GREATER**LONDON**AUTHORITY

[redacted]

Our reference: MGLA080322-6334

Date: 11 April 2022

Dear [redacted]

Thank you for your further correspondence which the Greater London Authority (GLA) received on 8 March 2022.

You have expressed dissatisfaction with the way the GLA has responded to a request for information that you have made. I am now responding to you under the GLA's internal review procedure in relation to case MGLA190122-1994.

Background

On 19 January 2022, you submitted the following request for information:

> *Please can you provide copies of the advice and information supplied by the BRE (Building Research Establishment) to the GLA planners in relation to forming and reviewing the 'Good Quality Homes for all Londoners' guidance[1] with respect to daylight standards for neighbouring residents of new development.*

The GLA responded to your request on 10 February 2022, and advised you that the GLA does not hold the information within scope of your request.

Your complaint

With regards to case reference MGLA190122-1994, you have submitted a complaint:

> *Please can you clarify what is meant by 'does not hold the information'.*
>
> *Information will have been received from the BRE during the consultation on the 'Good Quality Homes for all Londoners' guidance and potentially thereafter regarding the topic of daylight standards for neighbouring residents of new development.*
>
> *Can you confirm that all responses to the consultation and any subsequent information used to form the new policy will be published?*

[1] Good Quality Homes for all Londoners consultation draft | London City Hall

Internal review

This internal review is conducted by someone who was not involved in the handling of the original request. I will now respond to each point of your request in turn:

- Information held by a public authority.

[redacted]
A[redacted] of your original enquiry we approached the relevant Policy lead in the London Plan team. They confirmed that BRE did not provide the GLA with any response to the consultation on *'Good Quality Homes for all Londoners'* including the topic of daylight standards for neighbouring residents of new development.

The 'Good Quality Homes for all Londoners' was a public consultation and anyone could respond but we are not required to receive a comment from any particular organisations. All consu[redacted] comments made by organisations or from individuals are summarised in our consultation report.

- Publication of consultation responses and additional information to inform the new policy.

The link to the latest documents we consulted on is available at: Design and Characterisation Guidance | GLA Engagement Portal (london.gov.uk)

The consultation summary report for the Good Quality Homes for All Londoners has also been published and can be downloaded from here
https://consult.london.gov.uk/14522/widgets/41804/documents/23945
please find attached a copy of the document.

I also attach a copy of the latest version of the Housing Design Standards guidance which address daylight/sunlight guidance.

Outcome

In reviewing your complaint, I consider that the GLA does not hold advice and information supplied by the BRE in relation to the 'Good Quality Homes for all Londoners' guidance with respect to daylight standards for neighbouring residents of new development.

I trust I have addressed your concerns. However, if you remain dissatisfied you may take your complaint to the Information Commissioner at the following address:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
SK9 5AF
http://www.ico.org.uk/complaints

Yours sincerely

Ian Lister
Information Governance Manager and Data Protection Officer

GLA Planning

Good Quality Homes for All Londoners guidance

Consultation summary report

February 2022

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For more information about this document, please contact:

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1 Introduction

In October 2020, the Greater London Authority (GLA) launched a formal consultation on the Mayor's draft 'Good Quality Homes for All Londoners London Plan Guidance (LPG). 141 responses were received from 41 consultees during the consultation, which took place from 13 October 2020 to 15 January 2021 (13 weeks). This consultation summary report is based on those written responses.

1.1 Overview of respondents

Respondents were asked what type of organisation they represent or whether they were responding as an individual. Thirty-eight respondents answered this question.

Respondent type	**Number**
Individual	14
Business	10
Campaign group	2
Community group	4
Government body or agency	2
London borough	3
Professional body	3
Total	**38**

1.2 Respondent demographics

Survey respondents were asked equality monitoring information in order to assess how representative survey respondents were compared to the demographics of Londoners. Only fourteen respondents answered some of these questions and the information below only relates to those that responded and the options they selected for each question.

Results from the survey show that 62 per cent of respondents to this question identified as White-British, and 8 per cent identified as White Other. Eight per cent of respondents identified as Black British, and 8 per cent identified as Asian Other.

Just over half (53 per cent) of the respondents answered that they did not have a disability that impacts on their daily function, and 14 per cent answered that they are impacted by a long term illness, and 13 per cent answered 'Prefer not to say',.

Fifty per cent of respondents were between 25 and 49 years old. Fourteen per cent were between 50 to 64 years old, and 14 per cent were 65 years or older. Twenty-two per cent preferred not to say.

A larger proportion of respondents identified as female (at 43 per cent) compared to 36 per cent that identified as male and 21 per cent preferred not to say.

The majority of respondents (70 per cent) stated that their gender identify is the same as the sex that they were assumed to be at birth. Thirty per cent of respondents preferred not to say.

When asked about their sexual orientation, 57 per cent stated that they were heterosexual or straight, 7 per cent identified as bisexual and 7 per cent as gay man. Twenty-nine respondents preferred not to say.

The majority (77 per cent) of respondents have not been pregnant, on maternity or paternity leave or breastfeeding within the last six months. The other 23 per cent of respondents preferred not to say. None of the respondees confirmed they did meet this characteristic in the last six months.

Other engagement

Specific demographic information was not sought for the other engagement. However, young people, were specifically engaged in the preparation of this guidance. Engagement with young Londoners though a workshop facilitated by the Stephen Lawrence Trust which involves young people between the ages of 16 and 30. The workshop provided feedback on what is important for young people in terms of quality of life in the places they live and the wider urban environment.

2 Module A – Summary of consultation responses

As part of the engagement on the draft guidance, respondents were asked to submit responses to specific questions. This section also includes responses through other engagement channels.

Site analysis using capacity factors

Q1: To what extent do you agree or disagree with the capacity factors covered in Section 2.2?

Eighteen responses were received to this question, 56 per cent agreed somewhat or strongly while 27.5 per cent disagreed somewhat or strongly.

Response	Number	Percentage
Strongly agree	3	17%

Somewhat agree	7	39%
Neither agree or disagree	2	11%
Somewhat disagree	1	5.5%
Strongly disagree	4	22%
Don't know	1	5.5%
Total	**18**	

Q2: Please tell us if you have any comments on the capacity factors and/or if you have any changes you would like to suggest and why?

Twenty-five responses were received to this question. A summary of the responses is detailed below:

- The capacity factors are confusing, and it is uncertain how they would be applied.
- The is a lack of transparency in the capacity assumptions
- The emphasis should be about the character rather than the capacity of an area.
- More guidance should be included to explain how the capacity factors lead to the different levels of projected growth to avoid an inconsistence approach between boroughs.
- There is a lack of resources and skills needed to carry out the design-led approach on sites.
- Deliverability, ownership, and below ground infrastructure were highlighted as additional capacity factors that should be added to analysis.

GLA Response

The guidance has been restructured to set out a **clearer more transparent process** to follow a design-led approach to optimising site capacity.

The guidance that was in Module A has been separated into two documents - Characterisation and growth strategy LPG and Optimising site capacity: A design-led approach LPG. The **capacity factors** have been revised to be part of the site analysis, which is informed by borough's **chracterisation** and growth strategy.

The characterisation and growth strategy guidance sets out a three-stage process:

- Stage 1: Characterisation survey and analysis, looking at drawing together information including community feedback and an analysis of different character types to form an understanding of areas
- Stage 2: Characterisation evaluation, using the information from Stage 1 to scope out different character areas, and define tall buildings for different areas

- Stage 3: Growth strategy, understanding the different levels of change and growth might be appropriate in different areas and developing area-wide visions and policies as well as locations where tall buildings may be appropriate.

The optimising site capacity guidance now sets out a five-stage process to the design led approach:

- Stage 1: Site analysis, including the site and policy context, opportunities and constraints, connectivity, permeability and accessibility, the build form and open spaces, heritage and placemaking, height, layout, uses and **infrastructure analysis, deliverability**
- Stage 2: The design vision, building on the guidance in the characterisation and growth strategy
- Stage 3: Drafting site-based design parameters taking account of the site and context, movement, green infrastructure, public realm and streets, the built form, the identity of the area and appropriate land uses.
- Stage 4: Testing the site capacity using a range of tools
- Stage 5: Finalising site-based design parameters and design codes including through plan-making and when informing planning applications for specific sites.

The clearer process for apply the design-led approach set out in the guidance will support borough planners in determining the optimum site capacity and will be particularly useful for boroughs that lack urban design **skills.**

Use of residential building types

Q3: Do you have any comments on the building types described in Section 3.2?

Eighteen responses were received to this question. A summary of the responses is detailed below:

- Linear blocks height threshold of 10 stories is too high as it encourages street canons. This should be reduced to eight stories.
- Concerned with the possibility of the overuse of the tower typology in area where is a deemed not appropriate
- The building types and examples are almost entirely inner city or intensively developed suburbs.
- The use of only 7 building types risks the tool becoming overly simplistic. Additionally, the residential types may not be useable on irregular constrained site.

Q4: Are there other common housing typologies that meet housing standards (Module C) that should be included as part of determining site capacities?

Eighteen responses were received to this question. Seven respondents stated yes while 11 responded ‘no’ or ‘don’t know’.

Response	Number	Percentage
Yes	7	39%
No	6	33%
Don’t know	5	28%
Total	**18**	

Q5: If you answered yes, please describe the housing typology that should be included. Please include the following parameters in your description: - Typical characteristics - Heights - Access information - Any limitations to this building type

Ten responses were received to this question. A summary of the responses is detailed below:

- Further typologies suitable for outer London or garden suburbs should be included.
- Useful to have perimeter or courtyard blocks, mews streets and mansion blocks
- Double loaded corridor blocks

Q6: Alternatively, please feel free to upload a building template instead of describing a housing typology.

One building template was received. This was of Tillermans Court, Greenford Quay, Ealing.

Q7: When choosing combinations of residential types, are there any other factors that boroughs should consider?

Thirteen responses were received to this question. A summary of the responses is detailed below:

- Tall buildings should not be built/planned for in areas deemed not appropriate.
- Further emphasis on mixed-use residential types.
- The combination of residential types should be led by what types of places, types of street and types of building people prefer to live in or live nearby to.

Q8: Do you have any further comments on Section 3 - Use of residential building types?

Twenty responses were received to this question. A summary of the responses is detailed below:

- Concerned with the possibility of the overuse of the tower typology in area where is a deemed not appropriate.
- There is toom much detail in the in the descriptions for the residential types.

GLA response

The guidance has been updated to emphasise that the Indicative Site Capacity toolkit is **just one of many tools** that boroughs and applicants can utilise.

In response to the types being overly simplistic, the guidance has been updated to emphasise that the residential types can be used together to create **more complex typologies**. For example, combining four linear blocks to create a perimeter block. A set of parameter blocks is also now included to download. However, the residential building types provided do represent the most common building types found in London, including **outer London.**

Providing a **double loaded corridor building types** would result site capacity being based on single aspect housing, which does not afford good quality of life and contrary to the London Plan requirements to maximisation of dual aspect homes and avoid single aspect homes.

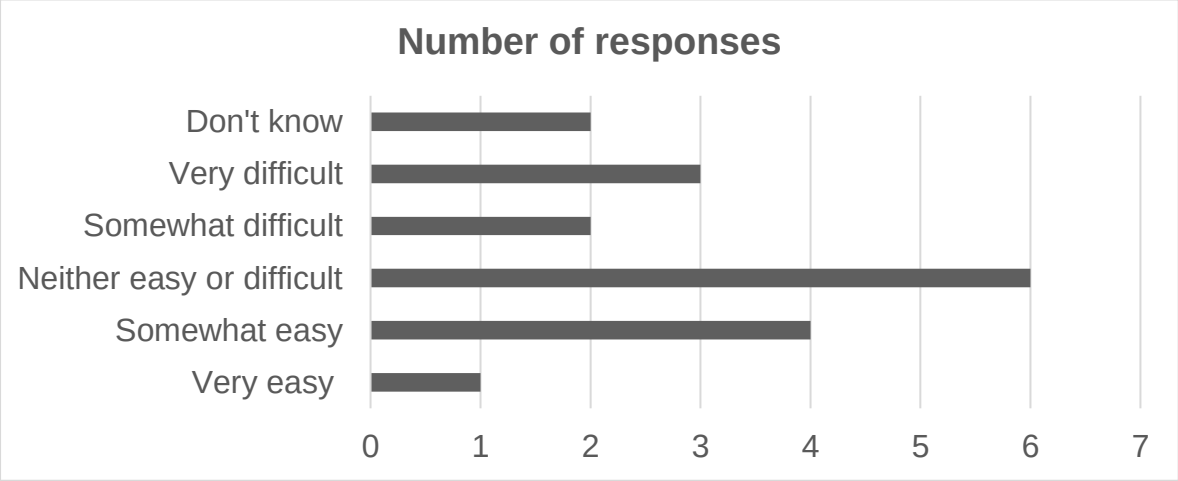
The **level of detail in the descriptions** for the residential types has been reduced.

The guidance on Characterisation and growth capacity provides guidance on identifying locations where tall buildings may be appropriate, and this work will help determine if the tower type is suitable on a particular site. In addition more detailed guidance has been provided on the **selection of residential building types,** including the **tower type.** Further guidance has been provided on determining the appropriate building height for the site and how community engagement should inform the design of the site.

Testing site capacity and using SketchUp

Q9: To what extent is the information on how to use the indicative site capacity calculator clear and easy to use?

Eighteen responses were received to this question. The same number of respondents (5) found it easy or somewhat easy and difficult or somewhat difficult. 6 found it neither easy or difficult and 2 didn’t know.



