

# **Development Requirements SPD**

**Final Composite Version**

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# Part A: How to Achieve Good Design

## Contents

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- A2. The Design Process
- A3. Understanding Context
- A4. Character
- A5. Why Local Distinctiveness is Important
- A6. Sustainable and Healthy Communities
- A7. Pre-application Advice
- A8. Design and Access Statements

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies in particular and as appropriate:

- CS.9 Design and Distinctiveness

It provides guidance and advice on how applicants can achieve a good standard of design in new development. It should be read in conjunction with other relevant parts of the SPD, in particular [Part D: Buildings and Layout](#). This SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#)

## A1. What is Good Design?

Research has shown that high quality design make places more desirable in which to live work and play<sup>1</sup>. Good design adds economic, environmental and social value to an area, creating a premium for property values, generating greater rental and capital value, and significantly increasing in the health and wellbeing of the occupants and users of those buildings and places. Evidence also shows that good design can be achieved without increasing costs, when it is considered from outset and throughout the design process.

When we talk about design, we mean more than just the appearance of a building. What a building looks like can more accurately be referred to as its 'style' and this is subjective. Whether we like it or not is based on our own preferences and tastes. Looking beyond building styles to design in its widest sense, including thinking about layout of buildings, building heights and massing, relationship to streets and spaces, character and local distinctiveness, follows a number of well-established design principles and is, therefore, objective. [Part C](#) and [Part D](#) of this SPD provides guidance on the principles of good design. A quality place has a number of essential components:

- Good range and mix of homes, jobs and services, cultural and public space;
- Sensitive treatment of historic buildings, spaces and landscapes;
- Ample high quality green space and green infrastructure; and
- Well designed and maintained sustainable buildings and spaces.

Good design is not simply a matter of creating attractive buildings and places. The elements of the development must also be sufficiently robust to carry out their function without deteriorating too quickly. Buildings and spaces must be designed to function well for the purpose they were designed for.

Good design should be a positive response to the local character, history and identity. Designing for local distinctiveness involves the integration of local practices with the latest technologies, building types and needs.

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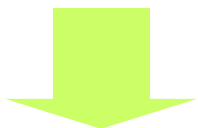
<sup>1</sup> The value of urban design, Design Council 2001



## A2. The Design Process

Achieving a high-quality design is not a one-off event; it is a process (see below). The level of detail and depth of investigation should be proportionate to the scale and complexity of the development proposals.

### Step 1 - Appoint your design team



The Council strongly recommends that you engage appropriate professional expertise. Ideally, there should be a professional architect or urban designer or a person with specific urban design skills.

### Step 2 - Context Analysis



Carry out a thorough assessment and analysis of context at settlement, local and site level, before any design solution is considered. The Council will expect a high standard of site and contextual analysis and this should be undertaken at the start of the design process.

### Step 3 – Involvement/Consultation



Involving the community and stakeholders is crucial not only to gain their support but more importantly, to use their expertise and knowledge to help inform the design. This means asking what you should do, not presenting the community and stakeholders with a fait-acompli of what you are going to do.

### Step 4 - Vision



When steps 1-3 are complete, the information should be used to create a vision for the proposed development. For example, what kind of place is it going to be? Where appropriate, a series of aims and objectives should explain how the vision is going to be achieved.

### Step 5 - Options, Options, Options



A series of conceptual options should be drafted out. Three is a good minimum number of options to create, although unrealistic options should not be prepared for the sake of it. There is very rarely only one design solution for a site although some designs are better than others. Options allow the designer to explore a wider range of possibilities for the site. The options should be assessed against the visions, aims and objectives. Any issues and challenges identified during this stage should be resolved. It may be that the best solution is a combination of options.

### Step 6 - Design



A credible detailed design can only be produced once stages 1-5 have been completed. It is important to ensure that the vision has not been lost or diluted. Only once the design has been finalised should a planning application should be submitted.

### **A3. Understanding Context**

A well-designed scheme makes a positive contribution to the built environment and is the result of an evolving design process that starts with an understanding of the scheme's site specific and wider context. No site will ever be a blank canvas.

Undertaking a contextual analysis means listing the key physical features of the site and the wider area and then using these to influence the design of the scheme.

It is perhaps tempting to see any site features as a constraint to development. However, taking a positive approach sees these 'constraints' turning into 'opportunities' that contribute to the design of the scheme. For example, a large tree on site becomes a focal point of the development built around it.

Understanding context is fairly straightforward and at its very basic requires the following 2-step approach:

#### **Step 1: List Key Features**

On a plan of the site, record the location of key features, which may include the following:

- Topography and gradient
- existing or proposed access arrangements and public rights of way and bridleways
- Trees and vegetation
- Canal and Rivers
- Water and flooding
- Protected habitats and species
- Green space
- Neighbouring development
- Public views
- Microclimate
- Existing buildings
- Conservation areas and listed buildings
- Archaeology and non- designated heritage assets
- Land/soil contamination risk
- Continual noise sources
- Air pollution and Bad Odour Services
- Services and Utilities
- Safeguarded Areas

#### **Step 2: Establish Key Principles**

Once the key features have been recorded, assess how these will influence the design of the scheme. This can be both in terms of protecting a particular feature or using the proposed development to mitigate or resolve a constraint. Good contextual analysis is a crucial step in achieving good design in the planning process. It should be prepared so that it identifies the wider and local context within which the application site is set. Including such an analysis within the planning application shows the Council how the proposed design responds to its context and will contribute towards local distinctiveness.

## A4. Character

Strategic Objective (3) in the Stratford-on-Avon District Core Strategy states:

- *'The character and local distinctiveness of the District will have been reinforced by ensuring new development is of high quality design, taking into account the intrinsic and special value of its landscape and townscapes'*

An essential ingredient in making an attractive and successful place is the preservation, enhancement or the creation of character. In areas where there are already well-established and recognised settlement patterns, styles of architecture, scale and landscape, such as typically exist in a Conservation Area, new development should pay special attention to them (without slavishly trying to copy existing buildings). New development may be encouraged to continue elements of these local styles, where integration with the surrounding built form is deemed important.

In other areas, such as in retail parks or residential areas, where there is very little existing character or a weak character, the emphasis will be on development producing new high quality and distinctive places. [Part B](#) of this SPD provides further guidance in respect of the character of the District.

## A5. Why Local Distinctiveness is Important

Everywhere is different. The key factor to achieving good design is not just applying the principles of good design, but applying them to the local context. Transposing an example of good design from one location to another will not result in good design if it fails to take account of the characteristics of its unique location.

Local distinctiveness is about valuing the uniqueness of a particular location and creating a design that strengthens its common features as opposed to destroying or diluting them. Good design adds cohesion to a place. Individual features can be the extraordinary or even the ordinary and every day; both contribute to defining a particular place. Places with a strong local distinctiveness have a sense of place.

Many of our local communities have produced Village Design Statements that set out design principles for development. Village Design Statements (VDS) are adopted by the Council as a material consideration in the determination of planning applications. They are a valuable resource which assists in defining local distinctiveness within individual settlements. Applicants are advised to refer the documents when considering the design of future applications.

Parish Plans should also be checked to see whether they contain any local design guidance.

In addition, there are a number of local communities in our district that have either draft or made Neighbourhood Development Plans (NDPs). They include design policies that should be taken into consideration when preparing a future planning application.

Finally, it is strongly recommended that Parish Councils are contacted at an early stage of the planning application stage to discuss future planning proposals. Parish Councils can provide an invaluable source of local information that may assist in the design of future proposals.

A list of adopted Village Design Statements, Parish Plans and Neighbourhood Development Plans are available on the Council's website. It is also advised that applicants contact the Policy Team (via email at [www.planning.policy@stratford-dc.gov.uk](mailto:www.planning.policy@stratford-dc.gov.uk)) to find whether there is a VDS or NDP at draft stages.

When considering how local distinctiveness can be developed and/or enhanced, it is useful to consider what contributes towards eroding local distinctiveness. A better appreciation of what contributes to and builds local distinctiveness can be developed by understanding what erodes local distinctiveness. Some examples of eroding local distinctiveness are set out below.

### **Don't**

- Use existing poor design in the locality as an excuse for further poor design
- Use non-local vernacular materials
- Ignore local scale and massing
- Ignore established building lines
- Design proposals where the streets are dominated by the car
- Use inappropriate landscape design and boundary treatment.

Local distinctiveness may be developed and enhanced by the consideration of some of the design issues below.

### **Do**

- Consider the inclusive design principles from the outset and as part of the integral design;
- Use development as an opportunity to introduce positive urban design and character qualities;
- Capitalise on opportunities to frame views and vistas to, from and within a development;
- Consider streets as a key component of the public realm, designing proposals whereby pedestrians are an essential consideration;
- Incorporate local character scale and massing;
- Take account of established building lines;
- Use local vernacular materials;
- Use street furniture that reflects the local character and is well located.

Please note this is not an exhaustive list.

Further information on landscape design is found in [Part M: Landscape Design and Trees](#).

## **Building for Life**

The Core Strategy supports the implementation of Building for Life and it is a useful tool for applicants when considering the design of buildings and places and provides a valuable checklist to ensure the proposal covers all aspects of good design.

Building for Life is a national standard for well-designed buildings, homes, places and neighbourhoods. The 20 Building for Life criteria are founded on government policy and

best practice guidance and are used to evaluate the quality of schemes at both pre-planning and post- construction phases. A more concise set of criteria are also available as part of the 'Building for Life 12' publication.

Further information on Building for Life is available using the link below:  
<http://www.builtforlifelifehomes.org/>

## **A6. Sustainable and Healthy Communities**

Sustainable development in our district includes the creation of healthy communities. The links between planning and health are well established and the built and natural environment recognised as major determinants of health and wellbeing<sup>2</sup>.

The Council will expect healthy communities to be created by ensuring that development proposals incorporate the following considerations:

- Design of urban form and the public realm;
- Accessibility;
- Inclusive environments;
- Warm and safe accommodation;
- Healthy, sustainable and liveable environments;
- Attractive and pleasant work places;
- Age and dementia friendly environments.

### **Design of the built environment and public realm**

The design of the built environment can have a profound effect on the physical and mental wellbeing and how people perceive their environments. The location, density and mix of land uses can result in wide-reaching implications on how individuals carry out their daily lives; it can affect the user experience of access to and provision of key community facilities, such as shops and services, employment opportunities and open space provision. The way in which buildings and areas are connected through street layout, footpaths and cycle paths and open space can have an impact on physical and mental health and the amount of physical activity people can undertake.

For example, developments which incorporate well-connected, attractive safe and legible streets, footpath and cycle paths can encourage more people to walk and cycle, promote physical activity and opportunities for social interaction and help to reduce the frequency of car use. [Part C](#) and [Part D](#) of this document provides further guidance on design.

High quality public realm is also essential to both mental and physical health. The public realm should be designed to encourage and promote physical exercise and mental wellbeing.

This can include the overall quality of public spaces, street layout and connectivity, green infrastructure /landscape design and traffic calming measures. The urban form plays a critical role in influencing physical activity, particularly through providing opportunities for walking and cycling and physical exercise.

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<sup>2</sup> Marmot M et al (2010) Marmot Review, Fair Society Healthy Lives

## Accessibility

Accessibility is a crucial factor in the creation of healthy sustainable communities. Development should ensure that there is good access for all to recreation opportunities and facilities and services. For example, creating a safe and direct route to a local playground may encourage families to walk or cycle to the park, and 'step-free' flat routes and pathways can open up facilities for residents requiring wheel-chair access.

## Inclusive Environments

Healthy communities are more inclusive places. Development should be designed so that barriers are not created that result in undue effort and separation from the built and natural environment. Everyone should be able to participate equally, confidently and independently in everyday activities, which are important contributors to overall health and wellbeing. This is particularly important when addressing needs of the elderly.

## Age friendly and dementia friendly environments

There are presently 11.8 million people aged 65 or over in the UK. It is predicted that by 2030, the number of people aged 60 or over is expected to pass the 20 million mark. Stratford-on-Avon District reflects this national trend with an ageing population, with approximately 25% of its population being aged 65 or over.

Older People require supportive and enabling living environments to compensate for the physical and social changes that are associated with ageing. The changing needs may include reduced mobility, prevalence of physical disability and chronic diseases, as well as potential greater stress from isolation<sup>2</sup>.

Providing older people with the opportunities to remain physically active, it is more likely to assist them in living independently. Regular physical activity is shown to increase immunity and resistance to illnesses. However, research has shown that physical activity levels decline drastically with age<sup>3</sup>. The Age UK (2017) report that 12.04% or 1.2 million people aged 65 and over in the England feel lonely, whilst 12% reported feeling cut off from society.

The built environment can reduce these risks by enabling social interaction and connecting people with places and other people. The provision of green and open spaces and walkable neighbourhoods can also encourage and facilitate increased physical activity and social integration for older people. It is essential that these spaces and routes are safe, well-maintained and accessible. They should also be well lit and evenly surfaced. Where there are some changes to ground levels, the transition should be gradual. Where steps are unavoidable, railings should be provided. Accessible public transport links with bus stops located within easy walking distance from homes is vital to maintain older people's independent life styles.

The majority of people would prefer to remain in their own homes as they grow older, and wherever possible, make changes to their homes to meet their changing need.

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<sup>3</sup> Saurabh Ram Bihar Lal Shrivastava et al (2013) Health –care of the Elderly: Determinants, Needs and Services, International Journal of Prevention Medicine 2013 Oct; 4(10):1224-1225.

## HAPPI Design Principles

The Council will expect that housing built for independent living for older people as set out in [Part T](#). Specialised Housing must be built to Housing our Ageing Population Panel for Innovation (HAPPI) design principles. Residential Care Homes and Nursing Homes should aspire to meet the HAPPI Standards.

The HAPPI principles are based on 10 key design criteria. Many are recognisable from good design generally - good light, ventilation, room to move around and good storage - but they have particular relevance to the spectrum of older persons' housing which needs to both offer an attractive alternative to the family home, and are able to adapt over time to meet changing needs.

They include the following design issues:

- Space and flexibility;
- Daylight in the home and in shared spaces;
- Balconies and outdoor space;
- Adaptability and 'care ready' design;
- Positive use of circulation space;
- Shared facilities and 'hubs';
- Plants, trees, and the natural environment;
- Energy efficiency and sustainable design;
- Storage for belongings and bicycles;
- External shared surfaces and 'home zones'.

### Find out more

Housing our Ageing Population Panel for Innovation (HAPPI)

<https://www.housinglin.org.uk/Topics/browse/Design-building/HAPPI/>

## Designing dementia friendly communities

Dementia is the term for a group of diseases affecting the brain. Dementia affects cognitive, sensory, social, emotional and physical functions. As a result people may experience problems with thought processing and concentration, as well as how they perceive and interact with the external environment.

There are currently 850,000 people living with dementia in the UK. This figure is projected to increase to over 1.1 million by 2021 and 2 million by 2051.<sup>4</sup>

Dementia is recognised as one of the most significant public health priorities in Warwickshire, with its far reaching effects on people living with dementia, their carers, family, friends, communities, businesses, health, social care and voluntary services and the economy.

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<sup>4</sup> Dementia UK, Second Edition, Alzheimer's Society, 2014

It is estimated that by 2025, over 11,000 people aged 65 or over will be living dementia in Warwickshire. By 2020, approximately one fifth (18%) of those aged over 80 in Warwickshire are predicted to have dementia.

Dementia costs society an estimated £26 billion a year, more than the costs of care for people with cancer, heart disease and stroke. In the next 30 years, the predicted costs are expected to treble.<sup>5</sup>

A high quality designed environment benefits everyone and plays an important role in addressing some of the limitations, constraints and feelings of isolation which people living with dementia experience.

The outdoor environment can be perceived as unsafe and unfamiliar by many people living with dementia, which leads a tendency to remain at home more and subsequent increased feelings of isolation. The provision of:

- well-lit;
- safe;
- segregated and walkable routes;
- connecting local green spaces and essential amenities.

These could enhance chances to continue the lives as part of the community. For example, being able to walk to a park could offer opportunities for quiet and relaxing time spent amongst other people.

It is important that pathways contain seating areas located in strategic places, to allow people living with dementia time to reflect on their location and destination. Where possible, seating should be:

- located under street trees to provide shading in hot weather; and
- street furniture should be kept to a simple design so that it is not mistaken for a different object.

Dementia affects people's perception of their surroundings and different surfaces. Paving and tarmac should:

- be plain and non-reflective;
- contrast with walls in terms of colour and texture;
- avoid dark areas which may appear as a hole in the ground; and
- avoid reflective/glaring or shining surfaces which may appear as water or as slippery surfaces.

People living with dementia may feel confused when large amounts of information are

### Find out more

Royal Town Planning Institute (RTPI), Dementia and Town Planning: Creating better environments for people living with dementia (January 2017).

[http://www.rtpi.org.uk/media/2213533/dementia\\_and\\_town\\_planning\\_final.compressed.pdf](http://www.rtpi.org.uk/media/2213533/dementia_and_town_planning_final.compressed.pdf)

<sup>5</sup> Department for Health, 'Prime Minister's Challenge on Dementia 2020' (Feb 2015)



presented to them at the same time. They generally function better amongst simple and familiar objects in the environment. Signage should be designed using a tonal contrast of colours with a simple and clear font.

## **A7. Pre-Application Advice**

Submitting a planning application should come at the end of the process. However, this does not mean that the formal application stage is the first time the Council should be involved in the scheme. The Council welcomes an early and open dialogue to ensure that the best possible design is achieved. Indeed, engaging in pre-application advice and resolving any issues before an application is submitted can help faster and more straightforward planning decisions to be made, whilst delivering a higher standard of design.

### **Find out more**

More information about the Council's Pre-Application Service is available at <https://www.stratford.gov.uk/preapplicationadvice>

For major developments, applicants are encouraged to seek the views of the local parish or town council or ward members at an early stage.

Warwickshire County Council offers a pre-application advice service as the Highways Authority.

Please email: [highwayconsultation@warwickshire.gov.uk](mailto:highwayconsultation@warwickshire.gov.uk)

## **A8. Design and Access Statements**

In many instances there is a requirement to prepare a Design and Access Statement to support a planning application. This Design Guidance will provide assistance in preparing such statements. Further information on the requirements of a Design and Access Statement is available [in the Council's Local List](#) for planning application, and the [Planning Practice Guidance](#).

# Part B: Character and Local Distinctiveness

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- B5. Cotswold Fringe Character area
- B6. Avon Valley Character Area
- B7. Stour Valley Character Area

This part the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies, in particular and as appropriate:

- CS.5 Landscape
- CS.8 Historic Environment
- CS.9 Design and Distinctiveness
- CS.11 Cotswolds Area of Outstanding Natural Beauty
- CS.12 Special Landscape Areas

It provides guidance and advice on how applicants can reflect the character of Stratford-on-Avon District within the design in new development. It should be read in conjunction with other relevant parts of the SPD.

The SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).

## **B1. What is Character?**

Character is the combined effect of those features that make a place identifiable. It could be defined as everything; however such a definition is clearly unworkable in practice. For the purposes of this document, therefore, the descriptions and principles will focus on the selection of aspects that contribute to the character of the countryside and settlements in the District. The selection has been based on the need to choose characteristics that are readily observable, as well as readily taken as considerations in design. It is worth noting that character is not entirely derived from physical aspects of a place.

Firstly, the District's location within its larger spatial context influences its perceived character. The setting and the surrounding regions; the places you travel through to get to the district, contribute towards its identity. This consideration underlines the fact that character is only possible to identify by comparison and the contrasts between one place and another. Secondly, character involves far more than bricks and mortar of a settlement. Human activities that have taken place over time and continue to do so are a significant contributor factor to character of a place. The character of the district has evolved through an extended historical development, through the working life of many generations.

## **B2. Stratford-on-Avon District Character Areas**

Stratford-on-Avon District lies in Midland England in the county of Warwickshire. It is a rural district corresponding to the southern third of historic Warwickshire and encompasses the historic towns of Stratford-upon-Avon, Henley-in-Arden, Alcester, Shipston-on-Stour and Southam. The general character of Stratford-on-Avon District is one of rolling lowland countryside, much of it arable farmland. That character is all the more obvious when compared with such areas as the flat fenland of the east Midlands, the mountains of the Peak District or the estuaries of Essex.

A closer look reveals, however, that Stratford-on-Avon District lies at the confluence of several broader character areas and its own character is far from uniform. The geological features and climate of the area and the impact of several thousand years of people living and working on the land have created a landscape of subtle but real variation. Travelling from north to south, for example, the differences are clear.

The hamlets, winding lanes and small fields of the more wooded Arden in the north-west give way to the open areas of grazing and larger scale fields of the Avon and Stour valleys with their closely built villages. From there, south, the ground rolls gently to the steep scarp slope of Edgehill and the downland of the Cotswold fringe. The downland and broad valleys are marked by medium scale fields of arable and pasture, dotted with compact stone villages. These differences form the basis for identifying distinct regions within the District. These regions, or character areas, in their turn provide the basis for design guidance. The features taken into account include the underlying geology, the landform, the variety and number of trees and other plants, the shape and size of fields and the way they are managed, the pattern of roads and settlements and their internal structure and the building materials out of which the towns and villages are made.

There are five main character areas within Stratford-on-Avon District:

- Arden;
- Feldon and Ironstone Uplands.
- Cotswold Fringe;
- Avon Valley;
- Stour Valley.

A map of Stratford-on-Avon District Character Areas is available on the Council's website, using the link below.

<https://www.stratford.gov.uk/planning-regeneration/the-district-design-guide.cfm>

The Feldon and Arden correspond in a large part to historically recognised regions. The terms Arden and Feldon were used by medieval times. Arden derives from the Old English word 'ardu' meaning 'high, steep', and Feldon from the word 'feld' meaning 'open land'. Early settlements and agricultural activity tended to centre on river valleys, principally the Avon, Arrow, Alne and Stour. It is also notable that while the District is an administrative entity with 'artificial' boundaries, many of those boundaries correspond to 'natural' boundaries such as river basin divides. The District lies almost entirely within the drainage basin of the River Avon. The northern and southern boundaries of the District fall approximately on the divides with the greater basins of the Rivers Trent and Thames.

Each of the character areas is further divided into sub-areas to account for more local differences. The areas and sub-areas are intended to provide a general record of the character of the District as a whole, but are not intended to account fully for the details that make places unique. The boundaries identify areas in which there is a degree of similarity in terms of landscape and settlement pattern. The character map and further sections of [Part C](#) describe some of the general similarities as well as differences.

### **B3. Arden Character Area**

The Arden character area comprises the following sub-areas: Birmingham plateau; Ancient Arden; Alne and Arrow valley floors; Feldon; Cotswold Fringe; Avon Valley and Stour Valley. These are shown in the Arden Character Area Map (Fig.B1) below.

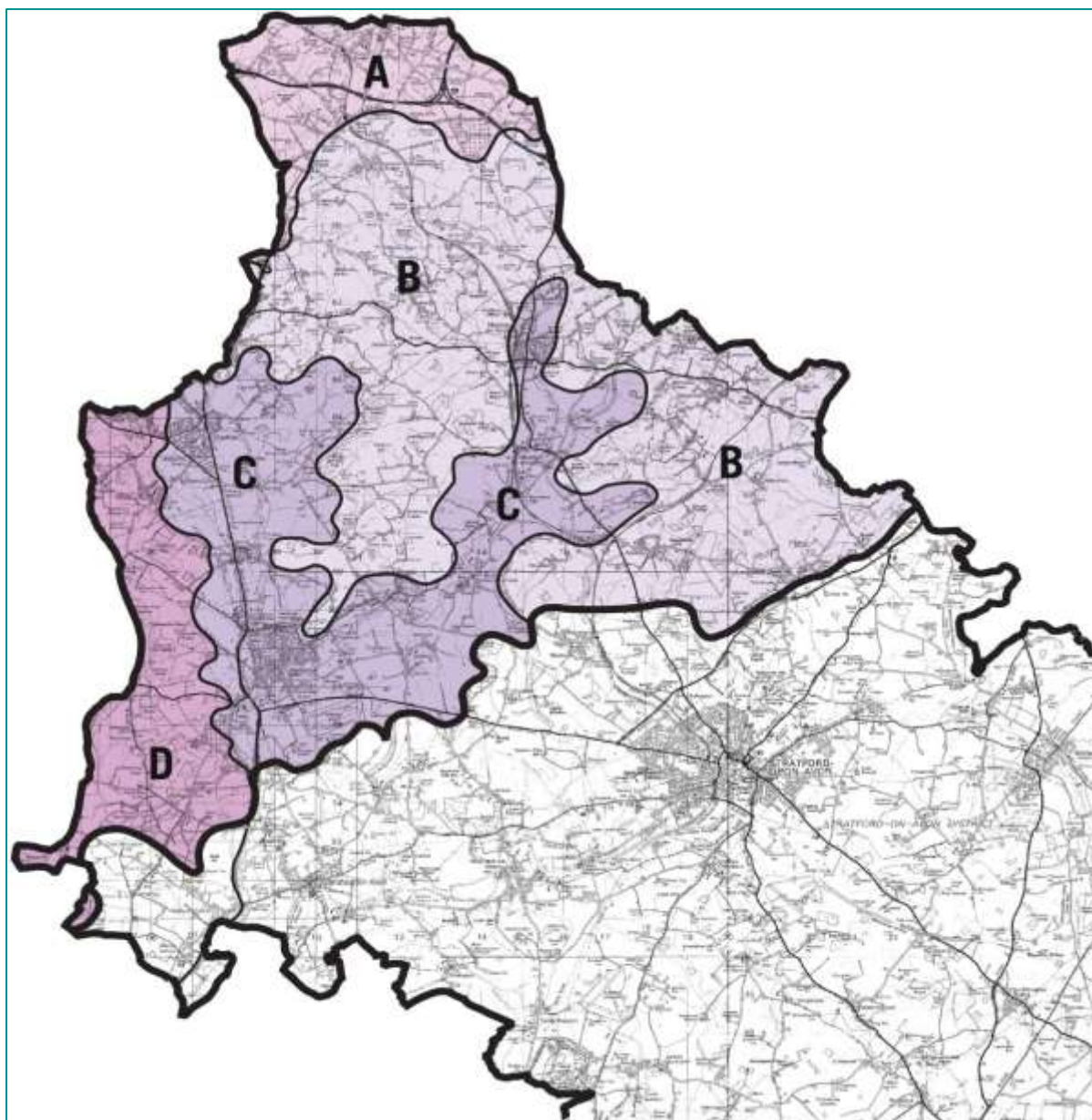


Fig. B1 Arden Character Area map.

### **Birmingham plateau fringe (a)**

- Gently rolling land form, the upper end of the River Blythe basin, draining north to the Trent with no clearly defined valley;
- Belts of mature trees associated with estates; many ancient woodlands, small in size and often with irregular outlines; areas with a well-defined pattern of small fields and paddocks; thick roadside hedgerows, often with bracken;
- A network of minor lanes with scattered hamlets and ribbon development;
- Main building materials are timber frame and brick.

### **Ancient Arden (b)**

- Varied undulating land form with occasional steep scarp slopes, principally draining to the River Alne without a clearly defined basin;
- Hedgerow and roadside oaks; an ancient irregular pattern of small to medium sized fields; field ponds associated with permanent pasture;

- A network of winding lanes and trackways often confined by tall hedge banks; many scattered hamlets and farmsteads, mostly on slope sides with larger villages or towns on hilltops or valley bottoms;
- Main building materials are timber frame and brick with some Arden Sandstone and Blue Lias Limestone.

### **Alne and Arrow valley floors (c)**

- Middle reaches of the Alne and Arrow rivers in fairly distinct basins, the edges defined by narrow floodplains extending to large scale rolling land form;
- Winding hedgerows along the edge of the floodplain; grazing meadows, often with patches of wet grassland; a semi-regular pattern of medium to large sized fields; mature hedgerow and roadside oaks;
- A varied settlement pattern of small villages and scattered farmsteads, generally lying near a river or stream;
- Main building materials are timber frame, brick and Blue Lias Limestone.

### **Arrow Ridgeway Slope (d)**

- Higher side of the River Arrow basin, including dividing ridge and ridgeway; large scale rolling land form with occasional steep scarp slopes;
- Large woodlands, often associated with rising ground; mature hedgerow and roadside oaks; a semi-regular pattern of medium to large sized fields;
- Very few small villages and scattered farmsteads; Main building materials are timber frame, Blue Lias Limestone and brick.

## **B4. Feldon character area**

Feldon character area includes the following sub-areas: Mudstone vale; Lias uplands; Clay vale. The Ironstone Uplands is a separate character area to the north east of the district and is also included in the Feldon Character Area Map (Fig B 2) shown below.

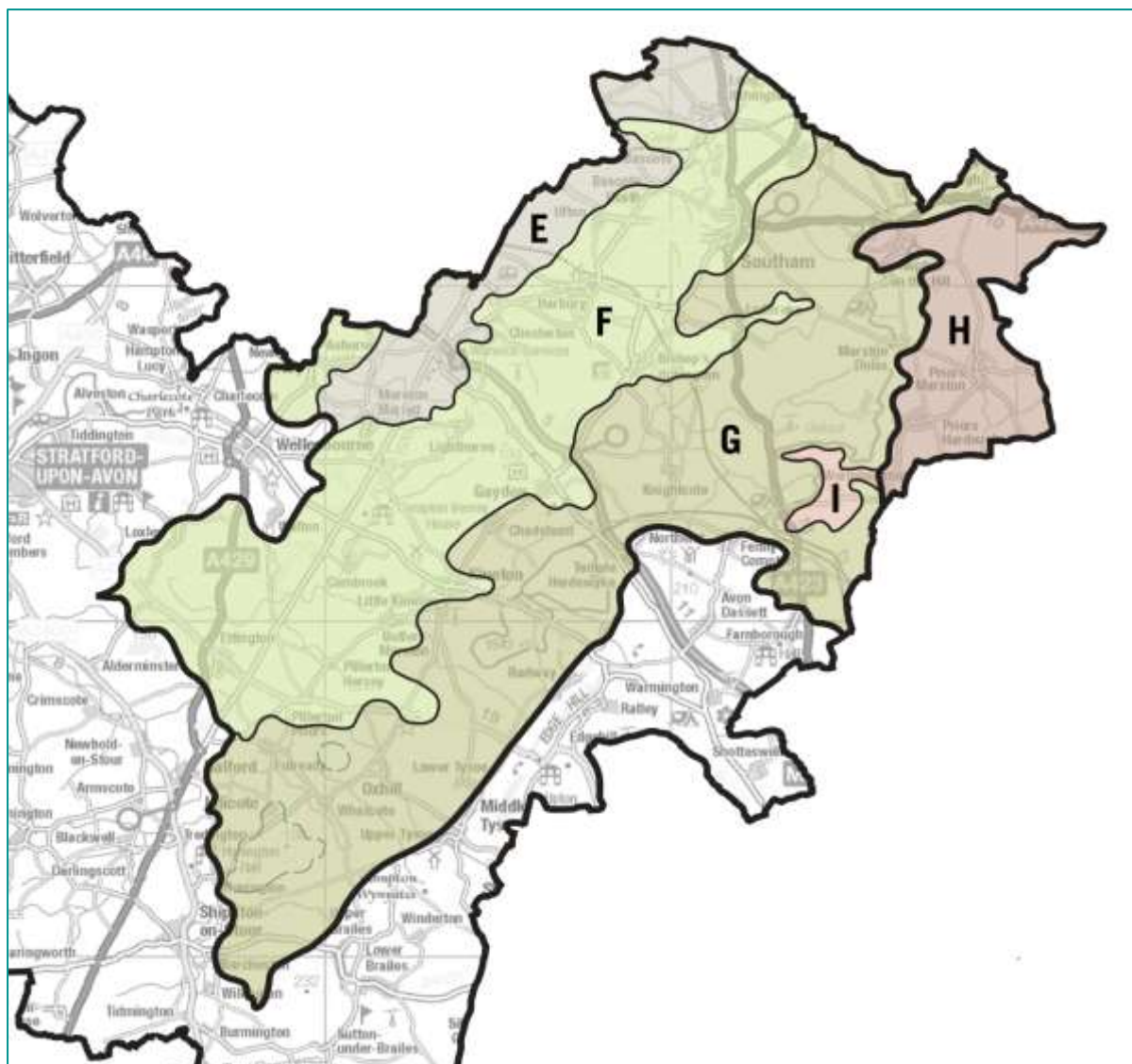


Fig. B2 Feldon and Ironstone Uplands Character Area Map.

### Mudstone vale (e)

- Small flat valley with occasional small rounded hills, draining to the Avon at right angles to the line of the valley; a further area forms the foot of the River Itchen;
- A medium to large scale geometric field pattern; small areas of permanent pasture often with well-preserved ridge and furrow; wide roadside verges typically bounded by a thick hedge and ditch; numerous hedgerow elm stumps;
- Scattered farmsteads and dwellings and the village of Long Itchington;
- Main building materials are Blue Lias Limestone and brick.

### Lias uplands (f)

- A varied rolling land form often associated with steep wooded scarp slopes, mostly draining to the Rivers Dene and Itchen without clearly defined basins;
- Many hedgerows and roadside trees; well defined geometric pattern of small to medium sized fields; disused quarries with semi-natural grassland and scrub;
- Compact villages sited on hill and ridgetops, hill sides and along narrow valley bottoms;
- Main building materials are White Lias Limestone (now known as Langport Member Limestone), Blue Lias Limestone and brick.

### **Clay vale (g)**

- Broad flat valley with occasional small rounded hills, the valley running at right angles to the lines of the Rivers Stour, Dene and Itchen;
- A medium to large scale geometric field pattern; small areas of permanent pasture often with well-preserved ridge and furrow; wide roadside verges typically bounded by a thick hedge and ditch; numerous hedgerow elm stumps;
- Relatively few, straight roads with few, small compact villages sited by streams along with scattered farmsteads and dwellings;
- Main building materials are Blue Lias Limestone, 'Hornton Stone' (Marlstone Rock Bed) and brick.

### **Ironstone Uplands (h)**

- Large scale rolling upland with occasional prominent ironstone hills, includes the divide between the Rivers Leam and Cherwell; it is the western edge of the Northamptonshire Uplands yet at the same time a continuation of the Cotswold/Edge Hill scarp;
- Large scale strongly hedged field pattern; small areas of permanent pasture with ridge and furrow; wide roadside verges bounded by tall, thick hedgerows; steep hillsides with semi-natural grassland and scrub;
- Small ironstone villages often situated on rising ground;
- Main building material is 'Hornton Stone' (Marlstone Rock Bed).

## **B5. Cotswold Fringe Character Area**

Cotswold Fringe character area includes the following sub-areas: Scarp foot and slope; Ironstone plateau and valley lands; Fringe downlands and Broad valleys. A map of the Cotswold Fringe character area (Fig C 3) is shown below.



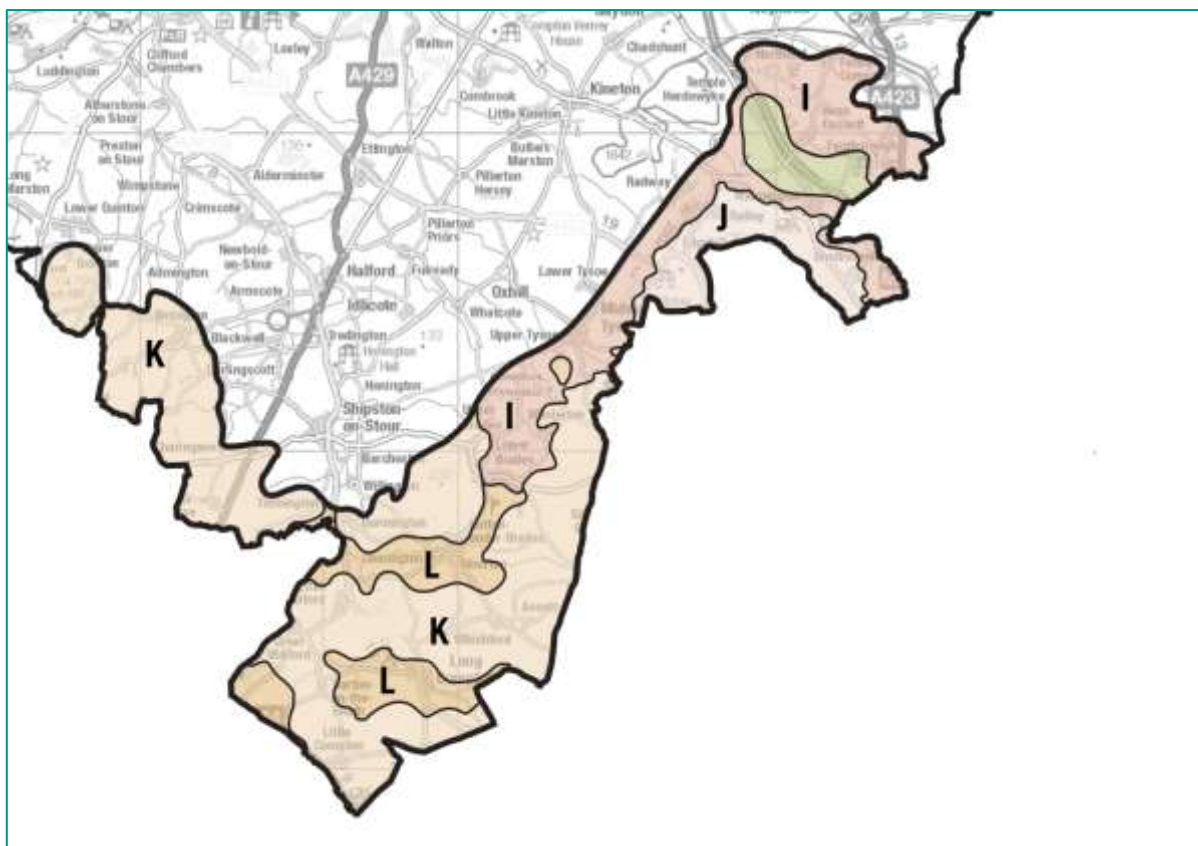


Fig. B3 Cotswold Fringe Character Area map.

### Scarp foot and slope (i)

- The scarp slope leading down to the broad flat Feldon Clay Vale, the scarp and vale running at right angles to the lines of the Rivers Sour, Dene and Itchen;
- Semi-improved grassland, scrub and wood on steep valley sides; a medium to large scale geometric field pattern on the foot of the scarp; small areas of permanent pasture often with well-preserved ridge and furrow; wide roadside verges typically bounded by thick hedge and ditch;
- Small compact villages sited at the foot of the scarp slope; many dry stone walls;
- Main building materials are Hornton Stone.

### Ironstone plateau and valleylands (j)

- Flat land at the top of the scarp slope, deeply cut by steep sided river valleys, draining to the Cherwell, the scarp edge forming the divide between the greater Thames and Severn basins; Steep wooded slopes; large arable fields with red soils on the plateaux; semi-improved grassland and scrub on steep valley sides;
- Roads run along ridgetops; small compact villages sited at the rim of the valleys and dropping down along the valley sides; many dry stone walls;
- Main building materials are 'Hornton Stone' (Marlstone Rock Bed) and brick.

### Fringe downlands (k)

- A varied rolling land form of rounded or flat topped hills and secluded river valleys; includes Meon Hill, Ilmington Downs, and Brailes Hill;
- A medium to large scale geometric field pattern; rich red soils supporting productive arable farmland with some woodland on higher ground; small areas of permanent

pasture often with well-preserved ridge and furrow; steep hillsides with semi grassland and scrub;

- Small compact stone villages, mostly sited on ridgetops or the foot of the scarp slope; many dry stone walls;
- Main building materials are 'Hornton Stone' (Marlstone Rock Bed), 'Cotswold Limestone' (Oolitic Limestone) and brick.

### Broad valleys (I)

- Valley floors with some varied undulation and small rounded hills;
- A medium to large scale geometric field pattern with small areas of permanent pasture often with well-preserved ridge and furrow;
- Small compact stone villages, mainly on the valley bottoms; many dry stone walls;
- Main building materials are 'Hornton Stone' (Marlstone Rock Bed), 'Cotswold Limestone' (Oolitic Limestone) and brick.

## B5. Avon Valley Character Area

Avon Valley character area includes the following sub-areas: Avon ridgelands; Upper Avon, Avon and Arrow terraces and Avon vale. A map of the Avon Valley character area (Fig B4) is shown below.

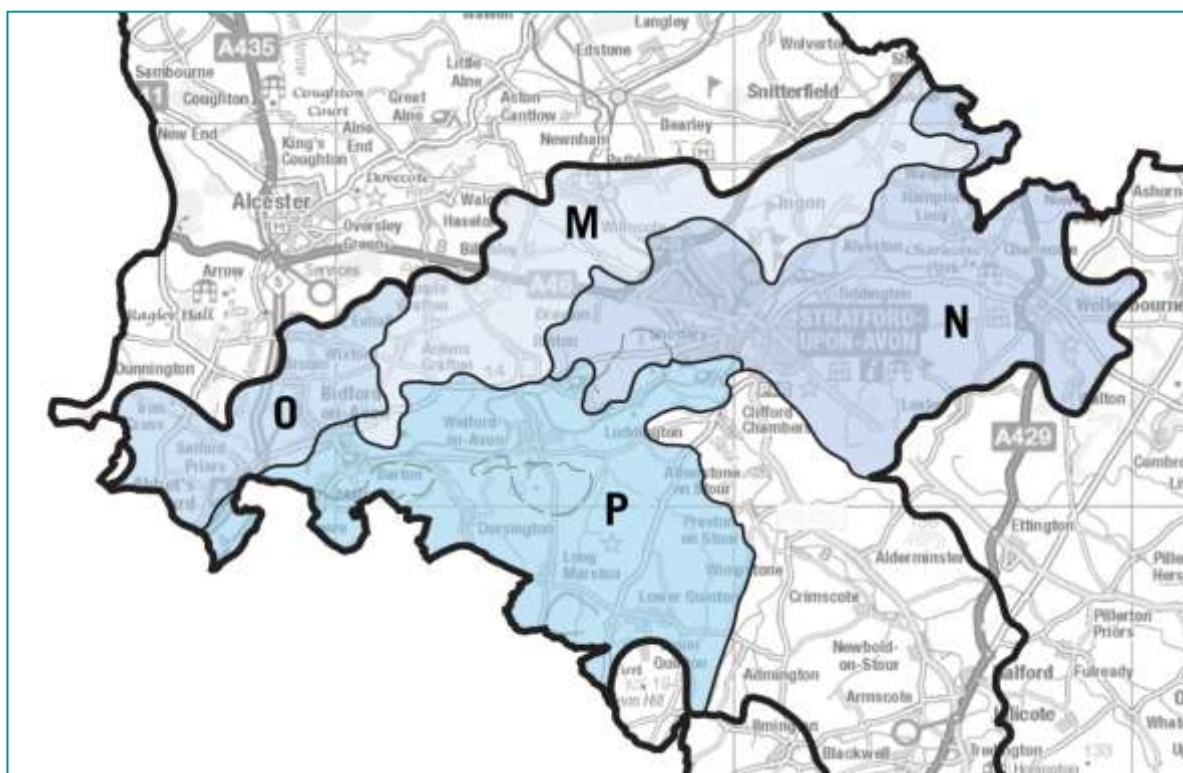


Fig. B4 Avon Valley Character Area map.

### Avon ridgelands (m)

Steeper side of the Avon basin including dividing the Rivers Avon and Alne with large scale rolling land form;

- A large scale often poorly defined field pattern; some large orchards on hilltops and south facing slopes; prominent hilltop woodlands; steep wooded scarps and associated semi-improved grassland;

- Varied settlement pattern of small compact villages, mostly on hilltops and ridges, and loose clusters of roadside dwellings;
- Main building materials are Blue Lias Limestone and brick.

### Upper Avon (n)

- Flatter sides of the upper reach of the Avon basin; narrow river corridors defined by flat floodplains with steeply sloping often wooded bluffs to the north west side extending to broad flat gravel terraces on the south east side;
- Grazing meadows often with meanders, islands, steep banks and much marginal vegetation; fringing alders and scrub; winding hedgerows and ditches along the boundary of the floodplain; a large scale geometric field pattern on the terraces with well wooded streamlines and some small arable plots growing a wide variety of vegetable crops;
- Small compact villages generally on or next to a river; scattered greenhouses and other horticultural buildings;
- Main building materials are timber frame, Blue Lias Limestone and brick.

### Avon and Arrow terraces (o)

- Broad flat gravel terraces at the meeting of the rivers Arrow and Avon;
- A large scale geometric field pattern; some small arable plots growing a wide variety of vegetable crops; well wooded streamlines;
- Small compact villages, generally on or next to a river; scattered greenhouses and other horticultural buildings;
- Main building materials are timber frame, Blue Lias Limestone and brick.

### Avon vale (p)

- Flatter side of the lower Avon basin; narrow river corridors defined by flat floodplains with steeply sloping, often wooded bluffs extending out to broad flat valley with occasional low rounded hills;
- Grazing meadows often with meanders, islands, steep banks and much marginal vegetation; fringing alders and scrub; winding hedgerows and ditches along the boundary of the floodplain; a medium to large scale geometric field pattern on the valley land with many small often abandoned orchards;
- Straight roads with wide roadside verges typically bounded by a tall hedge and ditch; a strongly nucleated settlement pattern of medium sized villages, often fringed by greenhouses or other horticultural buildings;
- Main building materials are timber frame, Blue Lias Limestone, 'Cotswold Limestone' (Oolitic Limestone) and brick.

## B6. Stour Valley Character Area

Stour Valley character area includes the following sub-areas: Stour vale; Stour Feldon edge and Upper Stour. These are shown in the character area map (Fig B.5) below.

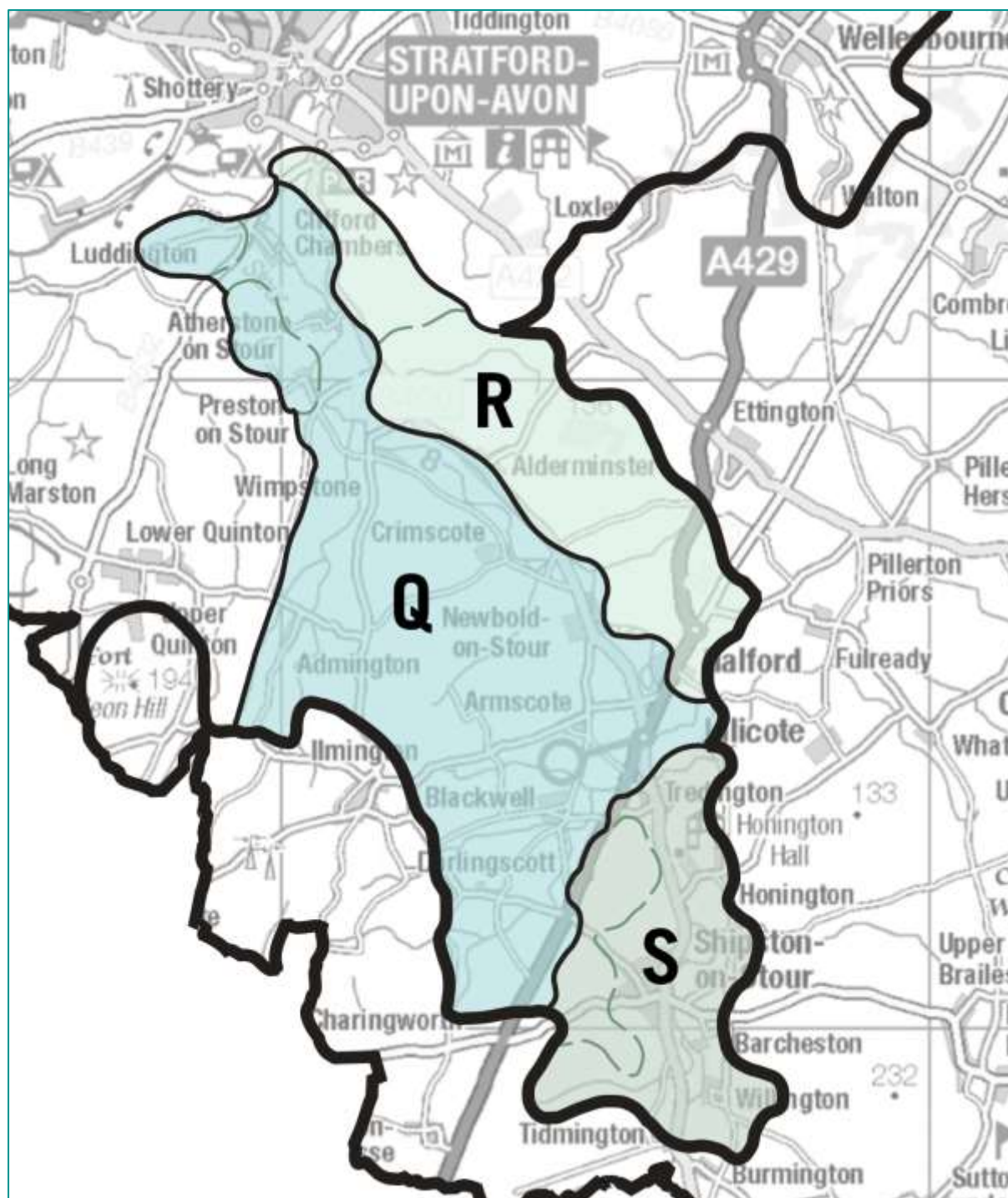


Fig. B5 Stour Valley Character Area map.

### Stour Vale (q)

- Flatter side of the lower Stour basin; broad flat valley with occasional small rounded hills;
- A medium to large scale geometric field pattern; small areas of permanent pasture often with well-preserved ridge and furrow; wide roadside verges typically bounded by a thick hedge and ditch; numerous hedgerow elm stumps;
- Small compact estate villages and clusters of farmsteads and dwellings;
- Main building materials are Blue Lias Limestone, 'Cotswold Limestone' (Oolitic Limestone), 'Hornton Stone' (Marlstone Rock Bed) and brick.

### **Stour Feldon Edge (r)**

- Steeper side of the lower Stour basin; large scale rolling land form with occasional steep scarp slopes;
- Large woodlands often associated with rising ground; many small coverts and belts of trees; mature hedgerows and roadside oaks;
- Scattered farmsteads and a small compact village;
- Main buildings materials are White Lias Limestone (known as Langport Member Limestone) and brick.

### **Upper Stour (s)**

- Middle reach of the Stour valley, a distinct basin defined by the Tredington hills and the flatter, rolling southern edge of the Feldon;
- A medium to large scale geometric field pattern; small areas of permanent pasture often with well-preserved ridge and furrow; wide roadside verges typically bounded by a thick hedge and ditch; numerous hedgerow elm stumps;
- Compact valley bottom settlements and small estate villages;
- Main buildings materials are Blue Lias Limestone, 'Hornton Stone' (Marlstone Rock Limestone Bed), 'Cotswold Limestone' (Oolitic Limestone).

# Part C: Access and Connectivity

## Contents

- C1 Introduction
- C2 Connectivity and Streets
- C3 Access

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.9 Design and Distinctiveness
- CS.15 Distribution of Development
- CS.20 Existing Housing Stock and Buildings

This Section of the SPD provides advice on how applicants can ensure that proposals achieve high quality design in new development.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's planning policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).

## C1. Introduction

Good design is indivisible from good planning and the principles in this section will relate to applications for the smallest house extension right through to mixed-use schemes for hundreds of homes. The design principles set out in this guidance should be applied to open market and affordable housing. It should be read in conjunction with other parts of the SPD, in particular:

[Part A: How to Achieve Good Design](#)

[Part D: Buildings and Layout](#)

[Part E: Architectural Style, Construction and Materials](#)

[Part F: Residential Amenity](#)

[Part G: Agricultural Buildings](#)

[Part H: Shopfronts](#)

[Part M: Biodiversity and Green Infrastructure](#)

[Part N: Landscaping and Trees](#)

This part of the Development Requirements SPD sets out a number of design principles that should be followed when designing new development. Cross reference is made from each design principle to the 9 key design criteria set out in Core Strategy Policy CS.9 demonstrating how the design principle contributes to the achievement of good design.

## C2. Connectivity and Streets

Policy CS.9 (Key Design Principles) states:

- *Connected: Proposals will be well-integrated with the existing built form, enhancing the network of streets, footpaths and green infrastructure and encouraging walking and cycling.*

The starting point for good design is how well the development integrates and connects into the existing built form and how well users can navigate around and through the development (see Fig C1 below) .

### Permeability and Legibility

New development should allow for good connections both within the site and the surrounding area. The term permeability and legibility relate to the ease with which residents and visitors can orientate themselves and find their way around an area.

Legibility can be achieved by ensuring:

- A clear hierarchy of routes;
- A strong and logical building layout (such as the perimeter block) and massing;
- An appropriate and consistent choice of design and materials for buildings and their boundaries with the street and for designing the streets or routes; and
- The use of views and focused vistas of local landmarks (buildings and landscape features) in and around the site.

Pedestrian and cycle connectivity may require more direct routes than for vehicles. Where possible, people should be given the opportunity to use direct and attractive routes on foot or by cycle as an alternative to using the car for journeys less than 2km. This helps to improve opportunities for greater activity. Development which has been designed with good permeability and legibility will also assist people living with dementia. See [Part A: How to achieve good design](#) for further guidance. Further advice and information is also available in the Find Out More section below.



Fig. C.1 - Poor connectivity and good connectivity.

When signage is necessary to help provide directions to specific destinations, it should be of a high quality, coordinated with all other street furniture and kept to a minimum to avoid clutter in the public realm.

By avoiding cul-de-sacs, you will provide choice of movement as well as dispersing traffic.

### Street Hierarchy

The design of new development should follow a user hierarchy (see FigC2) that not only encourages more sustainable modes of travel, but recognises that streets are the key component of the public realm, creating a sense of place and are not simply roads where vehicles park and travel at speed.

As Manual for Streets (MfS) notes, the hierarchy is not intended to be applied rigidly or that it is always more important to provide for pedestrians, but simply that pedestrians should be considered first, followed by consideration for others in the order shown.



Its overarching emphasis is that increased consideration should be given to the 'place' function of streets. This approach to addressing the classification of streets needs to be considered across all built-up areas, including villages, so that a better balance between different functions and street users is achieved.

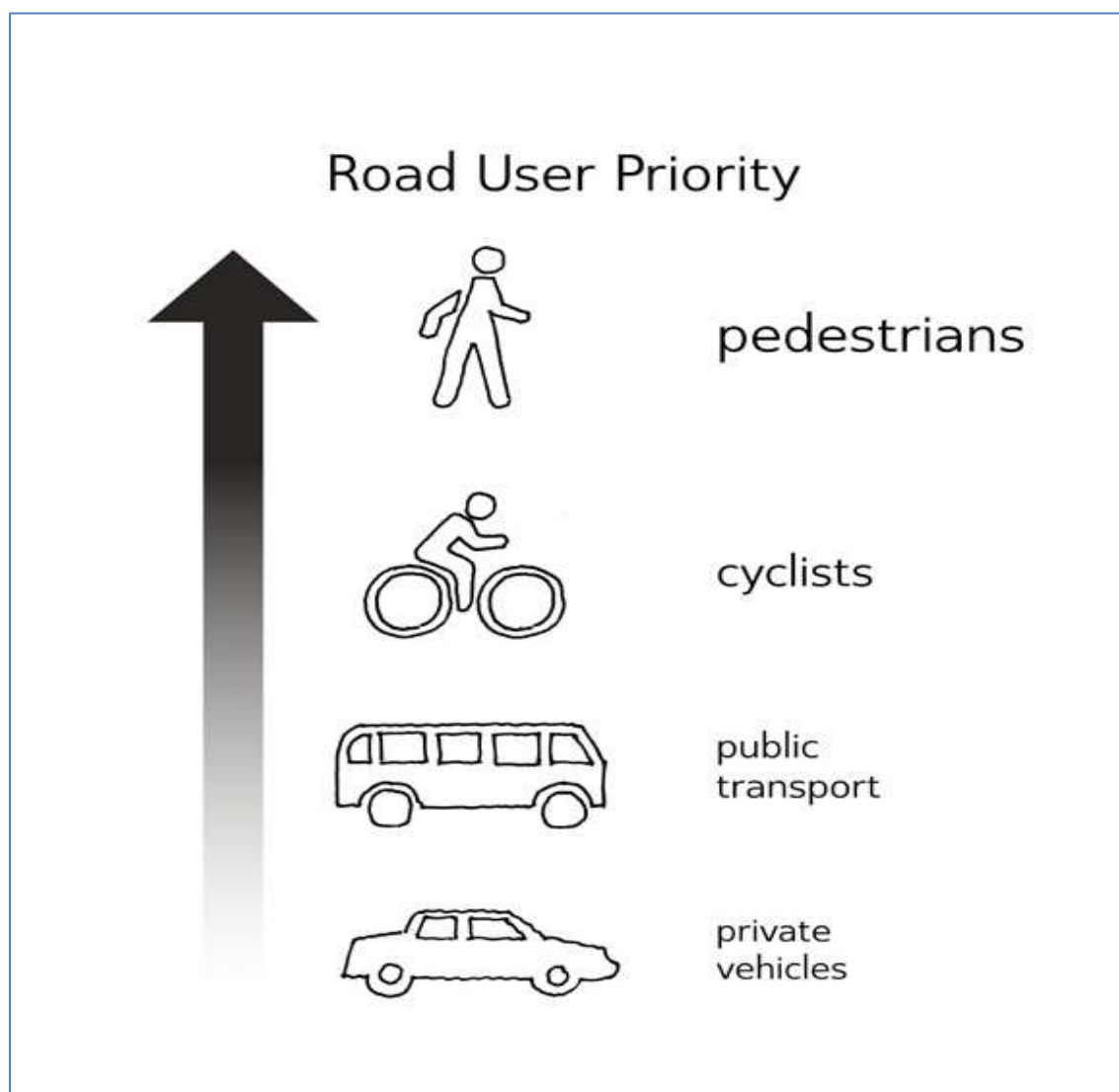


Fig. C2 – Hierarchy of road users.

The MfS sets out a range of principles that should be taken fully into account in the process of designing and assessing development proposals. These are as follows:

- Layout and connectivity;
- Quality places;
- Street users' needs;
- Street geometry;
- Parking;
- Traffic signs and markings;
- Street furniture and street lighting;
- Materials, adoption and maintenance.

In order to create a legible development, it is necessary to clearly identify the site's route hierarchy, including the major/primary, secondary and informal pedestrian routes.

This needs to be clear from the dimensions of the street and the corresponding scale and design of buildings; boundary features trees and planting which fronts it.

Applicants should consult with Warwickshire County Council Development Management Team to identify the suitable parameters for route hierarchy in development proposals.

### **Primary Routes**

When designing larger sites some form of 'Main Street' may typically form the spine of the development. In these scenarios, it should accord with the principles set out in the Manual for Streets. For example, primary routes have wider streets (that can accommodate bus routes), taller buildings (often setback from the street), space for larger street trees, landmark buildings, segregated cycle routes and footways (often on both sides), higher quality boundary features and planting and limited on street parking where vehicular flow is important.

### **Secondary Routes**

Many residential streets fall into this category. They should also be designed to 'Manual for Streets' principles. Secondary routes have modest street widths, smaller buildings, mostly smaller street trees and designed space for larger street trees, local landmark buildings, cycle routes (often only on one side) and footways may possibly be shared routes rather than being segregated, on street car parking.

### **Minor Routes**

Minor routes are the lowest in the hierarchy of streets and typically serve only a very small number of vehicle movements.

Dedicated pedestrian or cycle routes should distinguish themselves from vehicular routes by their width (typically 3 m for a shared pedestrian/cycle route) and contrasting surface materials.

Smaller developments are likely to have streets that do not offer the opportunity to create a suitable hierarchy. These developments should provide the most appropriate level of routing at the highest possible standard.

### **Active Streets**

Buildings should front the street with active rooms, balconies and bay windows to maximise liveliness and natural surveillance. On corner plots dual fronted buildings will be needed. The orientation of the street pattern will also be influenced by the pedestrian desire lines and the need to connect the site to its immediate surroundings. Further guidance on designing active frontages is available in [Part D1. Blocks and Frontages](#).

### **Surface Materials and Traffic**

Surface materials provide several functions, providing an appropriate surface for all road users, whilst contributing towards traffic safety, surface water run off management and general appearance of a locality.

Development should seek opportunities to reinforce the local distinctiveness of an area, thereby improving the appearance of the public realm, through the appropriate use of surface materials wherever possible; subject to the agreement with the Warwickshire

County Council Highways Department. Development should comply with the Warwickshire County Council standards for surfacing materials.

<https://apps.warwickshire.gov.uk/api/documents/WCCC-770-321>

It is essential that the road surface is able to take the weight and torsion impacts (turning of wheels) of refuse vehicles and other large and heavy vehicles for all parts of the site that they will have access to, including un-adopted sections.

In the case of traffic safety requirements such as railings, bollards, lighting columns or visibility splays, the design of these should as far as possible reflect local character.

Safety is of paramount importance, but where it is difficult to meet standards due to innovative designs or unique local circumstances, negotiations should take place at an early stage to identify acceptable alternatives. Vehicle dominated junction layouts should be avoided (see Fig. C3 below).

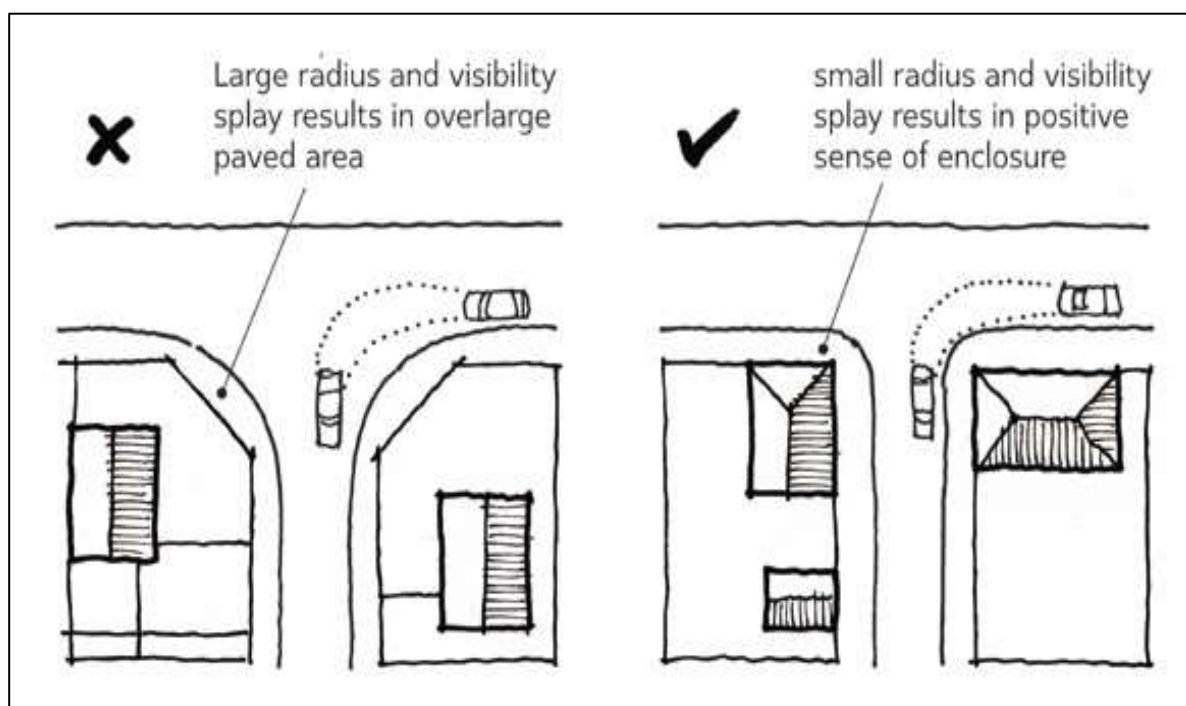


Fig. C.3 - Poor and good examples of junction layouts.

### Home Zones and Shared Space

A Home Zone is a living street (or group of streets) as implemented in the United Kingdom, which is designed primarily to meet the needs of pedestrians, cyclists, children and residents and where the speeds and dominance of the cars is reduced.

Home zones often involve the use of shared space, where the street is not strongly divided into exclusive pedestrian and traffic areas. There are however concerns over the ability of blind and partially sighted people to use shared space streets. Providing a clear route for pedestrians that is kept free of traffic, by using textured materials or street furniture for example, is one way of meeting the needs of the visually impaired.

A key aim of Home Zones is for traffic speeds to be kept low - with a typical target speed

being around 20 km/h (10-15 mph) - through the overall design of the street and features such as sharp changes of direction for traffic and narrowing where only one motor vehicle can pass at a time. Traditional traffic calming features such as road humps might also be used, but should be integrated into the design rather than being added as an engineered afterthought.

The entrance or 'gateway' to a Home Zone should be a clear signal to all users that there is a change in the nature of the streetspace. This might be through the use of changed materials, changed road levels, street furniture or planting. The demarcation between the public space of the street and the private space of the front garden is important to define.

Warwickshire County Council (WCC), as the Highway Authority, is likely to bring out design guidance which is anticipated to include Home Zones. If roads (including Home Zones) are to be adopted by the Highway Authority they will need to meet adoptable standards. Informal discussions with WCC indicate that they will not adopt a homezone layout for anything over 10 units, and it should not be a through route.

WCC also informally advise that the overall adoptable corridor width of the homezone should be 8.5m preferably with a 2m, dedicated service strip, and the remaining 6.5m being carriageway, verges and street furniture.

Homezone layouts are likely to be subject to a Road Safety Audit Stage 2, and WCC may require full quality audits to also be carried.

The Council encourages home zones where traffic movement is designed to travel at very low speed within residential areas, creating more child friendly streets. Home Zones can be particularly beneficial for families with young children, by providing a safer environment for children to play outside their homes with their friends, and offering opportunities for regular exercise.<sup>1</sup>

## **Street furniture**

Street furniture (e.g. seating, bollards, lighting, waste bins, recycling bins, taxi stands, bus stops, post boxes), and surface materials can have a major impact on the appearance and quality of a street and they should be considered as part of the overall design and included in a Landscape Scheme, where one is required. Areas of public open space will be expected to contain suitably designed and located street furniture and the future maintenance of this (including replacement of facilities over time) should be part of the management plan.

## **Street Lighting**

Lighting of public routes and parking areas is important in respect of personal safety and reducing crime and the fear of crime. Careful consideration should however be given to any proposed street lighting, to ensure that it does not result in light pollution, adversely affecting residential amenity, character of the settlement/landscape and natural habitats and its species, particularly where foraging routes for nocturnal animals exist. Applicants should note that dark skies policies have been included in a number of Neighbourhood Plans in the district. Applicants are advised to contact Warwickshire County Council's Street Lighting Department and Ecology Services using the link below in Find out more section.

## Trees

Trees can create a wide range of significant economic, social and environmental benefits to the local communities. Trees can bring a diverse and long lasting range of benefits to urban space, particularly if they are established trees with large canopies. The changing climate and need to adapt to a low carbon economy means that our neighbourhoods and towns need to adapt to expected conditions in the future. Ways to help achieve this through sustainable development are woven into the Council's Core Strategy policies. Further guidance about trees planting in development proposals is available in [Part M: Landscape and Trees](#).

The retention of existing trees and landscape on a development site and the provision of new, well designed landscape is an effective response.<sup>6</sup>

In particular, tree canopy cover can contribute to urban cooling and should be an important part of the landscape or green infrastructure element of your development.

Development proposals should therefore contribute by making space for existing trees and vegetation and consider new tree planting and landscape design early in the design and layout of your site. By doing this you can design-out potential conflicts with the built form whilst designing in opportunities for long-term provision of these sustainable development essentials.

### Find out more

Department of Transport 'Manual for Streets (2007)

<https://www.gov.uk/government/publications/manual-for-streets>

Quality in the Public Realm in 'By Design'

<http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/by-design-urban-design-in-the-planning-system.pdf>

Warwickshire County Council Ecology Services

<https://www.warwickshire.gov.uk/planningecology>

Warwickshire County Council Street Lighting Services

<http://www.warwickshire.gov.uk/streetlightingstandards>

RTPI, (2007) Dementia and Town Planning: Creating better environments for people living with dementia

[https://www.rtpi.org.uk/media/2213533/dementia\\_and\\_town\\_planning\\_final.compressed.pdf](https://www.rtpi.org.uk/media/2213533/dementia_and_town_planning_final.compressed.pdf)

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<sup>6</sup> National Planning Practice Guidance, (March 2015)

### **C3. Access**

Streets make up the greater part of the public realm and well-designed streets can contribute greatly to the quality of the built environment. Importantly, access arrangements, parking (vehicular and cycle), services (recycling and waste storage and collection), street furniture and surface materials should respect the local context taking into account local distinctiveness, including any historic or natural features.

All development should have full regard to the guidance contained within the Department of Transport 'Manual for Streets (2007).

#### **Access into and around the Site**

In residential developments, where possible, vehicular, pedestrian and cycle access into the site should not be from a single point, but should allow for the possibility of entering and exiting the site from several different locations. This is to prevent the inefficiencies and lack of permeability experienced with typical cul-de-sac developments, to improve legibility of through routes, to minimise distances travelled and to encourage walking and cycling.

