# Housing Intensification
## Supplementary Planning Document 2011 UPDATE

### Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>Reasons for the update</td>
</tr>
<tr>
<td></td>
<td>Using the guide</td>
</tr>
<tr>
<td></td>
<td>Policy context</td>
</tr>
<tr>
<td><strong>Decision Charts</strong></td>
<td>Overview</td>
</tr>
<tr>
<td></td>
<td>Level one - site selection</td>
</tr>
<tr>
<td></td>
<td>Level two - site feasibility</td>
</tr>
<tr>
<td></td>
<td>Level three - site design</td>
</tr>
<tr>
<td><strong>Appendices</strong></td>
<td>1 - Glossary</td>
</tr>
<tr>
<td></td>
<td>2 - Results of the 2010 workshops</td>
</tr>
<tr>
<td></td>
<td>(bound separately)</td>
</tr>
<tr>
<td></td>
<td>3 - Results of the 2011 residents survey</td>
</tr>
<tr>
<td></td>
<td>(bound separately)</td>
</tr>
<tr>
<td></td>
<td>4 - Comments received during the Public Consultation</td>
</tr>
<tr>
<td></td>
<td>(bound separately)</td>
</tr>
</tbody>
</table>

Adopted October 2011

Wycombe District Council
Housing Intensification SPD 2011 Update

INTRODUCTION

This guidance aims to raise the quality of new development that is built within existing residential areas of the District.

Reasons for the 2011 update:

The Housing Intensification SPD (our local guidance on developing in existing residential areas) has been in place since 2005. In that time it has been used successfully to guide the design of new developments and been upheld at many appeals. It has also been recognised nationally as an example of best practice.

This update reflects policy changes and appeal and case experience gained since the adoption of the original document. It also refocuses the approach in light of recent changes to national planning policy (Planning Policy Statement 3) regarding development on garden land.

To help produce this update we have undertaken workshops with council members and officers; stakeholders including local agents and amenity groups and asked the views of new resident’s through a survey. The document has also been subject to formal public consultation in June to August 2011. Details of this work and the comments made during the consultation can be found in Appendix two, three and four.

Summary of the changes made to the SPD

A summary of the key changes to the SPD made in this update is given below:

• Policy references updated to reflect adoption of the core strategy and other documents since 2005

• Approach refocused throughout the document to take account of recent changes in government policy on development in residential gardens

• Additional question added in level one to ensure existing residential areas of special character are protected.

• Reworking in levels two and three to place a greater emphasis on assessing and protecting/enhancing the existing character and appearance of residential areas to reflect concerns raised at the workshops and changes in government policy

• Additional question added in level two to deal with the quality of new accesses reflecting concerns raised at the workshops

• Ecology questions in level two amended to deal with issues of protected species/habitats and the wider issue of ecological networks more clearly and in line with current legislation

• Additional question added in level three to address the issues of resident and visitor parking more clearly reflecting concerns raised at the workshops and residents survey

• Context question in level three strengthened regarding the impact upon the existing street character and the assessment of scale; height and mass to reflect concerns raised at the workshops. More guidance given on flat design to discourage use of crown roofs and single aspect flats.

• Guidance added to question in level three regarding the impact of tall fences along public boundaries reflecting concerns raised at the workshops

• Question in level three regarding street enclosure has been removed as this aspect is now covered in section two with the new question about the quality of new accesses
• Ecology question in level three revised so it contains practical measures to enhance biodiversity

• Sustainable construction question in level three revised to take account of the recent SPD for sustainable construction

• References to Building for Life Criteria added for each question where relevant

Quality Development

This guidance seeks to set out how developments within existing residential areas can be undertaken such that resulting environments are of high quality.

Wycombe has seen an increasing number of applications to intensify existing housing areas through either redevelopment at higher densities or development within backland areas or along the frontage. Interweaving new development within an existing built environment raises many issues that if not addressed adequately can compromise the quality, character and amenity of existing residential areas.

Wycombe District Council regards itself to be at the forefront of the drive to improve the design quality of contemporary developments. Annual Quality Counts Tours are undertaken to learn lessons for day to day practice. These tours have helped inform this guidance.

Particular issues regarding Intensification

There are particular issues regarding intensification that do not apply to other housing developments. One of these is the impact of change on existing residents. Tension is often generated by those interested in using their land for development, and those wishing to maintain the existing situation.

Even those residents gaining financially from land sales can later have real concerns about loss of privacy and amenity.

All these issues were raised at the public workshops held in Cressex in 2004 to better understand the views of the public regarding residential intensification before the original guidance was adopted.

Existing residents expressed much more anxiety about forms of intensification that built on back gardens while retaining existing residents in existing frontage dwellings.

The strong preference was for the sale of the whole plot, to avoid existing residents suffering disruption, and perceived reductions of loss of privacy and amenity.

It was also clear that most people were not in favour of any form of intensification, although there was interest from a sizable minority.

These issues make it particularly important that those considering intensification schemes seriously consider the benefits of involving local people meaningfully throughout the process.
Workshop results

In the recent workshops undertaken in 2010 (see Appendix two for details) which looked at schemes that had been completed since the original guidance there was considerable agreement on the issues that lead to either an intensification scheme being acceptable or unacceptable:

Getting the scale right and fitting with the existing character were cited as keys to the success; as was the use of high quality materials and finishes; and the successful implementation of the landscape especially along the frontage. Well regarded schemes took cues from the existing context and had a spacious well designed layout that contributed positively to the wider residential area. Schemes predominantly composed of houses rather than flats were preferred as were schemes that were comprehensively redeveloped a site rather than just the in the backland area.

The schemes that scored poorly were identified as being too different in height or scale to fit in. The sites often just looked overdeveloped – either the buildings were too big or there were too many of them. They were seen as being too close to their existing neighbours resulting in awkward front to back or front to side relationships. All these aspects together had an adverse effect on the street scene and created a harsh transition between the new and existing development.

Tight, narrow and long access roads were criticised especially when bounded by tall fences. As well as being unattractive they made the new development feel cut off from the existing development and gave rise to issues with security, surveillance and inactive dead frontages.

Parking which dominated the frontage exacerbated by a lack of landscape treatment and overuse of tarmac were identified as issues as well as the sheer amount of parking often required in denser layouts. Some groups felt that the use of rear or under-croft parking contributed to the unacceptability of some schemes.

Residents Survey Results

In the 2010 survey of residents living in schemes that had been completed since the original guidance, (see Appendix three for details) the most important factor cited when looking for somewhere to live was the type and size of the home. Other important factors were the cost of the home; car parking; the appearance or character of the development and the private garden/ outside space. When looking at the wider neighbourhood good safety and security was the most important factor followed by good local services and facilities; and having a green well maintained area and pleasant street layout.

Most residents had one or two parking spaces allocated to them and two thirds thought this was adequate. People preferred the space to be as close as possible to their home and have exclusive use of it. Spaces provided to the rear of the home were the least liked parking arrangement. Many residents thought that there were not enough spaces allocated for visitors.
Residents felt that their amenity space was of the right size and orientation, but in the case of balconies; front gardens and in some rear gardens they felt it was not private enough being overlooked by neighbours.