Q10: Please tell us if you have any comments on the indicative site calculator and/or if you have any changes you would like to suggest

Eighteen responses were received to this question. A summary of the responses is detailed below:

- Concern about the accuracy and flexibility of the toolkit in working out the capacity. For example, it is not possible to change the number of units per core.
- Appears difficult to visualise how much non-residential floorspace is being provided
- The calculator should include/factor in the amount of parking and the space it takes
- Guidance should emphasise that the toolkit provides an indicative rather than definitive site capacity

Q11: Are there any technical barriers to you using the SketchUp tool to determine site capacities?

Seventeen responses were received to this question. Nine respondents stated yes while 4 responded ‘no’.

Response	Number	Percentage
Yes	9	53%
No	4	23.5%
Don’t know	4	23.5%
Total	**17**	

Q12: If you answered yes, please describe what these technical barriers are below.

Ten responses were received to this question. A summary of the responses is detailed below:

- SketchUp has limited functionality.
- The guidance assumes a degree of underlying knowledge as to how SketchUp works.

Q13: The site typologies can be used with software other than SketchUp. Are there alternative tools/ online platforms for testing site capacity that should be highlighted in addition to, or instead of, SketchUp?

Eight responses were received to this question. A summary of the responses is detailed below:

- Suggestion that consideration be given to alterative CAD software such as VuCity, PRISM and Ramboll's toolkit which could be used as an alternative to SketchUp.

GLA response

The use of **SketchUp** was chosen as it is low cost easily accessible software. It also allows boroughs, neighbourhood groups and forums to be able to work out the site capacity with much training or experience compared to other CAD (computer-aided design) software. We acknowledge SketchUp has **limited functionality** and the housing type models we provide are simple, but these limitations have to be weighed against its low cost and simplicity, which makes it more accessible tool. However, there are many software tools that could be used in a similar way with greater functionality and better visualisation, and the guidance has been amended to make clear that other digital tools can be use.

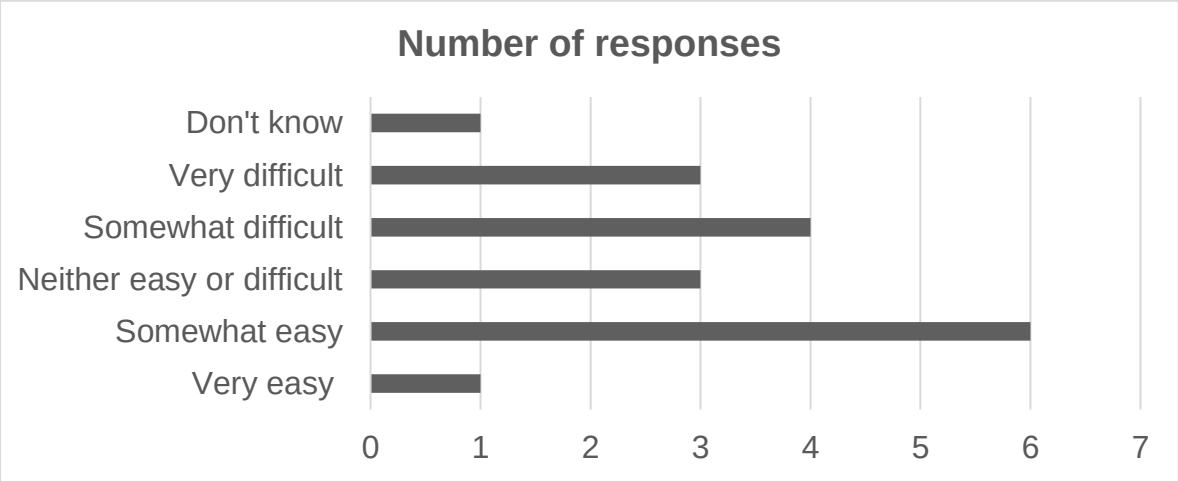
The guidance has been restructured and amended to **focus on the design-led approach** rather than the use of a digital tool and it sets out a process that can work for any tool/software that is being uses. The Indicative Site Capacity Toolkit has been moved to the appendix and the use of the SketchUp toolkit is use throughout the document as an example/illustration of how the process can be carried out and not as required tool to use.

The amount of floorspace **car parking** takes has been added to the capacity calculator.

Overview of Module A

Q14: To what extent do you think that Module A is clear and easy to use?

Eighteen responses were received to this question. The same number of respondents found it easy or somewhat easy and difficult or somewhat difficult, 4 found it neither easy or difficult.



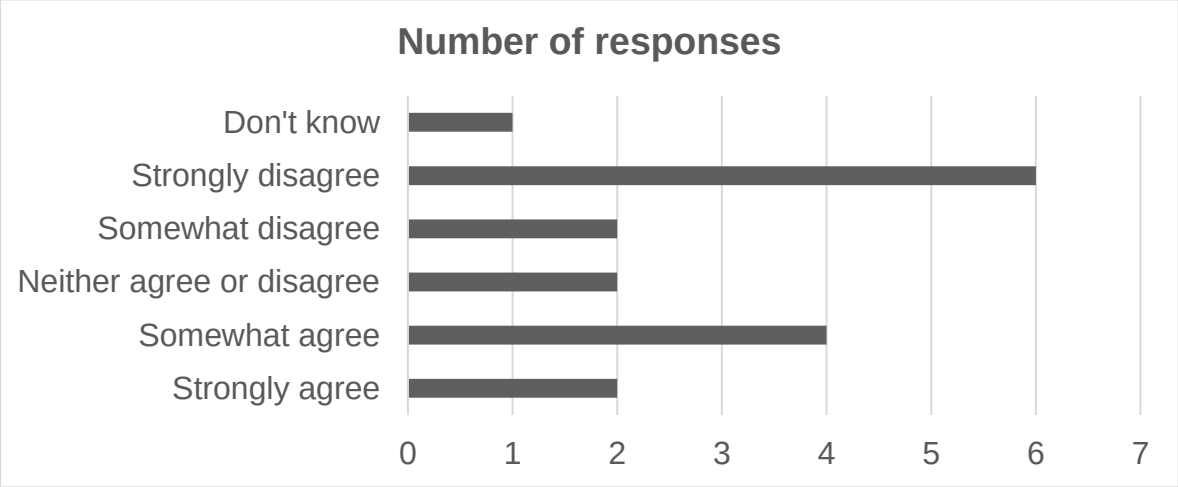
Q15: If you think changes are needed to Module A to make it clearer and easier to use, please provide more detail.

Nine responses were received to this question. A summary of the responses is detailed below:

- There is a lack of transparency in the parameters and assumptions used when working out the optimum site capacity.
- Guidance should reiterate that the site capacity toolkit estimates should not be used as a cap on development on sites.

Q16: To what extent do you agree or disagree that Module A provides a comprehensive framework to optimise site capacity for those involved in housing delivery?

Seventeen responses were received to this question. Six respondents agreed or somewhat agreed while 8 disagreed or somewhat disagreed, 2 neither agreed or disagreed and one respondent didn't know.



Q17: If you think changes are needed to ensure that Module A provides a comprehensive framework to optimise site capacity for those involved in housing delivery, please provide further detail.

Eleven responses were received to this question. A summary of the responses is detailed below:

- Community engagement and involvement should be further emphasised in the guidance.
- The use of site-specific design codes should be further emphasised in the guidance.
- Concern about the possible lack of resources and skills to carry out work

Q18: Do you have any further comments to make on Module A?

Twenty-two responses were received to this question. A summary of the responses is detailed below:

- General support for the design-led approach replacing the density matrix.
- The guidance is too lengthy and could be more succinct.
- Concern about the possible lack of resources and skills to carry out the work required
- Guidance should acknowledge alternative approaches to determining the site capacity.
- Boroughs should be given a reasonable timeframe in which to prepare characterisation assessments which could be used to support the site capacity work.
- Resident wellbeing and a site's design vision should be emphasized as part of the design-led approach to site optimisation.

- Concern about the transparency of the design-led approach and the parameters used.
- Consider that the burden of assessing the capacity of non-strategic sites should fall on developers.
- Concern that the design-led approach could lead to unreasonable harm to nearby sites and residents (particularly in relation to tall buildings).
- When planning for tall buildings, it should be required that alternative methods of achieving the same goals and densities should be demonstrated first.

GLA response

The guidance has been restructured to set out a **clearer more transparent process** to follow the design-led approach to optimising site capacity.

The guidance that was in Module A has been separated into two documents - Characterisation and growth strategy LPG and Optimising site capacity: A design-led approach LPG. This new **structure and amended guidance sets out a clearer more transparent processes. See GLA response to questions 1 and 2 for details of the new structure** to these two documents.

The guidance on **characterisation and growth strategy** has been amended and expanded to provide a clearer process, which can be followed to produce characterisation study and a growth strategy. This work will underpin local plan development and is important starting point for optimising site capacity and small site design codes. This guidance also provides guidance on defining what is considered a tall building locally and identifying locations that are suitable in principle for tall building in local plans.

More detailed guidance is provided on determining the design parameters of a site.

The guidance has been amended to make clear that the site capacities should be treated as an approximation for development coming forward on site and are thus **not a cap on development** on the site.

3. Module B – Summary of consultation responses

Identifying opportunities for small housing development

Q1: Are there any other considerations for street-facing or backland conditions that should be included in Sections 3.3 and 3.4 of Module B?

Seventeen responses were received to this question, 15 respondents stated yes while tow responded 'no'.

Response	Number	Percentage
Yes	15	88%
No	2	12%
Don't know	0	0%
Total	**17**	

Q2: If you answered yes, please describe what these other considerations are below.

Fifteen responses were received to this question. A summary of the responses is detailed below:

- Concern over the loss of green space when redeveloping backland sites.
- Further considerations should be given to the access arrangements (including refuse collection) for backland sites.
- The guidance should also have a designated section on upward extensions too
- It would be useful if the guidance could address mixed-use development as well as just residential infill.
- It would be useful to see more ambitious guidance on sustainability and urban greening.
- More detail should be included in the design codes section of the guidance such as bay widths, fenestration patterns and materials.

GLA response

The guidance has been restructured to set out a clear process for developing design codes.

Guidance is amended to address the **loss of greenspace on backland sites** and **access and servicing arrangements** in the section on backland conditions.

Additional guidance on **upward residential extension** and **mixed-use development** has been added.

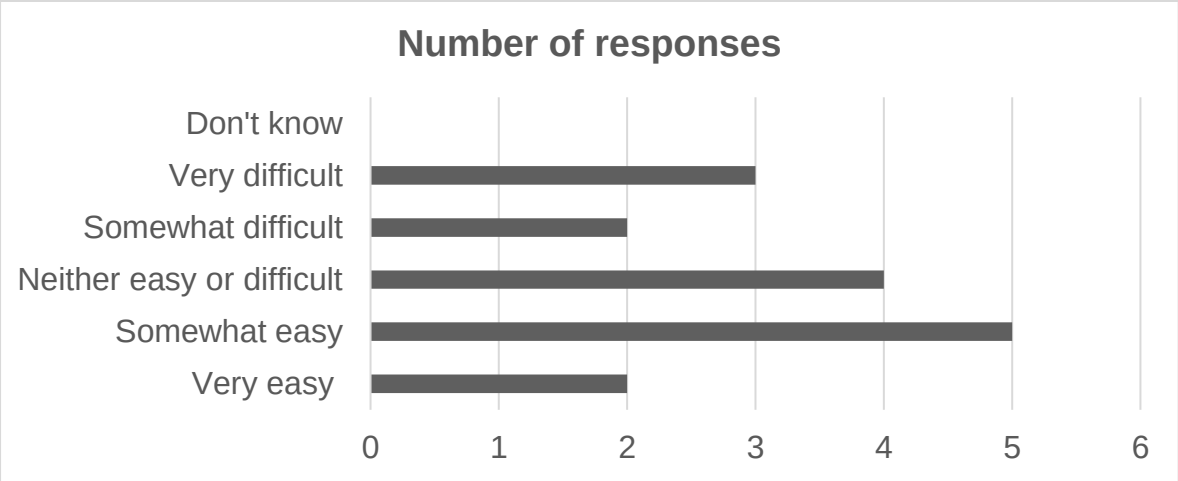
The guidance on **sustainability and urban greening** are based on London Plan policies. Local policy requirements can also be incorporated into design codes and the guidance makes clear it is setting out a process and example codes for boroughs to use to develop their own local codes.

The guidance now includes more **detailed aspects of design** such as windows, materiality and detailing.

Overview of Module B

Q3: To what extent do you agree or disagree that Module B is clear and easy to use?

Sixteen responses were received to this question. Seven respondents found it easy or somewhat easy while 5 found it difficult or somewhat difficult, and 4 found it neither easy or difficult.



Q4: If you think changes are needed to make Module B clearer and easier to use, please provide more detail.

