity was controlled for within the family types, and the required distribution was provided across the developments.

Table 3: Site visit families

Development	Family	Gender	Age	Ethnicity	Occupation / School Status
Adelaide Wharf	Family 5 (Infant)	F	23-34	White British	Civil servant
		F	0-5	Mixed Caribbean	(Infant)
	Family 6 (Secondary)	M	45-59	White British	IT Manager
		F	45-59	British Indian	Local govt. officer
		M	11-16	White British	At secondary school
	Family 7 (Primary)	F	35-44	Black British	Local government officer
		F	5-11	Black British	At primary school
New River Village	Family 8 (Infant)	M	35-44	White British	Unemployed
		F	35-44	Chinese	Graphic designer
		M	0-5	Mixed	(Infant)
	Family 9 (Secondary)	M	45-59	White British	Video editor
		F	45-59	White British	Secretary
		M	11-16	White British	At secondary school
		M	16-24	White British	At college
	Family 10 (Couple)	M	35-44	White British	Teacher
		F	25-34	Asian	Retail manager
	Pepys Estate	Family 11 (Primary)	M	45-59	White British
F			35-44	White British	PM in education
F			5-11	White British	At primary school
F			5-11	White British	At primary school
Family 12 (Infant)		M	45-59	Irish	Unemployed
		F	35-44	White British	Civil servant
		M	0-5	White British	(Infant)
		M	0-5	White British	(Infant)
Family 13 (Secondary)		M	45-59	White British	Construction manager
		F	45-59	White British	Homemaker
	F	11-16	White British	At secondary school	
Angell Town	Family 14 (Couple)	M	35-44	White European	Organ builder
		F	35-44	Black British	Local government officer
	Family 15 (Primary)	M	45-59	White British	Fencing coach
		F	35-44	White British	Market researcher
		M	5-11	White British	At primary school
		M	5-11	White British	At primary school
	Family 16 (Couple)	M	35-44	White British	Social researcher
		F	25-34	White British	Hospital doctor

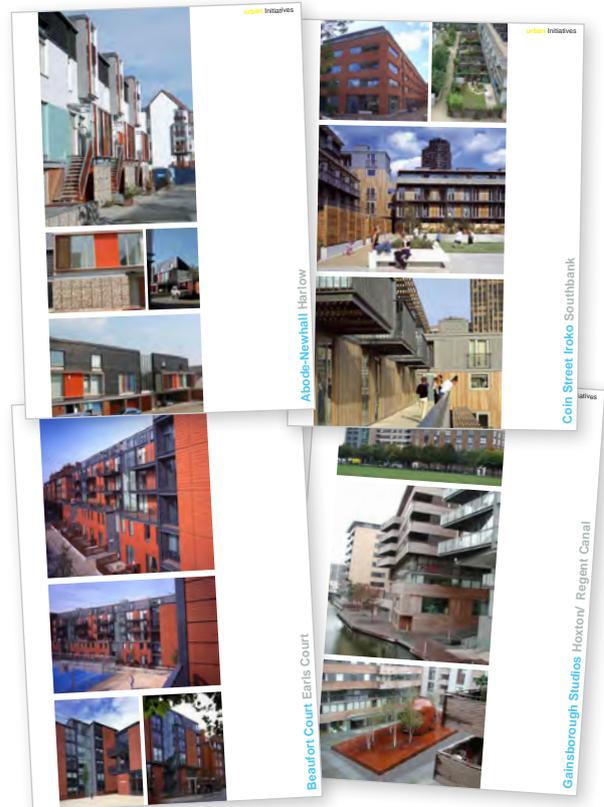


A: Perceptions of Density

- 6.5 Before we took our site visit participants on the walkabout, we wanted to explore what they perceived to be high density development. Most participants had an awareness of density and already understood the concept of housing density, if not the specific measure.
- 6.6 We showed participants a set of 'density flashcards'. These are cards depicting several photographs of different housing schemes, ranging from medium density 48 dph (Abode, Newhall, Harlow, Essex) to very high density, 200 dph (Gainsborough Studios, Hoxton, London Borough of Hackney). We had two examples in-between, which were Coin Street, Southbank, London Borough of Southwark (68 dph) and Beaufort Court, Earls Court, London Borough of Kensington and Chelsea (122 dph).
- 6.7 When asked to place the four density flashcards in order, participants generally correctly identified the lowest example first, without much difficulty. This may be reflective of it being medium density and their greater familiarity with lower density typologies. The highest density example was generally correctly identified next, perhaps because at 200 dph, the development appears noticeably more dense and has a taller element to it. Deciding between the two middle examples proved more difficult for participants and was not always identified correctly, even though one was significantly more dense than the other (122 dph compared with 68 dph).
- 6.8 The second part of this exercise involved showing participants a further density flashcard, representing the development they were visiting, and asking them to place it in the correct position within the range. Again, participants found it easiest to place the comparatively lower-density Angell Town in the correct position. Most surprising was participants underestimation of the density of Adelaide Wharf (342 dph), putting it below Gainsborough Studios (200 dph). Their reasoning was that Gainsborough Studios has a taller element within it, reinforcing the idea that people associate high density with high rise.

“I like the scale of it. It doesn't have the scale of a huge development. It still has an intimate feeling even though there are several hundred units in here. You wouldn't know that there were. I think it's been really well designed.”

Family 6 (Secondary) visiting Adelaide Wharf



Density flashcards



Flashcards of the exemplar developments



6.9 We then did a second exercise with participants, asking them to state how many storeys they thought would represent low density, medium density and high density (Table 4). This is, of course, not an accurate measure, as site area, including the level of open space and the number of units are the actual determinants of density. Nevertheless, it is an accessible proxy for people who are not familiar with the concept. The table below shows their responses.

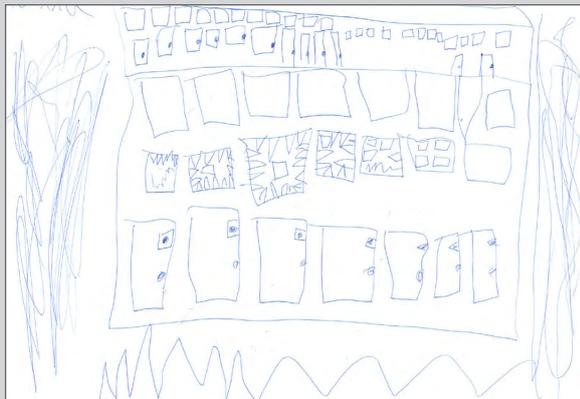
Table 4: Responses to estimated storey height of low, medium and high density properties

Family	Low	Medium	High
Family 5			20+
Family 6	2-4	5-7	8+
Family 7	1-3	4-5	6+
Family 8	1-2	3-5	6+
Family 9	1-3	4-5	6+
Family 10 (m)	1-3	4-6	6+
Family 10 (f)	1-2		3+
Family 11	1-2	3-5	6+
Family 12	1-5	6-8	8+
Family 13	1-2	3-4	5+
Family 14	1-2	3-4	5+
Family 15	1-2	3-4	5+
Family 16	1-2	3-4	5+
Family 16	1-2	3-4	5+

6.10 The majority of participants thought that low densities were between 1 and 2/3 stories and that high densities were 5+/6+ stories. They defined 'medium density' as between 3.7 and 5.2 stories (taking the average of the lower and upper extent of the range given in this category). This is interesting as this storey height can accommodate high and very high density development (up to approximately 250 dph at 5 storeys).

6.11 **The results from these density exercises may indicate that participants' perceptions of high density are likely to be elevated from the actuality. For example, well designed schemes that are categorised as high density but which are below the superdensity threshold (of 150 dph) are likely to be seen as more acceptable.**

6.12 **In addition, because people find it more difficult to distinguish densities which are not either borderline or very high, there may be some flexibility over the careful intensification of density in an area. For example, while the density matrix of the London Plan (policy 3A.3) will set the overriding density range for any particular site, there could be a local policy to determine locally appropriate densities within this range. If the recommended density of new development is related to the prevailing density of each particular local area, and includes an appropriate intensification factor, the regional-level policy objective could be met without detriment to local character.**



Drawing 1: This picture was drawn by a five year-old who lives in a block of council flats in Walthamstow. Even at this young age, the girl is aware that she shares her living space with lots of other people, and that, rather than draw a 'traditional house' as many children do, she can graphically represent her high density building form.



Drawing 2: This picture was drawn by a seven year-old girl living in the Pepys Estate. Her home is a ground floor flat in a four storey block of apartments, yet she has drawn her home as the black shaded door on the ground floor in the centre of the picture, with seven storeys above.



B: Factors Behind Deciding to Live at High Density

On-site Participants

- 6.13 Understanding the reasons why people choose high density housing was the first question posed by the research brief. When people make this choice, it may be conscious or unconscious, it may have been made despite the high density if a trade off with location or another factor was being considered and there may be a range of competing influences. Our objective in posing the questions was to gain a narrative on why our four on-site families chose their homes and to investigate how satisfied they are now with their home and the development. We also investigated the factors our site visit participants look for when choosing a home, and what their future housing plans are.
- 6.14 Family 1, from Adelaide Wharf, has lived in the property for 19 months, since the development first completed. They were one of the first families to move in. They chose the property because of the opportunity of owning a house through the key worker scheme that was large enough for their growing family. The key worker scheme enabled them to buy their property for half the market rate, without having to pay rent on the portion they do not own. They moved from Clapton (E5) where they lived in a two bedroomed rented flat. This was purpose built, and was located in a square with a garden at the centre. When their second child came along, they needed more space and weren't prepared to move out of the city.
- 6.15 Family 2, from New River Village, has lived in the property since March 2006 (just over three years), also since the development was first completed. They chose the property because it was close to central London and good transport links. The flat was also a good price. The couple both lived in more traditional property typologies with their parents (terraced and semi-detached house) in Camden and Southgate respectively. They preferred their previous homes as they are more spacious and have big gardens, but they were prepared to trade space for location and access to central London. Our participant commented: "It wasn't my choice to live in a high density housing development. It was the only type of accommodation available for the price. I didn't go out of my way to live here. Considering the price and how much I could borrow this was the only place I could buy".
- 6.16 Family 3, from the Pepys Estate, has lived in their home for five years and were allocated the property (as they are social housing tenants). Their previous home was also on the Pepys Estate, and they have lived here since 1996, before the area was redeveloped. While the estate was being redeveloped, they were decanted to another property. The family chose to move back because they liked the area generally (particularly being next to the river), there was a much improved property available and the estate was much improved.
- 6.17 Family 4 has lived in Angell Town for eight years in total, and for three years in their current home. The family was decanted, and then allocated a new property, which they have lived in since it was first built. Previously the area felt unsafe, especially at night and there was a lot of crime. Their previous home was a three bedroom flat in a deck-access block, with bridges, dark corridors and dark garages. They chose to move back because there was a large property available and the area felt much safer. Their new home meets the family's current housing needs very well.
- 6.18 **In summary, family 1 chose their property because of the availability of the key worker scheme which enabled them to purchase a much larger apartment that they would otherwise be able to afford, without moving away from inner London. Family 2 chose their property because of its location and transport links. Ideally, they didn't want to live in a high density typology, however, it was the only accommodation choice that was affordable. In both cases, a combination of price and location were the determining factors. Families 3 and 4 didn't choose their properties as they are both in centrally rented accommodation. However, it was their choice to exercise their 'right to return', and in both cases the participants told us that the desirable property and the improvements to the neighbourhood, made as a result of the regeneration, were the key factors in attracting them back.**



6.19 Table 5 which sets out on-site participants' satisfaction with their current home, reinforces the points made in their narrative. The social housing tenants (families 3 and 4), who have been allocated generously sized homes with gardens are very happy with their properties and have no plans to move. Family 1 is happy with their home for now, however, they do not have space to extend their family and will have to move when the children get older. Family 2 do not consider their home appropriate for a family, and will move within the next two years. Interestingly, family 1 and 2 both said, without prompting, that they were not adverse to living in flatted developments. The conditions they mentioned for choosing a flat would be that it would have to have four bedrooms, be spacious and have a garden.