Most residents felt their new home was spacious although a third complained of not having enough storage space.

Most residents felt the new development fitted in with the surrounding area and was safe to access and easy to locate. Residents were less sure that the development felt well connected and part of the wider community.

The majority of residents were either very satisfied or partly satisfied with where they lived with approximately one in twelve residents not being satisfied with where they lived. Residents like most: the attractive appearance of their houses and development, the good commute to work, the spacious feeling of the developments and the close connection with local facilities. Residents most disliked poor or insufficient parking; noise and the quality and quantity of private outdoor space provided.
Housing Intensification SPD 2011 Update

This page is left intentionally blank
USING THE GUIDE

What is the aim of the guidance?
This guidance sets out key design issues for housing intensification. It amplifies the policies already contained within the Wycombe Development Framework Core Strategy and Wycombe District Local Plan, both of which form part of the statutory Development Plan for the District. It is based on accepted urban design practice; government design guidance; local plan policies and guidance and lessons learnt from previous housing intensification schemes.

What is the structure of the guidance?
The body of the guidance is contained in a 'decision chart'. This is arranged on three levels: site selection, site feasibility and site design.

Each level comprises a number of questions in the form of a flow chart. This approach is designed to enable applicants to quickly rule out sites which are too constrained to be successfully developed, while iteratively modifying the proposed designs of those which can be developed to obtain a scheme of high quality.

What is the structure of the guidance?
The body of the guidance is contained in a 'decision chart'. This is arranged on three levels: site selection, site feasibility and site design.

Each level comprises a number of questions in the form of a flow chart. This approach is designed to enable applicants to quickly rule out sites which are too constrained to be successfully developed, while iteratively modifying the proposed designs of those which can be developed to obtain a scheme of high quality.

Who is the guidance for?
This guidance is aimed at all those interested in this type of development - local residents, developers, architects and local amenity groups.

We hope that we have presented the issues to be considered in undertaking this type of development in a clear and understandable way, for both the 'lay reader' and the professional.

Applicants are encouraged to work closely with the Council and local residents to achieve high quality schemes.

Who is the guidance for?
This guidance is aimed at all those interested in this type of development - local residents, developers, architects and local amenity groups.

We hope that we have presented the issues to be considered in undertaking this type of development in a clear and understandable way, for both the 'lay reader' and the professional.

Applicants are encouraged to work closely with the Council and local residents to achieve high quality schemes.

As National Planning Policy (Planning Policy Statement 1) states, high quality inclusive design should be achieved for all development, including individual buildings, public and private spaces and wider areas. Good design should contribute positively to making places better for people.

Design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions, should not be accepted.
Housing Intensification SPD 2011 Update

POLICY CONTEXT

This section draws on national and local published policy and guidance:

National Policy and Guidance

Planning Policy Statement 1 (PPS1) and the Draft National Planning Policy Framework (NPPF) require planning authorities to promote sustainable and inclusive patterns of urban and rural development by ensuring high quality development through good and inclusive design and efficient use of resources. It advocates good design as a tool to ensure attractive, usable, durable and adaptable places and states that it is indivisible from good planning.

Planning Policy Statement 3 (PPS3) states that good design is fundamental to the development of high quality new housing, which contributes to the creation of sustainable, mixed communities. It re-iterates the advice in PPS1 above. It indicates that residential development should make effective use of land by giving priority to the use of previously developed land. It should also make efficient use of land whilst not setting a minimum density for new development.

Planning Policy Statement 7 (PPS7) advocates that in rural areas development should be focused in or next to existing towns and villages with priority given to previously developed land.

Further guidance is provided in design guide publications including:

• Better places to live: by design. A companion guide to PPG3 (2001)
• By Design: urban design in the planning system towards better practice (2000)
• Manual for Streets part 1 and 2

District Policy and Guidance

The Core Strategy and the Local Plan contain several policies which relate to housing intensification.

These include general policies such as:

Core Strategy

• CS1 Sustainable Development
• CS2 Main Principles for the Location of Development
• CS12 Housing Provision
• CS13 Affordable Housing and Housing Mix
• CS16 Transport
• CS17 Environmental Assets
• CS18 Waste/ Natural Resources and Pollution
• CS19 Raising the Quality of Place-Shaping and Design
• CS20 Transport and Infrastructure
• CS21 Contribution of Development to community infrastructure

Local Plan

• G3 General Design Policy
• G8 Detailed Design Guidance and Local Amenity
• G10 Landscaping
• G11 Trees and hedgerows
• G26 Designing for safer communities

and more specific policies relating to housing development in the Local Plan such as:

• H8 Appropriate Development Densities
• H19 Resident’s amenity space and Gardens
• Appendix One (Residential Design Guidance)

and supplementary planning documents such as:

• Developer Contributions SPD (Updated version adopted Oct 2011)
• Living within our limits SPD
• Chilterns Buildings Design Guide
and guidance/advice notes such as:
- Waste Management Advice Note
- Hedgerow Advice Note
- River Wye Advice Note

and emerging policy contained in the Delivery and Site Allocations Document covering aspects such as
- Open space
- Green Infrastructure

It is important that regard is had to all these policies where relevant. However key principles are highlighted in particular in Policies CS19 and G3:

- High standards of design and layout to be achieved including the creation of positive, attractive and safe public and private environments (Policy CS19)
- Development proposals to achieve a high standard of design and layout that respects and reflects the local urban or rural context so as to maintain and reinforce its distinctive and particular character. (Policy G3)

Changes to PPS3 Housing and the Council’s Approach

In June 2010 the Government published changes to PPS3 involving the following two amendments:

- The removal of private residential gardens from the definition of previously developed land;
- The removal of the national indicative minimum density for residential development of 30 dwellings per hectare.

PPS3 still identifies additional housing in existing residential areas as a potential location for where new housing development can go, and local planning policies still allow for this in principle. However PPS3 also still gives priority to the development of previously developed land, and this is also the approach in the Core Strategy - as such the removal of private residential gardens from the definition of previously developed land means that there is no longer the same priority for the development of such sites. In practical terms this reduced priority means that greater weight should be attached to other planning objectives, such as the need to ensure a high quality of development which respects and reflects local context, and ensures that the existing character of an area is adequately protected.

The Council will therefore closely scrutinise proposals involving the use of private residential gardens to ensure that the Council’s wider policy objectives, including those highlighted above, are met. The framework for doing that is set out in this guidance, backed by the policies highlighted above. This shift in the weight attached to different planning objectives may mean that when balancing the different planning considerations in relation to a planning application the Council may come to a different view on a scheme compared with its approach in the past.
This guidance is presented as a series of questions in the form of a flow chart. They are grouped in three levels relating to the stages of site selection, site feasibility and site design. The keywords from each of the questions are given below. To test proposals go through each level in turn, answering and responding to the questions. References to the key Wycombe Development Plan policies and Building for Life criteria to which each question relates are given in the green margin and at the end of each question.