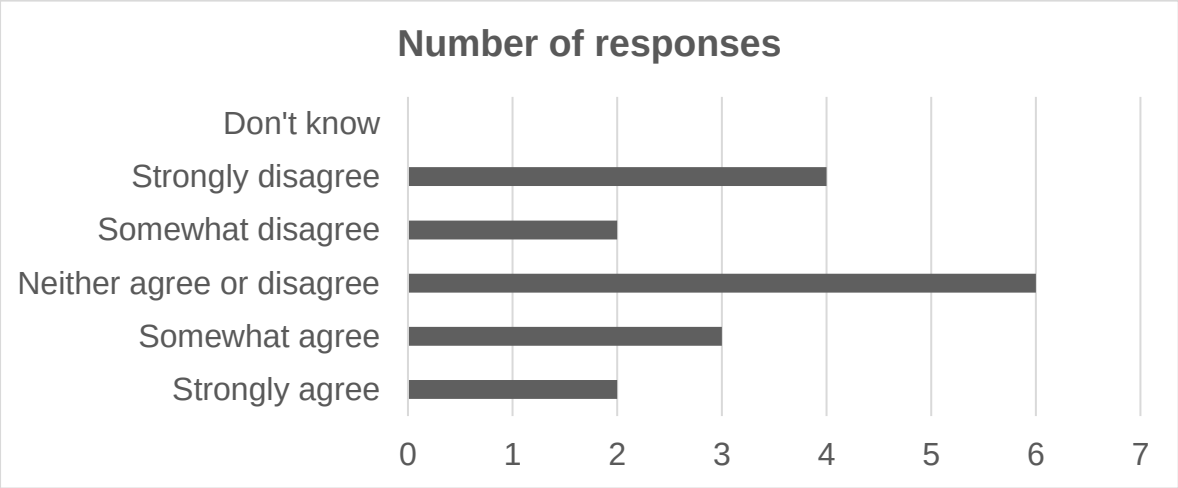
Twelve responses were received to this question. Respondents suggested that:

- Further emphasis on the engagement with local residents and stakeholders.
- Guidance in this module should be in far more in-depth with respect to design codes.
- Guidance should emphasize the important of a design vision when formulating a design code.
- It would be useful if the guidance identified the common types of small sites that is commonly associated with small site development. Images of existing sites as well as illustrations would be useful here.

- The example used in figure B.3 implies that future areas of terraced streets could be designated as demolish and rebuild areas. This should be changed.
- Guidance on upwards extensions within module B is too simplistic and ambiguous. Therefore, more guidance should be detailed here about what is acceptable and importantly, unacceptable with respect to upwards extensions and what local authorities should consider when writing a design code for upwards extensions.
- Since publishing this draft, central Government have issued updated planning legislation (PDR for 'extra storeys') which appears to now conflict with some of the advice within this document. This should be clarified to avoid misunderstanding.
- The case studies should be incorporated into the modules

Q5: To what extent do you agree or disagree that Module B provides a comprehensive framework to assess the quality of small sites schemes and to prepare design codes for small sites development?

Seventeen responses were received to this question. Five respondents agreed or somewhat agreed while 6 disagreed or somewhat disagreed. 6 neither agreed or disagreed.



Q6: If you think changes are needed to Module B to ensure that it provides a comprehensive framework to assess the quality of small sites schemes and to prepare design codes for small sites development, please provide further detail.

Seventeen responses were received to this question. Respondents suggested that:

- More conditions or small site 'types' should be explored.
- This module should emphasise that a critical component to creating effective design codes is the community engagement in the preparation of them.

- The guidance on design codes should include more detail than is currently the case.
- A design vision section should be added to the design coding process.
- Given small sites generally have a unique spatial context, and therefore lend themselves to very particular design responses, it is considered that the guidance provided in Module B is too prescriptive.
- Concern that the proposals shown in the guidance could harm the streetscape. For example, the demolition and rebuilt example and the upward extension.
- Some of the wording in the guidance is too subjective.

Q7: Do you have any further comments to make on Module B?

Nineteen responses were received to this question. Respondents commented that:

- There was a concern about the possible lack of resources and skills to carry out the work required
- The case studies should be incorporated further into this module
- Have the design codes been considered in conjunction with the White Paper requirements and permitted development of extending additional storeys?
- The design codes should have inbuilt flexibility to ensure development potential and site capacity is optimised.
- Concern raised over the 'demolition and redevelopment' of areas.

GLA response

The guidance has been amended to provide more guidance (see Section 3) on the role of **public engagement and consultation** in the development of design code.

The guidance provides **more detail** on the design code process and the National Model Design Code is now embedded into the it and avoids **subjective** terms. It sets out a four-stage process for preparing design codes:

- Identify the design code coverage – looking at different character types and **different site conditions** commonly associated with small site development and includes **images of them.**
- **Design vision** and principles – this draws on work that will be done under the characterisation and growth strategy LPG, applying it at a more local level.
- Prepare design codes – with guidance on content.
- Implementation and review of design codes – including monitoring, enforcement and compliance.

Figure B3 (now Figure 3.1) has been amended and no longer refers to areas identified for **demolition and rebuild**)

The guidance includes more example design codes for the different site conditions including **upward extensions**

Permitted development rights are now addressed in the guidance (Section 4).

The guidance incudes photos of example small site development instead of incorporating the **case studies.**

The guidance sets out a clear process for developing design codes and gives examples of how these can be presented, but it is clear these examples are only illustrations and thus we do not consider the guidance to be too **prescriptive.** The guidance also explains where **flexibility** can be built into the design code (Section 4).

The intent of this guidance is to **provide a resource** to **support boroughs** in the development of small site design codes, by setting out a clear process and examples to follow.

4. Module C – Summary of consultation responses

Housing design standards

Q1: Do any of the standards in Module C need to change?

29 responses were received to this question. 29 respondents stated yes while none of the respondence stated ‘no’.

Response	Number	Percentage
Yes	29	100%
No	0	0%
Don’t know	0	0%
Total	**29**	

Q2: If you answered yes, please provide detail on how the standard(s) need to be changed and the reason for this change?

Thirty-three responses were received to this question. Numerous responses were also received to other questions in the survey that suggested changes to the standards. As a result, any comments regarding how the standards could be

changed, have been summarised below. Comments have been ordered by the standard that the refer to:

- C1.1.1 and C.1.1.2: Additional wording suggested to make the standards to more effective and meaningful.
- Standard C1.1 - This standard should include microclimate and orientation which are important design considerations
- Standard C1.4 Open space. This policy should link to the GLA's Public London Charter guidance
- Standard 2.2 - Standard should align with London Plan which retains the ability to apply M4(1) for blocks of up to 4 floors where lift access is not viable.
- Standard C3.3 - LCDS should be replaced with TfL Cycle route quality criteria and refer to the Local Traffic Note 1/20 (LTN 1/20)
- Standard C4 – Guidance should provide more flexibility to build to rent schemes
- Standard C4 ‘Dwelling Space standards’ should state all dwellings can accommodate the furniture shown in Approved Document M Appendix D – not just the wheelchair user dwellings. This was included in the previous Housing SPG in Standard 25
- Standard C.4.1 Designing rooms and internal space: Architects should demonstrate more than 1 furniture layout is possible in all habitable rooms.
- Standard C4.1.4- Standard should go beyond just facilitating alternative seating layout/different sized beds.
- Standard C4.3.2 should be amended to 75% of ‘habitable rooms’ rather than ‘the dwelling’ to align with the London Plan
- Standard C5.2.1 (dual aspect units): Should be changed to 'Housing development should maximise the provision of dual aspect dwellings' as in 2016 SPG. This is also the text in part C of policy D6 in the London Plan
- Standard C5.2.1 (dual aspect units): concern it is too open to interpretation
- Standard C5.2.2 - 'Where single-aspect dwellings are proposed (by exception)' - wording should be amended to remove wording 'by exception'
- Standard 5.3.1 and 5.3.2 (BRE guidelines) as stated could lead to inadequate light for residents and reduction in light for neighbours. Standard should be tightened.
- Standard 5.3.1 and 5.3.2 (BRE guidelines) should be amended in order to be applied more flexibly as stated in BRE guidance
- Standard C5.3.1 ADF has been removed as a method of assessment by the EU Standard. Its inclusion would be incorrect and C5.3.1 should therefore be deleted.

- Standard C5.3 - The 2011 BRE Guidance will soon be updated to reflect the European Standard and therefore 'baking in' recommendations from the 2011 BRE Guidance would contradict both current and emerging daylight guidance.
- Standard C5.3.2 should be deleted. Para 3.3.7 of the BRE Guidelines is clear that at least half of an amenity area receiving at least 2hours of sunlight is a "recommendation" not a fixed requirement.
- Standard C3.1.2 Concern over 8 units per floor per core. This is more onerous than Standard 12 in Housing SPG
- Standard C3.1 - Twenty-five dwellings per core maximum. Wording is inappropriate for a significant proportion of schemes in London and should be removed.
- Standard C6.1 to 6.3 - Approach supported.
- Standard C6.2.2. Addition of artificial nest sites such as swift bricks to be advocated.
- Standard C7.1.1 should be strengthened to direct new developments to retain and refurbish rather than demolish.

GLA response

This guidance has been restructured and focuses on the standards with less supporting text. The revisions and changes to the guidance address most of the points raised above except the following points.

The guidance does not provide flexibility for **build to rent** homes to not follow the standards. These developments provide long-term general-purpose housing for Londoners, and thus the residents require the same good quality housing that is provided in other forms of self-contained residential applications (use class C3).

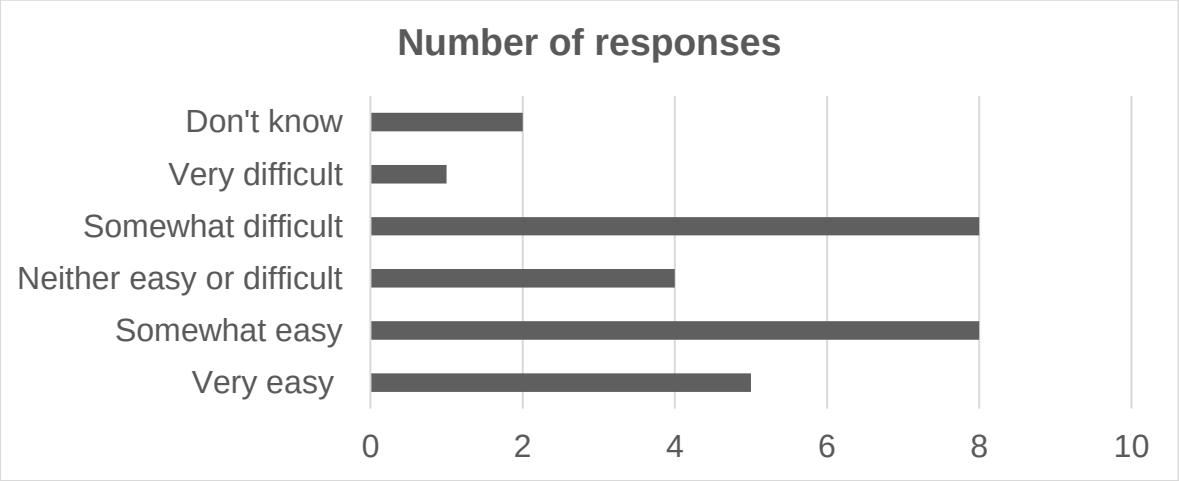
The standard referring to **single aspect homes** still includes the term 'by exception' as London Plan Policy D6 Housing standards and quality is clear that single aspect homes should normally be avoid.

The standards do not specifically include reference to **artificial nest sites** as the supporting text for each standard has been removed to aid clarity and make the document more user-friendly. However there is greater emphasis on biodiversity in the standards and standard A4.2 states 'Proposals should result in a net increase in biodiversity by conserving and extending existing habitats and creating new ones to strengthen local ecological networks.'

The guidance related to sunlight and daylight has been changed to make clear that the standards aim to complement the consideration of daylight and sunlight impacts using the **BRE guidance** (Site layout planning for daylight and sunlight: a guide to good practice). The guidance now does not refer to technical values contained in to the BRE guidance such as Vertical Sky Component (VSC) and Average Daylight Factor (**ADF**).

Q3: To what extent do you think that Module C is clear and easy to use?

Twenty-eight responses were received to this question, 13 respondents found it easy or somewhat easy while nine found it difficult or somewhat difficult. Four found it neither easy or difficult.



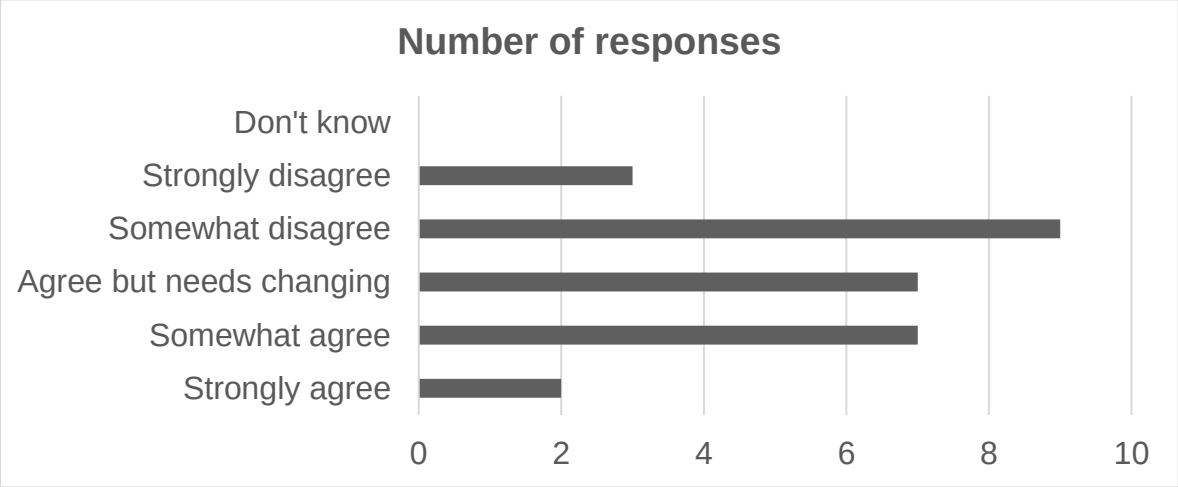
Q4: If you think changes are needed to make Module C clearer and easier to use, please provide more detail.

