

# Residential Design Guide



Adopted - July 2014  
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## Residential Design Guide

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## **1.0 Introduction**

- 1.1 The Borough of Watford is a well established urban centre in West Hertfordshire that contains a diverse patchwork of areas reflecting different types of built form. This Residential Design Guide has been produced to aid in the creation and preservation of high quality residential environments throughout Watford. It provides a robust set of design principles which can be applied to proposals ranging from house extensions to large-scale redevelopment schemes.
- 1.2 The guide is aimed at anyone involved in the planning, design and development of new housing or extensions to existing housing. It will assist property owners, architects and developers to formulate design proposals for new development, as well as assisting Council Planning Officers in the provision of pre-application advice.
- 1.3 This document has been produced by Watford Borough Council, but uses some material from a guide that was created by Nathaniel Lichfield and Partners (NLP) in 2008.

## **2.0 Planning Policy Background**

- 2.1 This document replaces the two existing Residential Design Guides (2008) and Supplementary Planning Guidance 4 (Privacy Guidelines), 5 (Private Gardens), 6 (Internal Space Standards), 7 (Conversions), 8 (Extensions), 12 (Landscape Guidelines) and 14 (Designing for Community Safety). The latter set of documents all date to 2001 and were related to the Watford District Plan 2000 (2003), which has since been superseded by the Watford Core Strategy (2013).
- 2.2 This document supplements policies in the Local Plan: Watford Core Strategy (2013) and Development Management Policies (Draft) -  
[www.watford.gov.uk/ccm/navigation/environment-and-planning/planning/local-plan](http://www.watford.gov.uk/ccm/navigation/environment-and-planning/planning/local-plan)

## **3.0 Designation**

- 3.1 This document was adopted by Watford Borough Council Cabinet as a Supplementary Planning Document on the 23rd July 2014. It provides detail to support policy in the Local Plan (Core Strategy and Development Management Policies). These policies include: UD1 (Delivering High Quality Design), HS1 (Housing Supply and Site Selection), HS2 (Housing Mix), HS6 (Applications for new HMOs or hostels), HS7 (Conversions and Extensions), HS10 (Quality of Garden Development), T6 (Car Parking Standards) and T8 (Cycle Parking Standards).

## **4.0 Local Consultation**

- 4.1 A draft version of the document was published for public consultation between the 4th November and 16th December 2013. The Council sought to consult those with an interest in residential development. Details of the consultation was sent to local architects/planning agents and community groups, such as residents' associations, and efforts were made to reach a wider audience through local media and the Council's website. Responses received helped to shape the final version.

## **5.0 Associated Documents**

- 5.1 This revised Residential Design Guide forms part of a suite of design and conservation documents. Collectively these make up the Watford Urban Design and Conservation Strategy. Other design documents include:
  - Shopfront Design Guide – [www.watford.gov.uk/shopfronts](http://www.watford.gov.uk/shopfronts)
  - Streetscape Design Guide – [www.watford.gov.uk/streetscape](http://www.watford.gov.uk/streetscape)
  - Watford Character of Area Study – [www.watford.gov.uk/coas](http://www.watford.gov.uk/coas)
  - 10 Conservation Area Character Appraisals and a Conservation Areas Management Plan – [www.watford.gov.uk/conservation](http://www.watford.gov.uk/conservation)
  - Documents on Locally and Nationally Listed Buildings – [www.watford.gov.uk/listedbuildings](http://www.watford.gov.uk/listedbuildings)

## **6.0 Structure of document**

- 6.1 Section 7 of this document provides guidance for new housing, from an individual property to larger scale developments of many new properties. Sections 8 and 9 provides guidance on housing extensions and conversions. There are links at the end of the document to other helpful resources relating to the design of new development.
- 6.2 Images 1, 2, 3 and 29 were produced by Watford Borough Council; images 4, 5, 7, 8, 18, 19 and 25 were produced by Nathaniel Lichfield and Partners; images 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 26, 27 and 28 were produced by the Watford based architect Joe Kent.

## **7.0 Building New Homes**

If your proposed form of development is limited to extending or converting an existing property, please go to section 8.

### **7.1 Responding to context**

- 7.1.1 A key aspect of achieving good quality design is through gaining a thorough understanding of both the development site and its wider context. The context of a proposal site is the character and setting within which that site exists: its natural and human history; settlement forms; location; forms of buildings and spaces; ecology and archaeology; and vehicular and pedestrian routes through it. Existing local communities are also an important consideration.
- 7.1.2 Understanding a site's context is essential to ensure that the proposed development reinforces local characteristics. New development must create a place of distinction by building on local identity. Where positive aspects of local character are more limited, development needs to begin to set a standard for the area by creating a distinctive place in its own right.
- 7.1.3 A comprehensive guide to the existing character areas within the Borough was adopted by the Council in December 2011. The Watford Character of Area Study provides detail on the various components that make up local character, from typical building heights to landscaping. The document should be referenced when developing plans for new residential development.
- 7.1.4 The key map from the document is included on the following page as a reference point for further analysis. The full document can be accessed online here: [www.watford.gov.uk/coas](http://www.watford.gov.uk/coas)



## 7.2 Getting the right layout

### Introduction

7.2.1 Working with the existing character of the site and surrounding area, the design of new development must be bespoke and cannot simply involve the replication of a layout from elsewhere. If the site is large enough to accommodate a layout that creates a new identity, the following principles should be considered:

### Creating a Core

7.2.2 A layout will often benefit from a central focus that forms the core or “heart” of the development. Such an area may take the form of a square or garden and be associated with community uses (such as a school or community hall), shops, a public house and/or a bus stop. This focal point could form the most suitable location for higher residential densities. The core should be connected to the primary movement network and should be capable of allowing residents to congregate.

### Character Zones and Nodal Points

7.2.3 Through the use of different types of space, housing types, building forms or materials, a variation in character between different parts of a development can be achieved in large-scale residential schemes. Existing attributes of an area can be built upon, or new themes added, to establish varied character within the overall development. Establishing areas of distinctive character can reinforce local identity or raise the profile of a particular place.

7.2.4 In addition to a central core, a number of nodal points can be introduced. These may be urban spaces formed at junctions between routes. Key buildings or groups of buildings, higher residential densities, or a non residential use such as a convenience shop or pub, could delineate nodal points.

### Landmarks and Vistas

7.2.5 Landmark buildings or structures, vistas and focal points make it easier for people to orientate themselves within, and find their way around neighbourhoods. This can be achieved by respecting existing views towards landmarks or focal points in neighbouring development or adding new views, landmarks and focal points. Landmarks in the form of distinctive (e.g. taller) buildings help to emphasise the hierarchy of a place, as these are often best placed in the central core or at entrance points. However, other distinctive buildings, spaces or structures placed at points throughout the development, away from the central core or nodal points, can also be useful for orientation. These could be in the form of, for instance, a building terminating the view along a street, a property jutting forward of the building line within a street, or a retained mature tree.

### Creating a Movement Network

7.2.6 The layout of new development must provide a clear movement network. Links to surrounding built form should be enhanced, while the internal route network should maximise opportunities for walking and cycling. Residential streets must be well-connected and permeable. This will help give residents a range of routes and opportunities to utilise different transport options. Routes must be attractive for pedestrians/cyclists to use, with natural surveillance from adjacent development.

7.2.7 Larger scale development may provide a sufficient critical mass of new residents to enable the provision or re-direction of a bus service. In such circumstances the layout of streets and location of principal nodes of activity and/or higher density housing should be integrated with the location of bus stops.

7.2.8 In line with the principles detailed in the two volumes of Manual for Streets, opportunities should be maximised to design traffic calming measures into the street network. This could include shared spaces or Home Zones,

where lower traffic speeds are coupled with a more flexible approach to the design of the highway that focuses on enhancing the local environment.

### **Creating a Mixed Development**

7.2.9 A crucial aspect of creating a successful, mixed neighbourhood is the provision of a variety of housing types, sizes, densities and tenures appropriate to local need. The provision of family housing will be expected to meet identified local needs. A mix of tenures, including affordable rent, will be required. This should be in line with Core strategy Policies HS2 and HS3. These types of dwellings should be dispersed throughout the development and be indistinguishable from homes for private sale. More detail on this topic will be set out in the forthcoming Watford Housing Strategy.

7.2.10 A mix of uses is beneficial to residents and users of a new development: they create lively streets, active frontages, and maximise opportunities for natural surveillance. Where appropriate, and where the size allows, a mix of uses should be provided within new developments. The starting point for establishing the need for non-residential uses should be through a review of existing community facilities and uses in the surrounding area. Where it is established that new facilities are required, these should be conveniently situated and accessible via safe pedestrian routes.

### **Optimising the Grid**

7.2.11 Structuring a development using perimeter blocks can be a simple and effective method of successful place making. Perimeter development helps to: create a legible place, provide good connections to neighbouring development, create an efficient form of layout, create a clear distinction between the public and private realms and maximise natural surveillance with windows and doors of dwellings fronting onto the street.

7.2.12 Perimeter development will create a grid system. This can be regular, concentric or irregular with a more organic layout. A development does not need to be exclusively one grid form or another. Different forms can create different character areas within a development. Block size can vary; small blocks provide good pedestrian permeability whilst larger blocks are more land efficient. A variation in block sizes within a development is a good means of creating variety, interest and character.

### **Street Widths and Enclosure**

7.2.13 Successful streets can be a variety of widths: what is important is the height of the buildings in relation to the width of the street and the creation of a pedestrian scale (streets which pedestrians feel comfortable using). Successful streets create good enclosure. Typically a ratio of 1:1 (height to street width) will produce an adequate sense of enclosure for a street and 1:4 will produce an appropriate scale for a square. In some cases landscaping can also help to create enclosure in a street, where wider spacing between buildings is required, such as along principal roads. The use of the street or activity proposed within it will often define its width and the heights of the surrounding buildings.

### **Defining Spaces**

7.2.14 Residential areas should comprise a mix of public, private and communal space (including “semi-public” areas shared by a group rather than open to all such as courtyards). In all instances the function of each space should be clearly defined, as should the boundaries separating the different types of spaces. Ambiguous or ‘left over’ space must be avoided.

### **Vehicular and Cycle Parking**

7.2.15 Parking should be considered at an early stage of the design process. Overly dominant car parking

arrangements will not be acceptable. If it is not possible to accommodate the parking requirements of a desired quantum of development without compromising the quality of the urban environment, the scale of development must be reduced. Parking standards for residential development are set out in Policy T6 in the draft Local Plan: Development Management Policies DPD.

- 7.2.16 All parking must be designed so it does not compromise the pedestrian environment around new housing. It must be well landscaped, with new tree planting expected to break up areas of surface level parking. Landscaping must be sufficiently robust to provide for sustainable ongoing maintenance. Strips of planting (e.g. shrub, hedging, trees, grass) between car parking spaces must be at least 1 metre wide.
- 7.2.17 All surface level parking must be provided on a permeable surface (e.g. permeable block paving) or connected to a sustainable drainage system to help mitigate surface water run off.
- 7.2.18 A consideration of inclusive design should be made when designing car parking. The minimum dimension for a single disabled bay is 3600mm x 4800mm. This should provide sufficient room for transfer between wheelchair and car while also enabling the car door to be fully opened within the bay.