1. **SITE SELECTION**
   - 1.1 Acceptable in principle?
   - 1.2 Positive defining characteristics?
   - 1.3 Comprehensiveness?
   - 1.4 Pre-application?
   - 1.5 Infrastructure?
   - 1.6 Level 1 double-check?

2. **SITE FEASIBILITY**
   - 2.1 Dimensions of the site area?
   - 2.2 Attractive access?
   - 2.3 Protected species/habitats?
   - 2.4 Ecological networks?
   - 2.5 Existing trees?
   - 2.6 Landscape features?
   - 2.7 Involving local people?
   - 2.8 Level 2 double-check?

3. **SITE DESIGN**
   - 3.1 Context?
   - 3.2 Legibility/ permeability?
   - 3.3 Parking?
   - 3.4 Transport?
   - 3.5 Local topography?
   - 3.6 Shared boundaries?
   - 3.7 Conserving energy?
   - 3.8 Biodiversity measures?
   - 3.9 Local people's concerns?
   - 3.10 Local plan considerations?
   - 3.11 Level 3 double-check?
   - 3.12 Overall quality double check

**Key:**
The diagrams contained within the Decision Charts are presented in a common format for ease of use. A key to the diagrams is shown opposite.
1. Site Selection

1.1 Acceptable in Principle?
1.2 Character?
1.3 Comprehensive?
1.4 Preapplication?
1.5 Infrastructure?

All OK? Proceed to level 2

2. Site Feasibility

2.1 Block layout & dimensions
2.2 Attractive Access?
2.3 Protected Species & Habitats?
2.4 Ecological networks?
2.5 Existing Trees?
2.6 Landscape features?
2.7 Involving Local People?

All OK? Proceed to level 3

3. Site Design

3.1 Context
3.2 Legibility/Permeability?
3.3 Parking?
3.4 Transport?
3.5 Local Topography?
3.6 Shared Boundaries?
3.7 Energy Conservation?
3.8 Biodiversity measures?
3.9 Local people’s concerns?
3.10 Local Plan considerations?
DECISION CHART: LEVEL ONE: SITE SELECTION

To be acceptable housing intensification must be dealt with comprehensively rather than in isolation, the impacts of the whole scheme upon the existing character must be assessed and addressed.

This level asks questions to do with the selection of a site:

Q1.1 Is the proposal within an area where housing development is acceptable in principle in planning terms?

Q1.2 Can the positive defining characteristics of the area be improved or reinforced through the intensification of this site?

Q1.3 Does the site include all the potential development area in the vicinity or facilitate a comprehensive approach?

Q1.4 Have you had pre-application discussions with the local planning authority?

Q1.5 Does the proposed development make the necessary provision for infrastructure?

Q1.6 Have all the issues raised in this level been addressed?

Q1.1 IS THE PROPOSAL WITHIN AN AREA WHERE HOUSING DEVELOPMENT IS ACCEPTABLE IN PRINCIPLE IN PLANNING TERMS?

YES: carry on to question 1.2

NO: the site is not suitable for housing development

In general, the principle of housing within an area is acceptable if:

• The site is in an existing residential area.
• The use of the site for housing would not cause conflict with policies or allocations in the Development Plan.

Please refer to the Development Plan (particularly the Core Strategy and the Local Plan) and adopted and emerging proposals map for full information.

Private residential gardens are no longer included in the definition of ‘Previously Developed Land’ in PPS3 and draft NPFF. National and local planning policies do not exclude the development of residential gardens. However, as outlined in the Policy Context, this change may affect the weight attached to development proposals for this type of land when considered against other planning objectives.

Policy references: CS2; CS7; Local Plan policy G3; Delivery and Site Allocations DPD and subsequent updates;
Q1.2 CAN THE POSITIVE DEFINING CHARACTERISTICS OF THE AREA BE IMPROVED OR REINFORCED THROUGH THE INTENSIFICATION OF THIS SITE?

NO: the site is not suitable for intensification or the form and intensity of intensification proposed should be reconsidered

YES: carry on to question 1.3

In some cases there will be a positive defining characteristic of a residential area that could be lost if the area was intensified. This should be identified early on by the use of context studies of the existing character and appearance of the area. More details are given in Q3.1 of this guidance.

When such a positive defining characteristic has been identified, any intensification would need to demonstrate that the proposals would either improve or reinforce the special quality of the area. This principle is particularly important in areas which include heritage assets such as conservation areas or listed buildings which make an important contribution to character and distinctiveness. In some circumstances it may be the case that no form of intensification can achieve an improvement or reinforcement of the special quality of an area. These areas will not be suitable for intensification.

An example of a positive defining characteristic from Appendix 1 of the Local Plan is given below:

One of the aspects of the established character of residential areas that should be respected is the pattern of open space, green space, gardens and significant gaps that contribute to the layout of the area and the street scene. Open spaces, whether public or private are often an essential part of the character in urban areas and can contribute to local ecology by encouraging wildlife. Sufficient space between buildings to allow planting to mature is essential to promote greener residential environments.

Policy references: CS17; CS19; G3; G10; G11; HE1; HE2; HE3; HE5; HE6; HE8; HE10; HE11
Local Plan Appendix 1 (Section 2)
Building for life criteria: 6; 7 & 8
Q1.3 DOES THE SITE INCLUDE ALL THE POTENTIAL DEVELOPMENT AREA IN THE VICINITY OR FACILITATE A COMPREHENSIVE APPROACH?

NO: Revise site area or demonstrate that the proposals facilitate a comprehensive approach

YES: carry on to question 1.4

Sites that are suitable for intensification are often in fragmented ownership that makes it difficult to develop a complete site in one go. A comprehensive approach or long-term framework is therefore essential to avoid piecemeal development that may result in potential areas for intensification becoming “landlocked” or un-developable.

Often the first development in a block sets the pattern for future subsequent schemes. The council must be satisfied that the form of the development proposed does not frustrate future intensification opportunities and be of a sufficiently high quality and character that fits well into the existing area.

A thorough understanding of the local character and circumstances is needed to do this successfully (see Q3.1 for more information on context studies). For example, experience has shown that new houses just to the rear of existing properties with a narrow and poorly overlooked access will not result in good and well integrated development.

The long term framework should be included within the Design and Access Statement.

As stated in policy CS13 (2c) in the Core Strategy, an element of affordable housing may be required where a site below the size thresholds forms part of a larger area that should or could be developed comprehensively.

Policy references: CS13; Local Plan Appendix I(Sections 2 & 3)
Building for Life Criteria: 9; 10; & 14
DECISION CHART: LEVEL ONE: SITE SELECTION - CONTINUED

Q1.4 HAVE YOU HAD PRE-APPLICATION DISCUSSIONS WITH US?

NO: contact us to obtain pre-application advice

YES: carry on to question 1.5

Pre-application discussions are vital to ensure that the full extent of the intensification site has been identified. In addition, the planning authority may have information about adjacent sites that changes the scope of the area that can be intensified.

For details of our pre-application planning advice service, please see our website.