The design of the access will depend very much on the nature and size of the development and the size and traffic speed of the route that it links into.

At the main access to a site:

- There is the opportunity for an architectural statement/landmark/gateway feature/public art installation/landscape design depending on context;
- Attractive views should be maximised and unattractive elements minimised;
- Care should be taken to minimise and mitigate vehicular noise/disruption to bedrooms/living rooms of adjacent properties.

Access around the site should follow a logical hierarchy of route. It should be easy to find your way around the site and should be an attractive and safe environment. Further information about route hierarchy and legibility is found in [Part C2. Connectivity and Streets.](#)

The layout design should be convenient, safe and functional for all forms of traffic expected to use the site and provide for convenient and safe access to public transportation (See Fig. C4 below).

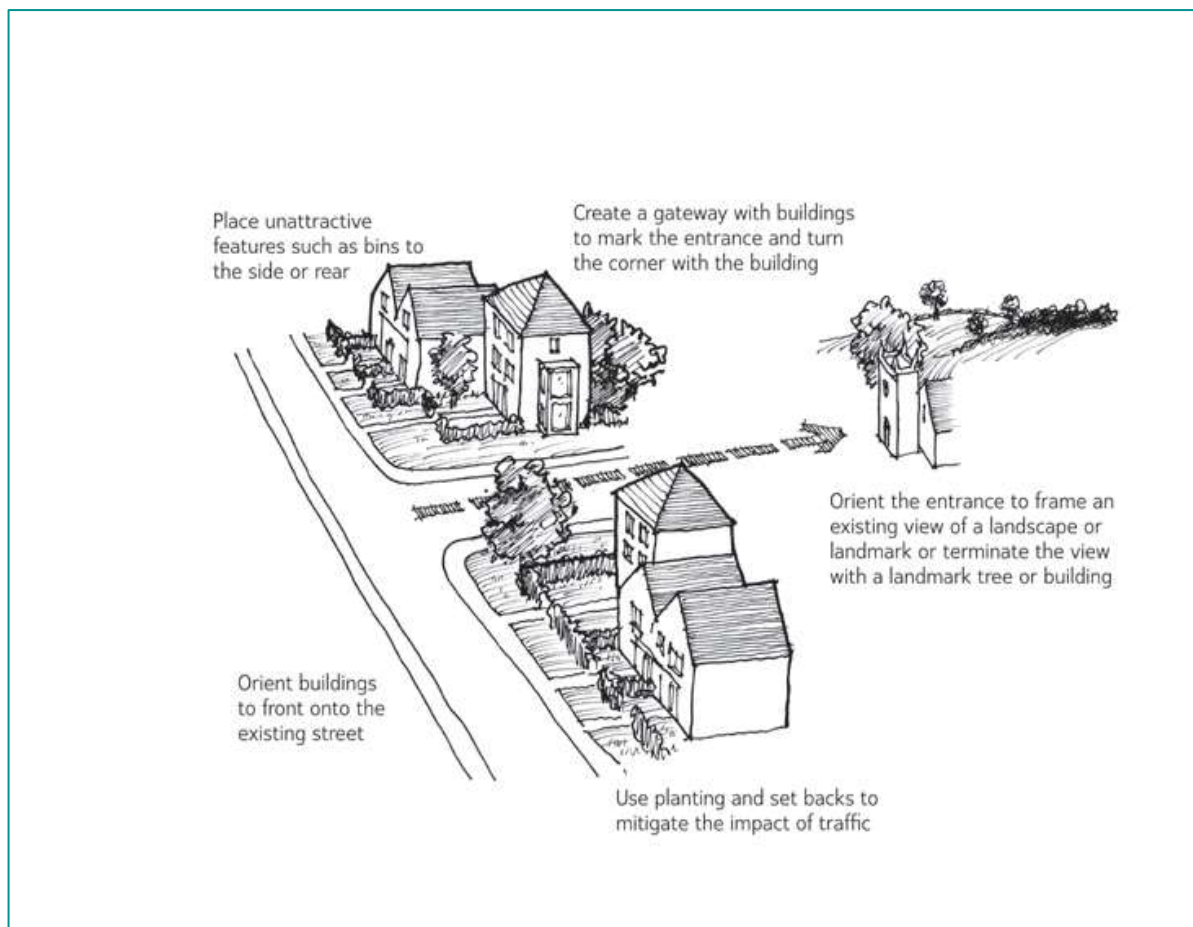


Fig. C4 - Main access into a residential site.

It should include the following considerations:

- Create a gateway with buildings to mark the entrance and turn the corner with a building;
- Orient the entrance to frame an existing view of a landscape or landmark or terminate the view with a landmark tree or building;
- Orient buildings to the front onto the existing street;
- Place unattractive features such as bins to the side or rear;
- Use planting and set back to mitigate the impact of traffic.

The layout should allow for safe and appropriate construction vehicle access during the construction period minimizing the impact on existing neighbouring properties and early occupants of the site, particularly in residential developments. A Construction Management Plan is likely to be required for larger schemes and schemes with existing residents nearby.

## Plot Access

Careful consideration should be given to ensuring all means of access to individual plots and buildings is fit for purposes and useable for all users. Inclusive access to a plot should reflect;

- the location of the building on the plot;
- the plot's gradient; and
- the relationship of adjoining buildings.

Public buildings will need to meet the statutory requirements for plot access set out in the Disability Discrimination Act 1995 (as amended 2005) or successor legislation.

## Services and Emergency Access

All development proposals should be designed to provide satisfactory access arrangements for services and emergency vehicles:

- Layout and road widths should accommodate the servicing needs of the development, such as buses along the primary route, the parking and turning requirements for good vehicles and bin collection truck, taking account of any on street parking requirements;
- Through-routes and crescents are preferred to cul-de-sacs;
- Reversing distances should be minimised;
- Current Building Regulations for emergency access will need to be met;
- While refuse lorries and fire engines will require a minimum outer turning radius of 10 m, footways and buildings at junctions particularly on minor side roads, do not need to follow the same wide swept path, as this will create a vehicle-oriented layout. However, it is important to ensure adequate forward visibility is maintained and sufficient manoeuvring space is maintained. Further information on access arrangements may be found in [Part P: Refuse and Recycling Storage](#) of this document.

## Tracking of Vehicles

Table 1 below provides swept paths and type of vehicles which may require tracking. However, applicants are advised to consult with Warwickshire County Council's Highway Team to determine whether any other vehicle has been identified as suitable for tracking by Warwickshire County Council.

Applicants are advised to hold pre-application discussion with Warwickshire Fire and Rescue Services about proposed access arrangements, particularly for flatted developments. This is to ensure that appropriate access has been made for emergency services vehicles.

**Table C1: Vehicle Dimensions for Swept Paths**

Vehicle Type	Vehicle Dimensions
Mercedes Econ mid steer (refuse vehicle with 4 axles)	11.73m length x 2.49 width
Scania Kub Chassis (bus)	12.2m length x 2.51m width



Fire & Rescue (Scania)	8.0m length x 3.0m width – (tracking in line with Building
Multi-Purpose Vehicle (MPV)  To be tracked with private drives to ensure residents can manoeuvre from their driveway within the private drive without the need to reverse for significant lengths. It will also be necessary where tandem parking is provided within private drives for the aforementioned reason.	4.856m length x 1.86 width

Junction layouts which feature footpaths and building following a wide swept path, lead to vehicle dominated junctions. This should be avoided.

# Part D: Buildings and Layout

## Contents

- D1. Blocks and Frontages
- D2. Solar Orientation and Night Cooling
- D3. Public and Private outdoor space
- D4. Boundary Treatments

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.9 Design and Distinctiveness
- CS.15 Distribution of Development
- CS.20 Existing Housing Stock and Buildings

This section of the SPD provides advice on how applicants can ensure that proposals achieve high quality design in new development.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's planning policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy).

Key words or terms which appear throughout the document are included in the [Glossary](#).

## D1. Blocks and Frontages

Policy CS.9 (Key Design Principles) states:

- *Sensitive: Proposals, including layout and orientation, will be sensitive to the setting, existing built form, neighbouring uses, landscape character and topography of the site and locality.*

### Grain

The grain of an area is an expression of the pattern of development. This is best illustrated by 'figure ground' plans. Figure ground plans are 2 dimensional maps of urban space that show the relationship between built and un-developed space (See Fig D1 below).

For a new development to integrate well with its context, it needs to take account of the grain that surrounds it, without necessarily trying to replicate it. It should integrate with existing movement networks and create attractive and continuous streetscapes, knitting in visually and functionally with existing development



Fig. D1 - Examples of urban grain, showing the high density fine grained development in Old Town, Stratford-upon-Avon through to lower density coarse grained development in the Welcombe Road residential area, Stratford-upon-Avon.

## Massing

The massing of a building is defined by the physical volume or bulk of a structure or building and relates to its scale, size and height. The impact of a new building on its neighbours may be exacerbated by issues of overlooking, loss of light and shadowing. Orientation, topography/levels, context and the character of the surrounding area are all matters which must be thoroughly addressed and considered together with scale and massing to achieve a positive outcome. Adequate spacing between individual properties should be considered, to avoid a terracing effect. The impact of side extensions on the building's massing should be given appropriate consideration.

The size of new buildings needs to respect the setting in which they are built. If the area is covered by a character area appraisal, the local context and key elements such as predominant storey heights will usually be included. A common criticism is that new buildings are perceived to be overbearing or overpowering. Larger scale buildings may however be appropriate for good design reasons such as at key corner plots, at the end of a vista or where they front open spaces.

## Density

Density can be defined in various ways. However, the Council will expect residential density to be calculated using the number of dwellings per hectare (dph). While development should make efficient use of land, the overriding objective should be to create an attractive development that functions well and is appropriate to its context, irrespective of the numerical density.

Developments that propose relatively high density, for example in excess of 50 dph will need to demonstrate that the increased spatial requirements for associated car parking, bin storage and cycle parking can be provided, whilst still providing sufficient quantity and quality of private amenity space, landscaped areas and public open space. In addition, mitigation of surface water runoff from roof space and hard surfacing via Sustainable Drainage Systems (SuDS) should continue to be a primary consideration. Further guidance on SuDS is available [Part N Biodiversity and Green Infrastructure](#).

## Orientation

The orientation of a building should be informed by the analysis of site constraints and opportunities. This includes orientating buildings, their windows and gardens to maximise opportunities for solar gain or to take advantage of particular views or for surveillance purposes.

Information on solar orientation and cooling and preventing excessive solar gain may be found in [D2 Solar Orientation and Night Cooling](#).

## Frontages

The character of the street and development is significantly influenced by the width/depth of private space between the front of the dwelling or building and the edge of the street (including footpath if relevant), and whether the building line is continuous, staggered or broken as shown in Fig.D2 below

The amount of frontage amenity space or setback from the street to a dwelling should be determined by the existing or proposed character of the street and its degree of urban, suburban, formal or informal nature. The amount of setback must be related to the street as a whole and the front to front dimensions should be appropriate to the importance of the street within the street hierarchy and settlement. Primary streets will be wider and grander and are likely to have buildings set well back from the street with well-designed and landscaped space between, together with appropriate boundary features.

In all but exceptional cases, the frontage should be no less than 0.5 metres (to allow for opening windows, canopies, steps, planting,) and is unlikely to be more than 6 metres..



Fig.D2 - Examples of continuous and fragmented building lines.

Where the development proposes a more urban, higher density approach, proposed setbacks will be generally smaller (0.5-2 metres). Lower density development proposals with a more open and rural character should have greater setbacks, ranging between 3-6 metres.

Development in more urban areas and fronting primary routes should have more consistent building lines and setbacks, not varying in depth along the length of a street by more than approximately 2 metres. In more suburban, lower density areas, building lines and setbacks can vary more as appropriate to the character of the street that exists or is being created.

Setbacks greater than approximately 5.5 metres will normally allow on plot parking to the front. Where this occurs sufficient planting should be provided to help soften the impact cars may have on the streetscape.

Continuous building frontages (90-100% of a street occupied by building frontages) may be appropriate in urban contexts, while more broken frontages (occupying less than 60% of a street frontage) are more appropriate in less urban contexts, where a more green/rural character is desirable. In both cases the continuity of a building frontage can also help reinforce the street hierarchy contributing to legibility.

In order to ensure an appropriate level of amenity and mitigation from noise and disturbance from parked or passing vehicles a distance of not less than 1.5 metres from the windows of a habitable room to the vehicle should be achieved. In extreme circumstances further mitigation of noise might be required via passive or mechanical ventilation to rooms as an alternative to opening windows.

## Active Frontages

Well designed 'active' frontages add interest, life and vitality to the public realm and street. The contribution that active frontages can make to the quality of the built environment and creating sustainable communities for the future is recognised in best practice guidance, including the Urban Design Compendium 1.

<https://www.gov.uk/government/publications/urban-design-compendium>

Active frontages can be achieved using the following principles:

- Have frequent doors and windows with few blank walls;
- Use projections such as bays, balconies and porches to articulate facades;
- Where appropriate consider making lively internal uses visible from the outside, or spilling onto the street e.g. pavement cafes;
- Use transparent glass for windows, where privacy allows, rather than mirrored or frosted glass;
- Consider level changes between the ground building level and pavement, with a gentle ramp or limited number of steps up to a dwelling's front doors where appropriate or raised terraces for pubs or restaurants, for example. A change of up to 450mm is often desirable to give a sense of privacy and surveillance, but only where suitable alternative disabled access is available.

## Designing Housing Types

Many developments, particularly by volume house builders, use a limited set of house types. It is essential therefore that the types have regard to their role in the making of streetscapes and the creation of places, rather than adopt a 'one-size-fits-all' plan which assumes a standard suburban context. The design of house types should reconcile place making requirements with those of local distinctiveness and meeting sustainability objectives.

## Successful Streets

Successful streets comprise houses which ensure continuity of frontage and appropriate sense of enclosure. They should relate to each other, yet have sufficient variety to allow for individual preferences and a degree of personalisation.

For the most part, traditional designed buildings within Stratford-on-Avon District have a relatively overall simple form, which includes a range of unit types as shown in the illustrations (Fig. D3) below.

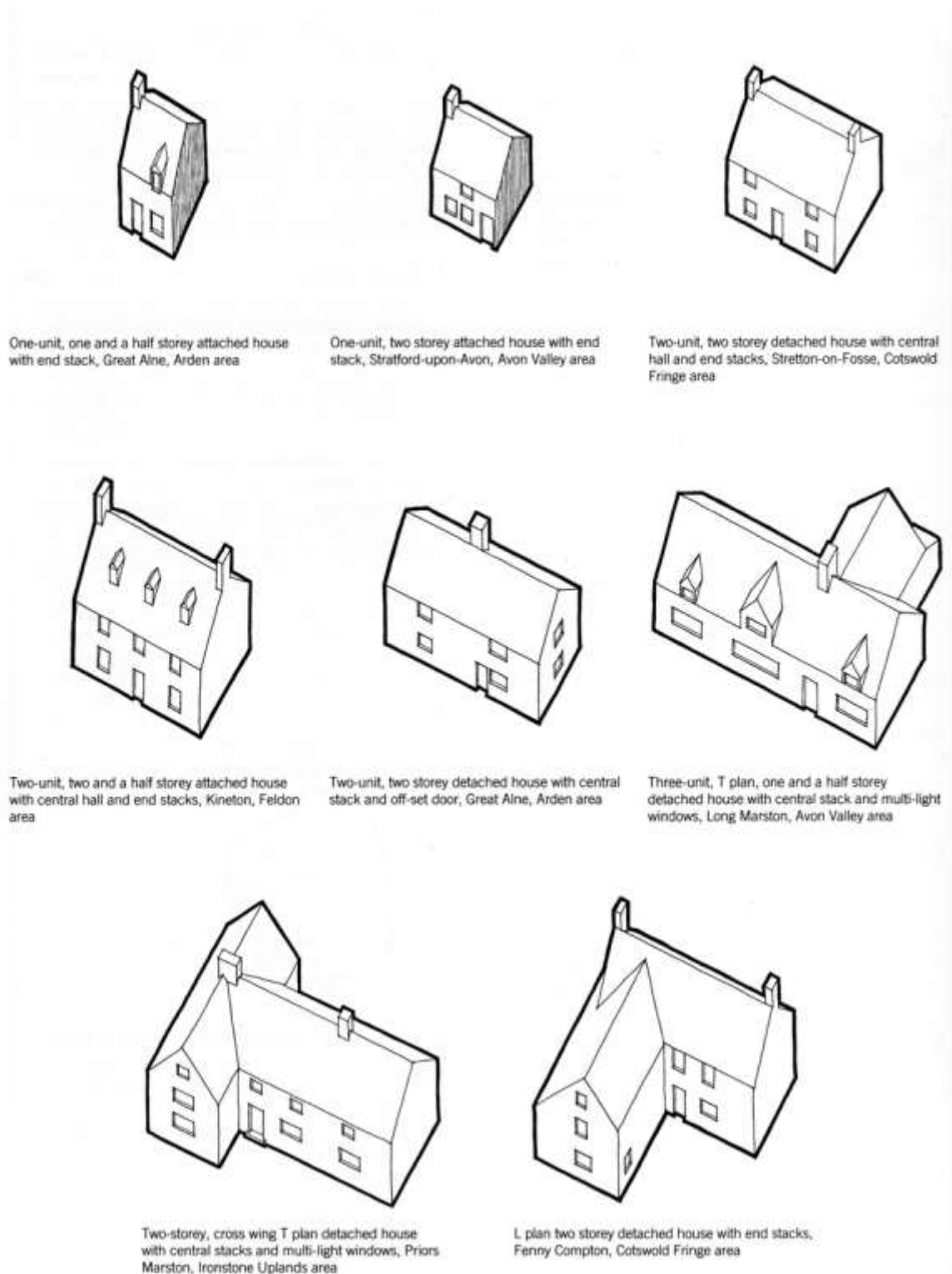


Fig.D3 - Illustrates the range of house types found in Stratford-on-Avon District.

House designs do not however have to follow traditional detailing and form in all cases. Contemporary design and innovation with specific and explicit aims is encouraged in appropriate circumstances.

There are two keys elements to creating successful street, including:

- Houses that turn the corner;
- Houses that terminate views.

### Houses that turns the corner

Corners are a key element in place-making: they play a pivotal role in moving from one space to another (see Fig. D4). Without good corners, the townscape is diminished. A well-designed corner will make an important contribution to the character and attractiveness of the place. The corner building is one that is seen in three dimensions and inevitably will become a minor landmark including for persons with dementia (see 'Dementia and Town Planning' RTPI Practice Advice January 2017). It may therefore be appropriate to have a key building located on a corner or to make a design statement through its height or materials.



Fig. D4 - Photo of a house that 'turns' the corner well, Long Ground, Wellesbourne.

This gives a spacious entry impression to a development. This layout is appropriate for relatively formal situations, providing good rear gardens.

Corner design solution shown in fig 14 above is poorly designed and should usually be avoided as they result in overshadowing and overlooking in rear gardens, and poor amount of garden space and amenity

### Houses that Terminate Views

Classic townscapes comprise a sequence of linked spaces of walkable distances. These spaces are prevented from being endless corridors by curving streets or buildings which terminate long views. Buildings which terminate views at street junctions become an integral part of keeping vehicular speeds low.



In formal places these views are symmetrical and are of a scale which is legible from a greater distance than the street. Thus elements such as gable ends, openings, string courses and other architectural features are given emphasis or the building height or materials are in contrast to adjacent buildings.



Fig. D5 - Shows a house that terminates the view.

In more informal contexts, a building can terminate a view by its location at the head of a T junction: its profile does not have to be symmetrical, but it should dominate the space.

It may also be appropriate to leave the terminal view as an open vista towards open countryside or to have a large stature tree at this point.

Further guidance can be found in [Part E. Architectural Style/Elevational Design](#)

### **Passive/Natural Surveillance**

Passive or natural surveillance is the informal, close observation of people in public areas (such as the street or open space) or semi-public space (such as a shared car park).

It is achieved when there is a good level of overlooking by neighbours of that space. It acts as a deterrent to people wishing to commit anti-social behaviour, which reduces both fear and opportunity for crime.

To achieve effective natural/passive surveillance, it is important that size, shape and position of the windows of habitable rooms allow an unobstructed view of the space.

Flats and non-residential buildings with well-proportioned-balconies and roof terraces looking onto public space can provide better levels of passive surveillance.

Balanced with the need for surveillance, is the desire of residents for privacy in their own homes. Where this issue is not adequately addressed at ground level, blinds and curtains tend to be closed throughout the day and night, negating any passive surveillance benefit.

A mixed use development with well positioned windows can provide public spaces and routes with passive surveillance from non-residential buildings such as offices during the weekday and residential dwellings at other times.

### Find out more

Creating safer places to live through design

<https://www.designcouncil.org.uk/sites/default/files/asset/document/creating-safe-places-to-live.pdf>

[http://www.securedbydesign.com/wp-content/uploads/2017/06/Secured\\_by\\_Design\\_Homes\\_2016\\_V2.pdf](http://www.securedbydesign.com/wp-content/uploads/2017/06/Secured_by_Design_Homes_2016_V2.pdf)

## D2. Solar Orientation and Night Cooling

### Solar Orientation

The layout and design can make the most of sunlight, shelter and natural ventilation to create buildings that are naturally comfortable for their occupants, reducing the need for artificial heating, lighting and cooling.

Passive solar design exploits the free heat and light energy provided by sunlight by sunlight entering buildings through windows and uses air movement for ventilation. This can be extremely effective when combined with heavy construction materials which heat up and cool down slowly, good insulation, and sufficient measures to prevent excessive solar gain in summer.

To fully take advantage of these opportunities requires thinking about factors like sun orientation and potential shading by landscape design or other buildings, when first designing the layout of a site and the design and layout of buildings. This is why we need to make sure the possibilities are thought about at the earliest stages of planning a development. This section gives guidance on how schemes can incorporate the principles of energy efficient and passive solar design.

### Benefits of passive solar design:

- By applying simple layout and building design principles, savings of up to 10% on fuel costs can be made;
- Passive solar developments need cost no more than 'conventional' developments;
- Good layout and design results in natural comfortable houses that are attractive to buyers;
- Passive solar design is not dependent on technology and has no ongoing cost implications;

- Designing a building to take advantage of local conditions produces locally distinctive buildings. In previous centuries, traditional buildings were often designed with similar principles in mind.

### Site layout principles

Careful orientation is vital for passive solar energy gains. Ideally, the elevation of each building with the largest proportion of glazing should be orientated within  $30^\circ$  of south (solar orientation) with a smaller proportion of glazing on the north elevation.

Inevitably, road layout will largely dictate the arrangement of buildings on a new development, with east-west roads enabling the optimal orientation of buildings for passive solar gain. However, it is not essential for buildings to be orientated due south as variations of up to  $30^\circ$  either way can be used.

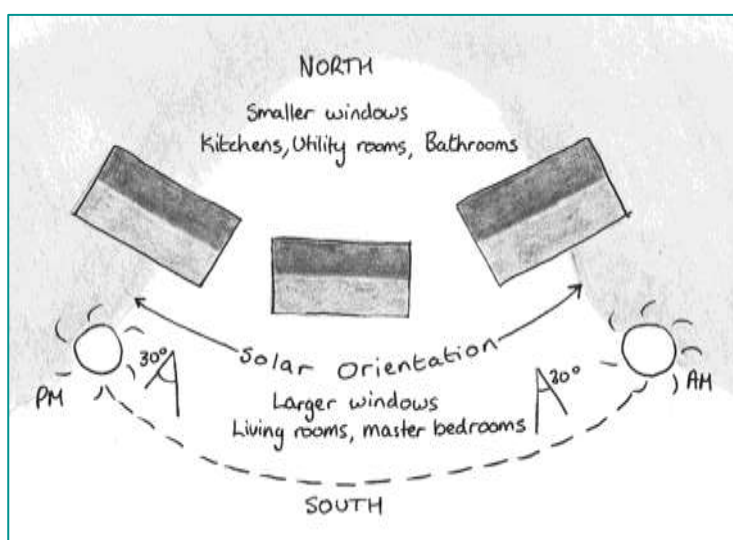


Fig. D6 - Orientation of buildings to maximise passive solar gain.

Over shading by other buildings should be minimised. On a flat site this could be achieved by locating taller buildings to the north of a site, or to the south of road junctions, open spaces or car parks.

Putting higher density and taller buildings to the north can also help to shelter the site from the coldest north winds in winter. Layout should also be informed by the existing contours and landform of the site to make the most of opportunities for shelter and sunlight.

Deep-plan buildings, e.g. offices, tend to be highly energy dependent, with the middle of the building needing electric lighting and ventilation throughout the day. Large buildings should be designed to give all occupants access to natural light and ventilation, either by a more complex form, or with courtyards, light-wells or atria which introduce light and air deep into the building.



Fig. D7 – Over shading by other buildings should be minimised.

## Landscape

Trees should be kept an appropriate distance from buildings to allow light to buildings. In cases where trees might grow to overshadow gardens they should be deciduous so that they allow sunlight to pass through the bare branches in winter yet provide shading in summer. Existing and new planting can be used to provide shelter, and to provide shading in summer for amenity areas and car parking.

Shelterbelts, made up of mixed species, can be located to the north of development, or where they will give shelter from the prevailing wind. They should be distanced 3-4 times their mature height from south-facing elevations.

Green space also reduces storm water run-off and helps lower the risk of urban flooding. [Part N: Biodiversity and Green Infrastructure](#) provides further information.

## Cooling and prevention excessive solar gain

With predicted increases in summer temperatures, building design will need to ensure there is adequate cooling to prevent uncomfortable internal temperatures. The following are therefore very important measures to provide:

### Natural ventilation

At its simplest this takes the form of windows which can be opened by adjustable amounts. Positioning opening windows or air vents on opposite walls draws fresh air through the building.

### Night cooling

Providing ventilation that is secure enough to be left open at night is a very effective way to bring down the temperature of a building. This could take the form of windows with a secure open position, or air vents in the wall. Night cooling works best if the building has a high thermal mass which can cool overnight and then restart the process of absorbing heat over the next day.

The use of green walls and roofs are also effective in keeping the buildings cool at night, by providing shading and removing heat from the air through a process of evapotranspiration. See [Part N: Landscape design, Biodiversity and Green Infrastructure](#) for further information.

## Adequate external shading on the south-facing windows

External shading from adjustable awnings and shutters, or permanent sun louvres, can block out sun when it is high in the sky in summer, but still allow sun in when it is lower in the sky in winter or early and late in the day. South facing windows actually make this form of shading more effective. Internal shading, e.g. blinds, is less effective for reducing excessive heat gains.

## Green space and shading

In urban areas, green spaces provide some respite in extreme heat and improve air quality. Planting can provide shade for amenity areas and car parking in summer. Further guidance on designing green spaces and green roofs are available in [Part M: Landscape Design and Trees](#) and [Part E: Architectural Style, Construction and Materials](#). Open spaces requirements are set out in [Part L: Open Space](#).

Passive solar energy houses need not be significantly different in construction or appearance to conventional housing. If it is possible to achieve good solar orientation (see layout guidance above), the following measures should be included.

## Glazing

A rule of thumb is to have a conventional amount of glazing but to locate 70% of the glazing on the south elevation.

If windows are too large, heat loss may outweigh solar gain, and occupants' desire for privacy is likely to lead to installation of net curtains or blinds which block out the solar gains.

There should be less glazing on the northern elevation, although a window area of at least 15% of the floor area of each room is recommended.

## Internal layout:

Locate well-used rooms requiring warmth and light on the southern side. In a house this will probably be the main living rooms and largest bedrooms.

Locate less well-used rooms, uses requiring heat generating appliances, and rooms that should be cool, on the north side of the building. In a dwelling this could be the kitchen, bathroom, utility room and garage. In a commercial development this could be storage areas, or the location of working machinery which will generate heat as a by-product.

## Thermal mass:

Solid heavy walls and floors absorb heat slowly in warm conditions, and give it out slowly again when it is cooler. Traditional stone walls or stone flagged floors provide a valuable thermal mass.

## Insulation:

Well insulated walls and roofs make the most of the heat gained through passive solar design.

## D3. Private Outdoor Space

### Public/Private Distinction

Private space for houses should be located to the rear, wherever possible, and ideally backing on to similar private garden space with no public access. This arrangement provides property security and allows for relatively tranquil and sheltered spaces. See Fig D8 below

The street elevation should have windows to habitable rooms and doors, allowing for natural surveillance of the street and the 'defensible space' between the dwelling and street.

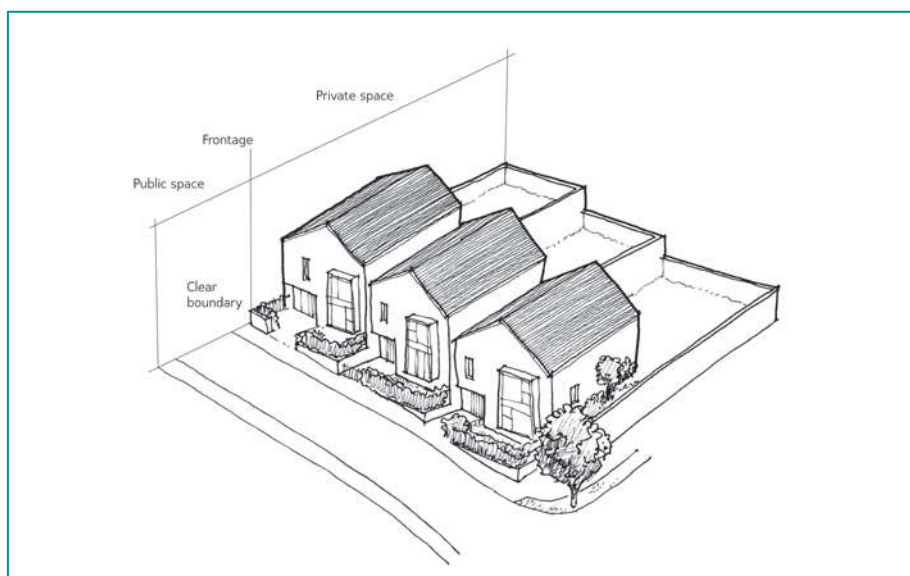


Fig. D8 – An example of well-designed public/private distinction.

Apartment blocks and non-residential buildings also need to clearly identify their fronts and backs. These buildings need to concentrate the main entrance or entrances on the street frontage and sides. The more private communal open space should be away from street views. Service areas should be hidden from the street or its visual impact (of car and cycle parking or a delivery zone, bin storage) be mitigated by good design.

### Communal Open Space

For flats, the provision of individual private gardens may not be possible, so private communal open space will be required to provide an appropriate area of shared semi-private space. This can also provide an attractive setting for the building within the local context. The following guidelines apply to the provision of communal open space:

- The amount of private communal space provided for flats should be determined by the local context; however, as a guideline, the provision of 25 square metres of useable space per unit of accommodation would normally provide a functional area of communal open space;
- Communal open space should be allocated in proportion to the number of units in the building and to make this space comfortable and not over-dominated by the mass of a building it should be located and configured appropriately;
- Generally, private communal space for flats should be provided with some form

of enclosure and privacy, while including a degree of overlooking by residents. In some instances, a robust boundary treatment may be needed, such as cases where traffic or other noise needs to be reduced;

- The private communal space provided should be suitable for normal domestic activities, such as relaxation, drying washing, BBQs etc and not merely act as a grassed setting for the building;
- Developers of ground floor flats are encouraged to provide private outdoor sitting space directly linked wherever possible. Where direct access to private communal space is provided for ground floor flats, some defensible space should be provided which may include planting, to safeguard the privacy of residents from other users of communal space;
- Appropriate planting for the space should be provided and the arrangements for the management and maintenance of the space should be fully set out;
- Useable amenity space excludes narrow strips of land and excessively shady and noisy areas.

In cases where accommodation for the elderly (including sheltered accommodation) is proposed, the use and purpose of private communal space may need to differ from that of ordinary flatted development. Occupants are likely to be less mobile and have a range of disabilities. In these cases, careful consideration should be given to means of access, levels, hardstanding, the type of planting (such as sensory), shelter and seating areas.

As general guidance, the provision of 20 square metres of private communal space per bedroom for elderly communal accommodation and 25 square metres per unit in other flatted accommodation would provide functional areas of private communal space.

### **Private Outdoor Space**

An important component of good quality residential design is the provision of useable outside private space where residents can take advantage of fresh air and direct access to the natural environment. This is different from semi-private communal space (which is shared by residents).

Whilst acknowledging that external private space can be provided by a variety of means such as back or side gardens, roof terraces and balconies, the amenity value of such spaces is dependent upon a number of factors such as privacy, configurations, size of area, orientation, levels, accessibility, amount of daylight and degree of overshadowing.

Private outdoor space should be easily accessible for all physical abilities, but accessible only to those residents for which it is designed to be used.

The size of the private outdoor space may need to be increased:

- To reflect the local character;
- Where excessive shading renders significant areas of the garden unusable due to neighbouring buildings or other structures, trees, orientation;
- Where significant mature trees are to be retained within the garden space;
- To ensure areas of privacy;
- Where gardens are unusable due to their size, levels or configuration;
- Where parts of gardens are unusable due to excessive traffic or other noise (noise attenuation in the form of acoustic fencing may also be necessary).

The Council welcomes innovative proposals for the provision of private and communal outdoor space such as roof gardens, balconies, gardens integrated within the fabric of individual houses or flats and high quality landscaped grounds, so long as they do not unacceptably harm the amenity of neighbouring occupiers or the character of the area.

### Residential Front Gardens

Front gardens are an important contributor to the landscape design of the street and green infrastructure, as well as providing opportunities for social interaction and providing 'defensible space' between the dwelling and street thus aiding security.

In some situations, it may be appropriate for front gardens not to be provided, such as where there is a local tradition of houses fronting directly onto the pavement or in a 'homezone' or mews street. In such circumstances where there is a lack of 'defensible space' the design of streets and dwellings should achieve security by other means. For example, the street layout should be designed to enable good natural surveillance to provide residents with an increased sense of security.

### Residential Rear (or Side) Gardens

Proposals should give careful consideration to the size of the proposed rear or side gardens taking into account local context. As a general guideline, a rear garden length of 10.5 m and width of 5m would provide a reasonably functional area of private outdoor space. However, for other site specific and design reasons (e.g. privacy requirements or overshadowing) gardens may need to be larger.

Table 1 below provides the minimum sizes of private gardens serving different sizes of dwellings. It should be considered as a starting point for discussion with planning officers when designing private gardens for residential development.

Table D1: Indicative minimum garden areas by house type.	
House Type	Indicative garden area
Two bedroom houses	40 sqm
Three bedroom houses	50 sqm
Four bedroom houses	62 sqm

### Balconies

The installation of balconies on buildings can offer a positive contribution, by providing outdoor sitting areas, where outward views will not unacceptably affect the neighbouring amenities or character of the area.

To ensure that balconies are properly integrated into buildings and their surroundings, they should be considered early in the design process.

### Roof Terraces /Green Roofs

In the interests of making best use of urban land, roof terraces can increase opportunities for private residential, and 'private' communal open space subject to there being no overriding design or privacy concerns affecting the amenity of neighbouring residents and character of the area. Further information about green roofs is available in [Part E: Architectural Style, Construction and Materials](#).



## D4. Boundary Treatment

Policy CS.9 (Key Design Principles) states:

- **Attractive and Sensitive:** Proposals will be of a high quality design and will reflect the context of the locality
- General Principles
- Front boundaries
- Rear and Side boundaries
- Existing boundary treatment.

The nature or type of front boundary treatment is a significant influence in the creation of a certain character for a street and development.

It is a fundamental urban design principle to clearly demarcate public and private space and therefore appropriate boundary treatments are required. Planning applications should be accompanied by details of treatments for all boundaries - front, side and rear. Boundary treatment should be appropriate to position of the boundary in the plot, the street, the settlement and the character area. The choice of proposed feature (in terms of position, shape, size, details of construction and materials) should be based on the range found in similar positions within the settlement where development is to occur.

There are five basic forms of boundary treatment commonly found in the District:

- stone walls;
- brick walls;
- timber fences;
- metal railings;
- hedges.

### Front boundaries

Boundaries (particularly front) should be clearly defined, using appropriate boundary markers, such as low walls, fences and hedges. In some cases, it may be appropriate to mark the boundary between public and private space through a change in hard surfacing or through ground cover shrub planting. This may be particularly appropriate in courtyards and mews where the objective is to create a more intimate enclosed space. An appropriate use of materials or planting can ensure that pedestrians and motor vehicles are kept away from ground floor windows, thereby protecting residents' privacy. Boundary treatments should respect the required vehicular and pedestrian visibility splays. As a general rule, low walls and/or metal railings (less than 1.2m in height) are more appropriate as front boundary treatments in more urban areas along streets higher in the street hierarchy, while soft planting, hedging and timber fencing is more appropriate in rural villages, lower density areas and along secondary and tertiary routes in the street hierarchy which have a softer and greener character.

### Side and rear boundaries

The length of side boundaries onto the public realm should be kept to a minimum and rear boundaries onto public realm and the street should be avoided. Where this does occur boundary treatment should be of brick, hedging or other appropriate materials,

such as ivy screens which can soften the wall and add to the character of the street. Standard close boarded timber fencing will not be acceptable as it undermines the quality of the public realm. Rear boundary treatment in particular, should ensure that they provide a good level of security and safety for future occupiers.

In rural areas and infill developments in particular, good boundary design can help to integrate new development with an existing environment. Green boundaries which form the interface between open countryside and a built-up area, particularly as seen from major roads or entry routes to settlements are especially significant.

In all locations where rear or side boundaries are visible from the public realm, brick walls rather than close boarded fencing (which is visually unattractive) should be used. Where a boundary interfaces with the open countryside, the most likely acceptable treatment will be indigenous hedging or in some circumstances post and rail, metal estate railing, pale and picket fencing. In edge of settlement situations, adjacent to the countryside, sufficient space to enable structural buffer planting will be required on boundaries as appropriate. Further guidance on New Structural Planting available in Part M: Landscape and Trees. Close boarded fencing adjacent to the countryside is not acceptable. In certain urban, difficult, or 'hostile' planting situations, an instant hedge could be considered as a boundary, in order to soften an otherwise hard dominated, unattractive constrained area. An example of an instant hedge using ivy is shown below. For further information on hedges and on landscape design, please see [Part M: Landscape Design and Trees](#).



Fig. D9 - An ivy wall – (Picture courtesy of Best4hedging).

### **Existing boundary treatment**

Existing hedgerow or tree boundaries are particularly important and the presumption shall be that they are retained, protected during construction works (including root protection zones), reinforced by new planting and managed via a management and maintenance plan.

Boundary treatments vary across Stratford-on-Avon District. The photos below show some examples of frontage and boundary features from various settlements. It should be noted that where the property is a listed building pre- application advice on the appropriate boundary treatment should be sought.



Fig.D10 - An example of a dwarf wall with railings.



Fig. D11 - An example of a half round copings wall.



Fig. D12 - An example of estate railings.

# Part E: Architectural Style, Construction and Materials

## Contents

- E1. Introduction
- E2. General Principles
- E3. Timber Frame Construction
- E4. Brick Construction
- E5. Stone Construction
- E6. All Forms of Construction – Windows & Doors
- E7. All Forms of Construction – Roofing
- E8. All Forms of Construction – Porches & Canopies
- E9. Green Walls and Roofs

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.8 Historic Environment
- CS.9 Design and Distinctiveness
- CS.15 Distribution of Development
- CS.20 Existing Housing Stock and Buildings

This Section of the SPD provides advice on how applicants can ensure that proposals achieve high quality design in new development.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's planning policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).

## E1. Introduction

Good design is indivisible from good planning and the principles in this section will relate to applications for the smallest house extension right through to mixed-use schemes for hundreds of homes. The design principles set out in this guidance help ensure the appropriate use of materials and methods of construction, reflecting and enhancing local distinctiveness. It should be read in conjunction with other parts of the SPD, in particular:

[Part A: How to Achieve Good Design](#)

[Part D: Design Principles](#)

[Part K: Shopfronts](#)

[Part L: Agricultural Buildings and Trees](#)

This part of the Development Requirements SPD sets out a number of design principles that should be followed when designing new development. Cross reference is made from each design principle to the 9 key design criteria set out in Core Strategy Policy CS.9 demonstrating how the design principle contributes to the achievement of good design.

## E2. General Principles

There is a diversity of architectural styles, designs and materials across the district. These reflect both changes in designs over time and changes and advances in the use of materials. That process of change is continuous and proposals will not be rejected if they reflect such advances. Whilst continuing to display the simplicity of detail which characterises most of the District's properties.

There are four broad principles that should apply to details and materials in Stratford-on-Avon:

1. Details should be simple;
2. Within appropriate limits, there should be a variety of details from house to house;
3. The range of details should be based on what is appropriate to the settlement and the position in the settlement, and should be fully justified;
4. The limits should be based on what is appropriate.

Within the District there are three predominant types of traditional construction:

- timber frame;
- brick;
- stone.

There are four predominant types of traditional roof material found within the District:

- plain tile;
- Welsh slate;
- straw thatch;
- stone tile.

The typical associations of roof materials with the three main construction types are:

- with timber frame: thatch and clay tile roofs;
- with brick: clay tile and slate roofs;
- with stone: thatch, stone tile, clay tile and slate roofs.



Fig. E1 - Photo of close studded timber framed house with rendered infill panels in Long Itchington, Feldon area.



Fig. E2 - Photo of a brick house with rubbed brick flat arch window heads in Stratford on Avon.





Fig. E3 - A house built in Cotswold Limestone, Compton Scorpion.

The character map of the District identifies the areas in which each construction type is commonly found. Distinct sets of details have developed for each material and, in the case of stone, for the main types of stone found in the District. Further information on the district's character areas may be found in [Part A: Achieving Good Design](#).

- Blue Lias;
- White Lias;
- Cotswold;
- Hornton Marlstone (aka Ironstone).

Some of the variations in details are illustrated in the examples below:



Fig. E4 – An example of Blue Lias (left).



Fig. E5 - Hornton Stone wall (stone).

## Cotswold stone

Cotswold stone varies in colour depending on the location. It is recommended that expert advice is sought when selecting the appropriate stone for future development proposals.



Fig. E6 - Brick (with Flemish Bond pattern using buff brick for the 'header' and orange for the 'stretcher')



Fig. E7 - Photo of slate tile (left)



Fig. E8 - Photo of plain clay tiles (right)

## **Other materials**

Modern timber or steel construction is encouraged, with a cladding appropriate to the settlement.

## **Render**

Caution should be exercised in the use of render. The acceptability of render is dependent on the character of the specific village and location within it. The type of render, roughcast or smooth and its colour need careful consideration to fit with the context of the building. Partial render of single dwellings will not normally be appropriate but the mass of larger buildings can often be successfully broken up by a series of rhythmic changes of the materials. It may be appropriate to use fully rendered buildings as a design statement on key corner plots or to frame terminal vistas.

## **Mixing materials**

Extreme caution should be exercised in combining different external materials in the same building. In general, there should be one principal external material for the walls with complimentary secondary materials for design features. The mass of larger buildings can often be successfully broken up by a series of rhythmic changes of the materials.

## **Vents and service boxes**

All vents and service boxes to be included in a proposed building should be indicated on the submitted drawings. All such items should be as inconspicuous as possible.

## **E3. Timber Frame Construction**

Traditional structural timber framing is encouraged in the appropriate locations within the appropriate settlements. Modern structural timber framing is also encouraged, using cladding appropriate to the location. Mock timber framing will not normally be acceptable.

## **E4. Brick Construction**

The characteristic brick colour in the District varies from an almost pink buff to a fairly strong terra cotta orange. Claret and other darker reds, browns, ochre or beige buffs, greys and blues are unlikely to be acceptable unless for good design reasons.

Use of contrasting detail brick is not common in the District and should be done with restraint. Detailing is most often done with the same brick as the main wall, as is the case in the examples shown here. If contrasting bricks are used, the difference in colour and tone should be minimal. An example found relatively frequently in the District is Flemish bond walls with buff headers. Another example is the use of finer quality bricks for gauged brick arches. Specials of blue brick are sometimes used for window cills. Plinths on brick walls are almost never found in the District and should not be used.



Fig. E9- Gauged brick flat arches on a house in Henley-in-Arden, Arden area. The openings are vertically aligned and the second floor windows are smaller than the first floor windows.



Fig. E10 - Window with a segmental arch head. Note the arch is made up of headers on edge, a detail very characteristic of brick areas within the District.



Fig. E11 - Cottages with windows set just below the top plate in Old Town, Stratford-upon-Avon. The casement windows shown are flush closing as opposed to 'storm proof'.



Fig. E12 – An example of windows with render used to create the effect of stone lintels. The windows have stone cills and sliding sash frames.

### **Window and door openings in brick constructions**

In most cases openings should be vertically aligned, with openings over openings. Vertical alignment is particularly important on small facades. On smaller houses and cottages, first floor windows are often set just below the eaves line with only the top plate or several courses of bricks over the opening. Most window openings are vertically oriented but there is considerable variation including square and some horizontally

oriented. The most common horizontally oriented opening is a three-light casement with vertical lights divided by mullions. The proportions of the lights are often about 3:2, height-to-width.

As a general rule, window and door openings must have visible means of support for the material above. The most common traditional solutions found in the District are segmental arches, flat arches or stone lintels. In some cases, flat arches or lintels are rendered or stuccoed to look like stone.

## E5. Stone Construction

### Walls

There are four main building stones found in Stratford-on-Avon District: Cotswold Limestone, Hornton Marlstone, Blue Lias and White Lias. The terms used to describe the source beds of these building stones are Oolitic Limestone ('Cotswold'), Marlstone Rock Bed ('Hornton' or 'Ironstone') and Langport Member Limestone ('White Lias'). The bed for Blue Lias is called simply Blue Lias. All these stones are members of the same family (Jurassic and Triassic Limestones) but due to their specific characteristics, they tend to be cut and laid in somewhat different ways.

In general, the most common method of building with all four stones is coursed, squared rubble, usually with quoins. In virtually all cases there is variation in the course depth, the quoins are larger than the rubble making up the wall and the coursing runs through to the joints between quoins.



Fig E12 – A Cotswold stone house.

The principal difference between methods of laying is generally due to the size of individual stones. The size depends on nature of the stone. Blue Lias is one of the most variable, both in colour and size of rubble. This leads in some cases to a distinctive pattern of wall, with alternating courses of larger, blue and smaller yellow-grey stones, often without quoins.

Cotswold and Hornton Stones are also quite variable in colour. Some Cotswold stones have high iron content and can, in colour, look similar to 'Hornton Ironstone'. There is, however, a distinct difference in the structure of the stone and therefore in the way it weathers. Cotswold Limestone is Oolitic and considerably harder. Marlstone is a Liassic stone and quite soft. Care must be taken, therefore, in the selection of stone. Most villages are predominantly one stone or the other but attention should be paid to differences within villages. While there may be one predominant wall material, in some cases there are distinct areas within villages with different predominant materials.

Established patterns of mixing types of stone in one building may be followed. In some areas, for example, Blue Lias is used for the body of the wall and Hornton Stone for dressings.

### Window and door openings in stone construction

Because stone and brick are similar building materials - small squared units bound together with mortar - similar details are used with both. Thus, as with brick, in most cases of stone construction, openings should be vertically aligned with void over void. Vertical alignment is particularly important on small facades. On smaller houses and cottages, first floor windows are often set just below the eaves line with only the top plate or several courses of stone over the opening. Most window openings are vertically oriented but there is considerable variation including square and some horizontally oriented. In horizontally oriented openings, individual lights are vertically oriented and divided by mullions. The proportions of the lights are often about 3:2, height-to-width. Probably the most common horizontally oriented opening is a three-light casement.



Fig. E13 - A Hornton stone farmhouse with a three light window, stone mullioned window. The window has flush head, jambs and cill with a label or hood mould above the head.

As a general rule, window and door openings must have visible means of support for the material above. The most common traditional solutions found in the District are segmental arches, flat arches or lintels in squared rubble or dressed stone as well as oak lintels.

## E6. All Forms of Construction – Windows & Doors

### Cills

A range of cills are found in the District and preferred forms include stone, stone tile and plain clay tile. In the case of brick, special bricks such as single cant on edge or plinth stretchers are preferable. Wood may also be used but only of sufficient size and combining a stub cill and sub-cill. Projecting integral cills are unlikely to be acceptable.

### Window frames and door leafs

The window frame should normally be set back from the face of the building to give a shadow line. The presence and design of glazing bars or lead comes should be suited to the opening size, the position of the window in the building and the overall form of the house. If casements are proposed, they should normally be traditional or modern flush closing as opposed to 'storm proof' designs which have projecting external flanges.

The type of door proposed should suit the building type and the position of the door within the building. Simple vertical plank doors are generally suited to smaller 'cottage' type buildings and moulded panel doors to larger houses. Glazing on doors should follow the same pattern as the windows.

## E7. All Forms of Construction – Roofing

### Verges, eaves and ridges

The most common verge detail is trim with a tile or slate under cloak. Barge boards, clipped and boxed eaves should be avoided as should decorative ridge tiles. Stone-coped gable parapets are normally only used in stone construction.

Where details such as exposed rafter feet are proposed, they should be a genuine expression of the construction of the building and not a cosmetic decoration. See Fig. E18 for further information.



Fig. E14 - Examples of 'wet verge' using mortar to secure the roof tiles.





Fig. E15 - A stone-coped gable parapet of Hornton stone with a corbelled verge/eaves junction known as a kneeler.



Fig. E16 - Dentilated brick eaves made up of a projecting stretcher course, alternating projecting headers and a further projecting stretcher course.



Fig. E17 – A trim verge of brick with stepped projecting header corbelling and a half-round ridge tile.



Fig. E18 – Plain eaves with exposed rafter feet on a brick building.

## Chimneys

Chimneys are most commonly located at the main ridge. Very frequently they are found on the gable ends in which case they are most often flush, with an internal breast. Most are rectangular in plan, oriented at right angles to the ridge. Virtually all chimneys have a cap, corbelled weathering and chimney pots.



Fig. E19 - Examples of chimney in traditional and new dwellings.

## Dormers

Caution should be exercised in the use of dormers. In many villages they are not common features. In cases where they are appropriate, the number should be limited to avoid clutter. The position of the dormer within the roof should be either just above the eaves (between the top plate and lower purlin), mid-way up the roof (between purlins or above a single purlin) or, exceptionally, with the cill of the dormer below the eaves level. In the latter case, care must be taken with the position of rainwater pipes. In all cases the dormer ridge should be well below the main roof ridge.



Fig. E20 – good and poor examples of dormer windows.

The dormer should be smaller in height and width than the window openings below and, as far as possible, should be vertically aligned with them. Cheek walls should be as narrow as possible and faced in either lead or render as should the gable. The eaves of the dormer roof should be below or at the same level as the window head, not above. Simple gabled dormers are the most common. Hipped dormers are acceptable in some settlements. Flat roofed dormers with cornice moulding may be acceptable on buildings in a Classical idiom.

Large dormer windows, particularly large flat roof dormers, may possibly be acceptable where out of public views on rear roof slopes, outside of conservation areas.

### Rooflights

Like dormers, rooflights should be smaller in height and width than the window openings below and, as far as possible should be vertically aligned with them. Ideally they should be set flush with the roof surface.

### Other roof extensions

Other roof extensions should normally fit in with existing roof lines. Depending on the architectural style of the original building, a pitched, hipped or gabled roof will almost always be more appropriate than a flat roof. A bat survey will usually be required if the proposal involves substantial work to roof spaces. Where a roof ridge needs to be raised in order to allow increased headroom in the roof space, careful consideration should be given to its impact on the street scene and neighbours. Where a roof is raised, its pitch should reflect the original, or the roofs of nearby buildings, as appropriate.

## E8. All Forms of Construction - Porches & Canopies

Canopies and porches are not characteristic of many of the building types in the District though in many cases they have been added. Care should therefore be taken in applying them to new designs. One of the most common types of canopy is a simple double pitch or lean-to roof on brackets. Less commonly the canopy is supported on posts. Another common type is a flat, moulded projection on brackets. Cheek walls and fully enclosed porches are rarely found and should be avoided as should hipped roofs. Porch roofs should not normally be linked to bay windows or projecting garage roofs as this is not a traditional design feature in most areas of the District. Porch roofs should, where tiled, have small sized tiles. GRP tile effect on porch roofs and windows are not acceptable.



Fig. E21 - A flat canopy on brackets.



Fig. E22- Lean to canopies with brackets, Welford-on-Avon, Avon Valley. The roof material is inappropriate in this case as smaller roof tiles are needed.



Fig. E23 - Double pitched canopy, Cotswold area.



Fig. E 24 - Double pitched canopy.

## E9. Green Roofs and Walls

Green walls and roofs are simply walls and roofs that have been planted either completely or partially by vegetation. They can be incorporated onto new and existing buildings. They provide a wide range of significant benefits, including:

- **Biodiversity** – green roofs and walls provide valuable wildlife habitats and can significantly enhance biodiversity, supporting a variety of plants as well as providing nesting and foraging habitats for invertebrates. They can play a useful role in connecting existing habitats and supporting rare and protected species;
- **Aesthetic and amenity value** – through incorporation of colourful foliage, flowering plants or accessible amenity areas. However, provision of amenity space (e.g. for food production and relaxation) on green roofs must be balanced against provision of space for wildlife;
- **Sustainable drainage** – green roofs can form a key part of SUDs. They reduce the quantity of runoff by holding water and encouraging its release through evaporation. They also improve the quality of run-off by filtering contaminants;
- **Thermal efficiency/insulation** – green roofs and, to a lesser extent green walls, can help to insulate buildings, reducing energy demand and associated carbon emissions;
- **Reducing the 'urban heat island' effect** – providing green roof and wall cover can help to lower surface temperatures and cool dense urban areas;
- **Managing air quality** – vegetation on roofs and walls can help to improve air quality through absorption of carbon dioxide, some air pollutants and dust;
- **Reduce noise levels** – green walls and roofs can help to dampen noise levels;
- **Cost savings** – green roofs and walls can increase the life expectancy of a roof or wall by protecting the building fabric from temperature variations, UV radiation and other climatic factors. The other benefits described here can also provide further cost savings;
- **Enhanced sales or rental value** - green roofs and walls may enhance the sale or rental value of a development by increasing the aesthetic appeal of a property, reducing energy costs and demonstrating sustainable design and social responsibility.

Green roofs can be fitted to any flat or gently sloping roofs. Green roofs types vary from extensive to intensive types, depending on the depth of substrate (growing medium) and the type of plants that are supported.

The main types of green roofs are:

**Intensive roofs** – these roofs are designed to allow access for people. They are likely to have deep substrates that can support trees and shrubs, as well as providing accessible areas. These roofs require higher levels of maintenance.

**Extensive roofs** – incorporate lightweight substrates which support a range of species. They range from shallow sedum mats, which do not offer significant biodiversity or water holding benefits, to deeper substrates which can support valuable biodiversity.

The Council's preferred specification is biodiversity based extensive substrate green roof with a substrate of depth of 80-150mm. These roofs support a greater range of plant species and in turn wildlife species and have greater water holding benefits (green roofs can attenuate up to 60% of runoff).

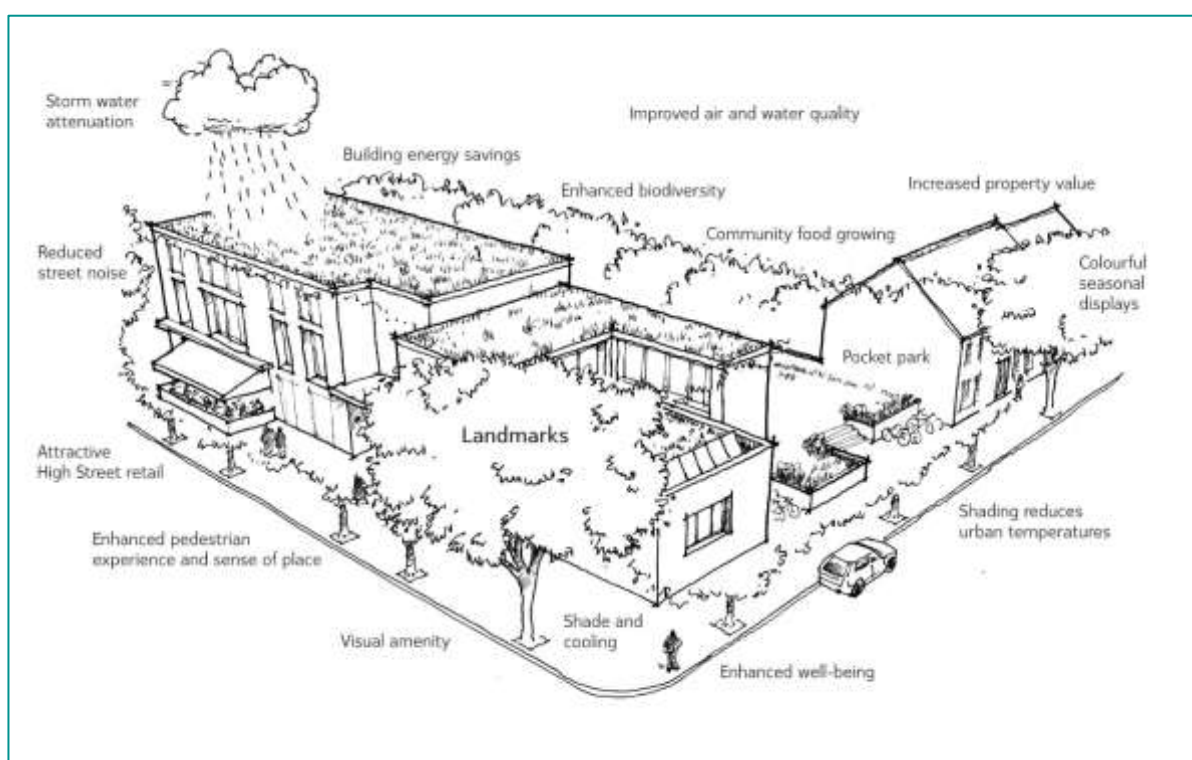


Fig. E25 - Shows the numerous benefits of green roofs.

### Design considerations

It is important that, where proposed, green roofs form an integral part of the design of new buildings and are designed in from an early stage because the increased loading associated with thicker substrates may have implications for structural design. Loadings will vary for different types of green roof, for example starting at 80-150kg/m<sup>2</sup> for extensive substrate based roofs.

Locational factors such as shading from surrounding trees should also be considered at the start of the design process to ensure the roof specification and planting schedule are appropriate to the context and any related management requirements are considered.

Whilst the Council encourages green roofs, it is acknowledged that they may not be appropriate in all circumstances, for example, in situations where roof space is fulfilling other functions such as amenity space.

## Green walls

Green walls generally involve the use of climbing plants to create a living cladding system.

The two principle types are:

Climbing wall plants – these can grow directly on a wall (especially those of brick and stone where the porous surface allows them to attach more easily) or be supported by trellises or steel cables against a wall. Commonly used species for wall-greening are ivy, Russian-vine and Virginia-creeper.

Container systems - plants are grown in large irrigated containers at height which allow them to grow/hang down.

While simple green walls using climbing plants have been widely used for centuries, more extensive green wall systems are developing all the time. Innovative systems now available include walls constructed from trays of plants that have been pre-grown off-site and slotted together on a steel frame, then connected up to an internal irrigation system.



**Fig. E26 - Living/Green Wall in Bell Court Stratford-upon-Avon.**

The most suitable approach to creating a green wall for any particular development or site is likely to depend on the prioritisation of functions it is intended to perform (e.g. biodiversity, amenity, sound insulation) and the possibilities that the specific space affords. For further details on the variety of green wall systems and design options available and what might be most suitable, see further information below.

# Part F: Residential Amenity

## Contents

- F1. Daylight and Sunlight
- F2. Separation Distances
- F3. Light to Internal Spaces
- F4. Protecting Loss of Privacy

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.9 Design and Distinctiveness
- CS.15 Distribution of Development
- CS.20 Existing Housing Stock and Buildings

It provides guidance and information on how applicants can maintain and achieve a good standard of residential amenity for both existing and future occupiers. It should be read in conjunction with other relevant parts of the SPD.

The SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#)



## **F1. Daylight and Sunlight**

The relative position, heights and separation of buildings should be adjusted to reduce overshadowing and loss of light to ensure that the windows of neighbouring properties enjoy reasonable day lighting.

Where loss of daylight to habitable room windows is likely to be an issue, the applicant should provide drawings to demonstrate how anticipated problems can be overcome.

Daylight in bedrooms may also be considered, but is generally less important, except where this is the main private accommodation, such as in residential homes.

Detailed proposals should also take account of local circumstances like level changes between properties and orientation.

The construction of a new building or extension which extensively blocks the sunlight to an existing properties windows or its garden should be avoided.

The Council uses a 45/25 degree test to ascertain whether, as a result of a proposed development, the amount of light reaching neighbouring windows is likely to be acceptable. This is covered in more detail below. Guidance and tables are also provided in the BRE report Site Layout Planning for Daylight and Sunlight – a Guide to Good Practice published in 2012. This guidance should be used if there is any doubt about the acceptability of proposals with regard to daylighting and sunlight.

## **F2. Separation Distances**

New development will usually have some effect on the amenity of neighbours. These effects include impacts from loss of light, overshadowing, loss of privacy and overbearing impacts. In relation to privacy, the design and layout of new development should ensure that reasonable privacy and light is provided for surrounding residents and occupiers, particularly in relation to residential use and enjoyment of dwellings and private gardens. Spacing between the windows of buildings/dwellings should achieve suitable distances for privacy and light, whilst also preventing cramped and congested layouts.

## **F3. Light to Internal Spaces**

Good quality natural light helps to make the interior of a dwelling or a work place a more pleasant and enjoyable place to spend time. It also reduces the need to use electric lighting.

The amount and quality of natural light depends on the:

- Size, type of glazing and position of windows;
- The shape and size of rooms;
- The colour of internal surfaces; and
- The structures that surround the building.

Roof mounted 'light tubes' can bring natural light into corridors, landings and other rooms.

The size of windows to provide good day lighting must be balanced with privacy requirements within the home and the privacy of neighbouring residents. It is important that the orientation, location and use of the room are all taken into account when considering the size and location of windows.

BREEAM assessments include credits for minimum standards for natural daylight levels for non- residential buildings.

### Find out more

BRE Report: Site Layout Planning for Daylight and Sunlight (2012)

[https://www.designingbuildings.co.uk/wiki/Site\\_layout\\_planning\\_for\\_daylight\\_and\\_sunlight](https://www.designingbuildings.co.uk/wiki/Site_layout_planning_for_daylight_and_sunlight)

In relation to loss of light to a neighbour's window a '45/25 degree' set of tests can be used. This is in order to assess whether the effect on neighbours' windows will be unacceptable.

New development should not normally cross the line of a 45 degree angle drawn (in the horizontal plane) from the mid-point of the nearest ground floor habitable room window in the adjoining property to the new development (see Figure 1). The mid-point of a window is usually measured both from a horizontal axis, taking the mid-point of the vertical axis as being 2m above ground floor level. For example, a window 3m wide would have its mid-point plotted at 2m on the vertical axis and 1.5m on the horizontal axis.

'Habitable room' is defined here as living rooms, dining rooms, kitchens, studies and bedrooms.

If after carrying out the 45 degree test, it is found that a development crosses the 45 degree line, it does not automatically mean that it is unacceptable. In these cases, a second test is used to check whether the development would be so close and high in relation to neighbours' windows that it would cause unacceptable loss of light. This time the line from the mid-point of the habitable room window is drawn in the vertical plane. If the top of the new development would cross the line of a 25 degree angle above horizontal, the development will normally cause excessive loss of light and be unacceptable subject to other criteria being taken into account as outlined below.

When applying the 45/25 degree guideline, the following factors should be taken into account:

- The availability of alternative sources of natural light to the affected room(s);
- The size and function of the room;
- other buildings or features in the area which may, for example, already cause loss of light and overshadowing;
- the orientation of the building; and
- the design and character of the property and nearby properties.

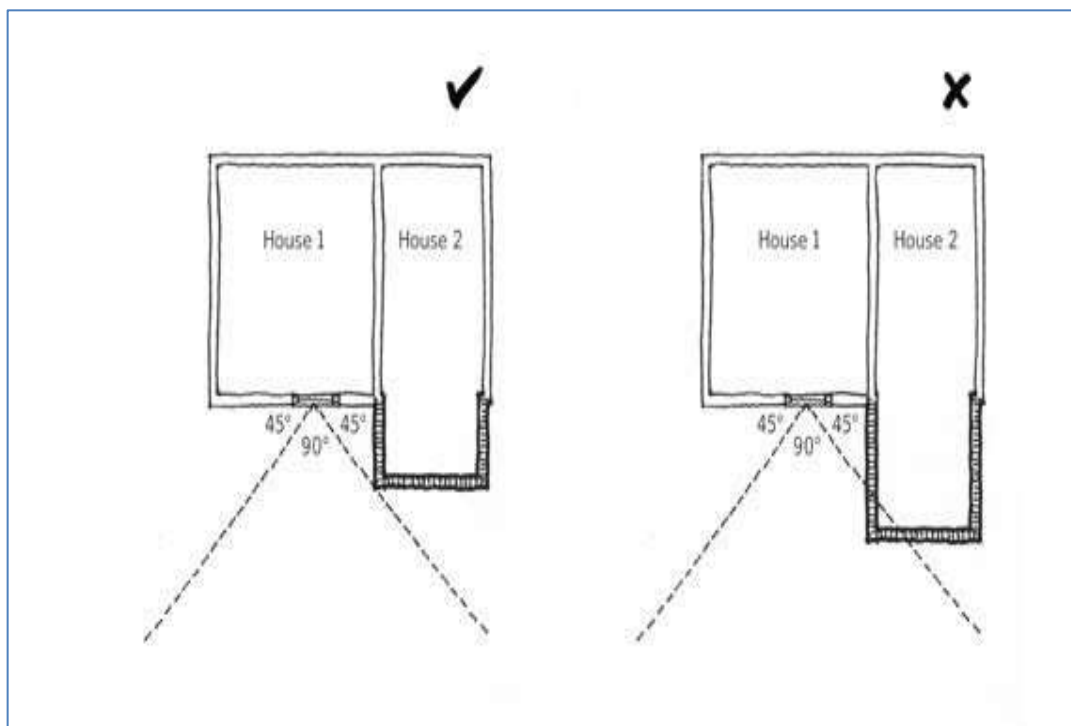


Fig. F1 Diagram to illustrate 45/25 Degree Code.

#### **F4. Preventing loss of privacy, overshadowing and overbearing impacts**

The 45/25 degree guideline ensures sufficient light reaches neighbours' windows, but care should also be taken to protect neighbours' garden areas from overlooking, overshadowing and overbearing impacts. This particularly relates to the area immediately outside the rear of the house, such as patios, which is often used as a sitting out area. Separation distance guidelines help to ensure that both windows and gardens are not unreasonably affected. The separation distances in the table further below will normally be required where the development is higher than single storey.

Where properties directly face one another, except where overlooking a street or public space, a distance of at least 21 m between facing habitable room windows (living rooms, dining rooms, kitchens, studies and bedrooms) is normally required. This distance should increase by an additional 7 m for every storey above 2 storeys.

A separation distance of 13 m for 1.5 or 2 storey walls and 16 m for 2.5 or 3 storey walls between windowed elevations and opposing gable end walls provides a reasonable outlook. Table 1 below will assist for distances between windows/buildings in other circumstances.

**Table F1: Separation Distances**

Relationship of new development to neighbouring property	Minimum separation* 1.5 or 2 storey building	Minimum separation* 2.5 or 3 storey building
Front to Front**	13 metres	16 metres
Back to Back / Back to Front	21 metres	27 metres
Front to Side / Back to Side	13 metres	16 metres
Side to Side	See 'Side Facing Windows'	See 'Side Facing Windows'
Windows looking towards neighbour's garden (near to their house)	10 metres unless obscure glazed	13 metres unless obscure glazed

**Notes:**

- \* Separation distances are between habitable room windows. Windows are 'facing' if they both fall within a pair of 45 degree cones drawn from the middle of the 2 windows.

NB: The 45° angle should have equal portions of 22.5° either side of the line that passes through the window at right angles.

Where there is a significant change in levels, the minimum separation distance increases by 2 metres for every 1 metre that the floor level of the development would be above the affected floor or ground level of the neighbouring property.

- \*\* House fronts normally face onto public routes so there is less need to protect privacy and therefore these distances are lower.