6.20 We asked our four on-site participants what are the most important factors to make this development successful for the family. For family 1, the two main reasons are that the fact that their private outdoor space is big enough to use and that the flats are well laid out and big enough to live in. They also mentioned the standard and quality of the building and its ability to withstand wear and tear, the standard of maintenance and the responsiveness of the service and the fact that the service charge seems to be spent on things that matter, such as the concierge and regular cleaning. They were keen to stress that the concierge is an important part of making the development successful – in terms of maintaining standards and having a dedicated person to talk to about issues.

Table 5: On-site participants' satisfaction with current home

Development	Family	How well does the property meet current housing needs?	How long do plan to stay in this home?	Why would you move away?	What property would you be looking for?
Adelaide Wharf	Family 1 (Infant)	Meets them well	At least 5 years	Would like a four bedroom flat in time as have a third child on the way	Victorian terrace or other 4 bedroom property. Wouldn't be adverse to living in a development like this if it had four bedrooms. Preferably would like a garage
New River Village	Family 2 (Couple)	Currently practical for work but not practical to have a family	1 to 2 years	Would want a bigger home with more bedrooms, better outside space and more storage space. Would keep this property and rent out.	Semi-detached if it is affordable. Would consider ground floor flat with a nice garden if it was spacious.
Pepys Estate	Family 3 (Primary)	Very well. Feel happy about internal and outside space	Not planning on moving	No reason can think of at the moment	Not applicable
Angell Town	Family 4 (Secondary)	Very well. Spacious and has garden	Until the children have left home (over 5 years)	Smaller property needed when children left home	No preference



- 6.21 For family 2, the most important factor was the flat's location and the fact that it is close to central London. Other factors were the communal facilities, such as the gym and the open space they had access to – the communal gardens and roof terrace, although they acknowledged in later answers that they did not often use this space. Family 2 also said they liked the space in the apartments, although they acknowledged in later answers that they thought the rooms were too small.
- 6.22 For family 3, the large room size and the fact that the property came with a garden were the most important attributes of the property. Having no traffic noise was also mentioned as beneficial.
- 6.23 The mother of family 4 responded to this question by saying that the most important factor was that it was good housing – that she thought the whole house was built with care to a good standard. The family liked the large rooms, this was considered to be important. The family said that having their own garden was important – their previous home on the estate didn't have any outdoor space. Other important factors for the family were having a neighbourhood that is unified and has a sense of community spirit.
- 6.24 **In summary, having already discussed price and location in the answers to the previous question, the common success factor highlighted by our on-site participants is properties having sufficient internal and external space.**



- 6.28 When we asked our site visit participants whether the developments they visited met these top three criteria, the results were very mixed – overall, about half the responses were positive and half were negative. However, looking at the individual developments, it was Adelaide Wharf and Angell Town where the criteria that were met outnumbered those that weren't met. In New River Village and Pepys Estate, the criteria that weren't met outnumbered the criteria that were.
- 6.29 In the light of the above responses, it is interesting to consider participants' identification of the top three features necessary to make high density housing a success. In summary, about half of the responses focused on the home, and about half on the development. There were a few responses on the local area, such as: "The location is key – needs to be accessible by public transport" and the availability of local facilities. Two families (12 and 14) couldn't think what would make a high density development successful and said:
- "A high density development "isn't going to give us anything more than a terraced house does at present"
 - "In principle, high density housing is not a good idea. It has to be done really well. Ultimately, people need space"
- 6.30 Of the responses that concerned the home, half concerned space standards, with comments such as:
- "The size of the accommodation would be first – to have as big a flat as possible"
 - "Storage space is really important. Especially with the amount of stuff we've got"
 - "Outdoor space – and the way the environment is designed for families"
 - "Sufficient internal space an a good layout"
 - "Built in storage space from purely a practical point of view"
- 6.31 There were other responses, which reflect the participants' preference for more traditional typologies:
- "An alternative to open plan living"
 - "High ceilings"
 - "Separate rooms or another living space"
- 6.32 There were other notable answers which related to ensuring appropriate noise insulation and the overall aesthetic of the development, with one participant saying "You have to feel 'I want to come home to this'".
- 6.33 In the top factors that related to the development, there were multiple answers which called for a "good maintenance standard" (5 responses) and a concierge (3 responses). Other comments from respondents included:
- "Making sure the development is well maintained. This is very important"
 - "Guaranteed ongoing fund from the developer to maintain facilities"
- 6.34 Also identified by participants was the build quality of developments:
- "Needs to be built to a higher quality"
 - "Better construction - blockwork rather than partitions"
 - "Same grade of finish for different tenures"
- 6.35 Other responses concerned on-site facilities, communal open space and community spirit. For some participants, a car parking space would be a key determinant and one participant mentioned that it would have to be value for money in terms of cost per square foot. Participants called for:
- "Local amenities and play space, for example garden on roof and football area"
 - "A gym"
 - "More mature landscaping"
 - "Greenery and open space"
 - "The general atmosphere. Community spirit and the opportunities for this to develop".



6.36 We asked site visit participants a series of questions about their future housing plans. It was clear that there was a perceived hierarchy of housing typologies, with maisonettes and flats at the bottom and terraced, semi-detached and detached houses at the top (Table 7). All participants aspired upwards, with the increased space, increased number of rooms and bedrooms and bigger gardens being perceived advantages of trading upwards. On questioning, this common aspiration was related to the fact that we were interviewing families or couples who were planning to have children – while participants bought the biggest house they could afford initially, their growing number of children necessitates more internal and external space, and the older the children get, the more space that is desired.



Affordable workspace at Adelaide Wharf

Table 7: Site visit participants future housing plans

	What property would you likely to move to next?	What property would you not like to live in?
Detached house		
Semi-detached house		
Terraced house		
Mews house		
Maisonette		
Flat / apartment		
Living over a shop		



Reactions to Living at High Density

6.37 Once participants had been on the walkabout and answered questions about the what they liked and did not like about the development we asked the family, “**Would you live in a high density development like this one?**” We have captured the reactions to this question below.

Adelaide Wharf

Family 5 (Infant) “Definitely yes, very much an improvement on where I live currently. I’d take any apartment they’ve got!!”

Family 6 (Secondary) “It’s the garden. I would miss not having a garden. There are no areas where you could use as an allotment. That would be the biggest drawback. Yes you could grow things on the balcony, but it’s not really enough.

“We’d want a three bed at least but if it cost £400,000 I’m not sure we would consider that value for money.”

Family 7 (Primary) “Yes, apart from the parking issue. That’s because of my job.”



A double-height apartment at New River Village

New River Village

Family 8 (Infant) “No, It’s a lovely environment and nice for a couple but not for a family. It wouldn’t suit our needs.”

“I imagine a three bedroom would be £300,000, but then you’ve got the service charge on top. It probably would be affordable, but then for the same amount of money you could probably buy a small terraced house.”

“These are sold as aspirational places with very high prices. And I’m not prepared to pay that aspirational price when I’ve got in the back of my mind I’ve got the knowledge that many other people are living here and the difficulties which are attached to that. The difficulties attached to it don’t outweigh the benefits and don’t justify the cost.”

“The price is what a developer can make the most profit with and I consider they should be cheaper even though they are newer. They should be cheaper than a traditional house. “

Family 9 (Secondary) “I can’t imagine we would ever live in a place like this because the price you’d have to pay for a four bedroom flat – well, think of what else you could buy for that kind of money”

“Even for the price of a two bedroom apartment in a development like this, you could get a three bedroom semi-detached where we live.”

Family 10 (Couple) “I like the idea of the double height apartment.” [But a regular two bedroom apartment?] “No.”

“I could possibly live here, but it would depend on whether I could hear the neighbours, in some modern developments the walls are quite thin. If I feel cocooned and if I can’t hear next door and upstairs, then that’s fine.”

“Outside you get that sense of space [in the apartments] but it’s very deceptive, so it wouldn’t tick the boxes for me.”



Pepys Estate

Family 11 (Primary) "I think we'd need more space."

"If we couldn't buy an older property and we had to go for a newer build that was a higher density, I wouldn't be repulsed by it but we'd need more storage space."

"We would like more space around the property so we wouldn't feel too hemmed in. I'd prefer a town house to a flat. We could live with three rather than four bedrooms. Outdoor space is really important."

Family 12 (Infant) "We couldn't as we need our garden. It's 15m long and the width of the house and we've got an apple tree and swings and slides. Going to the park is a bit of a palaver so it's good if you have nice spaces in or next to your flat. Particularly for [our son, who has a physical disability], we need special play equipment in the garden, like a trampoline to build up his strength, so we need the space for that."

Family 13 (Secondary) "No, no way. Personally, I think they're cheap, they're nasty and the more that they build, they just building ghettos"

"The only way to make it suitable is to increase the size of the property and reduce the amount of open space. They're cramming people in – why couldn't they make the buildings 10 feet wider, 5 feet on either side and take 10 feet of the open space – no one would be any the wiser and everyone would be a lot happier. All the balconies were recessed inside the properties, whereas I took a photo on the other side where the balconies are hanging off the building and so aren't wasting space within the property."