As advocated in National Planning Policy, applicants are encouraged to engage in discussions with the local community so that they are given the opportunity to participate fully as proposals are developed. This is most effective at the pre-application stage. If this is an open and active process, then the end result can be better, more sustainable development. Please refer to the adopted Statement of Community Involvement that forms part of the Wycombe Development Framework.

Policy references: Draft NPPF; PPSI, Emerging Localism Bill and subsequent updates.

Q1.5 DOES THE PROPOSED DEVELOPMENT MAKE THE NECESSARY PROVISION FOR INFRASTRUCTURE?

NO: identify the additional infrastructure that is required and ensure the development provides for this

YES: go to question 1.6

Refer to Core Strategy policy CS21 (Contribution of Development to Community Infrastructure) and the Developer Contributions SPD and Developers Guide for more details.

Examples of infrastructure elements that are covered in the SPD:

- Affordable housing
- Transport
- Community, Leisure and Cultural Facilities
- Open Space and Outdoor Sports Provision
- Environmental Improvements, Public Art and Community Safety
- Education

Note: This is not an exhaustive list; other infrastructure elements may be appropriate depending upon the circumstances of a particular site.

A utilities statement will be required to provide details of the existing utilities serving the site and future requirements including what infrastructure upgrades are required where, by when and delivered by who. Consultation with the relevant utilities provider is required for this.

Policy references: CS20; CS21; Developers Contributions SPD and Developers Guide; emerging Infrastructure Plan; Applicants Guide to submitting a valid planning application; Building for Life Criteria: 1; 2; 3; 4 & 16

Q1.6 HAVE ALL THE ISSUES RAISED IN THIS LEVEL BEEN ADDRESSED?

NO: the site may not be developable; abandon or revise brief/site area/discuss further with the planning authority

YES: go to level two - Site Feasibility
Housing Intensification SPD 2011 Update

DECISION CHART: LEVEL TWO: SITE FEASIBILITY

It is important to establish the extent to which a site has development potential at an early stage. Unsuitable sites need to be ruled out quickly to avoid abortive work and unrealistic expectations being formed.

This level asks questions to do with the site’s feasibility for intensification:

Q2.1 Do the physical dimensions of the existing residential area and available site allow for good quality intensification to be accommodated?

Q2.2 Is there enough space for an attractive access to the site to be created?

Q2.3 Does the proposal negatively impact any species or habitats that are statutorily protected?

Q2.4 Can the site’s contribution to ecological networks be maintained and its ecological potential improved?

Q2.5 If the site contains existing trees, have these been assessed, the valuable trees retained and adequate buffers/distances maintained?

Q2.6 Have any significant landscape features been identified/assessed/ incorporated?

Q2.7 Before moving on to site design, are there plans in place to involve local people in the design process?

Q2.8 In light of the above questions could the scheme improve the character and quality of the area and the way it functions?

Q2.1 DO THE PHYSICAL DIMENSIONS OF THE EXISTING RESIDENTIAL AREA AND AVAILABLE SITE ALLOW FOR GOOD QUALITY INTENSIFICATION TO BE ACCOMMODATED?

YES: go to question 2.2

Evidence shows that two-sided streets are more successful than one-sided developments because they create an active street and ensure the privacy of rear gardens. This minimises the potential for criminal activity and also removes any conflict between private rear gardens and public activity, including any noise, disturbance and fumes caused by vehicles. It follows the tried and tested principle of making a clear distinction between the public front of a block and its private back. (See also question 3.2)

NO: the site area needs to be revised or the site is not suitable for intensification.
In situations where the development depth between existing dwellings is less than 80 metres, it is unlikely that a two sided street running parallel to the existing street can be accommodated without compromising the quality of the amenity of existing dwellings.

Where there are no existing dwellings backing onto the rear of the plot this distance can be reduced by 10 metres.

These distances are based on the assessment of a level site and should be used as a rule of thumb. They have been developed from experience in Wycombe District and through a review of recent schemes and current guidance available. They will need to be adjusted when assessing sites that are not level or sites that have unique characteristics or qualities.

For example, the minimum will increase in areas with existing large detached dwellings, as extra depth will be required to ensure the retained existing dwellings have adequate garden sizes in proportion to the size of dwelling.

If the existing dwellings are set well back from the road frontage, it may be possible to achieve the dimensions required by redeveloping the frontage properties, moving them closer to the road edge. However, unless this approach is executed on a comprehensive basis, it is likely to have a negative effect on the existing street. Therefore, in this situation a phased approach as part of a longer-term framework would not be regarded as delivering quality development.

Although there are some existing developments, where a single row of dwellings facing the backs of existing dwellings has been built as there was not room for a new double sided street, experience has shown that this form of intensification is not acceptable because it gives rise to:

- Unnecessary noise disturbance and vehicle fumes to the rear quiet amenity space of the frontage dwellings
- Potential for criminal access to the rear of the frontage dwellings
Housing intensification without sufficient plot depth - the fronts of the new houses compromise the privacy and security of the existing dwellings

Instead, where the development depth between existing dwellings is less than 80 metres, alternative layouts should be adopted.

These forms do not have the disadvantages of single sided streets. Schemes can have combinations of these different approaches to allow a sensitive response to a specific site.

**Perpendicular streets,**

This is where rear-side relationships are formed with the existing dwellings creating a new perpendicular street. Care is needed to ensure there is sufficient space between the gable end of the new property and the existing rear garden.

**Single Aspect/ ‘Mews’**

As a rule of thumb, a minimum development depth between existing dwellings of 60 metres is required for this types of intensification.

Using single aspect allows the insertion of mews type dwellings without compromising privacy

**Short cul-de-sacs** (up to 100 metres),

Long and winding cul-de-sacs and a haphazard arrangement of dwellings should be avoided. Layouts should instead seek to connect adjacent streets effectively creating new streets within the existing pattern of development.

Where cul-de-sacs are used, they should be short and straight to allow good visibility from one end to the other and not be linked with footpaths, as this is known to generate crime.
Courtyards,
As a rule of thumb, a minimum development depth between existing dwellings of 45 metres is required for this type of intensification.

Similarly, these forms of development need a minimum width to be successful, for which 60m is a good rule of thumb.

For plots with a development depth between existing dwellings of less than 45 metres frontage intensification or infill may be a suitable alternatives.

Frontage Intensification,
Frontage Intensification is the process of demolishing existing buildings and replacing them along the front of the existing street.

Infill
This consists of the infilling of a small gap in an otherwise substantially built up frontage, without altering other frontage properties.

Tandem Development
Sometimes applications are made to build an individual house immediately behind another and sharing the same access. This is known as Tandem Development.

This form of development is not acceptable due to the difficulties of access to the house at the back and the disturbance and lack of privacy suffered by the house in front, as well as not being comprehensive in concept.
Summary of minimum dimensions for different layouts:

**For sites greater than 60m width:**
- Development depth* greater than 80m – Two sided street
- Development depth* between 80-60m – Perpendicular Street
- Development depth* less than 60m – Single aspect/ Mews
- Development depth* less than 45m – Courtyards/ Frontage Intensification or infill development

**For sites less than 60m width:**
- Frontage Intensification or infill development

* Development depth is defined as the distance between rear facing elevations of existing dwellings. Where there are no existing dwellings to the rear of the plot these distances can be reduced by 10 metres.