Twenty-three responses were received to this question. Respondents suggested that:

- Section 2 be removed /integrated with Section 3
- The document is too lengthy and wordy. Suggestion to condense the guidance to be more user-friendly.
- Concern about lack of flexibility when applying proposed standards.
- Further clarity and guidance is suggested on what may be considered an exceptional circumstance.
- Many of the SPG standards are a duplication of what is already documented in the London Plan and as such are superfluous and confusing.
- Standards state that developments ‘should demonstrate’. However the word ‘demonstrate’ should be removed so more emphasis that development must follow the standard.
- Numbering could be simplified as C1.1.2 etc is confusing and hard to reference.

Q5: To what extent do you agree or disagree that Module C provides a comprehensive set of housing standards in order to ensure high quality design can be assessed and achieved?

Twenty-eight responses were received to this question. Nine respondents agreed or somewhat agreed while a further seven agreed but thought the standards need changing. Twelve respondents disagreed or somewhat disagreed.



Q6: If you think changes are needed to ensure that Module C provides a comprehensive set of housing standards, please provide further information and explain why.

Twenty-three responses were received to this question. Respondents suggested that:

- The guidance misses an opportunity to build new design standards based around progressive sustainability agenda. Carbon and the circular economy are presented as 'bolt-on' aspects of design rather than the fundamental starting point
- Long term Covid implications on living and working patterns should be considered (Standard C5)
- Reference to the documents role in supporting physical and mental health and wellbeing be recognised further
- Concern about liveability and sustainability of high-density schemes particularly tall buildings.

Further comments

Q7: Do you have any further comments to make on Module C?

Thirty-six responses were received to this question. Responses relating specifically to a particular housing standard, has been moved to Q2 above. Respondents suggested that:

- The introduction of illustrations or images would be useful
- The term 'module' is confusing and should be replaced.
- Small site delivery such as self-build custom build and modern methods of construction (MMC) should be recognised/supported
- The term 'units' should be changed to 'homes' throughout the SPG

GLA response

The guidance is now a separate piece of London Plan Guidance and not a module. It has been **restructured and shorten** to make it clearer and more **user-friendly**. It has a simpler structure (and **numbering** system), which follows the design process more closely - considering the wider site first and moving to detailed internal aspects later. It now focuses on the standards with much less supporting text. It is intended to be used as a checklist, bringing all policy requirements together into one place.

The **standards are clearer** about what is expected and explain what would be **considered exceptional circumstances**.

The guidance more explicitly addresses the **climate emergency** and the implication of **Covid pandemic** for spending more time at home. The standards make greater reference to supporting **healthy** development and lifestyles choices.

These standards express what it means to optimise site capacity for a residential development, as opposed to simply maximising the development of a site. Thus helping to ensure that **higher density schemes** deliver good quality sustainable housing. The standards address the location of **family housing within taller** buildings.

Illustrations have not been added to the guidance to help keep the document as short as possible.

The term **unit** has been changed to **home**.

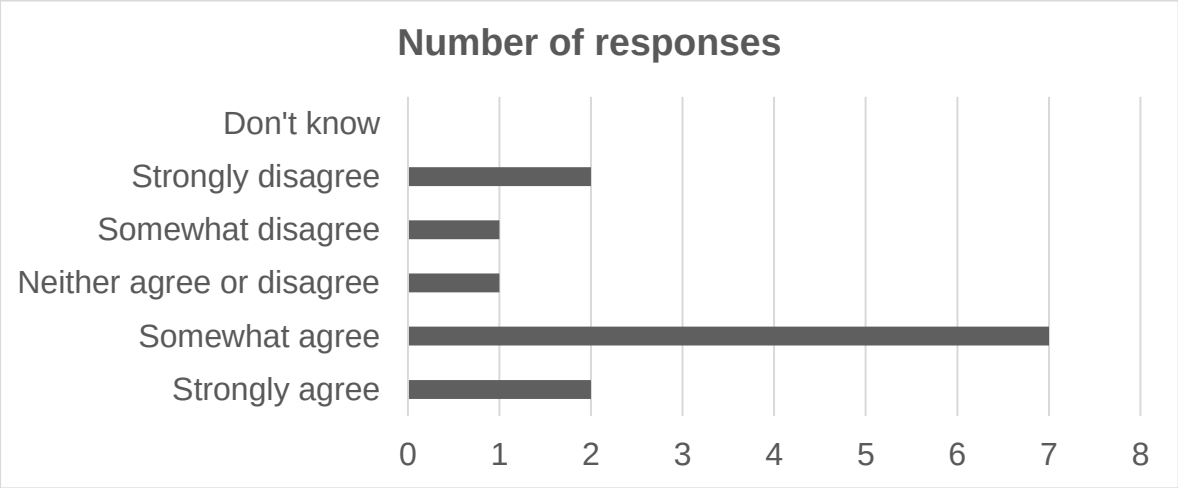
The guidance does not address the issues of **small site delivery** as it is focus is on design standards that apply to all forms of self-contained residential development and not on different ways to deliver housing.

5. Module D – Summary of consultation responses

Case studies

Q1: To what extent do you agree or disagree that the case studies provided are useful?

Thirteen responses were received to this question. Nine respondents agreed or somewhat agreed while three respondents disagreed or somewhat disagreed. One respondent neither agreed or disagreed.



Q2: Can you recommend other case studies that would be useful to add, and if possible, provide the same information as set out in the other case studies?

Eight responses were received to this question. A summary of the suggestions is detailed below:

- Aldgate Place – Barratt.
- Goldsmith Street, Norwich – Mikhail Riches and Cathy.
- Sutherland Road, Waltham Forest London – Levitt Bernstein.
- Hazelhurst Court, Lewisham – Levitt Bernstein.
- Belle Vue, Camden – Morris and Company.
- Blackfriars Circus, Southwark – Maccreanor Lavington.
- Kings Crescent Estate Phases 3-4, Hackney – Karakusevic Carson
- Chobham Manor, LLDC
- Fitzroy Road roof extension, Primrose Hill.
- Wrange Walk development, Southwark.

Q3: Do you have any further comments to make on Module D?

Nineteen responses were received to this question. A summary of the suggestions is detailed below:

- It would be useful to identify some case studies that are exemplary across all of the standards.
- Examples of good practice in lower value areas would be useful.
- Examples of poor urban design case studies as this would help clarify what is not acceptable in design terms.
- It would be useful to have additional rooftop extension exemplars
- Additional exemplary high-density and high-rise project examples that demonstrably meet the proposed standards would be useful.

GLA response

The guidance which the case study module linked to have been significantly revised and form four separate pieces of London Plan Guidance. As we have revised the guidance, we have also broadened them out so some of them cover the development of buildings that have other uses than housing. Thus, a document of housing case studies would not easily integrate into the revised guidance and so it does not now form part of the guidance. However, we considered that the case studies could in the future become an online resource, which link to different parts of London Plan guidance and not just this set of guidance.

6. Equality Impact Assessment (EqIA)

Respondents raised the following potential equality impacts arising in relation to the draft guidance:

- There is a lack of reference to maintenance and operating costs of homes. Affordability and ease of use are important and will have an impact on the ability of residents to live in their home safely and healthily, address fuel poverty and make it easier for homes to be kept in good order which supports good physical and mental health and wider well-being.

GLA response

The revised guidance on housing design standards specifically addresses management and maintenance. It requires that developments are design for a long life by specifying high quality, durable, low maintenance materials that age well, and require little maintenance. There are also now several standards on energy and thermal efficiency which aim to reduce energy use (and cost) and provide thermal comfort in the home.

7. Next steps

The guidance that has been developed out of the 'Good Quality Homes for All Londoners' guidance consists of four pieces of London Plan Guidance:

- Characterisation and Growth Strategies LPG
- Optimising Site Capacity: A Design-led Approach LPG
- Small Site Design Codes LPG
- Housing Design Standards LPG

This guidance is to be published for a second public consultation (called the Design and Characterisation LPGs consultation) to provide another opportunity for the public to feedback their views. The consultation on the four new guidance documents will start in February 2022 and run for six weeks. More details on this consultation can be found at London Plan Guidance | London City Hall.

Appendix 1 Summary of engagement

Informal and/or early engagement

Activity Type	Participation	Representation
Workshop	Young Londoners working with the Stephen Lawrence Trust	23 attendees
Workshop	London boroughs planners	45 attendees (approx.)

Formal engagement

Date	Activity Type	Participation	Representation
13 Oct – 15 Jan 2021	Consultation survey and written responses	All	141 responses
5 Nov 2020	Webinar - guidance and focus on Module A	Boroughs planners	25 attendees
10 Nov 2020	Online meeting - overview the guidance	Developers, Registered Providers, landowners, designers	9 attendees
12 November 2020	UDL webinar	Borough planners and councilors	133 attendees
20 November 2020	Webinar overview the guidance	All	85 attendees
24 November 2020	Online meeting - focused on Module B - small sites and design codes	Borough planners	18 attendees
26 November 2020 1 December 2020	We offered Sketch-up tool drop-in sessions: individual bookable 15 minute sessions for London borough planning officers with	Borough planners	0 attendees

	questions on how to use Sketch-up.		
8 December 2020	Webinar - overview of guidance	All	42 attendees

These events were hosted on Zoom as either a meeting (participation via turning on video and unmuting or using the chat function) or webinar (participation via the Question and Answer function) and included a presentation and Question and Answer session. Zoom Webinar events were recorded and are available to watch on YouTube with captions (Bang the table consultation webpage).

GLA Planning

MAYOR OF LONDON

London Plan Guidance

Housing Design Standards

Consultation draft

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Table of contents

London Plan Policy	Policy D6 Housing quality and standards Other relevant policies that are listed beside each standard
Local Plan Making	N/A
Planning Application type and how the London Plan Guidance will be applied	All self-contained residential applications (use class C3). This guidance provides a list of housing standards that are applicable to all self-contained residential applications (use class C3). The abbreviations in brackets after each standard indicate whether it applies to new build [NB], change of use [CoU] and conversions [C] or all of these types of housing development [All]. The standards aim to ensure that development proposals create well-designed and sustainable places that are of high-quality. This guidance focuses on housing across tenures, including Build to Rent. However, it does not provide guidance on specialist forms of housing such as shared living, temporary accommodation and student accommodation.
Who is this guidance for?	This guidance is aimed at developers and their design teams seeking planning permission, and borough development management officers. The guidance is categorised under three themes (or parts): Placemaking and the public realm; Shared spaces and ancillary facilities; and Homes and private outside space. These broadly follow the design process and aim to assist design teams in designing residential developments.

1 About this document

1.1 What are the 'Housing Design Standards'?

1.1.1 This document brings together and helps to interpret the housing-related design guidance and policies set out in the London Plan 2021. It provides a set of standards that relate to housing design. It does not attempt to reproduce the content of the Plan and compliance with this guidance should not be inferred to mean compliance with the policies. It applies to new housing that falls within Planning Use Class C3. This includes most forms of housing for older people (including extra care), but not shared living which is treated as sui generis.

1.1.2 This guidance takes account of the impact of the Coronavirus pandemic, including the shift to increased homeworking. These Housing Design Standards will provide homes that are safe, inclusive, comfortable, flexible, durable, well-built, well-managed and achieve net zero carbon and that are designed to last at least 200 years, and with eventual disassembly in mind. They express what it means to optimise site capacity for a residential development, as opposed to simply maximising the development of a site.

1.1.3 The standards have been ordered to align with the design process and the document signposts the relevant policies from London Plan policy and other guidance throughout. This aims to assist designers and borough officers when designing and assessing a development. The standards within this document are split into those that are required and those that are strongly encouraged or represent best practice. This document also highlights where standards are not directly applicable to specialist older persons housing.

2 Part A: Placemaking and the public realm

2.1.1 Good placemaking involves taking cues from the landscape and topography, the local climate, the pattern of buildings, streets and open spaces. Design teams must consider the context and history of a place as well as any future plans and look for opportunities beyond the immediate development boundary. Early engagement with a representative and diverse range of local people, which is proportionate to the scale of development, is also important.

2.1.2 As good placemaking is synonymous with good environmental design, it is vital for development to retain and re-use as much as possible to minimise embodied carbon as well as operational carbon. This guidance requires existing buildings and infrastructure to be retained or re-used where possible and for demolition to be justified.

2.1.3 The layout of any development will be influenced by a wide range of factors. As a result, only a rigorous design process will identify the tensions and priorities and find the solution that, on balance, will produce the best all-round solution. The priorities may vary but they include optimising a building's orientation and form to maximise thermal efficiency, which is vitally important to tackling climate change.

2.1.4 Large developments should provide a wide range of dwelling types and tenures. There should be no perceptible qualitative difference between buildings designed for different tenures and mixed tenure development is encouraged. London urgently needs more homes, but these need to be well designed sustainable dwellings and thus the design-led approach advocated in the Plan requires developers to optimise, rather than maximise, development opportunities.

2.1.5 All parts of the public realm should feel safe and welcoming for all, with a particular focus given to creating spaces that are safer for those groups that are more likely to have safety concerns in public spaces, such as women and girls, trans and disabled Londoners. It should be designed and built not just to last, but also to improve over time. This means using high quality, durable materials and components that age well and require little maintenance. Simple, compact forms are effective in reducing carbon emissions and the spaces between buildings are as important as the buildings themselves.

2.1.6 Walking and cycling should take priority for access in the design of buildings, places and the surrounding area. This must be complemented by provision for people with a range of disabilities and who choose a range of transport modes, and careful consideration of servicing, deliveries and emergency access. The storage and movement of private vehicles, where required, must not compromise this. Where new streets are created, the allocation of highway space must be based on the Healthy Streets indicators.