Angell Town

Family 14 (Couple) "If I had the choice, I wouldn't choose to live here. This is for all the reasons we've just said. You can't keep the area nice and well maintained if you haven't got the people who are willing to do it."

"The properties are adequate, they've got enough space but I feel that they're a bit bland, because they're modern and very square. I prefer places that have a bit of character to them."

Family 15 (Primary) "I don't know. There were tell tale signs that the maintenance and upkeep wasn't being done and that's concerning and there was the bin situation."

"I don't think I could live here. Although it was quite well done. You are still on top of each other. If you were single I would say yes, but if you've got children, I'm not sure. We wouldn't really choose it."

"We could definitely live in a new build though and those buildings were good with the light and the proportion of rooms but the kitchen diner was a little bit unimaginative, 'boxy'. If we lived here we'd certainly want a house with a car parking space."

Family 16 (Couple) "I suppose some of it depends on how much it would cost. I would attach a financial value on having a bit more space and being further away from everyone else. Especially if you live in a city and have to travel into the centre everyday and you're jammed in with a lot of people during that period."

"I don't think I would necessarily say no, but it really depends on what your neighbours are like. If they're sitting outside their house with the stereo blaring from their car every Sunday then that completely upsets the fact that you've got a nice five bedroomed palatial house. Maybe that's a lack of community spirit or cohesion amongst the people, who, through necessity, have to live here."

- 6.38 **In summary, for our site visit participants, while location, public transport connections and local facilities are important factors in housing choice, it is the provision of sufficient space in the property, particularly room size and storage space and the provision of private open space, particularly a garden that are the two most important factors.**
- 6.39 **Surprisingly, only one of our 12 Waltham Forest families said that they would like to live in the development they visited! (The one person who said yes was a council housing tenant).**
- 6.40 **The predominant concern for the site visit families was the value and/or affordability of the flats. Participants perceive that the cost per square metre of space in a flat is greater than the cost per square metre of space in a house, and that, even though they would have to pay for comparatively more square metres worth of property when purchasing a house, it represents better value for them. Internal and external space, and the existence of a garden, plus parking, noise and the proximity and behaviour of neighbours were other reasons given for the reluctance to live in the exemplar developments visited.**



C: Positive and Negative Aspects and Experiences of High Density

- 6.41 The interviews aimed to draw out the perceptions on the advantages and drawbacks of living in high density developments and what improvements could be made to make them better suit the needs of the different family types which are the focus of this research.
- 6.42 The brief asked for the research to identify both physical features and aspects as well as experiences and issues. In high density housing, the two are intertwined and are therefore considered alongside each other. In this section, we discuss the three main physical factors that affected people's experience of high density housing, which are:
- Physical design,
 - Facilities and
 - Maintenance.
- 6.43 We also consider three particular further aspects of experience of living in the development:
- Quality of life,
 - Safety and security and
 - Sociability.
- 6.44 A summary of participants' response to the positive and negative aspects and experiences of the exemplar developments can be found in Appendix 4.

Physical Design

Urban Design

- 6.45 The layout of development has the potential to have a negative impact on experiences living in the developments. The shared space approach to street design and parking attracted only negative comments by on-site and site visit residents for the perceived impact on children's safety and the lack of parking control.

“I took a lot of photos of people parked right outside pathways and blocking entrances. They build these places now with not enough parking. The council don't worry about it because it's off street parking but that woman has her front door virtually on the path – and a car could drive down there. And that's not safe if you've got children around. You want some segregation.”

Family 13 (Secondary) visiting the Pepys Estate



Shared space on the Pepys Estate



Some participants felt this presented danger for children



The building configuration of Adelaide Wharf amplifies noise from inside and outside the block

6.46 Families visiting Angell Town commented on potential issues with wayfinding around the development, which they thought might cause problems for deliveries or taxis going to houses. The layout of predominantly flatted developments may be a barrier to families who are used to traditional street layouts choosing high density developments. Clear, well designed layouts will ensure the development is attractive, easy to navigate and functions well in practice.

6.47 The horseshoe shape of Adelaide Wharf was identified as one of the main causes of problems with noise since sounds echoed around the internal courtyard. It is clearly important that the acoustic impact of building layout and design is considered at an early stage of development as this is a very difficult problem to remedy once the development is built.



The garden attached to one of Adelaide Wharf's ground floor apartments was a thoughtful design feature and praised by participants

Architecture

- 6.48 The appearance of buildings can be highly influential in choosing where to live, as highlighted by many of the families in the interviews. In terms of physical design, the visiting families and the families living on the developments praised all of the exemplar developments. Each of the developments has a contemporary design, and the participants praised the use of colour and choice of materials, such as timber, brick, and glass.
- 6.49 Attention to detail and the finishes created the first and lasting impressions for the families visiting the developments. For example, at Pepys Estate, many of the families commented on the poor quality doors, which they believed brought down the appearance of the whole development.

“I liked the high quality of development. Really high. Surprisingly high. The finishing looked good. The attention to detail. The layout was well thought out. You don't get the feeling that they've scrimped on detail.”

Family 6 (Secondary) visiting Adelaide Wharf



The doors and use of steel girders on Pepys Estate was criticised



The building quality and standard of construction was also criticised



The high quality of architectural detailing on Adelaide Wharf was commented on by many participants



Construction

6.50 The quality of the construction of the buildings had significant impacts on quality of life for those living in the developments. While the families at Angell Town and New River Village praised the quality of the soundproofing, for the family living in Pepys Estate noise was a major issue as they could hear even minor noises (such as coughing and footsteps) from surrounding flats.

“The partition walls are a problem and that is an issue. If you’ve got people living on top of each of other then that’s not acceptable. Sound proofing is a must with the density that you’ve got there.”

Family 13 (Secondary) visiting Pepys Estate

“As a builder you’re always looking for ways of cutting costs and so you take it out of the building, and that’s clearly what’s happened here, especially in the quality of the finish. At the end of the day it’s the end-user that suffers – not the developer, council or the housing association.”

Family 13 (Secondary) visiting Pepys Estate



The on-site participant on the Pepys Estate spoke of the poor sound insulation of the properties



Communal Space

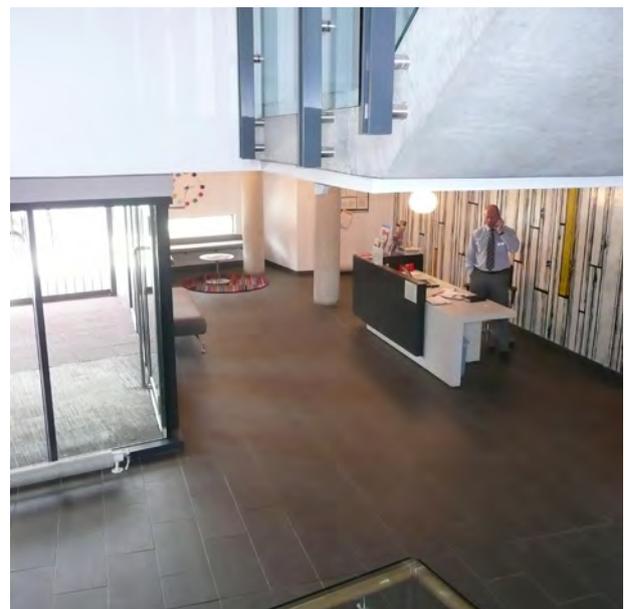
- 6.51 Participants saw communal reception areas in Adelaide Wharf and New River Village, both of which were praised, but particularly Adelaide Wharf as it was more integral to the development.
- 6.52 The presence of a manned reception desk was seen as a significant advantage and provides a 'welcome' to the development.
- 6.53 Several participants noticed and commented upon the sense of light in the staircases, particularly at Adelaide Wharf. The corridors were seen as very long in both developments, with comments that they looked like 'hotel' corridors, however the anonymity seemed to make the development more private for our on-site family.
- 6.54 The entry systems were praised by the on-site family and were assumed to be secure by the visiting families.

“The communal access is clever. It separates people and makes sure only the people who live in any part of the building access it. It means that the corridors are just corridors and children don't play there and this makes the properties seem more private. Once you go into your front door, you leave the rest of the development behind. Although the property is dense, you don't feel that you're living on top of each other.”

Family 1 (Infant) living in Adelaide Wharf



Reception area in New River Village



Reception area in Adelaide Wharf

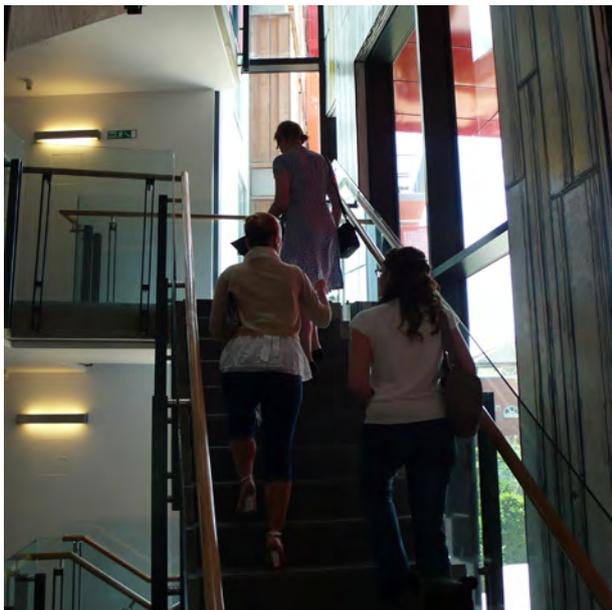


“The corridors looked good quality. The communal area here and the staircase is very light. Lots of light coming through, you feel safe. A traditional high density block would be dark with no natural light it would feel almost like the inside of a prison.”

Family 6 (Secondary) visiting Adelaide Wharf



Although the corridors at Adelaide Wharf are considered to be long, they each have a floor to ceiling window at the end



Light and airy stairwells at Adelaide Wharf



Entry systems control access to each floor at Adelaide Wharf



Balcony size increases with apartment size at Adelaide Wharf



Bathrooms and kitchens in the single aspect apartments visited (Adelaide Wharf, above, and New River Village) did not have windows

Internal Space

6.55 All the families commented on the design and layout of the homes. There were many differences in opinion on the most desirable layout for homes, which was related to family size and age of children. While open plan layouts were seen as positive aspects by couples and families with young children, for families with older children or two or more children, this was seen as a negative aspect which would deter them from living on the exemplar developments.