**Flatted schemes** may be seen as having more flexibility in relation to the site dimensions set out in this part of the decision chart, which is largely derived from the space needed for houses with gardens.

However, whether the scheme is for flats or houses, the benefits of two-sided streets still apply.

Flats are often designed as ‘pavilion buildings’, which in most cases results in a confused relationship between the building, its external space functions and the public realm, which does not result in a positive design solution.

There are situations in which pavilion buildings are more appropriate, such as when the intensification is taking place within a relatively large area of high quality landscape which will be maintained as a whole as communal amenity space.

However, as a general rule of thumb, flats designed in a ‘street’ form result in more satisfactory long term living environments.

Please remember, this section of the decision chart is setting out broad dimensional criteria. It is not stating that a plot of certain dimensions can take intensification: there are many other issues to consider in addition. It is, however, saying that for sites that do not meet these dimensions, it is unlikely that a quality scheme can be designed.

**Policy references:** CS19; G3; G8; Local Plan Appendix 1 (Sections 2 & 3)
**Building for life criteria:** 9; 10; 11; 14 & 15
DECISION CHART: LEVEL TWO: SITE FEASIBILITY - CONTINUED

**Q2.2** IS THERE ENOUGH SPACE FOR AN ATTRACTIVE ACCESS TO THE SITE TO BE CREATED?

**YES:** carry on to question 2.3

How a site is accessed is crucial to the quality of the new development and its integration into the wider area. Experience has shown that narrow accesses bounded by fences are both unattractive and separate the new development from the existing residential area. Sites without the space to achieve attractive accesses due to, for example, a limit in land owned should not be intensified.

The following taken from Manual for Streets part 1 (page 53) should be used as a guide to acceptable street access widths:

- Mews access: building to building width of 7.5m. minimum to 12m. maximum
- Street access: building to building width of 12m. minimum to 18m. maximum

The best accesses have new or existing development on both sides that positively address it. It will then feel like a connected street rather than an access to somewhere else.

Where a boundary abuts an access it should be formed with a wall or a hedge rather than a fence and have a setback of at least one metre to allow space for planting. The length of boundary walls/hedges should be limited to less than half of the length of the access to ensure that the access is not dominated by them.

Questions 3.2; 3.5 and 3.7 deal with the specifics of the design of the new access.

**Policy References:** CS19; CS20; G3; G26
Local Plan Appendix. 1 (Sections 2 & 3)
**Building for life criteria:** 8; 9; 11; 13; 14; 15

---

**NO:** the site area needs to be revised or the site is not suitable for intensification
Q2.3 DOES THE PROPOSAL NEGATIVELY IMPACT ANY SPECIES OR HABITATS THAT ARE STATUTORILY PROTECTED?

YES: the site is not suitable for intensification

NO: carry on to question 2.4

To identify if the site may contain protected animals, plants or their habitats please complete the Wildlife Checklist which is available to download on our website. Completing this checklist will assist in deciding whether or not you need to undertake a protected animal or plant survey/ ecological assessment.

If it is found that there are statutorily protected species and habitats on the site, intensification may only proceed according to the governing law (Wildlife & Countryside Act 1981, Conservation (Natural Habitats & c.) Regulations 2010) and may not proceed if governing law prohibits it. Any proposal that would result in a negative impact upon protected species will not be accepted. Any potential impacts must be avoided, mitigated or compensated for. Depending on both the species and the degree of impact a European Protected Species licence from Natural England might be required.

Plans should show any significant wildlife habitats or features and the location of habitats of any species protected under the Wildlife and Countryside Act 1981, Conservation (Natural Habitats & c.) Regulations 2010 or Protection of Badgers Act 1992.

For more information please refer to the Ecology Wildlife checklist (http://www.wycombe.gov.uk/council-services/planning-and-buildings/planning-applications/apply.aspx)

Policy References: CS17; G10; G11; L7; L8; L9

Building for life criteria: 5 & 7

Ecological Surveys and Assessments:

These should include an assessment of the current ecological resource, (a phase one habitat survey or a specific species survey, whatever is more appropriate), the sites ecological potential and the impact of the proposal.

It should also include details of any mitigation and compensation measures proposed and justification for any unavoidable impacts caused by the development.

This assessment should be carried out at the earliest opportunity to ensure any layout is informed by its findings. Plan early as surveys for some animals and plants can only be carried out at certain times of the year.

Surveys should be carried out by a suitably qualified person.

Consultancies offering this advice can be found on the IEEM website (http://www.ieem.net/ieemdirectory.asp)
Housing intensification tends to take place in established areas with long well vegetated gardens which contribute to important wider green infrastructure or ecological networks and are often important habitats in their own right. For more information on Green Infrastructure in Wycombe please see the emerging Development and Site Allocations Document.

In accordance with National Planning Policy (Planning Policy Statements 1 & 9 and the Draft NPPF) the effect on biodiversity, wildlife movement corridors, and human amenity must be assessed and mitigated. Any assessment must include proposals for long term maintenance and management of identified significant ecological features.

If the assessment shows the area to have high or medium ecological potential, this must be maintained or improved through the development.

If an area is regarded as having currently low ecological potential, the proposal should deliver a net improvement in ecological provision.

For example, a reasonable depth of back garden should be maintained in both the existing retained and new properties to allow the retention and creation of wildlife corridors along common boundaries.

**Policy References:** CS4; CS17; CS19; G10; G11; L5; L7; L8; L9 Building for life criteria: 5; 7 &16

---

**Guidance on dealing with nature conservation & development:**

- **Biodiversity and Planning in Buckinghamshire** by BBOWT,
- **Planning for Brownfield Biodiversity** – A best practice guide by Buglife,
- **Biodiversity by Design**, published by the Town and Country Planning Association
- **River Wye Advice Note** by Wycombe District Council
- Several publications by **Natural England** on wildlife and development in general and with regard to specific species, and on environmental friendly management.

---

**DECISION CHART: LEVEL TWO: SITE FEASIBILITY - CONTINUED**

**Q2.4 CAN THE SITE’S CONTRIBUTION TO ECOLOGICAL NETWORKS BE MAINTAINED AND ITS ECOLOGICAL POTENTIAL IMPROVED?**

**YES:** carry on to question 2.5

**NO:** amend proposals so that the site’s ecological contribution is maintained, and enhanced where appropriate
Q2.5 IF THE SITE CONTAINS EXISTING TREES, HAVE THESE BEEN ASSESSED, THE VALUABLE TREES RETAINED AND ADEQUATE BUFFERS/ DISTANCES MAINTAINED?

NO: undertake a tree survey/ arboricultural implications assessment and ensure any proposals are designed in accordance with the findings to ensure existing important trees are preserved.