#### 7.2.19 Guidance on specific types of car parking:

Type	Guidance
Rear courtyards	Parking in this format can be designed as an integral part of the overall site layout and can be a useful way of accommodating parking. Successful rear parking courtyards should: <ol style="list-style-type: none"> <li>i. be overlooked by surrounding houses;</li> <li>ii. remain small and not include more than about 10 parking spaces (if this is necessary the courtyards should be broken up into different spaces to avoid a large expanse of car parking);</li> <li>iii. be located at the centre of a street block;</li> <li>iv. maintain the continuity of the street front by locating entrances to rear courtyards between buildings or through an archway.</li> </ol>
Front courtyards	Parking in this format can provide safe and convenient spaces for residents. Their drawbacks are that they widen the street width and therefore reduce the sense of enclosure. They should be limited to use in courtyard developments where development encloses at least three sides of the courtyard. The use of varied surfacing materials or dropped kerbs may be needed to indicate the boundary between public highway and private parking space. Soft landscaping will be required to reduce the impact of areas of hard surfacing.
On-street parking	Parking in this format can be convenient for residents and may be suitable to accompany new residential terraces. On-street parking should be broken up at intervals to provide pedestrian permeability and improve the appearance of the street (e.g. street trees).
In-curtilage parking	Parking in this format may be appropriate where a garage or carport is located alongside a house in a lower density development. In-curtilage parking to the front of the house should be limited.
Basement parking	Parking in this format can facilitate a higher quality public realm at street level and a more efficient use of land. However, the location and design of the entrance must be carefully considered to minimise its impact on the street. The shape of the building above ground must not be dictated by the dimensions of underground parking spaces.
Undercroft parking	Parking in this format can be an appropriate way of providing off-street parking, such as in areas with flood risk. However, careful consideration must be given to the frontages of undercroft areas to ensure that active and safe frontages are maintained at street level.

- 7.2.20 New residential development must provide cycle parking in line with the standards set out in Policy T8 in the draft Local Plan: Development Management Policies DPD.
- 7.2.21 All new cycle parking must be provided in conveniently located, secure and weatherproof cycle storage areas. This must be on a unit-by-unit basis or, where this is not appropriate, communally. New freestanding cycle parking facilities must be constructed in materials that match the associated residential development.

## 7.3 Building Form

### Introduction

- 7.3.1 Having defined the overall physical layout, there is a need to consider the form and siting of individual buildings within it. Building form relates to the physical dimensions of a building, namely its height, width, depth and roof profile. Siting refers to the location of a building within the wider development or its plot and, in particular its relationship to property boundaries and existing or proposed streets.

### Building line and setbacks

- 7.3.2 A strong building line creates continuity of frontage and provides definition and enclosure to the public realm. Continuous frontages are most easily achieved with terraced housing and flats. It is advisable to include pedestrian access to rear spaces alongside terraced buildings. These should be fronted by a robust gate or door to ensure access is secure. Where detached and semi-detached dwellings are included in a street, semi-continuous enclosure can be provided through the appropriate use of garages and walls.
- 7.3.3 Where there is a strong existing building line, any new development should be in keeping with this. Where buildings have varied setbacks, this can add interest and variety to a street; however, boundaries should remain strong to give definition to the street and to ensure public and private space is clearly defined.

### Building size and scale

- 7.3.4 In existing areas, particularly in the case of infill or backland development, it is important that proposals respect - but not necessarily in all instances replicate – the height and scale of adjoining or nearby buildings. In most locations in Watford the prevalent building heights of two or three-storeys will need to be mirrored in new development. However, where appropriate, on town centre sites, in locations adjacent to transport nodes and within major development sites, denser and taller forms of development may be acceptable. In such instances, the effects of a proposal on amenity and townscape will be the primary issues in determining the appropriate height of development.

### Internal Space Standards

- 7.3.5 All residential properties need to provide enough internal space to allow varied domestic activities to take place comfortably. By defining overall space standards for a range of occupancy levels based on bed spaces per unit, providing minimum standards for bed room sizes and storage areas the following guidance aims to ensure that new homes will meet the needs of occupiers in the long term.
- 7.3.6 In accordance with Government policy all new residential units should accord with the Technical housing standards - nationally described space standard. The current standards were issued in March 2015 and are set out in the table over.

### Minimum gross internal floor areas and storage (m2)

Number of bedrooms (b)	Number of bed spaces (persons)	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39(37)*			1.0
	2p	50	58		1.5
2b	3p	61	70		2.0
	4p	70	79		
3b	4p	74	84	90	2.5
	5p	86	93	99	
	6p	95	102	108	
4b	5p	90	97	103	3.0
	6p	99	106	112	
	7p	108	115	121	
	8p	117	124	130	
5b	6p	103	110	116	3.5
	7p	112	119	125	
	8p	121	128	134	
6b	7p	116	123	129	4.0
	8p	125	132	138	

7.3.7 A dwelling with two or more bedspaces should have at least one double (or twin) bedroom. The minimum width of a room providing a single bed space should be 2.15m and that of a double or twin bedroom should be 2.75m for the first room and 2.55m wide in every other double or twin bed room. The following minimum floor areas for bedrooms should also be met:

Bedroom size	Minimum floor area of bedroom (square metres)
Single	7.5
Double / twin	11.5

7.3.8 The built in storage space required by the standards is set out in the table at 7.3.6 . The following constraints apply when considering which elements of built-in storage can be included in the GIA figure for a particular dwelling.

1. any area with a headroom of less than 1.5m is not counted within the Gross Internal Area unless used solely for storage (if the area under the stairs is to be used for storage, assume a general floor area of 1m<sup>2</sup> within the Gross Internal Area)
2. any other area that is used solely for storage and has a headroom of 900-1500mm (such as under eaves) is counted at 50% of its floor area, and any area lower than 900mm is not counted at all
3. a built-in wardrobe counts towards the Gross Internal Area and bedroom floor area requirements, but should not reduce the effective width of the room below the minimum widths set out above. The built-in area in excess of 0.72m<sup>2</sup> in a double bedroom and 0.36m<sup>2</sup> in a single bedroom counts towards the built-in storage requirement
4. the minimum floor to ceiling height is 2.3m for at least 75% of the Gross Internal Area
5. The following additional Notes were added to the Nationally Described Standard on 19 May 2016
  1. Built-in storage areas are included within the overall GIAs and include an allowance of 0.5m<sup>2</sup> for fixed services or equipment such as a hot water cylinder, boiler or heat exchanger.
  2. GIAs for one storey dwellings include enough space for one bathroom and one additional WC (or shower room) in dwellings with 5 or more bedspaces. GIAs for two and three storey dwellings include enough space for one bathroom and one additional WC (or shower room). Additional sanitary facilities may be included without increasing the GIA provided that all aspects of the space standard have been met.
  3. Where a 1b1p has a shower room instead of a bathroom, the floor area may be reduced from 39m<sup>2</sup> to 37m<sup>2</sup> , as shown bracketed.
  4. Furnished layouts are not required to demonstrate compliance.

## **Daylight**

7.3.10 The Building Research Establishment (BRE) guidelines “Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice” (2011) provides guidance on avoiding unacceptable impacts and sets out non-mandatory targets for levels of daylight and sunlight within existing and proposed development. The Council will generally apply the BRE guidance targets to assess new development and where new development may affect natural light to existing properties.

7.3.11 Care should be taken in the design of residential environments to ensure that adequate levels of natural light can be achieved within new dwellings and unacceptable impacts on light to nearby properties are avoided.

Proposed dwellings should be laid out so as to maximise the penetration of daylight to main rooms and gardens. Daylight levels are not affected by orientation and new buildings should be designed so that adequate daylight is provided to all dwellings. Where buildings are located adjacent to one another this is done using the “45 degree rule” and where buildings are opposite each other this is done using “25 degree rule”.

### **The “45 degree rule”**

7.3.12 For adequate levels of daylight to be maintained, adjacent dwellings should be sited so that a 45° line projected from the centre point of any rear ground floor habitable room window is not crossed by an adjoining dwelling in both plan and elevation (see images 2 and 3).

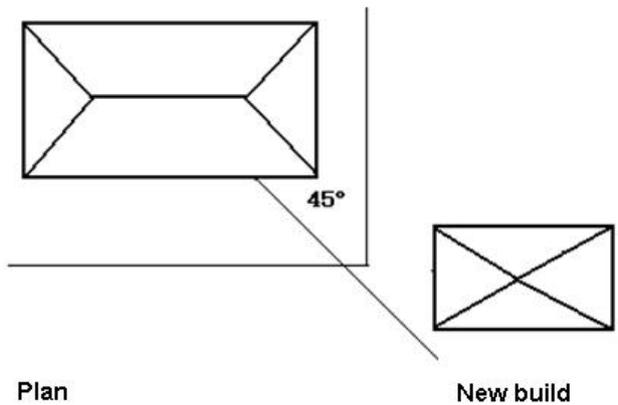


Image 2  
The 45% rule ensures that adequate levels of daylight can be maintained.

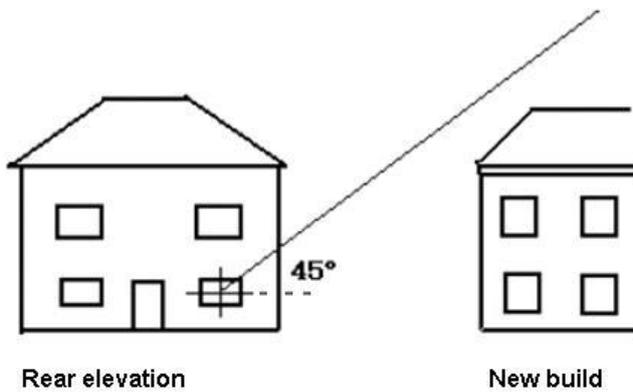


Image 3  
The 45% rule ensures that adequate levels of daylight can be maintained.

### The “25 degree rule”

7.3.13 Where new development is parallel to existing properties, the following rule-of-thumb guidance can be used: “If any part of a new building, when measured in a vertical section perpendicular to the rear wall of an existing property subtends an angle of more than 25° at the centre of the lowest window, then daylight and sunlight levels may be adversely affected”.

#### 25 Degree Thumb Rule

Section

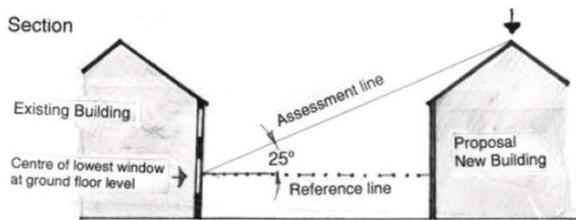


Image 4 - Section in plane perpendicular to the main face of the building

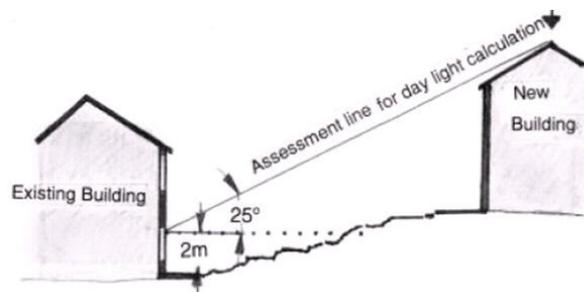


Image 5 - On sloping sites overshadowing is more of a problem and greater spacing is required

### **Sunlight:**

- 7.3.14 The Building Research Establishment (BRE) guidelines “Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice” (2011) provides guidance on avoiding unacceptable impacts and sets out non-mandatory targets for levels of daylight and sunlight within existing and proposed development. The Council will generally apply the BRE guidance targets to assess new development and where new development may affect natural light to existing properties.
- 7.3.15 Sunlight levels are affected by orientation and main habitable rooms should face SE-S-SW and 45 and 25 degree rules need to be satisfied to ensure adequate sunlight all year round.
- Habitable rooms facing NW-N-NE will receive no direct sunlight and should be avoided. All houses and flats with habitable rooms facing NW-N-NE should be dual aspect with other habitable room windows (especially main living room) facing SE-S-SW.
  - Where windows face E or W, 45 and 25 degree rules should be satisfied to ensure adequate sunlight during the summer months.
  - Loss of sunlight and overshadowing can occur where a building is sited to SE-S-SW of another building. Consideration should also be given to the potential for overshadowing of habitable room windows and garden areas.