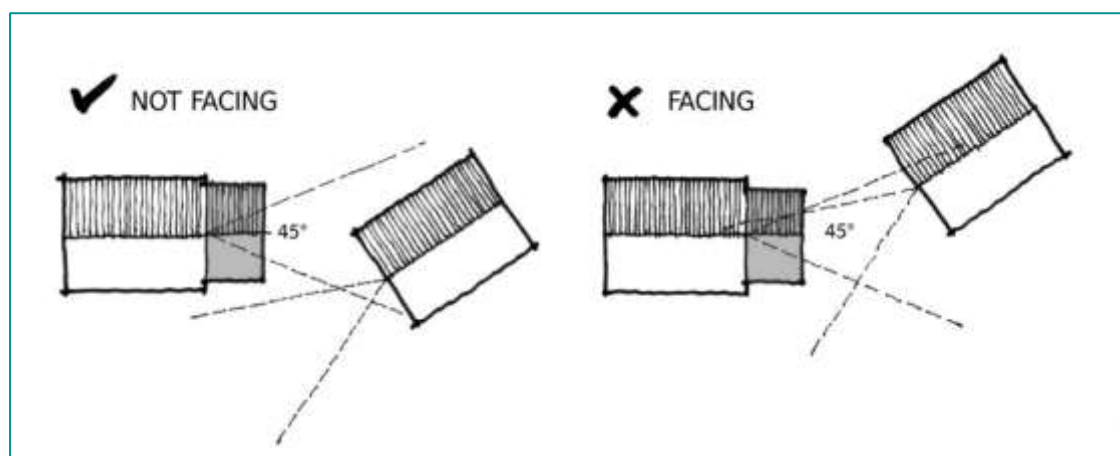


Fig. F2- diagram illustrates the 45 degree guideline for side facing windows.

**Neighbours' Side Facing Windows**

For both the 45/25 degree guideline and separation distances, neighbours' side facing windows on adjoining properties which get their light across another properties land will not normally be given the same degree of protection as front and rear facing windows. These cases will be judged on their individual circumstances.

### **Overlooking and Obscure Glazing**

Overlooking problems can often be addressed by obscure glazing the windows. Where this is necessary, the Council will require glazing that prevents detailed views through the window glass. The application of obscure film to clear glazing will not generally be considered acceptable.

# Part G: Agricultural and Rural Buildings

## Contents

- G1 Rural Character of Stratford-on-Avon
- G2 Design Considerations
- G3 Siting of New Buildings within Farm Complex
- G4 Materials
- G5 Design Detailing
- G6 Equestrian Activities
- G7 Conversion of Traditional Agricultural Buildings
- G8 Works to Traditional Agricultural Buildings
- G9 Dwellings of Exceptional Quality and Design in the Countryside

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies, in particular and as appropriate:

- CS.8 Historic Environment
- CS.9 Design and Distinctiveness
- AS.10 Countryside and Villages
- CS.20 Existing Housing Stock and Buildings

It provides information and advice on how applicants can ensure that issues relating to the construction of agricultural buildings, the conversion of traditional agricultural buildings and equestrian activities are achieved in new development. It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).

## G1. Rural Character of Stratford-on-Avon

Stratford-on-Avon District is a predominantly rural District. The rural areas to the north of Stratford-upon-Avon town are covered by the Green Belt, whilst to the south of the District lies the Cotswolds Area of Outstanding Natural Beauty. All development within our rural areas needs to be sensitively designed to harmonise with the rich rural heritage, so that our countryside is preserved and enhanced for future generations.

Our rural landscape had been shaped over the centuries by farming practices. These changes have occurred slowly over time and have become absorbed into the rural landscape. The attractive appearance of the countryside is affected by modern agriculture and forestry and the perceived need for modern utilitarian and functional buildings. These buildings tend to be of a standardised design and cumulatively the standardised design detracts for the local distinctiveness of the rural area.

This section provides design guidance to assist the construction of high quality agricultural buildings which will balance the need for functional and well-designed buildings that meet modern farming needs, whilst harmonising with the surrounding countryside and its wider landscape and adjacent settlements and enhance local distinctness.

## G2. Design considerations

When designing agricultural buildings, careful consideration should be given to its impact on the landscape, and following issues should be addressed:

- Position
- Viewpoints
- Skyline
- Profile
- Colour
- Scale
- Materials
- Grouping
- Historic and Traditional Buildings
- Planting

**Position** – the position of a new farm building tends to depend on its function and the space available. Consideration should be given to reducing the building's visual prominence, both within the farm complex and landscape; for example by locating the new building behind existing buildings, hedgerows and trees.

**View points** – Due to the scale and materials of modern farm buildings, they may appear as dominant features within the rural landscape. It is important to take account of the impact of the building when seen from important views, both into and out of the site and historic vistas.

**Skyline** – New buildings can respond to contours and the natural land form by fitting into the folds or valley bottoms and avoiding platforms or exposed ridges and skylines. Applications for locating new buildings in exposed open country sites will have to demonstrate why the siting is specifically required.

**Profile** – Where possible, buildings should have a low profile. The use of planting around the low buildings helps to integrate them into the landscape. Buildings can be settled into the landscape by using overhanging eaves and large roofs. This creates shadows and gives shape to a building. In circumstances where a tall building is unavoidable, such as a silo, then careful location can provide a humanising and traditional effect, perhaps inferring a settlement.

**Colour** – Wherever practical, agricultural buildings should be roofed with a dark non-reflective finish, using the landscape as a cue for colour and texture. Generally, where non-traditional materials are being used, the colours should be 'earth' colours, such as browns, greys or greens to reflect the local materials, eg. red bricks with a rustic finish. Care should be taken when using green, to ensure that it harmonises with the changing green of the landscape. Darker roofs blend into the landscape more easily than white or reflective materials.

Pale or white buildings should be avoided as they reflect the sunlight and are more conspicuous. If a building has to be light coloured to reduce internal temperatures, then careful siting and planting is essential.

**Scale** – Careful consideration of the scale of a proposed building should be made to ensure that it does not have an unacceptable intrusive impact on the landscape. The scale of a large single shed/building may be reduced by breaking it down into smaller units and step the profile of the building, if the ground level or unit type allows. Long slab effects should be avoided. The scale of a building will normally have to be justified.

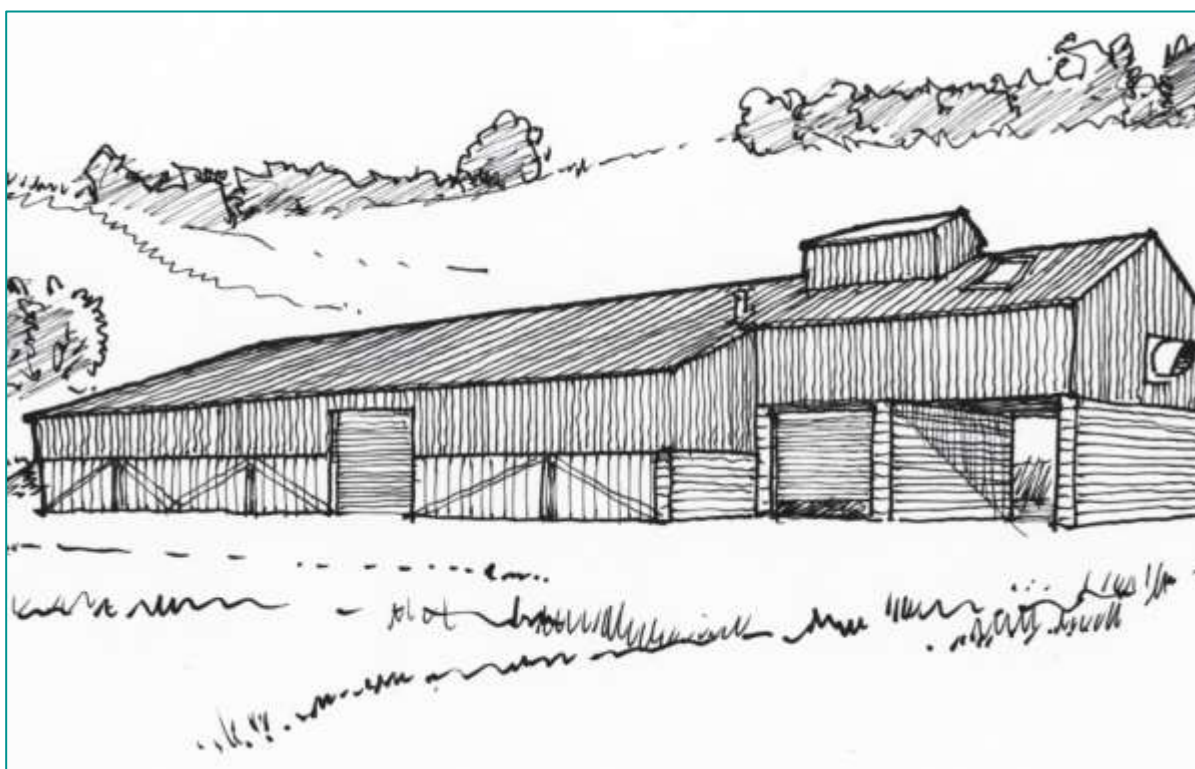


Fig. G1 - Illustration showing how a building is designed to fit into the landscape, situated in the slope of the surrounding countryside.



**Materials** – A mix of materials, such as a combination of brick work and coloured steel panelling can help to reduce the apparent scale in the landscape and has an attractive appearance. A mix of materials on the walls to break up large areas can be very effective, but care should be taken to ensure that it is well proportioned.

**Grouping** – New buildings should form part of a group rather than stand in isolation. Tightly grouped buildings look more settled in the landscape than scattered ones. Existing buildings can 'hide' new development or provide a basis for extension by indicating which materials to use. There is very often space in and around the existing out buildings to fit another unit without entering into a green field site.

**Historic and traditional buildings** – In circumstances where a new building is proposed on a site of existing group of traditional or historic buildings, it may be sometimes best to site the new modern building away from the group to avoid visual conflict.

**Planting** – The use of careful planting of local native species can help to soften the impact of new buildings, helping to integrate them into the wider landscape. Planting may also reflect existing pattern of woodlands, copses and hedgerows can create new landscape features and wildlife habitats.

Artificial, steep bunding of surplus soil is not supported as it creates uncharacteristic changes to the local landscape character, as well as being hostile to new tree planting establishment.

Sometimes the screening of new buildings may be appropriate by means of a broad hedgerow with trees or wider woodland belt, but in other cases planting as a foil or frame for buildings, producing a structural feature linking buildings to the open countryside, may be more appropriate. In some circumstances, the siting of a new building adjacent to existing woods or shelter belts may provide valuable screening and provide an advantageous microclimate for the rearing of livestock or storage of produce. Care should however be taken to not damage root protection areas and canopies.

### **G3. Siting of new buildings within the Farm Complex**

The following considerations should be taken into account when siting a new building within a farm complex:

- Slope
- Shelter
- Trees
- Access
- Drainage
- Security
- Amenity

**Slope** – Although a flat site may not require significant earthmoving, a sloping site, if not too exposed, may have several advantages:

- Reduce its impact on the landscape;
- Provide shelter and a warm aspect;
- May be less productive land;
- Soil from the excavation works may be used in earth moulding for landscape design;
- Result in 'stepped' buildings which allow for interesting roof patterns.

**Shelter** – A sloping site offers the opportunity to provide shelter and provides benefits for livestock and working conditions. Buildings should be set at right angles to the slope of the hill, thereby avoiding wind tunnels. Frost pockets should be avoided and protection afforded from snow and rain. Buildings require varying degrees of sun and shade. For example, low temperatures stores and livestock housing will be adversely affected by solar heat and both require shade.

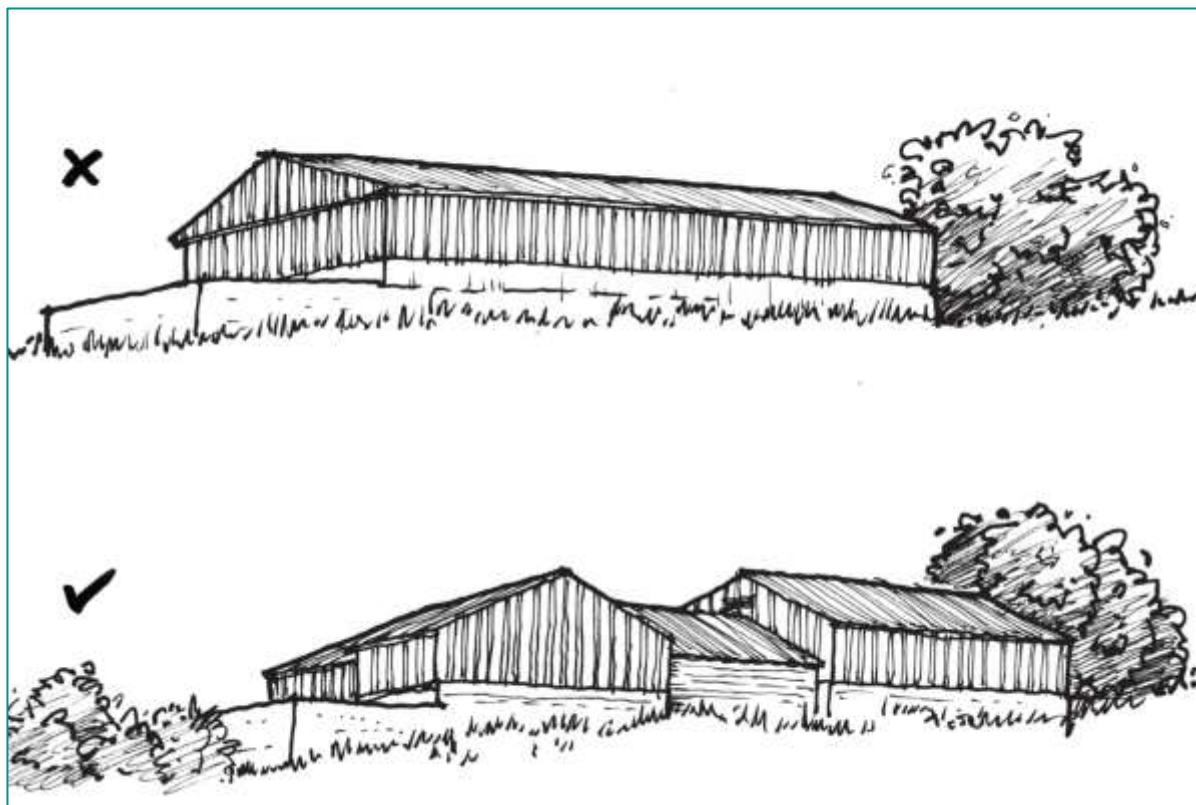


Fig. G2 - Good and poor examples buildings designed to reduce its impact on the landscape.

**Trees** – Trees can play a vital role in reducing the visual impact of the building. They can afford a pleasant ‘backdrop’, softening the effect of a large expanse of roof material. Trees provide a vertical emphasis that contrasts with the horizontal emphasis of modern farm buildings.

Whilst the species list in [Part N](#) of this document is a good starting point to find suitable species, the Council is accepting a wider range of species to ensure a greater resilience to increasing number of trees diseases and to adapt to a changing climate. Applicants are advised to choose planting that follows the golden rule of tree selection; ‘the right tree for the right site for the right reason’.

**Access** – Consideration should be given to ensure safe and appropriate means of access to the new buildings from:

- Stock routes;
- Crop collection and distribution;
- Suitable maneuvering space;
- Public highways in relation to milk tankers and grain vehicles.

**Drainage** – It is important to consider surface water drainage provision and minimise the rate of runoff to that of ‘green field’ rates. Flood plains and surface water flooding areas should be avoided. Foul drainage provision may also be a consideration where facilities are provided for workers.

**Security** – The design and layout of new farm buildings should give consideration to maximising security and reducing fire incidents. Isolated buildings should be avoided where possible, unless for special reasons such as isolating pedigree stock prone to disease. Preferably, there should one-gated approach overlooked by the farmhouse. Within the farm complex, sub grouping should be adhered by separated ‘clean’ and ‘dirty’ enterprises. For example, clean enterprises should be approached first from an approach road to a farm (eg. farm machinery, farm office, farmhouse).

**Amenity** – Detailed site and design planning should include consideration of the amenity of nearby dwellings to reduce visual impacts and the effects of noise and smell and associated environmental impacts from farms and livestock such as pests and vermin.

### **Relationship with other buildings on the site**

In designing the site of the new building, its relationship to the existing farm buildings is an important factor. The existing farm buildings should remain the dominant feature in the landscape and new buildings should be carefully sited so that the building(s) form part of the group.

The following considerations should be taken into account:

- Buildings should be integrated into the existing group;
- Isolated or detached locations from the existing site should be avoided

However, it should be noted that these considerations may not be appropriate for listed or traditional buildings. Further guidance on siting of new buildings adjacent to listed or traditional buildings is provided below.

### **Listed Buildings, historic and traditional buildings**

The siting of new buildings where there are listed buildings nearby is particularly important. In cases where the development or alterations are located within the farm complex of listed farm buildings and farmhouses, whole pre-1947 farmstead buildings are considered to be within the curtilage and therefore also (curtilage) listed, meaning all alterations to such buildings will require listed building consent. The existing group of traditional buildings should remain the more dominant element in the landscape and if a new building is to be sited adjacent to existing buildings, it should appear as part of the group. Where there is an existing group of traditional buildings, it may sometimes be best to site a new building of modern design away from the group to avoid visual conflict.

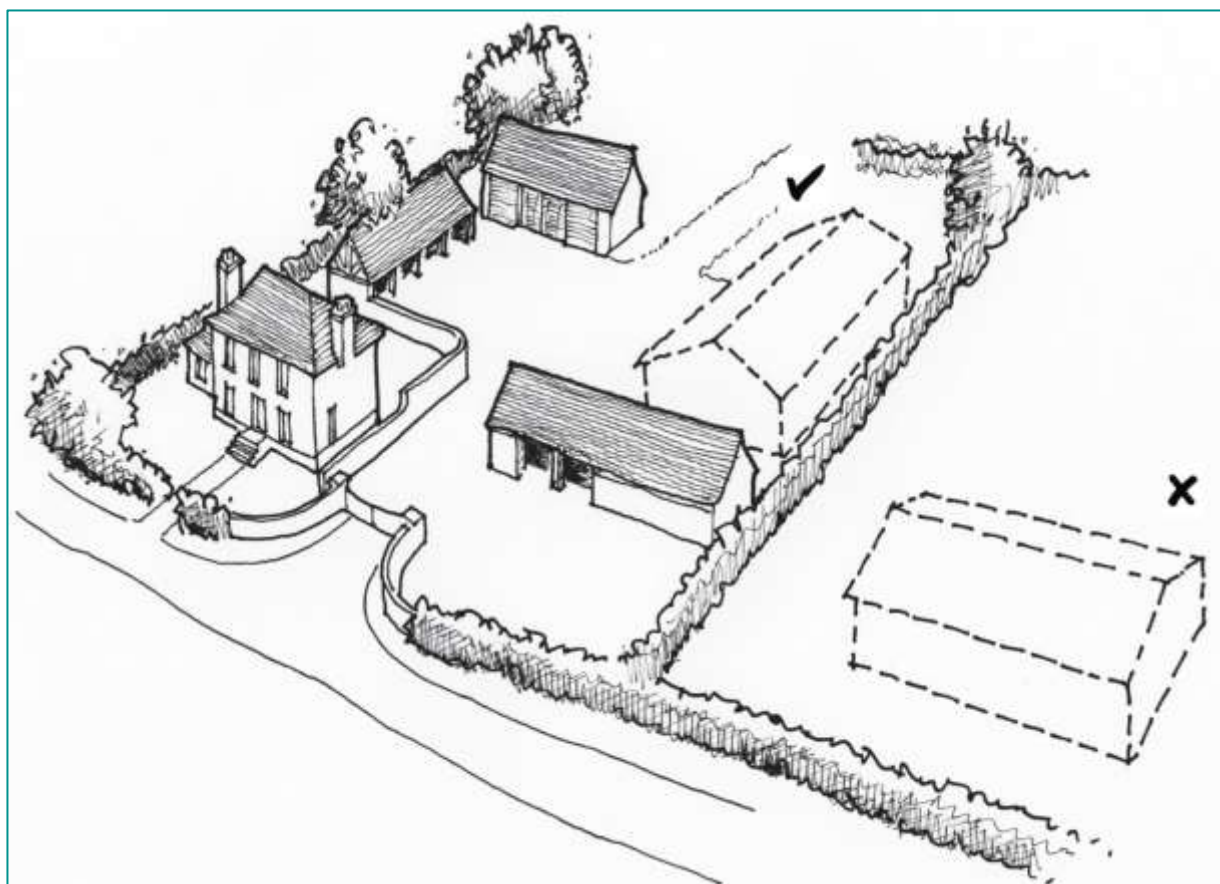


Fig. G3 Good and poor examples of siting new equestrian buildings.

## G4. Materials

### Local distinctiveness

Diversity and distinctiveness are important parts in our countryside and new farm buildings should play their part in retaining them. The District Council will expect traditional and sympathetic materials to be used in developments within a conservation area and within the setting of a listed building.

### Practical considerations

In the past, building materials were used that were closely related to the geology of the area, due to ease of access and cost. However, there are practical considerations when using materials with such a direct connection to the nature of the site, such as;

- Initial costs compared life expectancy of the material;
- Costs and speed of erection on site;
- Short and long term maintenance costs.eg. steel frames must be protected from rusting, timber requires preservation;
- The visual qualities of the materials e.g. dark or light, smooth or textured;
- Potential for future alterations/extensions or reuse;
- Strength.

Materials in general use in agricultural buildings are described below:

## Brick

Using brick has several advantages, including:

- An extensive range of brick enables new brick work to blend into existing buildings;
- Durability and maintenance;
- Useful where strength is required in retaining walls;
- Attractive.

## Concrete

Concrete is used either in prefabricated reinforced panel systems or blockwork built into building elevations. Panel systems appear on the elevations of storage buildings and silage clamps, either in horizontal or vertical form, whilst blockwork is used for stock and general purpose buildings. The visual appearance of concrete panels can be improved with coatings and blockwork may be coloured.

## Timber

Timber is easy to handle, strong and has a good texture. Attached to walls as spaced boarding, it can provide ventilation and look attractive. Modern preservatives provide a variety of colours and can be easily replaced and re-used. Timber doors can be used as an alternative to steel. Many pre-fabricated pig and poultry buildings are constructed in timber.

## Fibre cement

Fibre cement sheet is used extensively for livestock buildings, particularly for roofs. It is relatively cheap, but should not be used where damage is possible from machinery or livestock. It is available in various round profiles and in British Standard colour ranges by surface treatment. Fibre cement sheeting can weather to a dark grey colour in five years.

## Metals

Metals are available in a variety of profiles, shapes and colours. Painted or PVC coated materials are available in sheet form with applied coatings. Aluminum is available in louvered sheeting for side end elevations. Metal walling systems can be used for grain and other storages purposes to prevent salmonella.

## G5. Design Detailing

### Detailing

The adjacent landscape, buildings, walls and gates should be taken into consideration when deciding on detailing. A good spatial design may be ruined by poor fencing, gates, rainwater provisions, inadequate doors and windows. Damage by vehicles is a particular problem of farms. Robust details, protection for the vulnerable elements of buildings and stand-off spaces are all useful.

- a) Well-designed rainwater goods can enhance the appearance of a building and care should be taken to ensure that they cannot be damaged by livestock or farm machinery.

Good ventilation is paramount to ensuring healthy conditions for livestock. Ventilation units should be proportionate to the building and careful use of colour can assist in making such units into a design feature. Ventilation comprises two main types:

- Purpose made ventilation units to be mounted on roofs or walls;
  - Units sited between upper and lower sections of a wall.
- b) The siting and design of doors and windows has a significant impact on the appearance of a building. The size and proportion of the door opening in relation to the surrounding wall requires careful consideration. Large doors on gable ends should be kept well away from roofs to provide an attractive form. Windows are not always necessary as a good amount of light can be achieved from unglazed openings space boarding or electric light. Where windows are required, they should be consistent with the style and size, lining up with one another, where appropriate. The proportions of windows can be chosen to either emphasize or minimise the line of buildings and should be compatible with those in nearby buildings. Sills should be provided to prevent water damage. Roof lights can transform working conditions in a building, but should not dominate the roof or give a checkerboard appearance. A few large roof lights are generally preferable to many smaller ones.

Yards should not be considered solely in terms of agricultural functions, but viewed as an opportunity to integrate the new building(s) with existing areas and landscape. Concrete is expensive and should only be used where essential, e.g. for livestock.

- c) Fencing, walls and hedges are important features in the landscape, linking buildings with the landscape. Appropriate consideration should be given to the height and colour of these features to ensure they are not visually intrusive in the landscape and surrounding area.

## **G6. Equestrian Activities**

Where equestrian activities are proposed, it is important that **buildings should be of high standard of design** and that the following design considerations are taken into account.

- a) Siting
- b) Conversion of rural buildings
- c) Materials
- d) Stable and shelter size
- e) Fencing and Screening

### **Siting**

- the siting of new building should be closely related to existing groups of farm buildings, or adjacent to existing natural screening;
- located in a valley bottom or in the folds of hills which are well screened from public view;
- Isolated positions within open fields, where buildings are conspicuous, such on a skyline or podium would be unacceptable.

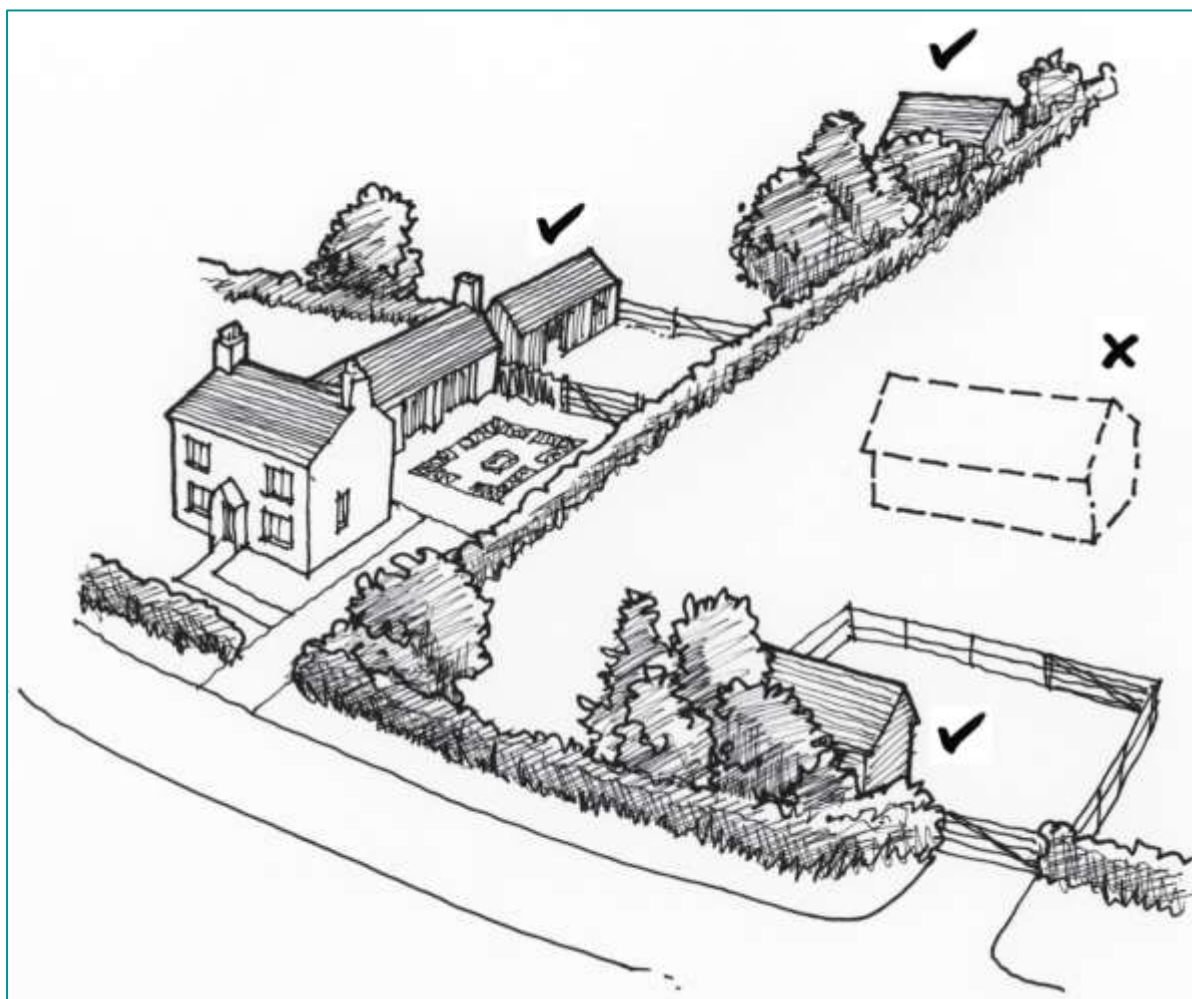


Fig. G4 – Good and poor examples of siting new equestrian buildings.

### Conversion of rural buildings

Favourable consideration will be given to the conversion of existing agricultural and other rural buildings to provide stabling. Such re-use helps to reduce demands for new buildings in the countryside.

### Materials

Materials used in the construction of stabling should reflect the function of the building and should be traditional/sympathetic to location. The use of stained wood can be acceptable provided that the structure is properly maintained. Stables constructed of brick and tile should reflect the local character of the area and all stables should have pitched roofs in the interests of visual amenity. Doors, window frames and roofs should be dark in tone to reduce the visual impact.

### Stable and shelter size

Stable and field shelters need to be of a size that is comfortable for their purposes and to ensure appropriate animal welfare. In general, each loose box within a stable block will need to be from 3m to 5.5m in length and from 3m to 5m in width. Fig 5 below provides an example of a well-designed stable.

An internal clear height ranging from 2.3m to 3.3m will be necessary.

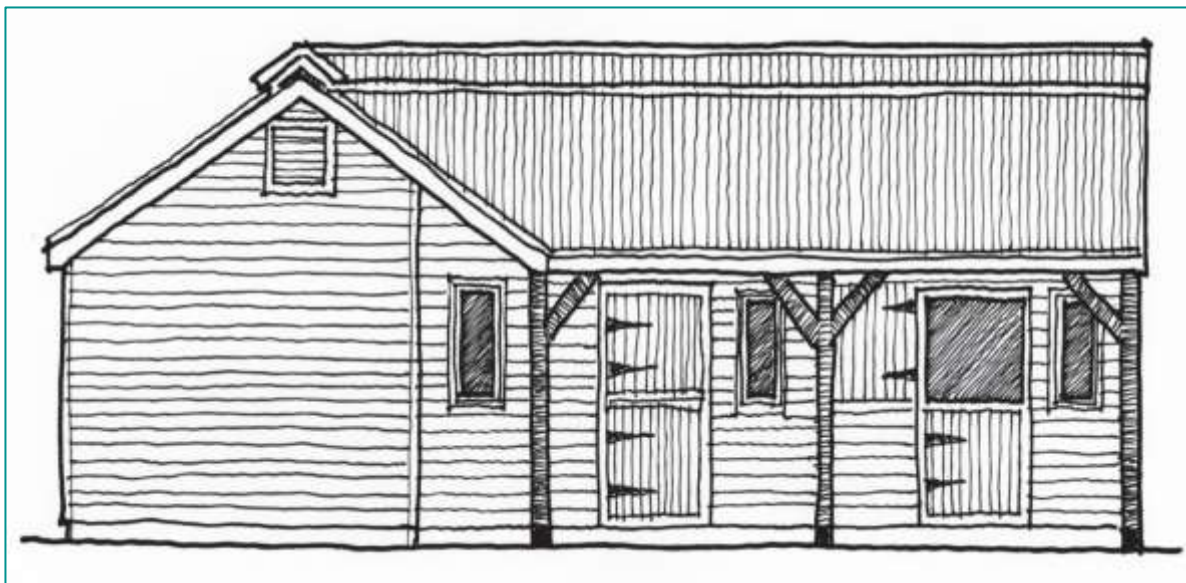


Fig. G5 - An example of a well-designed stable.

### **Fencing and Screening**

The erection of fencing to enclose a paddock or the removal of existing hedgerow can have a detrimental effect on the landscape. Therefore, fencing should be either painted or stained in a dark colour and additional screening should be provided by planting wherever possible. Additional screening will be required if outdoor storage of equestrian related materials is necessary.

## **G7. Conversion of Traditional Agricultural Buildings**

### **The principle of conversion**

The conversion of redundant agricultural buildings is subject to specific policies, including Policies CS.8, AS.10 and CS.20 in the Stratford-on-Avon District Core Strategy. <https://www.stratford.gov.uk/corestrategy>

In all cases conversion should involve a minimum of change in order to maintain the agricultural character of the building and its setting.

The acceptability of conversion is dependent on a number of factors including the proposed new use, the location of the building and its construction, the significance of the building in visual or historical terms, the state of repair and structural integrity, the amount of rebuilding, alteration or extension involved, impacts on neighbours, environmental impacts on the users of the building and the presence or otherwise of protected species.

The following principles refer primarily to matters of design in the conversion of buildings.

### **The setting of the barn**

Barns acceptable for conversion are generally found in farmyard settings, often still related to the original farmhouse and other secondary agricultural buildings.



In cases of residential or holiday rental conversion, it is particularly important to avoid creating a domestic, residential feel. Elements such as patios and paths, screen fences, flower borders and swimming pools will not normally be permitted.

Where the original farmhouse remains, the converted barn should remain secondary and subservient to the farmhouse. This is often a matter of simplicity of character rather than relative size.

Within an existing farmyard group, walls and old outbuildings should be retained and repaired in order to screen and enclose domestic items (including, for example, liquid gas or oil containers). The construction of new walls to the same effect may in some cases be acceptable.

If possible, garaging should be provided within existing adjoining structures. New structures modelled on traditional forms and appropriate to the setting in position, form and detail may be acceptable.

In large multi-occupation schemes the garaging should be grouped to form one building.

Some hedging or tree planting is usually desirable. All planting should be suitable indigenous species

Driveways, courtyards and paths should be gravelled. Concrete kerb edging and concrete flags should not be used, though brick or cobbles may be appropriate in some cases.

Farm courtyards as defined by the original buildings should not be subdivided. When garden boundaries are appropriate, they might take the form of brick or stone walls or hedging of a suitable species planted in association with unobtrusive fencing.

## **G8. Works to traditional agricultural buildings**

- Existing structure
- Repairs
- New Structure
- Windows and doors
- Roofs
- External walls
- Extensions

### **Existing structure**

As much as possible of the existing structure should be retained in its original position, including, but not limited to:

- the main wall framing members: storey posts, wall or top plates, sill or sole plates, tie beams and main bracing; main masonry walls; primary trusses or other structural roof elements; wall and wind bracing; stud-work and rafters; brick and stone plinths.

New openings should be placed to keep the loss of original framing or masonry to a minimum. This applies equally to principal structural framing, bearing walls, stud-work, rafters and plinths.

## Repairs

Traditional methods involving the minimum loss of original fabric should be the first choice for repair. With timber, for example, if the damage is limited, members should be scar fed or patched. If damage is more extensive, replacement would be preferable. Large areas of patching, facing or resin repairs of timber is unlikely to be acceptable.

Materials used in repairs and replacement must match exiting timber, brick or stone.

In cases where the building is rapidly deteriorating, a programme of immediate repair works may be a condition of planning permission.

## New structure

Inserted first floors will often need to be supported by a new independent structure. If it is proposed to construct an inner loadbearing skin to the external walls, then a proper provision for good ventilation of the cavity should be made - especially where the external walls are timber framed.

Other partitions must be made of the same material and construction as the existing walls OR be structurally independent, so as to avoid movement problems.

In threshing barns, a substantial part of the internal volume, preferably that within the midstrey, should be maintained as a full height space (floor to ridge) to retain the open character of the original building.

Permanent internal fittings such as staircases should suit the utilitarian and agricultural character of the building. Detailing of a domestic character, particularly in historic styles, is unlikely to be acceptable.

New structures within open fronts to buildings such as calf or cattle sheds should be lightweight in nature, such as glazing or timber boarding rather than masonry. The rhythm of bays should remain as a strong visual element.



Fig. G6 – An example of well-designed converted barn.

## Windows

The arrangement of windows and doors should be suited to the structure of the building. The number and size of windows should be kept to a minimum, the purpose being to provide adequate levels of daylight and not primarily to provide views. Open plan arrangements of internal partitions are likely to provide the best solution for lighting large areas with a minimum of openings.

The preferred location for windows and doors is within existing openings, former openings that have been filled in, panels within timber framing or in areas where the existing fabric is damaged, decayed or has been modified to an extent beyond repair.

The main wagon doors are usually the most obvious location for large windows and external doors. Any original door frame should be retained if possible. The primary structural frame and secondary framing for new glazing and doors should be made of sawn hardwood (elm or oak) and positioned behind any existing frame in order not to compromise the original fabric and to emphasise the opening with a reveal and shadow line. As a general rule, the midstre entrances should express their former status as wagon doorways either by full glazing or sealing the great doors.

Other new windows should be robust, timber framed, of simple design and should match the framing details of any existing small door or window openings. Manufacturer's standard windows are unlikely to be acceptable particularly those with 'storm proof' casements, 'Georgian' glazing bars or thin projecting cills.

New doors should be of simple boarded or plank construction. Moulded panel doors and other historic styles are unlikely to be acceptable.

External joinery may be painted or stained or, if oak, left to weather naturally. However, bright paint colours, and ginger and mahogany stains should be avoided.

## Roofs

The intention must be to retain the roof profile, form and materials as far as possible. Velux or similar small rooflights may normally be used sparingly but must be of the 'conservation' type and must be set as nearly flush with the roof surface as possible. Over use of small rooflights should be avoided. In some situations relatively large areas of patent glazing may be used. Dormer windows should not be used as they unacceptably disrupt the profile of the roof.

Many barns have had more than one roof covering in the course of their life. Where the roof is of straw, thatch or stone slate, a change of material is unlikely to be permitted. Slate or clay tiles whether original or replacement should also be retained. More recent roofs of sheet metal or asbestos should be replaced with thatch, natural slate or clay tiles, whichever is most appropriate.

External brick chimney stacks are uncharacteristic features on many agricultural buildings, particularly threshing barns, and should only be used in appropriate cases. Where flues are required they should be metal, minimal in size and painted or stove enamelled with a dark matt finish. They should be located in an unobtrusive position. Soil and vent pipes should be taken to discharge at a high level, preferably through a gable rather than through the main roof.

## External Walls

Exterior cladding materials should not be changed. Replacement weatherboarding should be of a similar size and profile and must be dark stained. Where barns are partly boarded and partly brick, minor revisions to the area of each material may be acceptable where it suits the structure and character of the building. In particular, original weatherboarding should be retained or replaced - like for like.

Minor external features such as hatches, ventilation, dove and owl holes and penticeboards should be retained and repaired or replaced like-for-like if necessary.

Rainwater goods and downpipes should be unobtrusive and neatly detailed. Preferably they should be metal, not plastic and always be painted in a colour to make them as unobtrusive as possible. If timber troughing remains, it must be retained or replaced like-for-like.

Brick and stone walling should be carefully repaired where necessary with matching reclaimed material and should be repointed with soft lime mortar of appropriate colour.

## Extensions

Extensions will not normally be acceptable. Small outshuts or lean-tos in the traditional manner may, however, be acceptable where necessary to link buildings. Domestic porches, other small extensions and conservatories will not be acceptable.

Extensions subsequent to the initial conversion are unlikely to be permitted. Depending on the potential environmental impact of further changes to converted buildings, some permitted development rights may be withdrawn as a condition of planning permission.

Fig.7 below shows the examples of common mistakes made when applicants consider converting or extending a barn.

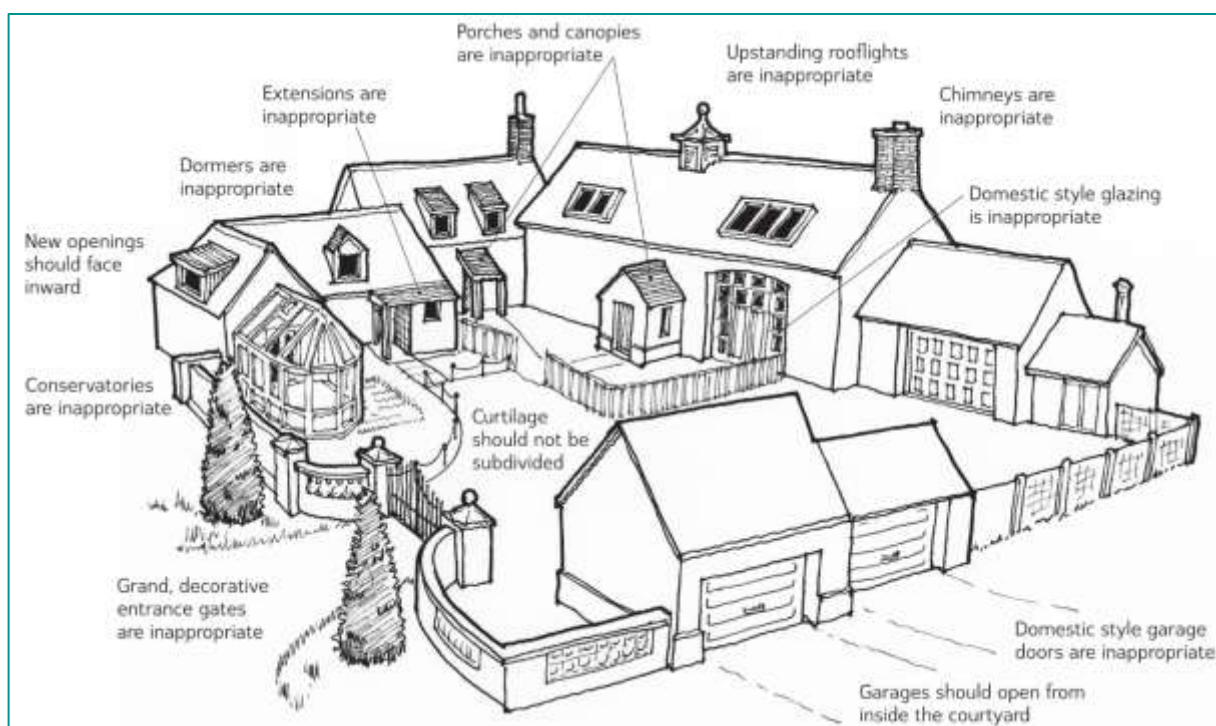


Fig. L7 – Common mistakes made when converting a barn.

## G9. Dwellings of Exceptional Quality and Design in the Countryside

Policy AS.10 (j) of the Core Strategy allows the potential for a new dwelling in the countryside which is of exceptional quality and design and makes a positive contribution to the character of the local area. The criteria to assess whether a proposed dwelling accords with Policy AS.10 includes the following:-

“That the design should:

- Be truly outstanding or innovative, helping raise the standards of design more generally in rural areas;
- Reflect the highest standards in architecture;
- Significantly enhance its immediate setting; and
- Be sensitive to the defining characteristics of the local area.”

# Part H: Shopfront Design, Signage, Security

## Contents

- H1. General design considerations
- H2. Shopfront design
- H3. Signs and advertisements
- H4. Hot Food Takeaways
- H5. Shopfront Security

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.9 Design and Distinctiveness
- CS.23 Retail Development and Main Centres

This section of the SPD provides information and advice on how applicants can ensure that issues of shopfront design, signage, shopfront security and Hot Food Takeaways are achieved in new development.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document, are included in the [Glossary](#).

## **H1. General design considerations**

The character and appearance of buildings and streets can be affected to a surprising degree by shopfront design, signs and advertisements. Ill-considered and overly intrusive designs can have a very detrimental effect. Unfortunately, changes in retail methods which have favoured larger shop units and widespread use of relatively cheaper materials and standardisation of shopfront design have led to a gradual decline in shopfront design. For example, the introduction of plate glass into simple buildings that originally had small windows and pitched roofs has significantly detracted from the character of the townscape.

In addition, national multiples' desire to standardise style through a corporate image does not always benefit the overall shopping environment. The District Council will expect corporate advertising to be adapted to fit buildings and townscape, particularly on listed buildings and in conservation areas.

Poorly designed and positioned signage can also have a detrimental effect on the character of the townscape. For example, where too many signs and shopfronts rival for the attention of a limited number of passers-by, the situation can lead to an escalation in the desire to grab attention. The next new sign has to be bigger and brighter than the last in order to stand out. The escalation tends to create a kind of visual noise that drowns out of all the signs. This leads to an over-intensive and often visually disruptive environment. Such an environment is generally at odds with the overall character of most settlements in the District. The result can also be degradation in the quality and attractiveness of the street as a place for trading and commercial activity. The aim should therefore be for new shopfronts and signage to enhance buildings and townscapes and improve on the previous shopfront or signage that it is replacing.

The overriding principle for the design of shopfronts and the design and placement of advertisements should be restraint.

Signs and shopfronts should work within the overall form and structure of a building and be subservient to it. Well-designed shopfronts and signage in the right place can make a very positive contribution to the quality of townscape.

## **H2. Shopfront design**

There is considerable variation in the design of shopfronts across the District. The starting point for any design should, therefore, be the shop building itself and other shops in the immediate surroundings. Information submitted with an application should show the entire building both as existing and proposed. Supporting information showing examples of other shops in the area of the proposal can also be helpful but should not be used to justify a continuation of poor quality designs. Figures H1, 2 and 4 below illustrate examples of well-designed traditional and modern shopfront design.



Fig.H1 - A good example of traditional shopfront design in Stratford-upon-Avon.

If, for example, the building is symmetrical, the design of the shopfront should maintain the overall symmetry. If the building is in a Classical or Georgian style, for example, some of the characteristic features that define the style should be carried forward into the new design such as proportions of openings, patterns of glazing or moulding profiles.

If a traditional style replacement is to be used, it should be appropriate to the building and locality. It must never appear to be of earlier date than the rest of the building. Good design does not necessarily need to be traditional and there are many locations where a well-designed modern shopfront (See Fig 2) below will be acceptable but it must be sympathetic to the building above and street scene.





Fig H2. shows a well-designed modern shopfront.

It should be remembered that the shopfront creates a solid visual base to the building above and therefore total removal of a shopfront to open up the frontage will be unacceptable.

The purpose of the shopfront is to display goods for sale and project an image of the retailer. Traditionally, shopfronts include the elements shown in Fig H.3 below.

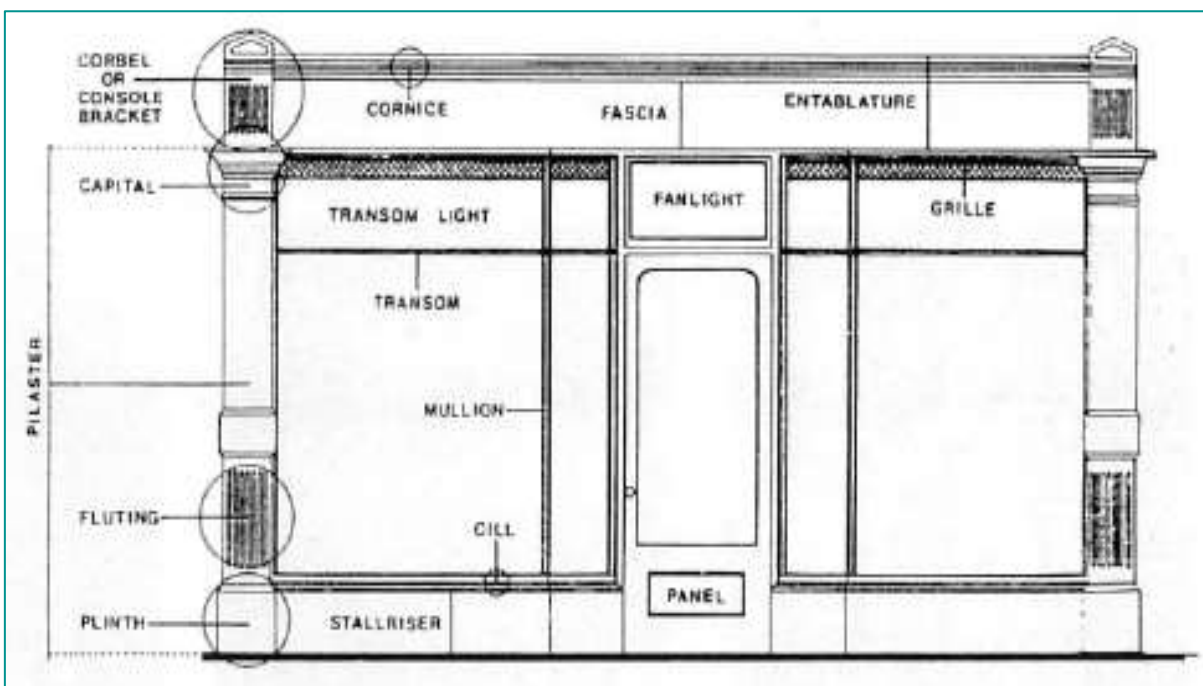


Fig H3 shows elements of a traditional shop front.

## Shop front terminology

The various elements of a shopfront have a visual and practical function. The pilasters identify the vertical division between the shopfronts. The fascia provides space for advertising and the cornice gives a strong line at the top of the shopfront and protection from the weather. The stall riser offers protection at ground level and provides a solid base.

## Windows

New shop windows should reflect the vertical emphasis of the building above and window subdivisions, mullions and piers should be used for this purpose. Horizontal emphasis leaves upper storeys apparently floating in mid-air and it should be avoided.

A well-lit and well-designed window display provides the best form of advertisement, tells the shopper far more about the goods on sale than an overhead sign, whilst contributing to a lively shopping street. Doorways and recesses make a significant impact on the overall appearance of a building by adding relief to the frontage.

Extensive glazing should be avoided so that a shopfront looks structurally supported whilst also framing the display window. A design with strong vertical lines will hold the customers' eyes for a longer period than those with horizontal emphasis.

## Illumination

The highlighting of buildings and pedestrian spaces makes for a lively and safe night-time environment. Shop signs do not need special illumination if the level of street lighting and light from shop windows is adequate. External illumination of buildings and signs will normally be resisted. Careful flood-lighting of key buildings of particular architectural quality may, however, be permitted and in some cases encouraged.

Limited lighting of hanging signs and fascias may be allowed in the case of businesses open in the evening such as restaurants, pubs, theatres and clubs but not in addition to floodlighting. In such cases, the principal purpose of the external lighting should be to make signs legible at night. The lighting should not be a feature in itself and the fittings should be as small and unobtrusive as possible.

Swan necks are large lamps often brass, angled to illuminate the fascia. Although reminiscent of Victorian and early 20th century lamps they often lack the quality of traditional lighting and obscure the fascia signage itself. Swan necks are generally unacceptable.

## Stallrisers

A stallriser gives protection to a shop window and creates a solid visual base to a building. Stallrisers often consist of panelled timber or brick forming a deep moulded skirting which is painted. Occasionally glazed tiles or marble are used. The depth of stallriser must be in sympathy with the overall design of the shopfront and the inclusion of a stallriser in the door may also be appropriate. The inclusion of stallrisers has the additional benefit of providing some protection against 'ram raiders'.

## **Hanging Signs**

Depending on the height of the building, brackets for hanging signs should be fixed so that the sign hangs at a level between the ground and first floor windows. In some cases a hanging sign may be positioned between the cill and head of the first floor window. It is very unlikely that a hanging sign positioned above the head of a first floor window will be acceptable.

Hanging signs should be restricted to one per shop or business. The size of hanging signs should be proportionate to the building.

It should not dominate the facade or obscure architectural details or adjacent buildings. Lettering and symbols should be proportionate to the size of the sign. Painted or low relief boards should be used as opposed to 'box' signs.

In the interest of contributing to the liveliness and quality of the street scene, pictorial, iconic or 'object' signs are encouraged, together with well-designed decorative brackets.

## **Blinds**

Where a blind is proposed it should be retractable and designed to be integral with the shopfront and retracts into the fascia. Fixed blinds of the curved plastic type are seldom compatible with the buildings in most commercial areas and will normally be resisted. It should be noted that any non-retractable blind on the front face of a building requires Planning Permission. Also, blinds that include advertisements may require (Express) Advertisement Consent as discussed below.

In all cases the shopfront should remain subservient to the building and appear as a component part of it.

## **Flags**

Flags for purposes of advertisement are not normally acceptable on business premises.

## **H3. Signs and advertisements**

The display of advertisements is controlled by the Town and Country Planning (Control of Advertisements) Regulations 1992. The following sets out the guidance which the District Council will take account of when determining applications for advertisements.

There are three categories of advertisement consent:

- Permitted adverts (which do not require 'Express' consent from the local planning authority, but which are governed by certain criteria and conditions);
- Deemed Consent adverts (which also do not require consent from the local planning authority as long as they comply with certain restrictions);
- Express Consent adverts which will need the consent of the local planning authority to be displayed via an application for Advertisement Consent (and which might be the subject of other conditions laid down by the authority).

If signage is on a listed building then Listed Building Consent is likely to be needed in addition to any Advertisement Consent that might be required. To help you determine which regulations apply in a particular instance the following link will assist:

<https://www.gov.uk/guidance/advertisements>

The following guidance applies generally to proposed signs and advertisements within the District and especially those that require Express Consent or Listed Building Consent.

**The overall principle for the design and placement of advertisements should be restraint.**

The aim should be to create an environment in which the buildings and activities themselves are the principal attraction and visual interest, not the signs.

In general, signs and advertisements should be kept within the commercial, 'shopfront' area. This tends to be limited to the ground floor, street frontage of the building.

- Signs should remain secondary to any individual building and help to maintain the character and rhythm of the building and the street frontage;
- Signs should not clutter or dominate the facade of a building nor, by extension, the entire street frontage;
- The colour, material and illumination of signs should be subdued and not harsh or aggressive.

### **Position and size of signs and advertisement**

Signs should be positioned to work within the structure of the shopfront or building.

Signs and advertisements should be positioned below the level of the first floor window cill.

No signs should be displayed on an elevation that does not contain a shop window or main customer entrance. Where no proper frontage or fascia exists, signs are best made up of individual letters fixed to the external wall.

Fascias or signs should not run continuously across two or more adjacent buildings.



Fig.H4 – Traditional shopfront and signage in Shipston-on-Stour.

The lettering and symbols of signs, particularly on fascias, should not exceed 40cm. in height.

For free standing signage within the curtilage of buildings to be acceptable it should be visually harmonious in the street scene and appropriate to the character of the area and not harm highway safety, for example by blocking visibility, causing obstruction or causing undue distraction. Justification for such signage will also be necessary from those applying for it.

### **Content**

As a general rule, the content of all signs should be limited to the name, nature and services of the shop or business. Advertising for particular brands or products should be avoided.

### **Materials**

The materials and construction of signs and advertisements should be robust and of high quality. The signs should appear solid and permanent as opposed to flimsy and temporary.

Harsh and shiny or reflective surfaces such as many acrylics and plastics and chrome should be avoided as should bright and garish colours.

It should be noted that where there are examples of in existing poorly designed shop fronts; they will not be used as the rationale to allow further poor design quality. Instead, they should be used as opportunities either to restore traditional shopfront design or enhance and protect the character of the local area.

## H4. Hot Food takeaways

With our busy, modern lifestyles, hot food takeaways (Use Class A5) represent a popular, cheap and convenient service. They provide an important complementary use in our local centres and can attract trade and provide local jobs. They can also have a part to play in creating a lively night-time economy. However, it is recognised that hot food takeaways have a greater potential than other retail uses to create disturbance and detract from residential amenity and local character through increased litter, odours, noise, parking and traffic issues. Where there are high concentrations of hot food takeaway shops, this can also have a detrimental impact on the vitality and viability of a local retail centre by reducing the range of services available to local communities, as other retailers will find the area less attractive as there will be less active frontages, since units will remain closed during daytime resulting in less footfall during the day. The over dominance of hot food takeaways can also negatively impact health and wellbeing by providing easy access to largely unhealthy food. National Planning Policy Guidance considers that "Local Planning Authorities can have a role in enabling a healthier environment by supporting opportunities for communities to access a wide range of healthier food production and consumption choices." ([Paragraph: 006 Reference ID: 53-006-20170728](#))

Consequently, there is a need to ensure that the District's local retail centres (Stratford Town and the Main Rural Centres) contain a diverse range of facilities and services that meet local needs and are appropriate to the location, retail function and local character. In order to encourage and maintain this diversity, it is important that the concentration of hot food takeaways is managed so that the primary purpose and diversity of our local retail centres are not undermined.

The table below shows the current concentration of Hot Food takeaways within the Town and Main Rural Centres (MRCs) and currently shows a higher concentration of A5 uses in Bidford-on-Avon and Studley than the other MRCs.

<b>Name of settlement</b>	<b>Number of units where there is an element of A5 Use Class ( hot food takeaways as at January 2019)</b>	<b>Total number of commercial units (including vacant units)</b>	<b>Percentage of total units where there is an element of hot food takeaways</b>
Alcester	6	92	6.52%
Bidford –on-Avon	4	32	12.5%
Henley in Arden	3	83	3.61%
Kineton	4	TBC	TBC
Shipston-on-Stour	3	75	4.0%
Southam	8	TBC	TBC
Stratford-upon- Avon	69	432	0.9%
Studley	14	74	18.92%
Wellesbourne	1	36	2.78%

The NPPF states that, LPAs should prepare planning policies and take decisions to achieve places that promote "strong neighbourhood centres and active street frontages which bring together those who work, live and play in the vicinity".

Policy CS.1 Sustainable Development state that “Development should be located and designed so that it contributes towards the maintenance of sustainable communities within the District”.

Policy CS.23 requires that retail development and other commercial uses are provided in a manner that helps to strengthen the function and character of the District’s centres for the benefits of residents, businesses and visitors. Concentrations of A5 hot food takeaway uses can lead to the loss of vibrancy in a local centre, inhibit the ability of that local centre to meet the everyday shopping and service needs of the community it serves and also ultimately be detrimental to the health of communities in the District. As an example of this the Studley Parish Plan 2017-2020 states that:

*“40% of respondents consider the range of shops in Studley to be fairly poor or very poor and many respondents would like to see greengrocers, cafes and restaurants with a decrease in the level of take away restaurants and hairdressers”.*

When considering whether a proposed hot food takeaway would result in an over-concentration of such uses to the detriment of the vitality and viability of Stratford Town and the Main Rural Centres regard will be had to:

- The number of existing hot food takeaway establishments in the immediate area and their proximity to each other;
- The prevalent local character and distinctiveness of an area;
- The type and characteristics of other uses, such as housing, shops and public houses;
- The size and scale of the proposed unit
- The importance of the location for local shopping, and the number, function and location of shops that would remain to serve the local community;
- The potential benefits of the proposal for the wider community; and
- Hours of operation
- Parking provision and measures to control illegal parking
- Management of odours and fumes
- Management of noise
- Storage of waste and control of litter
- Any other known unresolved amenity, traffic or safety issues arising from existing uses in the area.

Therefore, within Stratford or a Main Rural Centre in order to address these adverse impacts consideration should be given in proposals for hot food takeaways as what proportion of A5 use to other A uses would be appropriate. Consideration should be given to whether more than two A5 units located adjacent to each other would have an adverse impact on the character and vitality of the area (by creating inactive frontages and deterring footfall and hence vitality and also whether there would be any benefits in maintaining at least two non A5 units between individual and/or groups of hot food takeaways. This should be considered on a case by case basis as no two centres are identical in their makeup and character.

For locations outside of Stratford town and the Main Rural Centres such uses will only be appropriate where they do not create or exacerbate the concentration of A5 uses to the detriment of the character and/or amenity of that area.

## **H5. Shopfront security**

The importance of security for business premises is recognised by the Council, but the need for security should not detract from the attractiveness of a streetscape. This is particularly important where retail premises are situated within Conservation Areas or comprise listed buildings.

Security measures may be introduced to a shopfront to combat theft, vandalism and ram raiding. The need for and level of security measures will also depend on many different factors including type of business and location. A shopping area that is well lit and lively in the evening with a mix of businesses is more likely to deter crime than streets that are deserted due to inappropriate security measures installed in retail premises.

Security measures should be considered at the design stage when designing a new shopfront or altering an existing shopfront. The use of smaller paned glass set in mullions and transoms make premises more difficult to break into and enter than large areas of glass. The cost of replacing smaller paned glass can be considerably less.

### **Glass Type**

Building Regulations often requires the use of safety glass in shopfronts, especially where large panes are used. Whilst 'toughened' glass is much stronger than ordinary glass, it can still shatter allowing access into a building. 'Laminated' glass on the other hand will crack, but will still stay intact ensuring that the window remains as a barrier to access. The use of polycarbonate materials is not usually considered an appropriate alternative to glass.

### **Reinforced stallriser**

The stallriser provides protection from ram raiding. If constructed from stone, brick, brick and render or brick with a timber panelled front the stallriser shall be reinforced considerably. The use of recessed doorways provides further protection against ram raiding.

### **Internal layout**

The internal layout of a business can also help to prevent crime. By ensuring that the area behind the window allows for open views into the premises from outside, coupled with sensor controlled lighting, will mean that any activity inside will be on clear display to passers-by.

### **External roller shutters and grilles**

External roller shutters are often proposed to provide security by preventing access to the shopfront itself, thereby protecting the glass. These are usually a pull down shutter that are housed in a surface mounted box that forms part of the fascia or set above or below it. To ensure that the shutter cannot be pulled away from the shopfront the shutter is set into runners that are affixed to the sides of the shopfront. Roller shutters create a blank, unappealing appearance to a shopfront and streetscape. They often invite graffiti or flyposting which gives an area a run down, uncared for appearance. This can invite more crime and leads to fewer people wanting to shop in the area. Solid roller shutters prevent views into the business thus hiding any undesirable activity inside from passers-by. This type of security measures are only acceptable in exceptional circumstances, where their use has been fully justified.



Some external roller shutters are perforated or appear as a lattice grille (sometimes combined with clear polycarbonate panels). These allow for views into the premises and are less likely to be subject to graffiti or fly posters. They are preferable over solid roller shutters but can still appear cumbersome with their large shutter boxes and side rails. Where deemed acceptable, in a high risk area, the shutter box shall need to be internal or be incorporated entirely behind the fascia of the shopfront.

The use of external roller shutters or grilles on listed buildings or within conservation areas will not be acceptable.

### **Internal grilles**

Where there is no alternative to a security screen, an open lattice grille, painted black, fixed internally is preferred. These allow the shopfront in its entirety to be seen as well as views into the premises. Allowing vision into the shop allows for window shopping after closing and offers some security in itself by encouraging people into an area. Planning permission is not required for internal grilles. Listed Building Consent is likely to be required where proposed inside a listed building.

### **Alarms and cameras**

Alarm boxes can act as a deterrent but are often unsightly and bulky items and become an undesirable feature of a streetscape. They need to be positioned as carefully as possible, be small and where possible coloured to match the shopfront or fascia when affixed to the shopfront itself. Where an alarm box is positioned on the face of the building it should be positioned as discretely as possible.

Many parts of the town centres are covered by CCTV cameras avoiding the need for additional CCTV. Where it is essential for a business to have a CCTV camera on its shopfront, they should be positioned as discretely as possible. Cameras come in a variety of shapes and sizes. The smallest practicable camera should be chosen, it is however advisable to seek further advice from a CCTV specialist.

# Part I: Non-Residential Buildings

## Contents

- I1. Commercial Development
- I2. Impact on Neighbouring Amenity
- I3. Conservation Areas and Listed Buildings
- I4. Scale and Layout
- I5. Access
- I6. Materials
- I7. Landscape Design
- I8. Noise
- I9. Boundary Treatments
- I10. Bin Storage
- I11. Parking
- I12. Other Non-Residential Uses

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies in particular and as appropriate:

- CS.9 Design and Distinctiveness
- AS.10 Countryside and Villages
- CS.5 Landscape
- CS.8 Historic Environment

It provides information and advice on how applicants can ensure successful applications for shopfront design, signage, shopfront security and takeaways are achieved.

It will be used by Stratford-on-Avon District Council to inform decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document, are included in the [Glossary](#).

## **I1. Commercial Development**

It is widely recognised that better designed buildings, landscapes, townscapes and places contribute towards more productive employees, a healthier and happier workforce, and that communities are more likely to be committed to the maintenance and improvement of their surroundings.<sup>7</sup> Planning permission will only be granted for new commercial and industrial buildings which are of high quality design and are appropriate for their use and context. Development will not be permitted where it is considered to have a detrimental impact on the townscape or landscape character. The following considerations should be taken into account when designing a commercial/industrial scheme:

- Impact on Neighbouring Amenity;
- Local Character;
- Conservation Areas and Listed Buildings;
- Scale;
- Layout;
- Access;
- Materials;
- Landscaping;
- Noise;
- Boundary treatments;
- Bin storage; and,
- Parking

## **I2. Impact on Neighbouring Amenity**

Development should not unacceptably impact on neighbouring amenity in terms of overbearing impact, overshadowing or overlooking, regardless of their use.

## **I3. Conservation Areas and Listed Buildings**

Stratford-on-Avon District has a rich heritage, with many notable Listed Buildings and Conservation Areas. Non-residential developments within or adjacent to Conservation Areas should give careful consideration to their historic character and setting. New development should be carefully designed to preserve or enhance the special qualities or the setting of the heritage assets. A Heritage Statement is required to accompany any application affecting a 'designated heritage asset', or 'non-designated heritage asset' or their settings.

## **I4. Scale and Layout**

The proposed development should be of a commensurate scale to the surrounding built form and not be visually intrusive or overbearing. Where possible, large buildings should minimise their impact through the use of low ridge heights and curved roofs. The relationship between the proposed development and existing buildings and features in the area should be considered when designing the proposal or determining its location on site.

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<sup>7</sup> Health, Wellbeing and Productivity, UK Green Building Council, [https://www.ukgbc.org/sites/default/files/Health%20Wellbeing%20and%20Productivity%20in%200Offices%20-%20The%20next%20chapter%20for%20green%20building%20Full%20Report\\_0.pdf](https://www.ukgbc.org/sites/default/files/Health%20Wellbeing%20and%20Productivity%20in%200Offices%20-%20The%20next%20chapter%20for%20green%20building%20Full%20Report_0.pdf)

All new commercial development will be expected to create continuous active frontages and minimise blank walls and fencing. There should be a clear relationship between any new and existing development and the building should be well integrated into its surroundings through for example appropriate landscaping.

## **15. Access**

Entrances and egresses for new developments should be clearly visible and offer acceptable visibility splays in both directions. Accesses and circulation roads should contribute to a network of direct and connected routes within and beyond the site.

## **16. Materials and Colours**

Commercial developments should be constructed to produce a visually attractive scheme. Materials, building methods and details in the design should aim to enhance local distinctiveness. Where there is no precedent for the use of specific types of materials, a high quality area with a distinct character should be created, either from traditional or more modern materials. It is the degree to which any material is appropriate to its surroundings and its function that should determine its use.

A proposal for non-residential development, particularly in the countryside, should give careful consideration towards the choice of colours and materials. This will help to ensure that the external appearance of the building harmonises with the surrounding countryside and does not visually detract from its character and local distinctiveness.

## **17. Landscape Design**

A balance of well-designed hard and soft landscaping should be included within an application to ensure that quality visual spaces are created and their use, both night and day, encouraged. Landscaping can also include appropriate screening to help reduce noise, light and air pollution. Further detailed guidance on landscape design is set out in [Part M: Landscape Design and Trees](#).

## **18. Noise**

The scale, nature and frequency of vehicles that service industrial businesses can be a major source of conflict with neighbouring activities, including other industrial uses. The design objective is to manage noise, disturbance and potential danger from deliveries, servicing and storage by developing sensible and efficient service routes and timetables.

The best place for these activities to occur is away from the highway, or to the rear of the main building. Mitigation measures may be needed, such as earth bunds, reed beds or tree planting to reduce the impact on noise or air quality.

In addition, working hours may be restricted, especially where there are residential areas nearby.

## **I9. Boundary Treatments**

Boundary treatments must be appropriately designed and utilise existing features and vegetation, such as hedgerows and mature trees. The choice of boundary treatments should relate well to the wider physical and social context of the area and seek to make a positive contribution to local character. Further guidance is set out in [Part M: Landscape Design and Trees](#).

## **I10. Bin Storage**

Bin storage areas must be well designed and situated in close relation to the host property.

Provision should be made for storage and collection of both residual waste and recyclable waste. A compactor could be considered for offices and light industrial developments for residual waste only with separate provision for recycling.

## **I11. Parking**

Adequate parking should be provided on site, with sufficient areas for service vehicles to park and turn if necessary. Parking areas should include some landscaping features and screening in order to reduce their visual impact. Cycle storage must also be provided along with cycle paths and footpaths in and out of the site. These standards are set out in [Part O: Parking and Travel](#) of the SPD.

## **I12. Other Non-Residential Uses**

[Part G](#) provides further guidance on Agricultural Buildings and [Part H](#) sets out advice and guidance on shopfronts.

# Part J: Self-build & Custom Build Housing & Modular Housing

## Contents

- J1. Self- Build and Custom Build Housing
- J2. Modular Homes

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies, in particular and as appropriate:

- CS.2 Climate Change and Sustainable Construction
- CS.16 Housing Development

It provides additional guidance about Self –Build and Modular Housing. The SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD at the earliest stage in the design process will make it easier for the Council to grant planning permission. The Council’s Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).

## J1. Self-Build and Custom Housebuilding

### The National Context

The Government wants to enable more people to build or commission their own home and make this form of housing a mainstream housing option. The Self-Build and Custom Housebuilding Act 2015 (as amended by the Housing and Planning Act 2016) has placed this matter on a statutory basis.

Self-build and custom-build can be market and or affordable homes and are defined as follows:

- Self-build - projects where individuals or groups directly organize the design and construction of their new home(s);
- Custom build – projects where individuals or groups work with a specialist developer to help deliver their new home(s).