YES: carry on to question 2.6

No significant existing tree or tree group that makes a valuable contribution to the public realm and local ecology should be sacrificed or put under threat by the proposal:

• both in terms of construction effects or
• longer-term pressure, for example trees excessively shading gardens or dwellings.

Layout proposals will be expected to proactively ensure the retention of trees graded C or above in the tree survey - see box opposite.

Every opportunity should be taken to improve the level of tree cover by the planting of new trees of appropriate species and size as part of any housing intensification scheme.

In sites where significant trees exist often the only acceptable form of development will be that of multiple occupancy units. This will allow the retention of trees within communal amenity areas.

As well as helping to create an attractive place, retaining existing trees and planting new trees has environmental; social and economic benefits and can also contribute to reducing climate change.

Tree Surveys and Arboricultural Information:

Existing trees must be assessed objectively by an Arboriculturist before layout proposals are formulated. This involves the production of a tree survey to categorise the trees according to their quality. An Arboricultural Implications Assessment (AIA) including a tree constraints plan (TCP) showing the root protection area and above ground constraints (height/ spread/ extent of shade) can be produced using the tree survey information. This information should be used as a design tool to inform the layout of the new development.

An Arboricultural Implications Assessment (AIA) will identify and evaluate the extent of any direct or indirect impacts.

If works are proposed in close proximity to existing trees, an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) will also be necessary. These identify the mitigation measures to be adopted during construction works to protect retained trees.

Further guidance is provided in BS5837: 2005 ‘Trees in relation to construction - Recommendations’ (which is soon to be updated).
See the Forestry Commission publication “The case for trees in development and the urban environment” for more details.

**Policy References:** CS17; CS19; G3; G11; Local Plan Appendix. 1 (Section 3)

**Building for life criteria:** 5; 7; 16

---

**Q2.6** HAVE ANY SIGNIFICANT LANDSCAPE FEATURES BEEN IDENTIFIED/ASSESSED/ INCORPORATED?

**NO:** undertake an assessment and amend proposals in accordance with findings

**YES:** carry on to question 2.7

The creation of accesses in places that would require the removal of significant trees / hedges or boundaries for vision splays will be resisted due to their impact upon the existing streetscape character.

Other landscape features such as hedgerows /walls or earth mounding should also be retained if they are considered significant.

**Policy References:** CS17; CS19; G3; G10; Local Plan Appendix. 1 (Sections 1; 2; 3 & 7)

**Building for life criteria:** 5; 7; 16

---

**Q2.7** BEFORE MOVING ON TO SITE DESIGN, ARE THERE PLANS IN PLACE TO INVOLVE LOCAL PEOPLE IN THE DESIGN PROCESS?

**NO:** look at the Council’s adopted Statement of Community Involvement, and other best practice for participation

**YES:** carry on to question 2.8

**Policy References:** Adopted Statement of Community Involvement and Draft NPPF

**Building for life criteria:** 2; 3

---

**Q2.8** IN LIGHT OF THE ABOVE QUESTIONS COULD THE SCHEME IMPROVE THE CHARACTER AND QUALITY OF THE AREA AND THE WAY IT FUNCTIONS?

**NO:** the type or amount of development proposed is not appropriate for this particular site. Revise the brief to take account of the constraints identified in this level to ensure existing character is unharmed

**YES:** go to level three - Site Design
Now the site itself has been identified as being suitable in principle for housing intensification. This level deals with specific aspects related to the design of the development which will be key to its success and acceptability

Q3.1 Is the proposal in context with the existing built and landscape character of the area?

Q3.2 Is the layout for the site legible and permeable? Have the public and private areas been clearly defined? Is there good surveillance and a positive public realm?

Q3.3 Do your proposals provide convenient, safe and attractive residents parking and sufficient opportunities for visitor parking?

Q3.4 Do your proposals reflect the proximity of the site to public transport routes with frequent services or local shops?

Q3.5 Does the proposal take account of local topography?

Q3.6 Have new shared boundaries been treated correctly, minimising impact upon existing and new residents?

Q3.7 Have you taken measures to conserve natural resources and generate renewable energy on site? Have you addressed the issues raised in the checklist in Appendix 3 of the SPD for sustainable construction, Living within our Limits?

Q3.8 Have measures to increase biodiversity been included?

Q3.9 Have any concerns raised by local people as part of any public involvement process been given serious consideration and where possible resolved, including the maintenance of the amenity and privacy of existing retained properties?

Q3.10 Have the detailed design considerations contained in the local plan been addressed and resolved, creating high quality living environments for new residents and maintaining the amenity and privacy of existing retained properties?

Q3.11 Have all the questions of level 3 been adequately answered?

Q3.12 After satisfying levels one, two and three, do the revised proposals deliver a high quality scheme that improves the quality of the neighbourhood?
Q3.1 IS THE PROPOSAL IN CONTEXT WITH THE EXISTING BUILT AND LANDSCAPE CHARACTER OF THE AREA?

NO: undertake a context study and amend proposals in accordance with findings

YES: carry on to question 3.2

Design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions will not be accepted.

This requires a clear analysis of the context, setting out the present strengths and weaknesses of the area, and the opportunities and threats posed by the new development.

The Government publication ‘By Design’ is a useful starting point in terms of assessing character. Other issues for consideration are set out in the box opposite.

The context study which should form part of the Design and Access Statement should identify the predominant typology of the area. This should then inform the design so that the new development both takes into account the scale and characteristics of the adjacent existing development and improves and reinforces the existing character.

The intrinsic landscape qualities must also be conserved - especially within the AONB, where reference should be made to the Chilterns Building Design Guide.

Density calculations can help understand character, and should take account of surrounding existing properties and not just be based on the new development. This will ensure density does not get skewed in certain locations.

Context Studies

Applications should include a context study, which demonstrates an understanding of the existing character and shows that the proposal has taken this into account, delivering an improvement to the amenity and character of an area.

A Context Study should include:

• the existing local character- descriptive photos, materials, local vernacular
• appraisal of historic context. This should include historic assets and their setting that have statutory protection and those of more local significance.
• vehicular and pedestrian routes/ linkages/ patterns/ destinations
• the existing pattern of development- height, form, scale; roof patterns; public-private interface; open space.
• topographical analysis
• appraisal of significant landscape features and trees
• the demographics of the area/ local traditions
• visual analysis - key views, vistas, and landmarks; enclosure and gaps; visual boundaries and barriers; gateways; visual quality and legibility.

The study should be succinct and is best communicated on illustrated plans with notes.
Dense new development can significantly change the character of an area if it does not respect the existing residential pattern or does not augment and enhance the existing landscape character.

The higher densities required for new development may mean that the intensification will have some aspects that are different, but these should not detract from the current character of an area. Inserting new development within an existing residential area requires particular care so that the existing character of the street-scene is not harmed.

This means paying particular attention to the scale; height and mass of the new development. Drawings illustrating the street-scene should always include adjacent existing dwellings as well as the proposed development.

An example is **intensification in the form of flats**, which can if designed poorly jar with existing residential areas composed predominantly of house type dwellings. In these locations the scale, style and layout should reflect and reinforce the existing residential character.