### **Privacy**

- 7.3.16 Privacy is an important aspect of residential environments. New build schemes should ensure that there is no significant loss of privacy to neighbouring houses or gardens. The best way of ensuring privacy between houses is to ensure that there are no windows to habitable rooms directly facing each other. For the purpose of the guidance below the outer edge of a balcony will be treated as a clear glass directly facing window. Where this cannot be achieved, different privacy standards will apply to front, rear and flank elevations:

#### **a) Front elevation**

- The separation distance between front elevations will be determined by the street layout and the size of the front gardens.

#### **b) Rear elevation**

- A minimum separation distance of 27.5m should be achieved between rear elevations of new houses and existing houses, when clear glass and directly facing habitable windows are at first floor level. Exceptions will be made where it can be demonstrated that adequate privacy standards can be achieved. The ‘privacy arc’ and the 11m-rear boundary rules will be applied.
- In some circumstances, the distances between new homes in a new development can be reduced to a minimum of 22m.
- The ‘privacy arc’ shows appropriate and inappropriate locations for new development. Habitable room windows will only be accepted within this 27.5m arc if a proposal is at right angles to an existing habitable room window.
- The 11m boundary rules requires that a minimum direct distance between upper level habitable rooms on a side or rear elevation and property boundaries of 11m should be achieved in order to minimise overlooking of private gardens.

#### **c) Flank Elevation**

- Side windows that overlook adjacent homes or gardens should be avoided. However, in some instances a side window to a secondary room, (e.g. hall, bathroom, store room), may be allowed if there is more than 2m between properties and obscure glazing is used. In addition, a side window at ground floor level

may be allowed if there is a permanent fence or wall between adjacent properties that is no less than 1.8m in height, or where a proposed new window has a cill level in excess of 1.8m above ground level (see image 6);

- Where a habitable room only has windows on the flank elevation, a minimum separation distance of 10m between windows will be required. Exceptions will be made where it can be demonstrated that adequate privacy can be achieved through design.

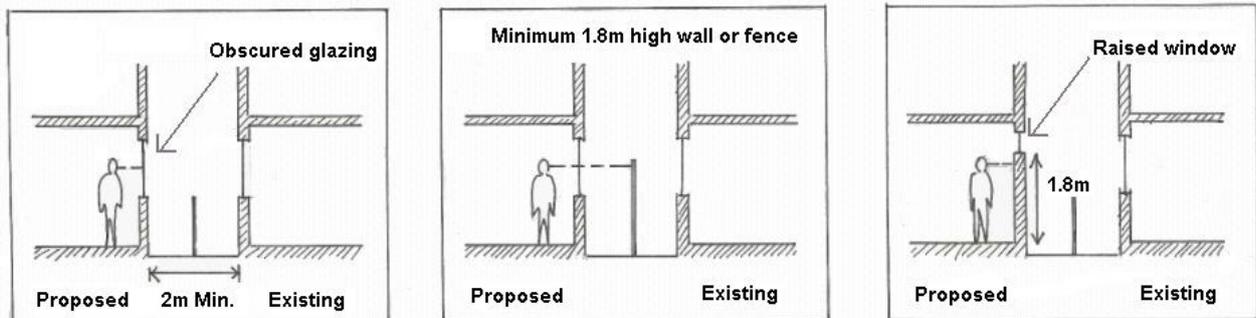


Image 6 - Measures to maintain privacy in Flank elevations.

### The Privacy Arc

7.3.17 The privacy arc is a rule-of-thumb to assess the effect of new rear extensions on the privacy of direct neighbours. It is based on the assumption that a neighbour needs a minimum privacy distance in order not to feel too overlooked and on the assumption that a person standing directly inside in front of the window looking outwards normally can overlook to a certain degree an area that is within a view-angle of 45° towards both sides of the window. How to use the privacy arc rule is explained below in more detail.

### How to calculate the privacy arc:

7.3.18

- To use the privacy arc for the assessment of the effects on the privacy of an existing property, a small drawing would need to be carried out in order to find out how far the privacy arc for a window in this property stretches:
- Draw a reference line at a right angle through the middle of the habitable room window towards the rear of the existing (E) property (or reference property).
- Then construct two boundary lines both at an angle of 45° towards both sides. Then draw an arc from one boundary line to the other boundary line with its middle point the same as the middle of the habitable room window and a radius that represents the minimum privacy distance (27.5m for an existing property or, in some circumstances, 22m for new houses in the same development).

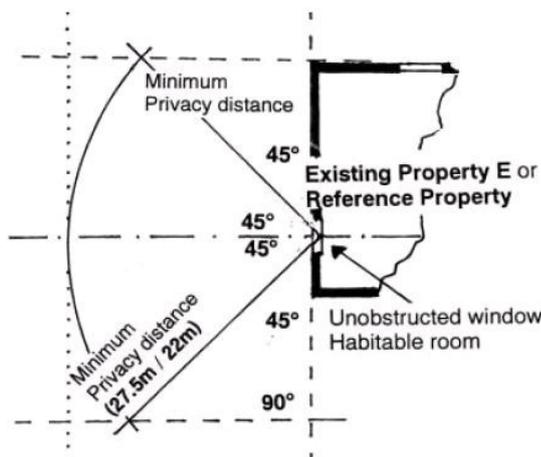


Image 7

**The privacy arc for assessing locations for development:**

7.3.19 Once the privacy arc for a window within the existing property has been found out, the privacy arc should show appropriate and inappropriate locations for new development (proposals A-D) in relation to this window: In general, habitable room windows (clear glass) will only be accepted within this arc if a proposal is at right angles or at an angle greater than 90°.

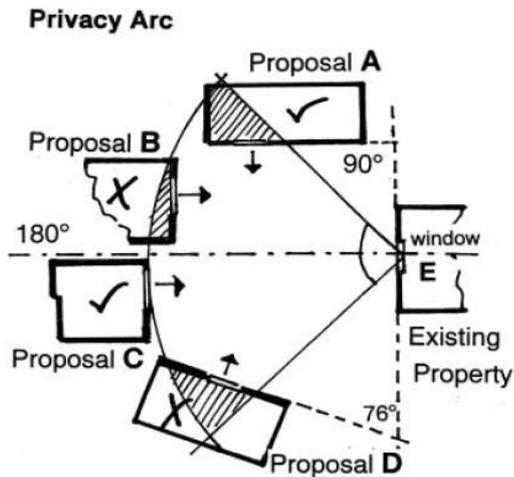


Image 8

- Proposal A** would be acceptable as the unobscured window is at an angle of 90° (or more than 90°).
- Proposal B** is not acceptable for an unobscured window as it directly faces the property and would be within the minimum privacy distance.
- Proposal C** would be acceptable as it is outside the minimum privacy distance.
- Proposal D** is not acceptable as the unobscured window is at an angle less than 90° (such as in the example at an angle of 76°).

**Completing the assessment with the privacy arc:**

7.3.20 Overall, this process would need to be repeated for every individual window at a rear elevation of the property, if this property has more than 1 window and / or a glazed clear glass door at ground floor level.

## Outlook

- 7.3.21 Outlook relates to visual dominance of a building that results in an overbearing and oppressive sense of enclosure to an adjacent property. This can be from a habitable room window or a garden area. This can occur even if there is no loss of sunlight, daylight or privacy; although, often one or more of these will also be affected.

## Private Garden Space Standards

- 7.3.22 New residential development will be expected to provide private outdoor amenity space. Private garden space must be provided to the minimum areas in the table below.

Size of Dwelling (number of bedrooms)	Minimum garden area (square metres)
1 or 2	50
3	65
4	80
5	95

- 7.3.23 For flatted developments, communal open space provided for the exclusive use of occupants of the development may be acceptable as long as its location, size and shape enable it to be enjoyed by the occupants (the layout and design should offer privacy for dwellings adjoining the space, e.g. a landscaped area of at least 3m deep along the length of the building). The minimum area for usable communal space is 50 square metres, plus 15 square metres per additional unit over two units.

## Boundaries

- 7.3.24 The height and form of boundaries to properties, particularly front boundaries adjacent to pavements, are crucial to distinguish between public and private space, achieving adequate privacy and creating character. The absence of clearly defined boundaries can lead to neglected and poor quality spaces between buildings and streets.
- 7.3.25 High quality boundary treatments will be expected on all residential developments. Where boundaries face onto public areas, such as pavements and car parks, close boarded fencing will not be acceptable. Alternative options could include hedges, natural trellising systems, brick or stone walls.

## Waste Storage and Recycling

- 7.3.26 Waste storage and recycling facilities in residential development must be considered both in terms of the kitchen environment and any external private or communal facilities. Adequate space must be provided within kitchens for a range of waste receptacles. External bin provision must be conveniently located for residents and positioned in a way that it enables refuse collection vehicles to gain access easily while not harming the streetscene.
- 7.3.27 External storage areas should be away from windows and ventilators, not interfere with pedestrian or cycling routes and preferably be in shade or under shelter. Enclosures, compounds or storage rooms provided should: provide a clear space between and around the containers; allow enough space for filling, emptying and sufficient opening of the lid; should be permanently ventilated at the top and bottom; and should have an impervious floor. New freestanding bin stores must be constructed in materials that match the associated residential development. Further guidance is included in Policy SD14 in the draft Local Plan: Development Management Policies DPD. Bin standards are detailed here: [www.watford.gov.uk/binstandards](http://www.watford.gov.uk/binstandards)

### **Flexibility and adaptability**

- 7.3.28 It is evident that the types of dwellings and/or uses demanded in a particular area can change over time. Dwellings and residential neighbourhoods which are designed to be adaptable will prove to be more robust in the long term.

### **Public and Semi-public Space**

- 7.3.29 Residential development, particularly larger scale development, may involve the creation of new public open space or areas of semi-public space within the development. These should be properly designed, preferably by a qualified landscape architect, and should be integral to the overall design of the wider development.
- 7.3.30 Any new areas of landscaping will be expected to be sufficiently large to facilitate sustainable ongoing maintenance and include native plant species. Opportunities should be maximised to provide added amenity and ecological value to the development, such as with the planting of fruit trees and hedgerows.
- 7.3.31 Further details on standards for new open space provision are included in SPG 10: Open Space Provision: [www.watford.gov.uk/spg10](http://www.watford.gov.uk/spg10). This will be replaced in due course with a new guide to Planning Obligations.

### **7.4 Detailing**

- 7.4.1 Attention to detail is crucial when creating quality buildings and places with a sense of character. Craftsmanship, materials, building techniques, decoration, styles and lighting are all integral elements of successful development. The development should be considered as a whole – the buildings, landscape and interface between them - to create a sense of completeness and cohesion.
- 7.4.1 Information on local materials and detailing can be found in the Watford Character of Area Study: [www.watford.gov.uk/coas](http://www.watford.gov.uk/coas) . Local materials and detailing may be helpful in developing design responses for particular locations, but more modern materials and detailing may also be an appropriate part of the design response – particularly in locations where the architectural quality of adjacent development is more varied or less pronounced.