Section 2A(2) of the Housing and Planning Act 2016 states that:

*An authority...must give suitable development permission in respect of enough serviced plots of land to meet the demand for self-build and custom housebuilding in the authority's area in each base period.*

All self-build and custom build properties are exempt from the payment of CIL (Community Infrastructure Levy).

[www.stratford.gov.uk/cil](http://www.stratford.gov.uk/cil).

The 2015 Act places a duty on local authorities to have regard to their self-build register when carrying out their planning, housing, land disposal and regeneration functions. The Government is monitoring the situation with registers and what actions local authorities are taking in response to the overall scale and nature of interest expressed.

### The Council's custom and self-build register

In accordance with the Self-Build and Custom Housebuilding (Register) Regulations 2016, from 1 April 2016 this Council will keep a register of individuals (and associations of individuals) who are seeking to acquire serviced plots of land in their area for this purpose.

### The Local Context

Whilst the Core Strategy does not contain a policy that specifically provides for this form of housing development, paragraph 5.2.16 in the explanation to Policy CS.16 makes it clear that the District Council supports the principle of schemes being delivered as self-build projects. The Council is considering including such a policy in its emerging Site Allocations Plan, and is also looking to allocate specific sites to deliver custom and self-build homes.

#### Find Out More

Find out more about the Site Allocations Plan that will sit alongside the Core Strategy:

[www.stratford.gov.uk/siteallocations](http://www.stratford.gov.uk/siteallocations)

The Government does not expect local authorities to provide such opportunities on plots or sites that would not otherwise be acceptable for other forms of housing development, such as in open countryside. It should also be recognised that the Core Strategy provides scope for individual and small groups of dwellings, including self-build schemes, to be built in a wide range of settlements in the District.

Local communities considering Local Needs Housing Schemes and or Neighbourhood Plans are specifically encouraged to consider custom and or self-build housing.

In addition, the Development Management service through the pre-application process will encourage developers to incorporate opportunities for self-build in their housing schemes.

Single 'Local market' homes brought forward under Core Strategy policy CS.15(G) i.e. the Local Needs Housing policy are invariably self-build/ or custom build properties.

The occupancy of any self-build or custom build affordable housing will be subject to local occupancy controls.

### **Requirements for Self-Build and Custom Housebuilding Schemes**

Custom and self-build housing can be developed either to provide affordable or market housing. In the case of market housing, it is anticipated there will be two main modes of delivery:

- (1) Individual plots, sourced and acquired by the developing household, or small sites provided to meet the specific identified needs of individual households.
- (2) Larger schemes, involving sub-division of the site in accordance with a masterplan to provide serviced plots, for subsequent sale to households who will in due course prepare their own detailed designs.

In the latter case of larger schemes, the principles in Core Strategy Policy CS.19 (A) still remain highly relevant, and so adherence to the optimum stock mix in CS.19 (B) remains appropriate. This matter should be dealt within the necessary masterplan for a site.

It is essential that self-build schemes, due to their particular nature, can be implemented in an appropriate and effective manner. For this reason, a number of specific considerations need to be applied.

Schemes that include self-build or custom-build plots are expected to make the following provisions:

1. A legal access to a public highway (or equivalent) for each individual plot;
2. A Design Code to help clarify and guide what form of dwellings is appropriate, e.g. size, height, materials;
3. A connection to all services, i.e. electricity, water, drainage, at the boundary of each plot;
4. A phasing plan, where applicable, to ensure CIL is not triggered for the self-build element due to commencement elsewhere on the site<sup>8</sup>.

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<sup>8</sup> An amendment to the CIL Regulations in 2014 introduced an exemption to persons building or commissioning their own home provided that it is occupied as their sole or main residence



## J2. Modular Homes

### What are modular homes?

Modular homes are homes that are built away from the site and then assembled on-site. They are also referred to as Off-Site Manufactured Housing (OSM) or prefabricated (prefab) buildings. This is an umbrella term for a system of housing building that relies on individual components being manufactured in the factory, transported to a site and mostly or entirely completed and assembled on site. The homes can be manufactured in the factory at the same time as the site preparation; foundations and utilities connections are carried out.

Manufactured Homes such as Mobile Homes and Caravans which are placed on the ground rather than having permanent foundations are not however the same as modular homes.

Modular housing was once prevalent in the 1950s and 60s and is now soaring in popularity due to improvements in modern techniques. They are becoming increasingly popular in larger development schemes in the UK such as hotels, student accommodation, hospitals and flats; modular buildings are now becoming the preferred choice for self-builders too.

### Benefits

The time taken to build these types of homes is considerably shorter than a traditional built home. This is because the foundations can be laid and other preparatory work carried out, whilst the 'shell' of the home is being manufactured in the factory. There are also less issues of delays for sourcing materials or delays due to bad weather during construction.

Modular homes are considered to be a modern, more energy efficient and cost saving alternative to traditional building styles.

The Council encourages the development of modular homes, subject to complying with the design principles set out in [Part C](#), [Part D](#), [Part E](#) & [Part F](#). The external appearance or cladding of a modular home will require careful consideration to ensure that it reflects and harmonises with the existing character and appearance of the surrounding area.

Applicants are advised to hold discussions with the relevant case officer about the proposed external appearance /cladding of the building early on in the planning application process.

There will be a policy on self-build and modular housing in the Council's Site Allocations Plan, which is currently being prepared.

### Find out more

Planning Portal Self-build homes

[https://www.planningportal.co.uk/info/200130/common\\_projects/49/self-build\\_homes/2](https://www.planningportal.co.uk/info/200130/common_projects/49/self-build_homes/2)

# Part K: Holiday Lets and Caravan Parks

## Contents

- K1. Introduction
- K2. Holiday Lets
- K3. Camping and Caravan sites

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policy

- CS. 24 Tourism and Leisure Development.

It provides a definition of what comprises Holiday accommodation, guidance on the circumstances where holiday let accommodation may be appropriate and the size of camping/caravan sites which may be classified as small, medium and large and what level of facilities may be applicable at such sites.

Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission.

The Council's Planning Policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document, are included in the [Glossary](#).

## K1. Introduction

Holiday accommodation or 'lets' includes, but is not restricted to, any house, flat, chalet, tent, caravan, villa, or houseboat, which is let out to holiday makers, who may live or stay in the property for leisure purposes. The property is not normally a principle "home". The accommodation should be advertised or held out as suitable for temporary holiday/ leisure letting purposes. Occupation by the same person(s) throughout the year would therefore be inappropriate.

## K2. Holiday Lets

Proposals for hotels, bed and breakfast and self-catering accommodation will be supported where appropriate provided that they are in compliance with other policies contained within the Core Strategy and National Planning Policy and Guidance, such as, for example, policies in relation to the Green Belt.

General factors to take into consideration include any adverse impacts on character, amenity and the open countryside for example, avoiding the change of use of entire farmsteads to holiday accommodation. Minor amendments to existing development to extend or make improvements to existing holiday accommodation should be of high quality design.

## K3. Camping and Caravan Sites

The tourism sector is very important to the economy of Stratford-on-Avon District and at the time of writing it is estimated to be worth around £385m a year to the local economy. The recently adopted Industrial and Economic Development Strategy states that:

*"The growth and success of tourism in Stratford-on-Avon has been down to the increase in overnight visitors. These visitors now account for 11% of total visits but contribute 44% to total visitor expenditure" and ..... "The local tourism industry is doing a good job at retaining the most valuable tourist (overnight visitors) but we need to continue to maintain and potentially increase the proportion of visitors overnight".*

Therefore policies which aim to promote and control camping and caravanning sites will have an important impact on the future prosperity of the District but need to be carefully managed to ensure that the attractiveness of the District is maintained.

The NPPF states in the section on 'Supporting a prosperous rural economy' at paragraph 83 that *"Planning policies and decisions should enable ...sustainable rural tourism and leisure developments which respect the character of the countryside"*

Policy CS.24 Tourism and Leisure Development of the Core Strategy provides some guidance and states:

*"The role of tourism will be increased by supporting the growth and improvement of existing attractions and by encouraging new attractions and dispersing them throughout the District, in order to support the local economy and to provide the opportunity for local communities to enjoy the benefits that are derived.*

*Large-scale schemes for visitor attractions or overnight accommodation should, wherever possible, be located within the urban areas of Stratford-upon-Avon or a Main Rural Centre."*

The main planning issue raised by the use of land for stationing caravans is that of countryside protection. Caravan sites can be very obtrusive features in the landscape detracting from its scenic quality and amenity.

The case for any new static caravan development, or the expansion of existing facilities, will be assessed against the need to protect the countryside. The creation and extension of static caravan parks on open or exposed sites will be discouraged. This will be particularly important in environmentally sensitive areas<sup>i</sup>. Appropriately sited small-scale extensions to existing static caravan sites may be permitted where, by rounding-off and improvement to landscaping and layout, the result would be a less intrusive site provided this met with wider policies contained within the Core Strategy and National Planning Policy and Guidance, such as, for example, policies in relation to the Green Belt.

Small-scale touring caravan parks and camping sites are distinct from static caravan sites by being seasonal in use, leaving relatively little evidence of their usage in the winter months. Permission may be granted for touring sites at appropriate locations, where they are effectively screened and not visually intrusive. Access to sites should be carefully planned and should be designed to allow safe movement for cars and caravans to and from the site.

Policy CS.24 identifies criteria to assess large scale tourism development. What constitutes 'large scale' is not quantified in the policy but in relation to camping and caravan sites the following table is designed to assist in considering the scale of development. It is not intended to be prescriptive in terms of the facilities available at each size of site and it is acknowledged that there are many different types of product on offer by the industry.

<b>Small Scale</b>	<b>Medium Scale</b>	<b>Large Scale</b>
1-40 units	40-80 units	80+ units
Temporary/Seasonal use	Seasonal use	Multi-season use
No lighting	Low level lighting	Lighting
No water	Possible water supply	Water supply
No drainage	Composting or temporary toilets	Drainage
No hard standing	No formal hard standing	Choice of grass and hard standing pitches
Tents, touring caravans and motorhomes	Tents, yurts, touring caravans and motorhomes	Static caravans, touring caravans, motorhomes, tents, pods and yurts
No access road	No access road but a path network	Access road and paths
No electricity supply	Electricity supply on some pitches	Electricity hook up
No facilities	Limited facilities	Facilities such as shop, play park, reception

# Part L: Open Space

## Contents

- L1. Open Space and its role in sustainable development
- L2. Public Open Space Design (Quality)
- L3. Public Open Space Requirements (Amount)
- L4. Public Open Space: Timing of Delivery
- L5. Public Open Space: Transfer and Management
- L6. Public Open Space: Management and Maintenance Payments
- L7. Payments-in-lieu of provision of Public Open Space
- L8. Ecological Areas
- L9. Private Open Space
- L10. Pre-Application Advice
- L11. Planning Obligations and Conditions
- L12. Sources of further information

This part of the Development Requirements SPD provides further detailed guidance on the following Core Strategy policies:

- CS.6 Natural Environment
- CS.9 Design and Distinctiveness
- CS.25 Healthy Communities
- CS.26 Transport and Communications
- CS.27 Developer Contributions

The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

This section of the SPD provides information and advice on open space provision. It sets out guidance for the provision, enhancement, adoption, and future maintenance of new public open spaces required in conjunction with new residential development across Stratford-on-Avon District. Open space requirements for the new settlements of Gaydon/Lighthorne Heath and Long Marston are set out in Core Strategy Development Proposals GLH and LMA and their respective masterplan SPDs.

The SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission.

There are links to other parts of the SPD which must be considered in conjunction with any development proposal as appropriate, including Landscape Design and Trees (Part M), Biodiversity and Green Infrastructure (Part N) and Climate Change Adaptation and Mitigation (Part V).

Key words or terms which appear throughout the document are included in the [Glossary](#).

## **L1. Open Space and its role in sustainable development**

### **L1.1 What is Open Space?**

Open space, of public value, is wide ranging and includes street trees, formal sports pitches, play spaces and informal recreation, linear green corridors waterways, natural green areas, allotments and country parks. It also includes communal areas of land not necessarily used for recreation, but which can contain onsite infrastructure such as sustainable urban drainage systems (known as SUDS) and areas of planting and landscaping. Public Open Space provides a wide range of recreational and social functions, as well as giving urban dwellers their nearest opportunity for interacting with the natural environment beyond their own gardens. Private open spaces, such as gardens, are used by the occupiers of individual homes or communal establishments.

### **L1.2 Open space benefits**

There is growing evidence which demonstrates the significant benefits that access to high quality open spaces plays in improving both the physical and mental health and the general well-being of local communities<sup>9</sup>. Physical activity has been shown to improve outcomes in the reduction of mental illness and to improve wellbeing. Research has shown that it also has a significant role to play in the prevention of ill-health<sup>10</sup>. High quality green spaces are also shown to provide potential economic benefits for an area by reducing costs on the public health service and can aid urban regeneration. These spaces offer health and recreation benefits to people living and working nearby. In addition, landscaped spaces which offer ecological improvement play an important part in the landscape and setting of buildings.

### **L1.3 Stratford-on-Avon District's (SDC) vision for open space**

Ensuring access to high quality open space also contributes towards the delivery of wider strategic public health and corporate objectives of the Council. A key objective of the Council Plan 2023- 2027 is to increase and protect green spaces which positively affect nature recovery. The Council's Open Space, Sport and Recreation Assessment Update (2014) and the Council's emerging Playing Pitch Strategy and Sports Facilities Strategy 2016-2035 outline the Council's vision for open space in Stratford-on-Avon - this is set out below:

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<sup>9</sup> World Health Organisation, 'Urban green spaces and health: A review of evidence' (2016)

[http://www.euro.who.int/data/assets/pdf\\_file/0005/321971/Urban-green-spaces-and-health-review-evidence.pdf?ua=1](http://www.euro.who.int/data/assets/pdf_file/0005/321971/Urban-green-spaces-and-health-review-evidence.pdf?ua=1)

<sup>10</sup> Houses of Parliament, 'Green Space and Health' (2016)

<http://researchbriefings.files.parliament.uk/documents/POST-PN-0538/POST-PN-0538.pdf>

## Vision

To encourage the development of a well-connected and integrated network of open spaces, sporting and recreational facilities that make the best possible contribution towards a broad range of policy objectives, including:

- Biodiversity and wildlife
- Culture and heritage
- The local economy, including tourism
- Community, health and wellbeing
- Climate change adaptation and mitigation

The Stratford-on-Avon District Active Communities Strategy (2019 – 2024) is a comprehensive and broad strategic document that links the corporate objectives of Stratford-on-Avon District Council with the current national and local health and wellbeing agenda. The strategy seeks to enable and provide activities for local communities with the purpose of improving health and wellbeing. The strategy advocates exercise opportunities by working with key partners to raise the profile of the available offering. The strategy has three main themes:

- Strategic Theme 1 – Encouraging Active Communities to Improve Health and Wellbeing
- Strategic Theme 2 – Enhancing and Sustaining Facility Provision
- Strategic Theme 3 – Raise the Profile of Sport and Physical Activity

### L1.4 New development and open space

Open space provision is essential to delivering sustainable development. Demand from occupiers of new development will increase demand for open space. It is important that open space provision is considered at an early stage of planning for development to ensure that there is not just sufficient provision to meet new demand, but that any open space delivered is of a high quality.

The design of external space (predominantly landscape and streetscape in the public realm, but also private and semi-private garden space) involving trees and other vegetation, sustainable drainage systems and hard materials, is an essential component of achieving successful development. High quality external spaces offer economic, social and environmental benefits. The landscape scheme must be addressed during the early stages, ideally at the pre-application stage, of developments and be integral to the design of the whole of the proposal.

### L1.5 Landscape design principles

The success of a landscape design scheme will depend on the way in which it integrates the development proposals with its wider surroundings and the quality of works and their maintenance. Schemes should therefore seek to incorporate as many existing site features as possible, both to retain a sense of continuity in the appearance of the site and the contribution they make to the surrounding townscape and to re-use any existing valuable resources. Existing features may include trees, hedgerows, boundary walls or fences, water features, paving or other details particular to the site.

More information and guidance on landscape design can be found in [Part M: Landscape Design and Street Trees](#).

## L1.6 Space Function

Open spaces should be spaces that people wish to linger in and enjoy. Ensuring that all areas of land have a clear function to be used for contributes to the positive experience of an open space. Spaces should be clearly demarcated into private areas, or public realm. Where a lack of thought is given to this aspect of a development, awkward shapes of land can result, often on the periphery of the site and anonymously landscaped. Such spaces have no clear sense of ownership and quickly become neglected, poorly maintained and used for fly tipping.

## L1.7 Site Survey Analysis

The site survey (identifying ground level spot heights, contours and existing features) together with an analysis of the implications of these for open space provision, should inform the landscape design proposals. Features, including trees, hedges, water bodies, and site services to be retained or removed and important views to or from the site should be indicated on plans. The plans should also identify all site constraints and opportunities.

## L2. Public Open Space Design (Quality)

### L2.1 Designing Public Open Spaces

Public Open Space provides a wide range of recreational and social functions, as well as giving urban dwellers their nearest opportunity for interacting with the natural environment beyond their own gardens. Core Strategy Policy CS.25 'Healthy Communities' details different types of public open space typologies (see Table L1).

**Table L1: Core Strategy Open space typologies**

	<b>Open Space typology</b>	<b>Type of Public Open Space</b>
Type 1	Parks & Gardens and Amenity Greenspace	Non-strategic Local Parks, local public gardens, amenity greenspace for informal recreation spaces, communal green spaces in and around housing, and village greens
Type 2	Unrestricted Natural Accessible Greenspace	Publicly accessible places where human control and activities are not so intensive so that natural processes of habitat creation and plant growth are allowed to predominate. It should be noted that this category of space is not the same as an ecological area.
Type 3	Children and Young People's Equipped Play Facilities	Areas for play and social interaction involving children and young people, including Local Areas of Play (LAP), Local Equipped Areas of Play (LEAP), Neighbourhood Equipped Areas of Play (NEAP), Multi-use Games Areas (MUGAs), ball courts, skateboard areas, BMX tracks & teenage shelters
Type 4	Allotments and Community Gardens	Allotments and Community Gardens/Orchards
Type 5	Outdoor Sport	Areas for outdoor sport and physical recreation primarily through formal sports pitches



Public open space must be designed to address the following requirements:

- Enable physical activity for all users, including the vulnerable groups such as elderly and young people and people living with disabilities.
- Be in an easily accessible location with high quality priority links for pedestrians and cyclists.
- Be located sufficiently far from existing and proposed dwellings and include buffer zones to reduce the likelihood of noise and disturbance.
- The Public Open Space must be located within an appropriate walking distance for the type of function it provides.
- Appropriate boundary treatments should be used.
- Designs for the space and selection equipment should consider the need for sustainability both in respect of the materials and the design.
- New litter bins, recycling bins and signage may be required along with other infrastructure such as roads or parking with recreational space maximized.
- New areas of soft landscaping, which will support planting, should use good quality topsoil in line with the appropriate BS standards, with a good structure, that has not been degraded through use as a roadway or builder's compound during the construction period.

New developments must incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate (as set out in Core Strategy Policy CS4). These will range in scale depending upon the development proposed. A well-designed SuDS system will enhance the attractiveness and value of new development by integrating water management with habitat for wildlife and opportunities for amenity and recreation. Details may include a Water body, Vegetation, Headwalls, Culverts, Underground Pipework and Storage Crates, Fencing, gates, access track, Lifebuoy, Signage.



Figure. L1 - High quality open space, Bancroft Gardens, Stratford-upon-Avon.

## L2.2 Design Standards for Play Spaces

Open Space provision for play is central to children’s physical, mental, social and emotional health and wellbeing. Through play children develop resilience and flexibility, contributing to physical and emotional wellbeing.<sup>11</sup> Play Spaces should be provided where children can play, where they can feel completely free, where they can safely push at the boundaries, learning and experimenting and where different generations can meet, binding the community together. The provision of opportunities to play as part of new housing development benefits future residents, in terms of providing an attractive environment for all, whilst providing a valuable play resource.

Within Stratford-on-Avon District, we want play spaces to be truly innovative and set new standards for play provision. To achieve this, play areas should be designed using the key design principles set out in Play England’s ‘Design for Play’ (2008) and CABE’s Inclusion by Design (2008) and any revision or successor documents. This will ensure that our play areas are innovative and inclusive from inception to completion.

The design of play areas must be an integral part of the design process from the outset. Proposals for playspace must show how they have addressed the following matters. In locating playspace:

- This should be in easy walking distance from new dwellings while allowing appropriate separation from these (indicative distances are shown in Table L2)
- The route between the dwellings and the play space is as safe as possible.
- Playspace should be in an open and welcoming site located away from main roads to prevent health risk of traffic pollution and traffic accidents.
- Natural surveillance, ideally from nearby dwellings or local roads where safe, should be provided.
- The site must be on land suited for the type of play opportunity intended.

**Table L2: Locating Playspace**

	<b>Walking Distances from new dwellings</b>	<b>Minimum separation distance from existing and proposed dwellings</b>
LAPs	100m	5m
LEAPs	400m	20m
NEAPs	1,000m	30m
MUGAs, ball courts, skateboard areas, BMX tracks and teenage shelters	700m	30m
Playing Pitches	1,200m	30m

Playspaces should meet community needs, taking account of the local demography, and complementing nearby play spaces and should:

- Allow children of different ages and abilities to play together and reflecting local needs provide playing spaces should be provided for different age groups, including teenagers.
- Building in opportunities to experience risk and challenge.
- Supporting imaginative play and creativity.
- Provide seating for parents and carers.

<sup>11</sup> Mackett, R. et al (2007) ‘Children’s independent movement in the local environment’, Built Environment, 33,4, 454-88.

The design of playspaces should also:

- Incorporate equipped play areas and areas for casual play and informal activities.
- Be integrated as far as possible with other local open spaces and amenity areas.
- Make use of natural elements
- Provide adequate lighting for play which provides a safer environment for the users of the open space, and which is appropriate for the area, including considering impact on adjacent residential occupiers
- Where appropriate, the site could include an interesting eye-catching design or feature.

Play equipment needs to be high quality – and multifunctional where appropriate, safe, accessible and inclusive to children with disabilities. It should address the following building standard (or successor standard)

- Playground Equipment Standard BS EN 1176
- BS EN Standards 1176 and 1177 (Impact Area and Critical Fall Height) for impact absorbing surfaces beneath and around play equipment.

### **L2.3 Sustainable Drainage Systems (SuDs)**

New developments must incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. This has an important role in managing climate impacts (see Part V (Climate Change Adaptation and Mitigation) of this SPD)

A well-designed SuDS system will enhance the attractiveness and value of new development by integrating water management with habitat for wildlife and opportunities for amenity and recreation. Details may include a water body, vegetation, headwalls, culverts, underground pipework and storage crates, fencing, gates, access track, lifebuoy, signage. The proposed design of SUDs should be included in the initial design of the open and the Council will ensure SUDs secured by condition are well designed and integrated with the open space. It is important to ensure they are well integrated into open spaces and do not dominate the open space provision nor unduly constrain the space for recreation. It is important that the vegetation surrounding the SUDs and within the SUDs feature is designed as part of the open space. Section L10 provides further sources of guidance on the provision of SUDs.

### **L3. Public Open Space Requirements (Amount)**

Core Strategy Policy CS.25 'Healthy Communities' identifies the standards of open space in different open space typologies. It states that contributions will be required where it is justified by the scale of development. This will include residential development proposals for major developments of 10 or more dwellings of any tenure.

It is expected that open space will be provided on site and the location and form of the provision will be assessed on a case-by-case basis. The process for determining the amount of public open space required is shown in Table L3 and L4 below.

**Table L3: Calculating the number of additional residents**

The additional number of residents will be calculated based on:

The average occupancy (column A) multiplied by the standard of open per person additional resident (column B).

Dwelling Type	Average Occupancy (A)*	No. of units (B)
1 bed flat	1.29	1
2 bed flat	1.97	1
2 bed houses	1.79	1
3 bed houses	2.31	1
4+ bed house	2.80	1
		<b>Total additional number of residents (D)</b>

Note: Source Census Data 2021

For Outline Applications where the size and mix of dwellings are not yet agreed and able to be conditioned. The additional residents can be calculated using the following formula:

Total additional number of residents= Average Occupancy (column A) x largest mix allowable in the recommended mix in CS.19 Housing Mix and Type.

**Table L4: Calculating the public open space requirement**

The public open space requirement will be calculated based on:

The number of additional residents in column D (Total of column B above) multiplied by the standard of open per person additional resident (column E).

	Open Space Typology (C)	Additional number of residents (D)	Standard per person (square metres) for each additional resident * (E)
1	Parks & Gardens and Amenity Space (all areas)	1	11.5sqm
2	Unrestricted Natural Accessible Greenspace (Stratford-upon-Avon)	1	52.4sqm
	Unrestricted Natural Accessible Greenspace (all other areas)	1	7.5sqm
3	Children and Young People's Equipped Play Facilities (all areas)	1	2.5sqm
4	Allotments and Community Gardens (all areas)	1	4.0sqm

**Note:** The amount of Public Open Space required for the various typologies is reflects the standards in from Core Strategy Policy CS.25 'Healthy Communities' which are in turn derived from The Open Space, Sport and Recreation Assessment: Update to the PPG17 2011 Study (Arup, September 2014).

The typologies are the most commonly secured associated with development in the district and are reflected in Core Strategy Policy CS.25. Core Strategy Policy CS.25 'Healthy

Communities' identifies another typology - additional outdoor sports facilities. While there will be instances where requirements for this typology arise, this is omitted from the standard calculation. This is because demand for this type of facility, and provision to address need, is assessed at a strategic level based on the methodology defined by Sport England. The latter takes account of a range of factors including the need for outdoor sports provision at the strategic level as part of playing pitch strategy and in infrastructure delivery plans to support the implementation of the Core Strategy (and future local plan).

#### **L4. Public Open Space: Timing of Delivery**

The Council will secure the provision of open space through appropriate conditions and planning obligations (secured by a section 106), along with measures related to the longer-term management and maintenance. Developers are encouraged to engage with Parish/Town Councils and the Council earlier in the development process to make management and maintenance arrangements as early in the development process as a possible to avoid delay at application stage.

Where public open space is being provided on-site in a residential development (market and affordable housing), it must be laid out and transferred to the final management and maintenance provider prior to 60% occupation of the dwellings on the site. The District Council will need to be satisfied that a Certificate of Practical Completion of the laying out and planting of the Public Open Space can be issued, and the Public Open Space will then need to be maintained for a minimum of 12 months. At the end of this 12-month period and subject to the rectification of any identified defects in the Public Open Space, the District Council will need to be satisfied that a Final Completion Certificate can be issued in respect of the Public Open Space, prior to any land being transferred to the management organisation, with any necessary health and safety reports and transferable guarantees and warranties being provided as part of the transfer documentation.

For Custom and Self Build residential developments it must be laid out and transferred to the final management and maintenance provider prior to 40% occupation of the dwellings on the site. The build out timeframe will likely be much longer than on general housing sites as plots may be built out individually. This lower trigger point for delivery will help minimise the risk of Public Open Space remaining unfinished for a prolonged period which would adversely impact the amenity of early occupants of the site.

#### **L5. Public Open Space: Transfer and Management**

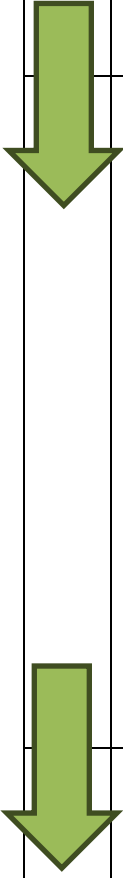
There is an expectation that public open space will be, normally be transferred to the Parish/Town Council. This includes:

- Type 1 Parks & Gardens and Amenity Greenspace
- Type 2 Unrestricted Natural Accessible Greenspace
- Type 3 Children and Young People's Equipped Play Facilities
- Type 4 Allotments and Community Gardens

Where the Parish/Town Council do not accept the transfer, the District Council will consider the management of Types 1 to 3 only. Transfer to the District Council is subject to ensuring the open space can be effectively maintained under the current management programme in operation. Where any of these types of spaces cannot be managed by the Town/Parish Council or District Council and are to be retained by the developers or transferred to a management company, the quality of management and maintenance must be maintained

at a high standard. The Council will also ensure that costs to residents where they arise remain reasonable. This process is explained further in Table L5.

**Table L5: Process for determining the body that will manage the public open space**

	<b>Transfer process</b>	<b>Management and maintenance costs</b>
	<p><b>Step 1:</b> In the first instance, the developer will offer the public open space to the relevant Parish/Town Council for transfer for them to manage and maintain.</p>	<p>The developer will offer the Parish/Town Council, a commuted sum equivalent to 30 years of management and maintenance costs (Section L6.2 provides details of how this is sum will be calculated).</p>
	<p><b>Step 2:</b> Where the Parish/Town Council declines to take a transfer of all or any of the typologies and if the open space is in the typology of Parks &amp; Gardens and Amenity Greenspace (type 1), Unrestricted Natural Accessible Greenspace (type 2) and Play Areas (type 3), the District Council will consider the management and maintenance of these where the maintenance programme in operation will allow effective management overall and in respect of individual components planned as part of the space. This assessment will consider factors such as location and scale of provision as well as relevant matters related to the wider management regime in operation for the specific development.</p>	<p>The developer will offer the District Council, a commuted sum equivalent to 30 years of management and maintenance costs (Section L6.3 provides details of how this is sum will be calculated).</p>
	<p><b>Step 3:</b> Where the Parish/Town Council declines to take a transfer of all or any of the typologies and the District Council also declines management (of type 1 and 2 or 3), the section 106 will provide for the developer to retain the land or give the option of a transfer to a management company.</p>	<p>To ensure maintenance fees (and any subsequent increase to these) are proportionate and reasonable, the District Council will require the developer to:</p> <ul style="list-style-type: none"> <li>• Maintain the quality standards based on approved plans and specifications</li> <li>• Ensure no service charge will be payable for 30 years by occupants for the public open space (charges may still apply to site infrastructure not transferred) as a commuted sum or similar will have been provided.</li> <li>• At least 24 months before the expiry of the 30-year period, submit the publicity scheme to residents of any service charge along with the amount of the service charge and justification for this to the District Council for approval. In addition, any subsequent increases to this charge will be CPI index linked.</li> </ul>

## **L5.1 Management Organisations**

The maintenance and management strategy should be provided as part of the application clarifying the organisation(s) any public open space will be transferred to for maintenance. This highlights the importance of developers engaging early on with the Parish/Town Council and the Council.

Where a Parish/Town Council wishes to take on some, but not all, of the open space typologies, suitable long term management maintenance arrangements for the remaining types of open space will need to be established.

Some types of open space may need to be managed by specific bodies, meaning more than one organisation has responsibility for maintenance. For example, where SUDs form an element of the open space provision, these should be managed by management companies. Additionally, engagement with Warwickshire County Council (the Lead Local Flood Authority) will be required to determine their role, if any in maintenance and management. Changes to DEFRA policy and legislation have the potential to impact arrangements and should be monitored (this guidance will be updated as required to reflect these).

It is also anticipated that certain site infrastructure, not subject to transfer along with any associated Public Open Space, including visitor parking areas, communal driveways, communal bin stores, incidental open space, green infrastructure, footpaths, street trees not in the adoptable highway, and landscape buffers, will normally be managed by a Management Company.

It may not always be practical to split up the open space typologies between different organisations – such as when it adds undue cost complexity to all parties and prejudices the maintenance of the space. A comprehensive maintenance plan covering all typologies will need to be submitted as early as possible and no later than prior to transfer to enable the Council to assess the appropriateness and effectiveness of this.

## **L6. Public Open Space: Management and Maintenance Payments**

### **L6.1 Payments to the managing organisation**

A Commuted Sum for Management and Maintenance is payable where the land is to be transferred to a Parish/Town Council or the District Council. This payment should provide for 30-years of management and maintenance of the public open space. A 30-year period is used as this is already established period for maintenance payments in connection with securing biodiversity net gain and it is within the benchmarked range of costs used by other local authorities in England. The rates agreed will be index linked from the date of the permission to the date the land is transferred. Where the Commuted Sum for Management and Maintenance (Table L6) is used, the date of the adoption of this SPD will be used as the base date. The Consumer Price Index (CPI) will be used.

A Commuted Sum for Management and Maintenance will need to account for the various components that make up the open space, plus a management fee for managing the maintenance, typically at least 10 %. These components may include items such as:

- Pathways
- Planted areas
- Grass
- Trees
- Shrubs
- Hedging
- Fencing
- Signage
- Seating
- Litter bins
- Bird and bat boxes
- Gates
- Water Supply

The level of a Commuted Sum for Management and Maintenance can be discussed any time after public Open Space specification and Management and maintenance scheme are agreed.

For outline applications, where the exact quantity and components of the public open space are unknown, provision will be made in the S106 Obligation to enable the exact commuted maintenance sum to be calculated at Reserved Matters Stage based on the approved layout.

## **L6.2 Calculating the commuted sum for management and maintenance (Parish/Town Councils)**

The figure must confirm the cost for each typology, as each typology may be subject to different transfer arrangements. The final commuted sum figure needs to be agreed prior to offer of transfer to Parish/Town Council.

Where the number of additional residents, public open space specification and management and maintenance scheme details are agreed prior to determination, the management and maintenance commuted sum can be calculated in one of two ways:

1. Calculations based on an average of three quotes for 30-years management and maintenance or
2. Calculations using the standard management and maintenance rates for each typology identified in Table L6

Where the number of additional residents, public open space specification and management and maintenance scheme details are not known at the time of determination and the finalisation of the S106, option 2 will normally be appropriate. This could be for outline applications, which may only have an indicative layout, or where specification and management and maintenance scheme are to be secured by condition.



## 1. Calculations based on an average of three quotes for 30-years management and maintenance

Where the commuted sum is based on quotes, the costs specified should be based on approved plans and specifications, and the management regime in the approved Management and maintenance scheme. Three independent quotations for 30-years of management and maintenance of each typology, will need to be provided by the developer. These should be prepared by a suitably qualified independent professional (Landscape Institute, Chartered Institute of Horticulture or grounds maintenance), to be agreed between the developer and the District Council. The 30-year maintenance cost will be based on the average of these three estimates.

## 2. Calculations using the standard management and maintenance rates for each typology identified in Table L6

The calculation of the commuted sum for 30-years of management and maintenance, for each typology shall be calculated in accordance with the following formula:

Number of new residents (Table L3) multiplied by 30-Year Commuted Sum Cost per additional resident (including management fee) (Table L6, column G)

**Table L6: 30-year Commuted Sum for Management and Maintenance by Typology**

	<b>Open Space Typology (C)</b>	<b>Amount of POS (square metres) for each additional resident (E)</b>	<b>30-Year Commuted Sum Cost per sqm (including management fee) (F)</b>	<b>30-Year Commuted Sum Cost per additional resident (including management fee) (G)</b>
Type 1	Parks & Gardens and Amenity Space (all areas)	11.5sqm	£87.84	£1,010.18
Type 2	Unrestricted Natural Accessible Greenspace (Stratford-upon-Avon)	52.4sqm	£50.92	£2,668.46
	Unrestricted Natural Accessible Greenspace (all other areas)	7.5sqm	£50.92	£381.93
Type 3	Children and Young People's Equipped Play Facilities (all areas)	2.5sqm	£44.76	£111.90
Type 4	Allotments and Community Gardens (all areas)	4.0sqm	£8.68	£34.73
Note: Values based on the prices in Spon's External Works and Landscape Price Book 2024				

The costs identified in Table L6 have been calculated for the maintenance of quantities of hard and soft landscaping, fencing, gates, bins, seating, bird boxes, water supplies, access roads, and replacements appropriate for each typology and includes a 10% management fee.

### L6.3 Calculating the commuted sum for management and maintenance (District Council)

Where transfer may be to the District Council, the rates in Table L6 can be used to establish indicative costs. The costs will be agreed prior to determination on a case-by-case basis taking into account of the site-specific provision of components and the management requirements and costs associated taking into account current maintenance arrangements.

### L7. Payments-in-lieu of provision of Public Open Space

It is recognised that there may be circumstances where site constraints do not allow for provision of some, or all, of the Public Open Space typologies either on site or by direct provision near it. In exceptional circumstances, the Council may accept a payment-in-lieu to pay for provision of new Public Open Space within a reasonable distance of the development site on land not included within the planning application red line boundary.

Any payment-in-lieu figure will need to be agreed prior to determination and paid prior to commencement of development unless viability evidence justifies a later payment. The payment-in-lieu figure will be index linked from the date of the outline or full permission to the date the payment is transferred. The Consumer Price Index (CPI) will be used.

Table L7 provides payment-in-lieu rates equivalent to the provision, and 30-years management and maintenance of each of new local Public Open Space typology.

#### Table L7: Payment-in-lieu Cost per additional resident

The payment in lieu figure will be calculated using the following formula:

Number of new residents (Table L3) multiplied by Cost of Provision and 30-years management and maintenance per additional resident (Table L7, column I)

	Open Space Typology (C)	Amount of POS (square metres) for each additional resident (E)	Cost of Provision and 30-years management and maintenance per metre (H)	Cost of Provision and 30-years management and maintenance per additional resident (I)
Type 1	Parks & Gardens and Amenity Space (all areas)	11.5	£124.53	£1432.12
Type 2	Unrestricted Natural Accessible Greenspace (Stratford-upon-Avon)	52.4	£75.51	£3956.73
	Unrestricted Natural Accessible Greenspace (all other areas)	7.5	£75.51	£566.33
Type 3	Children and Young People's Equipped Play Facilities (all areas)	2.5	£131.60	£329.00
Type 4	Allotments and Community Gardens (all areas)	4.0	£48.83	£195.33

Note: Column B is derived from prices in Spon's External Works and Landscape Price Book, 2024 and column C is based on the quantum established in policy CS.25

The calculation of the payment-in-lieu figure includes the cost of site acquisition, including a local land value of £21,000 per hectare, professional fees including landscape architect, legal and planning fees, preliminaries, an adjustment factor for the West Midlands and includes a 5% contingency cost. It includes a 30-years management and maintenance of quantities of hard and soft landscaping, as well as maintenance of fencing, gates, bins, seating, bird boxes, water supplies, access roads, and replacements appropriate for each typology.

## **L8. Ecological Areas**

The provision of Ecological Areas to comply with national biodiversity net gain requirements are calculated separately to the requirements for the provision of Public and Private Open Space as set out in this guidance. It is expected that the ongoing management and maintenance associated with these ecological spaces will be funded by the developer for a minimum of 30-years in line with national requirements.

## **L9. Private Open Space**

### **L9.1 Residential Space**

Private space for houses must be located to the rear, wherever possible, and ideally backing on to similar private garden space with no public access. This arrangement provides property security and allows for relatively tranquil and sheltered spaces.

The street elevation must have windows to habitable rooms and doors, allowing for natural surveillance of the street and the 'defensible space' between the dwelling and street.

An important component of good quality residential design is the provision of useable outside private space where residents can take advantage of fresh air and direct access to the natural environment. This is different from semi-private communal space (which is shared by residents).

Private outdoor space must be easily accessible for all physical abilities, but accessible only to those residents for which it is designed to be used.

The size of the private outdoor space may need to be increased:

- To reflect the local character.
- Where excessive shading renders significant areas of the garden unusable due to neighbouring buildings or other structures, trees, orientation.
- Where significant mature trees are to be retained within the garden space.
- To ensure areas of privacy.
- Where gardens are unusable due to their size, levels or configuration.
- Where parts of gardens are unusable due to excessive traffic or other noise (noise attenuation in the form of acoustic fencing may also be necessary).

The Council welcomes innovative proposals for the provision of private and communal outdoor space such as roof gardens, balconies, gardens integrated within the fabric of individual houses or flats and high-quality landscaped grounds, so long as they do not unacceptably harm the amenity of neighbouring occupiers or the character of the area.

## L9.2 Residential Front Gardens

Front gardens are an important contributor to the landscape design of the street and green infrastructure, as well as providing opportunities for social interaction and providing 'defensible space' between the dwelling and street thus aiding security.

In some situations, it may be appropriate for front gardens to not be provided, such as where there is a local tradition of houses fronting directly onto the footway or in a 'home zone' or mews street. In such circumstances where there is a lack of 'defensible space' the design of streets and dwellings must achieve security by other means.

As a general guideline, a front garden must have a minimum depth of 2m.

## L9.3 Residential Rear (or Side) Gardens

Proposals must give careful consideration to the size of the proposed rear or side gardens taking into account the local context.

As a general guideline, a rear garden length of 10m, depth of 5m and 40/50/62sqm usable space as noted in Table L8 below would provide a reasonably functional area of private outdoor space. However, for other site specific and design reasons (e.g. privacy requirements or overshadowing) gardens may need to be larger.

## L9.4 Space standard for Private Gardens

Table L8 provides the minimum sizes of private gardens serving different sizes of dwellings. It should be considered as a starting point for discussion with planning officers when designing private gardens for residential development.

The design of garden areas also needs to take into account separation distances between properties and further information on this can be found in [Part F \(Residential Amenity\) of the Development Requirements SPD](#).

**Table L8: Indicative minimum garden areas by dwelling type**

House Size	Minimum Garden Area
2-bedroom dwellings	40 sqm of useable space per dwelling
3-bedroom dwellings	50 sqm of useable space per dwelling
4+ bedroom dwellings	62 sqm of useable space per dwelling
Apartment blocks	25 sqm of useable space per unit of accommodation
Elderly communal accommodation.	20 sqm per bedroom
Minimum depth of rear gardens	10m
Minimum width of rear gardens	5m
Minimum separation between dwellings (not including terraces).	3m

### L9.5 Open Space for Apartment Blocks

For flats, the provision of individual private gardens may not be possible, so private communal open space will be required to provide an appropriate area of shared semi-private space. This can also provide an attractive setting for the building within the local context.

Apartment blocks and non-residential buildings also need to concentrate the main entrance or entrances on the street frontage and sides. The Private communal open space must be away from street views. Service areas must be hidden from the street or its visual impact (of car and cycle parking or a delivery zone, bin storage) be mitigated by good design.

High quality communal open space will provide:

- 25 square metres of useable space per conventional residential dwelling, and 20 square metres for elderly communal accommodation, although local context may exceptionally justify departure from this norm.
- open space that is comfortable and not over-dominated by the mass of a building. It must be located and configured appropriately.
- communal space for flats with some form of enclosure and privacy, while including a degree of overlooking by residents. In some instances, a robust boundary treatment may be needed, cases where there is no alternative but to locate it close to traffic or other noise.
- private communal spaces that are suitable for normal domestic activities, such as relaxation, drying washing, BBQs etc. and not merely act as a grassed setting for the building.
- In the case of ground floor flats, private outdoor sitting space linked directly to that flat wherever possible.
- Where direct access to private communal space is provided for ground floor flats, some defensible space must be provided which may include planting, to safeguard the privacy of residents from other users of communal space.
- appropriate planting for the space to be provided and the arrangements for the management and maintenance of the space must be fully set out.
- useable amenity space, which must exclude narrow strips of land and excessively shady and noisy areas, along with land that is used for associated infrastructure such as SuDS and parking areas.
- property boundaries to public spaces, that includes roads, open space or parking courts, must be masonry (brick or stone), whilst boundaries between private space, such as adjoining gardens, can normally be fences or more natural features such as hedgerows.
- In developments where accommodation for the elderly (including sheltered accommodation) is proposed, consideration must be given to means of access, levels, hard standing, the type of planting (such as green space which has been designed to appeal to as many of the senses as possible use of raised beds to aid wheelchair users), shelter and seating areas.

### L9.6 Balconies

The installation of balconies on new buildings can offer a positive contribution, by providing outdoor sitting areas, where outward views will not unacceptably affect the neighbouring amenities or character of the area. To ensure that balconies are properly integrated into buildings and their surroundings, they must be considered early in the design process. The appropriate size of a balcony will depend on the circumstances of a particular development.

## **L9.7 Roof Terraces /Green Roofs**

As an alternative to the provision of front or rear gardens at ground level, and in the interests of making best use of urban land, roof terraces can increase opportunities for private residential, and 'private' communal open space subject to there being no overriding design, functional or privacy concerns affecting the amenity of neighbouring residents and character of the area. Further information about green roofs is available in [Part E: Architectural Style, Construction and Materials](#). Proposals will be considered on a case-by-case basis. Any roof-space provided as an alternative to private garden space must offer an equivalent or enhanced level of amenity to future residents.

## **L9.8 Management and maintenance on smaller sites and non-residential sites**

Residential schemes with less than 10 dwellings and non-residential developments, may include areas of hard and soft landscaping including trees, hedges, and shrubs in areas of incidental open space, boundary treatment, green infrastructure, footpaths not adopted, street trees not in adoptable Highway, car parking/visitor parking spaces or landscape buffers.

Appropriate management and maintenance will have to be agreed with the District Council for the hard and soft landscaping elements of the proposals. This will include the completion of the building works and replacement or replanting of any tree, hedge or shrubs that are felled, removed, uprooted, destroyed, becomes, seriously damaged, diseased or defective or dies.

## **L10. Pre-Application Advice**

Discussions between developers and officers of the District Council should take place as early as possible in the planning process, preferably at the pre-application stage. This is to establish the scale of provision required and the responsibility for future maintenance. For more information see: <https://www.stratford.gov.uk/planning-regeneration/pre-application-advice.cfm>

## **L11. Planning Obligations and Conditions**

It is expected that most new open space will be secured by planning obligations (Section 106) or planning conditions. However, there may be instances where an offsite provision is made by developer nearby. The District Council will work proactively with developers to implement requirements for open space and may, in exceptional cases where there are demonstrable and evidenced viability challenges, apply requirements more flexibly.

### **L11.1 S106 Fees**

Where a S106 Obligations is required to secure either on-site or off-site open space then the Council will charge a fee, calculated on a case-by-case basis, to cover the costs of preparing and executing the Agreement and associated monitoring. This will be based on the complexity of the S106, and the costs associated with the negotiation, preparation and execution of the S106 Agreement and its registration as a local land charge.

A fee will also be charged for the approval of any details required by the Legal Agreement.

## L11.2 Standard approach to open space provision on larger residential sites

Planning Conditions will cover the following matters:

- Hard and Soft Landscaping Specification for Public Open Space that may be subject to adoption by Parish/ Town Councils or the Council
- Hard and Soft Landscaping Management and Maintenance Scheme for Public Open Space that may be subject to adoption by Parish/ Town Councils or the Council
- Hard and Soft Landscaping Implementation for Public Open Space that may be subject to adoption by Parish/ Town Councils or the Council, Practical Completion Certificate, Maintenance Period of not less than 12 months, Final Completion Certificate
- Hard and Soft Site Landscaping Infrastructure Specification (including Incidental Open Space, SuDs landscaping, bin collection points, landscape buffer and visitor parking spaces, etc.)
- Hard and Soft Site Landscaping Site Infrastructure Management and Maintenance Scheme
- Hard and Soft Site Landscaping Site Infrastructure Implementation
- SuDS Specification and Drainage Details as requested by the Lead Local Flood Authority.
- SuDS Management and Maintenance as requested by the Lead Local Flood Authority
- Appropriately worded conditions will ensure that construction compounds are not sited on areas intended for use as Public Open Space or other areas of planting.

S106 Agreements will cover the following matters:

- In relation to the transfer of POS, the requirements for the transfer arrangements.
- Where the land is to be managed by the Developer or a Management Company, the arrangements in respect of service charges; and
- The sum and timing of any financial payments such as commuted sums for management and maintenance or payments-in-lieu of provision of open space.

### Find out more

[CABE, The Value of Public Open Space: How high- quality parks and public spaces create economic, social and environmental value.](#)

[Fields in Trust Fields in Trust 'Guidance for Outdoor Sport and Play – Beyond the Six Acre Standard'](#)

[Sport England, 'Active Design'](#)

[Design for Play – Play England](#)

[Stratford-on-Avon District Active Community Strategy](#)

[Design Council, Inclusion by Design](#)

[Safer Parks for Women and Girls Guidance](#)

[Historic England, Looking After Parks, Gardens and Landscapes](#)

[Warwickshire County Council Flood Risk Guidance for Development -](#)

[SuDS Manual \(CIRIA C753\)](#)

[Guidance on the Construction of SuDS \(CIRIA C768\)](#)

[Sewerage Sector Guidance - Approved documents](#)

# Part M: Landscape Design and Trees

## Contents

- M1. Landscape Context
- M2. Trees
- M3. Existing Trees in Development Sites
- M4. Street Trees
- M5. Tree Species

This part the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.2 Climate Change and Sustainable development
- CS.5 Landscape
- CS.6 Natural Environment
- CS.7 Green Infrastructure
- CS.9 Design and Distinctiveness
- CS.25 Healthy Communities (open space)

It provides guidance and advice on how applicants can achieve a good standard of landscape design in new development. It should be read in conjunction with other relevant parts of the SPD, in particular [Part C: Access and Connectivity](#) and [Part D: Buildings and Layout](#).

This SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission.

The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy).

Key words or terms which appear throughout the document are included in the [Glossary](#).



## **M1. Landscape context**

In addition to meeting any open space requirements (see [Part L: Open Space](#)) the starting point for landscape schemes for major developments should be led by the findings and outcome of their landscape and visual appraisal or assessment (LVIA). These should be prepared by a chartered Landscape Architect (MLI) following the latest edition of Landscape Institute's Guidelines for Landscape and Visual Impact Assessment and submitted as part of the application. This should help to explain the landscape approach, layout or provision of landscape space being provided at the development as well as the species that are being shown in the detailed landscape plan accompanying the development proposal. Such assessments will have provided useful identification of the immediate local landscape character and features in and around the site, the wider Warwickshire landscape character context as well as identifying the key public views leading to the areas of the proposed development where mitigation is most required in order to sufficiently reduce the development's visual impact. Where landscape plans are submitted that appear to be out of context to their surrounding local setting, such plans are unlikely to be supported, without significant amendments.

Even for much smaller scale development proposals, consideration of the existing landscape character of the locality; amount of tree cover; topography; any existing tree features; typical hedge or other types of boundary treatments in the locality; are all useful indicators of what new landscape proposals are likely to be appropriate site.

The success of a Landscape scheme will therefore depend on the way in which it helps to integrate the development proposals with its wider surroundings setting and local context. Schemes should therefore seek to incorporate as many existing site features as possible, both to retain a sense of continuity in the appearance of the site and to re-use any existing valuable resources. Existing features may include trees, hedgerows, boundary walls or railings, water features, heritage paving or other details particular to the site.

### **New Structural Planting**

In addition to retaining existing trees and hedges, developments, particularly major schemes, are likely to require new structural planting (buffers) around site boundaries, especially if they are proposed within open countryside or have a boundary with open countryside or are at the edge of a settlement. Consideration of the scale bulk and height of the development and the mature size and stature of any proposed tree species should be considered when designing a landscape scheme. Landscape cross sections may also assist in selecting suitable tree species.

Such buffers should contain a mixture of planting sizes including (60-80cm) whip planting at 1m centre densities, but also including feathered and light standard trees. Such planting should consist of locally, rather than nationally, native species. The exact tree and shrub planting species mix should depend on the local character area where the development site is situated. Across the District there is some species variation, related largely to soil types. For example birch trees are not characteristic and therefore not appropriate in Feldon, Ironstone Uplands, Cotswold Fringe and Stour Valley areas but they can be appropriate within a landscape scheme for the northern, Arden part of this District. See [Part N10: Species List](#) for extracts from Warwickshire Landscape Guidelines showing character areas and locally native species lists for each area.

The structural planting buffer areas should be of sufficient width to allow for mature native tree crown spreads. However required widths will vary depending on other individual site specific factors, for example including topography, existing local landscape character regarding trees or woodland, the heights and scale of the proposed development. There are also parts of the District where new tall dense structural mitigation tree planting may be inappropriate amongst the key characteristics of that landscape type. (For further detailed information on landscape character in Warwickshire, please find the link to Warwickshire County Council's Warwickshire Landscape Guidelines ([https://www.warwickshire.gov.uk/?page\\_id=713128](https://www.warwickshire.gov.uk/?page_id=713128)))

The long term objective of such structural soft landscape planting is to help create attractive, positive edges to developments to help them integrate better into open countryside or edge of settlement locations. They provide a 'green' planted buffer between what is often contrasting hard materials such as brick buildings, roofs, hard standing and fencing associated with built developments and undeveloped, open countryside land use beyond.

### **New Native species hedges**

These are usually appropriate as soft boundaries within open countryside or rural settlement locations. (Please see species list section [Part M.5](#)). The usual native hedge planting standard expected is 5 No. plants per linear metre in a double staggered row, 450mm apart. Other green leaved hedge species may be appropriate in more urban locations.

In rural areas, new planting should predominantly consist of locally native species, as per Warwickshire Landscape Guidelines, particularly if a development is either within or forming a boundary adjacent to open countryside at a settlement edge. , Within the more urban areas, more ornamental plant species that are appropriate to the site and its function may also be considered.

Generally spiral topiary or other highly contrasting architectural, urban accent style or highly coloured shrubs are unlikely to be appropriate on landscape schemes within this rural District. However they may be considered on planting schemes associated with contemporary designed developments located in town centre locations, where there is no identifiable more traditional or native planting context to the site surroundings. Similarly new bulb planting and wetland planting around SUDS areas should be appropriate to its context with native bulbs and native marginal or aquatic planting being more likely to be suitable.



Fig. M1 shows an example of appropriate hedging in a new development in Stratford-upon-Avon.

Strong, attractive coherent design is created from a simple, clearly identifiable limited palette of plant materials. Incoherent, ad hoc planting using extensive different tree and shrub varieties will not be supported. It results in weak, unrecognisable design, which lacks any identifiable local distinctiveness or sense of place. Such patchy 'scattergun' planting also tends to be removed more quickly by future owners, as it appears to offer little public amenity purpose to the surrounding area. This results in poor long term landscape planting quality overall within the development.

Within proposed Public Open Space (POS) areas, the Council is likely to accept greater flexibility on proposed species, provided that any ecological habitat biodiversity requirements are still met and that the species proposed remain visually unobtrusive and are not of highly contrasting form, colour or character with the location.

The concept of 'edible planting' such as fruit trees, plants with berries and herb species is encouraged. This would be particularly appropriate in association with new community orchard areas or new allotments in public open space areas.

### **Community Orchard**

The introduction of new orchard planting in this District is positively encouraged. As well as being highly appropriate to maintain, enhance and restore links between sometimes remnant or isolated local landscape character orchard features, particularly along the elevated fringes of the Avon Valley, they can also provide valuable new community assets. It is expected that appropriate locally native 'heritage' fruit species should be proposed eg Warwickshire Drooper Plum, Wyken Pippin.

For further useful information on Warwickshire Orchards, suitable species and existing local community orchards please contact Warwickshire Wildlife Trust [www.warwickshirewildlifetrust.org.uk](http://www.warwickshirewildlifetrust.org.uk) or see Warwickshire County Council website for the latest orchard plan within the Warwickshire, Coventry and Solihull Local Biodiversity Action Plan. In addition Natural England [www.naturalengland.org.uk](http://www.naturalengland.org.uk) has technical information notes that can be accessed regarding traditional orchard information.

### **Community Allotments**

These are also encouraged where there is appropriate local demand and space in association with a major development. The provision of a water source as well as rabbit proof perimeter fencing and benches are likely to be required. Some raised beds to enable accessibility to all may also be appropriate where such a local need is justified. The implications for parking provision will also need to be considered.

### **Street trees**

On larger developments, new street trees will be expected along new primary routes to create high quality new residential areas. Further information on street trees is available in [M2-M5](#) of this document.

[Part N.10](#) of this SPD recommends appropriate species for the various landscape character areas across the District. Consideration should be given to those species that are more resilient to the effects of climate change, including the increase in pests and diseases. As such a range of appropriate species will be encouraged.

### **Landscape Specification**

All landscape plans should include written landscape specification text regarding the operations associated with tree, plant and grass establishment to ensure satisfactory quality of materials and workmanship, referring to relevant BS standards as and where appropriate. It should include (but not exclusively) for example, proposed soil preparation and amelioration, planting pit depths, use of fertilizer and bark mulch details. In a rural district such as this it must include the proposed protection method for native shrub planting from animal browsing e.g. use of spiral guards. On schemes that propose public open space areas, the text should include the use of mower guards to protect all new tree planting. On a small scheme the specification might be provided down the side of the landscape plan, on a large scheme a separate landscape specification should accompany the landscape plan.

### **Landscape Schedule**

A schedule including proposed species, plant sizes and proposed densities of the planting should be included either on the landscape plan or else as a separate text document for major schemes. Shrub planting densities and shrub sizes at the time of planting should be appropriate to the location. Low density hedge planting and small size shrub planting, that might be acceptable for internal domestic garden use, are unlikely to be either visually acceptable or robust enough for most development proposal landscape schemes. In many circumstances light or selected standard sized trees may be appropriate. However tree sizes may need to be tailored to the individual site circumstances depending on various factors, for example: existing local tree cover character; tree loss within the site; the extent of tree planting proposed or the visual sensitivities of a particular development.

## Other landscape plan requirements

These include existing trees to be removed or to be retained - based on a detailed topographical survey. See Section N6 below for further advice on existing trees.

Existing and proposed finished ground levels including details of grading or earthworks and the means for accommodating change in level e.g. steps, retaining walls.

Hard landscape – further guidance on proposed boundary treatments is set out in section D8 for further details) and surface materials – manufacturer, type, colour, laying pattern. Website links to the proposed product and/or elevational details should be submitted for the avoidance of doubt.

Larger developments may require details of e.g. street furniture, play areas, signage, lighting.

## Maintenance and Management Plans

Ongoing maintenance and management is essential to ensure the long term sustainability of any landscape scheme. As part of the landscape scheme, the first five years of maintenance schedules during the development of the site should be submitted to demonstrate that the landscape scheme will be adequately looked after and where necessary replaced during the establishment period. These should include a brief text description of operations including for example: weed control; adjusting tree ties; watering; grass cutting; litter removal; remulching; replacement of failures and a table showing the frequency of site visits and timings of the proposed operations for the 5 year period.

On major developments or schemes with significant non-domestic landscape areas, the future long term management arrangements of the site will need to be explained within a management plan covering the overall design and management objectives for up to a 25 year period. It is essential to clearly delineate public and private areas and their corresponding management responsibilities.

Structural planting and hedgerows particularly at the edges of development sites, where they border open countryside, should be within the collective ownership of a single management body with an access gate or similar arrangement provided in order to maintain these landscape buffer areas. Private, domestic fragmented ownership, split between individual plots of these wider landscape planting areas or hedges will not be acceptable. This is because it results in varied ad hoc management styles and different levels of retention of the same structural landscape features. The desirability of a countryside view to occupiers of a development at the edge of a settlement is unlikely to be compatible with the public wider interest of protecting landscape character and reducing visual harm of the development from public views within the wider countryside.

## M2. Trees

Trees can create a wide range of significant economic, social and environmental benefits to the local communities. Trees can bring a diverse and long lasting range of benefits to urban space, particularly if they are established trees with large canopies. The changing climate and need to adapt to a low carbon economy means that our neighbourhoods and

towns need to adapt to expected conditions in the future. Ways to help achieve this through sustainable development are woven into the Council's Core Strategy policies.

The retention of existing trees and landscape on a development site and the provision of new, well-designed landscape is considered an effective response. In particular, tree canopy cover can contribute to urban cooling and should be an important part of the landscape or green infrastructure element of your development.

Development proposals should therefore contribute by making space for existing trees and vegetation and considering new tree planting and landscape design early in the design and layout of your site. By doing this you can design-out potential conflicts with the built form whilst designing in opportunities for long-term provision of these sustainable development essentials.

### **Trees will bring the following benefits:**

- Shade and shelter;
- Cooling;
- Flood reduction;
- Reduction of airborne pollution;
- Habitat linkages and refuges for animals and plants;
- Sound attenuation;
- Provide oxygen;
- Reduce windspeed;
- Provide seasonal interest; and
- Create a sense of place.

Well thought out tree cover and landscape design can also:

- Increase house and property values, typically between 5-18%;
- Lower air-conditioning costs and carbon emissions;
- Encourage walking and cycling;
- Improve physical and mental health;
- Increase consumer activity in retail areas and productivity and job satisfaction of employees in industrial areas; and
- Attract higher levels of inward investment for commercial and urban areas and bring nature into the built environment and assist in education.

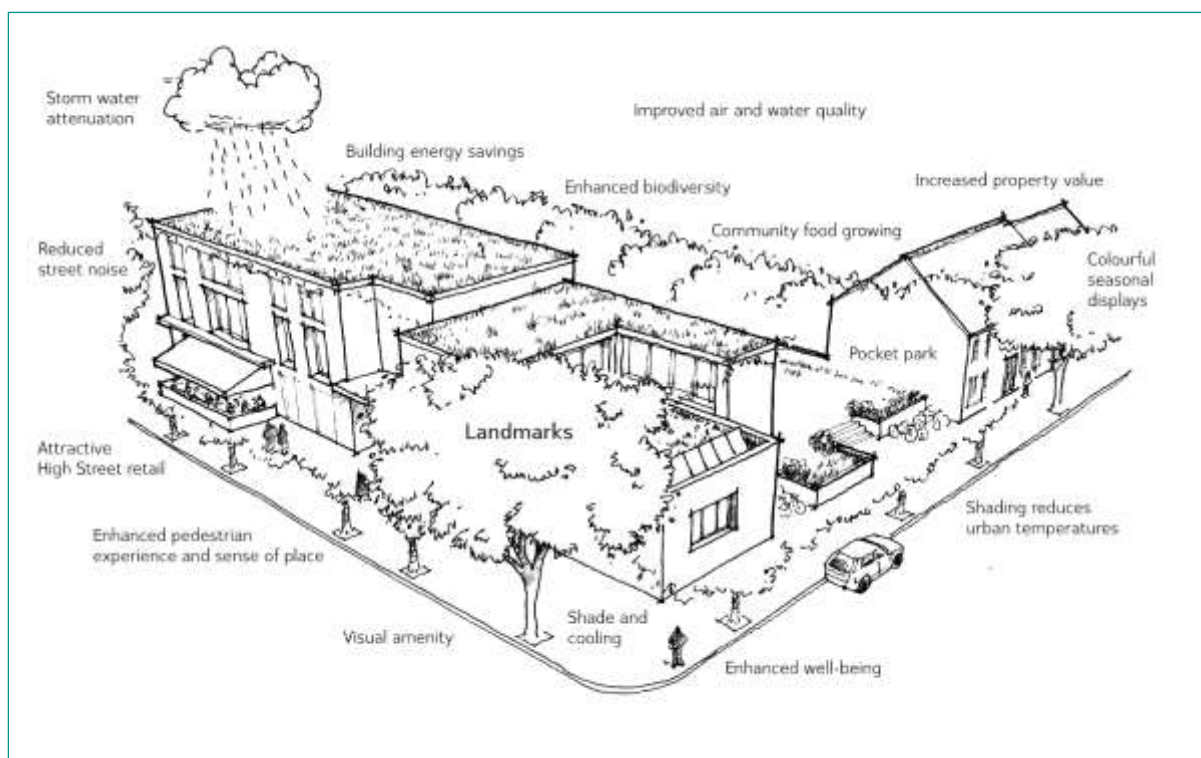


Fig. M2 illustrates the multi-functional benefits of trees.

### Tree Protection

It is essential that new trees within a development are afforded long term protection to ensure their survival to maturity. In areas prone to damage from rabbits and other animals suitable guards should be provided and the trees given suitable support systems.

In locations where vehicles are likely to be close to street trees there will need to be suitable protection from vehicle damage, including tree guards.

It is normal that conditions of planning permissions require that all newly planted trees that die within 5 years of being planted are replaced with suitable planting. It is therefore cost efficient to ensure that the initial planting is provided with suitable protection as highlighted above.

### M3. Existing Trees on Development Sites

It is essential that the design stage allows sufficient space for existing trees to mature and flourish and to implement protection measures during the construction stage. Sufficient space is also necessary for new tree planting to become established, in order for these trees to be able to contribute to an area in years to come. By giving careful consideration to both existing and proposed trees in terms of design and layout, this will ensure that trees are successfully integrated into a scheme.

The Council advocates the recommendations given in the British Standards 5827: 2012 'Trees in Relation to Design, Demolition and Construction' and subsequent updates of this Standard. This is a key document for trees and development.

It provides recommendations and guidance to achieve juxtaposition of structures with trees, hedges and shrubs. Advice is provided within the document, guiding applicants on the delivery of tree-related documents into the planning process.

#### **M4. Street Trees**

In line with the Council's Core Strategy Policies CS.2 and CS.5, the Council will expect all major development to include new street trees along the primary routes. In terms of the design process, the District Council Design Guide recommends different hard and/or soft landscape treatments to delineate between primary and secondary routes within developments. This can be achieved by street tree planting and different boundary treatments to plots, particularly where housing is proposed.



Fig. M4 - An example of street trees planting in a new development in Alcester.

The environmental conditions found in urban spaces can often be a barrier to the successful establishment of trees and shrubs and their long term survival. In order to provide urban trees with the best opportunity to thrive and survive to maturity, it is essential to consider the following at an early stage in the design process:

- the condition of the soil;
- the availability of future rootable soil;
- the choice of species for the location;
- the appropriateness of the surfacing around the tree;
- the availability of water the microclimate of the chosen planting position;
- the location of utilities etc.

If the above factors are not given due consideration at the design stage, the harsh conditions, which new trees are subjected to, when they are planted in towns and cities,



are more likely to lead to their failure and they will not provide the long-term benefits of trees with mature canopies.

### Tree Pits

The correct design and installation of tree pits will mitigate the negative effects of the urban environment. The term 'tree pit' is a widely adopted to generally refer to the space created for accommodating trees in paved areas. However, there is a direct correlation between the provision of an adequate rooting environment for the tree and the achievement of canopy potential. Large canopy trees bring greater benefits and therefore, need to be designed into schemes.

Hard standing associated with street tree planting should incorporate root cell soil structure systems, which can allow for up to 30 cubic metres of rootable soil volume for 1 no. tree. These systems allow the hard standing to be constructed on top, whilst allowing sufficient rooting space beneath. Irrigation is incorporated in the design and these systems can also be designed to incorporate sustainable urban drainage systems. Trees slow water run-off and the systems are designed to temporarily hold the water within the tree pits.

The photo below (Fig. M5) clearly shows the significant difference to tree canopy growth that can be achieved by having larger areas for tree roots compared to small sized tree pits in the centre of the photograph.



Fig. M5 - Courtesy of Jeremy Barrell of Barrell Tree Consultancy.  
<http://www.greenblue.com/gb/resources/process-successful-tree-pit-design/>

Developers are advised to refer to further information on planting trees in hard landscapes 'Trees in Hard Landscapes: A Guide for Delivery' (September 2014).

[http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag\\_trees-in-hard-landscapes\\_september\\_2014\\_colour.pdf](http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_trees-in-hard-landscapes_september_2014_colour.pdf)

### **Adoption of Highway Trees**

Trees that lie within the public highway are normally the responsibility of Warwickshire County Council (WCC) as Highway Authority to manage and maintain. Discussions should be held with County Tree Officers in relation to existing highway trees and proposed new trees in regard to development proposals at the earliest opportunity.

Any trees proposed within the public highway will therefore need to be adopted by WCC and a Commuted Sum secured for their future management and maintenance. The Commuted Sum is normally secured via s106 Agreement linked to the planning permission. It is therefore essential to involve WCC in any discussions regarding the use of street trees to ensure that they are of an appropriate type and in an acceptable location (e.g. not impacting on forward visibility splays or affecting street lighting) for adoption.

#### **Find out more**

The following contact at WCC may be of assistance:

Warwickshire County Council Forestry Section – 01926 736480  
[foresty@warwickshire.gov.uk](mailto:foresty@warwickshire.gov.uk)

### **M5. Tree Species**

Different trees are required for different locations and to achieve varying design goals, the following guidance and suggested species will assist in securing appropriate planting in various circumstances:

#### **Primary Routes through developments/Wide streets**

The main routes through development sites should be designed with tree planting on wide verges. The trees should be positioned to provide a continuous avenue either side of the carriageway. Careful consideration of the siting of each tree is needed so as to avoid access points to private drives and to not unduly interfere with highway visibility splays. Consideration should also be given to the position of lampposts and service runs to ensure rooting systems are not affected. The blocking of street light and road signs is also a consideration. The distance from tree canopies to the windows of properties also needs to provide sufficient space to allow natural light to rooms, as a general guide a minimum of 2m distance from the edge of a mature tree canopy to a habitable room window is required. Street trees are also likely to need protection from vehicle collision where parking bays and access points are nearby. Thought should also be given to avoiding certain trees that might drop fruit or sticky residue onto any cars parked under the canopy. Some examples of large stature trees that might be appropriate to plant along Primary Routes are Oak and Beech, although other species may be appropriate. [The 'Tree Species](#)

[Selection for Green Infrastructure –A Guide for Specifiers'](#) (Hiron & Sjöman, January 2018) is an excellent source of information to help choose the appropriate species of tree, together with the general guide to appropriate species [Part M.5](#).