“I’d like my social area attached to my kitchen for my time with [my daughter] and my time with friends in the evening. It would make the world of difference”

Family 5 (Infant) visiting Adelaide Wharf

“I think they would struggle in that three bed apartment with five of them living there, especially in a few years time. You don’t have a separate kitchen and living and dining area, it’s all one living space and this is a drawback.”

Family 6 (Secondary) visiting Adelaide Wharf

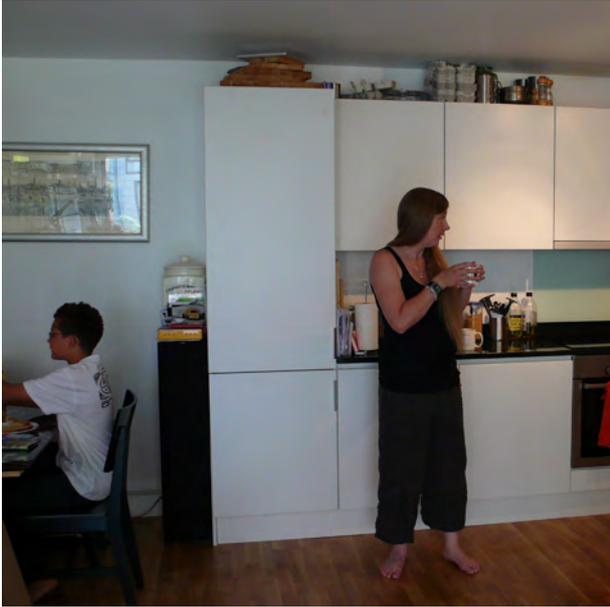
6.56 The apartments that were visited in Adelaide Wharf and New River Village were single aspect and therefore did not have a window in the kitchen or bathroom. While some of the participants did not see this as an issue, for others the lack of a window in these spaces was seen as a particularly negative feature.

“The kitchen didn’t have a window in it. It’s a personal preference but when I’m washing up I like to see out into the world”

Family 5 (Infant) visiting Adelaide Wharf

“The flat we went into was nicely finished but the ceilings were low and I feel modern housing is a bit claustrophobic in that respect”

Family 10 (Couple) visiting New River Village



Open plan living space in Adelaide Wharf: images show the kitchen and dining area (above); the lounge and home/work space (below)





Bedrooms at New River Village did not have room for bedroom furniture, such as a chest of drawers

- 6.57 Storage space was seen as a particular issue in the apartments that were looked at. This was seen as one of the main issues that would make the developments unsuitable for families to live in. It was apparent that balconies were often used to store items that could not be accommodated in doors, such as bikes and other equipment. This had a negative impact on the appearance of the buildings, but families recognised that to make the apartments liveable this was necessary.
- 6.58 The size of rooms was also seen to be too small by the majority of families visiting the developments. Some highlighted that small increases in room size would have a significantly positive impact on the use of internal spaces and the ability to accommodate furniture.

“The room sizes are a critical thing. They make the rooms just wide enough to get a bed in and be able to walk past it, but if you make it just another 18 inches wider, which is not a huge amount bigger, you could get furniture all the way down that wall. So you can get a more than proportionate increase in utility for not a lot of extra space”

Family 9 (Secondary) visiting New River Village commenting on the bedroom shown above.



Balconies at the Pepys Estate all being used for drying washing

- 6.59 One issue that was raised at all the developments was the lack of space to dry clothes. Many of the balconies had clothes drying on them, but the families commented that this made the buildings look untidy and unattractive. However, this was not an option for all the families, as flats that were privately owned had a clause written into the lease that did not allow them to dry clothes on the balconies. Space to dry clothes is an important consideration in making high density developments suitable for growing families, and also in considering sustainable design.

“[I didn't like] people putting washing on their balconies. They may not have a choice but they don't make the place look good. If you lived in a suburban area of semi detached area, you wouldn't see that. People are forced into doing that.”

Family 16 (Couple) visiting Angell Town



Sustainability features

6.60 Very few families mentioned sustainable design features as an aspect that would particularly attract them to a development. However, when questioned about their opinions on sustainability features (such as on-site power generation, combined heat and power systems, rainwater harvesting, etc.) most of the families thought this would have a positive impact on the development, and would potentially provide a saving in the cost of living. The families did not believe that the inclusion of such facilities should increase the price of buying a home in the development though, as they believed these types of features should be provided as standard in all new buildings.

“It’s a great opportunity for Waltham Forest to go one step further than fulfilling an obligation from the Mayor. It’s a great opportunity to be seen as a progressive council and this has a massive knock on effect on the kinds of people who move to a borough, to the way people who already live in the borough to see the council and make them want to stay there.”

Family 8 (Infant) visiting New River Village



Louvres at New River Village provide solar shading to help keep apartments cool in the summer



The back garden of the property visited in Angell Town



Generous balcony at Adelaide Wharf (view east)

Private open space

- 6.61 The exemplar developments provided an element of private open space to a fairly high proportion of the residential units, and all of the homes visited as part of the study had private outdoor space. Private outdoor spaces include balconies, ground floor patios, roof terraces and gardens. In general the families thought the provision of private open space was very important for living in the developments.
- 6.62 Many of the families did not believe that a balcony would meet the needs of their family for various reasons. One issue, raised by a number of people, was the lack of space to grow plants. While they recognised it was possible to grow some plants in pots on a balcony, they did not think this would be an adequate compensation. However, they did agree that if the developments provided a communal garden for growing plants this would meet their needs.

- 6.63 Other families were concerned that balconies did not provide space for children to play outside. While the developments did include communal playspaces, if they were not visible from the home parents would be concerned letting younger children use them unsupervised. While the balcony seen at Adelaide Wharf was fairly large, and the resident family considered it to be adequate for the time being, families visiting other developments believed that other balconies did not provide enough space for a table and chairs; therefore it would be difficult to use.

“**The outside space, the balconies are fantastic. This one is 17ft by 7ft that’s a proper size for a balcony because we can sit all the family out there, especially for meals in the summer and there’s enough room for me to grow things.**”

Family 1 (Infant) living in Adelaide Wharf



Generous balcony at Adelaide Wharf (view west)



Large ground floor patio at New River Village

- 6.64 In terms of the ground floor patios and garden space, the families visiting the developments raised the issue that these spaces were overlooked by too many people, which impacted on their privacy. In addition the patio at New River Village and the garden at Pepys Estate were seen as too small for families with two or more children.
- 6.65 The visiting families at New River Village and the Pepys Estate both felt that since the communal open spaces were poorly used, a more effective use of the space would be to increase the size of the private gardens.

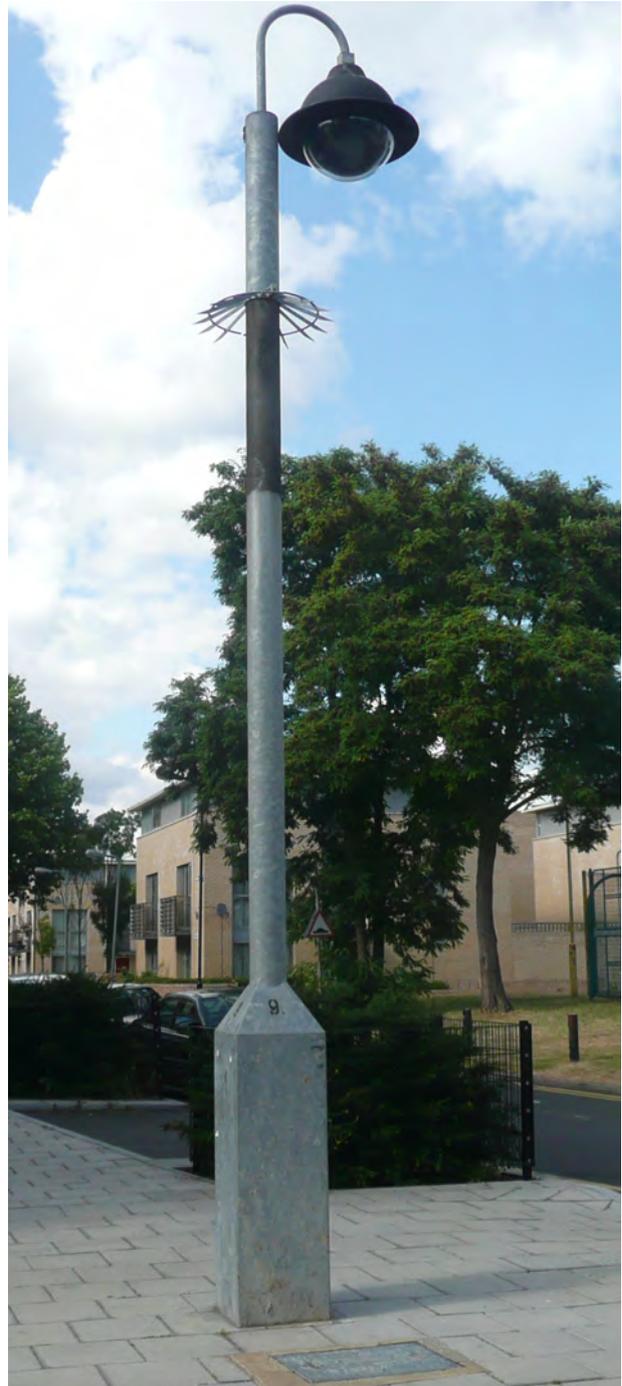


Tenure

- 6.66 High density developments will often provide a mix of tenures in close proximity to each other. There are relevant factors raised by participants, these concern tenure mix, tenure distribution on site, tenure identification, and tenure-specific maintenance. There was a broad contrast in the way in which tenure was dealt with in the four exemplar developments, which made the findings on this matter particularly interesting.
- 6.67 Providing a mix of tenures was seen either positively or neutrally by most families. For example, the Pepys Estate family said that the introduction of affordable intermediate housing, and people who had invested in their properties, had improved the situation in the formerly fully social rented estate. The Angell Town family said that the fact that the estate was dominated by social rented housing had been a long running problem that the introduction of more of a mix might address. The most notable negative reaction to mixed tenure was by the on-site family in New River Village who said, "I don't like the social housing bit over there at the bottom of the development. It's two worlds, too close together. Too big a contrast" (Family 2).

“There shouldn't be so many low income families here because they spoil it. There are houses with nine children in and they come out and play football at 8am, and then you realise that this isn't 'Beckingham Palace' after all! It's like fighting a losing battle. I'm trying to better the place, but they don't mind leaving rubbish and littering everywhere.”