### **7.5 Sustainable Development**

- 7.5.1 Detailed guidance on this topic is provided by Hertfordshire Building Futures: [www.hertslink.org/buildingfutures](http://www.hertslink.org/buildingfutures)
- 7.5.2 Additional requirements relating to sustainability standards for new residential development are included in Policies SD1 – SD19 of the Local Plan.

## **8.0 Extensions**

The content of this section may also apply to residential conversions.

- 8.1 Introduction
- 8.1.1 In assessing planning applications for domestic extensions or alterations the Council will need to have regard to the effect of each proposal on:
1. the appearance of the house to be extended/alterd (the 'host' property);
  2. the character and appearance of neighbouring properties and the streetscene as a whole;
  3. the amenity of neighbouring residents;
  4. the amount of garden space to be retained; and,
  5. parking.
- 8.1.2 It is important to note that not all properties can accommodate an extension. In some instances there may simply be a lack of space. In addition, development, however small, may result in unacceptable harm to the streetscene or to the residential amenity of neighbours. Where properties have already been extended, the

cumulative effect of additions will be taken into account. Furthermore, there may be additional factors (such as the siting and orientation of adjoining properties) which mean that extensions that meet all the guidelines included in this document may still be deemed to be unacceptable.

8.1.3 All of the following principles in this chapter are material considerations in the determination of a householder planning application and explain what constitutes good design. They apply in general for all types of dwelling houses.

8.1.4 The following principles are illustrated using photographs and other illustrations showing good and bad examples of house extensions and alterations within Watford.

## 8.2 Harmony with the Host Building

8.2.1 Extensions must respect the character and scale of the host building. To achieve this, the following need to be considered:

- **Size and shape:** an extension should complement the size, shape and character of the existing property and should normally be subordinate to it;
- **Roof pitch:** an extension should have a roof form, pitch and angle that respects that of the host property;
- **Materials:** should match or complement those of the host property;
- **Scale of windows and doors:** the design, position, proportion and size of new windows and doors should reflect the design, position, proportion and size of those within the host property; and,
- **Details:** existing detailing such as chimneys, party walls, tiles and decorative brickwork should be reflected within the proposed extension, where appropriate.

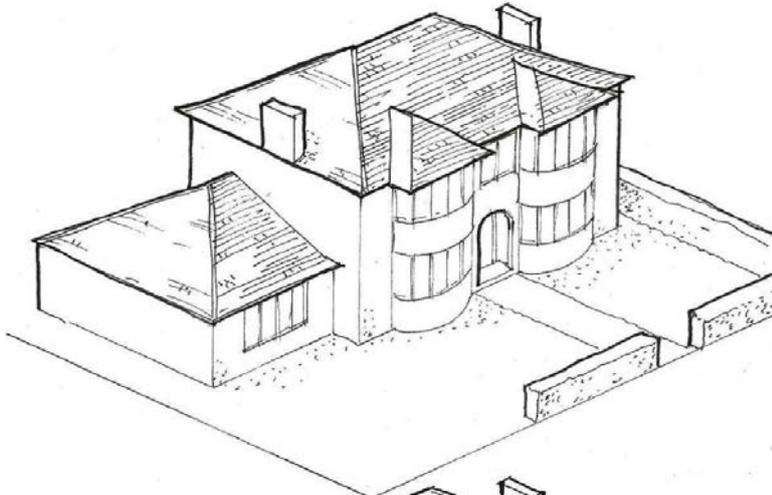


Image 9 - The extension is subordinate to the host building and in harmony with it in size, shape and roof pitch.

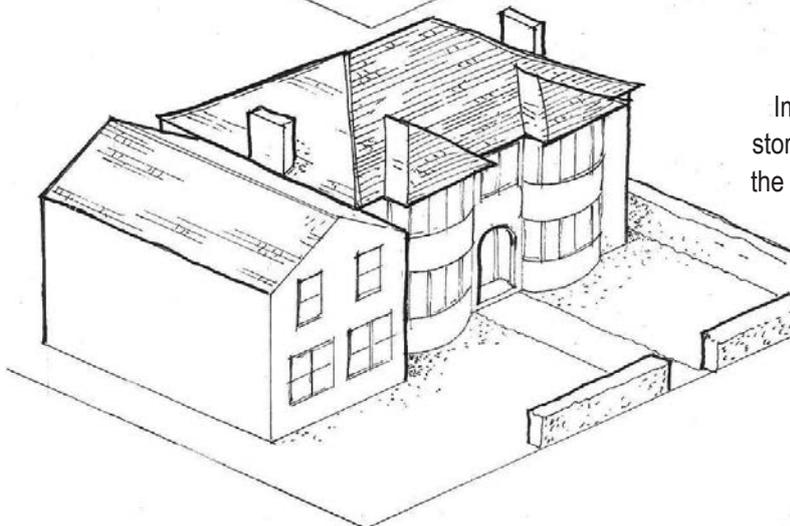


Image 10 - Whilst subordinate in size, this two storey extension fails to respect the character of the host building, the proportions of its windows or the building line of the front.



### 8.3 Respecting the Streetscene

8.3.1 It is important that an extension respects the scale and character of properties within the street as a whole. Generally, in Watford, the character of a street is achieved through uniformity: this is achieved through uniform building sizes and roof forms and regular building lines and spaces between buildings. Maintaining these characteristics is therefore key to respecting the existing streetscene. Where regularity and uniformity do not exist (e.g. where properties do not have a common building line or a single architectural style) each proposal will be considered on its individual circumstances/merits. As a guide the following should be considered:

- **Size and shape:** an extension should fit into the general streetscene, by respecting the character, size and shape of neighbouring buildings;
- **Roof form:** the roof of the extension should be designed in a way that complements the roof forms of neighbouring buildings;
- **Respect the pattern of existing development:** e.g. projections forward of a predominant building line should be avoided;
- **Spaces between buildings:** it is important to maintain the existing pattern of spaces between buildings and avoid an inappropriate “terracing effect”. The spaces between buildings are often as important an aspect of street character as the buildings themselves;
- **Protect glimpsed views:** glimpsed views between buildings which allow greenery to be seen from the road are occasionally a prominent feature of the character of the streetscene and should be protected;
- **Changes in levels:** changes in levels between buildings and gardens must be taken into account in considering effects on the streetscene and neighbouring occupiers; and,
- **Existing features:** consideration should be given to the retention of existing features such as fences, walls and trees.



Image 11 - Spaces between buildings and glimpsed views are positive for the character of the buildings and the neighbourhood.



Image 12 - This first floor level extension fails to respect the pattern of existing development and results in the loss of space between neighbouring properties.



## 8.4 Neighbourliness

- 8.4.1 An extension must not adversely affect the level of amenity enjoyed by the occupiers of neighbouring properties. Effects on amenity may comprise one or more of the following:
- a reduction in levels of daylight and sunlight to the main windows of habitable rooms;
  - a reduction in sunlight to a garden;
  - overlooking resulting in a loss of privacy; and/or
  - an increase in the “sense of enclosure” experienced within a habitable room or a garden.

In order to avoid these impacts occurring, the following guidelines must be taken into consideration:

### Daylight

- 8.4.2 The Building Research Establishment (BRE) guidelines “Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice” (2011) provides guidance on avoiding unacceptable impacts and sets out non-mandatory targets for levels of daylight and sunlight within existing and proposed development. The Council will generally apply the BRE guidance targets to assess new development and where new development may affect natural light to existing properties.
- 8.4.3 The effect of a proposed extension on daylight should be assessed using the “45 degree rule”. For adequate levels of daylight to be maintained extensions should be designed so as not to cross a 45° line projected from the centre point of an adjacent neighbours’ nearest ground floor habitable room window which is perpendicular to the proposed extension in both plan and elevation (see images 13 and 14).

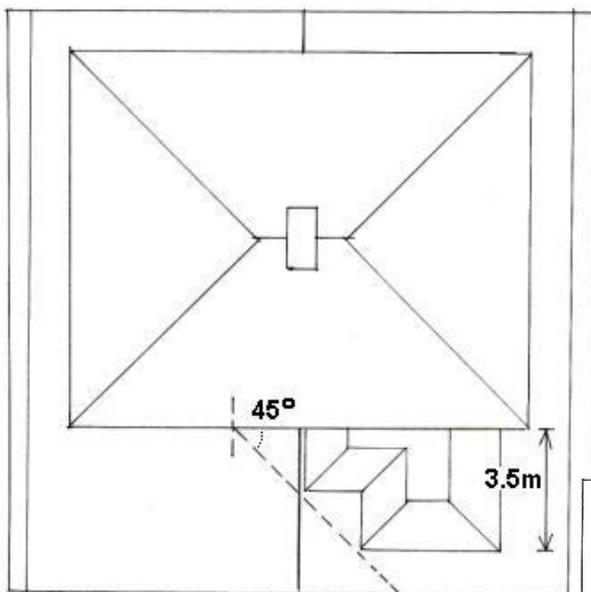
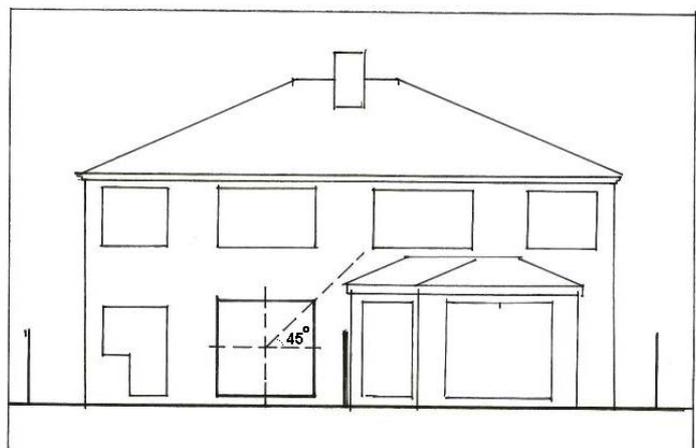


Image 13 - The 45° rule ensures that adequate levels of daylight and sunlight can be maintained.



Image 14 - The 45° rule ensures that adequate levels of daylight and sunlight can be maintained.



## Sunlight

- 8.4.4 The Building Research Establishment (BRE) guidelines “Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice” (2011) provides guidance on avoiding unacceptable impacts and sets out non-mandatory targets for levels of daylight and sunlight within existing and proposed development. The Council will generally apply the BRE guidance targets to assess new development and where new development may affect natural light to existing properties.
- 8.4.5 Sunlight levels are affected by orientation and loss of sunlight and overshadowing can occur when an extension is sited to SE-S-SW of another building. Consideration should also be given to the potential for overshadowing of neighbouring habitable room windows and gardens or amenity spaces, particularly where such areas are used for outdoor seating.
- 8.4.6 Experience has shown that single-storey rear extensions should be designed to a maximum depth of 3.5m, but may need to be less in the case of terraced houses. Permanent structures between properties such as boundary walls and fences may justify relaxation of the tests.

## Measuring Daylight and Sunlight

- 8.4.7 When preparing plans for extensions, the effects on natural light to interior spaces should be borne in mind: it is likely that there will be a loss of daylight and sunlight to central spaces within a house, and to existing windows positioned adjacent to an extension. Also see paragraphs 8.4.2 – 8.4.5.