### **Secondary Routes through developments/Medium width streets**

Secondary Routes might only require street trees in staggered formation or along one side of the road. The species should be smaller in size to fit into the less wide streets. The same considerations as for Primary Route street trees are also relevant. Some examples of trees that might be acceptable along a Secondary Route are Field maple, Hornbeam, White Poplar and Small Leaved Lime.

### **Narrow Streets**

There may be limited scope to plant trees along narrow routes but spaces should be designed into the scheme to achieve this where possible. The planting of trees within private gardens along the route might be an appropriate way of achieving being able to view trees within such streets.

### **Other Areas**

Larger stature trees can be provided in the areas of open space that serve developments. Trees may be used to either terminate or frame particular views. Trees and large shrubs might also offer a solution to soften the impact of parking courtyards and large areas of parking bays or to screen areas of infrastructure such as pumping station compounds.

# Part N: Biodiversity and Green Infrastructure

## Contents

N1	Definitions
N2	Biodiversity
N3	Ecological/Geological Assessment
N4	Biodiversity Offsetting
N5	Biodiversity Impact Assessment Calculator
N6	Green Infrastructure
N7	Types of Green Infrastructure
N8	Sustainable Urban Drainage Systems (SUDS)
N9	Incorporating Biodiversity in and around developments

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.2 Climate Change and Sustainable development
- CS.4 Water Environment and Flood Risk
- CS.5 Landscape
- CS.6 Natural Environment
- CS.7 Green Infrastructure
- CS.9 Design and Distinctiveness
- CS.25 Healthy Communities (open space)

It will provide guidance and advice on how applicants can achieve a good standard of landscape design, biodiversity and green infrastructure in new development. It should be read in conjunction with other relevant parts of the SPD, in particular [Part C](#) and [Part D](#).

This SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy).

Key words or terms which appear throughout the document are included in the [Glossary](#).

## N1. Definitions

Development proposals should seek to protect existing ecological assets and create new habitats to encourage additional species within a network of green infrastructure.

**Biodiversity** describes the variety of life on earth, encompassing the whole of the natural world and all living things with which we share the planet.

**Biodiversity Offsetting** is a method of compensating for biodiversity loss either through on site mitigation or off-site measures.

**Green Infrastructure** is a network of multifunctional greenspace, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities.

## N2. Biodiversity

Biodiversity includes populations of living organisms, different species and varied types of habitat. The design, layout and landscape design of new development offers enormous opportunities to conserve, protect, restore and enhance biodiversity.

Measures to encourage biodiversity can provide a wide range of benefits including:

- providing an attractive residential setting or work environment;
- improving climatic effects (such as providing shade and shelter);
- reducing the impacts of noise and air pollution;
- reducing flood risk;
- providing informal recreation with physical and mental health benefits;
- improving the prospects for flora and fauna; and
- opportunities for appreciating and learning from nature.

It is also important to build-in biodiversity within individual buildings and their immediate surroundings. Buildings and private space create the potential for creating a network of habitats. This can include the following measures which may be appropriate for different types and densities of development:

- Provision of private and communal gardens (as appropriate) with the potential to develop wildlife areas;
- The inclusion of composting areas/facilities;
- The use of green walls (walls which are free-standing or part of a building partially or completely covered with vegetation or soil) within developments;
- The use of green roofs;
- The integration of bird and bat nesting sites within the design of buildings;
- Retaining existing trees and hedges into developments and planting new areas;
- The provision of rain gardens;
  
- The provision of hedgehog friendly fencing to allow access to garden habitats;
- Features to protect amphibians such as amphibian kerbs and gully pot ladders.

For further information on these features, see Table 1. Opportunities to include biodiversity in and around developments.

Key considerations include:

- All applicants from Householder to Major developments are advised to consult with Warwickshire County Council Ecology Services [planningecology@warwickshire.gov.uk](mailto:planningecology@warwickshire.gov.uk) before submitting an application. They provide a detailed record and analysis of the biodiversity dimension of the landscape and its ecological patterns and habitat distributions. For Major developments it is also advisable to consult with Natural England. The early identification and understanding of this information may assist the passage of your application, for example by identifying locations where protected species may be present. Some charges apply for this service;
- Avoid damage or destruction to sensitive sites as well as protected species and exploit opportunities to adapt derelict or underused areas for nature conservation;
- Retain landscape features and provide appropriate buffers to link habitats and contribute to networks of green infrastructure;
- Timing of works to avoid disturbing or damaging the habitats of nesting birds;
- Consider the potential effect of lighting on foraging and commuting bats and other nocturnal wildlife;
- Educational opportunities provided by wildlife areas, both formally and informally;
- Potential to implement to new management regimes or habitat creation projects with consideration for the Warwickshire, Coventry and Solihull [Biodiversity Action Plan priority habitats](#).

### **N3. Ecological/Geological Assessments**

The SDC Planning Application [Local List](#) has details of local requirements for planning applications including the circumstances where Ecological or Geological Assessment might be needed. An Ecological or Geological Assessment is required:

Where there is a potential impact on protected areas, habitat, geology, or protected species (for example, to demonstrate the presence or absence of protected species such as bats, badgers and great crested newts).

Protected areas can be identified via an information request to the Warwickshire Biological Records Centre. Protected species could potentially occur within any vegetated area, particularly where there are mature trees, ponds or watercourses on or nearby the site. Bats also often use buildings to roost in and so further advice on the likelihood of bats being present in any building to be demolished or impacted should be sought. Surveys for protected species often need to be conducted during particular months of the year and so should be planned at the earliest opportunity to avoid delays.

The presence of legally protected species can have a significant impact on your proposals. You are recommended to contact Warwickshire County Council Ecology Services before submitting an application to establish the extent and nature of any survey work. Charges may apply.

### **N4. Biodiversity Offsetting**

Stratford-on-Avon District has some great wildlife areas, but these are often quite fragmented. Biodiversity offsetting provides a great opportunity to explore opportunities for joining up these areas and enhancing the overall biodiversity of the natural environment.

## The Mitigation Hierarchy

The NPPF clearly states that: *'If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.'* Through the NPPF the Government is committed *'to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'*

The Council's Core Strategy, Policy CS.6 Natural Environment, adds: *'Where a development will have a negative impact on a biodiversity asset, mitigation will be sought in line with the mitigation hierarchy.'* Developers required to provide compensation for biodiversity loss under Policy CS.6 can choose to do so through biodiversity offsetting, once the mitigation hierarchy has been applied and compensation is seen as the only option available:

The mitigation hierarchy can be summarised as follows:

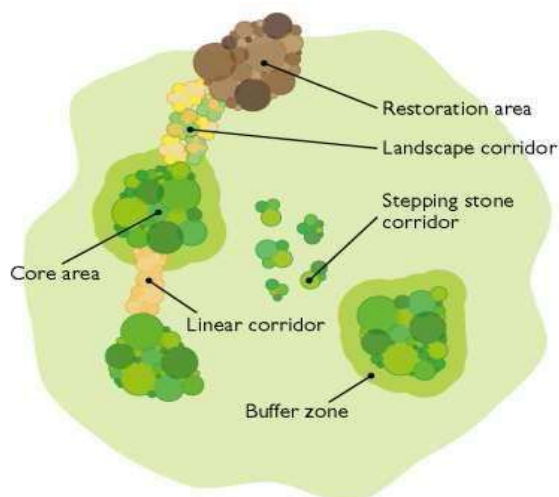
- A. Impacts are avoided;
- B. If impacts are unavoidable, impacts are mitigated against; and
- C. If mitigation is not possible, impacts are compensated for as a last resort (e.g. through biodiversity offsetting).

## The components of ecological networks

The diagram shows that natural areas can be:

- increased by habitat creation (**more**);
- extended through adding protected buffer zones to existing natural areas (**bigger**);
- enhanced through habitat restoration (**better**) and connected by stepping stone corridors, landscape corridors and linear corridors such as road verges and railway embankments (**joined**).

Fig. N1 - The components of ecological networks (from Making Space for Nature, DEFRA).



## N5. Biodiversity Impact Assessment Calculator

Warwickshire, Coventry and Solihull were part of a [DEFRA national pilot of Biodiversity Offsetting](#) and its implementation has continued across the sub-region.

Warwickshire County Council Ecological Services recommend a Biodiversity Impact Assessment (BIA) calculation is completed to accompany every planning application for Major and Minor scale of development which involves land take likely to affect biodiversity. It will enable developers to assess their biodiversity impacts and those who are required to provide compensation for biodiversity loss under planning policy can choose to do so through biodiversity offsetting. The Biodiversity Impact Assessment metric is used to

calculate the biodiversity of a site before and after development; this then calculates if the development is likely to cause a loss or gain to biodiversity.

Should the Biodiversity Impact Assessment calculate a residual loss to biodiversity, as in most cases, once the mitigation hierarchy has been followed and the development is in accordance with all other local and national planning policy and law, it may be suitable to apply principals of biodiversity offsetting. A Biodiversity Offsetting Scheme will compensate for biodiversity loss from development by habitat creation/restoration projects in strategic areas to be managed in the long term; gain is measured using the same metric ensuring there is no net loss to biodiversity so that the development can proceed more sustainably. Where Biodiversity Offsetting is to be used this will normally be secured via a S106 Agreement with Warwickshire County Council being the lead authority in the matter.

A [Biodiversity Impact Assessment Calculator](#) in excel format has been designed to help measure the habitat value gain or loss of a development, together with a Guidance document on how to complete it. Advice is also available from WCC Ecological Services.

### Find out more

#### Natural England: Designated Sites

[Sites of Special Scientific Interest](#) (SSSI) Designated sites system – search by site (if known) or County and view details and map. Stratford-on-Avon District has 37 designated SSSIs. [Magic map](#) which shows designations, habitats and species, landscape/geology etc. The planning system deals only with material considerations on planning matters. In wildlife terms this means: Statutory or non-statutory wildlife sites; Species protected by law; and Priority (rare or declining) species and habitats listed in national or local biodiversity plans.

#### Warwickshire County Council – Planning and Ecology

Ecological Services maintain the Warwickshire Biological Records Centre (WBRC) and provide [ecological advice relating to the planning process](#). They provide specific advice on bats and bat survey requirements, protected species in Warwickshire and relevant wildlife legislation.



[Warwickshire Wildlife Trust](#) is a local conservation charity which aims to protect and enhance wildlife, natural habitats and geology throughout Warwickshire, Coventry and Solihull, and to encourage a greater awareness, appreciation and participation in all aspects of nature conservation and the environment.

### **Habitat Biodiversity Audit (HBA) Partnership**

[The HBA](#), established in 1996, covers the Warwickshire authorities and Solihull and Coventry unitary authorities. It is managed by Warwickshire Wildlife Trust and based at Warwickshire County Council's Ecological Services. The HBA's remit was to survey every field and boundary in the sub-region to provide up-to-date biodiversity data. The data is held on a [Geographical Information System](#) (GIS), which provides high quality coded maps and linked site notes with a powerful tool for interpretation and statistical analysis.

### **Local Wildlife Sites (LWS)**

Stratford-on-Avon District currently has 118 designated LWS which is 24% of all LWS in the Warwickshire, Coventry and Solihull sub-region. See the HBA web-links above for information on LWS designation.

### **Warwickshire Biological Records Centre**

The centre maintains information on [species distribution and ecological sites](#) in Warwickshire, Coventry and Solihull – for which it is the most comprehensive data bank of species and habitat records in the County. They are organised into two inter-related databases: Records for sites (habitats) and records for species (flora and fauna).

### **Local Biodiversity Action Partnership (LBAP)**

See [Warwickshire Wildlife Trust website](#) for information about the partnership and links to the Species and Habitat Action Plans.

Green Infrastructure (GI) is the network of green and water spaces (sometimes referred to as 'Blue Infrastructure') that are found within and between our towns and villages. Green infrastructure assets include waterways, gardens, allotments, street trees, sustainable urban drainage systems, green walls and roofs, parks and natural areas amongst others.

This section of the SPD provides further guidance on the interpretation of part of Core Strategy Policy CS.25 (B) relating to Open Space in the form of Green Infrastructure. Specific advice regarding Outdoor Sport and Play Facilities can be found in the [Part L: Open Space](#) section of the Developer Requirements SPD.

## **Role and Function of Green Infrastructure**

Green infrastructure (GI) is a cornerstone of spatial planning that is essential to provide wide ranging benefits to various sectors through the use of 'green' and semi-natural features.

Careful planning of GI delivers social, economic and environmental benefits that can be derived in a cost-effective and sustainable manner.

It should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities, including:

- Providing opportunities for recreation and sports, improving mental and physical health for all ages and users;
- Providing tranquil spaces which contribute towards psychological and social well-being of communities;
- Enhancing visual amenity value– green infrastructure helps to soften the urban form;
- Reinforcing the sense of place and local distinctiveness;
- Providing a network of links for safe walking and cycling;
- Improving and enhancing habitats and biodiversity;
- Cooling the urban environment through the provision of trees and vegetation and/or water bodies;
- Reducing flooding - increased green coverage and sustainable urban drainage increases water storage capacity and reduces flood risk;
- Reducing air pollution and improving local air quality; and
- Protecting and supporting historic and archaeological settings.

### **Core Strategy Area Strategies**

Seven key functions of GI are relevant and applicable to Stratford-on-Avon District:

1. Conservation and enhancement of biodiversity, including the mitigation of the potential impacts of new development;
2. Creating a sense of place and opportunities for greater appreciation of valuable landscapes and cultural heritage;
3. Increasing recreational opportunities, including access to and enjoyment of the countryside and supporting healthy living;
4. Improved water resource and flood management and sustainable design;
5. Making a positive contribution to combating climate change through adaptation and mitigation of impacts;
6. Sustainable transport, education and crime reduction; and
7. Production of food, fibre and fuel.

The Council has set out Green Infrastructure principles to apply in considering development proposals and other initiatives relating to the Area Strategies set out in Section 6 of the Core Strategy. They are found in Policies AS.1 to AS.9 for Stratford-upon-Avon and the Main Rural Centres (MRCs). The Council will assess the extent to which each of these principles is applicable to an individual development proposal. Developers will be expected to contribute to the achievement of these principles where it is appropriate and reasonable for them to do so, taking into account the provisions of the Infrastructure Delivery Plan.

The [District Green Infrastructure Study](#) (2011) makes recommendations both District wide and applicable to Stratford-upon-Avon and the Main Rural Centres. The

recommendations enable development proposals to incorporate GI and enhance the local GI network such that environmental resources are protected and their potential to deliver multiple benefits is maximised.

### Green Infrastructure Key Considerations

- New development should minimise impacts on ecological networks and seek to provide a positive contribution to green infrastructure to influence how settlements are shaped. Working with the natural assets will contribute to a more sustainable development in the long-term and enhance the distinctive local character;
- Applicants should show that open space provision has been considered from the beginning of the design process in order to benefit green infrastructure. Development proposals should seek to link existing and proposed open spaces and landscape structure to form connected open space networks;
- Development proposals should demonstrate how proposed open spaces contribute and respond to the hierarchy of existing landscape and open space networks as part of the wider network of green infrastructure;
- The layout and design of new developments should embrace distinctive features that will give the site and its setting a sense of identity, and link areas together. Local characteristics such as topography, landform, geology, drainage and field patterns should be taken into account. Boundaries and vegetation cover should influence the design;
- The Council will resist badly designed development that would harm the appearance and character of the existing built environment. A net gain in biodiversity should be sought.

## N7. Types of Green Infrastructure

### Parks & Gardens and Amenity Greenspace

- Country Parks
- Registered parks and gardens
- Formal parks and gardens
- Informal recreation spaces
- Village greens
- Pocket parks.

Most often found in or near housing areas. Provides informal community space and outdoor informal play facilities.

### Unrestricted Natural Accessible Greenspace

- Woodland and scrub
- Grasslands, downlands, commons and meadows
- Heathland
- Wetlands, open and running water
- Wastelands and derelict land
- Countryside in urban fringe areas
- Cliffs, quarries and pits.

Accessible natural greenspace is a valuable multifunctional asset that adds to the diversity of a GI network. It is



important that habitats are interconnected and maintained at a high and stable quality. GI can help protect, enhance, restore and create habitats which, in turn, can provide benefits for people, business and nature. Land use designations in Stratford-on-Avon District relating to biodiversity include non-statutory and statutory sites such as Sites of Importance for Nature Conservation, Sites of Special Scientific Interest, Local Nature Reserves and Local Wildlife Sites.

### Allotments and Community Gardens

- Allotments
- Community gardens
- Community Orchards.

Community assets include those types of GI that have strong social and cultural significance. They all involve service provision to local communities and provide outdoor meeting places. Historic and cultural aspects of a place often provide the spatial context for several GI community assets.



### Other Green Infrastructure Assets

**Outdoor sports facilities** and **Children and Young People's Equipped Play facilities** are covered in [Part L: Open Space](#). Green infrastructure design features such as green roofs and walls, and street trees are included in the Design sections.

### Green and blue corridors

- River and canal banks, towpaths
- Rivers and canals
- Cycleways and greenways
- Footpaths and bridleways
- White roads and byways open to all traffic
- Hedgerows and ditches
- Motorway and road verges
- Railway embankments and cuttings.
- Sustainable Urban Drainage (SUDS)

Like most GI features, green corridors can be found at a range of scales and sizes.

This affects the extent to which they

deliver a variety of functions. They link the network and enable transfer of people and nature across and throughout settlements. Increased levels of isolation cause genetic limitations, and the ability for biodiversity to disperse and colonise can be limited by isolation. Well-connected access routes will encourage people to use active travel options. Blue corridors include rivers, streams, overland flow paths, surface water ponding areas, watercourse buffer areas and multi-use flood storage areas.



## N8. Sustainable Drainage Systems (SUDS)

Sustainable Drainage Systems (SUDS) mimic natural drainage processes to reduce the effect on quality and quantity of surface water runoff from developments and provide amenity and biodiversity benefits.

There are numerous types of sustainable drainage systems that can be used including:

- Soakaways – Infiltration of water into the ground (success rate depends on soil type);
- Filter Drains – Gravel filled trenches;
- Swales – Vegetated shallow channels;
- Infiltration Basins – Vegetated depressions to store rainwater, usually dry except during/after heavy rain;
- Detention Basins– Vegetated depressions storing rainwater, usually dry except during/after heavy rain;
- Ponds – Permanent pools of water;
- Tanks – Usually underground storage containers for rainwater;
- Permeable surfaces – Allows water to infiltrate rather than 'run-off';
- Green Roofs – Planted roofs.

Opportunities to integrate SUDS within the landscape design of a development should be taken and needs to be identified at the earliest opportunity. In particular, applicants should ensure that existing trees and hedges are taken into consideration when designing SUDs, so that it does not result in any conflict and that SUDS features have sufficient space around them, at least 3.5m width, to allow access for maintenance and for new planting of appropriate species. SUDS schemes should not simply be an engineering driven solution to drainage problems but should also be designed to provide attractive amenity areas which are beneficial to wildlife and appear as 'natural' as possible.

Consideration also needs to be given to safety. It is important to keep the depths of all features as shallow as possible and avoid 'bomber-crater' like basins at the end of the site. Small features throughout the site will help to avoid these types of basins. Ponds should be designed so that if people/children do enter, it is easy to get back out, or for someone enter to assist them. This generally includes a dry bench along the top, shallow gradients on the banks (no greater than 1 in 3) and where possible, a wet bench at the base to discourage people going further. Visibility through to the water is also imperative. Where fencing is considered necessary due to presence of children, careful consideration should be given to the type of fenced to be used. It should be high enough to prevent access by young children, but low enough to allow entry when necessary. The fencing should be a vertical pale, rather than a horizontal rail construction, which can be used as a climbing frame.

Where design and safety are still a concern, a risk assessment from the Royal Society for Prevention of Accidents (RoSPA) will be required. Further guidance may be found in Chapter 36 of the SUDS Manual (CIRIA 753). See the link below in the find out more section below.

Attenuation ponds/basins on sites adjacent to or near to the railway boundary should only be included in proposals with the agreement of Network Rail and should not be included in proposals that are adjacent to a railway cutting.

Where a proposed SUDS scheme is adjacent to a railway infrastructure the following considerations should be taken into account:

- Proposals must not import a risk of flooding, pollution or soil slippage onto the existing operational railway.
- Soakways should not be within 30 metres of railway boundary.

Applicants should give early consideration to the multiple benefits and opportunities of SUDS to help to deliver cost effective SuDS scheme with the best results. CIRIA (Construction Industry Research and Information Association) provides a free tool and guidance Benefits of SUDS Tool (BeST) which makes assessing the benefits of SUDS easier, without the need for full scale economic inputs.

<http://www.susdrain.org/delivering-suds/using-suds/benefits-of-suds/SuDS-benefits.html>

Details of SUDS maintenance should be included in the management plan, specification and schedule of works, which is produced as part of the landscape maintenance strategy. This includes the long term-management, particularly important for medium and large scale housing developments.

Where the use of large scale SUDS features may be constrained because of the amount of land available, other SUDS techniques should be considered, which do not result in additional land take.

Typically these include the use of:

- Soakaways;
- filter drains;
- swales;
- underground tanks;
- green walls/roofs;
- permeable surfaces; and
- water butts.

Further advice and guidance on SUDS is available from Warwickshire County Council the Lead Local Flood Authority, who are responsible for approving SUDS schemes and have published a Surface Water Management Plan and associated documents. Further information on these documents is available, using the links in the Find out more section below.

### Find out more

Strategic Flood Risk Assessment (2013)

<https://www.warwickshire.gov.uk/sfra>

SUDS (C753) (CIRIA 2015)

[http://www.ciria.org/Memberships/The\\_SuDs\\_Manual\\_C753\\_Chapters.aspx](http://www.ciria.org/Memberships/The_SuDs_Manual_C753_Chapters.aspx)

Warwickshire County Council's Local Flood Risk Strategy

<https://apps.warwickshire.gov.uk/api/documents/WCCC-1039-45>

Warwickshire County Council's Surface Water Management Plan

<https://apps.warwickshire.gov.uk/api/documents/WCCC-1039-45>

Living Roofs and Walls: Technical Report: Supporting London Plan Policy

<https://www.london.gov.uk/sites/default/files/living-roofs.pdf>

Independent resource on green roofs founded by Dusty Gedge

<http://livingroofs.org/>

## N9. Incorporating biodiversity in and around developments


The NPPF supports 'development whose primary objective is to conserve or enhance biodiversity; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged...' This expectation is set out in Core Strategy Policy CS.6 Natural Environment which requires:

*Making provision, where appropriate, for measures that will secure the creation and management of additional habitats, to strengthen networks of habitats, to foster landscape scale conservation in line with identified opportunities and priorities, to address the priorities of the Local Biodiversity Action Plan and to support an increase in the local populations of species of principal importance.*


To assist with this requirement, the following Table 1. sets out examples of opportunities for including biodiversity in and around development, including:



- Bird nesting provision;
- Access for hedgehogs;
- Newts and amphibian ponds, refuge and kerbs;
- Bat roosts, lighting and habitat creation;
- Otter and water vole habitat protection;
- Landscape guidelines; and
- Urban locations/gardens provision for pollinators.


**Table 1. Incorporating biodiversity in and around developments**


WHAT:	WHERE:	HOW:
<p><b>Swifts Boxes/Bricks/ Nesting Provision</b></p> <p><a href="http://www.swift-conservation.org/OurLeaflets.htm">http://www.swift-conservation.org/OurLeaflets.htm</a></p> <ul style="list-style-type: none"> <li>• Swift Nest Bricks - Installation &amp; Suppliers.</li> </ul> 	<p>Settlements where swifts are known to nest and where nesting provision could be targeted in new housing:</p> <ul style="list-style-type: none"> <li>• Bidford-on-Avon</li> <li>• Binton</li> <li>• Burmington</li> <li>• Butlers Marston</li> <li>• Cherington</li> <li>• Combrook</li> <li>• Farnborough</li> <li>• Fenny Compton</li> <li>• Gaydon</li> <li>• Halford</li> <li>• Harbury</li> <li>• Henley-in-Arden</li> <li>• Ilmington</li> <li>• Lighthorne</li> <li>• Little Compton</li> <li>• Long Compton</li> <li>• Middle/Upper Tysoe</li> <li>• Napton-on-the-Hill</li> <li>• Newbold-on-Stour</li> <li>• Northend</li> <li>• Oxhill</li> <li>• Pillerton Hersey</li> <li>• Preston-on-Stour</li> <li>• Priors Marston</li> </ul>	<p>Installation location (integral provision of swift bricks preferred over externally mounted boxes):</p> <ul style="list-style-type: none"> <li>• Under the roof/eaves in the top course of blockwork in shaded areas out of direct sunlight and away from windows.</li> <li>• Minimum 5m off the ground.</li> <li>• Entrances to nesting provision should not be obstructed by trees, ladders or aerials.</li> </ul> <p>North facing - OK</p> <p>South facing - No</p> <p>East facing - only if well shaded</p> <p>West facing - only if well shaded</p>







WHAT:	WHERE:	HOW:
	<ul style="list-style-type: none"> <li>• Radway</li> <li>• Ratley</li> <li>• Shotteswell</li> <li>• Stretton on Fosse</li> <li>• Tiddington</li> <li>• Tredington</li> <li>• Upper Brailes</li> <li>• Warmington</li> <li>• Whichford</li> <li>• Winderton</li> </ul>	
<p><b>Swallow Nesting Provision</b></p> 	<p>Swallows prefer outbuildings which provide dark ledges and nooks and crannies for nesting.</p> <p>Swallows can enter a building through a very small hole and need very little light.</p>	<ul style="list-style-type: none"> <li>• Make a small opening, minimum 50 mm high and 200 mm wide, under the garage or barn eaves or leave a window or door open.</li> <li>• Fix a nest platform where you would like them to nest, high in the building, out of the reach of cats.</li> <li>• Use a pre-formed swallow nest cup</li> </ul>

WHAT:	WHERE:	HOW:
<p><b>House Sparrow Terrace Nesting Provision</b></p>	<p>House Sparrows prefer to nest in groups or colonies.</p> 	<ul style="list-style-type: none"> <li>• Ideally place the terrace (integral provision preferred over externally mounted boxes) two metres or more above the ground.</li> <li>• Install on the surface of the wall using the plugs and screws provided, or install directly into the wall.</li> </ul> <p>North facing- OK                  South facing- No                  East facing- only if well shaded                  West facing- only if well shaded</p>
<p><b>Barn Owl Loft</b></p> <p><a href="http://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes-building-projects/">http://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes-building-projects/</a></p> 	<p>A tall building in which a small hole can be made at least 3 metres above ground overlooking open ground (not screened by trees or other buildings). The ideal building will be at least 4 metres tall within which a small owl hole and nest space can be created close to the top.</p> <p>Where there is no residual loft space the owls' nest space can often be incorporated within the fabric of the roof or upper-wall.</p> <p>Barn Owls can become tolerant of regular noise and activity around their nest or roost provided they have somewhere to hide.</p>	<ul style="list-style-type: none"> <li>• Owl hole minimum size: 100mm wide x 200mm high, optimum size 130mm x 250mm, maximum size 200mm x 300mm.</li> <li>• Floor area of nest chamber: absolute minimum 0.4m<sup>2</sup> (e.g. 500mm x 800mm or 400mm x 1m), ideal size is 1m<sup>2</sup>.</li> <li>• Owl spaces should be constructed inside the building but outside of the 'U-value envelope'.</li> <li>• Thus, the envelope/ membrane may have to be slightly diverted.</li> <li>• Human access is essential as the nest space will need to be cleared out very occasionally.</li> <li>• A generous removable inspection hatch or door in the back of the owl space (accessible from the building interior) is usually the preferred option but in some cases an external arrangement may be a practical option.</li> <li>• In the case of a loft partition, create an integral crawl-through doorway.</li> <li>• The access should permit all or most of the nest space floor to be reached by hand.</li> </ul>

WHAT:	WHERE:	HOW:
<p><b>Hedgehogs</b></p> <p><a href="http://www.britishhedgehogs.org.uk/leaflets/A-guide-to-helping-hedgehogs.pdf">http://www.britishhedgehogs.org.uk/leaflets/A-guide-to-helping-hedgehogs.pdf</a></p>		<ul style="list-style-type: none"> <li>• Make sure hedgehogs have easy access to gardens. Ensure boundary fences or walls have a 13cm x 13cm gap in the bottom to allow hedgehogs to pass through.</li> <li>• Use of pre-formed gravel board</li> <li>• 1 space every 8m</li> </ul>
<p><b>Newts/Great Crested Newts (GCN)/Amphibians</b></p> <p><a href="http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf">http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf</a></p>	<p><b>Ponds/Sustainable Urban Drainage systems /Attenuation Ponds</b></p> 	<p><b>Creation of new</b></p> <p>Surface area between 100 and 300m<sup>2</sup></p> <ul style="list-style-type: none"> <li>• Depth may vary; both deep (up to around 4m) and shallow ponds may be used</li> <li>• ponds should retain water for 12 months</li> <li>• Substantial cover of submerged and marginal vegetation</li> <li>• Open areas to facilitate courtship behaviour</li> <li>• Good populations of invertebrates and other amphibians, for prey</li> <li>• Ponds in clusters, rather than in isolation within 250m of each other</li> <li>• Absence of shading on the south side</li> <li>• Absence of fish</li> <li>• Absence or low density of waterfowl</li> <li>• Minimal disturbance from children</li> </ul>

WHAT:	WHERE:	HOW:
<p><b>Newts/Great Crested Newts (GCN)/Amphibians</b></p>	<p><b>Creation of Refugia</b></p>	<p>Great crested newts are known to spend a considerable proportion of their terrestrial phase either underground or just above ground under refuge sites.</p> <p>Piles of rubble, rock, log piles and earth banks (with plenty of mammal burrows and ground fissures present) in moist, shaded places or under dense ground cover, rough grassland and scrub make good hibernation and refuge sites. These features may be located in sheltered areas which are neither too dry nor prone to winter flooding or freezing.</p>
<p><b>Newts/Great Crested Newts (GCN)/Amphibians</b></p>	<p><b>Amphibian Kerbs</b></p> 	<p>Lots of small animals die by falling into open drains or manholes. Amphibians naturally proceed along any vertical barrier they meet. In a road situation, this is a kerb line where it meets the road surface. When they encounter a gully pot where there is no gap between it and the vertical kerb face, they often fall in.</p> <p>The Wildlife Kerb provides safe route around road gullies for amphibians on the move. They should be used in particular where gullies are proposed within the proximity of existing or proposed ponds. Dropped kerbs should be also positioned near to gullies in particular where ponds are present. Alternatively, drains could be positioned at least 10cm away from the kerb to provide a corridor for amphibians to travel and reduce risk of falling into the drain.</p>

WHAT:	WHERE:	HOW:
<p><b>Bat Roosts</b></p> 	<p>Bats use different roosts throughout the year depending on their seasonal needs. Warm roosts in the summer and cool hibernation roosts in the winter. In the summer females gather in maternity roosts and males congregate elsewhere.</p> <p>It is always best to provide a number of different options for bats, so that they can choose the right roost with a temperature based on their needs.</p> <p>Find more information at:  <a href="http://www.bats.org.uk/pages/accommodating_bats_in_buildings.html">http://www.bats.org.uk/pages/accommodating_bats_in_buildings.html</a>  <a href="http://roost.bats.org.uk/principles/requirements-roost-retention-and-creation">http://roost.bats.org.uk/principles/requirements-roost-retention-and-creation</a></p>	<ul style="list-style-type: none"> <li>• Integral boxes (integral provision in buildings preferred over externally mounted boxes)</li> <li>• Bat boxes on trees.</li> <li>• Bat roosts in buildings</li> <li>• Crevice-dwelling and roof-void dwelling bats needing an internal flying area</li> <li>• Larger access for bats that fly rather than crawl into their roost.</li> </ul> <p>Siting:</p> <ul style="list-style-type: none"> <li>• Summer maternity roosts have a southerly or westerly aspect for maximum solar heating.</li> <li>• Male roosts and hibernation sites typically have a northerly aspect.</li> </ul>
<p><b>Bat Lighting</b></p> 	<p>Where development may impact upon bat roosting and bat foraging/commuting, the impact will be considered as part of the development. This may require modifications to the layout of the site, or securing further details of external lighting via planning conditions.</p>	<p>Most bat species find artificial lighting to be very disturbing, so it is important to ensure that artificial light sources are not directed onto roosts, access points or flight paths or foraging areas.</p> <ul style="list-style-type: none"> <li>• Consider no light or variable lighting regimes.</li> <li>• Try to use lights that are low UV and thus less likely to attract insects.</li> <li>• Avoid blue-white short wavelength lights.</li> <li>• Habitat creation to provide light barriers which restricts the amount of light reaching the sensitive area. Barriers can be in the form of newly planted vegetation, walls, fences or buildings.</li> </ul>

WHAT:	WHERE:	HOW:
<p><b>Bat Habitat Creation</b></p>	<p>The activity of flying between the roost and foraging area is known as commuting. Bats use set routes for commuting which are known as commuting corridors, flight paths or fly-ways.</p> <p>These routes tend to make use of linear features such as avenues of street trees, tree-lines along waterways, hedgerows, vegetated railway corridors, gardens and woodland edges as linkages in the landscape.</p> <p>Retaining dark corridors that link roosts or foraging areas planted with mature native vegetation to encourage insects and provide cover.</p>	<p>Maintaining or creating good foraging areas for bats means establishing areas that attract insects, especially nocturnal insects. These habitat features include rivers, ponds, unimproved grassland, ancient semi-natural woodland and hedgerows planted with native vegetation.</p> 
<p><b>Otters/Water Voles</b></p>		<p>Providing 30m buffers on rivers and streams known to be used by these species. Appropriate native planting along banksides.</p>
<p><b>Landscaping Schemes</b></p>	<p><b>Rural Locations:</b></p>	<p>Warwickshire Landscape Guidelines.</p> <p>See Lists and Plan in Appendix 1. for Arden, Avon Valley Feldon and Cotswolds Landscape Area.</p>

WHAT:	WHERE:	HOW:
	<p><b>Urban Locations/Gardens</b></p> <p><b>Where Warwickshire Landscape Guidelines are less relevant:</b></p> <p><a href="https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/perfect-for-pollinators">https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/perfect-for-pollinators</a></p>	<ul style="list-style-type: none"> <li>• Aim to have plants that are attractive to pollinating insects in flower from early spring to late autumn. Winter flowering plants can also be of benefit.</li> <li>• Grow garden plants with flowers that attract pollinating insects. Blue flowers/shape of flowers/fragrant at night.</li> <li>• Avoid plants with double or multi-petalled flowers. Such flowers may lack nectar and pollen, or insects may have difficulty in gaining access. Single flowers are best.</li> </ul>





## Species lists – Arden

The following is a list of those tree and shrub species which are common and characteristic to the Arden, and which contribute to its regional identity. Other native tree species may also be appropriate to individual sites – professional advice is recommended and is available from the sources listed at the back of this report.

Main soil types – clay loams and sandy soils

● Dominant species

○ Other appropriate species

		WOODLANDS		HEDGES AND HEDGEROW TREES	WET AREAS AND RIVERSIDES
		Clay Loams	Sandy Soils		
<b>Trees</b>					
Field maple	<i>Acer campestre</i>	○			
Common alder	<i>Alnus glutinosa</i>	○			●
Silver birch	<i>Betula pendula</i>	○	●		
Downy birch	<i>Betula pubescens</i>	○			
Ash	<i>Fraxinus excelsior</i>	●			○
Holly	<i>Ilex aquifolium</i>	○	○		
Crab apple	<i>Malus sylvestris</i>	○	○		
Aspen	<i>Populus tremula</i>	○	○		○
Wild cherry	<i>Prunus avium</i>	○			
Sessile oak	<i>Quercus petraea</i>		●	●	
Pedunculate oak	<i>Quercus robur</i>	●	●	●	
White willow	<i>Salix alba</i>				●
Crack willow	<i>Salix fragilis</i>				●
Rowan	<i>Sorbus aucuparia</i>		○		
Small leaved lime	<i>Tilia cordata</i>	○			
<b>Shrubs</b>					
Field maple	<i>Acer campestre</i>			○	
Dogwood	<i>Cornus sanguinea</i>	○		○	
Hazel	<i>Corylus avellana</i>	●		●	
Midland hawthorn	<i>Crataegus laevigata</i>	○	○	○	
Hawthorn	<i>Crataegus monogyna</i>	○	○	●	
Holly	<i>Ilex aquifolium</i>			○	
Wild privet	<i>Ligustrum vulgare</i>	○		○	
Blackthorn	<i>Prunus spinosa</i>	○		○	
Goat willow	<i>Salix caprea</i>	○	○		○
Guellder rose	<i>Viburnum opulus</i>	○		○	○

Planting should contain at least 80% of dominant species

## Species lists – Avon Valley

The following is a list of those tree and shrub species which are common and characteristic to the Avon Valley, and which contribute to its regional identity. Other native tree species may also be appropriate to individual sites – professional advice is recommended and is available from the sources listed at the back of this report.

Main soil types – poorly drained clays and sandy soils

● Dominant species

○ Other appropriate species

		WOODLANDS		HEDGES AND HEDGEROW TREES	WET AREAS AND STREAMSIDES
		Clay Soils	Sandy Soils		
<b>Trees</b>					
Field maple	<i>Acer campestre</i>	○		○	
Common alder	<i>Alnus glutinosa</i>	○			●
Silver birch	<i>Betula pendula</i>		●		
Ash	<i>Fraxinus excelsior</i>	●		●	○
Crab apple	<i>Malus sylvestris</i>	○	○		
Aspen	<i>Populus tremula</i>	○	○		○
Wild cherry	<i>Prunus avium</i>	○			
Pedunculate oak	<i>Quercus robur</i>	●	●	●	
White willow	<i>Salix alba</i>				●
Crack willow	<i>Salix fragilis</i>				●
<b>Shrubs</b>					
Field maple	<i>Acer campestre</i>			○	
Dogwood	<i>Cornus sanguinea</i>	○		○	
Hazel	<i>Corylus avellana</i>	○		○	
Midland hawthorn	<i>Crataegus laevigata</i>	○	○	○	
Hawthorn	<i>Crataegus monogyna</i>	○	○	●	
Spindle	<i>Euonymus europaeus</i>	○		○	
Alder buckthorn	<i>Frangula alnus</i>	○		○	○
Wild privet	<i>Ligustrum vulgare</i>	○		○	
Blackthorn	<i>Prunus spinosa</i>	○		○	
Purging buckthorn	<i>Rhamnus catharticus</i>	○		○	
Goat willow	<i>Salix caprea</i>	○	○		○
Osier	<i>Salix viminalis</i>				○
Elder	<i>Sambucus nigra</i>	○			
Wayfaring tree	<i>Viburnum lantana</i>	○		○	

Planting should contain at least 80% of dominant species

## Species lists – Cotswold

The following is a list of those tree and shrub species which are common and characteristic to the Cotswolds, and which contribute to its regional identity. Other native tree species may also be appropriate to individual sites – professional advice is recommended and is available from the sources listed at the back of this report.

Main soil types - clay soils and free draining loams

		WOODLANDS		HEDGES AND HEDGEROW TREES	WET AREAS AND STREAMSIDES
		Clay Soils	Sandy Soils		
●	Dominant species				
○	Other appropriate species				

### Trees

Field maple	<i>Acer campestre</i>	○	○	○	
Common alder	<i>Alnus glutinosa</i>	○	○		●
Beech *	<i>Fagus sylvatica</i>		●		
Ash	<i>Fraxinus excelsior</i>	●	●	●	○
Crab apple	<i>Malus sylvestris</i>	○	○		
Pedunculate oak	<i>Quercus robur</i>	●	●	●	
White willow	<i>Salix alba</i>				●
Crack willow	<i>Salix fragilis</i>				●

### Shrubs

Field maple	<i>Acer campestre</i>			○	
Dogwood	<i>Cornus sanguinea</i>	○	○	○	
Hazel	<i>Corylus avellana</i>	○	○	○	
Midland hawthorn	<i>Crataegus laevigata</i>	○	○	○	
Hawthorn	<i>Crataegus monogyna</i>	○	○	●	
Spindle	<i>Euonymus europaeus</i>	○	○	○	
Wild privet	<i>Ligustrum vulgare</i>	○	○	○	
Blackthorn	<i>Prunus spinosa</i>	○	○	○	
Purging buckthorn	<i>Rhamnus catharticus</i>	○	○	○	
Goat willow	<i>Salix caprea</i>				○
Elder	<i>Sambucus nigra</i>	○			
Wayfaring tree	<i>Viburnum lantana</i>	○		○	

Planting should contain at least 80% of dominant species

\* Beech is not native to Warwickshire, but is associated with the thin soils in the Cotswolds.

## Species lists – Feldon

The following is a list of those tree and shrub species which are common and characteristic to the Feldon, and which contribute to its regional identity. Other native tree species may also be appropriate to individual sites - professional advice is recommended and is available from the sources listed at the back of this report.

Main soil type – poorly drained clays

		WOODLANDS	HEDGES AND HEDGEROW TREES	WET AREAS AND STREAMSIDES
●	Dominant species			
○	Other appropriate species			

### Trees

Field maple	<i>Acer campestre</i>	○	○	
Common alder	<i>Alnus glutinosa</i>	○		●
Ash	<i>Fraxinus excelsior</i>	●	●	○
Crab apple	<i>Malus sylvestris</i>	○		
Pedunculate oak	<i>Quercus robur</i>	●	●	
White willow	<i>Salix alba</i>			●
Crack willow	<i>Salix fragilis</i>			●

### Shrubs

Field maple	<i>Acer campestre</i>		○	
Dogwood	<i>Cornus sanguinea</i>	○	○	
Hazel	<i>Corylus avellana</i>	○	○	
Midland hawthorn	<i>Crataegus laevigata</i>	○	○	
Hawthorn	<i>Crataegus monogyna</i>	○	●	
Spindle	<i>Euonymus europaeus</i>	○	○	
Wild privet	<i>Ligustrum vulgare</i>	○	○	
Blackthorn	<i>Prunus spinosa</i>	○	○	
Purging buckthorn	<i>Rhamnus catharticus</i>	○	○	
Goat willow	<i>Salix caprea</i>	○		○
Osier	<i>Salix viminalis</i>			○
Elder	<i>Sambucus nigra</i>	○		
Wayfaring tree	<i>Viburnum lantana</i>	○	○	

Planting should contain at least 80% of dominant species

### N11. Plant Species for Encouraging Bats

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive Green Roofs	Living walls	Rain gardens	Hedges /Trees	Beds /Borders
Acer campestre	Field maple	N	T/S	C	Any	Sun/shade				Y	
Acer platanoides	Norway maple		T	S	Well drained / alkaline	Sun/shade				Y	
Acer saccharum	Sugar maple		T	S	Any	Sun/shade				Y	
Achillea millefolium	Yarrow	N	HP	C,F	Well drained	Sun	Y				
Aljuga reptans	Bugle	N	HP	C,F	Any	Sun/shade	Y		Y		
Anthyllus vulneraria	Kidney vetch	N	HP	F	Well drained	Sun	Y				
Aubrieta deltoidea	Aubrieta		H	F	Well drained	Sun/shade		Y			
Betula pendula	Silver birch	N	T	C	Sandy/Acid	Sun				Y	
Cardamine pratensis	Cuckoo-flower	N	HP	F	Moist	Sun/shade			Y		Y
Carpinus betulus	Hornbeam	N	T	C	Clay	Sun				Y	
Centraurus nigra	Common knapweed	N	HP	C,F	Dry, not acid	Sun	Y				Y
Centranthus ruber	Red valerian		HP	F	Well drained / alkaline	Sun	Y				Y
Clematis vitalba	Old man's beard	N	C	F	Well drained / alkaline	Sun				Y	
Corylus avellana	Hazel	N	S	C	Any dry	Sun/shade		Y		Y	
Crataegus monogyna	Hawthorn	N	S	C	Any	Sun/shade				Y	
Daucus carota	Wild carrot	N	Bi	S,C,F	Any	Sun	Y				Y
Dianthus spp.	Pinks	N	A-Bi	F	Well drained	Sun	Y	Y			Y
Digitalis purpurea	Foxglove	N	Bi	C	Well drained	Shade / partial shade				Y	Y
Erica cinerea	Bell heather	N	S	F	Sandy	Full sun					Y
Erysimum cheiri	Wallflower		Bi-P	F	Well drained	Sun		Y			
Eupatorium cannabinum	Hemp agrimony	N	H	F	Moist	Sun/shade			Y		Y
Fagus sylvatica	Beech	N	T	C,R	Well drained alkaline	Sun/shade				Y	
Foeniculum vulgare	Fennel		H	F	Well drained	Sun					Y
Fraxinus excelsior	Common ash	N	T	C,R	Any	Sun/shade				Y	
Hebe spp.	Hebe species		S	F	Well drained	Sun/shade				Y	Y
Hedera helix	Ivy	N	C	F,C	Any	Sun/shade		Y	Y	Y	Y
Hesperis matronalis	Sweet rocket		H	F	Well drained / dry	Sun/shade					Y
Hyaecynthoides non-scripta	Bluebell	N	Bi	F	Loam	Shade/ partial shade		Y		Y	Y
Ilex aquifolium	Holly	N	T	C	Any	Sun/shade				Y	
Jasminum officinale	Common jasmine		C	F	Well drained	Sun		Y			Y
Lavandula spp.	Lavender species		S	F	Well drained / sandy	Sun		Y			Y
Linaria vulgaris	Toadflax	N	HP	C	Well drained /alkaline	Sun	Y				Y
Lonicera periclymenum	Honeysuckle	N	C	F	Well drained	Sun		Y		Y	
Lotus corniculatus	Bird's foot trefoil	N	HP	F	Well drained /dry	Sun	Y				Y

38 Nectar plants for moths (Butterfly Conservation website) [http://www.mothscount.org/text/64/nectar\\_plants.html](http://www.mothscount.org/text/64/nectar_plants.html)  
 39 Moth caterpillar food plants (Butterfly Conservation website) [http://www.mothscount.org/text/66/caterpillar\\_foodplants.html](http://www.mothscount.org/text/66/caterpillar_foodplants.html)  
 40 Natural England: <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/threats/Horizon-scanning-plants.aspx>  
 41 NNSG: <https://seours.fera.defra.gov.uk/nonnative/species/home/index.cfm>

Plant species	Common name	Native (N)	Type	Benefit	Soil	Light	Extensive Green Roofs	Living walls	Rain gardens	Hedges /Trees	Beds /Borders
Lunaria annua	Honesty		Bi	F	Any	Sun/ partial shade	Y				Y
Malus spp.	Apple		T	C	Any	Sun				Y	Y
Matthiola longipetala	Night-scented stock		A	F	Well drained /moist	Sun			Y		Y
Myosotis spp	Forget-me-not species	N	A	F	Any	Sun	Y	Y			Y
Nicotiana glauca	Ornamental tobacco		A	F	Well drained /moist	Sun/ partial shade			Y		Y
Oenothera spp.	Evening primrose species		Bi	F	Well drained /dry	Sun	Y				Y
Origanum vulgare	Marjoram	N	HP	F	Well drained /dry	Sun	Y	Y			Y
Populus alba	White poplar	N	T	C	Clay loam	Sun				Y	
Primula veris	Cowslip	N	HP	F	Well drained /moist	Sun/ partial shade	Y				Y
Primula vulgaris	Primrose	N	HP	F	Moist	Partial shade	Y	Y		Y	Y
Prunus avium	Wild cherry	N	T	C	Any	Sun				Y	Y
Prunus domestica	Plum		T	C	Well drained /moist	Sun				Y	Y
Prunus spinosa	Blackthorn	N	S	C	Any	Sun/ partial shade				Y	
Quercus petraea	Sessile oak	N	T	C,R	Sandy loam	Sun/shade				Y	
Quercus robur	Common oak	N	T	C,R	Clay loam	Sun/shade				Y	
Rosa canina	Dog rose	N	S	C	Any	Sun			Y	Y	Y
Salix spp.	Willow species	N	S	S,C	Moist	Sun/shade			Y	Y	
Sambucus nigra	Elder	N	T	C	Clay loam	Sun				Y	
Saponaria officinalis	Soapwort	N	HP	F	Any	Sun					Y
Scilla maritima	Seaflora	N	HP	C	Well drained	Sun	Y	Y			Y
Scabiosa columbaria	Small scabious	N	HP	F	Well drained /alkaline	Sun	Y				Y
Sedum spectabile	Ice plant		HP	F	Well drained /dry	Sun	Y				Y
Silene dioica	Red campion	N	HP	F	Any	Shade/ partial shade		Y	Y	Y	Y
Sorbus aucuparia	Rowan	N	T	C	Well drained	Sun				Y	
Stachys lanata	Lamb's ears		HP	F	Well drained /dry	Sun	Y				Y
Symphoricarpon spp.	Michaelmas daisies		HP	F	Any	Sun					Y
Tagetes patula	French marigold		A	F	Well drained /moist	Sun					Y
Thymus serpyllum	Creeping thyme	N	HP/S	F	Well drained /dry	Sun	Y	Y			Y
Tilia x europaea	Common lime		T	C	Any	Sun/shade				Y	
Trifolium spp.	Clover species	N	H	F	Any	Sun	Y				Y
Valeriana spp.	Valerian species	N	HP	F	Moist	Sun/ partial shade			Y		Y
Verbascum spp	Mulleins	N	Bi/HP	C	Well drained	Sun	Y				Y
Verbena bonariensis	Verbena		HP	F	Well drained /moist	Sun					Y
Viburnum lantana	Wayfaring tree	N	S	C	Any	Sun/shade				Y	Y
Viburnum opulus	Guelder rose	N	S	C	Moist	Sun/shade			Y	Y	
Viola tricolor	Pansy	N	A	F	Well drained /moist		Y	Y			Y

**Type**  
 HP - Herbaceous perennial    T - Tree    A - Annual  
 Bi - Biennial    S - Shrub    B - Bulb  
 BiP - Biennial perennial    H - Herb    C - Creeper/ climber

**Benefit**  
 C - Moth caterpillar food plant  
 S - Sap sucking insects (eg whiteflies)  
 F - Flowers attract adult moths  
 R - Good root potential

# Part O: Parking and Travel

## Contents

- O1. Parking
- O2. Parking Standards: Residential
- O3. Parking Standards: Non-residential
- O4. Parking Design
- O5. Motorcycle Parking
- O6. Cycle Parking
- O7. Transport Assessments
- O8. Travel Plans

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.2 Climate Change and Sustainable Construction
- CS.9 Design and Distinctiveness
- CS.26 Transport and Communications

This section of the SPD provides information and advice on how applicants can ensure that issues of adequate parking and safe travel are achieved in new development.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document, are included in the [Glossary](#).

## O1. Parking

The NPPF (para.105) makes it clear that in setting local parking standards planning authorities should take into account:

- The accessibility of the development;
- The type, mix and use of development;
- The availability of and opportunities for public transport;
- Local car ownership levels; and
- The need to ensure an adequate provision of spaces for charging plug-in and other ultra-low-emission vehicles.

The demand for and the management of parking are growing problems in the District, particularly in the town of Stratford-upon-Avon. This is due to high levels of car ownership and usage and so opportunities to promote cycling will be encouraged. Guidance on cycle parking is set out in Section O6. There is no doubt that different user groups, individuals, and different types of development have different parking needs. The definition of parking standards should therefore reflect these varied needs.

The car parking standards should be taken as a starting point by applicants and the proposed scheme will be assessed accordingly. Applicants should explain how the standards have been applied to their individual proposal and, where appropriate, how and why they have deviated from them.

The Council's car parking standards reflects the mainly rural nature of Stratford-on-Avon District, where private car travel is necessary between many of its smaller settlements and the small market towns. In addition to this, the limited availability of public transport in these areas has led to a greater reliance of the private motor car for residents and businesses in order to carry out day-to day necessities, such as travelling to work, shopping and visits to GPs and hospital.

Compared to other areas of the District, Stratford-upon-Avon town centre benefits from higher levels of public transport accessibility and is well served by cycle and walking facilities and public car parking. The centre also accommodates an extensive range of shops and services and, through the Council's Local Industrial and Economic Development Strategy, there is a need to promote economic growth and increase productivity.

For the above reasons the Council applies a zonal approach to parking standards based on two zones:

- Zone A – Stratford-upon-Avon Town Centre (applying a lower standard for Residential and A Class Retail uses); and
- Zone B – Remainder of the District.

The overarching principle of the zonal approach is that developments located within Stratford-upon-Avon Town Centre, close to good public transport services and local facilities, will require less parking than equivalent developments in other areas of the District with lower levels of public transport accessibility and availability of services. A map identifying the boundary of Zone A is set out in Figure O1.

In circumstances where it is not possible to provide sufficient parking on site, the applicant should discuss the matter with the case officer to see if there is sufficient provision nearby

that can be used without detriment to other occupiers/users or whether the demand for parking can be reduced through some form of management.

For schemes involving the redevelopment or reuse of an existing building, for example conversion of a large house into separate flats, the need for additional car and cycle parking will be assessed on a case-by-case basis.

In certain locations there may be cases where car-free development can be considered acceptable in principle. These may include:

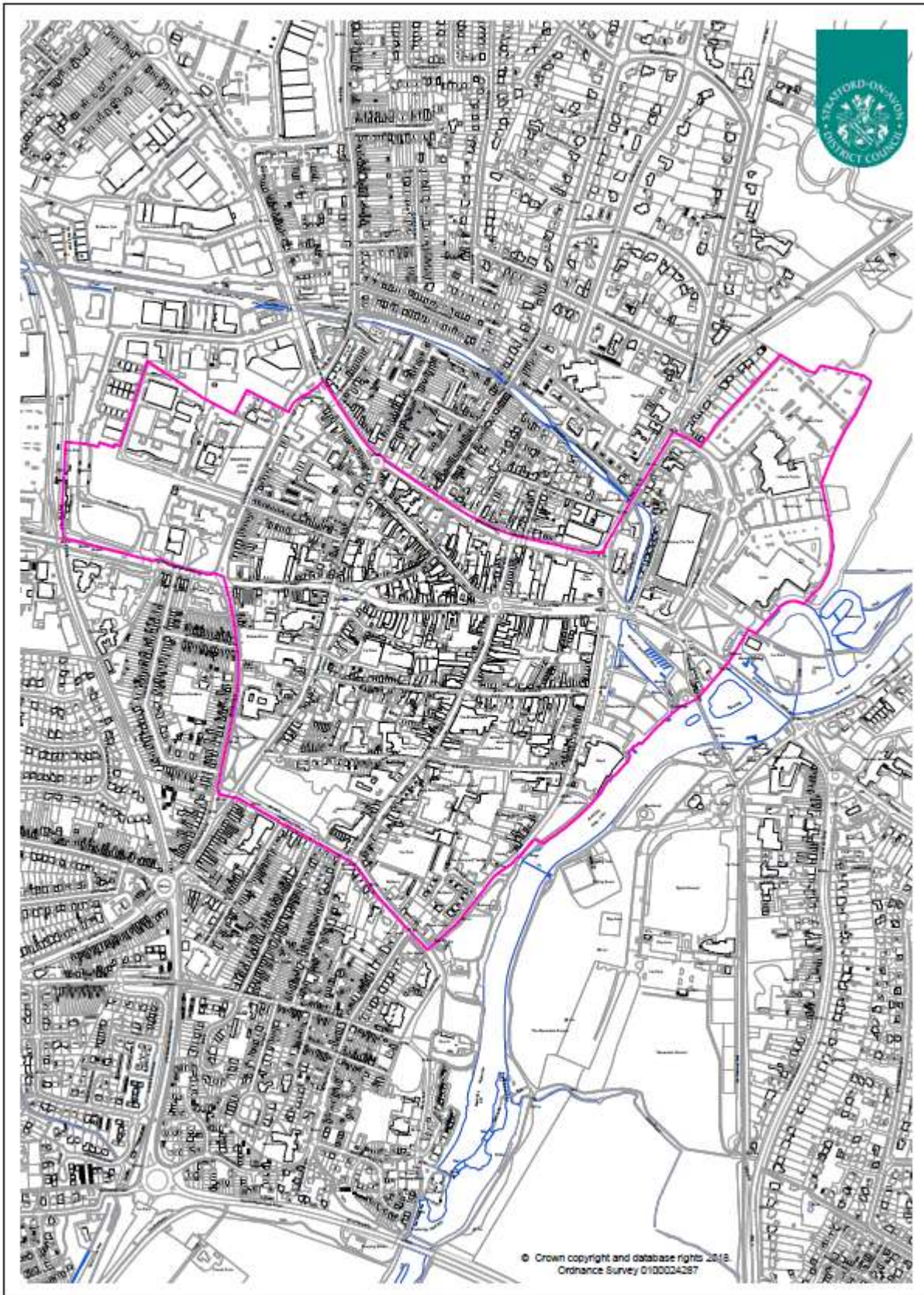
- extension, alteration or re-use of an existing building with no access to parking;
- reversion of a previously converted property to its original residential use, including flats above shops;
- where arrangements are made to share an existing car park within the vicinity of the site which can reasonably accommodate the parking demand generated by the development;
- Where 100% cycle provision is considered to be a viable option;
- Highly sustainable locations close to a full range of services, facilities and frequent public transport services.

In all instances applicants will be required to demonstrate why a car-free development represents the best available option.

Whilst the contribution of on-street parking to meeting the standards is not generally supported, there may be circumstances where wider than usual roads can be provided within a scheme to adequately accommodate parked vehicles and passing traffic without compromising the design integrity of the scheme as a whole. Applicants should discuss proposals with both Stratford-on-Avon District Council as the Planning Authority and Warwickshire County Council as the Highway Authority.

### **Domestic Garages**

Where domestic garage/car ports meet the minimum sizes set out in [section O4: Parking Design](#) they can contribute to meeting the parking standards set out below. In such cases, the Council may impose planning conditions preventing their future loss under the permitted development regime.



Stratford-upon-Avon Town Centre Boundary

Figure O1: Zone A boundary map of Stratford-upon Avon Town Centre

## **02. Parking Standards: Residential**

The residential parking standards apply to all developments involving the provision of 1 or more dwelling units (gross). Provision should normally be made within the curtilage of properties, in shared parking areas, or a combination of the two. The standards apply equally to both market and affordable housing as there is little evidence that the level of vehicle ownership differs between such tenures, particularly in respect of the proportion of households with one car.

The standards will be used as a guide, having regard to the size of the dwelling that is to be created, the likely parking demand arising, the impact upon highway safety and the level of provision that already exists on site.

The District Council will apply the following principles in respect of parking standards:

- (a) The number of spaces derived from applying the standards to allocated spaces will be rounded using the standard convention (i.e. 0.1-0.4 is rounded down and 0.5-0.9 is rounded up). Where a development incorporates two or more uses to which different standards are applicable, the standards appropriate for each use should be applied in a proportionate manner.
- (b) Shared use provision may be appropriate if this would not cause conflict, for example where uses operate at different times of the day or days in the week.
- (c) Staff members will be calculated on a Full Time Equivalent (FTE) basis, eg. two part-time job sharing staff equals 1 FTE member of staff.
- (d) Tandem parking spaces should not be used where residential parking is unallocated in shared circumstances as they can be inconvenient and may deter the full use of off-street parking provision.

There is a clear distinction between the provision of allocated parking spaces and those that are unallocated. The former are specifically for the use of occupiers of dwellings and are either provided within an individual curtilage or as identified spaces in parking courts. Non-allocated spaces are additional to this and intended to provide scope for visitors. These can be provided within the dwelling curtilage, on-street if the design of the road is appropriate, or in shared parking courts. By their nature, it would not be practicable to apply non-allocated parking standards to scheme involving extensions to dwellings.

It is not possible to identify parking standards for every potential type of residential development/use. Where a development/use does not have an ascribed standard the likely parking requirements will be assessed taking into account the nature of the intended use, location of the site and other relevant factors.

The standards will be used as a guide, having regard to the size of the dwelling that is to be created, the likely parking demand arising, the impact upon highway safety, the accessibility of the development and the level of provision that already exists on site.



## Extra Care Housing

The Core Strategy defines extra care housing as 'comprising self-contained homes with design features and support and care services available to enable self-care and independent living. Each household has its own front door. It is for people whose disabilities, frailty or health needs make ordinary housing unsuitable but who do not need or want to move to long term care (residential or nursing homes)'.

The contribution of the Extra Care Housing model towards meeting the District's housing needs by facilitating and sustaining independent living and avoiding social isolation is considered significant, and preferable to other more "institutional" models of accommodation and care or models where care provision is absent.

Further information on the provision of Extra Care Housing can be found in [Section T4](#) of [Part T](#) (Specialised Housing) of the Development Requirements SPD.

The level of parking provision on Extra Care Housing schemes will vary depending upon a range of factors, including:

- The spectrum of care being provided and the likely mobility and connectivity needs of resident, visitors and staff (including opportunities for social interaction);
- The availability, distance and ease of access of residents to key services/facilities on site, in the near vicinity and within the extra care facility itself – taking into account and likely mobility issues;
- The availability and frequency of public transport to key services and facilities;
- Connectivity and standard of routes to local services and facilities; and
- Servicing requirements of the scheme.

For these reasons no specific parking standards are set out within this SPD. Instead, applicants are required to consider and address the above factors as part of a holistic approach towards ensuring the accessibility of schemes in order to maximise accessibility and connectivity, which may include necessary infrastructure upgrades.

When designing a parking solution for an Extra Care Housing Scheme applicants are required to justify the approach accordingly as part of any submitted planning application for consideration. This will need to include details of the proposed layout, parking standards for cars and cycles, disabled parking and servicing requirements and would likely be set out within the Transport Assessment or Transport Statement, as appropriate.

**Table O1. Residential Development Parking Standards**

Property type and size	Car Parking Standard*				Cycle Parking Standard*	
	Zone A Stratford-upon-Avon Town Centre**		Zone B Remaining Areas**		All Areas** (See Section O6 for further information)	
Includes extensions resulting in associated increase in the number of bedrooms (NB. includes holiday homes)	No. of allocated spaces	No. of unallocated visitor spaces	No. of allocated spaces	No. of unallocated visitor spaces	No. of allocated spaces (houses)	No. of unallocated spaces (apartments)
1 bed units	1	0	1	0.2 space	1	1 space per dwelling
2 bed units	1	0	2	0.2 space	1	
3 bed units	1	0	2	0.2 space	2	
4 bed units	1	0	3	0.2 space	2	
5+ bed units	1	0	3	0.2 space	3	
	<b>All Areas**</b>				<b>All Areas**</b>	
Nursing homes or similar accommodation for frail elderly (dwellings which are not self-contained)	Warden	1 space per resident warden			1 space per 5 staff	
	Non-resident staff	1 space per 2 staff				
	Visitors	1 space per 5 units			1 space per 10 bedrooms	

\*Where adopted Neighbourhood Development Plans set different standards these will normally take precedent over the above standards.  
 \*\*The number of spaces derived from applying the standards will be rounded using the standard convention (i.e. 0.1-0.4 is rounded down and 0.5-0.9 is rounded up).  
 N.B. The parking standards should be taken as a starting point and each proposed scheme will be assessed accordingly. Applicants should explain how the standards have been applied to their individual proposal and, where appropriate, how and why they have deviated from them.

### **03. Parking Standards: Non-Residential**

The non-residential parking standards apply to all developments that result in the creation of non-residential floorspace. This includes the extension of existing non-residential premises and changes of use.

Stratford-on-Avon District Council will apply the following principles in respect of parking standards:

- (a) The number of spaces derived from applying the standards to allocated spaces will be rounded using the standard convention (i.e. 0.1-0.4 is rounded down and 0.5-0.9 is rounded up).
- (b) The amount of floorspace proposed should be calculated on the gross floor area of the development (measured externally).
- (c) Where a development incorporates two or more uses to which different standards are applicable, the standards appropriate for each use should be applied in a proportionate manner.
- (d) Shared use provision may be appropriate if this would not cause conflict, for example where uses operate at different times of the day or days in the week.
- (e) Staff members will be calculated on a Full Time Equivalent (FTE) basis, eg. two part-time job sharing staff equals 1 FTE member of staff.
- (f) Tandem parking spaces should not be used as they can be inconvenient and may deter the full use of off-street parking provision.

Where mixed-use schemes for residential and commercial developments are proposed, the parking requirements for each element should be calculated individually. Where appropriate, the Council will consider the shared use of parking between residential and commercial elements, e.g. the use of business car parking facilities by residential developments during evenings and weekends.

Most new retail (class A) and community facilities (class D1 and D2 such as museums, libraries, cinemas and leisure centres) tend to be located within existing town and local centres. As such, existing on-street and off-street parking may be available in the vicinity. The nature and extent of existing provision will be assessed for each individual scheme to determine whether this is sufficient and would not cause harm to the amenity of the area or to highway safety.

It is not possible to identify parking standards for every type of potential development/use. Where a development/use does not have an ascribed standard the likely parking requirements will be assessed taking into account the nature of the intended use, location of the site and other relevant factors.

**Table O2: Non-Residential Development Parking Standards**

Type of development	Threshold/Criteria	Number of allocated spaces*		Cycle parking standards*
		Zone A Stratford-upon-Avon Town Centre**	Zone B Remaining Areas**	All Areas** (See Section O6 for further information)
Food Retail (A1)	Up to 500 sq. m floorspace	1 space per 50 sq. m	1 space per 15 sq. m	Customers & Staff – 1 space per 100 sq. m up to 1000 sq. m; thereafter 1 space per 200 sq. m
	500+sq. m floorspace	1 space per 50 sq. m	1 space per 10 sq. m	
Non-Food Retail (A1)	All floorspace	1 space per 50 sq. m	1 space per 20 sq. m	
Garden Centres (A1)	Indoor and outdoor display areas	1 space per 50 sq. m	1 space per 50 sq. m	
Financial and Professional Services (A2)	All floorspace	1 space per 50 sq. m	1 space per 20 sq. m	1 space per 100 sq. m to include visitor parking
Food and drink including restaurants, cafes, pubs, hot food takeaways (A3-A5)	Indoor Customer area	1 space per 20 sq. m	1 space per 5 sq. m	Customers & staff – 1 space per 50 sq. m

\*Where Neighbourhood Development Plans set different standards these will normally take precedent over the above standards.

\*\*The number of spaces derived from applying the standards will be rounded using the standard convention (i.e. 0.1-0.4 is rounded down and 0.5-0.9 is rounded up).

N.B. The parking standards should be taken as a starting point and each proposed scheme will be assessed accordingly. Applicants should explain how the standards have been applied to their individual proposal and, where appropriate, how and why they have deviated from them.

Type of development	Threshold/Criteria	Number of allocated spaces**	Cycle Parking Standards** (See Section O6 for further information)
Offices (B1a)	Up to 1000 sq. m floorspace	1 space per 20 sq. m	1 space per 250 sq. m
	Additional floorspace (1000+ sq. m)	1 space per 30 sq. m	
Research and Development (B1b) & Light Industrial (B1c)	Up to 1000 sq. m floorspace	1 space per 30 sq. m	1 space per 250 sq. m
	Additional floorspace (1000+ sq. m)	1 space per 40 sq. m	
General Industrial (B2)	Up to 1000 sq. m floorspace	1 space per 30 sq. m	1 space per 500 sq. m
	Additional floorspace (1000+ sq. m)	1 space per 40 sq. m	
Storage and Distribution (B8)	Up to 1000 sq. m floorspace or open storage area	1 space per 50 sq. m	1 space per 1000 sq. m
	Additional floorspace or open storage area (1000+ sq. m)	1 space per 80 sq. m	
Hotels and Guest Houses (C1)	Guests	1 space per guest bedroom	Guests – 1 space per 5 bedrooms
	Resident staff	1 space per resident staff bedroom	1 space per 5 staff
	Non-resident staff	1 space per 2 staff	
Non-residential institutions (D1) – Clinics and surgeries, including vets	Staff and Visitors	3 spaces per consulting room	1 space per consulting room for staff and visitors
Non-residential institutions (D1) – Day Nurseries and Crèches	Staff and Visitors	1 space per 1 staff plus sufficient space for dropping off and collecting children (assessed on a case by case basis)	Staff – 1 space per 5 staff Visitors – 1 space per 10 car parking spaces
Assembly (D2) – cinemas, concert halls, conference centres	Staff and Visitors	1 space per 3 seats	Visitors – 1 space per 100 sq. m or public area Staff – 1 space per 5 staff

<b>Type of development</b>	<b>Threshold/Criteria</b>	<b>Number of allocated spaces**</b>	<b>Cycle Parking Standards**</b>
Assembly (D2) – sports centres, swimming pools	Staff and Visitors	1 space per 20 sq. m	Visitors – 1 space per 100 sq. m or public area Staff – 1 space per 5 staff
Leisure (D2) – outdoor sport	Staff and Visitors	1 space per 100 sq. m	Staff and Visitors – 1 space per 500 sq. m
Vehicle Service Stations	Staff and Customers	2 spaces per 50 sq. m	1 space per 5 staff
Car showrooms	Staff and Customers	2 spaces per 100 sq. m including outdoor display areas	1 space per 5 staff

\*Where Neighbourhood Development Plans set different standards these will normally take precedent over the above standards.

\*\*The number of spaces derived from applying the standards will be rounded using the standard convention (i.e. 0.1-0.4 is rounded down and 0.5-0.9 is rounded up).N.B. The parking standards should be taken as a starting point and each proposed scheme will be assessed accordingly. Applicants should explain how the standards have been applied to their individual proposal and, where appropriate, how and why they have deviated from them.