Family 4 (Secondary) living in Angell Town



Security camera in Angell Town



Social housing at New River Village (rear of block shown) is of a noticeably lower quality than the private (market) housing

6.68 In terms of tenure distribution on site, separation by core was seen to be most effective solution. In Adelaide Wharf, one core is for private and key worker housing, the other core is for social rented and key worker housing. On Pepys Estate, alternate cores are used for the two different tenures. The majority of site visit participants said that they would be happy with this arrangement. However, when questioned further about pepper-potting of tenures within cores, some participants expressed reservations about this arrangement because of a perceived potential problem with anti-social behaviour or the long term value of the private properties. By way of contrast, in New River Village the social housing is in separate blocks. This was perceived negatively by the on-site residents because of the way the social housing tenants used the development and maintained their properties. It was also perceived negatively by the site visit participants because the noticeably lower quality affordable housing was easily identifiable as such and was located at the back of the development, away from the attractive open spaces.

“There was a huge disparity between the council side and the side that was privately owned ... [I didn't like] the graffiti in the garden of the social housing block – it was sad to see that and the garden of the social housing looked very neglected.”

Family 10 (Couple) visiting New River Village

6.69 In terms of tenure identification, on-site and site visit families praised Adelaide Wharf for its tenure blind approach. There was no difference to the external appearance of the blocks and minimal differences to the internal specification (based on the social housing provider's preferences). The separate and noticeably lower quality affordable housing at New River Village was perceived as providing a lower quality living experience and participants felt that this was not socially or morally acceptable.



Maintenance of the landscaped areas connected with the social housing blocks of New River Village is carried out by a separate management company to a lower standard



Graffiti and unfinished edges of a social housing block in New River Village

“The single most eye opening thing for me was the mix of social and private housing. I had not considered that they could be mixed like this. There is a typical problem in social housing of pride, sense of ownership and belonging and looking after the houses and the area they live in. I don’t know how this is going to work out long term, but you get the feeling that it should work better here than on a traditional estate”.

Family 6 (Secondary) visiting Adelaide Wharf

- 6.70 One of the main difficulties in the maintenance of mixed-tenure developments is that the cost restrictions of maintaining affordable housing are not compatible with providing the standard of maintenance demanded by owners of private housing. Adelaide Wharf has managed to find a balance with their registered social landlord (RSL) appointed management company which maintains the whole development. This has created a sense of equality between all of the residents and the on-site family, which are owner occupiers, praised the service. However, in New River Village, the private and the social blocks were maintained by different agencies. There was an obvious disparity between the quality of the management of the private and the social blocks. The social blocks appeared to be in a state of decline, with graffiti and poorly maintained communal green spaces.
- 6.71 Mixed-tenure developments are almost inevitable in a London context; therefore it is essential that this aspect of development be successfully provided – both for private and affordable housing residents. Tenure mix, tenure distribution, tenure identification, and tenure-specific maintenance must be considered together in order to ensure a successful outcome.



The underground car park at New River Village also contains secure bicycle parking



Cycle parking is provided at both entrances to Adelaide Wharf as well as in a secure compound in the underground car park

Parking

6.72 None of the exemplar developments provided enough car parking spaces for all residents. This was seen as a negative point by many of the visiting families, particularly those who needed a car for work. Others were concerned by the lack of visitor spaces available on the developments. Some of the families felt the lack of car parking spaces was compensated for by the ample provision of bicycle parking facilities on the developments, particularly at New River Village and Adelaide Wharf. The provision of communal bicycle parking facilities was also seen as a positive aspect of the developments as there was nowhere to store them in the homes.

“I think when they’re developing a place like this they should allocate a bay for car clubs. If it’s accessible and it’s there, then people are going to use it.”

Family 5 (Infant) visiting Adelaide Wharf

“I like the cycle parks and the fact that there’s plenty of space to park your bike while having limited space for cars. I like the lack of car parking spaces. Really good thing to discourage cars ownership where there’s good public transport.”

Family 6 (Secondary) visiting Adelaide Wharf



Four different open air compounds for household waste and recycling at Angell Town

Refuse and recycling

6.73 All of the developments provided bin storage and recycling services. In Adelaide Wharf, New River Village and Angell Town residents were provided with communal bin stores. In Adelaide Wharf and New River Village the bin stores were covered or inside blocks, and were not visible walking around the developments. This was seen as a particularly positive feature. In addition the bin stores were generally kept tidy, and were not overflowing. In contrast the bin stores in Angell Town were located on the streets. While some were covered, the gates were often left open, and it was apparent that there was insufficient provision since the majority of the bins were overflowing. This was a prominent feature of the development, and contributed to a negative perception of the place by some of the visiting families.

“They really haven’t got the bin situation sorted: if you lived here you wouldn’t know whether it went into the stores, on street, next to the children’s play area, is it locked or not? They’re all overflowing so there’s clearly not enough provision. If people don’t have ownership of a single bin then they put what they like into it, including stuff which should have gone to the tip.”

Family 16 (Couple) visiting Angell Town



The concierge at Adelaide Wharf with working hours displayed



The reception area at Adelaide Wharf

Facilities

Service charge

6.74 Typically residents on high density developments will be required to pay a service charge, and this was true for each of the exemplar developments. The amount varied on each of the developments. The majority of families visiting the developments did not currently pay this type of charge. For both the on-site and site visit families the need to pay a facilities charge was not necessarily a negative aspect depending on the quality and range of facilities offered. However, there was a significant amount of uncertainty and concern over whether or not their payments would be accounted for, how decisions would be made regarding spending and collection and what the risk was that the payment would increase in the future and whether this could be controlled and/or afforded.

“The question is can you pay the costs necessary to keep up the maintenance of the property. This was the main problem with high density housing of the past, there was just not enough money budgeted or set aside for maintaining the buildings. This is the cause of the problems associated with living at high densities.”

Family 8 (Infant) visiting New River Village

Concierge

6.75 Two of the developments provided a concierge. The families saw this as a particularly valuable service as it offered security, a person to go to with maintenance issues and, in the case of Adelaide Wharf in particular, ensured the general upkeep of the communal areas was maintained to a good standard.

“The concierge is an important part of making the development successful as there is a focused person to go to. His hours are great, if you work, you can see him before you go to work, he does a late shift once a week and he is here on Saturday mornings. He’s articulate and you have confidence that when you report something to him, he will action it rather than leave it to a supervisor who will come and check it once a week.”

Family 1 (Infant) living in Adelaide Wharf



Mature trees were retained in the redevelopment of the Pepys Estate

Communal open space

6.76 All of the developments offered an element of communal open space. There was a general consensus that this provided a valuable resource for all of the developments. The visiting families noted that they felt where they currently lived did not provide sufficient amounts of shared open space and they would appreciate living in a place where these types of spaces were easily accessible.



Residents' private terraces open out onto a communal garden at New River Village



The attractive landscaping at New River Village was not thought to be very usable by visiting families



Young children liked the wildlife, including swans and tadpoles, found in the waterway running through New River Village

“It would be nice to have some kind of children’s facility – which is overlooked of course – because of safety. It would be nice to have a covered seating – rather than parallel seating, and nice to have seating in groups so that parents can sit out and be sheltered and the children can run around.”

Family 8 (Infant) visiting New River Village

6.77 However, it was recognised that open spaces within New River Village, Pepys Estate and Angell Town appeared to be poorly used. In addition the facilities provided in the open spaces in all of the developments were not seen to meet the needs of all the families. In particular none of the exemplar developments were believed to cater for older children particularly well.



Little Angels Park at Angell Town remained empty on the day the interviews were conducted

**“Where are all the kids?
It’s Sunday and no one is
using the playground!”**

Family 15 (Primary) visiting Angell Town



Green open space at the Pepys Estate



The on-site family at Adelaide Wharf said the communal open space at the centre of the development had become a children's space



The communal open space at New River Village is a visual amenity to the apartments that face onto the linear gardens

6.78 In addition, while Adelaide Wharf provided a well used children's space, there was nowhere in this space for adults to relax. In contrast, New River Village did not provide any facilities for children, making the development appear unsuitable for families. While all of the families thought the open space was attractive and well landscaped, the visiting families noted that the furniture did not appear suitable for people to sit on for long periods of time, and there were no shaded or sheltered places for people to sit.

“I like the communal area. What it needs is areas within areas, to make it more private and give it a cocooning feeling. This would make you more likely to sit outside with a book.”

Family 6 (Secondary) visiting Adelaide Wharf



Little Angels Park in Angell Town is surrounded by roads, however, it is also passively surveilled by surrounding houses

6.79 On both Pepys Estate and Angell Town families commented on the fact that children needed to cross roads to access green space. This was a particular concern for parents letting primary school aged children out to play on their own.

“I liked the fact that dogs weren’t allowed in certain areas – important when you have children playing”.

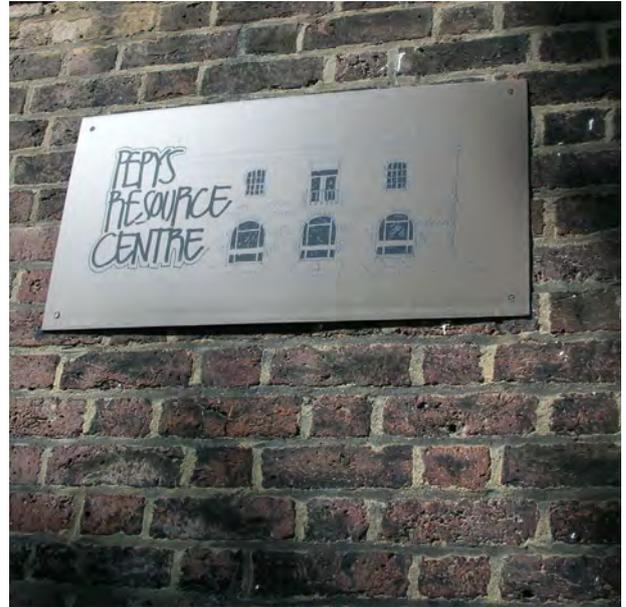
Family 11 (Primary) visiting Pepys Estate



The Georgian garden adjacent to the Pepys Estate has a cattle grid-like device to prevent dogs from entering



The closed youth club at Angell Town



The resource centre on the Pepys Estate has also now closed

Other on-site facilities

- 6.80 High density developments have the potential to support a range of services on site, albeit at a cost represented either in the purchase price and/or ongoing service charge. At Pepys Estate and Angell Town the community resource centre and youth club respectively had closed. In both cases this was due to a lack of funding, and this emphasises the importance of careful planning to ensure facilities and services offered when a development opens will continue to function in the future.
- 6.81 Only New River Village provided additional on-site facilities. All residents had access to an on-site gym (with cardio and weight machines, a sauna and steam room), which was paid for as part of the residents' service charge. Families visiting the other exemplar developments mentioned that they would expect facilities like a gym or a crèche to be included on-site in high density developments.