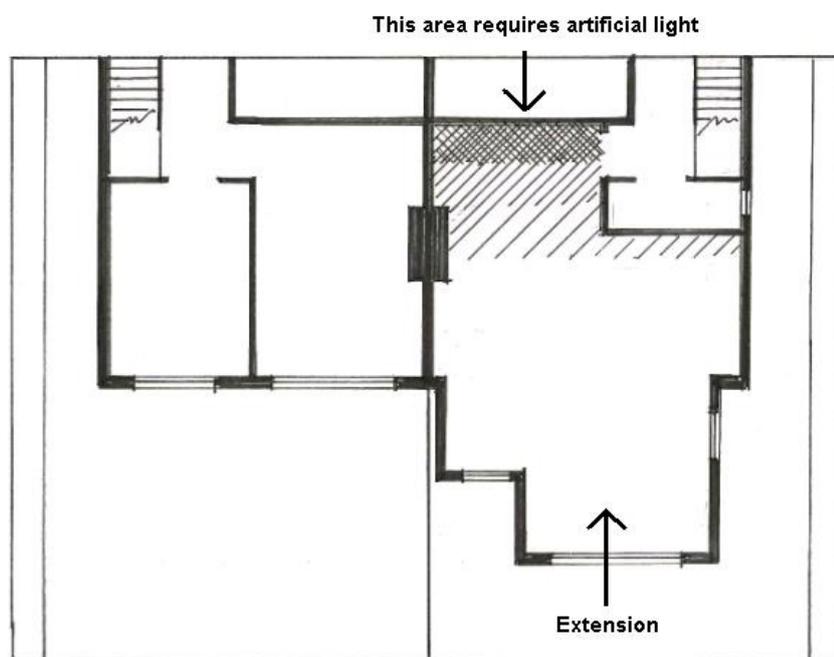


Image 15 - Extensions are likely to result in a reduction in levels of natural light to the interior of a property and a greater need for artificial lighting.

## Privacy

8.4.7 Extensions should not result in any significant loss of privacy to neighbouring houses or gardens. The best way of ensuring privacy between houses is to ensure that there are no windows to habitable rooms directly facing each other. For the purpose of the guidance below the outer edge of a balcony will be treated as a clear glass directly facing window. Where this cannot be achieved, different privacy standards will apply to rear and flank elevations:

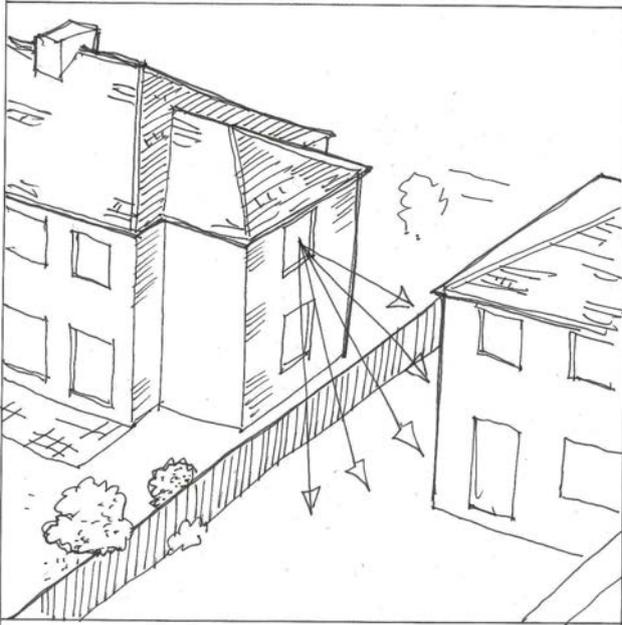


Image 16 - Loss of privacy due to a two-storey side extension.



### Rear elevation

- A minimum separation distance of 27.5m should be achieved between rear elevations of new houses and existing houses, when clear glass and directly facing habitable windows are at first floor level. Exceptions will be made where it can be demonstrated that adequate privacy standards can be achieved. The 'privacy arc' and the 11m-rear boundary rules will be applied.
- The 'privacy arc' shows appropriate and inappropriate locations for new development. Habitable room windows will only be accepted within this 27.5m arc if a proposal is at right angles to an existing habitable room window.
- The 11m boundary rules requires that a minimum direct distance between upper level habitable rooms on a side or rear elevation and property boundaries of 11m should be achieved in order to minimise overlooking of private gardens.
- Rear extensions must not compromise the privacy of adjacent properties. Balconies, terraces or roof gardens will not be allowed in circumstances where they enable neighbouring properties to be overlooked. In all instances the level of impact on neighbouring properties will be one of the principal criteria against which the planning application or proposal will be assessed.

### Flank Elevation

- Side windows that overlook adjacent homes or gardens should be avoided. However, in some instances a side window to a secondary room, (e.g. hall, bathroom, store room), may be allowed if there is more than 2m between properties and obscure glazing is used. In addition, a side window at ground floor level may be allowed if there is a permanent fence or wall between adjacent properties that is no less than 1.8m in height, or where a proposed new window has a cill level in excess of 1.8m above ground level (see image 17);
- Where a habitable room only has windows on the flank elevation, a minimum separation distance of 10m between windows will be required. Exceptions will be made where it can be demonstrated that adequate privacy can be achieved through design.

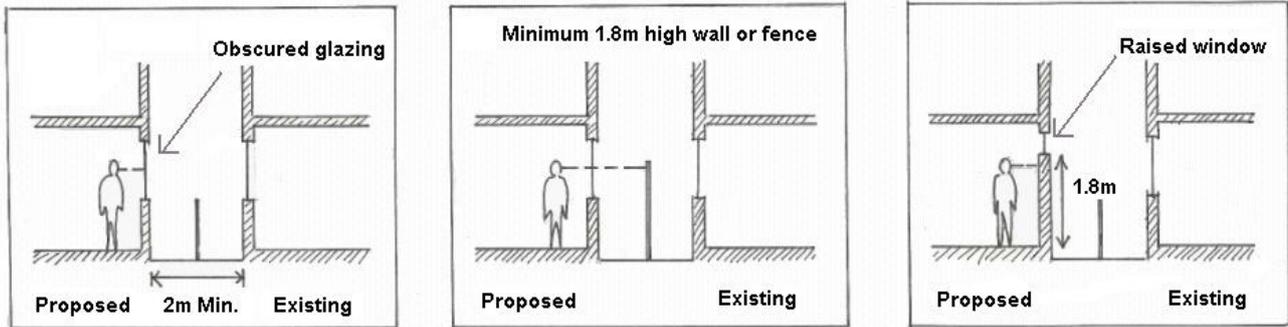


Image 17 - Measures to maintain privacy in Flank elevations.

### The Privacy Arc

8.4.7 The privacy arc is a rule-of-thumb to assess the effect of new rear extensions on the privacy of direct neighbours. It is based on the assumption that a neighbour needs a minimum privacy distance in order not to feel too overlooked and on the assumption that a person standing directly inside in front of the window looking outwards normally can overlook to a certain degree an area that is within a view-angle of  $45^\circ$  towards both sides of the window. How to use the privacy arc rule is explained below in more detail.

#### How to calculate the privacy arc

- To use the privacy arc for the assessment of the effects on the privacy of an existing property, a small drawing would need to be carried out in order to find out how far the privacy arc for a window in this property stretches:
- Draw a reference line at a right angle through the middle of the habitable room window towards the rear of the existing (E) property (or reference property).
- Then construct two boundary lines both at an angle of  $45^\circ$  towards both sides. Then draw an arc from one boundary line to the other boundary line with its middle point the same as the middle of the habitable room window and a radius that represents the minimum privacy distance (27.5m for an existing property or, in some circumstances, 22m for new houses in the same development).

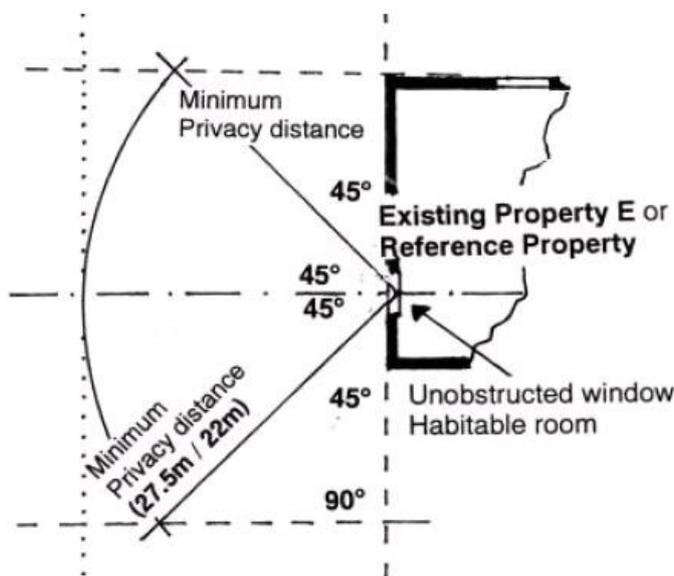


Image 18

### The privacy arc for assessing locations for development

8.4.8 Once the privacy arc for a window within the existing property has been found out, the privacy arc should show appropriate and inappropriate locations for new development (proposals A-D) in relation to this window: In general, habitable room windows (unobscured) will only be accepted within this arc if a proposal is at right angles or at an angle greater than  $90^\circ$ .

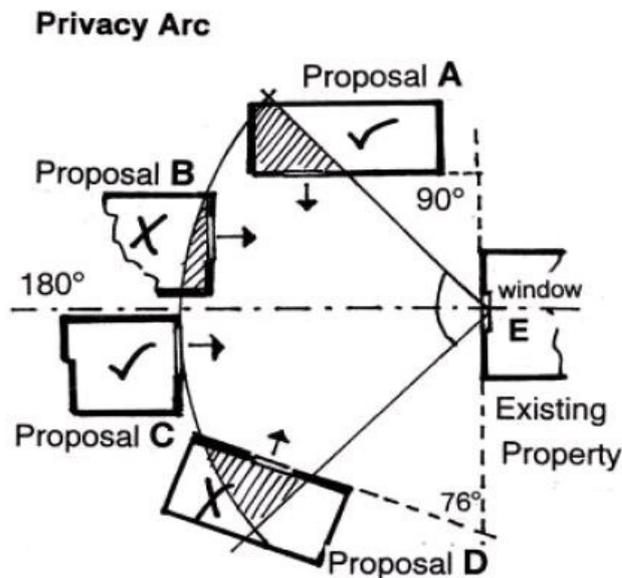


Image 19

**Proposal A** would be acceptable as the unobscured window is at an angle of  $90^\circ$  (or more than  $90^\circ$ ).

**Proposal B** is not acceptable for an unobscured window as it directly faces the property and would be within the minimum privacy distance.

**Proposal C** would be acceptable as it is outside the minimum privacy distance.

**Proposal D** is not acceptable as the unobscured window is at an angle less than  $90^\circ$  (such as in the example at an angle of  $76^\circ$ ).

### Completing the assessment with the privacy arc

8.4.9 Overall, this process would need to be repeated for every individual window at a rear elevation of the property, if this property has more than one window and / or a glazed unobscured door at ground floor level.

### Outlook

8.4.10 Outlook relates to visual dominance of an extension that results in an overbearing and oppressive sense of enclosure to an adjacent property. This can be from a habitable room window or a garden area. This can occur even if there is no loss of sunlight, daylight or privacy, although often one or more of these factors will also be affected.