This can be achieved for example, by giving all ground floor flats separate front doors on to the street and some external defensible space and by ensuring the roof proportions are similar to existing dwellings and avoiding the use of flat crown roofs. Using a dual aspect rather than single aspect flat arrangement makes all this easier to achieve and will also allow the flats to have a clearly defined public and private area as required in question 3.2.

The additional car parking and waste storage needs of a flatted scheme must also be incorporated without detracting from the street character.

**Policy References:** CS17; CS19; G3; G7; HE3; HE5; HE6; H8; Local Plan Appendix. 1 (Sections 1; 2; & 3)

**Building for life criteria:** 6; 7; 8; 17
Development should be designed to have a legible layout, i.e. one that is easily understood, that clearly connects with the existing street network. This is achieved by clearly defining the public and private areas ‘designing out’ crime.

Intensification sites are frequently located behind existing dwellings which can give the impression of a private space where there should be a public street. This is avoided by ensuring that the accesses to these sites are integrated with the existing street network.

In the past new development often obtained access through narrow gaps between the gable ends of existing houses, which had poor surveillance and did not integrate well with the existing public street network. Successful development re-orientates existing houses or provides new houses to address the new access arrangements creating a new street. (See question 2.2)

Surveillance is achieved not only through windows overlooking a space, but also through the ease of access from inside the building to the external space. At least 10 - 15 doors per 100m, and 15 ground floor windows is a good rule of thumb for minimum surveillance on each side of the street.

Understanding the ‘gradation’ of public and private helps to clarify this issue. The street is public. A front garden is semi-private, in that it is visible from the street but for the use of the adjacent building only. The house and its rear garden are private.

**Shared rear parking courts** are functionally semi-public in that they are shared by a number of people, but are on private property. They should be designed so that they are read as private property. They must be well overlooked, close to the properties they serve, and as a general rule of thumb should serve about 5-7 dwellings.

**Incremental development creating adjacent Cul-de-sacs should be avoided as it reduces legibility and permeability.**
or be about 10 spaces. They must be used only as a last resort after all other methods of accommodating parking have been exhausted (e.g. on-street parking; on plot parking and front shared parking areas). This is because they offer the least direct connection with the property they serve, residents will often use the street to park in preference to these areas and they reduce the size and quality of rear gardens. (See question 3.3)

Within the house there are also gradations of privacy, with the bedrooms and bathrooms being ‘more private’ than the kitchen and living room. Internal layouts and their relationship to external space should reflect this.

The issue of good legibility in terms of public and private space applies equally to flatted schemes as to schemes of houses. Confused external space often results when blocks of flats are conceived of as ‘pavilion buildings’. Common faults include losing any street definition within large shared parking areas, and locating garden areas to provide private amenity for ground floor flats next to public areas. These layouts are not regarded as achieving high quality design.

**Policy References:** CS19; G3; G26; Local Plan Appendix. 1 (Section 2)

**Building for life criteria:** 9; 10; 14; 15

---

**Q3.3 DO YOUR PROPOSALS PROVIDE CONVENIENT; SAFE AND ATTRACTIVE RESIDENTS PARKING AND SUFFICIENT OPPORTUNITIES FOR VISITOR PARKING?**

[YES: see below & carry on to question 3.4]

Parking should be located to the front or side of dwellings close to the front door. This is both convenient and safe as the parking is well overlooked.

Rear parking courts should be considered as a last resort when parking at the front or on the street is not possible as this form of parking is least liked by residents and is often under used with residents parking instead on street close to their front door whether there is room for it or not.
Oppotunities for visitors to park are best provided informally on street rather than in separate bays or spaces off street as this gives more flexibility and is more efficient. Where parking is provided on street, the street should be wide enough to accommodate this so that cars do not end up parking with two wheels on the road and two on the pavement.

Parking on the frontage and on the street should be designed so that it does not dominate the character and appearance of the street. Street trees should be used to reduce the impact of parking in the street.

Policy References: S19; CS20; G3; G26; T2; Local Plan Appendix 1 (Section 3); Parking What works Where and Manual for streets 1 & 2

Building for life criteria: 11; 12; 13; 14; 15

Q3.4 DO YOUR PROPOSALS REFLECT THE PROXIMITY OF THE SITE TO PUBLIC TRANSPORT ROUTES WITH FREQUENT SERVICES AND LOCAL SHOPS?

YES: see below & carry on to question 3.5

NO: amend your scheme as appropriate

If your site is close to public transport routes a higher density of development might be appropriate as it will be less car dependent. Likewise, a lower density is likely to be appropriate, in areas less well served by public transport. The local plan sets out accessibility zones. Establishing which zone your site is in will help in assessing a potential density. Also, if your site is close to local shops, providing high quality pedestrian and cycle links will discourage the use of the car to access these local facilities. Limited mixed uses might also be considered if the site is very close to a local district centre and will help to maintain the centre’s vitality.

Policy References: CS19; CS20; H8; Building for life criteria: 4
**Q3.5** DOES THE PROPOSAL TAKE ACCOUNT OF LOCAL TOPOGRAPHY?

*NO:* analyse the levels and amend layout, undertake Visual Impact Assessment and amend proposals in accordance with findings

*YES:* carry on to question 3.6

Significant changes in level can pose a significant constraint or opportunity for development. Successful development works with the grain of existing topography. Extensive use of retaining walls and earthworks often suggests that a layout is being forced on to a site rather than being designed with levels in mind, and are not considered to achieve high quality design and will therefore not be accepted.

New development within the existing green corridors of backland sites must be assessed for its wider visual impact. (See box adjacent for details)

Separation distances with neighbouring properties will need to be re-evaluated to take account of level differences and ensure a reasonable degree of privacy is maintained. For example, to maintain privacy additional rear to rear distances are often required on sloping sites.

Amenity areas must include sufficient level ground to allow space for sitting and other amenity uses. The privacy of amenity areas should not be compromised by changes in level allowing views from public vantage points.

**Visual Impact:**

Topography can make a site more visually prominent resulting in a wider visual impact.

This can be the case where development is proposed in long back gardens along valley sides. Visual Impact assessment is not a one off exercise but should be used as a tool throughout the design process to reduce the impact to acceptable levels. It should follow the guidelines set out in the Guidelines for Landscape and Visual Assessment 2nd Edition published by the Landscape Institute.

**Policy References:** CS17; CS19; G3; G7; G8; G10; Local Plan Appendix 1 (Section 1; 2; 3 & 7)

**Building for life criteria:** 7
Q3.6 HAVE NEW SHARED BOUNDARIES BEEN TREATED CORRECTLY, MINIMISING IMPACT UPON EXISTING AND NEW RESIDENTS?

YES: carry on to question 3.7

NO: change layout or boundary treatments to reduce impact

Housing intensification by its very nature opens up previously secluded gardens and creates new boundaries, which can generate crime; noise; amenity; design issues and adversely affect the existing character and appearance of the area. The amenity of existing gardens or dwellings should not be compromised by the new development. Vehicle accesses should be located to ensure existing residents do not suffer undue traffic noise.