2.1.7 Thoughtful design can create space for informal play and social interaction where gatherings and events can take place. It can also provide biodiversity gains and other ecological services through planting and incorporating SuDS. It is important that streets are overlooked and well-used. Active frontages and frequent entrances (shared and private) play an important role and front gardens and boundaries require careful thought. New streets, and where possible, existing streets, will be expected to include carefully selected trees and appropriate lighting.

2.1.8 Public green space plays a unique role because it belongs to everyone, as highlighted further by the Coronavirus pandemic. It should be multipurpose and biodiverse, designed to respond to the scale and setting of the development, address deficiencies in local provision, and be accessible to people of all ages and those living with a disability. Play is a vital component; essential to healthy child development and allowing young people to explore ideas, learn social skills and make discoveries.

A	Placemaking and the public realm	
A1	**Response to context and the climate emergency**	
A1.1	Design proposals should respond positively to the unique characteristics of the site in its wider physical context by demonstrating how the scheme responds to the underlying topography, landscape, the character and legibility of the area, local patterns of buildings, streets and materials and aligns with an area's local vision and strategy. **[See Characterisation and Growth Strategies LPG]** **[NB]**	**D3**
A1.2	Make every attempt to retain and reuse existing built structures before considering substantial demolition. Where substantial demolition is proposed, applicants should demonstrate that the benefits of demolition would clearly outweigh the benefits of retaining the existing building or parts of the structure. **[See Whole Life-Cycle Carbon Assessment LPG and Circular Economy LPG]** **[All]**	**SI2** **SI7**
A1.3	Heritage assets and their settings should be conserved, enhanced, and integrated into the design of new development where they contribute to the sense of place, or can make a specific contribution to placemaking and regeneration. **[NB]**	**HC1**
A1.4	The height and massing of new development should align with the design parameters and guidance for sites where this is set out in local plan or other policy documents. In areas deemed not appropriate for tall buildings, the height of new development should not exceed a borough's tall buildings definition or height parameters. **[See Optimising Site Capacity: A Design-led Approach LPG]** **[NB]**	**D1** **D3**
A1.5	New developments should be street based and connect with, and augment, the existing local network of public spaces, streets, paths and open spaces. Where appropriate, development should conserve or reinstate the historic street pattern. **[NB]**	**D3** **D6** **D8**
A1.6	Design proposals should consider the green infrastructure context beyond the site boundary and refer to the borough's Green Infrastructure Strategy where available. Where a local Green Infrastructure strategy is not in place, reference to resources and data tools such as the GLA's Green Infrastructure Focus Map should be made. Proposals should incorporate greening that is multifunctional, climate resilient, and which optimises opportunities to enhance biodiversity. **[NB]**	**G1**
A1.7	The most favourable orientation for each new building will be heavily influenced by the site-specific opportunities and constraints. Layouts should optimise the orientation of new buildings to maximise the quality of daylight and thermal comfort for residents and minimise overheating as well as optimise thermal efficiency by utilising and controlling solar gains. **[NB]**	**D6** **SI4**

A1.8	Particular consideration should be given to the impact of new development on the level of daylight and sunlight received by the existing residents in surrounding homes. **[NB]**	**D6**
A1.9	The orientation and massing of buildings, and the separation distances between them, should ensure that the public realm is not unduly overshadowed. Where a building over 30 metres high is proposed, a micro-climate/wind assessment should also be submitted. **[NB]**	**D6** **D8**
A1.10	Avoid compromising the day-to-day functioning and long-term viability of adjacent non-residential uses, in accordance with the 'Agent of Change' principle. **[All]**	**D13**
A1.11	Masterplans and development briefs for large-scale developments subject to an Environmental Impact Assessment, should consider how to maximise the benefits to local air quality in and around a development site or masterplan area, and minimise exposure to existing sources of poor air quality as part of an Air Quality Positive approach. All other development should be at least Air Quality Neutral. **[See Air Quality Positive LPG and Air Quality Neutral LPG]** **[NB]**	**SI1**
A1.12	Air Quality Assessments should be submitted with all major development proposals. **[All]**	**SI1**
A1.13	Major developments (both new build and refurbishments) should be net zero-carbon by following the Energy Hierarchy to minimise on-site carbon reductions as far as possible before offsetting any residual emissions. This means being: lean (using less energy – see Standard A1.14), clean (exploit local energy resources and supply energy efficiently and cleanly – see Standards B7.1 - 7.2), green (maximise on-site renewables - see Standard B8.1) and seen (monitor, verify and report on energy performance). **[See Energy Assessment Guidance and Be Seen Energy Monitoring LPG]** **[All]**	**SI2**
A1.14	To be Lean and thermally efficient, building massing should be simple and compact. It should avoid complicated forms that increase the external surface area of the building (and therefore the heat loss) by minimising stepped roofs, overhangs, projecting elements, recesses and inset balconies. **[See Energy Assessment Guidance]** **[NB]**	**SI2**
A1.15	Development referable to the Mayor should calculate and minimise whole life carbon emissions (encompassing both operational and embodied carbon). This is also strongly encouraged for all major development. Ensure that the products used are sustainably sourced (locally where possible to reduce the length of the overall supply chain) and are low in embodied carbon. Restrict the overall palette of materials and components and take a proportionate approach by concentrating on the materials which are most prevalent in the development, and those with the highest carbon impact. **[See Whole Life-Cycle Carbon Assessment LPG]** **[NB, CoU]**	**SI2** **SI7**

A1.16	Design for a long life by specifying high quality, durable, low maintenance materials that age well, and require little maintenance. **[All]**	**D3**
A1.17	Design with the circular economy in mind. Consider how new buildings could be adapted to accommodate new uses over time, and how eventual disassembly will facilitate the reuse of materials and components and minimise waste and pollution. **[See Circular Economy Statement Guidance LPG]** **[NB]**	**D3** **SI7**
A2	**Land use mix**	
A2.1	Demonstrate how the mix of uses meets strategic and local targets and consider the need for non-residential uses (including shared workspaces) to reflect changing patterns of work. The land use mix should take account of the need for local access to amenities and promote the 15-minute city concept. **[NB, CoU]**	**D3**
A2.2	Ensure that the mix of dwelling types reflects strategic and local need and recognises the importance of mixed and inclusive communities. Large developments should aim to deliver a wide range of housing tenures and typologies and respond to specific local needs such as specialised housing for older people and multigenerational housing. **[All]**	**H10**
A3	**Streets**	
A3.1	Prioritise people walking and cycling while providing vehicular access for emergency and service vehicles, and safe, level access drop-off points close to building entrances. **[NB, CoU]**	**D5** **D8** **D12** **T2**
A3.2	Adopt a 'Heathy Streets' approach and be designed as social spaces that invite footfall, and are safe, healthy, inviting, active and well-lit. Ensure frequent entrances and active frontages with windows and balconies that overlook the street, encourage neighbourly engagement and increase passive surveillance. **[See Healthy Street Approach]** **[NB]**	**D3** **D8**
A3.3	Understand the existing network of foot and/or cycle paths and connect into, improve and extend them where this would be beneficial. Where none exist, establish new routes, such as segregated cycle paths, that provide an alternative to heavily trafficked existing routes. **[NB]**	**D3** **D8** **T5**
A3.4	Ensure that front boundary treatments complement the style and materiality of the building (or buildings) and make a positive contribution to the streetscape. **[NB]**	**D3**
A3.5	Where appropriate, provide cycle parking (including for adapted cycles for disabled people), parking for mobility scooters and electric vehicle charging points for public use. **[All]**	**T5** **T6** **T6.1** **H13**

A3.6	Incorporate trees in new streets unless there are compelling reasons not to do so. Ensure that pavements widths can accommodate the trees without compromising pedestrian movement or interfering with underground cables and services, and that tree species are suitable for the location and the type of development and will remain appropriate and manageable when mature. **[NB]**	**D5** **D8** **G1** **G7** **G8**
A3.7	Incorporate informal planting, seating, play and leisure opportunities and provide shelter in new streets, and where feasible and appropriate, in existing streets. **[NB]**	**D5** **D8**
A3.8	Incorporate sustainable drainage systems (SuDS) in line with the drainage hierarchy. Where development in areas at risk from flooding is permitted, ensure that the design and layout make space for water. Ensure that homes and infrastructure are set back from the banks of watercourses and incorporate flood resistance and resilience measures. **[NB, CoU]**	**SI13**
A4	**Public open space, biodiversity and urban greening**	
A4.1	Ensure that development proposals comply with the local boroughs' strategies and policies for green infrastructure and open space. Developments should create areas of high quality green open space, preferably at ground-level, unless site constraints dictate otherwise. **[NB]**	**G4**
A4.2	Proposals should result in a net increase in biodiversity by conserving and extending existing habitats and creating new ones to strengthen local ecological networks. **[See Urban Greening for Biodiversity Net Gain: A Design Guide]**	**G6**
A4.3	Minor developments should demonstrate no net loss of green cover. **[See Small Site Design Codes LPG]**	**H2**
A4.4	Major developments should meet the local boroughs' Urban Greening Factor target scores, or where none exist, achieve the scores set out in the London Plan. **[See Urban Greening Factor LPG]** **[All]**	**G5**
A4.5	Where appropriate, make drinking water freely available in public spaces. **[All]**	**D8**
A5	**Inclusion and accessibility**	
A5.1	The public realm should be barrier free, usable by everyone and encourage social interaction. Consider seating, incidental play and places to hold social events during the day and, where appropriate, during the evening and at night. **[NB, CoU]**	**D5** **D8**

A5.2	At least 10% of new dwellings should meet Building Regulation requirement M4(3) 'wheelchair user dwellings' in *Approved Document M, Volume 1: Dwellings* (ADM) and the remainder should be 'accessible and adaptable dwellings' (referred to as M4(2) or Category 2 in ADM). **[NB]** *Note: For further details refer to Part B: Standards B1.4 and Part C: Standards C1.1 – C1.3).*	**D7**
A5.3	Developments should be tenure blind. There should be no perceptible difference in the quality of the design or materials used when housing different tenures. 'Poor doors' and gated forms of development are unacceptable. **[All]**	**D6**
A5.4	Where non-residential amenities, such as gyms, pools and shared workspaces are provided, these should be accessible to all residents, and ideally, to the wider community. **[All]**	**D6** **S5**
A5.5	Proposals should demonstrate that an inclusive design approach is taken and that active travel routes are safe, accessible and convenient for all Londoners. This should include meeting the needs of different groups, including, but not limited to, those with protected characteristics under the Equality Act 2010. **[All]**	**D3** **D5** **D8** **T4**
A5.6	Provide details of the community engagement strategy. Explain how multiple types of engagement (such as face-to-face and online) has informed the design proposals from the early design stages and been followed through in the design. **[NB, CoU]**	**D3** **D5**

3 Part B: Shared spaces and ancillary spaces

3.1.1 The majority of new homes delivered over the Plan will be flats, and therefore it is important that shared indoor and outside spaces and ancillary facilities are well designed. Careful design can ensure that the shared areas are a pleasant, inclusive and sociable extension to the home and help build supportive communities. They should be safe, offer shelter and be celebrated, with all shared entrances being visible and identifiable from the public realm. Providing private front doors to ground floor dwellings has additional benefits – increasing activity in the street, reinforcing the residential nature of the building and reducing the number of households using the core. Two storey family maisonettes often work well on the ground and first floor; providing many of the attributes of a house including a private garden, and naturally suited to a double height plinth where that is appropriate for the building. However, the structural and servicing implications of stacking different dwelling types must be given early consideration.

3.1.2 The shared entrance lobby should look and feel inviting at all times of day, be designed to withstand heavy use and serve as an informal meeting space for residents. Leading to the lift and stairs, it should facilitate safe escape to a designated gathering point in the event of fire that requires the residents to evacuate the building. It is useful to have a clear route through to the shared outside space where one is provided. This may allow bikes, mobility scooters and wheelchairs to be taken through the core to more secure stores. Generally regarded as a safer and more pleasant arrangement it can also free up ground floor space on the front of the building for more active uses. Arrangements for post and deliveries should also be subject to early consideration.

3.1.3 The layout, feel and length of the communal circulation arrangement has a significant impact on the quality of the journey that residents and their visitors experience when navigating from the communal entrance to the private front door. Developments should therefore avoid long narrow corridors. Covered outside decks are a heathier, safer, and more convivial solution and allow dwellings to be dual aspect. This has multiple benefits within the home and can also provide a second outside amenity space for residents. Bin stores, and plantrooms are generally at ground level but in larger developments, it is worth exploring the potential for these elements to be accommodated in a lift-served basement which could also provide secure private storage rooms for residents.

3.1.4 The design of shared, ground floor outside spaces needs careful thought, particularly when surrounded by tall buildings. Lack of sunlight can be an issue and while overlooking provides useful security, it can also feel intrusive to those seeking a calm retreat. Thoughtfully placed planting and landscape design can help to define zones, separate different functions, provide varying degrees of privacy and celebrate seasonal change. Where possible, it is

useful to provide a gate from the street to the outside amenity spaces to avoid mowers, for example, being taken through the cores.

3.1.5 Above ground outside spaces, such as raised podia and roof gardens present different opportunities and challenges. Drought tolerant planting will reduce the amount of water needed and grass should generally be avoided and specialist advice sought. Where these spaces are surrounded by private gardens and visible from surrounding flats, designers should consider the boundary treatment carefully and consider installing purpose-built garden pods or storage spaces to avoid the need for residents to individually install garden sheds while improving the outlook for those who use, and overlook, the courtyard.