## 8.5 Additional Guidance: Rear Extensions

8.5.1 **Single-storey rear extensions** are the most common solution to providing additional living space. They are generally acceptable, subject to their size and their impact on the residential amenity of neighbouring property occupiers. When preparing proposals the following should be considered:

- a) **Roof forms:** generally roof forms and materials should match those on the host building, albeit in most instances existing rear upper floor windows will prevent the provision of pitched roofs and a flat roof is likely to be the most appropriate form for a single-storey rear extension.

- b) **Plan depth:** a single-storey rear extension should be subordinate to the original house. The impact on the existing property and neighbouring dwellings/buildings should be the principal consideration when determining the appropriate depth of an extension. However the following should be used as general rules:
- Rear extensions should not exceed a depth of 3m for a terraced house (including end of terrace) and 3.5m for a semi-detached house or 4m for a detached house, measured from the rear elevation of the original dwelling.
  - Rear extensions to detached or semi-detached properties should be set away from the property boundaries by at least 1m to maintain side access to rear gardens.
  - Second extensions, canopies or conservatories added to existing extensions will not be allowed if, when added to any original extension, they exceed the 3m and 3.5m allowances.
  - In some instances 3m rear extensions may not be acceptable if:
    - they are too deep, namely where houses are “stepped” and sit behind their neighbours;
    - there are significant changes in level, namely where the property is at a higher level than its neighbour;
    - they are too bulky and prominent compared to the size of houses and gardens to which they relate; or,
    - where compliance with the “45° rule” is not achieved (see pages 22-23).

**Note:** in all instances depth should be measured from the original rear wall of a property (excluding bay windows, porches, etc.)

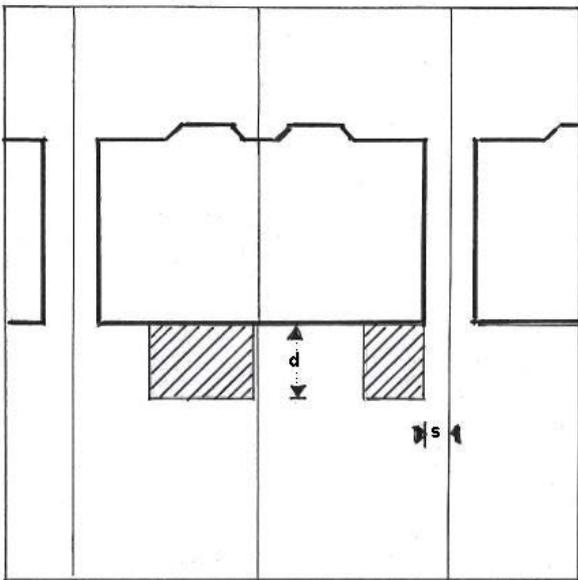


Image 20 - Maximum depth of a rear extension to a semi-detached property. (s=minimum side access, d=3.5m, width 1m)

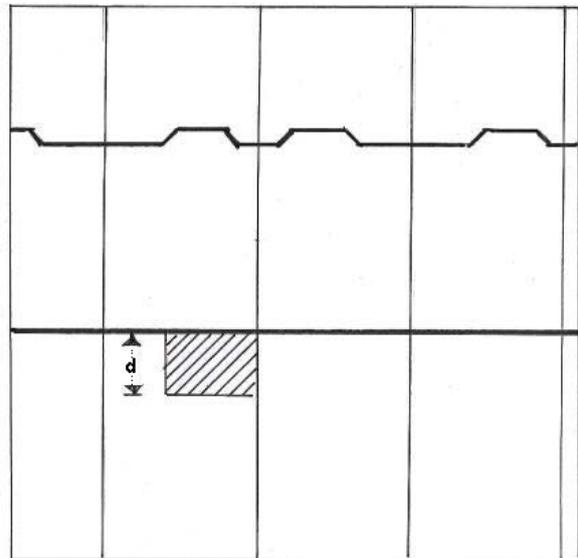


Image 21 - Maximum depth of a rear extension to a terraced property. (d=3m)

c) **Infill:** Single-storey rear extensions that involve the infilling of spaces between existing rear projections will generally be deemed unacceptable if this causes a significant tunnelling effect or increased sense of enclosure to the adjoining property (see image 23).



Image 22  
Example 1: Infilling of rear projections: Acceptable case for infill development.



Image 23  
Example 2: Infilling of rear projections: Not an acceptable case for infill development due to creation of tunnel effect.



**8.5.2 Two-storey extensions:** These can be problematic in higher density areas and are unlikely to be acceptable beyond 3m more generally (exceptions could include detached houses with larger gardens).

## 8.6 Additional Guidance: Side Extensions

8.6.1 A side extension can be an easy and practical way to extend a house and to provide additional accommodation provided that there is sufficient space within a site to do so. Due to their prominence in the streetscene, side extensions must be carefully designed and their scale carefully considered. In most cases a rear extension is likely to be a preferable means of extending a property.

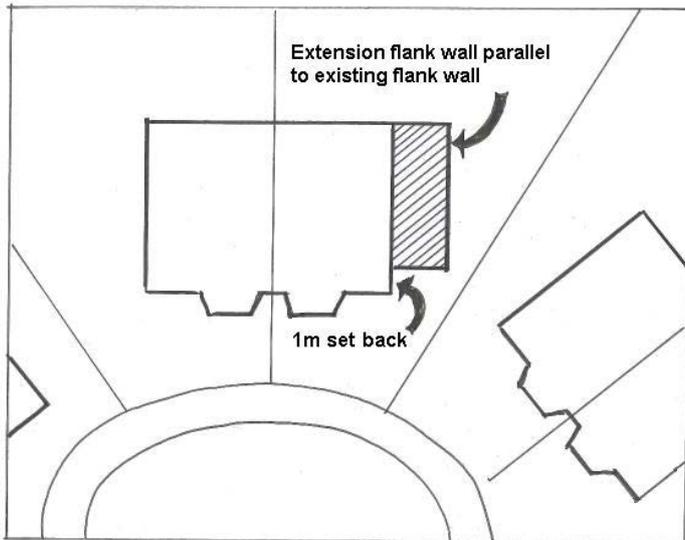


Image 24  
1m set back for side extensions. Extension flank wall parallel to existing flank wall.



### 8.7 Additional Guidance: Single-storey Side Extensions (including garages)

- Plan form:** the side wall of an extension should be parallel to the side of the existing house even where a boundary wall is at an angle to the house.
- Subordination:** side extensions should be subordinate to the original house in the terms of their height, scale and bulk.
- Proportions:** the height, width and depth of side extensions should be proportionate to the dimensions of the main house. As a rule-of-thumb, an extension should be no wider than a third of the overall width of the extended property (i.e. no more than a 50% increase in width of the property prior to extension, see image). Side extensions should respect the design and character of the main house and ensure the property has a balanced street frontage.

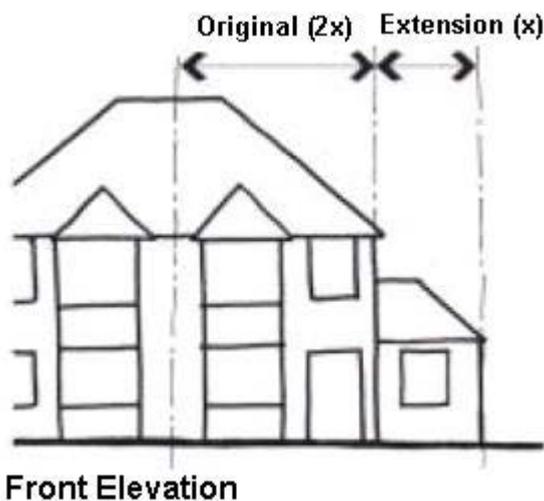


Image 25  
Side extensions should not increase the overall width of a property by more than 50%.

- Setbacks:** extensions should be set back at least 1m from the principal building line (main front wall of the house) to avoid a “terracing effect” along the length of the street or between semi-detached houses. Exceptions to this “setback rule” may be appropriate where a staggered building line exists. In such instances setbacks may be required at the rear of the extension to ensure light to the neighbouring property is not compromised.

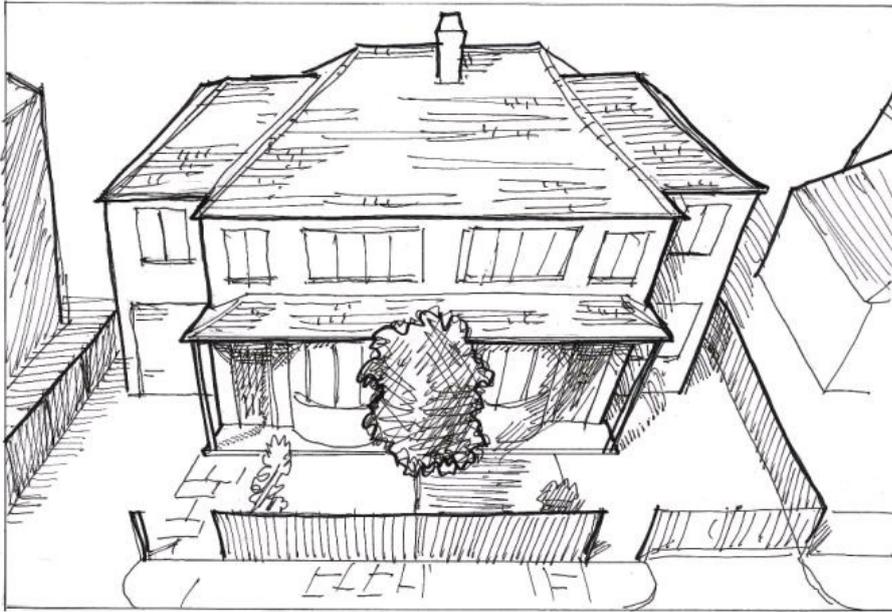


Image 26

A new extension designed to maintain the symmetry of a pair of semi-detached houses.



- e) **Symmetry:** in the case of a semi-detached house, where its neighbour has an existing side extension that is not set back by 1m, permission may be granted for a matching extension without a 1m set back to retain the symmetry of the pair of semi-detached houses.
- f) **Corner plots:** a ground floor extension on a corner plot should be set in 2m from the boundary from the street and not affect the street-scene

## 8.8 Additional Guidance: Two-storey and First Floor Side Extensions

- 8.8.1 Two-storey side extensions have the potential to fill in gaps and prevent views between buildings, and can also affect the street scene and the character of the area much more than ground floor extensions. First floor side extensions above existing ground floor extensions have similar characteristics.
- 8.8.2 As well as taking into account the guidance in section 8.10, at least 1m space should be provided between first floor side extensions and the side boundary.

## 8.9 Additional Guidance: Front Extensions: Developing Forward of an Existing Building Line

- 8.9.1 Developing forward of the front elevation of an existing building will not generally be acceptable, particularly where there is a strong building line within the street. Reinstatement of bay windows, where originally part of the house, will generally be acceptable provided such changes are in keeping with the character of the property and the streetscene.

## 8.10 Additional Guidance: Porches

- 8.10.1 Porches can appear as visually dominant features on a property and within the street. Porches will not be acceptable where they disrupt the symmetry of a property or the character and appearance of the streetscene. Generally porches should be no more than 1m in depth unless the property is set well back from the highway.