The Pump House at New River Village has a bar/restaurant and a gallery. The on-site gym is just seen on the right hand side



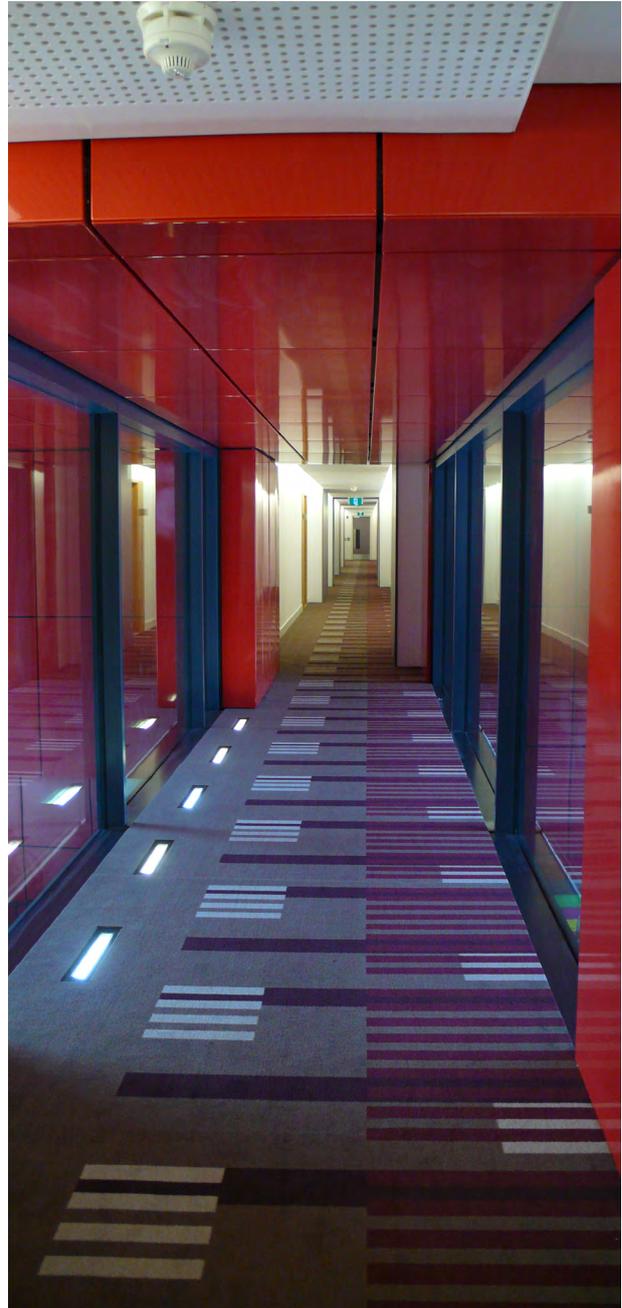
Maintenance

Internal spaces

6.82 In general the families thought the fixtures and furnishings provided inside the exemplar developments visited were of a good quality. While the families living on the developments noted that they had some initial problems, since all of the on-site families had lived in the developments since their completion, they commented that all of these problems were quickly and efficiently dealt with, and in general they were content with the management of the apartments.

“We’ve lived in a couple of places where we’ve not had control of our own environment and I think it’s very important that if it’s deteriorating, you can do something about it. It’s an awful thought that you’d have to go through management companies and residents’ committees to get anything done”

Family 8 (Infant) visiting New River Village



The on-site resident's were happy with the standard of the RSL-led maintenance at Adelaide Wharf



The open space and landscaping was maintained to a high standard at New River Village



However, visiting participants noticed some deterioration to the built fabric of the development

External spaces

6.83 One of the main concerns of the visiting families about moving to a development such as the exemplars would be a lack of sense of control over the external spaces. Therefore maintenance of the communal spaces perhaps seen as the most important aspect in affecting perceptions of the developments. On Adelaide Wharf and the privately owned parts of New River Village (where there is lot of landscaping to tend), the communal areas were regularly maintained. This had a highly positive impact and the majority of families commented on the general cleanliness and attractiveness of the developments. Pepys Estate was less regularly maintained, however in general it was not seen to have significant problems with litter or graffiti. Angell Town did not have staff maintaining the development. Many of the visiting families commented on the amount of litter around the development and the overgrown open spaces.



Maintenance schedule for the children's playground at Pepys

“I didn't like the deterioration to the buildings even though it's quite new. We saw things that could turn into major problems and be very expensive to fix. There's rust already appearing on structural elements that are holding the walkway up. I can already see weeds growing through cracks. When the development is so young, it's going to look the best it will ever be. It's about building something that will look as good in twenty years as on the day you pick up the keys – it's the sustainability”

Family 8 (Infant) visiting New River Village



Further Aspects of Experience

6.84 Beyond participant's experiences that are directly affected by design, facilities and maintenance, there are three further aspects of living experience that we investigated with participants. These are:

- Quality of life
- Safety and security
- Sociability

Quality of life

6.85 The on-site families were asked whether or not they felt they had a good quality of life living in the exemplar developments and what 'quality of life' meant to them. All of the participants said they did have a good quality of life, and the main reasons included:

- Satisfaction with individual property
- Affordability of home
- Sense of security
- Quietness
- Good location

6.86 The families felt that while they acknowledged that they lived in a high density development, once they were in their own home they felt like they had left the rest of the development behind, this was linked to the participants' positive feelings about their individual properties. For the on-site residents in Adelaide Wharf and New River Village this was

also associated with the quietness of the homes (and not suffering noise transfer from surrounding properties) and their ability to make it the kind of home they want to live in.

Safety and security

6.87 The issue of crime and fear of crime was generally not brought up by the families visiting the developments. When asked whether or not they thought the homes were secure, there was a general consensus that they did appear to be so. The families were also asked whether or not they felt safe walking around the development, which the majority did, but they were unsure if they would feel safe at night since it was unclear how well lit the developments were.

6.88 All of the families living on the developments stated that they felt safe inside the home and walking around the developments, and none of them had suffered from crime since living there. In particular the families living on Pepys Estate and Angell Town noted that they felt safer now than before the redevelopment, due to better lighting and overlooking of walking routes. The two families both now have their own front doors and no longer have to share access to their homes with anyone else, which also contributed to their increased sense of security.



Two examples of the refurbished housing in Angell Town which has improved the estate. On the left, new white towers with coloured glass blocks provide additional circulation. On the right, the new secured external staircase replaces a deck access system



Sociability

- 6.89 The families were asked two questions on sociability. Firstly, whether or not they were a member of a residents' group/if they would be likely to join a residents groups if they lived on a high density development, and secondly whether or not they knew their neighbours/would be more likely to know their neighbours if they lived on a high density development.
- 6.90 There were mixed responses to these questions by the families. None of the on-site families were members of residents' groups. However, all of the families visiting the developments thought they would join a residents group if they lived on the development, as they would want to be part of a vehicle that allowed them to gain some control of the communal spaces and service charge.
- 6.91 The majority of the on-site families stated that they knew some of their neighbours, and identified the communal spaces as the main places where they were able to meet and interact with other people living on the development. Only the couple living at New River Village said that they did not know their neighbours, and they did not think there were any spaces on the development where they could get to know their neighbours.
- 6.92 The families visiting the development also had a mix of responses to whether or not they would be more likely to know their neighbours living on a development like the exemplars. A number of the participants thought they were less likely to know their neighbours living on a development such as the exemplars. The reasons for this were associated with the large number of people living on the development. One family suggested that living so close to people, they were more likely to find themselves in conflicting situations with their neighbours, due to noise and general maintenance issues, and therefore they were less likely to want to get to know them.
- 6.93 However, the majority of site-visit families thought that living in a development like these would make them more likely to know their neighbours as there believed there were more places to meet people. However, a number of participants suggested that while they may be more likely to recognise more of their neighbours they did not believe they would be more likely to have any meaningful interactions, and therefore were not more likely to make friends with their neighbours.



The postwoman on the Pepys Estate has been on the same post round for 15 years and is well known to residents

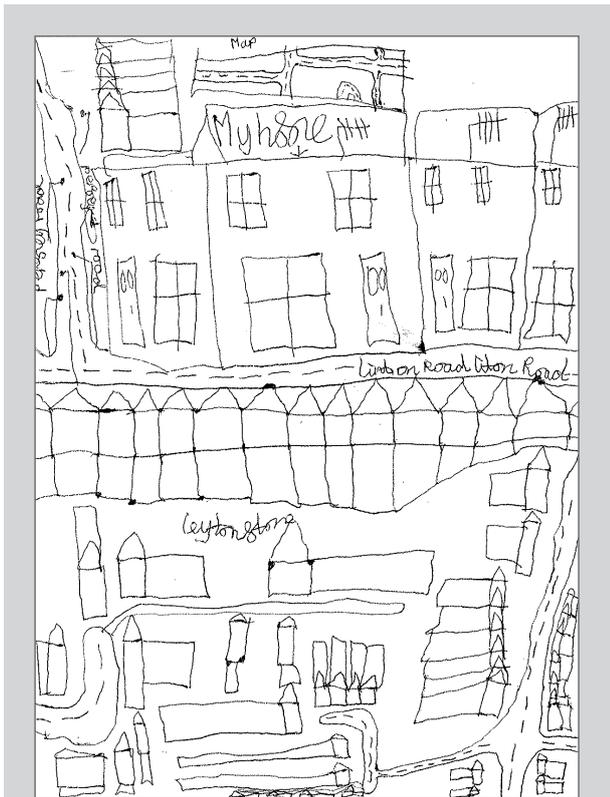


The riverside walkway and views of the regenerated docklands are a quality of life factor for residents of the Pepys Estate



D: Issues relating to Families and Children Living at High Densities

- 6.94 There was a general consensus amongst the families visiting the developments that high density living is often associated with childless couples, or families with infants, but is seen as unsuitable for families with children in the later years of primary school or secondary school. Generally all the visiting families thought that the high density developments would not meet their needs.
- 6.95 This section looks at the children's responses to questions and the drawings produced by younger children to illustrate their own home and/or the development that they visited. In addition, during the interviews parents raised a number of practical issues concerning raising children in high density developments, which will also be set out in this section.



Drawing 4: This is a relatively sophisticated drawing by a nine year-old boy who has developed a good understanding of his house in relation to his local area in Leytonstone. He has drawn his house as a terraced property, along with named local streets, and a map of the local area. His description of local features and friends houses shows that he has a very clear understanding of his local built environment.