3.1.6 Good design, particularly for larger developments, requires the design team to work with clients and building services engineers to gain an understanding of the building management strategy. This will include how the various systems work and interact, the key components, the optimal location for plant and equipment and the preferred distribution routes. It will also include identification of the parts of the systems that require frequent access for routine readings, checks, adjustments and general maintenance, and the implications of major renewal when that becomes necessary. Elements that need to be considered include lifts and common areas, plant rooms, window cleaning, PVs and roofs generally, trees and planting (including watering, mulching and maintenance), play equipment, water reuse systems and shading devices. Designers should aim to make horizontal pipe runs as short as possible by optimising riser locations and consider locating soil and vent pipes (SVPs) and heat interface units (HIUs) where they can be accessed from the communal deck or corridor to avoid disturbing residents. A window cleaning strategy as well as establishing requirements for the cleaners' rooms and garden/equipment stores should also be agreed.

B	Shared spaces and ancillary spaces	
B1	**Approach routes and entrances**	
B1.1	Private and communal entrances should be visible and clearly identifiable, from the public realm. **[NB, CoU]**	D3 D6
B1.2	Ground floor apartments and maisonettes should have 'own door' access from the street where possible. **[All]**	D3 D6
B1.3	Provide appropriate drop-off points with dropped kerbs, close to all communal entrances to provide inclusive access for residents and visitors. Ensure that walking and cycling routes are not negatively impacted by the placement of the drop-off points. **[All]**	D3 D5 D6
B1.4	Where a core provides access to one or more M4(3) dwellings, all parts of the internal circulation network should be designed to meet the approach requirements of M4(3) (as defined by Approved Document M, Volume 1*)* to ensure that all residents have equal access to all the common (or shared) parts of the building and any associated open space or facilities intended for their use. **[NB, CoU]**	D5 D6 D7
B1.5	The entrance lobby should be safe, welcoming, durable, well-lit, at least partially glazed and, where appropriate, include glazing manifestations, signage to aid wayfinding and any necessary instructional signage relating to fire safety. Where an access core serves four or more dwellings, an access control system with audio-visual verification in all dwellings should be linked to a main front door with electronic lock release. **[All]**	D3 D5 D6 D12
B1.6	Lifts and stairs should be within sight of the entrance area or clearly signposted. Floor numbers should be clearly marked on each landing within the stairways of high-rise buildings and be visible both in normal conditions and in poor light or smoky conditions. The stairs should be prominent and attractive to encourage healthy lifestyle choices. **[NB, CoU]**	D5 D6 D12
B1.7	Establish whether a concierge is envisaged at the outset but ensure that the building (or buildings) could function safely and effectively without one if the management regime were to change over time. **[NB, CoU]**	D3 D6
B1.8	Ensure that, and demonstrate how, post and deliveries can be safely received and stored, and collected by, or delivered to, residents. **[All]**	D6
B1.9	**Best Practice:** Provide private storage facilities at basement level for residents to store bulky or occasionally used items, in addition to storage within the home. **[All]**	D6

B2	**Internal circulation and dwellings per core**	
B2.1	Communal circulation spaces such as corridors should be at least 1500mm wide. Consider additional width adjacent to cores (such as those near lifts and stairs) to allow wheelchair users to turn and/or pass each other more easily. **[NB, CoU]**	**D5** **D6**
B2.2	Internal corridors, particularly 'double-banked' corridors (those that serve flats on both sides), should be avoided or kept short and receive daylight and natural ventilation. **(This standard is not directly applicable to specialist older persons housing)** **[NB, CoU]**	**D6**
B2.3	Access galleries (or 'decks') facilitate dual aspect homes and are strongly encouraged as an alternative to internal corridors. **[NB]**	**D6**
B2.4	In lift-served buildings, at least one lift (more if indicated by a capacity assessment) should be a suitably sized fire evacuation lift suitable for evacuating people who require level access from the building as well as protected safe areas (lobbies) in front of lift entrances and clear signage, lighting and pictograms of the evacuation route to the safe area / evacuation lift. **[See Fire Safety LPG]** **[All]** *Note: Under the building regulations a fire-fighting lift is also required, generally where a development is 18m above fire service vehicle access level, or 10m below fire service vehicle access refer to Building Regulations Approved Document B Volumes 1 and 2.*	**D5**
B2.5	The number of homes accessed by a core should not exceed eight per floor. Deviation (by exception) from these requirements will need to be justified and mitigated by increasing the corridor widths to 1800mm and locating homes either side of the core. **(This standard is not directly applicable to specialist older persons housing)** **[NB, CoU]**	**D5** **D6**
B3	**Storage of bicycles, mobility scooters and wheelchairs**	
B3.1	Secure, ground level, long-stay cycle storage should be provided in accordance with the London Plan and the guidance set out in the 'London Cycling Design Standards'. Provision should be made for: • 1 space per studio or one person, one bedroom dwelling • 1.5 cycle spaces per two-person, one bedroom dwelling • 2 cycle spaces for every dwelling with three or more bedspaces Two additional short-stay visitor spaces are required for developments with 5-40 dwellings, and thereafter one additional space per 40 dwellings. **(This standard is not directly applicable to specialist older persons housing)** **[All]** *Note: See Section C10.5 for cycle storage requirements in private gardens.*	**T5**

B3.2	All apartment buildings should provide secure and convenient storage for mobility scooters and wheelchairs. To make provision for wheelchair users who do not live in a wheelchair dwelling and visiting wheelchair users, this includes buildings that do not any include M4(3) homes. Access from the core and/or the courtyard (where one exists) is preferable to access from the street. **(A higher level of provision will be required in specialist older persons housing)** **[All]**	**D5** **D6**
B4	**Car parking**	
B4.1	Car parking is not permitted in the Central Activities Zone Inner London, Opportunity Areas, Metropolitan and Major Town Centres, locations with a PTAL of 5 or 6 or Inner London locations with a PTAL of 4, other than appropriate disabled parking. In other locations, proposals must not exceed the maximum residential parking standards set out in Table 10.3 of Policy T6.1 of the London Plan. **[All]**	**T6.1**
B4.2	Ensure that the location and organisation of resident car parking does not create barriers to walking, cycling and public transport use or negatively affect the use and appearance of open spaces. **[All]**	**D3** **D6**
B5	**Access for emergency and service vehicles and fire safety**	
B5.1	Demonstrate how the design proposal achieves the highest standards of fire safety. Ensure that every apartment building has a safe and convenient means of escape and an associated evacuation strategy for all building users. As part of this, provide directions to a suitable evacuation assembly point where residents should gather in the event of a fire that requires them to leave the building. **[See Fire Safety LPG]** **[All]**	**D12**
B5.2	Provide a suitable, unobstructed, external space with a connection to a sufficient water supply for a fire appliance to operate from. **[See Fire Safety LPG]** **[All]**	**D12**
B6	**Dealing with waste and recycling**	
B6.1	Ensure that the proposed arrangements for dealing with waste and recycling conform to the local authorities' storage and collection strategies and requirements. Separate collection of dry recyclables, food waste and other waste should be considered in the early design stages to help improve recycling rates, reduce smell and vehicle movements, protect the street scene and community safety, and prioritise active frontages. **[All]**	**D3** **D6**
B6.2	Communal refuse and recycling facilities should be accessible to, and useable by, all residents including children and wheelchair users. They should be located on a hard level surface, be well lit and ventilated and have a floor gulley to facilitate cleaning. **[All]**	**D3** **D6**

B6.3	When located within the footprint of a residential building, the waste and recycling room should be designed and positioned to minimise the impact of noise and smells on the building's occupants. **[All]** *Note: The distance between the entrance to a flat and the communal bin store should not exceed 30m as set out in Approved Document H.*	**D3** **D6**
B7	**Supplying energy efficiently (being Clean)**	
B7.1	Utilise local energy resources (such as secondary heat and local heat networks) and supply energy efficiently and cleanly using efficient low carbon heating solutions, such as heat pumps. **[All]**	**SI2** **SI3**
B7.2	Appraise and optimise network efficiency by minimising distribution heat losses and by locating vertical risers within buildings in positions that reduce horizontal pipe runs to a practical minimum. **[NB, CoU]**	**SI2** **SI3**
B8	**On-site renewables (being Green)**	
B8.1	Developments should be designed to maximise renewable energy by producing, storing and using renewable energy on-site such as photovoltaics and heat pumps. South facing and flat roofs are the most beneficial for solar photovoltaics and can be installed on brown roofs. Keep parapets low, while maintaining safety for maintenance personnel, and where possible, locate plant and lift overruns to the north to minimise overshadowing. **[All]**	**SI2**
B9	**Shared outside amenity space**	
B9.1	Apartment buildings should generally offer at least one secure, communal outside space either as a ground level courtyard, raised podium or roof terrace. These spaces should be overlooked by residents and available to all occupants, regardless of tenure, and accessed via the cores. **[All]**	**D6**
B9.2	Communal outside spaces should be multifunctional; designed for socialising, play, relaxation, exercise and, where appropriate, food growing, while being green and biodiverse. They should afford year-round visual interest when viewed from the surrounding dwellings. **[NB, CoU]**	**D6** **S4** **G1** **G5** **G8**
B9.3	Ground and podium level amenity spaces should include play spaces that are overlooked by nearby homes. Where a development is likely to accommodate 10 or more children and young people, provide at least $10m^2$ of play space per child (accessible to all, regardless of tenure) that is appropriate for a range of different age groups**. [All]**	**S4**
B9.4	Explore opportunities for community gardening including food-growing and composting. **[All]**	**G8**

B9.5	Maximise the quality and availability of daylight and sunlight in communal outside spaces, particularly in winter. It is particularly important that spaces designed for frequent use (including sitting and play spaces) receive direct sunlight through the day, particularly at times they are most likely to be used. **[NB, CoU]**	**D6**
B9.6	The design of raised podia, (typically located over underground or undercroft parking), should reflect the limited light levels and soil depth typically associated with these spaces. Grass should be avoided in favour of drought-tolerant planting and innovative approaches are encouraged. These include trees and climbing shrubs planted at ground level and allowed to grow through voids in the podium. **[NB]**	**G1** **G5**
B9.7	Proposals should consider lighting, sustainable watering solutions, tool storage, food growing and composting and how future residents can be involved in the design and ongoing maintenance of shared outside spaces. **[All]**	**D3** **D6**
B9.8	**Best Practice:** Provide a separate, secure access route from the street to every outside space to avoid taking mowers and other large maintenance equipment through the building. **[NB, CoU]**	**D3** **D6**
B10	**Management and maintenance**	
B10.1	The design of communal indoor and outside spaces should seek to minimise the amount of management and maintenance needed throughout the lifetime of the building and facilitate safe access to the relevant parts of each system. **[All]**	**D3** **D6**

4 Part C: Homes and private outside space

4.1.1 All homes are required by the London Plan to meet the Nationally Described Space Standard. However, this is an absolute minimum not a target. This guidance encourages homes to exceed these standards by at least five per cent to improve residential quality and accommodate the changes in working patterns experienced as a result of the Coronavirus pandemic which are likely, in part, to be enduring. Very careful consideration will need to be given to homes that are within five percent of the minimum standard to ensure internal space is optimised. In particular, attention needs to be given to other occupants using kitchen/bathroom/appliances whilst people are working from home. It also recommends more generous private space – again in response to the issues highlighted during the pandemic. Homes should generally have at least two habitable rooms, each with a window. Deep, narrow, single aspect studios are unlikely to provide a suitable quality of accommodation. Homes are expected to be dual aspect unless there are compelling reasons why that cannot be achieved. This has multiple benefits including ventilation, outlook, options in areas with poorer air quality or noise generators and the possibility of a window to the kitchen and bathroom to allow better air movement, moisture and odour control. Optimising the layout of every home remains the initial goal but avoiding loadbearing walls within dwellings will provide flexibility over time and allow layouts to be reconfigured with relative ease as lifestyles evolve. Designing a cellular layout as well as an open plan option will secure adequate frontage and enough windows to allow successive generations of residents to make their own choices.

4.1.2 Visual privacy is more difficult to achieve in dense environments particularly on lower floors. Off-setting windows, or angling them, can mitigate issues and fixed or movable screening devices can also be effective where they are an integral part of the overall design, including on balconies. It is important to achieve high levels of soundproofing in party walls, particularly where homes are located next to communal spaces, including entrances, lift and stair cores, bin and bike stores and other sound-generating facilities. Consideration should also be given to the internal layout of homes, including vertical stacking, to reduce noise impacts (for example between living rooms and bedrooms). These standards aim to complement the consideration of daylight and sunlight impacts using the BRE guidance (Site layout planning for daylight and sunlight: a guide to good practice). This process involves a two-stage approach: firstly, by applying the BRE guidance; and secondly, by considering the location and wider context when assessing any impacts. Extreme weather events are increasingly common due to climate change. Design must balance daylight, passive solar gain and over-heating considerations. Summer heat can be reduced through orientation, shading, fenestration, insulation, high albedo materials, the provision of green infrastructure and other strategies. In areas with poorer air quality and/or high background noise levels, careful design will be needed to ensure passive ventilation is possible, in line with carbon reduction targets and the need to avoid additional waste heat and noise associated with mechanical ventilation.