## 04. Parking Design

Policy CS.9 (Key Design Principles) states:

**Connected:** Proposals will incorporate effective measures to reduce crime and the fear of crime and to minimise danger from traffic.

### Parking Principles

The ultimate outcome of parking design is that it does not dominate the public realm or inconvenience pedestrians, cyclists and other vehicles. The provision, location and type of parking should be considered at the earliest stage and be integrated into the overall design of a development. Sufficient spaces need to be provided in a manner where they are used and inappropriate parking should be designed out as much as possible by using carriageway widths, street furniture and planting.

The level and location of parking provision for all types of vehicles has a significant influence factor on the form and quality of a development. In particular, the way that vehicles are parked can affect a range of factors including:

- Safety on the street;
- Degree of spacing between buildings;
- Visual impact;
- Activity;
- Travel choice of residents;
- Social interaction between residents.

When considering the location and type of parking for a particular street, it is critical that accessibility and social inclusion factors, along with the street hierarchy is taken into consideration and that the desired character of the street type informs the design process; for example a primary route with heavy traffic loads and bus routes should not have flows unacceptably hampered by on street parking. Conversely a secondary or minor street might use on street parking or front parking courts to calm traffic speeds. The standards for access to car parking areas should accord with the guidance set out in the Manual for Streets (2007) or its successor document or Warwickshire County Council's highway design standards.

Developers will be required to demonstrate that the layouts of roads and parking places within the sites are adequate for safe and convenient parking, manoeuvring, loading and unloading of vehicles to fulfil operational requirements of the proposed development. It may be necessary to provide vehicles tracking plots to demonstrate that lorries and larger vehicles can manoeuvre and access parking places.

Parking may be provided by a variety of layouts within new development. They broadly fall into the categories of on-street parking and on-plot parking.

Generally, all car parking should be on-plot. Whilst parking in front 'on street' courts may be acceptable, the use of rear courtyard parking areas is unlikely to be appropriate in the majority of cases. This is due to the problems of accessibility, surveillance, crime and disorder and the creation of unattractive and poorly managed areas.

## On Street Parking

Generally, new development should make provision for on-plot parking. Warwickshire County Council Highways should be consulted at the design stage of development proposals for discussion to determine suitable provision. In town centre and residential areas the highway authority will need to be satisfied about the impacts including safety matters relating to on-street parking provision for new and re-developments.

Unallocated car parking spaces on the street may enable visitors space to park. However, parking for residents should be mostly accommodated within the curtilage of the dwelling. On street parking provides convenient access to frontages, can contribute to an active street and traffic calming: and keeps most vehicular activity on the public side of buildings.

- Perpendicular and angled parking bays can accommodate more cars than parallel parking, but increase the width of the road and due to limited visibility, are potentially more dangerous unless traffic speeds are appropriately controlled by the street design. Other potential adverse impacts to mitigate include preventing vehicle lights shining into windows at night and ensuring sufficient tree and shrub planting to lessen visual impacts;
- Continuous areas of communal street parking are visually intrusive and need to be broken up or the number of parking spaces restricted to one place;
- The proportion of on-street parking appropriate for a particular scheme will be considered on its own merits, within the local context with regard to the parking standards and the environmental and road safety impact of the proposals;
- Street layouts must be designed to discourage on-pavement parking without the use of bollards, where ever possible to avoid unattractive street clutter;
- The design and layouts should make it clear where on street parking is and is not appropriate.

## Parking Squares

Parking perpendicular to the street can be arranged in parking squares. They should be designed with robust material and as attractive public spaces, which are capable of accommodating parked cars. Small squares can add interest and provide parking in a traffic calmed environment. Successful parking squares and on street parking areas usually consists of:

- Appropriate street trees (with protective guards as necessary) and planting;
- surfaces other than tarmac and which are semi-permeable for SuDS assistance;
- well-designed street furniture.

## On-Plot Parking

The benefits of this type of parking include:

- greater security and crime reduction;
- better ease of access;
- helps keep pavements clear for users;
- helps prevent on-street congestion.



The negatives of on-plot-parking may include:

- a less efficient use of space than unallocated parking;
- does not contribute to on-street traffic calming;
- when located in front of houses it breaks up the frontage and can be over-dominant;
- can restrict passive surveillance.

To mitigate the negative impacts, it is better for on-plot parking to be placed to the side of the dwelling and where possible, behind its building line to minimize its dominance of the plot, allow for front gardens with planting and to avoid a repetitious layout. The surfacing for private drives should be small unit permeable pavers, or other materials which will allow sustainable drainage and contrast with standard tarmac, raising the environmental quality of the area.

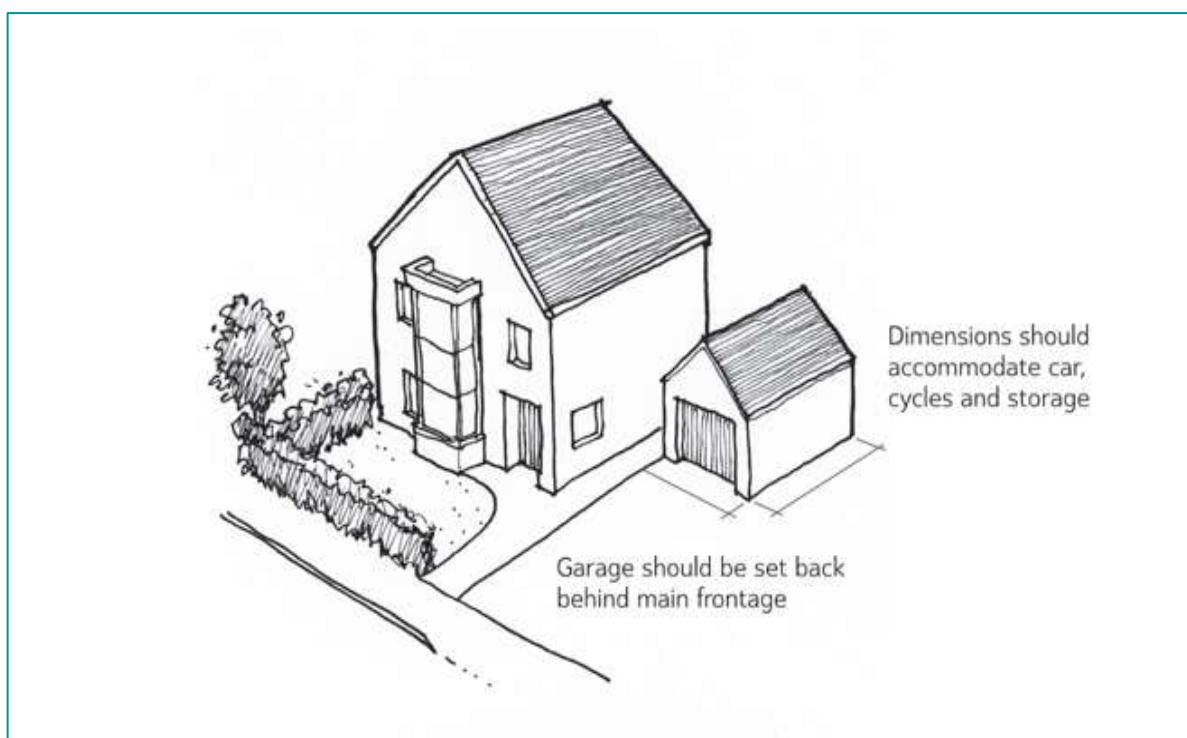


Fig.O2 - Shows on-plot parking with a well-designed garage set back to the side of the house and a planted front garden.

Where plot widths are narrow (below 5.5 m) or in the case of terraced houses with no space to the side of the house, the parked car may visually dominate the front of the house. This effect will be magnified if this method is repeated at regular intervals in a street.

As a general rule, no more than three adjoining narrow-fronted properties utilising this approach should be grouped together to reduce the visual impact.

Appropriate soft landscaping and boundary treatments should also be employed to provide variety.

Private car spaces and drives visible from the street should be surfaced in small unit permeable pavers, or other materials which will allow sustainable drainage and contrast with standard tarmac, raising the environmental quality of the area.

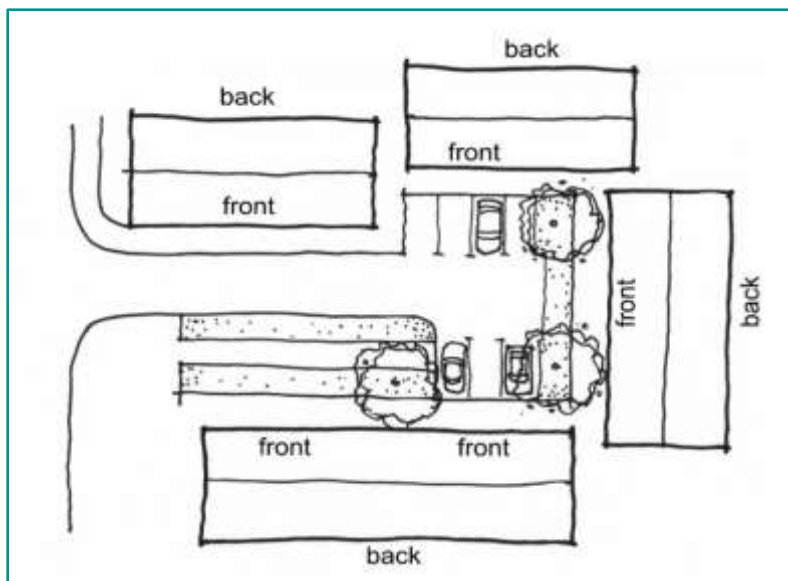


Fig.O3 - Example of off-plot parking to the front of dwellings

NB. The illustration is for indicative purposes only as car parking arrangements will vary from site to site, depending on the nature of the site.

### Size of Parking Spaces

Table O3 shows the minimum dimensions required for parking places and should be read in conjunction with the guidance below.

For many years the recommended minimum dimensions for a car parking space has been 4.8m by 2.4m. However, in view of the increasing trend for larger vehicles, the standard is failing to meet current car parking needs. Table O3 below sets out dimensions for parking bays in various scenarios.

A road of aisle minimum width of 6.0m width is required for car parks where multiple spaces are laid out in perpendicular to the access or aisles. Alternative layouts such as parallel or herringbone parking have different space requirements and may be served by narrower aisle or roads. The aisle widths need to be determined on a site specific basis, with regard for Manual for Streets 2. <https://www.gov.uk/government/publications/manual-for-streets-2>

Where spaces are bordered by walls, fences or, landscape design (or otherwise restrained) they need to be enlarged above the minimum width by at least 250mm on each restrained side. Parking spaces on-street and in laybys parallel to the carriageway must be a minimum 6.0m in length and 2.0m wide.

**Table O3: Parking Bay Sizes**

Circumstance	Width	Length
Where no boundary features nearby	2.5m	5.0m
Where boundary feature to one side	2.75m	5.0m
Where boundary features to both sides	3.0m	5.0m
Where boundary feature to end of bay	2.5m	5.5m
Disability Parking	3.6m	6.0m
On-Street Parallel Parking bay by footway	2.0m	6.0m

## Access and Visibility to Parking Places

Sufficient space must be provided to ensure vehicles can easily and safely enter and leave parking spaces and be parked without overhanging the footway or road. Parking arrangements should maintain visibility splays where necessary to do so.

There should also be adequate visibility between the parking space, footpath and road to enable visibility between drivers and other highway users – particularly vulnerable users on the footpath.

Similarly parallel parking places should be wide enough to enable doors to be at least partially opened before encroaching on the carriageway. Normally, this will be 2m where parking is adjacent to a footway and 2.4m elsewhere.

## Garages

The provision of parking in garages provides the most secure form of private car accommodation.

There are several design considerations which should take account of the local context:

- Generally, garages should be to the side and rear of dwellings and set behind the building line. To maintain the primacy of the dwelling as the most important feature of the plot garages should not be built in the front of the dwelling or its plot unless there are exceptional circumstances.
- Integral garages should have well designed doors with glazing where appropriate and are best accommodated in wide fronted buildings at least 7m width and at least 2 storeys in height and incorporating ground floor front windows to a habitable room to limit garage door visual dominance and encourage informal surveillance of the street.

## Minimum Size of Garages

It is recognised that despite being an important design feature of residential developments, garages are used for a number of purposes, such as general storage.<sup>12</sup> It is acknowledged that storage space is important, particularly as many properties do not have much storage space within the dwelling itself. This has led to increased pressure on car parking and parking on residential footpaths, which results a highway safety risk to drivers and pedestrians safety and less attractive residential areas.

Where a garage is intended as an allocated car parking space, additional provision of a minimum of 3 sqm floor area for household and garden storage, along with cycle parking within the garage is normally required. Alternatively, a separate weather proof structure should be suitably designed and sited within the curtilage of the dwelling for garden or cycle storage etc.

Garages will only be acceptable as a car parking space and cycling store if they are at least 7.0m long and a minimum width of 3.5m (3.15 between piers), and have a door width of at least 2.4 metres. These dimensions provide sufficient space to access a car and reasonable amount of space for cycle, garden and household storage. In order to access

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<sup>12</sup> URBED 'Space to Park' (November 2013) <http://urbed.coop/projects/space-park>

cycles without the need to remove the car, a personnel side door may be necessary towards the rear of the garage with an external access route to the street.

Where the character and density of development allows, a space in front of the garages should be either of sufficient size to accommodate a second car to be parked (6.0m is needed to allow the garage to be opened) or short enough to discourage parking which would overhang the shared surface or footpath.

Where there is alternative convenient covered and secure cycle parking, garages 6.0m in length and 3.0m in width internally are acceptable as a car parking space.

### **Basement, Covered and Under Croft Parking**

In appropriate circumstances under croft, basement, multi-level and covered parking can be a useful way of reducing visual intrusion and land take. Due to the proximity of walls and pillars, spaces generally need to be larger than in normal surface car parks to ensure that vehicles can manoeuvre into them with reasonable ease, and doors and boots can be opened. Care also needs to be taken with gradients between levels to avoid vehicles grounding and enable access for people with mobility difficulties. The access width should be at least 5.5m width to accommodate access for service vehicles.

Lifts should be considered if there are multiple levels of parking.

### **Driveways and Other Residential Parking Places**

Residential parking places should provide sufficient space around vehicles to allow for safe and convenient loading and unloading, and enable vehicle maintenance and cleaning without encroachment on the adjacent footpath or property. Whilst Table O3 above sets out standards for parking bays, it is recommended that for optimum accessibility driveways and parking places adjacent to homes should be a useable area not less than 3.0m by 6.0m particularly where spaces abut plot boundaries. Tandem spaces with a garage should be at least 10.5m in length in total. This is to allow for 5.0m in front of a garage, 5.0m for a vehicle to rear and 0.5m for the door to open. Where tandem parking is proposed without a garage, it should be at least 10m.

It should be possible to access both sides of parked vehicles and fully open vehicle doors on at least one side to provide convenient access for people with impaired mobility and parents with babies and young children.

There must be sufficient room to enable garage doors to be opened and bins, cycles and mobility scooters to be stored, or removed from adjacent garages or gardens without moving the car. Extra width should be provided where required to allow pedestrian access to the house.

### **Mobility Difficulties**

In residential developments the parking and site layout must permit access to the property for persons with mobility difficulties, for example, people using wheelchairs or mobility scooters, prams and cycles.

In specialist housing such as care homes and supported housing, it may be appropriate to integrate storage and electric charging facilities for motorised disability buggies. This will

be considered on a case by case basis depending upon the circumstances of the individual scheme.

In shared parking areas, spaces for disabled people need to be properly marked and meet the Part M of the Buildings Regulations. It is preferable to provide these spaces in unallocated areas, including on-street, as it is not normally possible to identify which properties will be occupied by or visited by disabled people. Spaces for disabled people should be located as close as possible to building entrances.

An off-street Mobility Space should normally be 6.0m in length and 3.6m in width to allow appropriate access space (1.2m) to each side and the rear of the vehicle.

### Find out more

Department of Transport 'Inclusive Mobility' (2005)

<https://www.gov.uk/government/publications/inclusive-mobility>

Access for blind people in towns (January 2014)

<http://www.theihe.org/new-access-blind-people-towns-guidance-note/>

Department of Transport Local Transport Note 1/11: Shared Space (October 2011)

## Electric Vehicle Charging

Information on requirements for electric vehicle charging within new developments is set out within [Part R](#) (Air Quality) of this Development Requirements SPD.

## 05. Motorcycle Parking

Motorcyclists prefer to park close to their destination, in places where they can secure their machine. Designated motorcycle parking facilities that fail to meet these requirements will probably be overlooked in favour of informal spaces that are considered more suitable by owners. Motorcycles are prone to theft as they can be readily lifted into another vehicle. Security should therefore be a key consideration when providing parking facilities for motorcycles. Physical security need not be difficult or expensive to provide. Fixed features, such as rails, hoops or posts designed to provide a simple locking point to secure a motorcycle should be provided.

In planning for motorcycle parking, in most situations motorcycles will be able to use car parking spaces, but in some situations it will be appropriate to provide designated motorcycle parking areas, particularly:

- where there is a high density of development and where car parking is likely to be intensively used; and
- where demand for motorcycle parking is expected to be significant.

## 06. Cycle Parking

Cycling is recognised for the contribution it can make as a sustainable and healthy form of transport and is a growing pursuit. To support this, measures should be incorporated into development schemes that make the choice to cycle more convenient and safer. However, whilst there is a growing understanding of good principles for cycle parking in

the public realm, little thought has been given to what should be done where most journeys begin and end, i.e. at home. Consequently having good quality cycle parking within residential development can be a positive selling point for developers.

The appropriate amount of provision will vary depending on the type of development. Greater consideration should be given to the provision of cycle storage in new residential development. Each dwelling should provide for an appropriate level of cycle parking within its plot or be part of an appropriate shared parking provision. Shared cycle parking needs to be secure, covered, have good surveillance and be designed and located to be convenient to use.

Cycle parking needs to be designed early on in the process, as space needed to accommodate cycles can be significant. The importance of well thought out design is critical. Cycle parking facilities will be underused if it is difficult to manoeuvre cycles into the designated space or the location is inconvenient. This in turn leads to cycles being left attached to railings or street furniture with associated visual harm, highway impediments and risk of theft or damage.

It is imperative that cycle parking forms an integral part of any full or reserved matters planning application, rather than treating it as a secondary issue to be resolved by condition. Full details of matters such as the location, type of rack, spacing, numbers, method of installation and access to cycle parking should be provided.

On larger developments it may be appropriate to incorporate provision for recharging individual electric cycles. In addition there may be opportunities to introduce grouped locations of cycles for hire. This type of provision will be considered on a case by case basis depending upon the circumstances of the individual scheme and the potential benefits that such infrastructure could provide.

## Design, Layout and Siting of Cycle Parking

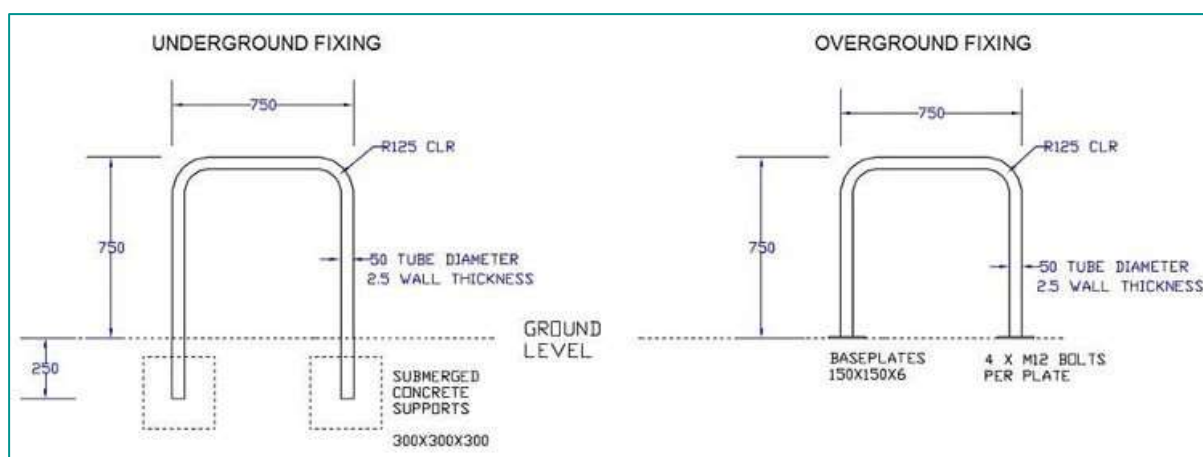
The following key considerations for cycle parking are outlined below:

<ul style="list-style-type: none"> <li>• Conveniently sited</li> </ul>	<ul style="list-style-type: none"> <li>• All cycle parking should be positioned in a manner that encourages the use of a cycle as first choice for short trips.</li> </ul>
<ul style="list-style-type: none"> <li>• Accessible and easy to use</li> </ul>	<ul style="list-style-type: none"> <li>• All parking facilities should be easy to get to, with no inconvenient detours, steep slopes or narrow access ways.</li> </ul>
<ul style="list-style-type: none"> <li>• Safe and Secure</li> </ul>	<ul style="list-style-type: none"> <li>• Facilities should always be secure and give cyclists the confidence that their cycle will still be there when they return.</li> </ul>
<ul style="list-style-type: none"> <li>• Covered</li> </ul>	<ul style="list-style-type: none"> <li>• Parking provided for residents should always be covered and, where appropriate, this should also apply to visitor parking.</li> </ul>
<ul style="list-style-type: none"> <li>• Fit for purpose</li> </ul>	<ul style="list-style-type: none"> <li>• The recommended choice of rack is the 'Sheffield' type stand due to its practical and durable design. (see below)</li> </ul>
<ul style="list-style-type: none"> <li>• Well managed and well maintained</li> </ul>	<ul style="list-style-type: none"> <li>• Shared residential cycle parking in flats and apartments should be the subject of a funded maintenance regime.</li> </ul>
<ul style="list-style-type: none"> <li>• Attractive</li> </ul>	<ul style="list-style-type: none"> <li>• The design of cycle parking facilities should be in keeping with their surroundings.</li> </ul>

### Stands

The use of butterfly racks or similar which only grip the wheel are not considered appropriate as they are less secure, do not support the bike, can damage it and cause a trip hazard to pedestrians.

The Sheffield type stand will be required as a minimum. This is the most common, simple and reliable design of stand, constructed from a single tube with two right angle bends. The addition of a horizontal bar approximately 500mm above ground level is recommended as it makes it easier to secure children's cycles and 'step through' cycles and reduces the likelihood of cycles slipping down the stand if properly locked.



The minimum spacing between Sheffield stands should be 1000mm. This distance is always measured from the centre line and at right angles to the longitudinal axis of the stand, even when stands are at an angle to a wall or kerb line. When used in the public realm they should be sited towards the front of the buildings. The first and last stands in a row should be fitted with a tapping rail for the benefit of blind and partially sighted people. Stands should always be fixed at right angles to any slope. This overcomes any tendency for the parked cycles to roll downhill.

If unavoidable, where cycle parking is provided to the rear or sides of buildings, the access way should preferably be 1500mm wide or a minimum of 1200mm and surveillance should be maximised.

Cycle parking for residents and employees should be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building. Cycle stores for individual dwellings should best be located to the rear of properties as long as accessibility to the highway is feasible. Well-designed stores to the front of apartments and commercial buildings should not unduly harm the streetscene.

When provided within the footprint of the building or as a freestanding shed/garage, cycle parking should be accessed by means of a door (secured by mortice lock) at least 1000mm wide and be at least 2000mm deep.

With regard to flats, apartments and employment sites, cycle parking (whether provided internally or externally), should be sited within 20m of the relevant entrance of the building and in all cases closer than the nearest non-disabled car parking space. It should be well lit, create a sense of personal safety, and included in any premises' CCTV surveillance system. External cycle parking should be overlooked by the windows of buildings and not hidden by landscape design or planting. In all cases, secure compounds must not have unsecured apertures large enough for anyone to climb in or a cycle to be passed through.

The preferred solution is for the cycle parking to be within the building footprint with an individual cage for each dwelling or a rack space for each cycle. Cycle parking provided outside of the building should be within a lit, covered enclosure, again with cages or racks. If the parking area has open access, the enclosure should be lockable.

Parking areas should preferably be housed internally on the ground floor. As a general rule, it is not recommended that parking for cycles should be accommodated within individual apartments above ground floor level. Where lifts are provided for the use of cyclists these should be sufficiently large to accommodate their cycles, i.e. at least 2m deep and preferably 2m wide with an overall door aperture of 1.2m.

The cycling parking standards set out in Tables O1 and O2 will be applied, unless specific circumstances are applicable to a particular type or location of proposed development:



### Find out more

Cyclenation, Making Space for Cycling, 2014

<http://www.makingspaceforcycling.org/>

Sustrans, Cycle Parking, November 2014

<http://www.sustrans.org.uk/sites/default/files/images/files/Route-Design-Resources/Cycle-Parking-31-10-14.pdf>

## 07. Transport Assessments

The effect of traffic that is likely to be generated by new development will, in certain circumstances, need to be comprehensively examined to allow the determination of planning applications.

Transport Assessments (TAs) and Transport Statements (TSs) should be submitted in accordance with the Council's 'Planning Application Local List' which sets out the requirements for different scales of development. The latest list is available to view on the Council's website at the following link:

<https://www.stratford.gov.uk/planning-regeneration/planning-application-forms.cfm>

In certain circumstances a TA may be required for smaller scale developments or other forms of development, e.g. education, health. This may be due to the scale or type of traffic movements likely to be generated and/or the specific conditions that prevail on the road network. Where a car-free development is proposed, evidence will be required within the relevant Transport Assessment or Statement accordingly.

Where a TA is not required there may instead be a need for a Transport Statement or an Access Assessment. Potential applicants should consult with Warwickshire County Council (the Highway Authority) to agree on the existing traffic/transport conditions near the development site and the need for a formal TA or other traffic/transport document to be prepared.

Where a development proposes access to the strategic highway network, applicants are advised to consider [DfT Circular 02/2013 \(The Strategic Road Network and the Delivery of Sustainable Development\)](#).

### Find out more

The Planning Practice Guidance provides advice on the content of Transport Assessments:

<https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements>

## 08. Travel Plans

The NPPF promotes Travel Plans as a means of reducing car usage and increasing the use of public transport, walking and cycling. The Council will require the submission of a comprehensive Travel Plan on all major non-residential developments (i.e. comprising 10,000 sq. m or more or a site area of 2 hectares or more). A Travel Plan will also be sought on other schemes where the achievement of a modal shift is considered to be particularly necessary. In the case of residential development, a Travel Plan is no longer sought by the County Council. However, a financial contribution towards the provision of Sustainable Travel Packs for the residents of new dwellings will normally be required for schemes of 10 dwellings or more, the current cost for these packs is £75 per dwelling.

Travel Plans should deliver a range of measures and incentives to facilitate the use of alternative modes of transport. These measures should be based on a thorough understanding of the actual or projected travel movements of employees, visitors and students (in relation to educational establishments), according to the nature of the scheme. Clear targets should be set to allow the Travel Plan to be monitored and reviewed. In the event that agreed, tangible targets contained in the Plan are not met, enforcement action will be considered by the Council.

In recent years, there has been growing awareness of the importance of 'soft' measures in influencing people's travel behaviour away from car use towards more sustainable modes of transport. The term 'Smarter Choices' is widely used to describe a range of measures which seek to encourage more people to choose sustainable travel by improving information, opportunities and the attractiveness of alternative modes. These include:

- Workplace and School Travel Plans;
- Personalised travel planning;
- Travel awareness campaigns;
- Public transport information and marketing;
- Car clubs;
- Car sharing schemes.

Both the District and County Councils will encourage 'Smarter-Choices' through the development process. They will expect promoters of larger-scale development schemes in particular to consider how to incorporate such measures.

In specific cases the applicant will be expected to provide funding for improvements to bus infrastructure and services, including their frequency, between the development site and settlements that support a wider range of facilities and jobs. Financial contributions towards improvements for walking and cycling facilities may also be appropriate in certain circumstances.

### Find out more

The Planning Practice Guidance provides advice on the content of Transport Assessments:

<https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements>

# Part P: Refuse and Recycling Storage

## Contents

- P1. Pre-application Advice
- P2. Storage requirements for waste collection systems
- P3. Residential Waste/Recycling: Internal Storage Capacity
- P4. Residential Waste/Recycling: External Storage Capacity
- P5. Design Considerations: Single Properties
- P6. Design Considerations: Communal Properties
- P7. Access Arrangements
- P8. Commercial Developments (new section)
- P9. Composting

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies, in particular and as appropriate:

- CS.2 Climate Change and Sustainable Construction
- CS.9 Design and Distinctiveness

It provides additional guidance about the refuse and recycling requirements for new development, including refuse and recycling design, and access issues. Importantly, proposals should continue to comply with the waste requirements in Building Regulations Part H6.

The SPD will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD at the earliest stage in the design process will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy).

Further information about the Council's refuse and recycling collection policy is available from the link below:

<https://www.stratford.gov.uk/waste-recycling/what-we-collect.cfm>

Key words or terms which appear throughout the document are included in the [Glossary](#).

## **P1. Pre-application Advice**

Before submitting a planning application, contact the Council's Streetscene team for advice on collection and storage arrangements ([streetscene@stratford-dc.gov.uk](mailto:streetscene@stratford-dc.gov.uk)).

When a detailed planning application is submitted, the Council will expect details of the proposed storage space for waste and recyclable materials to be specified and agreed.

The following specifications need to be considered:

- Estimated volumes and types of waste produced;
- Size and location of waste and recycling stores and recycling stores and how recyclable material and other waste will be delivered to the stores;
- Equipment used to contain waste;
- Proposed collection points and the method for transferring waste to this location;
- Justification for the design of the proposed waste management systems set out in the Design and Access Statement.

## **P2. Storage requirements for waste collection systems**

Developers should provide adequate off street storage space for wheeled bins to serve all residential development, including conversions. This requirement is particularly important in designated Conservation Areas where the visual importance of the street scene is acknowledged and there is a duty to protect and enhance the character and appearance of these areas.

## **P3. Residential Waste/Recycling: Internal Storage Capacity**

Ideally, kitchens in new residential dwellings should be designed to accommodate the internal storage capacity of 35 to 40 litres. It is particularly important to provide adequate provision for waste storage in kitchens residents in flats, where there are no additional area to store their waste. Satisfactory arrangement of internal storage for waste is fundamental to ensuring that residents have sufficient space to segregate waste where it is generated and it is expected that developers will provide containers for use inside the dwellings.

## **P4. Residential Waste/Recycling: External Storage Capacity**

Refuse and recycling provision can be accommodated in the form of storage space integral to the design of the property, dedicated space externally or in a communal storage area, depending on the type of residential development.

### **Refuse and recycling facilities for single dwellings (three bins systems)**

This system is applicable for the majority of new residential development, with the exception of high density housing development, such as flats and terraced dwellings. Each dwelling will require an adequate area of hard standing with the private garden space, large enough to accommodate the following:

- One standard 240ltr wheeled bin for residual;
- One standard 240ltr wheeled bin for dry recycling;
- One standard 240ltr wheeled bin for food/garden waste.

In situations where three standard wheeled bins cannot be accommodated with the private garden space of each dwelling, sufficient space must be provided in the form of communal

store to accommodate three standard (240ltr) wheeled bins from each dwelling. Sufficient space should be left for residents to access their bins easily, and for the bins to be able to be removed individually from the store for presentation at the back of footway for collection. Where bins are covered, sufficient height should be allowed to open and close the bin lids easily. It is not acceptable for refuse collectors to service wheeled bins from private paths or lanes.

Table P1 below provides a guide to the specifications for external container sizes for single dwellings and high density developments. The requirements should be reflected in the design of development and will be secured by the Council through planning conditions.

<b>Table P1: Recommended External Storage Capacities (Residential)</b>			
<b>Residential</b>	<b>Aggregated Capacity Provision</b>		<b>Guidance Notes</b>
Single Houses	720 litres		Capacities detailed are maximum capacity 'footprints'. Developers should ensure that sufficient space is provided for the appropriate external storage containers.  The developers should consult with the Council on the relevant capacity splits (i.e. between recycling, residual and compostable waste) and the types of containers required.  It should be noted that the guidance may change over time as Local Authorities work towards meeting national waste targets.
Low-rise (to 4 floors) with communal gardens	For each 1 room unit	320 litres	
	For each 2 room unit	420 litres	
	For each 3 room unit	520 litres	
	For each 4 room unit	620 litres	
	For each 5 room unit	720 litres	
Low-rise (to 4 floors) without communal gardens	For each 1 room unit	240 litres	
	For each 2 room unit	340	
	For each 3 room unit	440	
	For each 4 room unit	540	
	For each 5 room unit	640	
High-rise (above 4 floors) – further information and advice is available from the Council's Streetscene department.			

The recommended external storage capacities for various types of residential development detailed in the table 1 are based on alternate weekly collection. Where reference is made to a 1 room unit, 2 room unit etc., all living rooms (.i.e. sitting room and dining room, bedrooms) are counted. The bathroom and kitchen are not included.

### **Communal refuse and recycling facilities**

For flats/apartments, capacity is unlikely to be provided on an individual residential basis. Capacity calculated for each unit should be combined to give a total. This should then be

converted to the required number of communal bins. Where this calculation results in a fraction, it should be rounded up or down as appropriate.

For example: A developer has constructed a low rise (4 floors) development of 16 flats without a communal garden. 8 of the flats are 2 room units and 8 are 3 room units. The developer has also sought guidance from the Council's Street Scene team to determine the breakdown of waste; .i.e. recycling, composting and residual waste. Based on consultation with the Council, the waste capacity was calculated as follows:  
(8 x 340 litres) + (8 x 440 litres) = 6240 litres total capacity.

In terms of external storage containers this may equate to:

- 3 x 1100 litre bins for residual waste;
- 4 x 660 litres for recyclables;
- 1 x 360 litres for compostables.

Developers must ensure that external containers are available for use for each property, prior to occupation and prior to the commencement of the Council's waste collection.

## **P5. Design Considerations: Single Properties**

The location of bin storage needs to be accessible, but it must not detract from the visual amenity of the street scene. Bin storage areas must not be located in front of built residential form as they have a poor negative visual impact on the street and character of the area.

Wherever possible, external storage should be provided in rear gardens that have convenient rear access. Routes must be provided that are wide enough and sufficiently direct and safe for residents to use. The layout should enable the bins to be moved easily for collection; i.e. kerbside or communal collection point. Residents should not be required to move waste through the property for collection.

Proposals should seek to design out the opportunity for inconsiderate bin storage by future residents/occupiers.

## **P6. Design Considerations: Communal Properties**

The proposed design of waste storage compounds and systems will need to be considered as part of the development proposal. Where waste storage compounds are proposed, the developer should make adequate arrangements for the management and maintenance to the satisfaction of the Local Planning Authority.

Waste management facilities should be designed to comply with the Code of Practice BS5906 (2005).

<https://www.thenbs.com/PublicationIndex/documents/details?Pub=BSI&DocID=277542>

Communal bin storage should be designed to take into account the following consideration:

- It does not dominate the frontage areas or take visual priority over the built form.
- Ensure such that sufficient space is provided for the safe storage of waste and recyclables.

Storage areas must be within 10 metres of an access point for collection vehicles in accordance with BS5905:2005.

In large developments several binstores/areas may be appropriate. Each store/area should include the following considerations:

- Sufficient room for access to each individual bin;
- to be opened from the front and space to lift waste/recycling and place in bin;
- Collectors must be able to safely pull the bin from the bin store, requiring a flush threshold and dropped kerbs to the carriageway;
- Provision of "Keep Clear" markings in front of bin stores and at the designated vehicle access/loading point to prevent cars parking and inaccessibility for collections;
- Storage areas should be conveniently located with easy access for residents;
- Residents should not have to take their waste and recycling more than 30 metres to a bin storage area, or take their waste receptacles more than 25 metres to a collection point (usually the kerbside) in accordance with the Building Regulations Approved Document H Guidance;
- All bin stores should have a solid floor that is inclined slightly towards a drain. This principle is important as refuse bins can sometimes leak liquids, which would otherwise pool on the floor and could cause an odour problem and/or health risk;
- Proposals should seek to design out anti-social behaviour and fly tipping;
- The siting and design of communal bin stores should have regard to the impact of noise and smell on the occupiers of neighbouring properties;
- Rubbing strips on doors and walls can reduce noise and prevent damage;
- Bin stores must be sufficiently enclosed, including the roof space, to prevent unauthorised use;
- Bin store doors and alley widths should be at least 2m wide to allow for safe manoeuvring and transfer of the collection containers to the vehicle;
- Ensure appropriate lighting with consideration given to timer switches or sensors;
- Proximity of water supply to enable regular cleaning;
- Appropriate signage to clearly identifying bin storage areas;
- A sign identifying and providing contact details for the appropriate management company/landlord must be positioned in each bin storage area.

## P7. Access Arrangements

### Collection of wheeled bins

Residents or collection crews will not be expected to move wheeled bins a greater distance than 30m or to move wheeled bins over surfaces that hinder their smooth passage; for example, steps, rumble strips or gravel. Table P.2 below sets out the maximum distances that residents/ caretakers and refuse crews are expected to take bins.

<b>Table P2. Maximum distances for taking waste and recycling bins</b>	
<b>Operation</b>	<b>Maximum Distance</b>
Householders taking waste and recycling to their bin or their bin to the bin collection point	30 metres
Resident of an apartment taking waste to & recycling to a communal bin	30 metres
Refuse/Recycling worker taking 2 wheeled householder bin from collection point to vehicle	15 metres

Refuse/Recycling worker taking 2 wheeled communal bin from collection point to vehicle	15 metres
Refuse/Recycling worker taking 4 wheeled communal bin from collection point to vehicle	10 metres

It should be noted that the Council's refuse vehicles will generally only travel along roads that have been constructed to WCC adoptable standards. There must be a clear passage from bin storage area to collection point/vehicle with no obstruction, such as parking bays, bollards, railings, or other street furniture.

### Road design to accommodate refuse vehicles

Wherever possible, road layouts should be designed so that refuse collection vehicles do not have to reverse or use turning heads. If reversing is unavoidable, and can be undertaken safely, then the distance should not exceed 12m. Where a proposed cul-de-sacs is longer than 12m, turning spaces must be provided to accommodate the largest vehicles in use. Applicants should ensure that the road design complies with the Department of Transport, 'Manual for Streets 2007'.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/341513/pdfmanforstreets.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/341513/pdfmanforstreets.pdf)

Further information about the design of road layout for emergency and services vehicles is also available in the [Part C: Access and Connectivity](#).

### Collection vehicle dimensions: waste/recycling collection vehicle

A typical waste collection vehicle has the following specifications

Gross vehicle weight (GVW)	26 tonnes
Overall length	11metres
Overall width (including wing mirrors)	2.9 metres
Operating height	4.4 metres

There needs to be enough clear space around the vehicle to allow efficient operation. A minimum working area of 4 metres in length should be available where the containers are emptied.

### Private waste collections schemes

The Council has a duty to arrange for the collection of household waste in its area except where the authority is satisfied that adequate arrangements for its disposal have been made by the person who controls it. Consideration will therefore be given to a private waste collection scheme in proposed residential development. The private arrangement would be in perpetuity and be included as a condition within the granting of planning permission.



## P8. Commercial Developments

The Council does not collect refuse and recycling from commercial development. However, the Council encourages commercial development proposals to give appropriate consideration to including facilities for waste and recycling within schemes Table P.3 below is based on best practice and sets out the recommended total storage capacity for a number of commercial development.

<b>Table P3 – Recommended total storage capacity for commercial development types</b>		
<b>Commercial Development Type</b>	<b>Waste Storage Capacity</b>	<b>Fraction of capacity for storage of recyclables</b>
Offices	2600 litres per 1000m gross floor space	Minimum of one third
Retail	5000 litres per 1000m gross floor space	Minimum of one third
Restaurants/Fast Food Outlets	1500 litres per 20 dining spaces	Variable
Hotels	1500 litres per 20 dining spaces	Variable

The volumes in Table P.2 above are indicative only, due to the variations in activity and output that can occur across and within commercial development types. For example, different types of commercial development may often have different recycling needs.

## P9. Composting

Developers are encouraged to include composting facilities in residential development with rear gardens. Composting diverts food and garden waste from collection services and creates compost for local residents. Traditionally, composting was seen as something only very keen gardeners did. However, in recent years, it is recognised that composting has many associated environmental benefits, including:

- Reducing the amount of waste going to landfill;
- Preventing the need for polluting bonfires;
- Reducing the need to water gardens;
- Reducing the need to use chemical fertilisers and pesticides;
- Replaces depleting reserves of peat bogs.

For further information about composting, contact Warwickshire County Council's Waste Management Team [www.warwickshire.gov.uk/composting](http://www.warwickshire.gov.uk/composting).

### Find out more

Warwickshire Waste Partnership: Municipal Waste Strategy

<https://apps.warwickshire.gov.uk/api/documents/WCCC-684-63>

Stratford-on-Avon District Council Refuse and Recycling Collection Service

<https://www.stratford.gov.uk/waste-recycling/refuse-and-recycling.cfm>

# Part Q: District Heating Networks

## Contents

Q1	What is District Heating?
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Q9	Pre-Application discussions

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.2 Climate Change and Sustainable Construction
- CS.3 Sustainable Energy

<https://www.stratford.gov.uk/corestrategy>

This section of the SPD provides further information and guidance on the installation of, and connection to district heating networks within development as required by Policies CS.2 and CS.3 in Stratford-on-Avon District Council's Core Strategy. It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant permission. The guidance in this SPD is also consistent with national planning policies in the NPPF.

Key words or terms which appear throughout the document are included in the [Glossary](#).

## Q1. What is district heating?

District heating (also known as heat networks) comprises a network of subterranean insulated pipes which distribute heating and/or cooling in the form of hot or chilled water, from the local energy centre, such as a Water Source Heat Pump (WSHP) or a Combined Heat and Power (CHP), and deliver this directly to homes and businesses. This means that households and businesses do not need to generate their own heat or use centralised energy sources, such as individual gas boilers, as a primary heating source. District heating can reduce carbon emissions, improve air quality and benefit residents and businesses through cheaper heating and greater security of supply. When a district heating network incorporates CHP, it can also supply electricity at reduced cost.

District heating networks can connect to all buildings in areas where they are viable, irrespective of building size or type. They can supply existing and new buildings, ranging from residential dwellings to commercial offices, industrial sites and public buildings. A more diverse mix of uses is preferable as this provides a diversity of heat demands at different times of the day and year, allowing for the energy centre to be sized to meet the baseload heat demand. This provides additional efficiency compared with individual gas boiler systems, as these are sized to meet peak demand and therefore operate below their rated efficiency.

District heating networks vary in size and length, sometimes delivering heat across a few hundred metres within a small housing development, or alternatively delivering heat across several kilometres to supply entire communities and employment areas. A district heating network can be easily extended by adding additional heat customers or heat sources as the scheme develops.

District heating networks are a well-established technology and widely used in European countries, such as Denmark and Germany, and are increasingly becoming widespread in the UK.

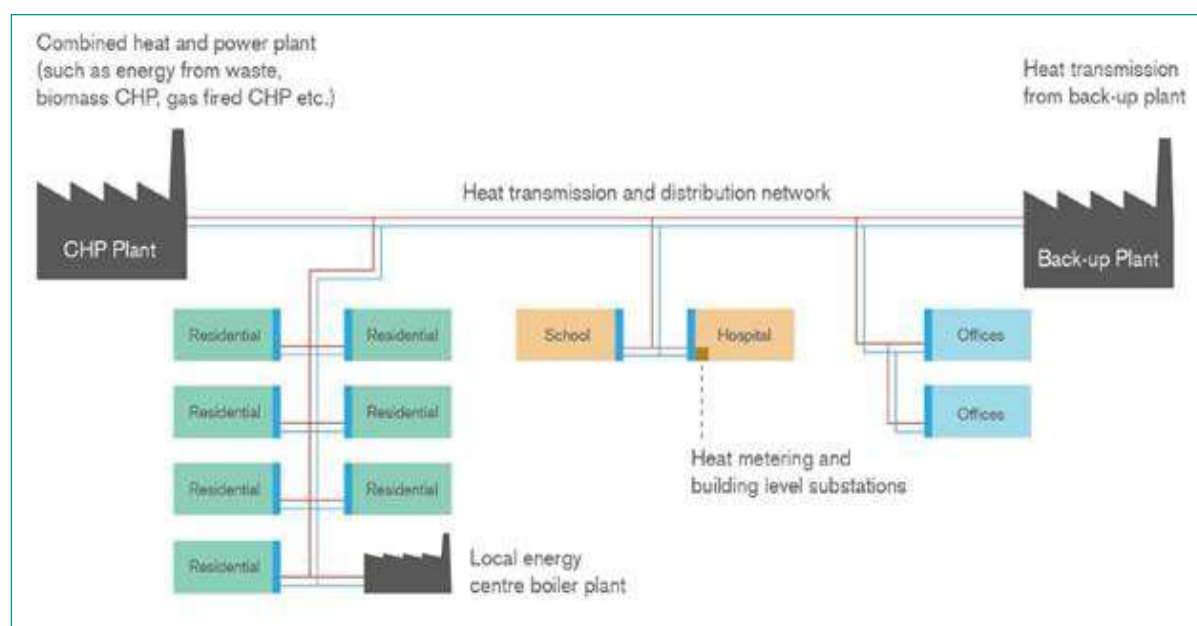


Fig. Q1 - An example of DH network (courtesy of GLA District Heating Manual for London).

A district heating system is made up of the three primary components:

- **Generation:** The energy centre comprises a central plant room which typically includes the primary heat generation equipment, back up and peaking plant, thermal storage and ancillary equipment such as pumps. The energy centre can be a standalone building of its own, or the equipment can be incorporated into the plant rooms of other buildings, depending on space availability. There are a wide range of heat sources that can be used, including; renewable heat technologies such as water and ground source heat pumps, solar thermal and biomass, waste heat recovery and Combined Heat and Power using fuels such as natural gas or biofuels. One of the key advantages of a heat network is that it is technology agnostic. This means that it can use a variety of fuels, including those which are available locally, and be optimised to allow for the integration of multiple generation sources at different stages during the life of the network. The heat generation plant typically has a lifetime of 15-20 years.
- **Distribution:** A network of subterranean pipes which distribute the heat. They range in size according to the scale of the scheme and the point in the network. Pipes can be steel or plastic, and are normally pre-insulated to a high level so heat losses are minimised. The pipework typically has a lifetime of 50-60 years.
- **Retail:** In order to supply the heat from the network to the connected buildings, there is a heat interface between the network and the heat consumer. This can be a building thermal substation supplying the whole building or individual heat interface units, similar in size to an individual gas boiler, supplying each dwelling.

Fig. Q2 - Key component parts of district heating systems.



## Q2. Benefits of connecting to district heating

The decarbonisation of our heat supply is identified as a crucial part of the country's transition to a thriving low carbon economy. The Government's heat strategy, 'The Future of Heating: A Strategic Framework for Low Carbon Heating in the UK (DECC 2012) recognises the role of heat networks in contributing towards this outcome.<sup>13</sup> The Committee on Climate Change have projected that district heating networks could provide 20% of heat demand in the UK by 2050, compared to the current 2%.<sup>14</sup> In order to support this transition, the Department for Business Energy and Industrial Strategy (BEIS) recently launched the £320m Heat Networks Investment Project (HNIP), a capital investment programme which is expected to support up to 200 projects by 2021, and to leverage £2bn of wider investment.

<sup>13</sup> Department of Energy and Climate Change, The Future of Heating: Meeting the Challenge (March 2013) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/190149/16\\_04-DECC-The\\_Future\\_of\\_Heating\\_Accessible-10.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/190149/16_04-DECC-The_Future_of_Heating_Accessible-10.pdf)

<sup>14</sup> Committee on Climate Change, Next steps for UK heat policy, (October 2016) <https://www.theccc.org.uk/wp-content/uploads/2016/10/Next-steps-for-UK-heat-policy-Committee-on-Climate-Change-October-2016.pdf>

District heating schemes offer a range of benefits compared to using conventional heating methods for consumers, building owners and developers. When they are well designed and operated, district heating schemes can offer clear advantages in total energy system efficiency and associated economic and carbon reduction benefits.

## Benefits to developers

There are a number of potential benefits for developers connecting to a heat network:

- *Reduced capital costs* – the cost of network installation and plant is usually covered by the organisation developing the heat network – usually either a private Energy Saving Company (ESCo) or a local authority. This means that the developer doesn't have to bear the cost of installing heat generation plant for the site.
- *Reduced cost of compliance* - connection to a heat network can offer developers a more cost effective route to compliance with Building Regulations and Core Strategy Policies CS2 and CS3, and may even be the factor that enables developments to go ahead.
- *Space saving and design flexibility* – connection to a heat network removes the need for building level plant rooms and creates additional space which translates to increased development profitability. Where residential developments are proposed to use individual gas boilers, these are replaced by much smaller Heat Interface Units (HIUs). There is also no need to locate flues on outside walls, giving increased flexibility in terms of internal layout.
- *Reduced cost for local grid upgrades* - developers will normally have to negotiate a significant fee to be paid to the local distribution network operator e.g Western Power, in order to make sure the local grid can supply electricity needed at the development. This is particularly true where electric heating is proposed. Connection to a heat network can offer an alternative to electric heating and, where electricity and heat are generated, remove or reduce the payment due to the distribution network operator.
- *Increasing the attractiveness of development* - The development can be marketed with eco-credentials and lower lifetime operational costs. Evidence indicates that the total operational costs of heat networks can be lower than individual heating options, offering the potential for reduced heat costs and offset labour, maintenance and replacements costs.<sup>15</sup> Developers often need to pre- allocate space to commercial occupants. Increasingly, companies are seeking to push compliance with corporate environmental targets onto developers. A heat network should be able to offer a lower-carbon option, thus increasing the attractiveness of commercial space.
- *Long-term revenue generation opportunity* – increasingly, developers are choosing to invest in heat network infrastructure themselves, often in partnership with a private ESCo. This investment opportunity offers the potential for revenue generation for developers with a long-term interest in the site.

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<sup>15</sup> Department of Energy & Climate Change, Assessment of the Costs, Performance and Characteristics of UK Heat Networks, (2015). [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/424254/heat\\_networks.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/424254/heat_networks.pdf)

## Benefits to heat consumers

There are a number of potential benefits for consumers who are connected to a heat network:

- *Energy cost reduction* - the ability to generate heat more efficiently means that district heating networks can provide heat at a lower cost compared with alternative solutions. This can contribute to reducing fuel poverty and helping consumers achieve affordable warmth.
- *Convenience* - consumers do not need to worry about the maintenance of heating plant or investment in replacement plant once it reaches the end of its life, as would be the case with individual boiler systems. This responsibility and cost sits with the network operator.
- *Reliability* - district heating networks are reliable infrastructure, and systems usually incorporate back up capacity to ensure that heat is always available.
- *Tenant comfort* - hot water district heating networks provide heating that is easily controlled, particularly when compared to older heating systems or electric heating.
- *Carbon reduction - consumers connected to district heating networks can demonstrate a lower environmental impact through carbon reduction.* This can be an important factor for eco-conscious residential consumers or commercial consumers with corporate carbon targets.

## Q3. Core Strategy Approach

Policy support for district heating schemes is set out in the Council's Adopted Core Strategy Policies CS.2 'Climate Change and Sustainable Construction' and CS.3 'Sustainable Energy'. <https://www.stratford.gov.uk/corestrategy>

Within the identified district heating priority areas (see [Section Q5](#)), the Core Strategy requires that new development should provide infrastructure for district heating, and will be expected to connect to an existing network, where and when this is available, unless it can be demonstrated that it would render the development unviable. Where it is demonstrated to the satisfaction of the District Council that it would not be viable to provide district heating infrastructure, then as a minimum, development will be required to include future-proofing measures, so that the site might be connected to a heat network at future date. This approach builds in resilience, allowing for easy adaptation to changes in technology.

Development proposals in all other areas will be encouraged to incorporate infrastructure for district heating, and will be expected to connect to any existing suitable systems (including systems that will be in place at the time of construction), unless it can be demonstrated that doing so would render the development unviable.

## Policies for district heating

Policy CS.2 'Climate Change and Sustainable Construction' provides an overarching policy support for the promotion of decentralised and low carbon energy schemes, as one of the strategic measures to mitigate the impacts of climate change. In addition, Section B of the policy promotes the use of an energy hierarchy which encourages the achievement of carbon dioxide emissions reductions, and promotes both energy efficient and decentralised energy supply:

The Council will promote 'an energy hierarchy' in seeking to achieve carbon emissions reduction as follows;

1. Reduce energy demand through energy efficiency measures;
2. Supply energy efficiently, giving priority to decentralised energy supply; and
3. Provide energy from renewable or low carbon sources.

The aim of an energy hierarchy is to ensure that the selection of energy systems is prioritised towards the most sustainable energy sources.

Furthermore, the Council is committed to reducing fuel poverty, and whilst it recognises that energy savings can be achieved through Building Regulations, the Council considers that planning has a key role in achieving the fuel poverty reduction targets through the use of efficient decentralised and low carbon energy, and by ensuring that new development uses landform, layout and building orientation to minimise CO2 emissions.

Policy CS.3 'Sustainable Energy' provides strong policy support for the implementation of district heating schemes, and outlines where a development is required to connect to an existing network, or where it is to be designed and futureproofed to connect to planned or future network.

#### **Q4. District Heating Requirements**

The development of low and zero carbon district heating schemes is strongly supported and encouraged. New development will be required to adhere to the policy requirements to connect to district heating or include future proofing measures unless it has been demonstrated that it is not feasible or viable to do so.

Developments which falls within the threshold criteria set out below, are required to connect to district heating networks where they exist, or incorporate the necessary infrastructure for connection to future networks, unless it can be clearly demonstrated that doing so is not feasible or that utilising a different energy supply would be more sustainable. Proposals for developments within the district heating priority areas, as defined by the Stratford-on-Avon Heat Mapping and Master Planning Study (HMMP) 2016 and District Heating Priority Areas Map, and all sufficiently large or intensive developments must demonstrate that heating and cooling technologies have been selected in accordance with the following heating and cooling hierarchy:

1. Connection to existing district heating networks;
2. Site wide renewable district heating networks;
3. Site wide gas-fired district heating networks;
4. Renewable communal heating;
5. Gas fired communal heating;
6. Individual dwelling renewable heating;
7. Individual dwelling heating, with the exception of electric heating.

Sufficiently large or intensive developments are defined as any of the following:

- (a) residential only developments of at least 50 dwellings per hectare and/or at least 300 dwellings;
- (b) residential only developments of 50 dwellings or more that are located near a significant source of heat;
- (c) All mixed-use developments.

A significant source of heat is considered to be a site with a high demand for heat, which would enhance the viability of a district heating network if it is connected: for example a swimming pool or a hospital. It could also consist of a site which offers the potential for the cost-effective recovery of waste heat, such as an energy intensive industry.

The hierarchical approach set out above enables a reasoned method by which to make the most appropriate choice and to ensure that the solutions are appraised logically. Electric heating is excluded from the hierarchy as it would be very likely to render connection to a future district heating network unviable, given the costs involved in carrying out structural alterations to retrofit the building(s) to a communal wet system. Electric heating is also more expensive option for customers to heat their homes.

All district heating networks must be of a scale and operated to maximise the potential for carbon reduction. They should be designed and operated energy efficiently, with the selection of optimum operating temperatures and measures to minimise heat losses. Developments that do not connect to or implement district heating networks or communal heating networks should be connection ready.

### Key Design Considerations

Where development is required to provide infrastructure for connection to an area wide district network, at a high level, it should include the following:

- A centralised or communal, wet heating system which makes use of efficient, low temperature heat emitters such as underfloor heating where possible;
- Safeguarded pipe routes and pipework to connect the site to the district heating network;
- Optimised operating system temperatures to ensure compatibility with the district heating network.

Sufficient space for a substation/Heat Interface Units (HIUs) Table Q1 below provides an indicative space requirement to provide heat substations within a building:

**Table Q1: Indicative space requirements**

Heating capacity (kW)	Approximate building size (m <sup>2</sup> )	Space required to heating
30	1000-1500	2
200	10000-15000	4
400	20000-30000	5
800	40000-60000	6

The consideration of the consumer needs is central to the good design of district heating networks. The design of a network should consider the consumer connections and the consumer heat demands for space heating and domestic hot water, and any industrial heat use that may be connected. From this starting point, the consumer connections of a system will determine temperature levels, temperature difference, pressure levels and the load profiles for the entire system.



## Q5. District Heating Priority Areas

The Council commissioned consultants to undertake a Heat Mapping and Energy Masterplanning (HMMP) study which identified and evaluated opportunities for the development of district heating networks within Stratford-on-Avon District. This study informed the approach set out in Core Strategy Policy CS.3 and provided evidence for the identification of District Heating Priority Areas across the District. Following the mapping and assessment of planned and existing energy demands across the District, the study concluded that area-wide district heating networks are viable within the identified District Heating Priority Areas. For five specific District Heating Priority Areas, the study provided an initial techno-economic assessment and indicative pipe routes for potential future district heating networks within these areas.

In addition to the areas identified with the Stratford-on-Avon District Heating Priority Areas Map, district heating priority areas include the following:

1. Stratford-upon-Avon Canal Quarter Regeneration Zone (see fig 3);
2. Stratford-upon-Avon Town Centre Network (see fig 3);
3. Bridgeway, Stratford-upon-Avon Network (see fig 3);
4. Alcester Road, Stratford-upon-Avon Network (see fig 4);
5. Gaydon Lighthorne Heath Village Hub (see fig 5).

The Council's HMMP is available using the link below:

<https://www.stratford.gov.uk/techevidence>

**Maps showing the identified District Heating Priority Areas (DHPAs)**

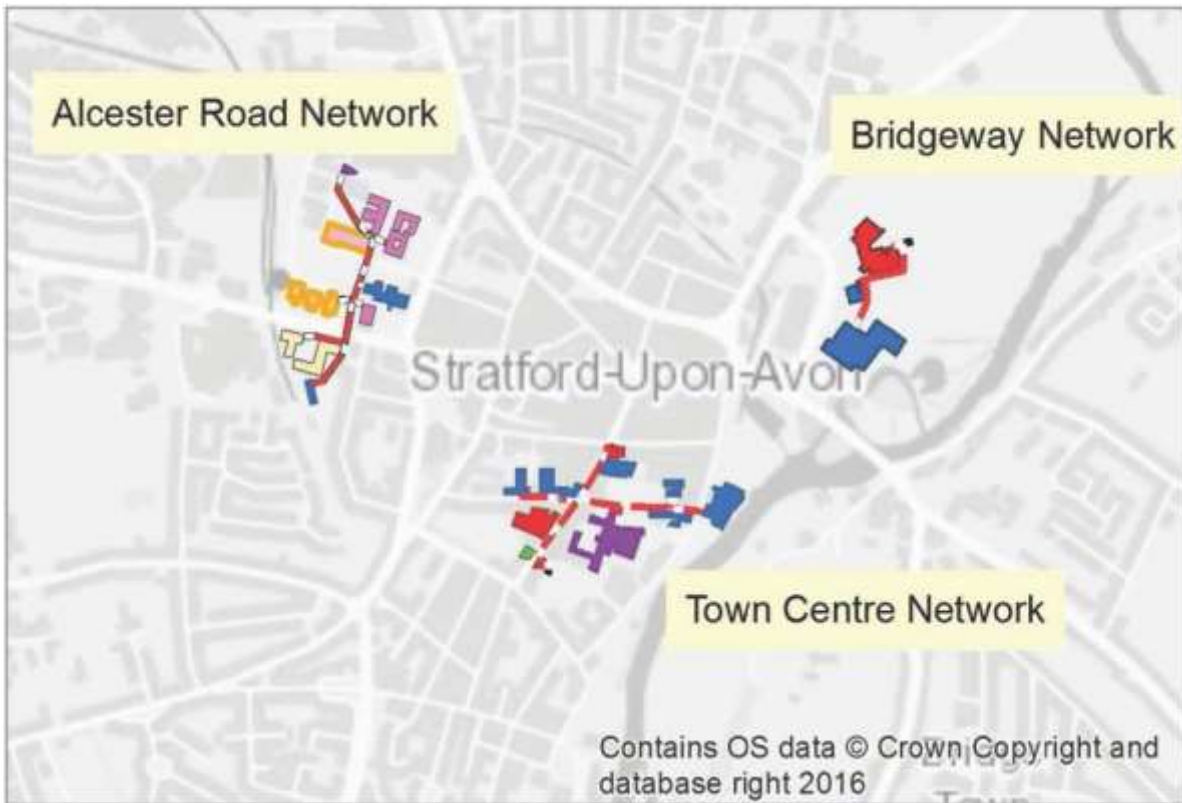


Fig. Q3 - Stratford-upon-Avon District Heating Priority Area (excluding the Canal Quarter).

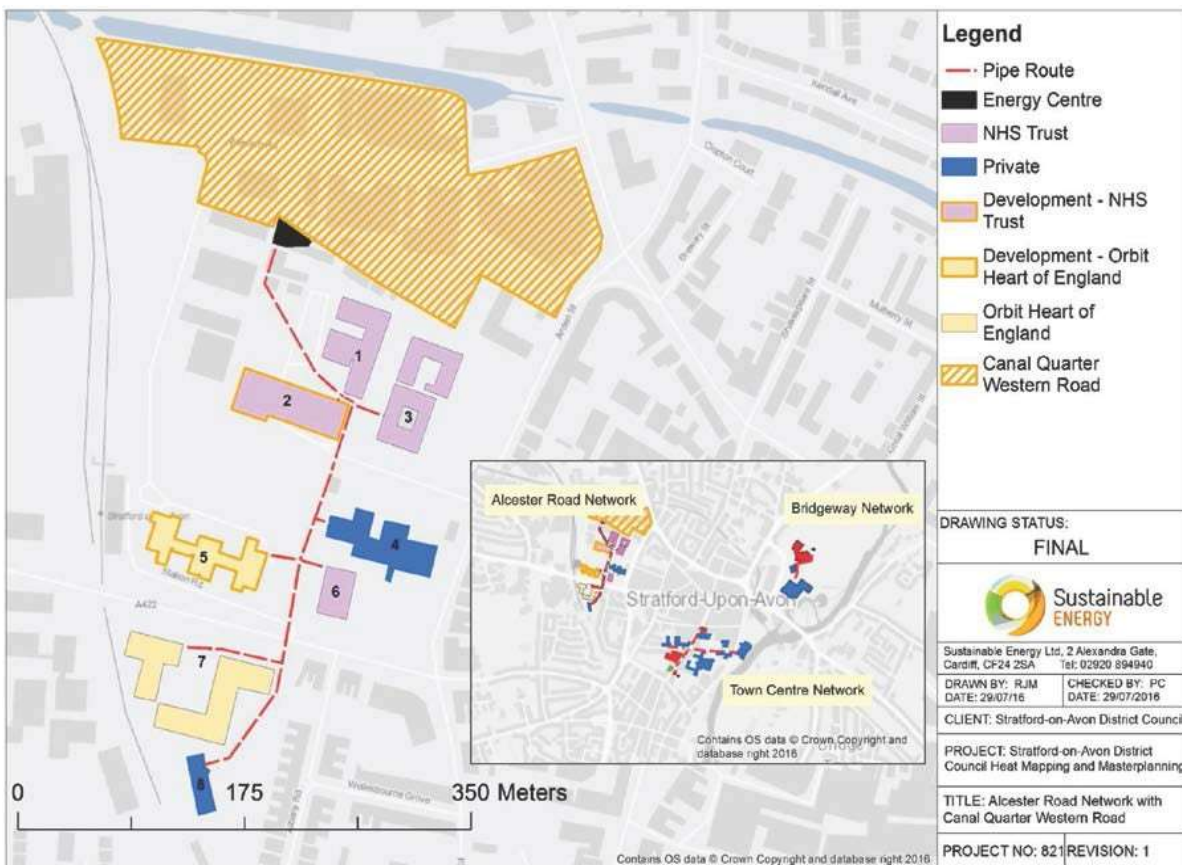


Fig. Q4 - Part of the Canal Quarter DH Priority Area (Western Road and Alcester Road).

- It should be noted that all of the Canal Quarter has been identified as a District Heating Priority Area.

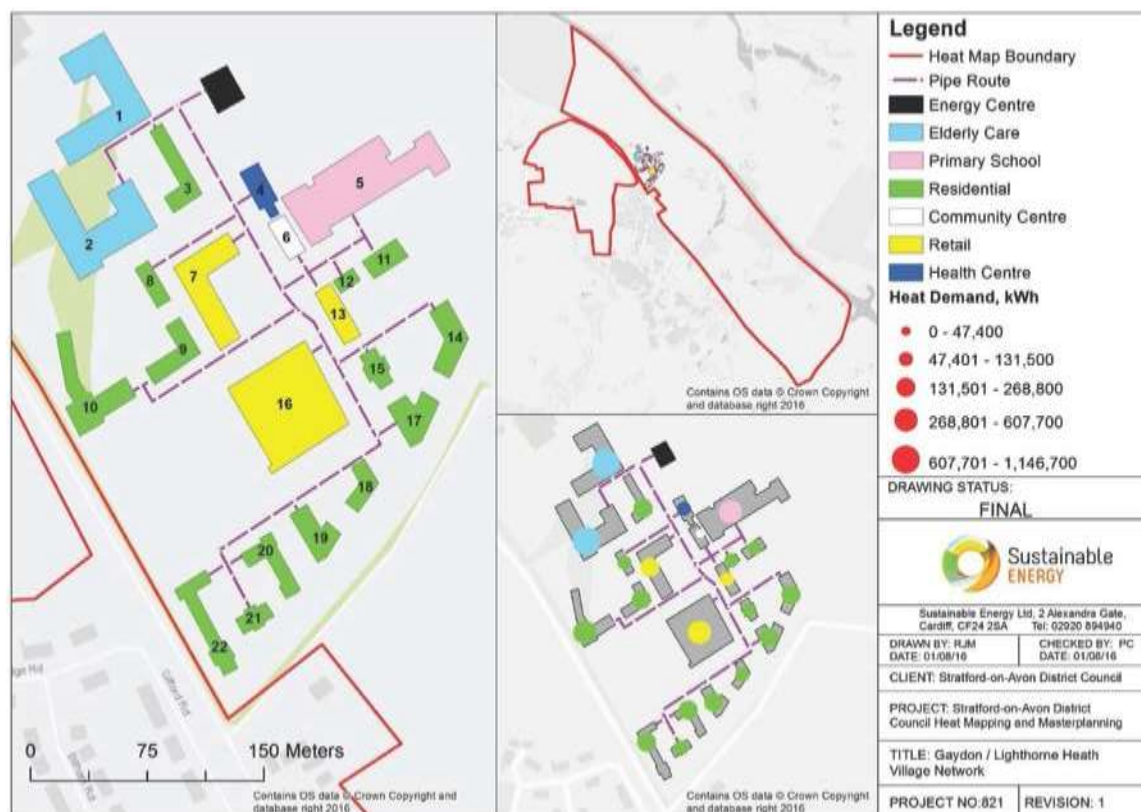


Fig. Q5 - District Heating Priority Area at Gaydon Lighthorne Heath.

## Q6. Energy Statements

Applications for development within district heating priority areas, and/or those defined as sufficiently large or intensive developments should be accompanied by an energy statement. The energy statement should demonstrate and quantify how the development will comply with the heating and cooling hierarchy outlined in [Section Q4](#). Stratford-on-Avon District Council will work proactively with applicants on major developments to ensure these requirements can be met.

Assessments of district heating network feasibility should:

- Be compliant with the Chartered Institute of Building CIBSE Heat Networks Code of Practice for the UK;
- be accompanied by viability (cost and financial implications) and feasibility (engineering and practical constraints) assessments;
- Include baseline energy consumption and carbon emissions calculations for regulated and unregulated energy use;
- Assess the potential to connect both residential and non-residential buildings to a heat network;
- Assess whether there are opportunities for heat offtake from nearby sites;
- Compare the economics of a heat network solution against a “business-as-usual” scenario (e.g. individual gas boilers);
- Present Internal Rate of Return, Capital Expenditure, and cost and carbon savings as outputs.

When assessing the proposals, officers will consider the following:

- The size of the development and the heat load and energy demands;
- The distance of the proposal from district heating network;
- The presence of physical constraints, such as main roads and railway lines;
- The cost of connection and the impact this has on financial viability;
- What efforts the applicant has made to secure agreements to create a new network through connection with nearby buildings or estates;
- The distance from the development of planned district heating networks;
- The proximity of any public sector buildings with communal heating systems, especially uses such as swimming pools, hospitals and large housing estates;
- Land use mix of proposed development;
- Land use mix and density of surrounding built environment.

## **Q7. Technical Specifications**

Technical specifications are set out below for development proposals either connecting to existing or planned networks, or being futureproofed for connection to a future network.

New development will be required to adhere to the policy requirements to connect to district heating or include future proofing measures unless it has been demonstrated that it is not feasible or viable to do so.