Playspace

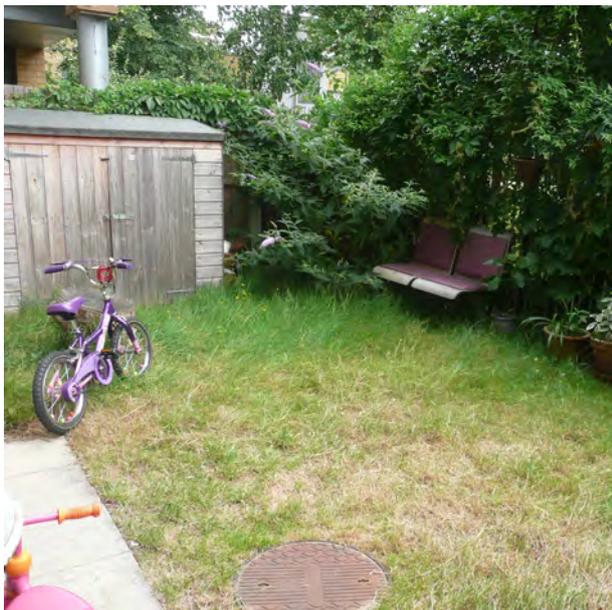
- 6.96 Space for play, both inside the home and open space outside the home is important for infants and children in primary school. Infants mainly play within the home, and will largely use the communal spaces. It is important that these spaces provide enough room for infants to roam and explore, but are also safe and allow for parents to monitor children. The family in Adelaide Wharf felt that their flat was perfect for their infant as it was all on one level, which meant that the child could easily move around the whole apartment, and the open plan layout meant that while the parents were cooking or undertaking other activities they could still easily watch over the infant.
- 6.97 In terms of outdoor space, gardens and private outdoor space is also particularly important for infants. Parents were keen to emphasise that even taking children to playspaces that were a short walk away would be likely to require preparations and possibly the use of a pushchair, making the excursion more time consuming. A garden was preferable as it provides a safe place for infants to play outside in an environment where the parents can monitor them. There were varying opinions with regard to balconies. While the family living at Adelaide Wharf were happy with the size of their balcony and thought that it provided sufficient outdoor space for their infant, parents with more than one infant or infants with special needs emphasised that a balcony would not be a sufficient size to meet their needs.
- 6.98 For primary school children, private indoor spaces are important, and many of the children said that they mainly played in their bedroom. Children's bedroom size becomes an issue here as they not only need enough space for their furniture, clothes and toys and circulation around the room, but also an area they can keep clear to accommodate indoor games and activities.

“The bedrooms were good sizes. The children would have enough space to study and play.”

Family 11 (Primary) visiting the Pepsys Estate



The nursery in a three bedroom apartment in Adelaide Wharf



The back garden of the ground floor apartment in Pepys Estate



A bedroom in the apartment visited in the Pepys Estate



The existing open space was retained in the redevelopment of the Pepys Estate. New development lines the north-western edge of this space which provides limited surveillance.



A play area for younger children in Fairfax Gardens, Angell Town



A playground for older children on the Pepys Estate



6.99 With regard to outdoor space, private gardens were important to the children in the site visit families, since many of them suggested that was a deficiency in supply of local parks in their local area, or they were located too far from their home to travel to alone. Each of the exemplar developments had areas of communal and/or public open space that were visible from the homes. The primary school children living on the developments felt these were important playspaces for them as they provided a larger space and allowed them to socialise with neighbouring children. Parents were happy for children of this age to go to these spaces alone, as they were still able to watch them from their home. However, they would accompany children to larger parks, or spaces that were not visible from the home.

6.100 Secondary school children needed spaces inside the home to relax and have friends over. They mainly used their bedrooms for this, but in their own homes which have separate living rooms and dining areas, are were also able to use one of these communal rooms for these activities. Secondary school children visiting the development noted that living in a house or flat with an open plan living room and kitchen would mean that they would spend more time in their bedrooms and some suggested that it would make them likely to go out.

6.101 Older children used private outdoor space for similar activities as internal spaces. Parks were mentioned as places to play sports and to meet with friends. On the whole, the teenagers visiting the exemplar developments did not think there were any spaces that met their needs. Only Angell Town provided a space on the development for ball games. The types of spaces they would prefer to see included sports pitches and quiet outdoor areas that felt private with appropriate seating.

“**The park needed more challenging apparatus for older children”**

Family 11 (Primary) visiting the Pepys Estate

6.102 Another issue that was raised by a number of the children visiting the development was the perceived lack of suitable space for playing musical instruments, especially in homes with open plan living rooms and kitchens.



A ball court for active play in Angell Town. Its sign can appear incongruous when viewed from a distance



A bedroom in the apartment at Adelaide Wharf



There are nine storage cupboards available to purchase on each level of Adelaide Wharf

Study space

- 6.103 The primary and secondary school children interviewed generally used different spaces in the home to do homework and study. While the most common response from primary school children was that they carried out homework on tables in the living room or dining room, secondary school children all preferred to study in their bedrooms.
- 6.104 While the secondary school children did not think that living in one of the exemplar developments would change their current habits of where they study, younger children would have to do their homework in the bedroom rather than one of the communal spaces. This was due to perceptions of other noisier uses taking place in the living room.

Practical Issues Raised by Parents

- 6.105 The main issues that were raised concerning raising children in high density developments were associated with lack of storage space and perceived lack of private space to be alone. In particular open plan living was seen as highly unsuitable for families due to competing uses of communal spaces within the home, as highlighted by one of the visiting families, who said:

“In any family where you’re got three, four, five people, you have different interests - playing music, watching TV, getting some peace and quiet and so on and with only one living space this would be difficult to accommodate and this is what would make it difficult to move into this space”

Family 6 (Secondary) visiting Adelaide Wharf



Washing on display in the social housing block of New River Village



Balconies used for drying and storage at the Pepys Estate

6.106 Over years of living in a home, families will acquire increasing amounts of possessions and as children grow older it is likely that they will need an increasing number of items for and from school, sports and hobbies. All the families commented on a lack of storage space in the developments, except those visiting Angell Town. This was considered to be an important consideration in making the developments unsuitable for the needs of families.

“For a family like ours, by the time the children have reached secondary school age, you’ve built up so much clutter, there’s not really anywhere to put all of it.”

Family 9 (Secondary) visiting New River Village

6.107 Another important practical issue that was raised by families was the lack of space to dry washing. While on some of the developments it was possible to dry washing on balconies, many of the families commented that this made the developments look unattractive and messy. For other developments there was a clause written into the lease which did not allow people to dry their washing on the balconies, which gave them no choice except to dry clothes indoors, which was not seen as a practical option for families with two or more children as they would produce a lot of washing.

“Even though there’s a lot of communal space, there’s nowhere actually to dry your washing – and if it was a family, there’s a lot of washing that comes through – what would I do with it?!”

Family 9 (Secondary) visiting New River Village

6.108 The homes in the exemplar developments were not believed to be adaptable enough to accommodate families that grow in number. It was thought that if parents had more children they would be forced to move to a larger home since they could not be extended and the spaces within the home were not flexible enough to accommodate changes in use.

6.109 Finally, many of the parents expected their children to stay at home longer, rather than moving out to live in their own home. The children felt that they would be likely to stay at home until they were working and earning enough money, which is likely to be in their early 20s after they had finished college or university. However, many of them believed that if they were living in one of the developments visited they would be likely to move out sooner because of the space limitations.



E: Locating High Density Developments in Waltham Forest

6.110 An important consideration for Waltham Forest Council is where to locate high density residential development in the future. The site-visit families from Waltham Forest were asked to identify locations within the borough that they considered would be suitable for high density development in general. The places identified were as follows:

Table 8: Suggested locations for high density residential development in Waltham Forest

Location	Specific places mentioned	Number of votes
Walthamstow	Blackhorse Road	8
	Essex Road	
	Junction of Hoe Street/ High Street	
	Lea Bridge Road	
	Bakers Arms	
	At the top of the market	
Leyton	Leyton High Road	4
Chingford		2
Highams Park	Close to Highams Park tube station	1
Parts of the borough close to Stratford		1

6.111 It is clear that the families thought Walthamstow was the most appropriate place to locate new high density residential development in the borough. The specific locations identified across the borough were generally areas that are currently associated with higher density development.

6.112 In terms of character, the families were asked about their perceptions on the impact of the exemplar developments on the area they were located and where they thought the exemplar developments visited would be appropriately located in Waltham Forest. Overall the families thought the developments had a positive impact on the character of the surrounding areas. In particular the families visiting Adelaide Wharf and New River Village commented that while the buildings did not reflect local styles or materials, their contemporary design and use of colour created their own unique character which had a highly positive impact on surrounding areas.

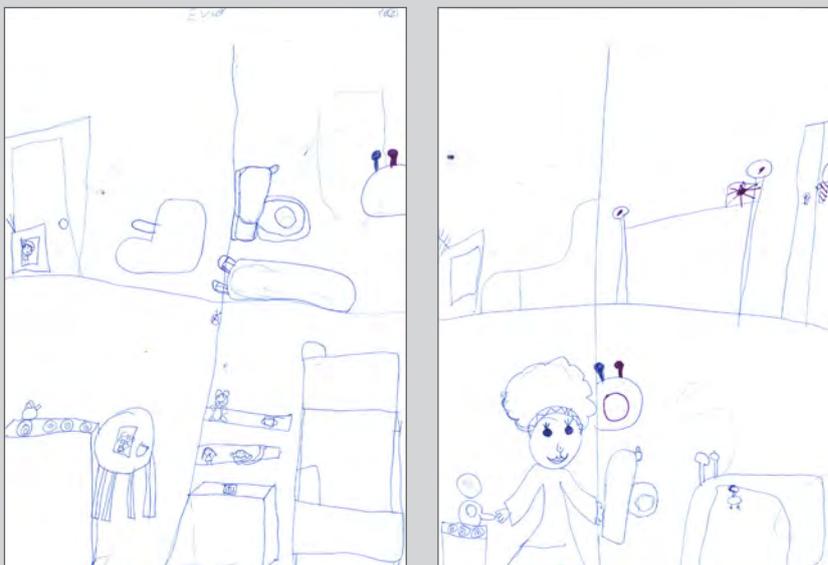
6.113 Table 9 identifies where the families thought the exemplar developments would fit in with the local character in Waltham Forest.