C	Homes and private outside space	
C1	**Inclusion and accessibility**	
C1.1	Development should meet the detailed requirements for the 90% of dwellings that are required to meet M4(2) and the 10% required to meet M4(3) set out in *Approved Document M, Volume 1: Dwellings* (See standard A34). All require step-free access from the street (or parking/drop-off area) to the main private entrance. In exceptional circumstances (set out in Policy D7) that may not be practical or viable; for example, in some conversions and in small, flatted developments with fewer than 10 homes where the lift service charge would be unaffordable to residents. Exceptions must be justified, and the affected dwellings described as M4(1). **[NB]** *Note: Accessible housing should be clearly identified in the planning application. M4(3) homes should be identified as either M4(3)(2)(a) 'wheelchair adaptable' (and the default option), or (M4(3)(2)(b) 'wheelchair accessible', as set out in ADM.*	**D7** **H2**
C1.2	**Best Practice:** Dwellings that cannot provide step free access from the street [described as M4(1)], should be designed to meet all other M4(2) requirements including step-free access to private outside space. **[All]**	**D5** **D6**
C1.3	When an M4(3)(2)(a) wheelchair adaptable home is proposed it should be clear how the layout can be adapted to meet the requirements for a wheelchair accessible home in the future. **[All]**	**D7**
C1.4	Undertake community engagement to identify any specific cultural requirements within the local community that need to be addressed in the design (for example, a preference for the kitchen to be separated from the living and dining spaces or the need for larger kitchens to accommodate specific cooking and/or eating conventions). **[NB, CoU]**	**D5** **D6**
C1.5	**Best practice:** Three bedrooms or more family homes should predominantly be located on the lower floors of buildings (and not above the fifth floor) so that these homes provide safe, convenient access to, and overlooking of, outside play and amenity spaces. **[NB, CoU]**	**D6**
C2	**Internal space standards**	
C2.1	All new dwellings must, as a minimum, meet the minimum space standards in Policy D6 Part F(1-8) and Table 3.1 of the London Plan (which align with the Nationally Described Space Standard (NDSS) except for ceiling height). **[All]** *Note: These space standards should be exceeded for M4(3) homes which will need to be considerably larger to meet the minimum spatial requirements set out in ADM.*	**D6**
C2.2	**Best Practice:** Exceed the minimum overall floor areas by at least 5% (see standards C2.5 to C2.11 and C3.6). **[All]**	

<table>
<tr><td>C2.3</td><td>A minimum ceiling height of 2.5m is required for at least 75% of the gross internal area to enhance the spatial quality, improve daylight penetration and ventilation and assist with cooling. Any reduction (from 2.5m) in floor-to-ceiling heights should only be for essential equipment in the ceilings of kitchens and bathrooms. [NB, CoU]</td><td>D6</td></tr>
<tr><td>C2.4</td><td>The following combined floor areas for living / kitchen / dining space should be met or exceeded: [NB, CoU]
<table>
<tr><th>Designed level of occupancy</th><th>Minimum combined floor area of living, dining and kitchen spaces</th></tr>
<tr><td>1 person</td><td>21 sqm</td></tr>
<tr><td>1-bed, 2-persons</td><td>23 sqm</td></tr>
<tr><td>2-bed, 3-persons</td><td>25 sqm</td></tr>
<tr><td>2-bed, 4-persons</td><td>27 sqm</td></tr>
<tr><td>3-bed, 5-persons</td><td>29 sqm</td></tr>
<tr><td>4-bed, 6-persons</td><td>31 sqm</td></tr>
</table>
Note: In open plan layouts, the floor area measured should be clearly identified. It should not include the space immediately inside the front door, or any circulation space needed to access other rooms.</td><td>D6</td></tr>
<tr><td>C2.5</td><td>Best Practice: The main sitting space in a home for up to two people should be at least 3m wide and increased to 3.5m wide in homes with three or more bedspaces. [All]</td><td>D6</td></tr>
<tr><td>C2.6</td><td>Fully furnished internal floorplans should be submitted for every dwelling type proposed, at a scale of at least 1:100. [All]
Note 1: For convenience, the written and drawn furniture schedules that set out the required items for fully furnished floorplans are contained within Appendix 1 of this document. These are taken from Approved Document M, Volume 1 (ADM). Layouts that cannot comfortably accommodate all of the prescribed furniture for the dwelling type in question (including kitchen units and appliances) will not be considered acceptable.
Note 2: The overall length of kitchen units should be measured at the mid-line of the worktop in accordance with the guidance for M4(3) homes set out in ADM.
Note 3: The internal layout drawings should include the overall gross internal floor area (GIA), the floor area and the width and depth of every habitable room, a north point, the accessibility category of each dwelling, and demonstrate compliance with ADM.
Note 4: Homes with five or more bedspaces and all dwellings with two or more storeys should provide at least two WCs. (Note that an additional 3m^2 is allowed for in the NDSS for this purpose and that ADM requires a second WC in M4(3) homes with four or more bedspaces).
Note 5: Segregated bins for the short-term term separation and storage of waste and recycling should be provided in kitchens or utility rooms as set out in the furniture schedule. The space used for this should not be counted towards the general storage requirement.</td><td>D6
D7</td></tr>
<tr><td>C2.7</td><td>Best Practice: Exceed the minimum built-in storage requirements and increase the capacity of indoor waste and recycling bins. [All]</td><td>D6</td></tr>
<tr><td>C2.8</td><td>Best Practice: Provide at least two built-in storage cupboards in every home and at least one on every floor. Ensure that at least 50% of the storage provided is located in circulation spaces. [All]</td><td>D6</td></tr>
</table>

C2.9	**Best Practice:** Provide a WC on every floor which includes a bedroom. **[All]**	**D3** **D6**
C2.10	**Best Practice:** Provide an additional bathroom or shower room in homes for six or more people. **[All]** *Note: The ADM has specific requirements for bath and shower provision in M4(3) homes.*	**D6**
C2.11	**Best Practice:** Provide a utility room in dwellings with two or more bedrooms. Where part of the utility room is contributing to the general storage requirement, the area claimed should be clearly identified. **[All]**	**D3** **D6**
C3	**Choice and flexibility**	
C3.1	Where open-plan living arrangements are proposed in homes with three or more bedrooms, proposals should demonstrate how the space could be easily modified to provide two separate living spaces (preferably a living room and a kitchen/dining room) each with a suitable window. A direct connection may be useful, but each room should also be accessible from a circulation space. Conversely, where two spaces are provided from the start, it should be possible to remove the dividing wall without significant structural implications. This approach is also strongly encouraged in smaller homes. **[All]**	**D3** **D6**
C3.2	**Best Practice:** Avoid load-bearing walls within the home. Locate structural columns on external or party walls where possible. **[NB]**	
C3.3	**Best Practice:** All new homes should provide at least two habitable rooms. Sliding doors or walls may be used to separate the bedroom from the main living space. **[All]**	**D3** **D6**
C3.4	**Best Practice:** In open plan layouts ensure that the kitchen occupies a discrete part of the room. **[All]**	**D3**
C3.5	**Best Practice:** Avoid layouts in which the living space is only accessible via the kitchen. **[All]**	**D6**
C3.6	**Best Practice:** Provide a dedicated study room. **[All]** *Note: To avoid being counted as a bedroom under the NDSS, the floor area should be less than 7.5m^2.*	**D3** **D6**

C4	**Aspect, orientation, daylight and sunlight**	
C4.1	New homes should be dual aspect unless exceptional circumstances make this impractical or undesirable; for example, when one side of the dwelling would be subjected to excessive noise or outside air pollution. Where single aspect dwellings are proposed, by exception, they should be restricted to homes with one or two bedspaces, should not face north and must demonstrate that the units will have adequate passive ventilation, daylight and privacy, and not overheat (particularly relevant for south or west facing single aspect units). **[All]** *Note: See Appendix 2 for definition of dual aspect.*	**D3** **D6** **SI4**
C4.2	The location of the main living and eating spaces and the main private outside space, should be optimised to make the most of the best views and the orientation. These spaces should receive direct sunlight (south-facing is preferable, provided that appropriate shading devices are incorporated) and enjoy reasonable privacy through the careful placement of windows, balcony design or other measures. **[NB]**	**D6**
C4.3	All homes should allow for direct sunlight to enter as many rooms as possible. As a minimum, at least one habitable room should receive direct sunlight – preferably the living area and/or the kitchen and dining space. **[NB, CoU]**	**D6**
C4.4	Avoid placing bedrooms and bathrooms on street-facing facades at ground level or where they face onto a busy courtyard or podium. **[All]**	**D3** **D6**
C4.5	The primary window of a habitable room should not be located on an access deck. Where possible, avoid locating windows close to the internal corners of courtyards or L-shaped blocks **[NB]**	**D3** **D6**
C4.6	Avoid large full-height windows to habitable rooms (particularly in bedrooms) where the risk of overlooking and/or overheating is high. **[NB, CoU]**	**D6** **SI4**
C4.7	All habitable rooms (including a kitchen/dining room) should receive natural light and have at least one openable window which provides a view out when seated. **[All]**	**D6**
C4.8	**Best Practice:** Bathrooms should receive natural light. **[All]**	**D6**
C5	**Air quality, external noise and soundproofing**	
C5.1	Where possible, locate habitable rooms away from busy roads, railways or existing buildings that generate excessive noise and/or poor air quality. **[All]**	**D3** **D14** **SI4**
C5.2	Where necessary, adopt sound attenuation measures to reduce the external noise experienced within the home to an acceptable level. **[All]**	**D14**

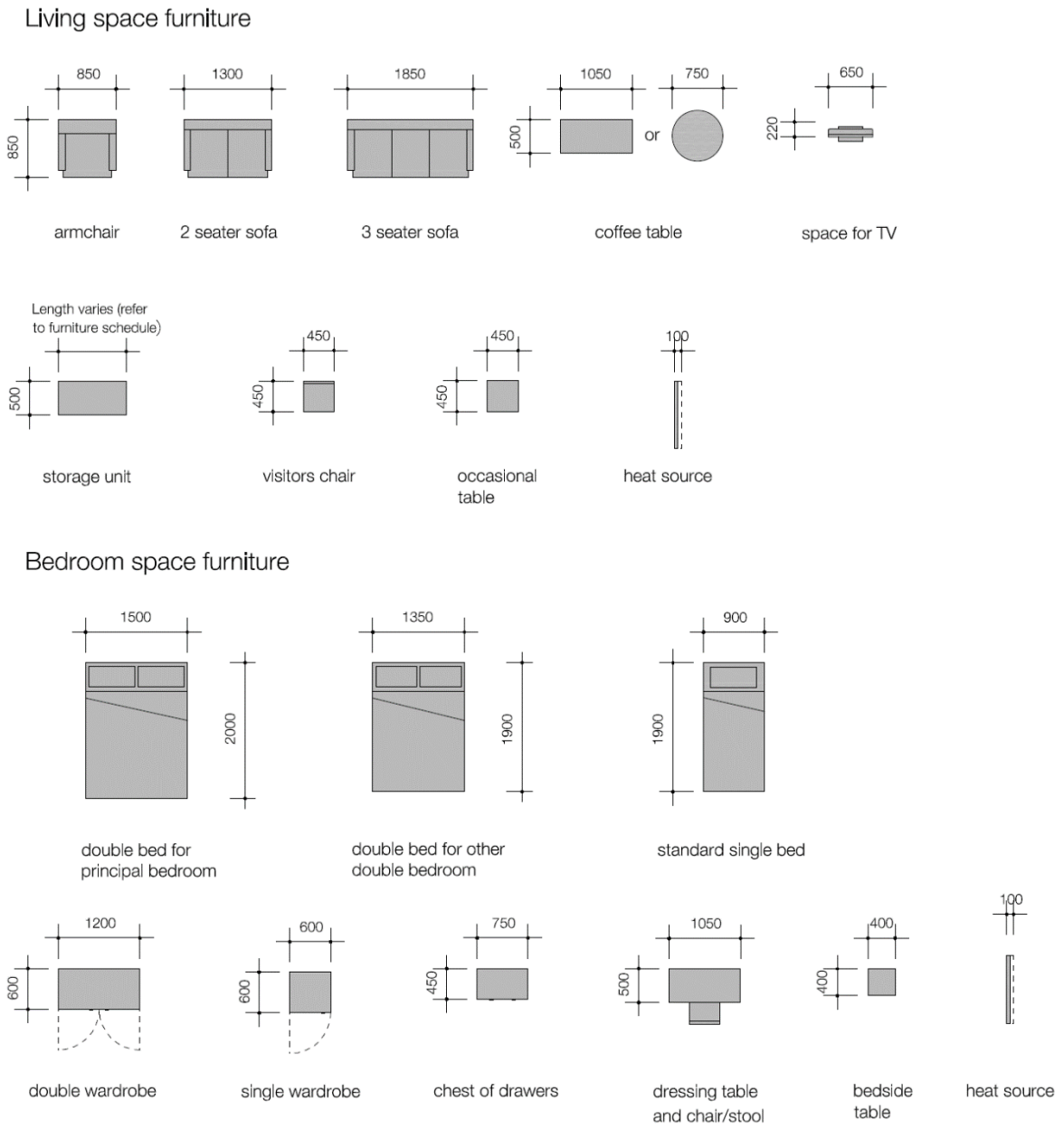
C5.3	**Best Practice:** Avoid locating bedrooms and living rooms adjacent to corridors, lifts, stairs, bin and cycle stores, wheelchair and mobility scooter stores, plant rooms and other noise-generating ancillary spaces. **[All]**	**D6** **D14**
C5.4	Party walls should achieve internal airborne sound insulation values that are at least 5dB above Approved Document E and impact sound insulation that are at least 5dB lower. **[All]**	**D14**
C5.5	Where equipment such as mechanical ventilation heating with heat recovery (MVHR) is installed, ensure that the noise generated by the fan does not exceed 25dB in habitable rooms, and 35dB in the room in which the fan is located. Where possible, locate the MVHR in a circulation space, not a habitable room, and as close as possible to an external wall to minimise distribution losses; ideally within 2m. **[All]**	**D14** **SI4**
C5.6	To increase privacy and allow different activities (including work and study) to take part simultaneously throughout the home, development should provide high levels of soundproofing between rooms as well as between dwellings. **[All]**	**D6** **D14**
C6	**Thermal comfort**	
C6.1	Reduce the risk of overheating, through orientation, layout, the natural cross-ventilation afforded by dual aspect, window design, and shading devices. Active cooling should be a last resort. **[All]** *Note: Specialist older persons housing should be subject to a heatwave strategy. Including active cooling in one or more of the communal spaces can safeguard vulnerable residents during extreme hot weather events.*	**SI4** **D6**
C6.2	Daylight and overheating assessments should be analysed together to determine the optimal balance. South and west facing facades are most at risk to overheating, and the use of shading should be used to prevent direct sunlight from entering the home during at risk periods. **[All]**	**SI4** **D6**
C6.3	Maximise the benefit of passive ventilation by providing a variety of window opening options that allow controlled ventilation through smaller openings and purge ventilation through larger windows and/or doors. **[All]**	**SI4** **D6**
C7	**Water usage**	
C7.1	Water fittings and appliances should be designed to consume no more than 105 litres per person, per day (plus up to 5 litres for external use). **[All]**	**SI5**
C8	**Digital connectivity**	
C8.1	Provide sufficient ducting space for full fibre connectivity infrastructure to all end users unless an affordable alternative 1GB/s-capable connection is available. **[All]**	**SI6**