The aim should be that, no existing back garden boundary should be exposed. Instead they should be protected by new back gardens adjoining them.

Where this is not possible along the entire boundary, suitable treatments include hedge planting/tree screens or walls 1.8 metres high.

Long lengths of timber fences fronting public areas should be avoided.

The public side of these boundaries should be well surveyed by adjacent properties and by the use of trellis for the top part of walls and fencing to deter unauthorised access.

Lengths of rear or side garden boundaries adjacent to street frontages and road accesses should be kept to a minimum (at most less than half the length of the access road) to ensure that the existing character is protected and that the new development and its access feels fully part of the surrounding residential area.

Policy References: CS19; G3; G8; G26;
Local Plan Appendix 1 (Section 3)
Building for life criteria: 8; 10; 14; 15
Q3.7 HAVE YOU TAKEN MEASURES TO CONSERVE NATURAL RESOURCES AND GENERATE RENEWABLE ENERGY ON SITE? HAVE YOU ADDRESSED THE ISSUES RAISED IN THE CHECKLIST IN APPENDIX 3 OF THE SPD FOR SUSTAINABLE CONSTRUCTION, LIVING WITHIN OUR LIMITS?

NO: Amend layout and design to the address the issues set out within the checklist in Appendix 3

YES: carry on to question 3.8

As outlined in National Planning Policy (currently Planning Policy Statement 22) Renewable Energy, new development should seek to incorporate renewable energy principles as a matter of course. Many of these can be incorporated through the design and layout and represent a significant “one off” opportunity to reduce lifetime energy requirements e.g. south facing elevations having larger windows than north facing elevations. Refer to our SPD for sustainable construction, Living within our Limits for other examples of measures that should be considered.

Policy References: CSI; CS18; Living within our Limits SPD
Building for life criteria: 5; 17; 19; 20

Appendix 3 Checklist in Living within our Limits

Energy
1 Is there evidence of an energy strategy for the development?
2 Has the site layout been designed to maximise solar gain i.e. have buildings been orientated to within 45 (preferably 30°) of south?
3 Are windows designed and arranged to catch light and sun and/or provided with shading where necessary?
4 Have features such as sun pipes and energy efficient lighting been allowed for?
5 Has consideration been given to the maximisation of solar gain through designing in thermal mass Insulation and air tightness?
6 Does the building design allow for high thermal performance e.g. through Modern Methods of Construction?
7 Does the design allow a high level of air tightness to be easily achieved e.g. through application of the PassivHaus principles?

Renewable energy
8 Does the development make use of renewable or low carbon technology for heating and hot water such a ground source heat pumps; solar panels?
9 Is there an opportunity for a district heating system?
10 Does the development incorporate an electrical generation system such as photovoltaics?
Appendix 3 Checklist in Living within our Limits (continued)

**Water efficiency**
11 Is water conservation maximised by the use of water efficiency measures?
12 Have grey water recycling systems been considered?
13 Has rainwater harvesting been considered?

**Sustainable Urban Drainage (SUDS)**
14 Has the site been designed to incorporate features which will prevent surface water run-off?
15 Has the site been designed to incorporate features above ground which will drain away or store run-off?
16 Has the site been designed to incorporate infiltration devices such as swales or soakaways?

**Waste**
17 Does the design allow for sustainable waste management to be achieved?
18 Does a site waste management plan need to be produced?
19 Are adequate waste storage areas provided?

**Materials**
20 Do materials have low embodied energy and are they rated as A+, A or B in the BRE Green Guide?

**Q3.8 HAVE MEASURES TO INCREASE BIODIVERSITY BEEN INCLUDED?**

**YES:** carry on to question 3.9

NO: revise proposals to include some biodiversity measures.

There are many simple low cost ways to increase biodiversity in new developments; incorporating such measures as well as being good for the environment will often make the area a more pleasant place to live. It is expected that all new residential development will incorporate some biodiversity measures. Measures should be informed by ecological advice and reflect existing local ecological interest and/ or Biodiversity Action Plan (BAP) targets.

**Policy References:** CS4; CS17; CS19; G3; G10; G11; L5; L9 River Wye Advice Note

**Building for life criteria:** 5; 7

Further information can be obtained from publications available on the Natural England website: www.naturalengland.org.uk

**Potential Biodiversity Measures:**
- Nest boxes
- Bat lofts and boxes
- Green roofs
- Using hedges and shrubs for boundaries instead of walls and fences
- Enhancements to river banks
- Ponds and drainage swales
- Climbing plants and green walls
- Maximising landscape areas and tree planting
- Using native trees and shrubs and peat free compost and avoiding the use of pesticides
Q3.9 Have any concerns raised by local people as part of any public involvement process been given serious consideration and where possible resolved, including the maintenance of the amenity and privacy of existing retained properties?

NO: Amend proposals to resolve the issues.

YES: Carry on to question 3.10

Policy References: Adopted Statement of Community Involvement; Appendix 1 and Draft NPPF

Q3.10 Have the detailed design considerations contained in the local plan been addressed and resolved, creating high quality living environments for new residents and maintaining the amenity and privacy of existing retained properties?

NO: Amend proposals to resolve the issues.

YES: Carry on to question 3.11

Policy References: G3; Local Plan Appendix 1

Building for life criteria: 18

Q3.11 Have all the questions in level three been adequately answered?

NO: If it is not possible to resolve all the issues then the site may not be suitable for intensification - revise site area, design approach or abandon.

YES: Carry on to question 3.12

Q3.12 After satisfying levels one, two and three, do the revised proposals deliver a high quality scheme that improves the quality of the neighbourhood?

NO: Amend proposals and re-evaluate starting back at level one or abandon the site it is not suitable for housing intensification.

YES: Submit the application
Appendix One

Glossary of terms

**Dwelling:**
A convenient term used within planning to cover both houses and flats.

**Draft NPPF:**

**Embodied energy:**
The non-renewable energy consumed in the acquisition of raw materials, their processing, manufacture, transportation to site and the construction process. Also the non-renewable energy consumed to maintain, repair, restore, refurbish or replace materials, components or systems during the lifetime of a building.

**Greenfield:**
These are sites which have never been developed or used for an urban use.

**Intensification:**
The redevelopment of existing neighbourhoods, blocks / streets or groups of plots at higher densities.

**Legibility:**
A place that has a clear image and is easy to understand.

**Pavilion Building:**
A free-standing building with external space surrounding it on all sides, as distinct from a building that comprises part of a street.

**Perimeter block:**
A term used to describe a building or group of buildings that are organised so that the entrances and most public activities are located on the face of the buildings that is next to public streets, and private activities are contained to the rear.

**Permeability:**
The ease with which one can move through and get to other locations. Places that are integrated physically or connected to their surrounding areas.

**Public realm:**
Everywhere between where we live and work, those spaces we hold in common and access and share as equals.

**Typology:**
The word typology literally means the study of types. In the context of this document it means the classification of development according to its characteristics.