Table 9: Suggested locations for the exemplar developments in Waltham Forest

Exemplar Development	Suggested Locations	Number of Votes
Adelaide Wharf	Walthamstow	3
	Leyton	2
	Chingford Hall Estate	1
	Southern part of the borough/ by the River Lea	1
New River Village	Walthamstow	2
	Wood Street (Walthamstow)	1
	Chingford	1
	Chingford Hall Estate	1
	Highams Park	1
Pepys Estate	Walthamstow	2
	Harrow Road (Walthamstow)	1
	Leyton	2
	Chingford	1
	Beaumont Estate	1
Angell Town	Walthamstow	1
	Bakers Arms (Walthamstow)	1
	At the top of the market in Walthamstow	1
	Leyton	1
	Lea Valley	1
	Highams Park	1



- 6.114 While Walthamstow was again identified as the most appropriate location for the exemplar developments, in general it is clear that participants believed these developments would suit the local character of a diverse range of places in the borough from the more affluent areas in the north of the borough around Chingford, to more deprived locations such as Leyton and specific existing housing estates that are seen as in need of regeneration.
- 6.115 When considering appropriate locations in the borough for high density developments the families highlighted a number of characteristics that suitable locations should have. These included:
- Existing areas in need of housing renewal (5 votes);
 - Close to local transport hubs, especially tube stations (3 votes);
 - Situated within existing town centres (2 votes);
 - Derelict brownfield sites, such as former industrial sites (2 votes);
 - Easy access to open space;
 - Close to local facilities, including shopping; and
 - Sites where there will be no serious disruption to established communities.
- 6.116 It is understandable why Walthamstow was a common response from participants as it fulfils many of the criteria listed above.
- 6.117 Three people did not think any new high density residential development should be located in Waltham Forest. One person felt that the area was already overcrowded and therefore was not suitable for further intensification. Another mentioned that the reason they had moved to Waltham Forest was because the area offers large houses in an area close to London at a comparatively low price to other London boroughs.
- 6.118 They stated: “If the only place I can live is in high density in Waltham Forest then I’m not sure I’d want to live in London at all.” This summarises a key reason why many families told us they chose to move to Waltham Forest as it is seen to offer more desirable housing typologies, such as terraces, semi-detached and detached houses, at a lower price than other London Boroughs.



Drawing 3: This picture was drawn by a seven year-old girl from Leytonstone and shows, on the left, four rooms from her house, and on the right, four rooms from the home we visited in the Pepys Estate. Here, perhaps because the typology of her home (a terraced house) is very different to the property visited (a ground floor apartment in a four storey block) the girl has focused on comparing the interior of the properties, picking up on novel details, such as the toys on the shelves of Millie’s bedroom, types of food in the kitchen and a toy duck in her bath.



The front door of the home visited on the Pepys Estate



The front door of a house on one of the mews streets in Angell Town



- 7.1 Participants' attitudes and perceptions when choosing a home are complex – housing choice is affected by many factors including past housing experiences. Location and affordability are also important factors in housing choice, however, it is the provision of sufficient space in the property, particularly room size and storage space and the provision of private open space, particularly a garden, that are the two most important factors to our site visit participants.
- 7.2 Density itself, along with property typology, were not identified as significant choice factors when choosing a home. It is the characteristics of the individual home and the neighbourhood which factor most heavily. This may be because the site visit participants (from Waltham Forest) are already living in, and would be looking for, a house rather than a flatted typology: seven of the 12 participants already live in a terraced house, and all the site visit participants said they wanted their next property to be a house (detached, semi-detached or terraced).
- 7.3 So, for the Waltham Forest families, aspirations in terms of housing choice were significantly skewed towards more traditional forms of housing. Furthermore, many participants said that the reason they have moved to the borough of Waltham Forest was because they would have the opportunity of owning a house rather than a flat. This is an important consideration for the borough - intensification may need to incorporate more high density housing typologies as opposed to flatted ones.
- 7.4 Due to these strongly-held views, high density housing needs to be exceptional, and aspirational, in order to convince people, such as those we interviewed, that it is an acceptable housing choice. It is fundamental that the quality of high density housing is assured in high density schemes. Furthermore, if high density apartment living is to be adopted by families, the two key choice factors identified by the study: sufficient internal space and the provision of private outdoor space, will need to be successfully addressed in larger units. These points are developed further below.
- 7.5 Participants were not necessarily opposed to high buildings. In fact, most participants perceived medium density developments to be between 3.7 and 5.2 storeys. This storey height can accommodate high and very high density developments. For example, a development of mews houses, maisonettes and low rise apartments can produce densities of up to 120 dwellings per hectare and developments of five stories can produce densities of up to 250 dph.
- 7.6 Design plays an important role in how density is perceived and good urban, architectural and landscape design can soften the impact of superdense schemes. It was revealing that participants underestimated the density of Adelaide Wharf (at 342 dph), considering it to be lower density than a 200 dph scheme. Adelaide Wharf, the highest density scheme visited, was also the scheme which drew the most praise from participants.
- 7.7 For the people we interviewed, high density is associated with risk. This risk is focused on not having control over your immediate and surrounding environment. The perceived lack of control ranged from concern over potential noise from multiple neighbours to how the overall buildings were being maintained and the future cost implications if this was done unsatisfactorily.
- 7.8 Therefore, if people are to be attracted to live in high density housing, addressing their concerns becomes crucial. Identified below are the most important priorities for high density housing as perceived by the on-site and site visit participants in this study.



The home visited in Angell Town



7.9 Key ingredients of successful high density housing:

- High density housing must be built in appropriate locations. This means being well located to transport and local shops and services. Participants were looking for a 'trade off' in terms of an improved commute or walkability to local amenities to accept higher densities.
- Good quality design is crucial for successful high density housing: this encompasses fitness for purpose, thoughtful and functional design, durability and character. Striking architecture makes a positive impact, but participants saw beyond the design and colours and questioned the durability of the materials and functionality of the design.
- Homes must be spacious enough for daily activities and storage space. Rooms have to be big enough to accommodate a standard set of furniture. This includes lounge seating and a dining table to seat the occupants plus visitors in living space and chests of drawers as well as a wardrobe in bedrooms. Furniture should be capable of being rearranged in rooms.
- An additional living space, rather than a fully open plan format, should be provided for larger (three bedroom plus) units which are expected to accommodate older children.
- A greater proportion of four bedroomed units should be provided for families in high density private housing as a spare bedroom is often required for a variety of uses.
- Larger, family units should be provided with private open space, whether this be a garden, balcony or roof terrace. Where private open space is provided, it must be large enough to be functional, whether this be defined by a set area or a functional measure, such as being able to seat all occupants around a table on a balcony. However, participant's preference is for gardens!
- Homes should be provided with their own front doors where possible, and where not, communal access should be managed carefully from a security, convenience and design perspective.
- Communal open space is perceived as a visual amenity, however, where it is provided it should be functional and appealing to use. Potential users should be identified and space and equipment/ furniture/landscaping designed in. Adults' as well as children's needs should be accommodated.
- The management and maintenance arrangements need to be effective and responsive. These arrangements should be considered at design stage, commence at handover and be undertaken with a responsible, long term perspective. This was a universal consideration, and almost all participants commented on whether places were well or poorly maintained.
- Due to the risk perceived over service charges - how it would be managed, what it would pay for and the potential for it to increase, it should be considered alongside the management and maintenance arrangements with equal regard for affordability and effectiveness.
- In future, the environmental performance of buildings will be a statutory requirement, but developers should aim above this minimum. New developments were expected to have environmental features built into them. Participant's saw this as the joint responsibility of the council and the developer; that this should already come as standard and that it should not cost them any more.
- Secure, sheltered and accessible bicycle parking, rather than car parking, is the key ingredient in well located high density schemes. It is accepted that car parking comes at a cost in high density developments. Participants were split over whether they would give up their cars. All questioned thought that provision of a convenient car club space in the development was a good idea and some said this would be sufficient for them to give up theirs. Communal cycle parking was seen as an advantage, but only if it was secure.
- Concierges and gyms were seen as bonuses for accepting high density living, however, it was recognised that this came at a cost. Other features of high density living, such as shared refuse and maintenance of communal areas, were expected to be handled well and are essential for high density schemes to function effectively .
- The relationship between private and affordable units was one of the clearest conclusions of the study. Most participants agreed that mixed tenure is preferable to single tenure estates, that separation by circulation core is an effective way to make mixed tenure work and, most importantly, that there is a practical and moral necessity to make developments tenure blind.



Final observations

- 7.10 With houses in general, quality of life is 'built in', in that there is sufficient space, flexibility and adaptability and open space to enable a successful living environment in most forms of the typology. With high density housing, you have to give focused consideration to internal space, private and communal open space, urban and architectural design, safety and security, noise insulation and management and maintenance arrangements to ensure sustainable homes are created.
- “With high density housing you've got to go the extra mile”**
- Family 13 (Secondary) visiting Pepys Estate*
- 7.11 The internal space provided is the most important factor for participants when choosing a home. Floorspace is intrinsically linked to value, and the comparative expense of floorspace in high density housing schemes is one of the key reasons why participants would not choose to live in them.
- 7.12 Of public, communal and private open space, it is the private open space that is valued most highly by participants. If families are to be encouraged into flatted typologies, apartments must be provided with large useable balconies, terraces, patios or gardens.
- 7.13 As housing choice is complex, no one form of high density typology can provide for the infinite variety of preferences and considerations held by families. It is essential to provide a range of densities of development, and a range of typologies within this. Innovation and variety should be encouraged, whilst retaining the key ingredients specified on the previous page.
- 7.14 Once a development is complete and handed over, it takes on a life of its own: it is the people who occupy it and the management company who maintain it who will determine its success. Therefore, robust design and effective management and maintenance is critical to the long term success of high density schemes. Its effectiveness will be judged by potential purchasers and tenants and will be a key influence on whether they are prepared to invest in the development.
- 7.15 Both our on-site families, despite having bought their properties, plan to move out of their homes in the short to medium term. This is because the space is not big enough for their growing families and is not considered to be adaptable. However, they both explained, without prompting, that they were not adverse to living in flats in the future. Their circumstances reflect a limitation of the single-aspect, open plan apartment typology that re-emphasises the need to ensure flats are sufficiently sized, laid out and oriented.
- 7.16 Whereas the site visit was not enough to convince our site visit participants to chose high density housing in the future, as their housing aspirations are already beyond flats (as seen in Table 7), perhaps the people to convince are young people living in high density typologies now. The high density homes we build for the future should meet the needs and challenges set out in this report so that the young couples of today can see how the typology can work for them as the young families of the future.

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