C9	**Fire safety**	
C9.1	Seek advice from building control at the earliest opportunity and, where possible also from the local fire service to ensure that the proposed location of the wheelchair storage and charging space in every M4(3) homes is acceptable. **[All]**	**D12**
C9.2	**Best Practice:** Install sprinklers in all homes that are entered at or above first floor level. **[All]**	**D12**
C10	**Private outside space**	
C10.1	Provide a minimum of 5m^2 of rectangular private outside space for homes with 1-2 bedspaces which must have a minimum depth and width of 1.5m. An extra 1m^2 should be provided for every additional bedspace. **[All]** *Note: For functional reasons, at least the minimum area must be rectangular in form. Thus, triangular and irregular shaped balconies will need to be larger than the minimum area to achieve this requirement*	**D6**
C10.2	**Best Practice:** Exceed the minimum area of private outside space and increase the minimum depth and width to at least 2.5m^2 to extend its use generally, enable wheelchair users to manoeuvre and turn more easily, and increase opportunities for planting, food-growing, storage of light gardening equipment, and clothes drying. **[All]**	**D5** **D6**
C10.3	Balconies should be accessed via the main sitting area or kitchen/dining room unless the specific circumstances make this impractical. Consider the need for privacy and/or shade on balconies (ideally adjustable sliding screens or retractable awnings). **[All]**	**D6**
C10.4	Enclosing balconies as glazed, ventilated winter gardens is appropriate in limited circumstances, for example, where dwellings will be exposed to high levels of noise and/or strong wind, particularly at high level. Winter gardens should be thermally separated from the interior, and the floor should be 'drainable' to avoid standing water. **[All]**	**D6**
C10.5	Homes with private rear gardens should accommodate bicycles and bins providing that the garden can be accessed directly from the street. Where this is not possible, secure, bespoke covered storage should be provided in front gardens; designed and located to avoid obstructing ground floor windows. **[All]**	**T5** **D6**
C10.6	**Best Practice:** Ensure that windows can be cleaned from the inside unless they can be safely accessed from outside, or where cleaning is the responsibility of the management company. **[All]**	**D3** **D6**

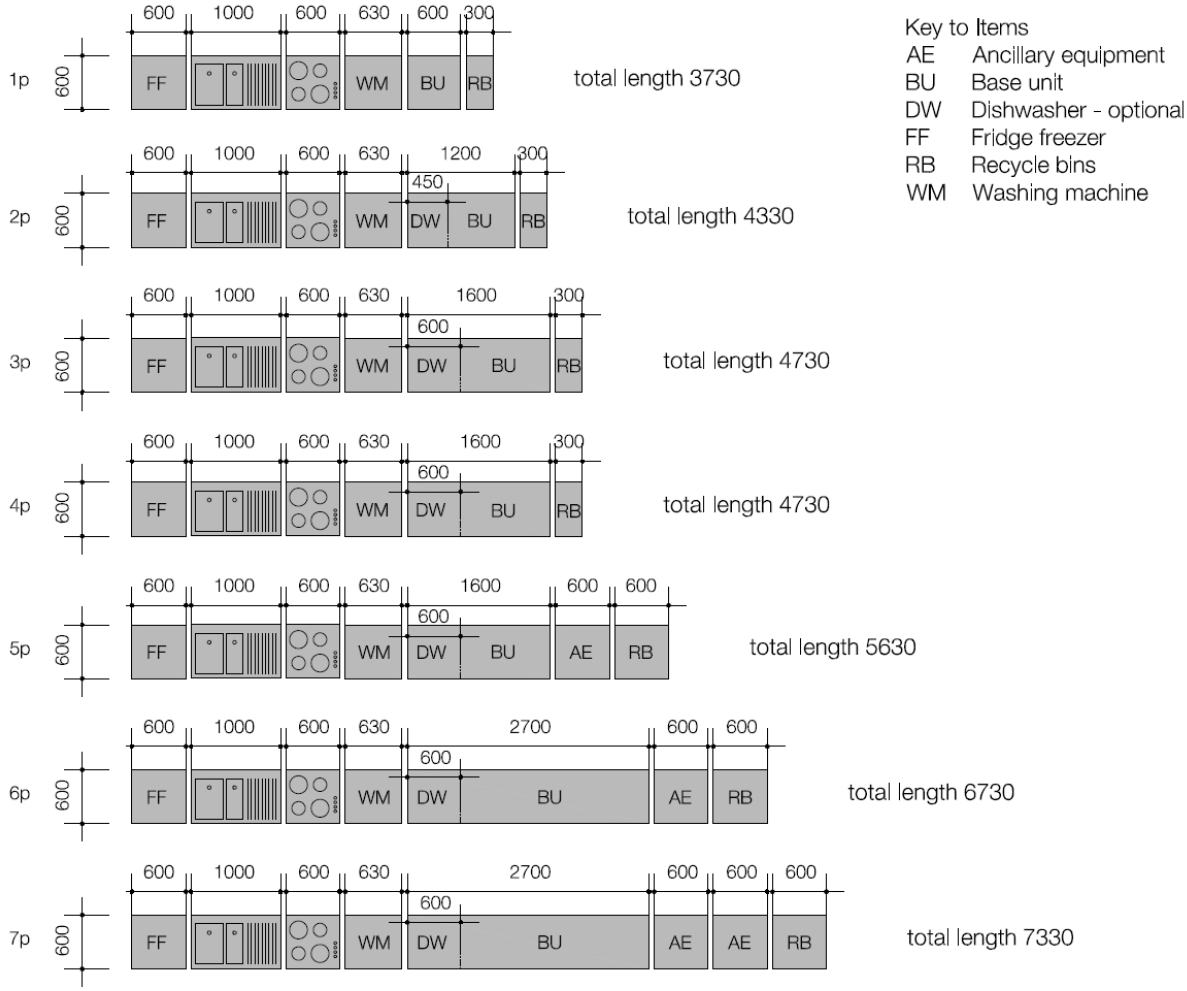
Appendix 1 Furniture Schedule

A1.1.1 The following schedule of furniture should be shown on dwelling plans to demonstrate Standard C2.6.

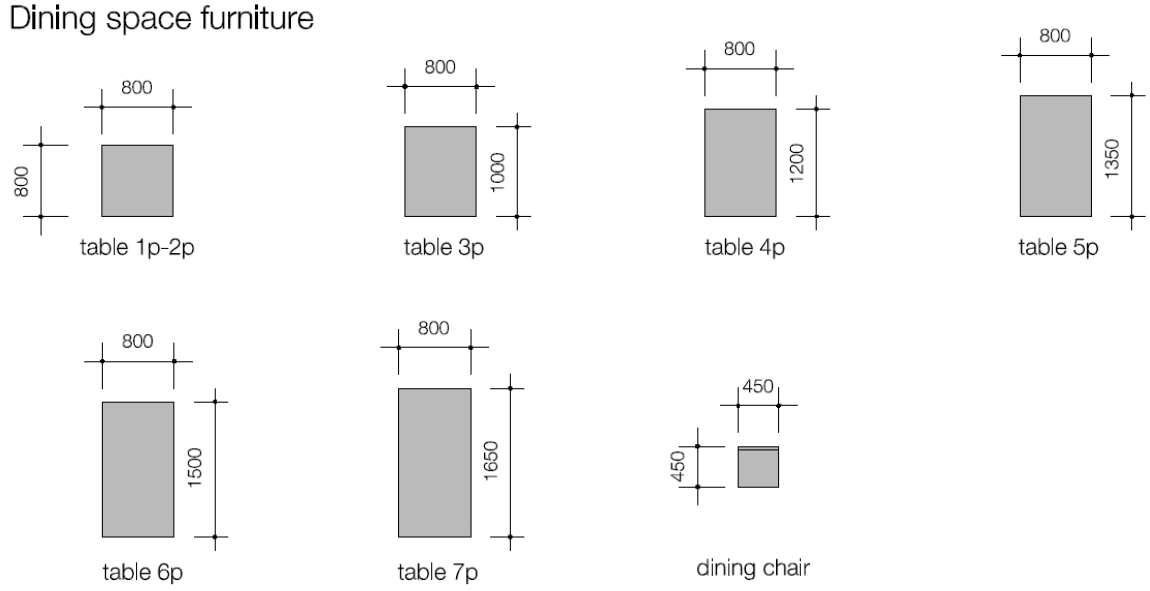
Figure A1.1 Furniture Schedule



Kitchen furniture



Dining space furniture



Type of space	Furniture required in each room	Furniture size (mm)	Number of items required (by bedspace)							
			1p	2p	3p	4p	5p	6p	7p	+
Living space	armchair (or 'sofa seat' in addition to sofa where required below)	850 x 850	2	2	3	1	2	3	4	+1
	settee – 2 seat (optional, as above)	850 x 1300	(item optional)							
	settee – 3 seat (optional, as above)	850 x 1850				1	1	1	1	1
	TV	220 x 650	1	1	1	1	1	1	1	1
	coffee table	500 x 1050 (or 750 diameter)	1	1	1	1	1	1	1	1
	occasional table	450 x 450					1	1	1	1
	storage units	500 x length shown	1000	1000	1000	1500	2000	2000	2000	+
Dining space	dining chair	450 x 450	2	2	3	4	5	6	7	+
	dining table	800 x length shown	800	800	1000	1200	1350	1500	1650	+
Double bedroom	double bed in principal bedroom	2000 x 1500		1	1	1	1	1	1	1
	double bed in other double bedroom	1350 x 1900		1	1	1	1	1	1	1
	bedside table	400 x 400		2	2	2	2	2	2	2
	desk and chair	500 x 1050 (+ chair)		1	1	1	1	1	1	1
	chest of drawers	450 x 750		1	1	1	1	1	1	1
	double wardrobe	600 x 1200		1	1	1	1	1	1	1
Twin bedroom	single bed	1900 x 900				2	2	2	2	2
	bedside table	400 x 400				2	2	2	2	2
	chest of drawers	450 x 750				1	1	1	1	1
	desk and chair	500 x 1050 (+ chair)				1	1	1	1	1
	double wardrobe	600 x 1200				1	1	1	1	1
Single bedroom	single bed	1900 x 900	1		1	1	1	1	1	1
	bedside table	400 x 400	1		1	1	1	1	1	1
	chest of drawers	450 x 750	1		1	1	1	1	1	1
	desk and chair	500 x 1050 (+ chair)	1		1	1	1	1	1	1
	single wardrobe	600 x 600	1		1	1	1	1	1	1
Kitchen			length in mm							
	(1) sink top with drainer	600 x 1000	1000	1000	1000	1000	1000	1000	1000	1000
	(2) cooker (or oven + hob) space	600 x 600	600	600	600	600	600	600	600	600
	(3) washing machine position / worktop	600 x 630	630	630	630	630	630	630	630	630
	(4) other base units	600 x length shown	600	1200	1600	1600	1600	2700	2700	+
	(4a) dishwasher / worktop (included in 4)	600 x length chosen	(item optional)							
	(5) ancillary equipment space	600 x length shown					600	600	1200	1200
	(6) fridge/freezer space	600 x 600	600	600	600	600	600	600	600	600
	(7) recycling bins space	600 x length shown	300	300	300	300	600	600	600	600
	(8) total length of fitments (items 1 to 7)		3730	4330	4730	4730	5630	6730	7330	+
	(9) wall cupboards	300 x maximum available length								
	Note: Item 3,5,7 may be in other rooms or spaces but should be close to the kitchen									
Bathroom	WC + cistern	500 x 700	1	1	1	1	1	1	1	1
	bath	700 x 1700	1	1	1	1	1	1	1	1
	hand wash basin	450 x 600	1	1	1	1	1	1	1	1
	shower tray	750 x 750	(item optional)							
WC/ cloakroom	WC + cistern	500 x 700	(where required)							
	hand rinse basin	250 x 350	(where required)							

Appendix 2 Dual aspect definition

A dual aspect dwelling is one with opening windows on two external walls, which may be on opposite sides of the building or on adjacent sides of a dwelling where the external walls of a dwelling wrap around the corner of a building. One aspect may be towards an external access deck or courtyard, although the layout of the dwelling needs to be carefully considered in these cases to maintain privacy. The design of the dual aspect dwelling should enable passive/natural ventilation across the whole dwelling. The provision of bay windows, stepped frontage, shallow recesses, or projecting facades does not constitute dual aspect.