## 8.11 Additional Guidance: Roof Extensions and Changes to Roof Forms

- 8.11.1 In exceptional circumstances it may be possible to extend a roof, from a 'hip' to a gable end, (e.g. if there is a need to repair the symmetry of a semi-detached pair). This will only be appropriate where a variety of roof treatments exist within the street and where such an extension is appropriate to the host dwelling. Where this form of extension erodes the group value of a street/area it will not be permitted. Proposals to alter the plane of an existing roof slope which fronts the highway will generally not be acceptable.

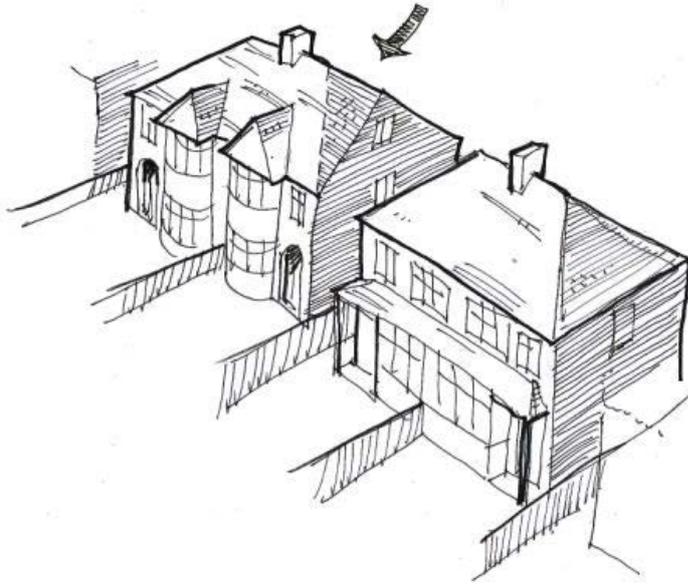


Image 27  
Where hipped roofs remain in place, the conversion of a hipped roof to a gable will be inappropriate.



## 8.12 Additional Guidance: Roof Extensions: Dormer Windows

8.12.1 The addition of dormer windows, particularly if they are poorly designed in terms of scale, shape and proportion or badly sited, can have severe, detrimental effects on the streetscene. Dormer windows to the front of the roof will only be granted planning permission, where they already exist as an established, effective and significant feature of the streetscene and positively contribute to the character and appearance of the area. Dormer windows added to the side plane of a roof will not be granted planning permission unless it can be demonstrated that there will be no harm caused to the privacy of neighbouring residents or the character and appearance of the streetscene.

8.12.2 The preferred location for dormers will be on the rear facing roof slopes.

8.12.3 Where a dormer window is proposed, the following should be considered:

- **Size:** a dormer window must be in proportion to the size of the original roof. It should not exceed half the height of the roof (measured from the eaves to the ridge) and should not be more than half the width of the existing roof on which it is intended to be situated – measured half way between the ridge and eaves. Often multiple dormers will be more in-keeping than a single dormer. In such instances the sum of the width of the dormers should not exceed half the width of existing roof on which it is intended to be situated – measured half way between the ridge and eaves (see image 28).

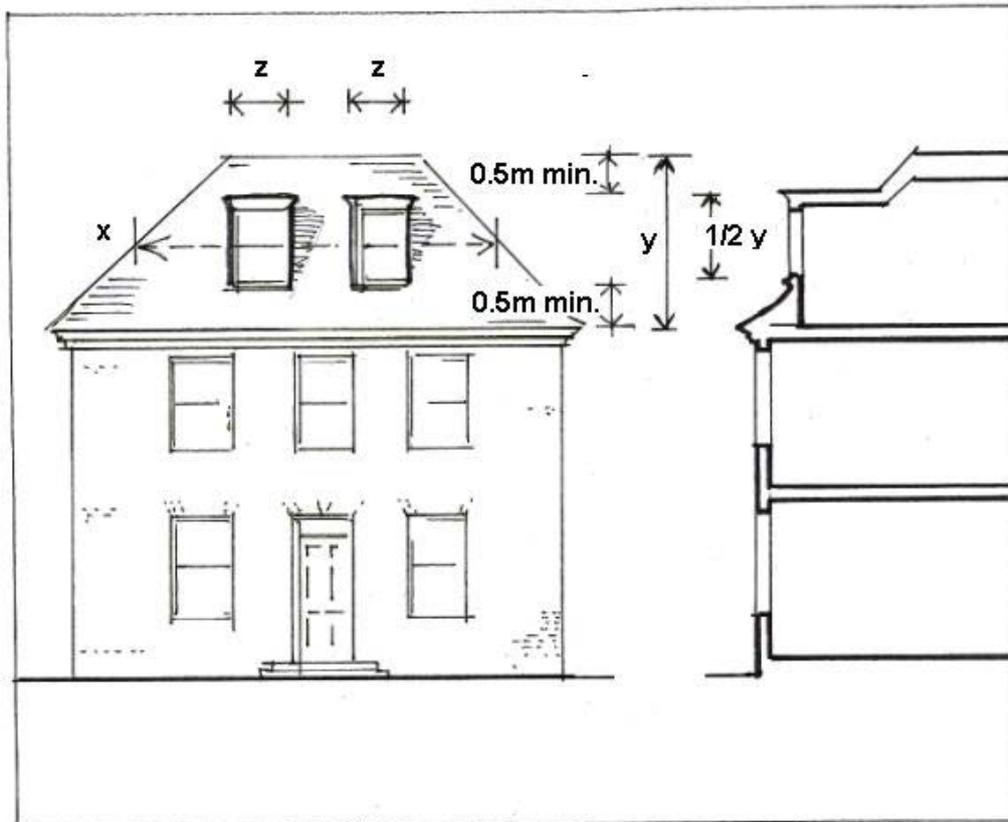


Image 28  
Maximum size of  
dormer windows:  
 $z + z = \frac{1}{2} x$

#### Maximum sizes of dormer windows

- **Position:** the dormers should be positioned to line up with the windows on the elevation below and relate to them in size and style. The dormers should be set a minimum of 0.5m below the ridge-line and a minimum of 0.5m above the eaves.
- **Harmony:** roofs to dormer windows should be in harmony with the roof of the host building. Pitched roofs on dormers will generally be the most appropriate design approach.
- **Conservation Areas:** dormer windows, particularly on front elevations, are generally inappropriate in Conservation Areas and on Locally/Nationally Listed Buildings unless they are an established feature of the character of the area in the immediate vicinity of the site.

#### 8.13 Additional Guidance: Rooflights

- 8.13.1 In most instances a rooflight will be preferable to a dormer. A rooflight that sits flush with, or below, the roof plane may represent a suitable alternative where planning permission for a conventional dormer will not be granted.

#### 8.14 Conservatories/Pergolas

- 8.14.1 A glazed conservatory or open-sided “pergola” should be single-storey only and located to the rear or side of a property. The same principles apply as for any other single-storey side or rear extensions (see sections 8.5 – 8.8). The side elevation of a conservatory, if it is adjacent to a neighbouring property, must be built out of solid materials. Any side windows, if required, must be high level (with a cill level at least 1.8m above internal floor level) and fixed closed.

### 8.15 Garden Space

8.15.1 Where proposed extensions result in a loss of garden space, the Council will seek to ensure that adequate private garden space is retained proportional to the number of people that can be reasonably accommodated within the property. Furthermore, the Council will seek to ensure that the remaining garden area maintains its privacy and amenity value and is effective and usable.

### 8.16 Stand-alone Buildings in Gardens

8.16.1 Stand-alone detached buildings within the curtilage of existing properties are only likely to be acceptable in the gardens of properties where such buildings form part of the existing character of the area and are solely for the use and enjoyment of the occupants of the property. Their acceptability will be subject to their size and the size of the rear garden. Stand-alone buildings situated within front gardens are likely to have a detrimental effect on the streetscene and are unlikely to be acceptable. Further policy detail on this type of development is provided in Policy HS10 in the draft Local Plan: Development Management Policies DPD.

### 8.17 Sustainability

8.17.1 Detailed guidance on this topic is provided by Hertfordshire Building Futures: [www.hertslink.org/buildingfutures](http://www.hertslink.org/buildingfutures)

8.17.2 Additional requirements relating to sustainability standards for new residential development are included in Policies SD1 – SD19 of the Local Plan.

8.17.3 Further advice on options for enhancing the energy efficiency of properties and details of possible grant funding is available from the Council and the Energy Saving Trust: [www.energysavingtrust.org.uk/](http://www.energysavingtrust.org.uk/)

## 9.0 Residential Conversions

9.1 Any conversion must not detract from the existing character of the site and the surrounding area. To ensure that the existing character of the building being converted is maintained, proposals for conversions will need to ensure that a single entrance door is maintained. Entrances to the individual units should be located behind the main entrance.

9.2 The internal layout of development should be designed to ensure privacy and minimise noise and disturbance to neighbours adjacent, below and above a dwelling. This can be achieved by the vertical stacking of similar rooms. For example: in a 2 storey building, the living room in Flat 2 should be placed above the living room in Flat 1 and similarly the bedroom over bedroom (see image 29).

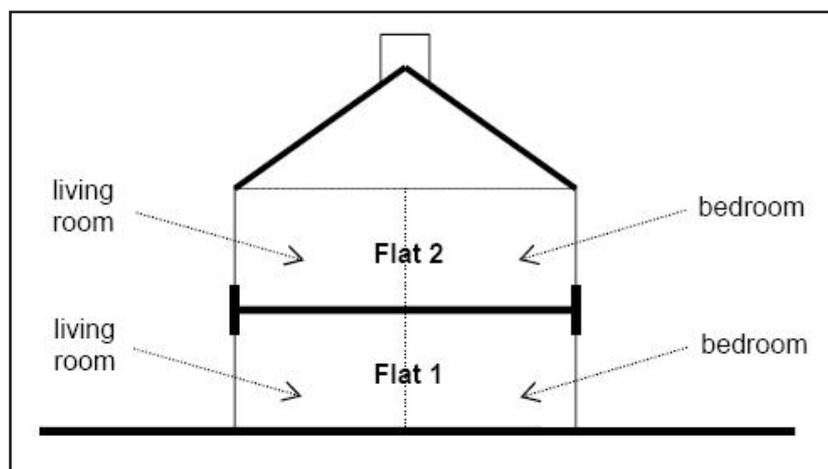


Image 29 - Recommended stacking of rooms

- 9.3 Detailed policy relating to residential conversions is included in Policy HS7 in the draft Local Plan: Development Management Policies DPD.
- 9.4 Any proposed conversion should be in line with the guidance contained in the previous sections of the Residential Design Guide. Particular note should be made of the guidance in: 7.2.15-21 (Vehicular and Cycle Parking), 7.3.5-9 (Internal Space Standards), 7.3.10-11 (Private Garden Space Standards), 7.3.26-27 (Waste Storage and Recycling).