The connection of buildings to district heating schemes requires careful consideration to ensure that it is compatible in design and operation for connection to a DH network. If a building is not correctly constructed, then the network operator will be unable to connect it without costly remedial work, or it may be connected and adversely affect the operation, technical and financial performance of the network. It is therefore imperative that networks are designed, constructed, operated and maintained in accordance with the Chartered Institute of Building Services Engineers (CIBSE)/Association for Decentralised Energy (ADE) Heat Networks Code of Practice for the UK, 2016 or subsequent versions.

### **Technical Specifications Requirements**

All buildings connecting to an existing or planned district heating network, or those required to be 'connection ready' must adhere to the relevant guidelines set out in the CIBSE Heat Networks Code of Practice for the UK. In particular, the Council or their representatives will monitor compliance with the following CIBSE Heat Network Code of Practice objectives laid out in Chapter 3 - Design:

- Objective 3.3 – to select suitable building interfaces, direct or indirect connection;
- Objective 3.4 – to design or modify suitable space heating and domestic hot water services systems; and
- Objective 3.9- to achieve an efficient heat distribution system within a multi-residential building and to reduce the risk of overheating.

Proposals should, as a minimum, meet the following requirements:

- All buildings must use a centralised, communal wet heating system which makes use of efficient, low temperature heat emitters such as underfloor heating where possible, rather than individual gas boilers or electric heating;
- Heat in the building should operate at an appropriate temperature for future connection to a heat network. The targeted difference between flow and return temperatures on

the primary heat network under peak demand conditions shall be greater than 30°C for supply to new buildings and greater than 25°C for existing buildings. Objective 2.4 of the CIBSE Heat Networks Code of Practice for the UK outlines the preferred temperature design for varying heating systems in further detail;

- Plant rooms should be situated to consider the potential future pipe routes and sufficient space must be safeguarded for building/ network interface equipment (such as heat exchangers);
- The developer must identify, with the support of the Council or their representatives, and safeguard a pipe route to allow connection between the building and the highway or identified network route, which should remain accessible for future installation;
- The developer must not in any other way compromise or prevent the potential connection of the building to a planned network.

Applicants should refer to the Building Engineering Services Association; Early Design Building Connections Guidance' to ensure buildings are appropriately connected, using the following link below:

<https://www.thenbs.com/PublicationIndex/documents/details?Pub=BESA&DocID=317602>

## **Q8. S106 Agreements**

Where connection to an existing or planned district heating network is feasible and viable or where a development is required to be constructed as 'connection ready', a commitment to connect may be secured through a legal agreement.

### **S106 Agreements to ensure connection to Existing or Planned networks**

All development proposals will be required to contribute towards to the development of district heating networks, including by connecting to networks where they exist or are planned in the vicinity, unless it can be demonstrated that it is either not feasible or viable. In circumstances where the development will connect to an existing or planned district heating network, the Council will use S106 agreements to ensure that the connection takes place. Proposals should meet the requirements outlined in Section H8 Technical Specifications.

Developments located within District Heating Priority Areas and all sufficiently large or intensive developments are required to be designed to be able to connect to district heating networks; and unless a feasibility assessment demonstrates this is not feasible or viable:

- if located within 500 metres of an existing district heating network will be required to connect and meet associated charges;
- if located within 500 metres of a planned district heating network (likely to be operational within 3 years of planning permission, will be required to provide a means to connect and meet associated charges;
- if connection is possible, are required to detail a preferred energy strategy and an alternative energy strategy within their Energy Statements; and
- if connection is not possible, should develop and/or connect to a Shared Heating Network (developers will be obliged to look at neighbouring buildings to assess the applicability of expanding a site wide communal energy network beyond the site to a local neighbourhood).

## **S106 Agreements to ensure that buildings are 'connection ready'**

In circumstances where the development is located within a district heating priority area, or where the development is sufficiently large or intensive, the Council may use S106 Agreements to ensure that developments are futureproofed for the subsequent connection to a district heating network. Proposals should meet the requirements outlined in Section H8 Technical Specifications.

### **Q9. Pre-application discussions**

Each development site will have its own unique set of circumstances and opportunities that will affect the ability either to provide or connect to a district heating. It is therefore essential that discussions regarding district heating connection are commenced with the local planning authority as soon as possible. Applicants are strongly advised to seek pre-application advice from the District Council. For more information on this service can be found by either emailing [planning.applications@stratford-dc.gov.uk](mailto:planning.applications@stratford-dc.gov.uk) or telephoning 01789 260304 or visiting the Council's website.

<https://www.stratford.gov.uk/preapplicationadvice>.

The following topics in respect of the provision of district heating might be discussed at the pre-application meeting:

- Potential of the development for district heating;
- Local Policy Requirements;
- Planning application boundary (this should be drawn to include all local supply pipework required for the connection outside the public highway);
- Specification of district heating connection/apparatus;
- The expected location and timing of the connection to the network; and
- Information to be submitted.

The Council's validation list should be referred to when submitting information for a planning application. Where proposals include district heating connection or future proofing measures, the following information might reasonably be requested, in addition to that already required for the development:

- Plans showing the pipe route and connection point to the wider network;
- High level technical specifications;
- Date of implementation and connection;
- Details of financial contributions;
- Feasibility and viability Assessment; and
- Energy statement demonstrating carbon and energy savings.

### **Other Consents**

In addition to securing planning permission, you may wish to consider obtaining other consents before work can start.

These include the following:

- Environmental Permitting Regulations (EPR);
- Works within Air Quality Management Area may require additional approval under the Clean Air Act (1993);

- Works within the highway may require a Street Works Licence under Section 50 of the New Roads and Street Works Act (NRSWA) 1991.

### Find out more

CIBSE & ADE, 'Heat Networks: The Code of Practice in the UK: Raising the standards for heat supply, (CP1) 2015

<http://www.cibse.org/knowledge/knowledge-items/detail?id=a0q200000090MYHAA2>

CIBSE, HPA, GSHPA Surface Water Source Heat Pumps: Code of Practice for the UK (CP2) 2016

<http://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q200000090NmPAAU>

Department of Business Enterprise and Industrial Strategy, Heat Networks Investment Project, 2016.

<https://www.gov.uk/guidance/heat-networks-delivery-support>

# Part R: Air Quality

## Contents

- R1. Air Quality
- R2. Air Quality Assessments for New Developments
- R3. Development Classification, Assessment and Mitigation
- R4. High Quality Design incorporating Good Practice Design
- R5. S106 Contributions

This part the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.9 Design and Distinctiveness
- CS.26 Transport and Communications
- CS.27 Developer Contributions

This section of the SPD provides further information and guidance on air quality as required by Policy CS.26 in Stratford-on-Avon District Council's Core Strategy.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document, are included in the [Glossary](#).



## **R1. Air Quality**

Poor air quality is a major influence on public health, causing particular problems for those with respiratory illnesses and cardio-respiratory conditions. Whilst air quality in Stratford-on-Avon District is generally good, there are localised air quality problems caused by road transport and traffic congestion, where levels of Nitrogen Dioxide (NO<sub>2</sub>) are the key concern. Two Air Quality Management Areas (AQMA) have been declared within Stratford-on-Avon, the first in Studley and the second in Stratford-upon-Avon town in response to high levels of nitrogen dioxide. Whilst pollution levels have generally improved since their declaration, further improvements in air quality remain important to deliver benefits to all.

### **Stratford-on-Avon District Council's Vision for Air Quality**

To encourage well designed sustainable development that reduces emissions and exposure to pollution, and contributes to better air quality management. Core Strategy Policies AS.1 (A.14) and AS.8 (A.5) reflect this vision.

[www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

### **Warwickshire Local Transport Plan 2011-2026**

The Warwickshire Local Transport Plan provides a comprehensive area strategy for the Stratford-on-Avon District with particular emphasis on encouraging modal shift to a greater use of more sustainable forms of transport. The strategy seeks to deliver transport improvement across the district, reducing the environmental impact of traffic as well as reducing the dominance of vehicular traffic in Stratford-upon-Avon town centre and improving air quality within existing AQMAs.

### **Stratford-on-Avon District Air Quality and Planning Technical Guidance December 2018**

The Air Quality and Planning Technical Guidance has been developed by the Coventry and Warwickshire sub regional local planning authorities, including Coventry City Council, Coventry & Warwickshire Public Health, Nuneaton and Bedworth Borough Council, Rugby Borough Council, Stratford-on-Avon District Council and Warwick District Council. This technical guidance aims to simplify the consideration of air quality impacts associated with development schemes and focus on incorporation of mitigation at design stage, countering the cumulative impacts of aggregated developments, providing clarity to developers and defining of sustainability in air quality terms. Stratford-on-Avon District Air Quality and Planning Technical Guidance December 2018 is available on the Council's website, using the link below.

<https://www.stratford.gov.uk/environment/air-quality-management.cfm>

## **R2. Air Quality Assessments for new developments**

Core Strategy Policy CS.26 (D) will be applied to all proposals for new development, where it is considered justified by the scale of the development. An air quality assessment will be required where there is a risk of significant air quality effect either from a new development causing an air quality impact, or by creating exposure to high concentrations for new residents.

### R3. Development Classification, Assessment and Mitigation

The assessment of air quality for relevant planning applications should follow a three-stage process:

1. Determining the classification of the development proposal;
2. Assessing and quantifying the impact on local air quality;
3. Determining the level of a mitigation required by the proposal to make the scheme acceptable.

#### Stage 1 - Development Type Classification

The classification of developments is shown in tables 1 and 2. The assessment and mitigation of development proposals is shown in figure 1.

**Table R1 – Air quality classification of developments**

Scheme Type	Minor	Medium	Major
Threshold	Below threshold criteria for a Transport Assessment or Travel Plan	Meets threshold criteria for a Transport Assessment or Travel Plan	Medium type developments which also trigger any of the following criteria: i) Where development is within or adjacent to an AQMA ii) Where development requires an EIA and air quality is to be considered iii) Where any of the criteria within in table 2 of Stratford – on-District Air Quality and Planning Technical Guidance are triggered <sup>16</sup>
Assessment	Health Exposure Assessment where applicable	Health Exposure Assessment where applicable	Air Quality Assessment required including an evaluation of changes in emissions
Mitigation	Type 1	Types 1 and 2	Types 1,2 and 3

Minor schemes are defined as proposals for 1 – 9 dwellings, 1000 sq. new floor space and change of use. Minor, Medium and Major Schemes relate to full and outline applications and variations and do not relate to Reserved Matters applications. Section O8 and O9 within [Part O: Parking and Travel](#) of the SPD provides guidance on the threshold criteria for Transport Assessment and Travel Plans. However, it is recommended that applicants also contact Warwickshire County Council for further information on Transport Assessment and Travel Plans.

<sup>16</sup> For further information, see Stratford-on-Avon District Air Quality and Planning Technical Guidance

## Stage 2 – Air Quality Impact Assessment

### Exposure Assessment- Minor, Medium and Major classified proposals

Smaller development proposals may not in themselves create an additional air quality problem but will add to local air pollution and potentially introduce more people likely to be exposed to existing levels of poor air quality. It can be seen from Table R1 that minor and medium impact schemes should have considered whether the development will expose future occupiers to unacceptable levels of NO<sub>2</sub>.

### Major Classified Proposals

All major schemes should identify suitable assessment requirements and potential mitigation through pre-application discussions and submit details at application stage.

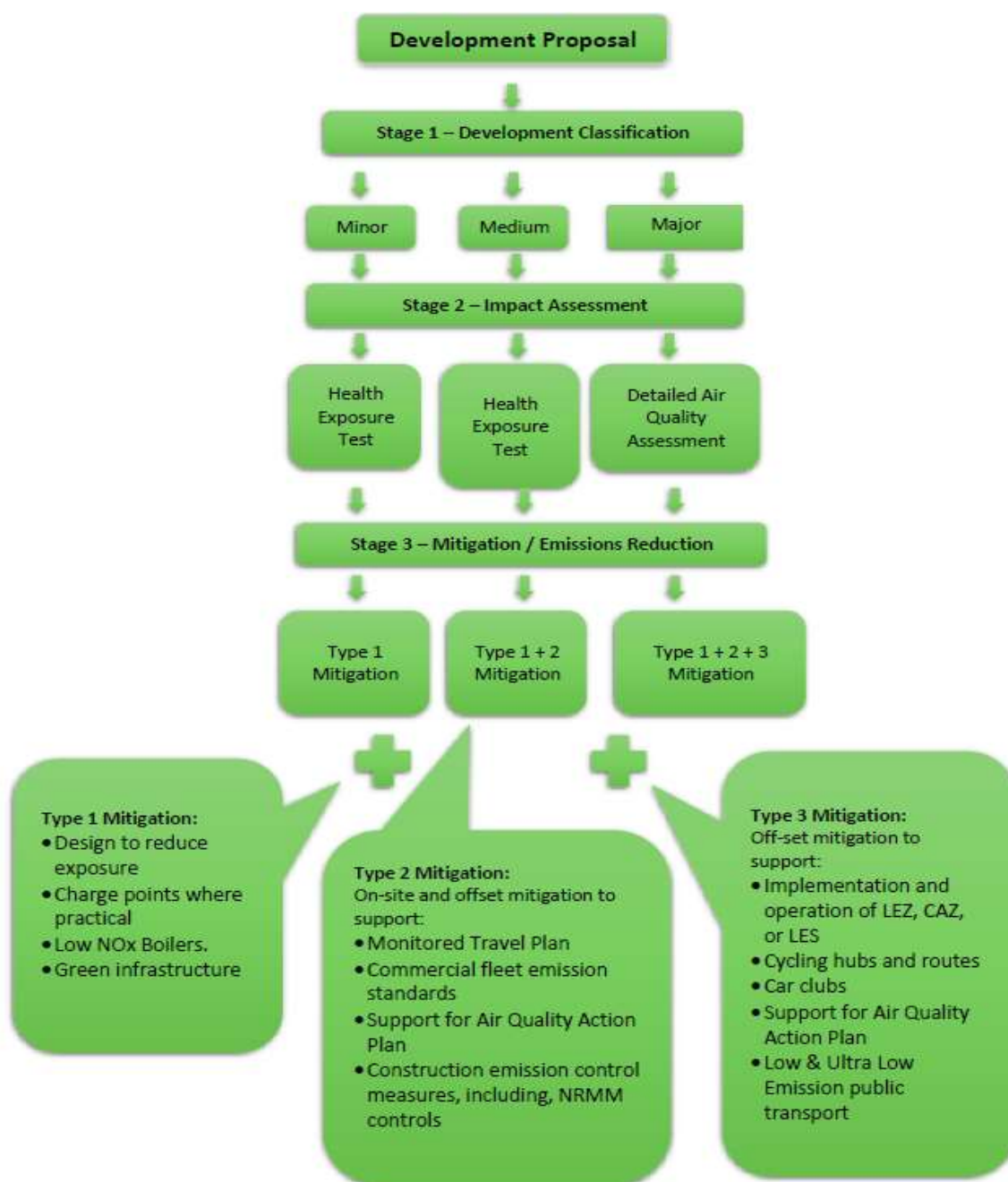


Figure R1 – Classification, assessment & mitigation of new developments

### Stage 3- Mitigation

Where mitigation is not integrated into a proposal it will be required through planning condition. If on-site mitigation is not possible, SDC will seek compensation for the identified air quality impacts through a Section 106 Agreement or similar. The value of mitigation should be equivalent to the damage cost calculation.

### Type 1 Mitigation

**Table R2 – Type 1 Mitigation**

**Plug-in Vehicle Re-Charging:**

**Residential:**

1 charging point per unit (16 amp for 1-3 bed and 32 amp for charging for 4+ bed dwelling) with dedicated parking or 1 charging point per 10 spaces (unallocated parking) and ensure appropriate cabling is provided to enable increase in future provision

**Commercial/Retail:**

10% of parking spaces (32 amp or 7kW) which may be phased with 5% initial provision and the remainder at an agreed trigger level, plus additional cabling for future provision. At least 1 charging unit should be provided for every 10 disabled parking spaces. Where 50 parking spaces or more are provided then 1 rapid charging unit (43kW/50kW) per 50 spaces shall also be considered and parking time limited to a maximum of 1 hour for public access car parks.

**Industrial:**

10% of parking spaces which may be phased with 5% initial provision and the remainder at an agreed trigger level. At least 1 charging unit should be provided for every 10 disabled parking spaces. Where 50 parking spaces or more are provided then 1 rapid charging unit (43kW/50kW) per 50 spaces shall also be considered

Developers installing public charging points shall ensure that the National Charge Point Registry is updated.

**Low NOx heating and boilers (see Stratford-on- Avon Air Quality and Planning Guidance for further details)**

Where it can be shown that **Green Infrastructure** such infrastructure will reduce exposure from air pollution.

### Plug in Vehicles

Plug in vehicles such as electric or hybrid vehicles may be charged on-street or off street, using different types of charging points. Electric Vehicle Charging Points (EVCPs) are post mounted or street light (footway) mounted and off street charging points in external car parks (usually surface level) or within the curtilage of a dwelling can be post or wall mounted. It may be appropriate in certain circumstances to only require the provision of cabling for electricity supply rather than the 'above ground' charging point equipment. Higher voltage cabling may be required where large scale charging is envisaged.

In addition, charging points for mobility scooters and electric bikes (e-bikes) should be considered in new developments in a safe, convenient and covered location at ground floor level. This particularly applies to flatted developments and elderly persons housing where it may be difficult for occupants to charge scooters within the property itself.

Where on-street parking is proposed, ECVPs may be provided through a community hub setup, where multiple rapid charge points are provided locally for the community.

Details of EVCPs must accompany Full and Reserved Matters planning applications. Outline planning applications will need to include a commitment to provide details of EVCPs at reserved matters stage. The location of EVCPs should be considered at an early stage in the masterplanning process, so that the most suitable locations are identified; i.e hub sites for public access charging points. Public infrastructure to accommodate visitors and opportunities for pooling of electric vehicles will be supported.

## Layout and Design Considerations

When considering the layout of the electric vehicle charging infrastructure, the following considerations should be taken into account.

- Where provided the width of electric vehicles charging bays should be a minimum of 2.75 metres;
- EVCPs should be protected from collision and should be positioned to avoid becoming a trip hazard or an obstruction; and should not be located in close proximity to trees;
- Infrastructure should be designed to minimise street clutter, such as using existing street lighting to house ECVPs, where possible.;
- Equipment provision should be in accordance with the IET Code of Practice for Electric Vehicle Charging Equipment:
- Developers should work with the Distribution Network Operators e.g. Western Power Distribution to ensure that an adequate electrical capacity to power EVCPs is provided.
- Details of Electric Vehicle Charging Points and cable enabled points should be shown on a layout plan.

## Type 2 Mitigation

The following tables provide a suite of measures to be considered where appropriate.

**Table R3 – Type 2 Mitigation**

- |   |
|---|
| <ul style="list-style-type: none"> <li>• Monitored Travel Plan<sup>17</sup></li> <li>• Measures to support public transport infrastructure and promote use</li> <li>• Measures to support cycling and walking infrastructure, including segregated cycle ways;</li> <li>• Measures to support an Air Quality Action Plan;</li> <li>• Designated parking spaces and differentiated parking charges for low emission vehicles;</li> <li>• Non-road mobile machinery (NRMM) controls for built up areas</li> <li>• Commercial development specific:</li> <li>• Use reasonable endeavors to use/require vehicle use complying with the latest European Emission Standard</li> <li>• Provide a fleet emission reduction strategy/Low Emission Strategy, including low emission fuels and technologies, including ultra-low emission service</li> <li>• vehicles</li> </ul> |
|---|

<sup>17</sup> Where the developer funds the monitoring of a travel plan

## Type 3 Mitigation

**Table R4 – Type 3 Mitigation**

**Off-set mitigation to support:**

- Implementation and operation of Air Quality Action Plans (AQMA) emerging Low Emission Strategies (LES) or electric vehicle strategies(EVS)
- Growth in low and ultra-low emission public transport, including buses
- Car clubs (including electric) and car sharing schemes
- Cycling Hubs and corridors, including bike and e-bike hire
- Secure cycle storage both on and off site
- Plugged-in development and demonstration schemes e.g. new occupants given demonstration use of plug-in vehicles
- Low emission waste collection services
- Infrastructure for low emission, alternative fuels e.g. refuse collection and community transport services
- Electricity sub-station capable of supporting electric vehicle provision (future proofing)

Further information on the suitability of mitigation for developments can be obtained from the Council Environmental Health Team.

### Code of Construction Practice

A Construction Environmental Management Plan (CEMP) should be incorporated into MEDIUM and MAJOR developments and agreed with Council Officers, usually via the Discharge of Planning Conditions. This shall include Non Road Mobile Machinery (NRMM) controls.

### R4. High Quality Development Incorporating Good Practice Design

It is beyond dispute that air quality is a major influence on public health and so improving air quality will deliver real benefits. The provision of well-designed development is considered an essential component in improving air quality and creating healthy communities. All developments that have not been screened out at the assessment stage should incorporate good practice design and thereby contribute towards the delivery of wider strategic public health objectives. Part [B](#), [C](#), [E](#) and [F](#) of this SPD provide further guidance on achieving high quality design proposals in our District.

New development should not contravene any measures set out in the Council's Air Quality Action Plan or any Air Quality Strategy and should be designed to minimise air quality impacts and public exposure to pollution sources. Development should aim to include measures to encourage sustainable means of transport.

Consideration will be given to whether additional measures are required to offset emissions or whether a financial contribution is required, based upon the nature and scale of the development and the level of concern about local air quality. The value assigned to emissions will be based on the 'damage cost approach' used by DEFRA. Proposed mitigation measures should clearly demonstrate their effectiveness. Further information may be found in the Council's Air Quality and Planning Technical Guidance <https://www.stratford.gov.uk/environment/air-quality-management.cfm>

## R5. S106 Contributions

Stratford-on-Avon Council has adopted the Community Infrastructure Levy (CIL) and our CIL User Guide can be found on the Council website.

Subject to the rules on pooling, we will seek Section 106 Agreements (Town and Country Planning Act 1990) and other relevant obligations with developers to secure mitigation, including off-set, on larger schemes (Medium and Major), where appropriate, to make the scheme acceptable.

We will not seek Section 106 Agreements for mitigation that is included in our Regulation 123 list. Section U of the Council's Development Requirements SPD provides further guidance on the Council's approach to S106 and CIL.

### Find out more:

Further information regarding CIL, including the rates, where they apply, and how they should be paid can be found on the Council's website at:

[www.stratford.gov.uk/CIL](http://www.stratford.gov.uk/CIL)

The Infrastructure Delivery Plan and Schedule of Infrastructure Projects can be found on the Council's Core Strategy page under "Adoption Documents":

<https://www.stratford.gov.uk/corestrategy>

# Part S: General and Local Housing Needs

## Contents

- S1. Introduction
- S2. Local Needs Housing Schemes
- S3. General Needs Housing Mix and Type
- S4. Affordable Housing Tenure
- S5. Management of Affordable Housing
- S6. Integrating Market and Affordable Housing
- S7. Off-site Affordable Housing

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.9 Design and Distinctiveness
- CS.15 Distribution of Development
- CS.19 Housing Mix and Type
- CS.20 Existing Stock and Buildings
- CS.25 Healthy Communities
- AS.10 Countryside and Villages

This section of the SPD provides guidance and advice on how applicants can help ensure that housing needs of the District are met for the full range of types and tenures of housing. It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's planning policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).



## S1. Introduction

The Development Requirements SPD provides detailed advice and guidance to applicants when submitting planning applications. The guidance in this SPD is also consistent with national planning policies set out in the NPPF.

It should be read in conjunction with other parts of the SPD, in particular:

- [Part A: How to Achieve Good Design](#)
- [Part B: Character and Local Distinctiveness](#)
- [Part C: Access and Connectivity](#)
- [Part D: Buildings and Layout](#)
- [Part E: Architectural Style, Construction and Materials](#)
- [Part F: Residential Amenity](#)
- [Part J: Self-Build and Custom-Build Housing and Modular Housing](#)
- [Part O: Parking and Travel](#)
- [Part T: Specialised Housing](#)
- [Part U: Section 106 Planning Obligations](#)

The Housing Strategy 2015-2020 (and any successor documents) is also a good source of information and guidance about local housing issues.

<https://www.stratford.gov.uk/homes-properties/housing-strategy.cfm>

## S2. Local Needs Housing Schemes

### The Importance of Local Needs Schemes

Local Needs Schemes help to meet the housing needs of the District. The District Council is supportive, and actively encourages, communities to take the lead in promoting housing schemes that meet identified local needs. It is to this end that the Core Strategy supports the principle of Local Needs Schemes (also commonly known as 'Local Choice' schemes) in locations otherwise considered unsuitable for general market housing. Core Strategy Policy CS.15 (G) supports in principle Local Needs Schemes in any settlement across the District, including within the Green Belt.

The Council is the strategic housing authority for Stratford-on-Avon District and the successful delivery of rural housing schemes is important to the fulfilment of its statutory housing functions. The Council prepares a Housing Strategy that sets out the Council's vision in respect of housing: to offer 'more people the opportunity to live in good quality housing of their choice'. The priority that the Council gives to the delivery of affordable housing and to meeting local needs is also reflected in the Council's Corporate Strategy objectives.

### Find out more:

Stratford-on-Avon District Housing Strategy is available to view at:

<https://www.stratford.gov.uk/homes-properties/housing-strategy.cfm>

The Corporate Strategy is available to view at:

[www.stratford.gov.uk/corporatestrategy](http://www.stratford.gov.uk/corporatestrategy)

## Key Components of Local Needs Schemes

Policy CS.15 sets out a number of important components to Local Needs Schemes:

- Have the support of the local community (i.e. town or parish council);
- Respond to an identified need;
- Be available to people with a 'local connection' to the parish;
- Be small-scale.

It should be noted that Local Needs Schemes can include 'affordable housing' (as defined in Annex 2 of the NPPF) and/or 'local market housing'. Local market housing is housing sold at prevailing market values but ring fenced for local people.

## Support of the Parish or Town Council

Bringing forward a Local Needs Scheme can be a long and complex process and the promotion of a Local Needs Scheme requires considerable commitment from the local community. As such, in applying Policy CS.15, Stratford-on-Avon District Council will attach significant weight to the fact that a parish or town council is supportive of a Local Needs Scheme. Whilst consideration of other housing in the 'supply pipeline', is important (i.e. is the need likely to be met via other schemes in the near future), the fact that a community wants a Local Needs Scheme weighs significantly in its favour.

A parish or town council can bring forward a freestanding Local Needs Scheme at any time or as part of a Neighbourhood Plan. It is for the local community to determine what the best approach is taking into account local circumstances. Parish and town councils can decide that schemes should meet all or just some identified housing needs.

The support of the local community will ordinarily be demonstrated by the written support of the town or parish council or a Neighbourhood Plan.

## Respond to an Identified Need

Evidence of the identification of needs for a Local Needs Housing Scheme will usually be in the form of a local housing needs survey, prepared as a standalone project or as part of the evidence for a parish or neighbourhood plan. Housing needs surveys are an inexact science but they provide the best available evidence. As a general rule of thumb, and like Strategic Housing Market Assessments (SHMAs), housing needs surveys are usually considered to be valid for at least five years.

The Council's Housing Waiting List can also provide an indication of need but is only ever one indicator of need because not all households in need join the List. Experience has shown that the construction of local affordable housing generates additional demand as it creates awareness in the community that those in housing need can have their needs met in situ.

Whilst the District Council encourages parishes to prepare and keep up-to-date housing needs surveys, such surveys can be costly and take many months to prepare. However, like all technical evidence, housing needs surveys are a snapshot in time. New housing needs will continue to arise and in exceptional circumstances, a need may be identified outside of a formal survey (e.g. for business or welfare purposes). In such cases, the applicant will need to demonstrate the local needs justification for the scheme. Such justification will require the written support of the town or parish council, and comply with other relevant policy criteria, including being available to those with a local connection.

### Find out more:

Stratford-on-Avon District Council funds a Rural Housing Enabler employed by Warwickshire Rural Community Council who can provide guidance on promoting schemes, collecting evidence of local needs, the preparation of parish and neighbourhood plans and how to deliver schemes. Find out more at [www.ruralwarwickshire.org.uk](http://www.ruralwarwickshire.org.uk).

### Be Available to People with a 'Local Connection' to the Parish

A key feature of Local Needs Schemes is that they provide homes to local people. To ensure that the homes remain available to people with a local connection to the parish, a planning obligation/legal agreement will be sought. For Local Needs Housing it is for the local community to determine what constitutes a local connection. However, for consistency and ease of administration, the following criteria in use by the District Council are recommended and will be used unless a Neighbourhood Plan expressly requires the use of alternative criteria:

1. Was born in the parish where the site is located or whose parent(s) were ordinarily residents in that parish at the time of birth;
2. Currently lives in the parish and has done so for at least the past twelve months;
3. Used to live in the parish and did so for a continuous period of not less than three years;
4. Currently works in the parish and has done so for at least the past twelve months and for an average of not less than 16 hours per week;
5. Currently has a close family member (i.e. mother, father, brother, sister, son, daughter) living in the parish and has done so for a continuous period of not less than three years.

Cascade clauses may be applied, for example in relation to neighbouring parishes (see [Section S5](#)).

Examples of planning obligation model clauses currently in use may be found on the Council's website. The clauses are periodically reviewed to reflect good practice and changes in circumstances.

The tenure and occupancy of all affordable and all local market homes (including single local market dwellings) will be controlled in perpetuity via a planning obligation. This will normally be drafted using standard model clauses prepared by the District Council. Such controls will apply to all initial and subsequent occupants, except in a few tightly defined circumstances. At least one member of every household will be required to satisfy one or more 'local connection' criteria.

In the case of 'local market' properties, the local connection requirement will apply in relation to the host parish only but with a waiver mechanism to appropriately manage development risk. Where local market housing is to be provided, the planning obligation will also specify special procedures for the marketing and sale of the properties concerned on both initial sale and subsequent re-sales.

## Be Small-Scale

It is not possible to define 'small-scale' as it will vary upon individual circumstances. However, in applying the 'requirements' criteria in Policy CS.15, the District Council will take into account the in-principle support in the Core Strategy for Local Needs Schemes, including the fact that the scheme is meeting an identified need and the fact that it has the support of the parish or town council. Given that Local Needs Schemes are supportive in locations otherwise considered unsuitable for open-market housing, the scale of the proposed scheme is unlikely to be the dominant determining factor in granting or refusing planning consent. This is particularly relevant given the likelihood of 'cluster schemes' (see below).

## Cluster Schemes

Ordinarily, local needs will be met where they arise as Stratford-on-Avon District Council accepts that local people want to remain in their local communities. However, the reality of bringing Local Needs Schemes to fruition means that it is not always possible to achieve this (e.g. availability of land, complexities of funding, economics of development etc.) As such, if supported by the parish or town council, needs arising from more than one location may be grouped i.e. clustered on a single site and met through a single Local Needs Scheme.

The principle of cluster schemes is well established in the District and clustering is also supported by paragraph 78 of the NPPF. Stratford-on-Avon District Council supports the principle of Local Needs Cluster Schemes.

## Delivery of Schemes

Local Needs Schemes can be delivered on behalf of a local community e.g. by working with a housing association which will own and manage any affordable homes. To date, all such schemes in this District have been delivered in this way.

Alternatively, a local community could choose to adopt an even more hands on approach e.g. establish a community land trust to own and manage the homes in perpetuity. Such schemes are identified, promoted, delivered, owned and managed by residents.

Local Need Schemes could also consist of, or include, 'self-help' housing of all tenures; that is to say schemes where one or more households with a qualifying local connection come forward with a 'self-help' housing solution where such households are willing and able to build accommodation for their own occupation. Such schemes could, for example, involve family-owned land and/or custom or self-build housing (including multiple dwellings developed by a self-build co-operative). Single local market homes are one form of self-help.

## Supporting Information for Planning Applications

In addition to the normal requirements in respect of accompanying documentation, it is especially important that the application is accompanied by:

- A statement explaining the evidence of local need that has been relied upon as providing the basis for the proposed scheme;
- Evidence of the support of the local community, including pre-application community consultation and engagement;
- An undertaking to enter into a planning obligation (S.106 Agreement) to regulate the development and its future use/occupation.

## Approach to Single Dwellings

In the majority of cases it is expected that Local Needs Schemes will comprise a number of dwellings. However, there may be instances where single dwellings are promoted as Local Needs Schemes. These could include custom or self-build homes (see [Part J](#)). The distinguishing factor is the existence of a legal agreement/planning obligation ensuring that the dwelling is, and remains, available to people with a local connection (see above).

Where such an agreement is not proposed, the dwelling should be considered as an open-market dwelling and should be determined in accordance with other general housing policies in the Core Strategy, in particular AS.10 Countryside and Villages.<sup>18</sup>

## S3. General Needs Housing Mix and Type

The promotion of sustainable development is the 'golden thread' that permeates both national and local planning policy. 'Sustainability' is a multi-dimensional issue, but a key requirement (as per Core Strategy Policy CS.1) is that all new development should contribute to the well-being of those who live in the District and towards the maintenance of sustainable communities therein.

Part A of Policy CS.19, emphasises the importance of decisions about the size and mix of new homes.

Part B of Policy CS.19 covers the size profile of all new general needs i.e. conventional market and affordable housing. There is no minimum threshold above which the Policy applies. The table in Part B of the Policy sets out the preferred proportions (expressed as percentage ranges) of market and affordable homes, respectively, according to dwelling size (expressed in terms of the number of bedrooms).

Part B of Policy CS.19 does not extend to specialised housing which is covered by Part C of the policy and subject to its own set of criteria – see [Part T](#).

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<sup>18</sup> An amendment to the CIL Regulations in 2014 introduced an exemption to persons building or commissioning their own home provided that it is occupied as their sole or main residence.

## Monitoring

A total of 3,562 homes (including 1,089 affordable homes) have been built across Stratford-on-Avon District between the start of the plan period in April 2011 and 31 March 2017. The size mix of these homes is as follows compared to the overall preferred size mix set out in Policy CS.19<sup>19</sup>:

**Table S1: Core Strategy Policy CS.19 Preferred Type and Mix of Homes**

Dwelling Size	CS.19 Market Mix	CS.19 Affordable Mix	Overall CS.19 Mix	Built <sup>2</sup> 2011 – 2017
1 bed	5-10%	15-20%	9-14%	7%
2 bed	35-40%	35-40%	35-40%	30%
3 bed	40-45%	35-40%	38-43%	30%
4+ bed	15-20%	5-10%	12-17%	27%

As can be seen, of the homes built to date there is significant overprovision of larger (4+ bed) homes and under-provision in all other sizes of dwellings, most notably 2 and 3 bed homes. However, whilst the above table provides a useful summary, there have been important differences in the provision of affordable and market homes.

Whilst the Council has been successful in broadly achieving its preferred affordable housing mix (including 4+ bed affordable homes for which there is often a shortage of accommodation for larger families in housing need), the overall completion figures have been skewed by the significant overprovision of 4+ bed market homes.

Whilst provision of 1 bed homes is lower than expected, this is understandable in light of the issues associated with providing 1-bed affordable homes. It should also be noted that the vast majority of homes built in the six year period from 1 April 2011, were based on emerging planning policy. It is only since July 2016 that Policy CS.19 has had full effect.

Notwithstanding this, the delivery of an appropriate size and type mix of affordable homes is complex as consideration needs to be given to the tenure in the context of wider on-going changes to national policy e.g. welfare reform. For example, in respect of the provision of one-bedroom affordable homes, there is a tension between sustainability considerations and the operational constraints affecting housing associations on the one hand (which generally indicate against developing such properties) and affordability and accessibility considerations of potential occupiers on the other hand (which indicate the desirability of including a proportion of such units within schemes mixes). The Council's partner housing associations are reluctant to develop a high proportion of one bed homes as these are generally unpopular due to their lack of flexibility (they cannot cater for families with children, or easily provide opportunities to work from home if a second bedroom is to be utilized as a study).

<sup>19</sup> For some 5% of the homes, the number of bedrooms was unknown. Figures may not sum due to rounding.

## Applying the Preferred Mix

Monitoring clearly shows a significant under-provision of 2 and 3 bedroom market homes coupled with an over-provision of 4+ bedroom market homes. Smaller homes generally cost less to buy than larger homes and, therefore, are more affordable to young families and people on lower incomes.

Ensuring a supply of smaller market homes will enable more people to access home ownership and will divert some pressure from limited, and much in demand, affordable housing. Consequently, the Council will seek to apply the size mix set out in Policy CS.19 to 'rebalance' the housing mix of the District.

The above Policy applies to all sites of any size. However, for smaller sites, especially those comprising 10 homes or fewer, it may not be practicable for all the house types listed in Policy CS.19(B) to be represented. In such circumstances, the Council will be supportive where such schemes propose a narrower range involving more 2 and 3 bed homes.

Policy CS.19(B) includes a requirement that one and two bed affordable homes should be built with bedrooms satisfactorily accommodating two occupiers in each bedroom (i.e. double or twin bedrooms). Experience indicates that care must be taken to ensure that such bedrooms, however described, are adequately sized. Therefore, when determining whether individual bedrooms in one and two bed affordable properties are capable of "satisfactorily" accommodating two occupiers, this Authority will have regard to whether they achieve the relevant minimum gross internal floor areas and storage benchmarks specified in the Nationally Described Space Standard (March 2015). For this reason it is essential that details of the actual gross internal floor areas and storage (m<sup>2</sup>) of such dwellings accompany relevant applications.

Where applicants propose an alternative mix that departs from that shown in CS.19(B), the onus will be on the applicant to fully justify any such derogation. Applicants will be expected to include the following information and evidence (to the extent that it is relevant in any particular case and either available to the applicant or otherwise in the public domain) as part of any justification:

1. A comparison table illustrating the difference between the proposed mix and the optimum mix set out in CS.19(B) and indicating the extent of any derogation in terms of both the number of units and percentages;
2. Evidence of local market circumstances (including local supply and demand and factors such as sale prices and speed of sales for different sizes of dwelling);
3. Evidence of projected likely future demand/aspirations of house buyers in relation to bedroom numbers;
4. Evidence of site/development-specific issues that affect the mix;
5. Evidence from up to date Housing Needs Surveys;
6. Evidence from any relevant Neighbourhood Development Plan, Parish Appraisal or Parish Plan;
7. For large scale schemes with a lengthy build programme over several phases – any proposals to include a 'review mechanism' to allow the mix to be adjusted as necessary for forthcoming phases.

This list is not intended to be exhaustive. In circumstances where variations to the preferred mix are proposed, the Council may appoint suitably qualified consultants to appraise the validity of the information submitted. Applicants will be expected to pay for any such appraisal.

## Bungalows

The explanatory text to Policy CS.19 notes that bungalows are a consistently popular option. This applies in respect of both affordable and market properties. It is perhaps not surprising given the District's demographic profile. Thus consideration must be given to the scope for inclusion of bungalows as part of the overall housing offer on any given site.

## Implementation

For outline applications, a table indicating the range of market and (if required) affordable dwellings types proposed should be submitted with the application. It shall be accompanied by a reasoned justification (containing information and evidence as outlined above) if this is to depart from the preferred mix as set out in the Table above. For full or Reserved Matters applications, a schedule containing an analysis of the range of market and (if required) affordable types proposed should be submitted with the application. It shall be accompanied by a reasoned justification (containing information and evidence as outlined above) if the number of any particular type results in a percentage falling outside any of the ranges as set out in the Table 1 above.

### Find out more:

The Community Infrastructure Levy (CIL) is a charge applied to residential development to help pay for necessary infrastructure to support development. Find out more at [www.stratford.gov.uk/cil](http://www.stratford.gov.uk/cil).

Further guidance on the application of Planning Obligations can be found at [Part U](#) of this SPD.

## S4. Affordable Housing Tenure

### Affordability of accommodation

The poor affordability of housing for people on middle and low incomes in Stratford-on-Avon District is a continuing cause for concern. High house prices and high private rents make it difficult for many households to access market housing.

Although the demand and cost of market housing varies across the District, both owner occupation and private rented accommodation is very expensive in all areas of the District. Consequently there is an urgent need for genuinely affordable housing across the whole of the District.

The mean District house price was £349,123 in the year ending June 2017; this compares to £206,599 in the West Midlands. In the same period lower quartile house



prices were £249,950 in the District and £173,950 in the West Midlands<sup>20</sup>. However, the important point about house prices is their relationship to incomes i.e. the issue of housing affordability and the ability of residents to afford the housing available in the District. The higher the number the higher the disparity. For example, the ratio of lower quartile house prices to lower quartile gross annual income (residence based) was 10.20 in the District compared to only 6.54 in the West Midlands<sup>21</sup>.

In the year ending 30 September 2017 the mean district private rent was £856 per calendar month. This compares to £631 in the West Midlands. During the same period lower quartile private rents were £675 in the district and £495 in the West Midlands (Valuation Office Agency). The majority of private rents in this district are higher than Local Housing Allowance rates i.e. the rents exceed the maximum amount of housing benefit or Universal Credit housing cost element that can be paid (for example see the Housing Strategy Evidence Log):

<https://www.stratford.gov.uk/homes-properties/housing-strategy.cfm>

High market house and market rent prices also mean that some affordable housing tenures are not genuinely affordable and at best will only meet the housing needs of a relatively small number of households.

### **Preferred affordable housing tenure profile**

The tenure profile of affordable homes is important because it directly affects the ability of households to access accommodation appropriate to their needs. Affordable housing tenures are defined in the NPPF (July 2018). However, locally some affordable tenures are unacceptable because they are unaffordable; they fail to meet identified needs and thus frustrate effective delivery of Policy CS.18.

Policy CS.18(C) sets out the 'default' preferred tenure profile based on technical work undertaken through the Strategic Housing Market Assessment (SHMA) i.e.:

- Minimum 60% Social Rented Housing;
- Maximum 20% Affordable Rented Housing;
- Maximum 20% Intermediate Housing.

Owing to the high cost of housing across Stratford-on-Avon District, the greatest need is for Social Rented Housing.

The recent evidence about the poor affordability of market housing (owner occupation and private rented) outlined in 'Affordability of accommodation' above confirms that the Council's preferred affordable housing mix remains appropriate.

### **Social Rent**

This housing is let at rents determined in accordance with the 'Target Rent' regime. As Social Rent is the cheapest affordable housing tenure, it provides a housing affordability benchmark in a local context. The District Council will always seek a minimum of 60% of affordable homes to be let at Social Rent levels.

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<sup>20</sup> Figures from ONS House Price Statistics for Small Areas.

<sup>21</sup> ONS 2016 figures

## **Affordable Rent**

Rents are set at a level not exceeding 80% of local market rent levels for the relevant type of accommodation. This tenure suffers from the serious deficiency that rent levels are benchmarked to prevailing market rent levels, which in turn bear no direct relationship to affordability. Affordable Rents at 80% of market rents often exceed Local Housing Allowance rates i.e. the maximum amount of housing benefit or the Universal Credit housing cost element payable to households. The problem is exacerbated by the impact of other welfare reforms e.g. the overall benefit cap. Therefore, Affordable Rents will only be allowed in Stratford-on-Avon District if the Rents are capped at Local Housing Allowance levels.

## **Build to Rent (Affordable Private Rent)**

Build to Rent properties let at or close to 80% of local market rents are not considered to be affordable in this District.

## **Shared Ownership**

This is the most common Intermediate tenure product. It involves the sale of properties on a long lease, in a form approved by the Homes and Communities Agency (or successor body), to eligible purchasers who buy an initial percentage of the equity of a property and pay a fixed rent on the remaining unsold equity. Buyers have the option to buy further tranches of equity (a process known as 'staircasing') with the possibility of eventually progressing to outright ownership. Shared ownership is expensive because costs are linked to prevailing property market values but it is a popular option for some households who are renting privately (see [Housing Strategy Evidence Log](#)). The provision of shared ownership on any site is subject to an assessment of market conditions.

To enable more people to become home owners in this high house price District, buyers must be able to purchase minimum initial shares of 25% to 40% of such homes. Shared ownership properties must not be offered for sale at over 40% of the sale price. The residual rent on such properties will also be taken into account when assessing whether total housing costs are likely to be genuinely affordable.

## **Fixed Equity Sale (Discounted Market Sales)**

Fixed equity sales (discounted market sales) can in exceptional circumstances be substituted for the more conventional tenure products outlined above. Evidence must be provided that no Registered Provider has expressed an interest in partnering the delivery of the required affordable housing on a given site. In addition, this tenure will only be considered if all the following conditions are met:

- The development and sale of an agreed mix and range of properties within a given site at no more than 60% of their open market value;
- Sales will be initially limited to purchasers with a qualifying local connection;
- The development and sale of the properties to be undertaken directly by the developer of a scheme;
- No rent to be charged on the remaining unsold equity (at least 40%);
- The above terms will apply to any and all subsequent resales in perpetuity.

Fixed equity sales (discounted market sales) at 80% of market value are not considered to be an appropriate housing option in this District.

### Starter Homes

Starter Homes are homes for sale sold at 80% of local market rates. The Government in its Reforming developer contributions (December 2018) technical consultation has stated that Starter Homes are not mandatory and that local authorities can determine which affordable home ownership tenures are most appropriate to meet local housing needs. Starter Homes are not considered an appropriate affordable housing option in this high house price District (e.g. the lower quartile house price to lower quartile gross annual income is 10.2).

### Delivery

The final decision as to the most appropriate affordable housing tenure profile on any particular site will be determined by a consideration of need, the existing affordable housing stock profile and commitments, market conditions and a host of external factors beyond the remit and scope of the planning system (e.g. welfare reform).

Total affordable housing costs (rents and sale prices together with any applicable service charges) must be set at levels that will ensure that the accommodation is genuinely affordable to all households on low incomes, including those in work and/or with special needs. It also needs to take into account the size and type of homes to be provided: not simply their tenure alone.

All affordable tenure profiles will only be considered acceptable if they:

- Foster the development of cohesive and stable communities;
- Ensure the needs of households are met by ensuring housing costs are genuinely affordable;
- Ensure that any homes provided remain affordable for future eligible households (unless subsidy recycling arrangements apply);
- Include delivery arrangements to ensure the delivery of *all* agreed affordable tenures within any given scheme.

The preferred tenure mix set out in Policy CS.18(C) represents a starting point for determining an acceptable mix on each site, and so there is scope for flexibility over the exact tenure mix provided it meets the principles set out in the Policy. Early advice on the most appropriate tenure mix should be sought from the Council's Housing Policy and Development Team. It is also essential to consult potential partner Registered Providers at pre-application stage.

### **For advice and a list of our partner Registered Providers contact:**

Stratford-on-Avon District Housing Policy and Development Team via email at:  
[housing.policy@stratford-dc.gov.uk](mailto:housing.policy@stratford-dc.gov.uk)

## S5. Management of Affordable Housing

### Implementation

The delivery and management of affordable housing will be secured through a planning obligation which is commonly known as a Section 106 Agreement. Experience has shown that the use of planning conditions has been unsatisfactory.

See the Council's website for examples of current model affordable housing clauses. The Council reserves the right to amend these clauses to reflect changes in circumstances.

All planning applications that include affordable homes must be accompanied by an affordable housing statement. This should include confirmation that the applicant is prepared to enter into a planning obligation based on this Authority's model S106 clauses. For full and Reserved Matters applications, the affordable housing statement must include confirmation that the estate layout and detailed design of all dwellings proposed as affordable homes has been discussed with, and is considered satisfactory by, a named partner Registered Provider.

The early involvement of Registered Providers will expedite the delivery of affordable homes and minimize the risk of Providers not taking on the homes because the detailed design and specification of the homes is unacceptable.

The Council recognizes that the identity of the named partner Registered Provider may change between the submission of the Affordable Housing Statement and the submission of the Affordable Housing specification.

Amongst other things, the required planning obligation will prescribe:

- The overall proportion or number of affordable homes to be provided (determined in accordance with Policy CS.18);
- The overall tenure profile of the proposed affordable homes;
- That the site developer submits for approval by the District Council one Affordable Housing Specification for all the agreed affordable housing. The specification is a mechanism for determining key delivery and management details, including the identity of the Registered Provider who is to develop or partner the development of the scheme;
- For outline applications, this Specification must be submitted prior to or simultaneously with the consequential Reserved Matters application. For full applications, the Specification must be submitted (and approved) prior to the commencement of development;
- A requirement to deliver *all* the affordable homes, irrespective of tenure.

The involvement of a named Registered Provider (termed a "Qualifying Developing Body" for the purposes of the Council's model clauses) as a delivery partner is expected on all market-led sites. The only exception (which will be rare) is the provision of an affordable housing Fixed Equity Sale scheme directly by a developer.

### Nomination Rights

All affordable homes must only be let or sold to tenants or purchasers with a need for such accommodation. The District Council currently has the right to nominate tenants (within a set period of time) to all Social Rent and Affordable Rent properties. Shared ownership

properties can be sold directly by Registered Providers and Fixed Equity sale properties (as defined in Section S4) can be sold directly by the developer. For all other affordable housing tenures, the Council reserves the right to determine whether it will make nominations to the properties.

Irrespective of who is letting or selling affordable homes, all the affordable homes must be let to tenants or sold to purchasers who satisfy at least one local connection criterion defined with reference to:

1. Residency at the time of birth;
2. Current and immediate past residency for a minimum period;
3. Previous residency for a minimum period;
4. Current work location subject to minimum qualifying periods;
5. Current close family residency for a minimum period.

The minimum qualifying periods will be defined through the Section 106 Planning Obligation secured as part of the planning permission. Examples of the model clauses currently in use can be found on the Council's website.

Normally precedence of the qualifying local connection will be determined in accordance with the following five-tier cascade:

6. In the first instance, the host parish *or* in the case of market-led sites in Stratford town and the Main Rural Centres, local connection can be extended to include people who the District Council deems to have a *Priority Nomination status* i.e. an urgent need for housing;
7. In the second instance, neighbouring parishes to the host parish within Stratford-on-Avon District;
8. In the third instance, the remainder of Stratford-on-Avon District;
9. In the fourth instance, a defined strategic housing market area (if any);
10. In the fifth and final instance, the remainder of England.

Slightly different arrangements may occasionally apply e.g. for new settlements (Gaydon Lighthorne Heath and Long Marston Airfield) where the first two tiers of the above cascade will be combined.

In order to future proof detailed arrangements for any affordable homes to which the Council will make nominations, the developer of the affordable homes must submit a Local Lettings Plan (and, if appropriate, a Sales Plan) to the District Council for approval. The Local Lettings Plan will set out key operational nomination and allocation arrangements (and possibly sales arrangements). The plans must be submitted and approved prior to the occupation of any of the properties to which they relate. The plans can be varied from time-to-time by agreement.

The Council reserves the right to amend the above nomination rights.

### For advice contact:

Stratford-on-Avon District Housing Policy and Development Team via email at:  
[housing.policy@stratford-dc.gov.uk](mailto:housing.policy@stratford-dc.gov.uk)

## S6. Integrating Affordable and Market Housing

The proper integration of different housing tenures within individual sites is an integral and indivisible aspect of good planning, and one means by which sustainable and successful development can be assured. The outcome should be the physical and social integration of affordable and market housing within any given site, so as to promote community cohesion, as required by Policy CS.18 (D).

To ensure that market and affordable homes are functionally and visually indistinguishable, the following considerations should be applied to both market and affordable homes:

- **Size and type of home** - ensuring a balanced stock profile of both affordable and market homes will assist in their integration. For example, a format of small affordable homes in lengthy terraces in the context of a format of larger detached market houses would usually be inappropriate;
- **External materials** - both market and affordable homes should be built in the same general style and materials (including boundary and surface treatments);
- **External and garden spaces** - the same type of market and affordable homes should have the same amount of external space;
- **Access arrangements** - affordable homes should use the same highway access as market homes and buildings must not have separate entrances for affordable and market residents;
- **Parking** - the same type of market and affordable homes should have the same siting and level of car and cycle parking.

### Find out more:

See [Part D: Design Principles](#) and [O Part: Parking and Travel](#) of this SPD for further guidance on good design:

Policy CS.18 (D) also requires affordable homes to be "*dispersed across the site in clusters appropriate to the size and scale of the development*". Generally speaking, the Council will expect to see small clusters of affordable homes dispersed throughout the site. The size of such clusters will depend on the overall size of the scheme but clusters of around 6 units work well and should rarely exceed 10. In the case of outline planning applications – where the detailed layout and appearance of a site will not necessarily be known – a masterplan (or equivalent) should indicate how the above considerations will be taken account of in the subsequent detailed design process. Planning obligations will contain a requirement that clusters of affordable homes shall comprise no more than 9 units, unless justified by reference to specific circumstances and with the agreement of the District Council. Flats and specialized housing will be given special consideration.

**For advice contact:**

Stratford-on-Avon District Housing Policy and Development Team via email at:  
[housing.policy@stratford-dc.gov.uk](mailto:housing.policy@stratford-dc.gov.uk)

**S7. Offsite Affordable Housing****Background**

As part of its aim to deliver mixed and sustainable communities that cater for a range of accommodation needs, types and tenures, the Council seeks to provide affordable housing on-site alongside general market housing. This approach is endorsed in the NPPF. The requirement for on-site provision is also borne out of the obligation to meet affordable housing needs given the practical challenges and risks associated with delivering affordable homes via off-site contributions. These difficulties include:

- The need to find suitable land or property to purchase for delivery of alternative provision, including the risks, uncertainty and delay involved with sourcing sites or properties on the open market;
- The need to prepare and submit schemes for approval within the budget provided by any such contribution, and to ensure that the value of contributions are not eroded by inflation;
- The limitations and risks associated with open-market purchases of existing dwellings;
- The time and resources required to design and secure the necessary planning permissions for new build housing schemes, and attendant risks.

**Application of Policy CS.18**

Core Strategy Policy CS.18 (A) sets out the Council's approach to delivering affordable housing i.e.

All new residential development that incorporates or comprises use as a dwelling house within Use Class C3 will be required to contribute to the provision of affordable housing in accordance with the following thresholds:

In the parishes of Alcester and Kinwarton, Bidford-on-Avon, Henley-in-Arden and Beaudesert, Kineton, Shipston-on-Stour, Southam, Stratford-upon-Avon, Studley and Mappleborough Green, Tanworth-in-Arden, and Wellesbourne; development providing:

- 11 or more dwellings; or
- 6 or more dwellings with a combined floorspace of more than 1,000sqm.

In all other parishes: development providing 6 or more dwellings.

Policy CS.18 (B) also permits in exceptional circumstances off-site provision of affordable housing on schemes proposing more than 10 homes.

The Council acknowledges that the application of the affordable housing requirement of 35%, may result in a fractional level of provision. Given the distributional strategy of this Plan and the preference for smaller sites, fractional provision assumes greater importance for reasons of equitability. In terms of the fractional requirements:

- On sites of fewer than 11 homes, the fractional requirement will be provided as an off-site contribution;
- For sites proposing between 11 and 20 homes the requirement for on-site provision will be rounded down to the nearest whole unit (unless the applicant proposes rounding up), with the balance to be provided as an off-site contribution;
- For sites proposing 21 homes or more, affordable housing will be provided on-site to the nearest whole unit.

It should be noted that financial contributions for affordable housing fall outside the scope of the Community Infrastructure Levy (CIL), and will therefore continue to need to be secured via S.106 Agreements.

### Find out more:

See [Part U: Planning Obligations](#) of this SPD for further guidance on the Council's approach to S106 planning agreements

## Calculating Off-site Contributions

Contributions for off-site affordable housing provision will be calculated on the principle of securing equivalence of provision at parity. This will:

- Ensure equitability and no inadvertent incentive to favour off-site provision; and
- Provide an additional safeguard against the erosion in value of any contribution.

Whilst the above principles are well-established, their practical and efficient application has historically been hampered by the lack of a published consistent detailed methodology for calculating contributions. To rectify this situation, in 2017 the Council commissioned independent expert consultants 'Three Dragons' to advise on an appropriate methodology for calculating off-site contributions. In making recommendations as to what an appropriate contribution would be, the consultants took full account of values, development costs and planning policy requirements.

### Find out more:

View the technical evidence on Affordable Housing Financial Contributions at: [www.stratford.gov.uk/devreq-spd](http://www.stratford.gov.uk/devreq-spd)

The consultants' recommendations are considered to be sound. Therefore, the Council will seek the following financial contributions per dwelling in respect of the assessed proportion of affordable homes that would otherwise be provided on-site:

Stratford-upon-Avon parish	<b>£103,000</b> per affordable home (includes Alveston and Tiddington).
Rest of District	<b>£78,500</b> per affordable home.

These figures assume that Community Infrastructure Levy (CIL) is chargeable, and will be subject to indexation (as further described below) from a base date of 1 April 2017 until



the actual date of payment: this date reflects the data used to inform the consultants recommendations. Please note: these figures will be subject to change on an annual basis as they will be index-linked.

The Council acknowledges that the application of any policy threshold can lead to what is colloquially known as a “cliff edge” where a site immediately below the threshold has a 0% requirement whereas a site immediately above the threshold has a 100% requirement (in this case 5 and 6 units, respectively). Sometimes this can incentivize developers to reduce the scale of development. To overcome this potential issue, the Council will moderate the level of commuted sum according to the scale of development, by applying a 15% reduction to schemes of between 6 and 10 units:

- 9 homes = 85% financial contribution (£87,550 SuA, £66,725 Rest of District)
- 8 homes = 70% financial contribution (£72,100 SuA, £54,950 Rest of District)
- 7 homes = 55% financial contribution (£56,650 SuA, £43,175 Rest of District)
- 6 homes = 40% financial contribution (£41,200 SuA, £31,400 Rest of District).

### Find out more:

View the latest figures adjusted for indexation at:

[www.stratford.gov.uk/devreq-spd](http://www.stratford.gov.uk/devreq-spd)

## Implementation

As with other financial contributions, it is good practice for a S106 Agreement to include provision for repayment of affordable housing contributions not expended or committed beyond a certain time-limit. Given (a) the risks and uncertainties associated with accepting off-site financial contributions and (b) the importance in ensuring flexibility over decisions on deployment to ensure good value for money, these time-limits must be realistic. The following practice will therefore be applied.

- For schemes involving contributions for sites of 10 or fewer dwellings, contributions will be refundable only if not spent or contractually committed within a period of 7 years from the date of last receipt;
- For schemes involving contributions for sites of 11 or more dwellings (i.e. those to which the ‘exceptional circumstances’ principle applies) contributions will be refundable only if not spent or contractually committed within a period of 10 years from the date of last receipt.

The Council considers that published RICS BCIS (Royal Institute of Chartered Surveyors Building Cost Information Service index) data represents the best readily available proxy for property and land price inflation; it will therefore be used to calculate indexation. In the (unlikely) event that this data ceases to be published, or other circumstances indicate it is no longer suitable for this purpose, a default practice will be applied of adjusting payments by a flat rate increase of 5% per annum. For the avoidance of doubt, indexation payments will be over and above any interest chargeable due to late payment.

The financial contribution (which may be phased on large developments) will be payable on first occupation, sale or letting (whichever shall occur first) of any dwelling within the relevant development.

For schemes of between 6 and 10 dwellings, planning applications should be accompanied by confirmation of whether or not any voluntary offer of on-site provision is made or that

an applicant is prepared to enter into a planning obligation to secure a financial contribution.

For schemes comprising 11 or more dwellings, the applicant should confirm that full provision will be made on site. Alternatively, if 'exceptional circumstances' are considered to apply a detailed reasoned justification must be provided.

All financial contributions will be secured via a S.106 Agreement calculated and payable on the basis set out above. Contributions will be made available to support off-site provision anywhere within Stratford-on-Avon District.

# Part T: Specialised Housing

## Contents

- T1. Introduction
- T2. Supported Housing
- T3. Independent Living for Older People
- T4. Extra Care Housing
- T5. Residential Care Homes and Nursing Homes
- T6. Delivery

This part the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate

- CS.19 Housing Mix and Type
- CS.25 Healthy Communities

This section of the SPD provides guidance and advice on how applicants can help ensure that specialised housing meets the needs of vulnerable people of the District. It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission. The Council's planning policies are set out in the Core Strategy, available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#).

## T1. Introduction

As set out in Core Strategy Policy CS.19, specialised housing is purpose-built and designed housing that meets the needs of vulnerable people of whatever age. It does not cover general needs housing or adaptations to general needs housing. The policy applies to both affordable and market housing, and encompasses new build schemes and extensions and alterations to existing schemes.

Specialised housing includes the following housing for independent living:

- Supported Housing;
- Independent Living for Older People;
- Extra Care Housing.

This section also references institutional Residential Care and Nursing Homes. Such accommodation is not specialised housing because it does not enable independent living, but it is referenced in this section to allow easy comparison with specialised housing.

The 'public sector equality duty' imposes a legal duty on the District Council and Warwickshire County Council to consider how their policies and decisions affect people who have one or more 'protected characteristics' as defined under the Equality Act 2010. All the 'protected characteristics' are relevant to the provision of housing. 'Age' and 'disability' are particularly significant in relation to specialised housing and the performance of the District Council as local planning and housing authority, and the County Council as adult social care authority.

The NPPF recognizes the importance of promoting healthy communities in order to achieve sustainable development. Providing suitable housing to meet a full range of housing needs is integral to the achievement of this aim.

Where appropriate, regard must be had to [Part S: General and Local Needs Housing](#).

- Affordable Housing Tenure
- Management of Affordable Housing
- Integrating Market and Affordable Housing
- Off-site Affordable Housing.

## T2. Supported Housing

The Government defines supported housing as any housing scheme where accommodation is provided alongside care, support or supervision to help people live as independently as possible in the community<sup>22</sup>.

Purpose built and designed housing with support can be provided for many different groups of people including:

- Older people with support needs (see below);
- People with physical and or learning disabilities;

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<sup>22</sup> DCLG and DWP Funding Supported Housing October 2017

<https://www.gov.uk/government/consultations/funding-for-supported-housing-two-consultations>

- People with mental ill health;
- People fleeing or at risk of domestic violence;
- People recovering from alcohol or drug dependency;
- People who are ex-offenders;
- Vulnerable young people;
- People who are homeless or at risk of homelessness.

Supported housing schemes can provide long-term permanent housing e.g. sheltered and extra care housing for older people and some people of working age and housing for people with physical, mental or learning disabilities.

In addition, supported housing may be short-term housing for people in crisis e.g. refuge spaces for people fleeing or at risk of domestic violence and accommodation for people who are homeless and need support. Other schemes can provide specialist shorter term transitional help e.g. young vulnerable people who are homeless until they can secure and manage permanent long-term accommodation.

All such housing must meet the criteria set out in [Part C: Access and Connectivity](#) and [Part D: Buildings and Layout](#). The Housing Strategy action plan provides more information about the types of supported housing required in the District.

### Find out more:

Housing Strategy

<https://www.stratford.gov.uk/homes-properties/housing-strategy.cfm>

## T3. Independent Living for Older People

Specialised housing for older people includes a wide range of housing that enables people to live independently in their own homes. Everyone has their own self-contained accommodation comprising their own front door, a kitchen, bathroom, bedroom(s) and sitting room(s). In addition, communal facilities such as shared lounges or a restaurant may be provided. People have a legal right to occupy their homes and either rent or own their homes.

The housing ranges from 'age exclusive' housing for people over a certain age who have no or few support needs (e.g. 'hotel' or luxury retirement living), to housing with support (e.g. sheltered housing with an alarm system and a scheme manager) and housing with care and support (e.g. extra care).

The terms used to describe the types of specialised housing for older people are confusing. This is because different people ascribe different meanings to terms such as sheltered, very sheltered, retirement housing, assisted living, close care, extra care etc. For example, retirement complexes and villages can either be age exclusive housing or alternatively can provide a range of housing types and levels of care and support on one site.

It is therefore very important when considering any specialist housing for older people to determine exactly what any proposal involves as regards the management and any proposed levels of support and or care.

This information should be set out in a supporting statement, and of course, fully evidenced in the scheme design (as evidenced via the Design and Access Statement). All such housing should be built to the HAPPI design principles as set out in [Part A: Achieving Good Design](#).

#### **T4. Extra Care Housing**

The Core Strategy defines extra care housing as '*comprising self-contained homes with design features and support and care services available to enable self-care and independent living. Each household has its own front door. It is for people whose disabilities, frailty or health needs make ordinary housing unsuitable but who do not need or want to move to long term care (residential or nursing homes)*'.

The majority of extra care housing is for older people but schemes can also be designed for younger people with disabilities. The provision of additional extra care schemes is supported by the District Council and County Council because such schemes facilitate independent living.

One particular feature of the Extra Care Housing model is the emphasis on applying the principle of prevention and early intervention. Research<sup>23</sup> has confirmed the cost benefit of support for older people and vulnerable adults within extra care housing accommodation as a direct alternative to residential or nursing care or unnecessary admission into acute hospital settings.

Extra care schemes may also cater for the aspirations of households who currently have no or low care needs. Such households may still be in employment but want to future proof their housing. They want to move whilst they enjoy good health and rent or buy a home that provides an assurance of ease of access to future care provision, should this be required.

#### **T5. Residential Care Homes and Nursing Homes**

Residential care homes provide institutional care for people who are no longer able to live independently because they have high level care needs that require 24 hour support. Generally, residents have their own room and possibly their own bathroom. Facilities such as sitting rooms are shared with other residents. Meals are provided. Nursing homes are similar to residential care homes but also provide nursing care. Specialised care homes provide for specific needs e.g. people with advanced dementia or severe learning disabilities. The homes are not regarded as providing permanent long-term housing and do not contribute towards overall housing supply. Residents in these homes are usually licensees.

Warwickshire County Council is the Adult Social Care Authority. As such, it is responsible for discharging its duties under the Care Act 2014. The Act creates a single, consistent route for establishing an entitlement to public care and support for all adults with needs for care and support.

There is a general duty on the County Council to promote individual 'well-being' which is defined with reference to a wide range of factors including, in particular, 'suitability of

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<sup>23</sup> See, for example the Housing Lin website:

<https://www.housinglin.org.uk/Topics/type/Demonstrating-the-Health-and-Social-Cost-Benefits-of-Lifestyle-Housing-for-Older-People/> and <https://www.housinglin.org.uk/Topics/browse/>

living accommodation’. Associated statutory guidance indicates that the concept of ‘independent living’ is a core part of the ‘well-being principle’.

Both the District Council and Warwickshire County Council work to enable people to live independently in their own homes for as long as possible e.g. through the provision of adaptations, home care or purpose-built housing. Independent living includes extra care housing (see section above) which both Councils are keen to encourage as it prevents many people from having to move into inappropriate and expensive residential care and nursing homes.

### Find out more:

Warwickshire County Council Adult Social Care services  
<https://www.warwickshire.gov.uk/contactusadultsocialcare>

## T6. Delivery

Careful consideration is necessary when planning for specialised housing as such schemes often have specific planning requirements that differ from general housing. Such requirements must be considered in the context of both the day-to-day needs of the occupiers themselves and the service providers who cater and care for those living in specialised accommodation.

Part C of Policy CS.19 sets out four criteria that schemes promoting specialised housing must meet; all the criteria must be met. Further guidance on the interpretation and implementation of these criteria is detailed below.

### 1. Meets identified needs and maintains the balance of the housing stock

Schemes for specialised housing must reflect the development strategy set out in Policies CS.15 and CS.16. Schemes providing for the wider needs of the District should be located in the main town of Stratford-upon-Avon and the Main Rural Centres. Schemes for specialised housing should not generally be located in the smaller Local Service Villages unless they are meeting a specific and identified local need.

Within settlements, the cumulative impact of schemes for specialised housing will be considered. Schemes should not result in an over-concentration of provision in a particular local area to the detriment of the overall balance of housing. The Council acknowledges that schemes may need to be of a certain size to be viable. However, unless a scheme is meeting a need that is unlikely to be met elsewhere, such a consideration will not usually be sufficient to outweigh any concerns regarding the balance of the housing stock. In order to assist in demonstrating compliance with this criteria applicants should:

- Seek pre-application advice from the District Council, in particular the Housing Policy and Development Team, and consult the NHS, including the Clinical Commissioning Group, about the impact of proposals on local healthcare resources.
- Provide evidence to justify the need for a scheme.
- Explain how the proposed scheme will complement existing accommodation within the District.

**Find out more:**

Contact the Housing Policy and Development Team:  
[housing.policy@stratford-dc.gov.uk](mailto:housing.policy@stratford-dc.gov.uk)

**2. Relates well to the settlement and provides easy access to services and facilities**

Accessibility is a key issue when considering schemes for specialised housing. Residents of specialised housing are:

- More likely to have health problems or disabilities;
- More likely to have mobility difficulties;
- More likely to suffer from social isolation;
- Less likely to have active lifestyles;
- Less likely to have access to a private motor vehicle;
- More likely to place demands on welfare services.

For residents and visitors alike, a high standard of connectivity to the host community, and availability of and access to associated infrastructure, is essential.

Walking and cycling routes should be generally flat and cater for people with mobility and sensory impairments. Access to public transport should be considered not only in terms of proximity, but also the frequency and accessibility of services. Where appropriate, arrangements should be put in place to upgrade existing off-site infrastructure.

Application of these criteria will help ensure that residents have easy access to services and facilities and can maintain independent lifestyles for as long as possible. Aside from the health benefits of this approach; it also reduces dependency on welfare services.