### Useful Links & bibliography

**Building for Life** – checklist for designing high quality housing:  
[www.designcouncil.org.uk/our-work/CABE/Our-big-projects/Building-for-Life](http://www.designcouncil.org.uk/our-work/CABE/Our-big-projects/Building-for-Life)

**Building Futures** – guidance on sustainability measures for development in Hertfordshire:  
[www.hertslink.org/buildingfutures](http://www.hertslink.org/buildingfutures)

**Design and Access Statements** – guidance on how to write them:  
[www.cabe.org.uk/files/design-and-access-statements.pdf](http://www.cabe.org.uk/files/design-and-access-statements.pdf)

**Design Council//CABE** – guidance and best practice examples relating to high quality residential development:  
[www.designcouncil.org.uk/our-work/cabe/](http://www.designcouncil.org.uk/our-work/cabe/)

**Energy Saving Trust** – guidance on energy efficiency options: [www.est.org.uk](http://www.est.org.uk)

**English Heritage** – guidance relating to residential development where heritage assets are involved:  
[www.english-heritage.org.uk](http://www.english-heritage.org.uk)

**Environment Agency** – guidance and resources relating to environmental issues, such as flood mapping:  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

**Historic Environment Record** – Hertfordshire portal on the historic environment; includes information on known archaeological finds on sites in Watford:  
[www.heritagegateway.org.uk/gateway/chr/herdetail.aspx?crit=&ctid=95&id=4762](http://www.heritagegateway.org.uk/gateway/chr/herdetail.aspx?crit=&ctid=95&id=4762)

**Lifetime Homes** – checklist for designing accessible homes: [www.lifetimehomes.org.uk](http://www.lifetimehomes.org.uk)

**National Register of Access Consultants** – guidance on how to design development in line with the Disability Discrimination Act [www.nrac.org.uk](http://www.nrac.org.uk)

**Natural England** – guidance relating to biodiversity and nature in new development:  
[www.english-nature.org.uk](http://www.english-nature.org.uk)

**Secured By Design** – guidance on designing secure residential development: [www.securedbydesign.com](http://www.securedbydesign.com)

**Town & Country Planning Association** – guidance on various aspects of delivering high quality residential development, such as biodiversity and sustainability:  
[www.tcpa.org.uk/pages/by-design-guides.html](http://www.tcpa.org.uk/pages/by-design-guides.html)

### **Guidance on designing for adequate sunlight/daylight (national)**

BRE (2011): Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice, Watford, BRECSU & BRE.

### **Guidance on designing roads (national)**

Chartered Institution of Highways & Transportation. 2010. Manual for Streets 2: Wider Applications of the Principles.

Department for Communities and Local Government & Department for Transport. 2007. Manual for Streets.

### **Guidance on designing roads (local)**

Hertfordshire County Council (2011): Roads in Hertfordshire: A Guide for New Development, Hertfordshire County Council.

### **Guidance on permeable surfaces (national)**

DCLG/Environment Agency (2008): Guidance on the permeable surfacing of front gardens, London, DCLG.

### **Guidance on designing residential development (national)**

Design for London (2010): London Housing Design Guide, London Development Agency.

DETR & CABE (2000): By Design: urban design in the planning system - towards better practice, London, Thomas Telford Publishing.

DETR & CABE (2001): Better places to live: By Design, London, Thomas Telford Publishing.

English Partnerships and the Housing Corporation (2000): Urban Design Compendium, London, English Partnerships.

### **Guidance on open space provision (local)**

Watford Borough Council (2001): SPG10: Open Space Provision, Watford Borough Council (Saved Policy until replaced by new policy), Watford Borough Council.

## **Glossary of Terms**

**Active frontage** – A building frontage that has more functions than just providing the entrance to a dwelling or an office; e.g. retail or community facilities that attract frequent visitors.

**Adaptability** – In the context of urban design, adaptability is the capacity of a building or space to be changed so as to respond to changing social, technological or economic needs and conditions.

**Affordable housing** – Housing for sale, rent or equity sharing that is provided with one element of subsidy in order that it is accessible to people whose income are not sufficient to enable them to afford adequate housing locally on the open market.

**Amenity** – Refers to the benefits of a property, especially those which increase the attractiveness or value of the property or which contribute to its comfort or convenience. 'Amenity' in this document typically refers to benefits such as sufficient level of daylight, privacy and sense of enclosure.

**Article 4 Direction** – A direction removing permitted development rights. There are a number in Watford covering conservation areas and Locally Listed Buildings. [ [www.watford.gov.uk/article4](http://www.watford.gov.uk/article4) ]

**Backland development** – New buildings, typically houses, built in the back (garden) of existing, mostly residential buildings.

**Block** – An urban block is a central element of urban design. A block is the smallest area that is surrounded by streets. They provide the space for buildings within the street pattern of an urban area. Urban blocks may be subdivided into any number of smaller lots or parcels of land.

**Character Area** – An area with a uniformity of character and where certain architectural and urban design elements (e.g. building lines, materials, landscaping) determine the character. [ [www.watford.gov.uk/coas](http://www.watford.gov.uk/coas) ]

**Conservation Area Character Appraisal** – A Council produced document defining the special architectural or historic interest that warranted an area being designated as a conservation area. [ [www.watford.gov.uk/conservation](http://www.watford.gov.uk/conservation) ]

**Communal space** – Semi-public areas shared by a group rather than open to all, such as courtyards.

**Community facility** – A facility that serves the wider community, such as a post office, pharmacy or doctor's surgery, sports or recreational facility.

**Conditions (or 'planning condition')** – Requirements attached to a planning permission to limit, control or direct the manner in which a development is carried out.

**Conservation Area** – Areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.  
[ [www.watford.gov.uk/conservation](http://www.watford.gov.uk/conservation) ]

**Core Strategy** – A required Development Plan Document within the Local Development Framework, which sets out the long-term spatial vision for the Borough, along with the core policies and proposals that will be required to deliver that vision.  
[ [www.watford.gov.uk/corestrategy](http://www.watford.gov.uk/corestrategy) ]

**Cul-de-sac** – Street form that does not provide for through-traffic – typically a residential close with poor pedestrian permeability.

**Density** – In the case of residential development, a measurement of either the number of habitable rooms per hectare or the number of dwellings per hectare.

**Dormer** – a projecting window placed vertically in a sloping roof with a roof of its own.

**Elevation** – The facade or face of a building.

**Focal points** – A point that attracts attention and therefore serves as a reference point and the visual orientation in an urban environment.

**Gable** – the triangular upper part of a wall found at the end of a ridged roof.

**Habitable room** – A room, such as a living room, study, dining room or bedroom, which is intended for sitting and sedentary work, eating or sleeping. It includes all such rooms in a basement and attic that are accessed by fixed stairs and naturally lit, as well as any kitchen providing space for sitting or eating over and above that required for the preparation of food.

**Hard landscaping** – Man-made elements of a landscape scheme, including: paving, walls, fencing, tree grilles, street furniture, bollards, railings and public art.

**Highway** – A publicly maintained road, together with footways and verges.

**Home Zone** – A residential street where the living environment predominates over the provision for traffic.

**Infill development** – The development that takes place between existing buildings.

**Landscape** – Visible features of an area of land, including natural elements, such as landforms, terrain shape and elevation, or bodies of water; and human elements such as structures, buildings, fences or other material objects created by humans.

**Legibility** – This is the degree to which the design of an urban area is easy to understand and therefore navigable for pedestrians, cyclists and other modes of transport. Good legibility can support the accessibility of an area.

**Listed Building** – Buildings/structures protected under the Planning (Listed Buildings and Conservation Areas) Act 1990 as buildings of special architectural or historic interest. For such a building further restrictions apply to the type of works that can be undertaken without planning permission or Listed Building Consent.  
[ [www.watford.gov.uk/listedbuilding](http://www.watford.gov.uk/listedbuilding) ]

**Mixed-use development** – This is the practice of allowing more than one type of use in a building or set of buildings. In planning terms, this can mean some combination of residential, commercial, industrial, office, institutional, or other land uses.

**Natural surveillance** – Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction. Potential offenders feel increased scrutiny and limitations on their escape routes.

**Nodal point** – An urban design element that connects two or more areas (such as a street) and mostly acts at the same time as a core within a neighbourhood, if other functions have been added: e.g. a transport function.

**Obscured window** – A window with frosted glass or similar, that is obscured for reasons to maintain privacy in neighbouring properties.

**Original extension** – An extension that already existed on 1 July 1948.

**Outlook** – Amenity quality or performance standard of a dwelling, having an unobstructed view usually from habitable/main room windows, as measured by the dimensions/distances to walls of the neighbouring buildings (measured at a right angle to the exterior face of each storey of the building).

**Outrigger** – A subservient building element that sits in the centre of the rear elevation of a pair of terraced houses.

**Overlooking** – A term used to describe the effect when a development or building affords an outlook over adjoining land or property, often causing loss of privacy.

**Overshadowing** – The effect of a development or building on the amount of natural light presently enjoyed by a neighbouring property, resulting in a shadow being cast over that neighbouring property.

**Permeability** – The degree to which an area has a variety of pleasant, convenient and safe routes through it.

**Permeable surface** - Is a surface or paving material that allows water to penetrate to the ground below.

**Permitted Development Rights** – Permission for property owners to carry out certain forms of development without the need to make an application to a local planning authority, as granted under the terms of the Town and Country Planning (General Permitted Development) Order.

**Planning obligation** – These are legal agreements between a planning authority and a developer, or undertakings offered unilaterally by a developer, that ensure that certain extra works related to a development are undertaken. In larger developments they often form part of a planning permission. Also referred to as planning contributions, planning gain or section 106 agreements.

**Private open space** – Open space that is usually privately owned and is not usually accessible by members of the public.

**Public realm** – Those parts of an urban area, whether publicly or privately owned, that are available for everyone to use – e.g. streets and parks.

**Public space** – An area or place that is open and accessible to all people – e.g. a public park.

**Secondary extension** – An extension that did not exist on 1 July 1948 and is additional to an original extension.

**Secondary room** – Enclosed spaces such as bath or toilet facilities, service rooms, corridors, laundries, hallways, utility rooms or similar spaces (and sometimes rooms for cooking, eating or storage purposes under a certain size).

**Section** – Type of drawing that shows a building or site as it would look like if cut through.

**Secured by Design** – This is a national initiative supporting the principles of ‘designing out crime’ by use of effective crime prevention, security measures and security standards for a range of applications. [ [www.securedbydesign.com](http://www.securedbydesign.com) ]

**Sense of place** – An intangible characteristic that some geographic places have that make them attractive to spend time in.

**Setback** – In land use planning, a setback is the distance which a building or other structure is set back from a street or road, a river or other stream or between buildings and the building line. Here setbacks usually have the function to ensure privacy standards. In some instances they might also provide protection to vulnerable areas, such as flood plains, or any other places which need protection.

**Soft landscaping** – Living elements, such as flora or fauna, and natural elements of a landscape scheme including landforms, terrain shape and elevation, or bodies of water.

**Solar gain** – The use of natural heat and light (either direct or as stored energy) to reduce the energy consumption of a building via the conventional mains supply.

**Streetscape** – The environment of the street, such as: pedestrian walkways, pavements, street furniture, lighting and utilities - e.g. telephone booths.

**Sustainable Urban Drainage Systems (SUDS)** – These are management practices and physical structures designed to drain surface water in a more sustainable way than conventional systems. Examples include source control using pervious surfaces, ditches, swales and green roofs.

**Tree Preservation Order** – A Tree Preservation Order (TPO) is an Order made by the Council in respect of trees. This in general makes it an offence to cut down, uproot, prune, damage or destroy the protected tree. A TPO can apply to a single tree or a group. [ [www.watford.gov.uk/tpo](http://www.watford.gov.uk/tpo) ]

**Urban grain** – The pattern of the arrangement and size of buildings and their plots in a settlement; and the degree to which an area's pattern of street-blocks and street junctions is respectively small and frequent, or large and infrequent.

**Use class** – Relate to classes of uses of buildings or land defined in the Town and Country Planning (Use Classes) Order 1987 (as variously amended).

**Vernacular** – The way in which ordinary buildings were built in a particular place, making use of local styles, techniques and materials and responding to local economic and social conditions.

**Vista** – An enclosed view, usually a long and narrow one.



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