Whilst the Council seeks to ensure the impacts of additional housing is mitigated by securing s106 planning obligations and through the implementation of Community Infrastructure Levy (CIL), it is important to ensure that critical existing infrastructure and service providers have the capacity to deal with increased demands for their services. This is particularly important in respect of specialised housing for older people. Research has found that older people place disproportionate demands on the health service in particular. In itself, this is not a problem if local health services are geared to manage those increased demands. It can become a problem where demands arise on services that do not have existing capacity or do not have capacity to meet increasing demands.

In assessing schemes for specialised accommodation, in accordance with Policy CS.25 (Part A), the Council will take account of the capacity of existing health facilities as well as the views of the Clinical Commissioning Group (CCG) and local health service providers.

In order to assist in demonstrating compliance with these criteria, applicants should:

- Audit specialised housing schemes against the above criteria to demonstrate that the scheme meets the needs of future residents and visitors.
- Explain in the required Design and Access Statement how the outcome of the above audit has fed back into the design solution proposed.



### Find out more:

The Community Infrastructure Levy (CIL) is a charge applied to residential development to help pay for necessary infrastructure to support development. Find out more at [www.stratford.gov.uk/cil](http://www.stratford.gov.uk/cil).

Further guidance on the application of Planning Obligations can be found at [Part U](#) of this SPD.

### 3. Design is capable of meeting support and care needs

Unlike general housing, specialised housing often has specific design requirements to meet the specific needs of occupiers. The design is integral to ensuring residents' general welfare and assisting them to achieve healthy lifestyles.

In particular, older people and people with disabilities in long-term permanent housing require adequate internal and external space, level/step-free access and appropriate landscape design. The provision of charging points for mobility scooters and appropriately sited and sized parking bays for disability users are also other factors to consider.

In respect of internal space, doorways and corridors should be of sufficient width to accommodate wheelchair users and there should be sufficient space within rooms and corridors for wheelchair users to turn 360 degrees. Rooms should not just be of sufficient size but appropriately configured to maximise the efficient use of space. Floor areas should be benchmarked against recognised national standards and an explanation provided for any derogation.

Given that specialised housing is designed for occupation by vulnerable residents, schemes that offer permanent long-term housing should also be 'future proofed' as far as practical to take account of the fact that residents' support and care needs are likely to change over time.

This approach is designed to give effect to the high level principles of [Part D of Policy CS.19](#).

In order to assist in demonstrating compliance with these criteria, applicants should:

- Describe how the proposed design and management of the scheme will ensure fitness of purpose in relation to its proposed role and that of the host settlement.

### 4. Delivery of appropriate management, support and care

The type of management and/or support packages and/or care required will obviously vary in detail from scheme to scheme, depending on the nature and objectives of the scheme. Furthermore the detailed specification of the management, support packages and care may reasonably be expected to change over time, in response to evolving best practice.

In order to assist in demonstrating compliance with these criteria, applicants should ensure a planning application is accompanied by:

- Sufficient information to describe the intended role and function of the scheme.
- Heads of terms for an appropriate planning obligation to be secured via a S106 legal agreement.

In every case, a planning obligation will be sought that includes provisions to secure the delivery of appropriate management and/or support packages and/or care relevant to the type of scheme proposed. Provisions will include:

- Requirements in respect of the range of facilities and services the operator will be required to provide and retain on site.
- Restrictions on the occupancy of all residential units within a scheme to ensure those units are occupied only by residents in receipt of or with access to relevant management and/or support and care packages.
- For all extra care schemes the owner/developer shall ensure that a domiciliary care provider, registered with the Care Quality Commission, is based on site and services are available to residents 24 hours a day every day of the year for as long as a scheme is occupied.
- For all extra care schemes all residents are contracted to receive, as a minimum and for the duration of their occupancy, an entry-level personal care package (expressed as access to an emergency care package).

# Part U: Section 106 Planning Obligations

## Contents

- U1 Relationship between S106 and CIL
- U2 Negotiating S106 Planning Obligations
- U3 Aspects of S106 Planning Obligations
- U4 S106 Viability Assessments
- U5 Publication of Information

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following Core Strategy policies, as appropriate:

- CS.27 Developer Contributions

This section of the SPD provides information and advice on the use of Planning Obligations, known as Section 106 Agreements; two tools the Council can use to ensure that development is acceptable in planning terms. It should be read in conjunction with other parts of the SPD, in particular:

- [Part O: Parking and Travel](#)
- [Part Q: District Heating Networks](#)
- [Part L: Open Space](#)
- [Part S: General and Local Housing Needs](#)

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission. The Council's Planning Policies are set out in the Core Strategy available at [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy).

Key words or terms which appear throughout the document are included in the [Glossary](#).

## U1. Relationship between S106 and CIL

The introduction of the Community Infrastructure Levy (CIL) has restricted the use of S106 planning obligations. The Council cannot 'double charge' developers for infrastructure. The Council is also no longer able to 'pool' more than five separate planning obligations for a particular project.

The provision of affordable housing currently lies outside of the remit of CIL and will continue to be secured mainly through S106 Agreements as well as some exception sites. S106 Agreements and planning conditions will also continue to be used for local infrastructure requirements on development sites, such as site specific highway improvements, provision of local public open space, connection to utility services (as required by legislation), habitat protection, access footpaths and roads, and archaeological remains. The principle is that all eligible developments must pay towards CIL, as well as any site specific requirement to be secured through S106 Agreements.

Large-scale major developments usually also necessitate the provision of their own development specific infrastructure, which are dealt with more suitably through a Section 106 agreement, in addition to the CIL charge. It is advisable for a large scale development to come forward in its entirety at outline application stage, in order for the scheme to be considered as a whole. Outline applications will need to identify phases of development, so that each one can be considered as a separate development and enable CIL to be paid against each phase.

## U2. Negotiating S106 Planning Obligations

The District Council will negotiate financial or other contributions for site related infrastructure improvements to assist in the mitigation of any adverse impacts, so that development may be made acceptable in planning terms. Highway works are usually dealt with as Section 278 Agreements (under the Highways Act 1980). Developers will also have to comply with any conditions applied to planning permission.

### Role of the District Council

As the Local Planning Authority, Stratford-on-Avon District Council has a fundamental legal role and responsibility in implementing the developer contributions process. In particular, the process needs to ensure that a balance is maintained between development-related and competing community infrastructure needs of the District. It is the Council's role to lead Planning Obligation (S.106) negotiations, to notify developers of their CIL liabilities, and to ensure that funds provided by developers are spent as planned, in conjunction with the agreed requirements of other authorities and implementation agencies, including other Council service departments.

### Pre-application Advice

Applicants are strongly encouraged to seek [early pre-application advice](#) (charges apply) with planning officers to agree planning obligations and understand their CIL liabilities prior to submitting planning applications. This approach:

- Ensures that developers are aware of the scale of likely contributions required for a proposed development at the earliest opportunity;
- Assists in determining project viability;

- Provides greater clarity and certainty to the process; and
- Minimises the timescales involved in determining affected planning applications.

### Securing S106 planning Obligations

S106 legal agreements may be:

- Positive, requiring the developer to do something specific;
- Negative, restricting the developer from doing something; and
- Related to specific financial payments based on a formula and often referred to as a commuted sum.

S106 Planning obligations can be secured through:

- In-kind and financial contributions (e.g. the provision of land, facilities, or funds that enable the delivery of development related infrastructure and community needs);
- One-off payments, phased payments, and commuted payments (e.g. funds provided to be invested to enable land and facilities to be maintained to agreed specifications over a period of time);
- Pooled contributions (e.g. towards the cost of a large-scale project, such as improvements to the road network, to be delivered at a later date), subject to the restrictions on pooling imposed by the CIL Regulations.

Timing of implementation is an important factor, especially in the following circumstances:

- If a planning obligation specifies a timescale within which the developer is required to undertake certain actions;
- If the planning permission refers to the phasing of development, the planning obligation may be linked to this phasing arrangement;
- If the planning obligation provides for a commuted sum to be paid to the Local Planning Authority the money must be spent within a specified period;
- If money raised through a planning obligation is not spent within the agreed period, the developer could be reimbursed with the outstanding amount, together with any interest accrued.

### Agreeing S106 Planning Obligations

The procedure for agreeing S106 planning obligations can be summarised as follows:

1. As part of the Pre-Application process, if entered into, the case officer will identify for the developer the likely Planning Obligations Heads of Terms within the Pre-Application Report.
2. After the planning application is validated and the draft 'Heads of Terms' are identified, the Council's Legal Services Team are instructed to prepare a draft S106 Agreement if the Local Planning Authority is minded to approve the application. At this stage the Legal Services Team will require an undertaking for legal fees and proof of ownership title before the initial draft of the S106 Agreement can be produced.
3. On production of the initial draft S106 Agreement this will be circulated to the developer, normally via their acting solicitor for comment and review. Once the developer and the Council have agreed terms, the final S106 Agreement will be signed and sealed, and planning permission will then be granted. Details of the S106 Agreement will be registered on the Council's Land Charges Register.

4. The S106 Agreement and its relevant triggers are monitored through to satisfactory discharge by the Council.

### Find out more:

Further information regarding the Council's pre-application advice service can be found on the Council's website at:

<https://www.stratford.gov.uk/planning-regeneration/pre-application-advice.cfm>

## U3. Aspects of S106 Planning Obligations

Consideration should also be given to the following: **Legal Information**

Developers will need to produce satisfactory proof of title for their particular site and all persons with an interest in the development site including, owners, mortgagees, tenants and option holders must be party to the agreement. The developer will also be expected to pay the Council's legal costs and will need to provide a solicitor's undertaking that the costs will be paid.

### Local Land Charges

S106 planning obligations have to be registered as local land charges. Applicants will therefore need to produce the title to the site and third parties, such as mortgagees, may have to be party to agreements.

### Inflation

All developer contributions payments will be index linked to a relevant index, which at present comprises the BCIS Price Adjustment Formulae Indices for all highways related obligations and the Retail Price Index for all other obligations.

### Late Interest Payments

In the event of a delay in making any payment required under a S106 Agreement, interest shall be payable at a rate above the base lending rate set at that point and will be applied for the period from the date that the relevant payment falls due to the date of actual payment.

### Triggers for S106 Planning Obligations

S106 planning obligations are normally triggered on commencement of development, i.e. the date on which works to begin the development start, as defined by the carrying out of a material operation (section 56 of the 1990 Town and Country Planning Act). This may be earlier or later, e.g. first occupation, or for significant major development it may be phased through the development process.

### Varying a S106 Planning Obligation

Applicants can seek to vary a S106 planning obligation. This can only be done through a formal 'deed of variation'.

## U4. S106 Viability Assessments

In the event of anticipated viability issues, the developer is advised to contact the Council's Planning Agreements Officer at an early stage to discuss ways of addressing the requirements for S106 planning obligations and to see if any exemptions can be made.

The Council will test the viability by seeking other enhancements by various means of cash-flow improvements, for example, deferring contribution payments. If, following an investigation of the alternative options, there is still a viability concern then the Council will expect the submission of a viability appraisal. The viability appraisal is an 'open book' assessment which should include information covering at least the following issues:

- Existing use values;
- Proposed use values (sales and rental);
- Demolition and construction costs;
- Finance and marketing costs;
- Assumed yield;
- Abnormal site costs;
- Development phasing/timetable.

If the Council alters the planning obligation sought on viability grounds, a clause will be built into the S106 Agreement which requires a review of the viability situation unless the development is completed within a defined timeframe. Information about Affordable Housing Clauses may be found on the SDC website '[Developing Affordable Homes](#)' and information on Off-Site Affordable Housing may be found in [Part S : General and Local Housing Needs](#).

## U5. Publication of Information

It is important that the negotiation of S106 planning obligations and subsequent expenditure of any contributions received from developers in a transparent and accountable way. The Council will maintain an ongoing overview of progress with the implementation of site specific and community infrastructure projects.

Because S106 Planning Obligations form part of the planning permission, which is a public document, the S106 information will be placed on the public Planning Register together with the planning decision notice. This information will usually be made available on the Council's website.

In respect of information relating to the viability assessments of S106 Planning Obligations, if a viability assessment is submitted in relation to a valid planning application, then the Council will treat the submission as a public document, as set out in Paragraph 57 of the NPPF and in line with General Data Protection Requirements 2018. If it is submitted as part of the pre-application process the Council endeavours to keep all pre-application enquiries confidential. However, the Council cannot guarantee this and the applicant is advised to provide a clear justification when the application is submitted why they consider the information is confidential.

### Find out more:

Planning practice guidance

<https://www.gov.uk/guidance/viability>

# Part V: Climate Change Adaptation and Mitigation

## Contents

V1	How to Use this Section – The 5 Principles and Checklists
V2	Retrofitting into Existing Buildings
V3	Principle 1: Increasing Accessibility
V4	Principle 2: Improving Energy Efficiency in Buildings
V5	Principle 3: Adapting to Higher Temperatures
V6	Principle 4: Mitigating Flood Risk
V7	Principle 5: Mitigating Biodiversity Loss
V8	Case Studies
V9	Climate Change Checklist

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of the following [Core Strategy](#) policies in relation to climate change mitigation and adaptation, as appropriate:

- CS.2 Climate Change and Sustainable Construction
- CS.3 Sustainable Energy
- CS.4 Water Environment and Flood Risk
- CS.5 Landscape
- CS.6 Natural Environment
- CS.7 Green Infrastructure
- CS.9 Design and Distinctiveness
- CS.19 Housing Mix and Type
- CS.20 Existing Housing Stock and Buildings
- CS.22 Economic Development
- CS.25 Healthy Communities
- CS.26 Transport & Communications
- AS.1-9 Area Strategies
- AS.10 Countryside and Villages
- AS.11 Large Rural Brownfield Sites

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within SPD will make it easier for the Council to grant planning permission.

Key words or terms which appear throughout the document are included in the [Glossary](#)



## V1. How to use this section: The 5 Principles and Checklists

Stratford-on-Avon District Council is committed to tackling climate change, and in July 2019 the Council declared a 'Climate Emergency' as a pledge to take local action to contribute to national carbon neutral targets.

The National Planning Policy Framework (NPPF) recognises the role of the planning system in supporting the transition to a low carbon future by helping to shape places that contribute to reductions in greenhouse gas emissions, minimise vulnerability and improve resilience.

In February 2019 the independent Committee on Climate Change assessed whether homes are adequately prepared for the challenges of climate change. The Committee identified in its report ['UK Housing: Fit for the Future?'](#) a number of actions including the need for new homes to be built to be low-carbon, energy and water efficient and climate resilient.

In a joint report by the Royal Town Planning Institute and Town and Country Planning Association ['Rising to the Climate Crisis: A Guide for Local Authorities on Planning for Climate Change' \(Dec. 2018\)](#) it is acknowledged that whilst work is needed at an international and national level, local action is also needed as the solutions to many of the adverse impacts of climate change need to be developed locally.

Land use planning can contribute to the transition to a low-carbon future, centred on the following 5 principles based around two key themes:

### 1. Reducing greenhouse gas emissions

- Principle 1: Increasing accessibility - reducing the need to travel by private car
- Principle 2: Improving energy efficiency

### 2. Implementing adaptation and mitigation measures

- Principle 3: Adapting to higher temperatures
- Principle 4: Mitigating flood risk
- Principle 5: Mitigating biodiversity loss

This SPD relates to all types of development, including householder applications, changes of use, new build, as well as the retrofitting of renewable and low-carbon technologies and adaptation measures to existing buildings. To assist in the application of the SPD, checklists have been provided within Appendices 1-3 enabling applicants to provide a minimum level of climate change adaptation and mitigation measures, centred around the 5 key principles, within their schemes. Detailed guidelines for how to apply the checklists to new development proposals is provided within [Section V9](#). Please note that the checklists do not apply to proposals relating solely to the retrofitting of measures. Advice in this respect is set out in [Section V2](#).

Many of these principles apply not only to new development but also to other types of schemes promoted by local authorities and other agencies, such as public parks, playing fields and transport projects. As such the principles and measures set out within this SPD should be applied to a wide range of other schemes wherever possible.

### Find Out More

Case Studies that demonstrate the 5 key principles being applied in practice within existing developments in the District and County are provided within [Section V8](#).

## V2. Retrofitting into existing buildings

The existing building stock will continue to form the vast bulk of buildings in the District. As such, most of the climate impacts relating to buildings will come from those already built. The Council is therefore supportive of property owners who wish to retrofit appropriate adaptation and mitigation measures into their existing buildings.

Whilst the use of checklists primarily relates to the incorporation of measures into new developments, this partly includes the existing building stock through applications for conversions, changes of use and residential householder developments.

However, many of the measures set out in this SPD also relate to retrofitting into existing buildings and the guidance will be applicable to property owners who are thinking about introducing or enhancing measures within their buildings that help to address the effects of climate change.

It is possible to make significant annual energy and water savings, and reduce greenhouse gas emissions through implementing solutions which improve the performance of existing buildings to make them more resilient to climate change. This process is known as retrofitting and relates to both residential and non-residential buildings.

### V.2.1 Permitted Development and Planning Permission

The type, location and scale of the climate change measures proposed on a specific site will determine whether or not planning permission will be required. Some measures may be capable of being installed without needing planning permission. This is known as 'permitted development'. Please note that not all homes and buildings have permitted development rights and they may vary by individual property. Guidance related to Permitted Development Rights can be found via the Planning Portal and assistance may also be provided via Stratford-on-Avon District Council's Planning Service in this respect. It is also possible to establish whether a proposal is lawfully 'permitted development' or whether it requires planning permission by applying for a Lawful Development Certificate.

Should permission be required then proposals will be considered in terms of their impact within the locality and a balanced judgement will be required taking into account factors such as design, climate benefits, and impact on heritage and local amenity.

#### Find Out More

Further information on Permitted Development is available at the Planning Portal at:

- [https://www.planningportal.co.uk/info/200187/your\\_responsibilities/37/planning\\_permission/2](https://www.planningportal.co.uk/info/200187/your_responsibilities/37/planning_permission/2)
- [https://www.planningportal.co.uk/info/200140/greener\\_homes](https://www.planningportal.co.uk/info/200140/greener_homes)

Information on Lawful Development Certificates is available from the Planning Portal at:

- [https://www.planningportal.co.uk/info/200187/your\\_responsibilities/37/planning\\_permission/3](https://www.planningportal.co.uk/info/200187/your_responsibilities/37/planning_permission/3)

Information on how to apply for planning permission to Stratford-on-Avon District Council is available at:

- <https://www.planningportal.co.uk/info/200127/planning>
- <https://www.stratford.gov.uk/planning-building/the-application-process.cfm>
- <https://www.stratford.gov.uk/planning-building/pre-application-advice.cfm>

The Council's Planning Service can be contacted by:

- Email: [planning.applications@stratford-dc.gov.uk](mailto:planning.applications@stratford-dc.gov.uk)
- Tel: 01789 267575

## V.2.2 Sections within this SPD that are applicable to retrofitting

SPD Section	Measures that may fall under Permitted Development (PD).
<b>V.3.1 Density and Mixed Uses</b> <ul style="list-style-type: none"> <li>• Digital technological adaptations</li> </ul>	Not defined as 'Development' so does not need planning permission.
<b>V.3.4 Cycling</b> <ul style="list-style-type: none"> <li>• Cycle Storage</li> <li>• Electric Charging Points</li> <li>• Shower facilities in non-residential developments</li> </ul>	Storage facilities, charging points and showers in an existing building would be PD. Recommend checking the Planning Portal for other advice on the need for planning permission.
<b>V.3.5 Planning for the Car</b> <ul style="list-style-type: none"> <li>• Electric Charging Points</li> </ul>	Recommend checking the Planning Portal.
<b>V.4.1 Reducing the need for energy</b> <ul style="list-style-type: none"> <li>• Orientation and window positioning to maximise solar gain</li> <li>• Use of planting to provide shade in summer</li> <li>• Natural ventilation</li> <li>• Food Growing</li> </ul>	For new or changed windows recommend checking the Planning Portal. Planting is not development and does not need planning permission.
<b>V.4.2 Using Energy More Efficiently</b> <ul style="list-style-type: none"> <li>• Higher levels of insulation</li> <li>• Solar/low energy internal and external lighting</li> </ul>	Internal insulation and lighting is not development and does not need planning permission.
<b>V.4.3 Using Renewable Energy</b> <ul style="list-style-type: none"> <li>• Photovoltaics (PV)</li> <li>• Solar Water Heating</li> <li>• Micro Wind Turbines</li> <li>• Air Source Heat Pumps</li> <li>• Ground Source Heat Pumps</li> <li>• Water Source Heat Pumps</li> <li>• Biomass Heating</li> <li>• Micro Hydro</li> <li>• Thermal Stores</li> </ul>	Recommend checking the Planning Portal.
<b>V.4.4 Using Clean and Efficient Fossil Fuels</b> <ul style="list-style-type: none"> <li>• Combined Heat and Power</li> </ul>	Recommend checking the Planning Portal.
<b>V.5.1 Shade and Ventilation – The Cooling Hierarchy</b> <ul style="list-style-type: none"> <li>• Glazing designed for natural ventilation and reducing heat gain</li> </ul>	For new or changed windows recommend checking the Planning Portal.
<b>V.5.2 Use of Cool Materials</b> <ul style="list-style-type: none"> <li>• Exterior materials that minimise heat gain in summer</li> </ul>	Recommend checking the Planning Portal.
<b>V.5.3 Green Infrastructure</b> <ul style="list-style-type: none"> <li>• Green Infrastructure</li> <li>• Green/Brown/Blue Roofs</li> <li>• Green Walls</li> </ul>	Planting is not development and does not need planning permission.
<b>V.6.1 Sustainable Urban Drainage Systems (SuDS)</b> <ul style="list-style-type: none"> <li>• Rain gardens</li> </ul>	Likely to be permitted development.
<b>V.6.2 Water Efficiency and Rainwater Harvesting</b> <ul style="list-style-type: none"> <li>• Rainwater harvesting such as water butts</li> </ul>	Likely to be permitted development.

<b>V.6.3 Flood Risk Design Principles</b> <ul style="list-style-type: none"> <li>• Use of permeable surfacing</li> <li>• Green Infrastructure</li> </ul>	For surfacing recommend checking the Planning Portal. Planting is not development and does not need planning permission.
<b>V.7.1 Bio-enhancing existing green space</b> <ul style="list-style-type: none"> <li>• Using different varieties of native species for landscaping</li> </ul>	Planting is not development and does not need planning permission.
<b>V.7.2 Background Wildlife Capacity</b> <ul style="list-style-type: none"> <li>• Wildlife Friendly planting</li> <li>• Wildlife habitat enhancements such as bird/bat boxes, hibernacula, hedgehog holes and homes</li> <li>• Trees and hedgerows</li> </ul>	Planting is not development and does not need planning permission.
<b>V.7.3 Local Wildlife Nodes and Blue/Green Corridors</b> <ul style="list-style-type: none"> <li>• Green/Brown/Blue roofs</li> <li>• Greening and Blueing outdoor spaces</li> </ul>	Planting is not development and does not need planning permission.

### Find Out More

Relevant Planning Portal links to a variety of retrofitting measures is set out below:

Electric Vehicle Charging Points:

- [https://www.planningportal.co.uk/info/200130/common\\_projects/16/electrics/2](https://www.planningportal.co.uk/info/200130/common_projects/16/electrics/2)

Glazing:

- [https://www.planningportal.co.uk/info/200130/common\\_projects/76/energy\\_saving/2](https://www.planningportal.co.uk/info/200130/common_projects/76/energy_saving/2)

Home energy generation:

- [https://www.planningportal.co.uk/info/200130/common\\_projects/75/home\\_energy\\_generation](https://www.planningportal.co.uk/info/200130/common_projects/75/home_energy_generation)

Lighting:

- [https://www.planningportal.co.uk/info/200130/common\\_projects/35/lighting](https://www.planningportal.co.uk/info/200130/common_projects/35/lighting)



Ideas for retrofitting climate change adaptation and mitigation measures into homes

### **V3. Principle 1: Increasing accessibility - reducing the need to travel by private car**

Private cars contribute towards a large proportion of the UK's total carbon emissions, with transport being the largest contributor to greenhouse gas emissions in Britain. This has primarily been caused by an increase in the length of trips taken and a modal shift towards the car as well as changing land use patterns. Air pollution is a major factor in contributing towards poor health. However, by encouraging people to use more sustainable modes of transport such as public transport and by encouraging walking and cycling, this can help lead to a reduction in poor air quality as well as having positive mental health and physical benefits. There are opportunities for more sustainable transport choices and healthy lifestyles through well planned development and providing practical and sustainable alternatives to private car travel is therefore critical to tackling the climate crisis.

[A report by the Urban Transport Group 'Making the Connections on Climate' \(Nov. 2019\)](#) highlights the connections that can be made on climate change between transport and energy, and between transport and the decarbonisation and adaptation of the built interventions. Rail is a low carbon mode of transport and it can and will play a key role in helping to minimise the carbon impacts of transport through modal shift. Consideration should be given to enhancing cycle facilities at stations in order to help mitigate the impact from development and encourage interconnecting travel by more sustainable modes of travel.

However, Stratford-on-Avon District is an area of relatively small towns and rural settlements and this context needs to be borne very much in mind when considering viable alternatives to the private car and light commercial vehicles. Where possible, routes should form a coherent network linking both existing and new infrastructure to key destinations and trip origins. These networks should encourage and allow people to travel sustainably without needing to use a car. As it is likely that people will be encouraged to work from home more regularly in the future, good design to facilitate this is supported and encouraged. Furthermore, homeworking can lead to a reduction in car travel.

This section of the SPD provides details of how interventions can be achieved in new development within the District, as well as investment in infrastructure. There are likely to be other new and emerging technologies in the future and therefore development proposals are not restricted to only those technologies listed within it.

#### **V.3.1 Density and Mixed Use**

Density plays an important part in reducing people's reliance on using a private car. Higher density developments can make destinations easily accessible by walking or cycling and can bring people together to support local public transport, facilities and local services. Due to Stratford District being rural in nature, an appropriate density will need to be considered for each new development which will help form the context, accessibility, proposed building types, form and character of the area.

Mixed use developments can provide a wide range of services and facilities including employment opportunities, schools, healthcare provision, recreational and leisure facilities, open green spaces and many more. These developments will be expected, where appropriate, to include good cycle and pedestrian access to these facilities and to be located within 10 minutes (800m) walking and cycling distance of dwellings.

### Find Out More

Further information on how developments can be designed to incorporate principles of higher density and mixed uses is available in Part A: Achieving Good Design

### Case Study

An example of how higher densities can be successfully used order to reduce the need to travel by the private car is in the [Case Study of the Arden Quarter, Stratford-upon-Avon](#) in [Section V8](#) (Case Study 1)

## V.3.2 Walkability/Permeability

Built form defines a pattern of streets and development blocks. These should be appropriate to the location enabling people to easily move both within and into and out of the site. New developments should provide active frontages that are directly accessible by foot and overlooked from the street. This can help in reducing crime by providing natural surveillance and ensuring streets are community friendly which in turn encourages walking and social interaction.

Developments should provide permeable networks as these encourage walking and cycling and make places easy to navigate through, especially for visitors. Signage should be provided on all new developments to show the main pedestrian and cycling routes to village centres and key facilities and to make it easy for pedestrians and cyclists to find their way through new developments. Signage should be clear and include the distance to key facilities and approximate timings to encourage and promote walking and cycling. Consideration should be given to providing seating/resting places along well used routes to assist less mobile persons to reach key facilities and litter bins in order to prevent litter and ensure that these routes remain attractive.

Cycle and walking routes should become green/blue corridors to encourage wildlife and habitats as well as making these routes more attractive. This could also include tree lined streets.

Where possible, routes should form a coherent network linking both existing and new infrastructure to key destinations and trip origins. These networks will allow people to travel sustainably without needing to use a car.

### Case Study

For an example of how to make developments more pedestrian friendly, please see the [Case Study of Northgate, Warwick](#) in [Section V8](#) (Case Study 2)

## V.3.3 Integrated Active Travel

All modes of transport should be positively designed in the built form. A well designed and connected network will ensure that people are given the maximum choice as to how they travel including by rail, bus, other public transport, walking and cycling. Development should be directed to areas that minimise the need to travel and maximise the use of sustainable modes

of transport, with walking and cycling actively being promoted to and from the development site, including employment sites. This includes maximising the number of internal pedestrian and cycle routes through the site as well as maximising the number of external routes into and out of the site. All large-scale developments should ensure that key facilities such as schools, shops, GP surgeries, recreation and play areas and bus stops are well connected by walking, cycling or public transport provision.

Sustainable modes of transport including the introduction of car clubs, car sharing opportunities, park and ride facilities and rail will all be supported. In accordance with Core Strategy Policy CS.26, travel plans should be provided on relevant developments to mitigate unacceptable transport impacts which directly arise from the development in order to promote sustainable travel patterns for work and education related trips.

New homes should receive guidance/information booklets providing information on a range of measures such as sustainable travel options, composting initiatives, renewable energy options and contact details of organisations who can provide advice and guidance.

Cycling and walking provision should provide suitable crossing facilities where necessary as well as appropriate lighting levels and security measures to ensure the safety and security of pedestrians and cyclists. When considering the provision of pedestrian and cycling routes and facilities these should be designed for all users including elderly and disabled residents.

Where there is existing pedestrian/cycling provision, developments should consider whether it is suitable for its proposed use, taking into consideration existing and future links to public transport. These should be improved where appropriate.

[The National Design Guide \(Oct. 2019\)](#) forms part of the government's national planning practice guidance and identifies 'movement' as one of ten characteristics of well-designed places, and highlights the need for an integrated network for all modes of transport giving people maximum choice in how to make their journeys, prioritising pedestrians and cyclists.

### Case Study

An example of how a residential development can be designed to promote walking, cycling and public transport as realistic modes of travel is in the [Meon Vale Case Study](#) in [Section V8](#) (Case Study 3)

#### V.3.4 Cycling

Cyclists should be directed to routes that are free from motorised traffic. Where this is not possible and cycle routes are provided where there is a higher volume and speed of motor traffic, these should be well designed, segregated spaces to accommodate all cycle traffic. Cycle infrastructure should provide connections that link origins and key destinations, provide direct routes and give priority to cyclists at junctions.

An appropriate amount of cycle storage guided by the standards set out in [Tables O1 and O2 of the Development Requirements SPD](#) must be provided for each new dwelling as well as on new employment, leisure, retail and commercial development sites. This should be secured, covered, have good surveillance and be sited conveniently Therefore, consideration will need



to be given to the overall design of cycle storage at an early stage of the planning process and full details of this, including the location, type of storage, spacing, numbers, method of installation and accessibility to the storage should be provided with the planning application.

Cycle storage provision will also be required in householder proposals where additional bedrooms are proposed, and where sufficient site area is available.

Shower facilities should be considered and integrated into non-residential developments to facilitate commuting by cycle.

Consideration should be given to electric charging points for e-bikes on new developments as well as grouped locations for cycle hire. This would need to be considered on a case by case basis as it will be dependent on the size of development.

### Find Out More

Further guidance on cycling and cycle parking can be found in [Part O: Parking and Travel](#)

### V.3.5 Planning for the Car

Policy CS.15 of the Core Strategy seeks to distribute development to sustainable locations in the District, with most development taking place in Stratford-upon-Avon and the Main Rural Centres and through the creation of two new settlements. This remains the principle mechanism for addressing Climate Change in the District Council's planning policy through the delivery of sustainable development and the promotion of linked trips through improved facilities for walking, cycling and public transport, leading to reduced reliance on the private car.

Car free developments should be considered in locations where the following may apply:

- Extension, alteration or re-use of an existing building with no access to parking;
- Reversion of a previously converted property to its original residential use, including flats above shops;
- Where 100% cycling or walking provision is considered to be a viable option;
- Highly sustainable locations within a 10-minute walk or cycle (800m) of a full range of services, facilities and frequent public transport services.

Consideration should be given to good design and layout in order to accommodate visitor parking and communal parking. Where there are communal parking areas these should be broken up by planting where possible to improve the design and layout, help to improve biodiversity and assist with surface water drainage.

Developments should aim to create streets that control the speed of vehicles using appropriate traffic calming measures. For residential streets, one of the main objectives should be to achieve a maximum design speed of 20mph.

In conjunction with WCC Highways, 'Idle-free zones' (defined areas where vehicles are banned from running engines whilst stationary) outside of sensitive sites such as schools, shops, hospitals and GP surgeries will be strongly encouraged, so as to reduce air pollution and carbon emissions caused by idling vehicles.

### **Electric Vehicle Charging**

At least one electric vehicle charging point per unit should be provided for residential developments, with dedicated parking or 1 charging point per 10 spaces where there is unallocated parking. For commercial, retail and industrial at least 10% of parking spaces should have electric charging points. These may be phased with 5% of initial provision and the remainder being provided at an agreed trigger level. The minimum specifications for charging points is set out in [Part R of the Development Requirements SPD](#) and higher specifications of charging infrastructure is welcomed by the Council.

#### **Find Out More**

Further information can be found in [Part R: Air Quality](#)

## V4. Principle 2: Improving energy efficiency in buildings

The UK needs to increase its use of renewable energy for a number of reasons. The increasing impact of the climate change emergency means that carbon dioxide emissions and other greenhouse gases must be reduced. Global energy demand is projected to rise over the coming years as a result of population growth and the desire for higher living standards. At the same time, affordable finite resources (including crude oil and natural gas) are depleting.

Using renewables will help the UK to recover some of its energy self-sufficiency together with assuring that more imported energy comes from reliable sources. An RTPI Research Paper '[Planning for a Smart Energy Future](#)' (July 2019) sets out the main features of 'smart development' that use smart technologies to minimise their carbon emissions. There are likely to be other new and emerging technologies in the future and therefore development proposals are not restricted to only those technologies listed within the Research Paper.

Water efficiency measures are encouraged in order to reduce the demand on water resources, reduce water use and cut down on domestic carbon emissions as well as those from treatment of water. Proposals that encourage technologies for the efficient use of water will support Severn Trent's Water Resource Management Plan (2019).

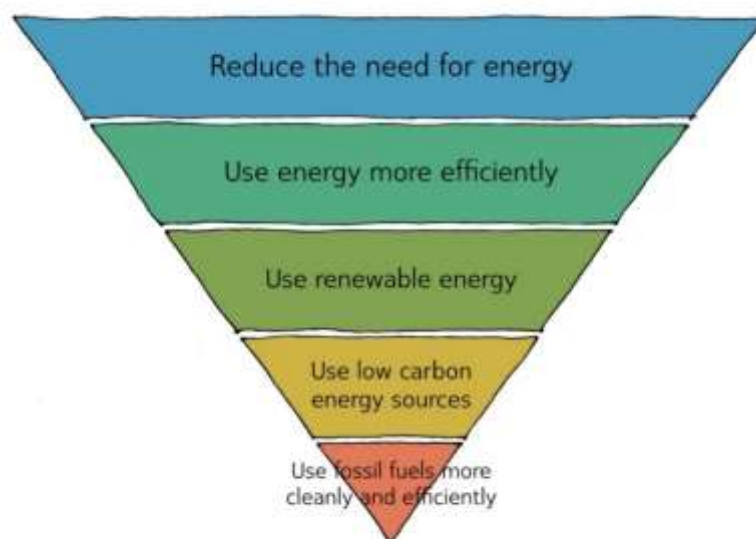
Changes to Part L and Part F of the Building Regulations as part of [The Future Homes Standard have recently been consulted on by the Ministry of Housing Communities and Local Government \(MHCLG\)](#). This will require new build homes to be future-proofed with low carbon heating and high levels of energy efficiency, and is expected to be introduced by 2025. As such, the measures proposed in this SPD accord with the direction of national policy and building regulations.

### The Energy Hierarchy

Well-designed schemes and a fabric first approach should be considered at the beginning of the design process. The building of more sustainable buildings will require the Energy Hierarchy to be taken into account from the outset of the design process.

In order to achieve low carbon development, the Energy Hierarchy provides the most practical and cost effective methodology. Developments should consider how energy use can be minimised and the order in which these energy saving and 'green' energy measures should be prioritised are set out in the Energy Hierarchy below. Consideration should also be given to measures which will help to reduce fuel poverty in households where those who are on lower incomes can't afford to keep themselves warm at a reasonable cost. [The National Design Guide \(Oct. 2019: Ministry of Housing, Communities and Local Government\)](#) identifies the need for new developments to follow the energy hierarchy in order to conserve natural resources.

## The Energy Hierarchy



### V.4.1 Reducing the Need for Energy

Developments should ensure that they are well designed in order to minimise overheating and achieve internal comfort. The following should be considered:

- Design, layout and aspect of internal spaces that reduces the risk of overheating and fuel poverty
- Insulation, air tightness and thermal mass
- Management of solar gain to minimise in summer and maximise in winter
- Natural ventilation which can be easily closed to maximise air tightness
- Positioning, size and orientation of windows
- Outdoor space for food growing.

Passive solar design should be considered as this exploits free heat and light energy provided by sunlight entering buildings through windows and uses air movement for ventilation. In order for this to be effective, the initial design will need to take into account sun orientation and potential shading by landscape design or other buildings. This should be considered at the earliest stage of planning the layout of the development.

Public and other open spaces should be well designed and incorporate planting, structures and water for comfort and appeal. This will ensure there is shade and shelter for users, improve air quality and help to mitigate the effects of pollution. Deciduous trees can help to provide shade to buildings and manage solar gain when needed in the summer months.

New developments should use sustainable materials; for example, using recycled or composite materials, as well as those that have been locally sourced and therefore reduce the carbon footprint of the development both during construction and over its lifetime.

Proposals for new dwellings and domestic buildings which incorporate renewable energy technology prior to occupation, in a manner which would be Permitted Development if the building or dwelling house had already been lawfully occupied, will be strongly supported.

Proposals which incorporate renewable energy technology in new domestic premises in a manner which exceeds Permitted Development thresholds are to be encouraged and will be assessed on their merits against the provisions of the Development Plan and government guidance.

Self-grown food by householders can reduce carbon emissions by reducing food miles as well as the number of car journeys used to visit supermarkets. Allotments should therefore be provided on new developments. If allotments require land drainage, they should ensure that they have a suitable outfall and do not increase flood risk to surrounding land. Rainwater reuse will be encouraged on allotments in addition to water butts, such as rainwater harvesting systems as these reduce the reliance on mains water. They should not be sited on areas that are prone to waterlogging, flooding, or in areas shaded by buildings and trees. Soil should be of good quality and be suitable for food production where possible. A mains water supply is essential, as well as a shed and a connected water butt for each allotment plot, as well as ensuring they can be easily accessed by adequate cycling and walking provision.

The concept of 'Edible Planting' is where fruiting and nut trees (such as apple, pear, plum etc.), fruiting shrubs (such as raspberry, blackcurrant, gooseberry etc.) and herbs and perennial herbs (such as basil, parsley, sage etc.) are planted for both human harvesting and as an animal food source is supported.

The production of compost by householders both encourages the growing of food in gardens, and reduces the amount of food waste sent to landfill. It can also produce a more sustainable form of fertilisation when compared to commercially available composts, mulches and fertilizers. Developers are strongly encouraged to include composting facilities in residential development rear gardens, for example a compost bin to be provided for each new dwelling. If this is not suitable, consideration should be given to providing communal home composting areas on new developments. Communal home composting areas should be situated in areas which are easily accessible and would not have an adverse impact on the local community.

### Find Out More

Passivhaus is a standard for energy efficiency in a building and can be applied to both residential and non-residential development. The Council welcomes Passivhaus schemes within the District and further information on the standard can be found at:

<http://passivhaustrust.org.uk/>

### Case Study

An example of a Passivhaus scheme in the District is the [Wootton Wawen Case Study](#) in [Section V8](#) (Case Study 6)

## V.4.2 Using Energy More Efficiently

Dwellings and other buildings should ensure that the highest level of insulation as possible is provided, including thermal bridge free design and ensuring buildings are air tight, and that lighting is the most energy efficient– for example, by using LED lightbulbs. Air tightness is equally important and natural ventilation should not compromise air tightness. Where dwellings include integrated appliances these should be the most energy efficient with a minimum of A+ rating. Building Regulations currently set out minimum standards for energy efficiency in new

buildings, however it is desirable to incorporate energy efficiency measures that go well beyond these minimum standards and the Council would welcome such approaches.

In order to help make properties more resilient to flooding in future, the installation of self-closing airbricks in flood risk areas is encouraged for all new developments. This will help to mitigate future impact of surface water flooding as a result of climate change. For further mitigation measures in relation to flood risk see V6. Principle 4: Mitigating Flood Risk.

### V.4.3 Using Renewable Energy

There are a range of options available to incorporate renewable energy into new developments, and the best solution will depend upon the individual circumstances of a particular proposal. The Environment Agency should be consulted on all proposals beforehand as permits or, in some cases, abstraction licences may be required for which consent is not automatically given. The main options for renewable energy are set out below.

There are likely to be other technologies emerging in the future and therefore the SPD does not restrict the use of only applying the technologies within this section; other new and emerging technologies will be considered on their merits.

#### Photovoltaics (PV)

Solar Panel systems, also known as PV, capture the sun's energy using photovoltaic cells. The cells do not need direct sunlight to work as they can still generate some electricity on cloudy days but it is important to avoid shading. Small amounts of shading can cause disproportionate performance penalties and software exists to assess effects of shading and should be utilised in cases of doubt.

The cells convert sunlight into electricity which can be used to run household appliances and lighting.

The installation of PV panels will need to be sensitive to all developments, particularly those in Conservation Areas and relating to Listed Buildings. In such cases, ground-mounted PV panels may be preferable. Guidance on how Photovoltaics may be installed on historic buildings or within historic sites is available in the following Historic England report: [Energy Efficiency and Historic Buildings: Solar Electric \(2017\)](#).

The best position for solar panels would be on a south facing roof, due to the intensity of the sun for longer periods of time. However, they are still effective on east and west facing roofs too.



Bishopton, Stratford-upon-Avon

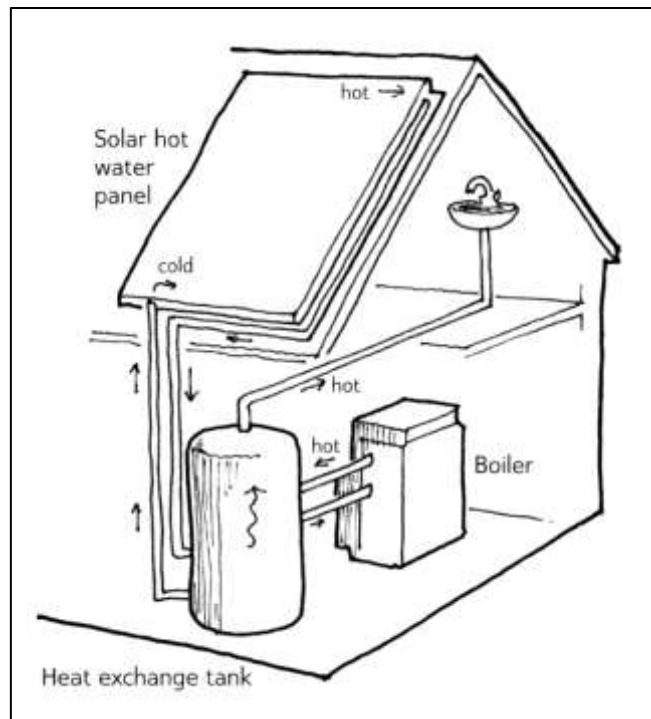
### Case Study

For an example of a development in the District where solar panels have been integrated within a small housing development, please see the [Hampton Lucy Case Study](#) (Case Study 4) in [Section V8](#)

### Solar Water Heating

These systems or 'solar thermal' systems use free heat from the sun to warm up domestic hot water. If solar energy is unavailable or there is a desire to have hotter water, heating should be provided but note that gas boilers are now not preferred and these will be inadmissible after 2025.

Once the initial installation has taken place, the hot water costs should be reduced and solar hot water is a green, renewable heating system which can reduce carbon dioxide emissions. Solar collectors are usually installed on roofs, but they can also be ground-mounted.



Solar Water Heating System

### District Heating

District heating schemes deliver heating and hot water to multiple buildings from a local plant. District heating can use low carbon energy sources, including renewable energy technology such as water source or ground source heat pumps. In some cases, it can be combined with electricity production in combined heat and power (CHP) or in combined cooling, heat and power (CCHP).

### Find Out More

Further information is available within [Part Q: District Heat Networks](#)

### Micro Wind Turbines

These generate electricity by harnessing the power of wind. Wind turbines catch the wind by using large blades and as the wind blows, the blades are forced round, driving a turbine which generates electricity.

Electricity generation is generally around a few hundred watts which would be enough to power energy efficient light bulbs on a windy day throughout a typical home.

Micro wind turbines are often only efficient if installed in undisturbed air flow, i.e. well clear of roofs and trees. If attached to buildings, the design should limit mechanically transmitted noise within the building.

### Air Source Heat Pumps

These absorb heat from the outside air which can then be used to provide hot water and to heat the building, preferably by under floor systems which provide greater efficiency than radiators.

Although heat pumps will have some impact on the environment as they require electricity, the heat which is extracted from the air is constantly being renewed naturally.

Depending on the type of fuel that is being replaced the home could see lower carbon emissions.

Careful consideration should be given to noise issues that may be associated with this technology. To ensure that there are no negative impacts on the street scene or character of the area, design and siting must also be given appropriate consideration.

#### Case Study

For an example of a development in the District where renewable energy has been integrated within housing, please see the [Hereburgh Way Case Study](#) (Case Study 5) in [Section V8](#)

### Ground Source Heat Pumps

Ground source heat pumps are used to heat underfloor or warm air heating systems, hot water and radiators, maximum efficiency is normally obtained with underfloor heating. They use pipes that are buried underground to extract heat from the ground, although boreholes should also be considered as they take up less space which means that there is more land available for other infrastructure such as planting, ponds etc. The ground source heat pump circulates a mixture of water and antifreeze around a pipe, called a ground loop, which is buried in the garden. Heat from the ground is absorbed into fluid which passes through a heat exchanger and into the heat pump. The benefits of using a heat pump is that as the ground remains at a fairly constant temperature under the surface, the pump can be used throughout the year.

If these replace conventional electric heating, depending on which fuel is being replaced there could be lower home carbon emissions. As well as heating the home it will also heat water and minimal maintenance is required.



### Water Source Heat Pumps

These work on a similar principle to air source and ground source heat pumps. They take advantage of the consistent temperatures found in a body of water rather than taking advantage of the heat in the air or the ground.

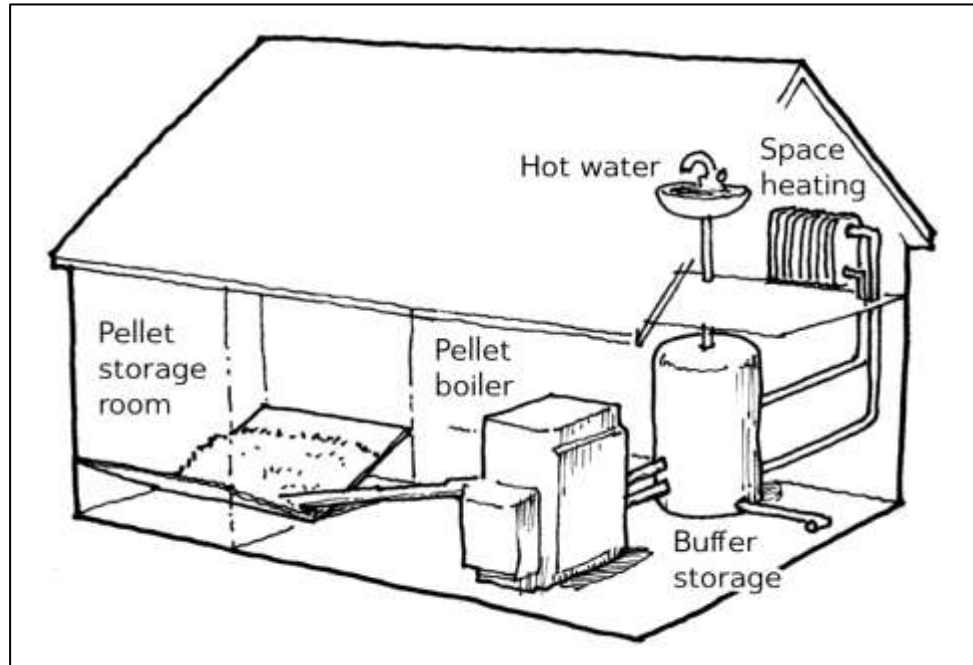
There will be a series of pipes submerged in a body of water, such as a river, stream or lake. A heat pump pushes working fluid through the network of piping, and the fluid absorbs the heat from the surrounding water as it goes.

The fluid is then compressed by an electric compressor which raises the temperature. A heat exchanger can be used to remove the heat from the working fluid, providing hot water that can be used for space heating (radiators but preferably under floor heating for maximum efficiency). Once the heat is removed from the fluid via the exchanger, it is pumped back through the pipes, completing a continuous cycle.

### Biomass Heating

Proposals for Biomass will be considered on a case by case basis and will only be appropriate in certain locations, where there are no unacceptable environmental or amenity impacts.

This is a low-carbon and renewable energy source which burns solid fuels such as wood chips and logs to provide heating and hot water. A stove burns logs or pellets to heat up a single room and a back boiler to provide water heating as well. The boiler burns logs, pellets and chips and is connected to a hot water system and central heating. Biomass heating is likely to require a permit from the Environment Agency.



A typical biomass system

#### Find Out More

Please see the following website for further information:

<https://www.energysavingtrust.org.uk/renewable-energy>

## Micro Hydro

In small streams or larger rivers, small or micro hydroelectricity systems or just hydro systems (also called hydropower systems) can produce enough electricity for lighting and electrical appliances in an average home.

All streams and rivers flow downhill and before the water flows downhill it has potential energy due to its height. The greater the height and the more water there is that is flowing through the turbine, the more electricity that can be generated.

These systems can generate for 24 hours a day, generating all the electricity that you need and more. Excess power that is generated can be used to heat up the home and hot water too. Hydroelectricity is green, renewable energy and doesn't release harmful carbon dioxide or other pollutants into the air.

## Thermal Stores

These can be used with individual renewable heating technology or by combining different renewable heating technologies. They can also be used as a renewables technology with a conventional boiler or immersion heater.

Thermal stores have been proven to work well with wood-fuelled biomass boilers, heat pumps, wind energy and solar water heating systems.

These are good ways of storing and managing renewable heat until it is required. Battery storage allows for energy to be stored for use at a later time. For example, if solar panels are installed these can generate electricity during daylight. If a battery is in place, the energy can be used later when the sun is no longer shining.

## V.4.4 Using Clean and Efficient Fossil Fuels

### Combined Heat and Power (CHP)

This is a technology that is highly efficient, capturing and utilising the heat that is a by-product of the electricity generation process. As CHP generates heat and power simultaneously it can reduce carbon emissions by up to 30% when compared to the separate means of conventional generation via a boiler and power station. Domestic CHP systems are currently powered by LPG or mains gas, however in the future there may be models powered by oil or bio liquids. This technology is still considered to be 'low carbon' even though LPG and gas are fossil fuels as it can be more efficient than just burning a fossil fuel for heat and electricity from the national grid. CHP systems are likely to require a permit from the Environment Agency.

### Building Research Establishment Environmental Assessment Method (BREEAM)

All non-residential development should achieve as a minimum requirement, a BREEAM 'good' standard. BREEAM ratings for buildings range from Acceptable to Pass, Good, Very Good, Excellent and Outstanding. Exceptions to this requirement will be made where it is considered the BREEAM standards are not appropriate or feasible for the proposed development, on a case by case basis and where the applicant has provided sufficient justification to demonstrate it is not viable.

BREEAM measures sustainable value in a series of categories, ranging from energy to ecology. In order to achieve a particular rating level, the minimum overall percentage score must be achieved through meeting the minimum standards. Further information can be found at [www.breeam.com](http://www.breeam.com)

## V5. Principle 3: Adapting to Higher Temperatures

Climate change is anticipated to increase average annual temperatures globally, as well as the occurrence of extreme temperature events, resulting in a more severe threat of heat-related mortality. This is expected to disproportionately affect vulnerable groups such as the elderly and disabled, which due to the District's ageing population, will be an increasingly important issue for Stratford-on-Avon to address. As such, future-proofing the design of new homes and commercial developments to adapt to the effects of higher and more extreme temperature change is an important component of climate change adaptation in the District.

### V.5.1 Shade and Ventilation – The Cooling Hierarchy

The cooling hierarchy is an established method of ensuring that developments are cooled in the most sustainable and energy efficient manner possible.

New development proposals, including both residential and non-residential proposals, must utilise the cooling hierarchy within the design of new development as set out below.

1. **Passive design** - using energy efficient design to reduce the amount of heat entering the building in the warmer months. This can be achieved through appropriate orientation, overhangs and shading, albedo, fenestration, insulation and green roofs. Heat can also be reduced within the building through high ceilings and exposed internal mass; however, provision must be made for night purging of heat through secure ventilation. Such ventilation should be closable to preserve air tightness in cold weather.
2. **Passive/natural cooling** – using outside air to ventilate and cool a building without using a powered system.
3. **Mixed mode cooling** – using a mixture of both passive cooling methods and:
  - a. Mechanical cooling, such as fan powered ventilation (preferred option)
  - b. Air conditioning (not preferred option due to being energy intensive).
4. **Full building mechanical ventilation/cooling system using the lowest carbon/energy options** – only to be considered after all other elements of the hierarchy have been considered.

Proposals must always utilise the preferred options 1 and 2 of the hierarchy, unless there are exceptional circumstances that make options 3 or 4 the only feasible methods of ventilation. Where a non-preferred option (i.e. options 3 - 4) of the cooling hierarchy has been incorporated within development proposals, robust justification will be required for why the preferred options (1 and 2) have not been used.

Householder applications will be encouraged to demonstrate how they have considered the principles of the cooling hierarchy within the design.

New development proposals should integrate cooling features within their design. Examples of such features include overhangs, external blinds, louvres and shutters. High performance glazing, such as low-e glass and smart glass will be encouraged in new developments where large areas of glazing are proposed, particularly to south facing aspects, so that the level of solar heat gain can be managed. The appropriateness of different types of cooling features will depend on the type, scale and location of the development proposed. It should be noted that the above list of potential cooling features is not exhaustive, and other forms of cooling measures are also available.

## **V.5.2 Use of Cool Materials**

### **Roofs and Paving**

Where local site constraints (including conservation and historic considerations) allow, new or replacement roofs, pavements and hardstanding will be encouraged to be constructed using cool materials.

Cool roof materials are light in colour or have solar reflective properties, and can significantly reduce the solar heat gain produced by roofs by minimising the amount of light converted into heat and increasing the amount of heat that is radiated away from buildings. Whilst this can result in increased heating requirements for buildings in winter, the overall net outcome is positive as cool roofs reduce the need for artificial cooling in summer. In comparison, solar heat gain in winter is usually less of a consideration as hours of direct sunlight are reduced, and residential heating requirements are not usually during the day when solar heat gain occurs. However, in designing cool homes, applicants should note that this may result in increased energy costs in winter. Homes should not be designed to be excessively cold in winter as this may disadvantage the elderly and disabled who are more likely to be at home during the daytime.

Cool roof materials include primarily the use of clay, ceramic or concrete tiles, asphalt shingles or metal roofs. Cool roof reflective coatings include the use of white, pigmented or aluminium coatings, as well as roofing membranes made from felt, fibreglass or polyester, or alternatively, single-ply thermoplastic. Whilst white roofs provide the best cooling outcome, more traditional roof colours can also be produced to reflect more sunlight. Curved tiles also provide greater cooling effects than flat tiles, by allowing air to circulate below the surface.

Cool pavements and hardstanding can be achieved by using permeable surfaces and light coloured materials. Permeable surfaces can cool local temperatures through the process of evapotranspiration, whilst light materials are more solar reflective and therefore absorb less heat.

### V.5.3 Green Infrastructure

#### Green/Brown/Blue Roofs

A green roof (or Biodiverse Roof) has seeds or plants introduced into the substrate of the roof at the time of construction. A brown roof is where the roof surface is left to self-vegetate. Blue roofs store water and can act as attenuation storage, storing water for irrigation, cooling of buildings or non-potable use within the building. Green, brown and blue roofs can provide evaporative cooling, reducing the 'heat island' effect of built-up areas. They can also extend the life of the roof by shielding it from the harmful impact of UV rays. In addition, they can provide a more suitable surface for solar panels by providing a more consistent ambient temperature.

Both green/brown/blue roofs and cool roofs lower surface and surrounding air temperatures, and decrease energy demand. However, green/brown/blue roofs also offer additional benefits such as filtering and reducing storm water run-off, enhancing biodiversity and reducing air pollution. Blue roofs can also act as attenuation storage.

All proposals for green, brown and blue roofs must demonstrate that sufficient and ongoing maintenance is available, as well as access to the roof to undertake the maintenance requirements.

#### Green Walls

Green walls can provide multiple benefits including providing a natural cooling effect and enhancing biodiversity, particularly on sites without sufficient space for traditional green infrastructure (for example, town centre apartment blocks). Green walls will be encouraged in all new developments, where appropriate and where sufficient maintenance can be provided.



Green walls at Fordham House,  
Stratford-upon-Avon

#### Find Out More

Further information on green roofs and walls is available in [Part E - Architectural Style, Construction and Materials](#)

## Green/Blue Corridors

Green/blue corridors are strips of green and/or blue (watercourse) infrastructure which link green/blue spaces in developments to the surrounding biodiversity network. They can have multiple benefits, including the cooling of local temperatures, the provision of flood management and the enhancement of biodiversity.

## Trees and Landscaping

Research undertaken by the Forestry Commission indicates that areas with many trees can be as much as 4 degrees cooler than places in the same city without vegetation (Forestry Commission, 2019).

Trees should be integrated into layouts to provide natural cooling to surrounding buildings, ensuring that trees are of appropriate size, location and orientation to provide maximum cooling benefits to buildings. Trees should be incorporated into all new development schemes unless site constraints prevent this, and existing trees should be retained on site where feasible.

In considering the relationship between trees and buildings, the design of site layouts will be expected to ensure that trees are given adequate space, including sufficient allowance for future growth.

Trees should also be included within street design, public open space, pedestrian and cycle routes to provide shading and temperature reduction to the surrounding area.

Where feasible, new car parks should include trees, landscaping and/or areas of grass/greenery to provide a natural cooling effect. The implementation of car park shading structures will be supported where appropriate.

The following considerations for trees should be adhered to when deciding how to incorporate trees into site layouts:

- Health and condition of the tree;
- Age and species of tree;
- Size of the tree when mature; and
- Location (to avoid future conflicts and maximise cooling benefits).

The Good Homes Alliance (July 2019) states that the level of blue/green infrastructure considered to have a beneficial effect on reducing temperatures is at least 50% cover, within a 100m radius from the site. As such, new developments will be encouraged to meet this standard, although it will be most easily achieved within a rural context and in low-density developments. Green walls/roofs can also be included towards meeting this figure.

Proposed landscaping should utilise appropriate native plants to the site. Non-native species may also be appropriate in some circumstances, dependent on species and specific site constraints.

Guidelines on suitable planting can be found within the Tree and Design Action Group Guide for Specifiers, available at the following webpage:

<http://www.tdag.org.uk/species-selection-for-green-infrastructure.html>.

### Find Out More

Further information on trees can be found in [Part M - Landscape Design and Trees](#)

### Case Study

For an example of where adaptation to higher temperatures has been designed into a development in the District, please see the [Jaguar Land Rover Case Study](#) in [Section V8](#) (Case Study 7)

### Maintenance of Green Infrastructure

Green Infrastructure plays an important role in mitigating the higher temperatures that are predicted to occur as a result of climate change, and as such will be encouraged in all new developments.

However, the management of green infrastructure and landscaped areas requires careful consideration, and therefore it is strongly recommended that the design of these spaces is discussed at the pre-application stage of all proposed major developments.



Example of a grass swale in a Harbury housing development. Swales are a type of SuDS consisting of a wide, shallow grass covered depression, leading surface water from a drained surface to a storage or discharge system.

### Find Out More

Further information on Green Infrastructure can be found in [Part N – Biodiversity and Green Infrastructure](#)

## V6. Principle 4: Mitigating Flood Risk

Climate change is anticipated to increase the occurrence of extreme weather events, including both flooding and drought events. As such, adapting development to efficiently manage the use and storage of water is considered to be a critical component of effectively mitigating the effects of climate change.

### V.6.1 Sustainable Urban Drainage Systems (SuDS)

SuDS can provide biodiversity benefits by mimicking natural drainage on sites and minimising the impact of development through filtering sediment and contaminants out of surface water runoff.

#### Find Out More

Further information on SuDS can be found in

[Part N - Biodiversity and Green Infrastructure](#)

New development proposals should integrate SuDS at the design stage of site layouts, ensuring that they are incorporated into the proposals at the earliest stage. The type of SuDS that may be appropriate will depend on the type and location of the development proposed. All schemes for the inclusions of SuDS should demonstrate high quality design and that the proposed SuDS and development will fit into the existing landscape. Types of SuDS that may be implemented include:

- Rainwater gardens
- Infiltration basins and trenches
- Soakaways
- Filter drains
- Swales
- Detention basins
- Retention ponds
- Filter strips.

Good SuDS design can be key for creating a strong sense of place and pride in the community for where people live, work and visit, making the surface water management features an integral part of developments.

Trees, hedgerows and other vegetation also play an important role in improving surface water drainage in SuDS strategies. The planting of trees and hedgerows to support SuDS will be encouraged and existing trees and hedgerows should be retained on site unless there is overriding justification for their removal.

Wherever feasible and safe to do so, SuDS provided should be multifunctional in nature. For example, SuDS can also be used as features within playgrounds, recreation areas or landscaping within a development.

SuDS should follow the Drainage Hierarchy within National Planning Policy Guidance, as follows:

1. Into the ground (infiltration)
2. To a surface water body
3. To a surface water sewer, highway drain or another drainage system
4. To a combined sewer



Sufficient SuDS maintenance for the lifetime of the development should be incorporated within all SuDS proposals. Completed SuDS schemes for Major and Minor development should be accompanied by a maintenance schedule detailing maintenance boundaries, responsible parties and arrangements to ensure that the SuDS are maintained in perpetuity.

Applicants will be encouraged to utilise SuDS guidance contained in the SuDS Manual C753 available at [https://www.ciria.org/Memberships/The\\_SuDs\\_Manual\\_C753\\_Chapters.aspx](https://www.ciria.org/Memberships/The_SuDs_Manual_C753_Chapters.aspx)

### Rain Gardens

Rain gardens are a form of SuDS that can be implemented in small areas where other SuDS methods are not appropriate or feasible. They consist of small depressions in the ground that act as infiltration points for roof water and other surface water that is low in contamination. Rain gardens are easy to maintain, provided that they are incorporated as part of an appropriately designed and managed landscaping scheme.

All minor and householder developments with sufficient outdoor space should integrate rain gardens into development where soil conditions allow for infiltration, unless another form of SuDS is being proposed.

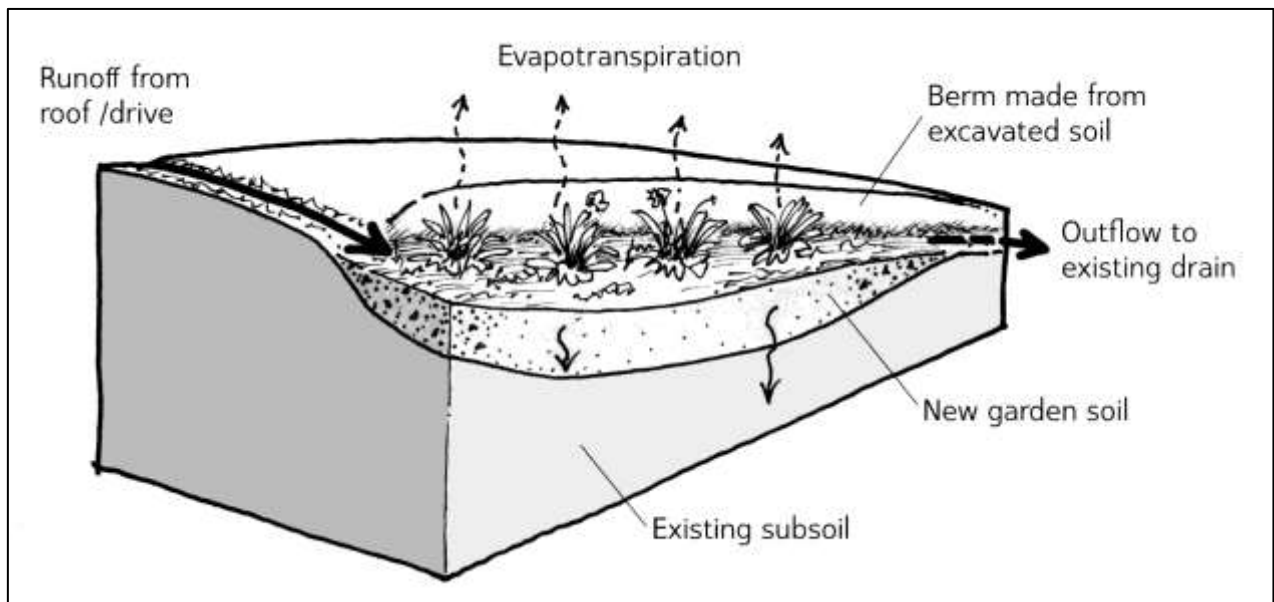


Diagram of a typical rain garden

### Case Study

Examples of developments within the District which have successfully incorporated SuDS are provided within the [Meon Vale and Hereburgh Way Case Studies](#) in [Section V8](#) (Case Studies 3 and 5)

### V.6.2 Water Efficiency and Rainwater Harvesting

Retrofitting water efficient measures into buildings can often be costly, time consuming and difficult to implement. As such, water efficient measures should be integrated at the design stage of new developments.

Rainwater collection facilities such as communal rainwater tanks and water butts should be installed in all residential developments and householder developments where appropriate.

In accordance with the requirements of Core Strategy Policy CS.4 (Water Environment and Flood Risk), non-residential developments will be expected to achieve a minimum 'good' BREEAM standard. This standard requires a minimum level of water consumption improvements over baseline usage.

### Find Out More

Further information on BREEAM can be found at: <https://www.breeam.com/>

Low carbon rainwater harvesting and/or greywater recycling systems will be supported within new developments as a method to increase water efficiency. These options need to be properly considered at the earliest possible stage in the design process to determine whether a dual pipework system is required.

In addition to the requirement for non-residential developments to meet the BREEAM 'Good' standard for water efficiency, all development proposals will be encouraged to meet the optional higher water efficiency requirement of Part G of Building Regulations, and not exceed 110 litres/person/day.

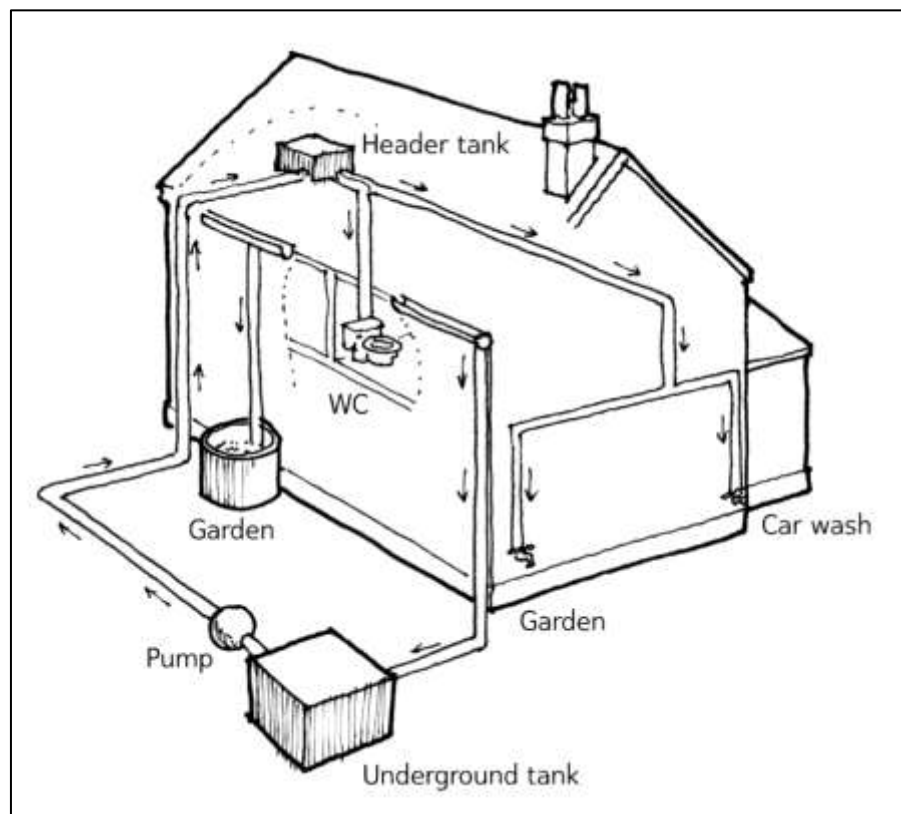
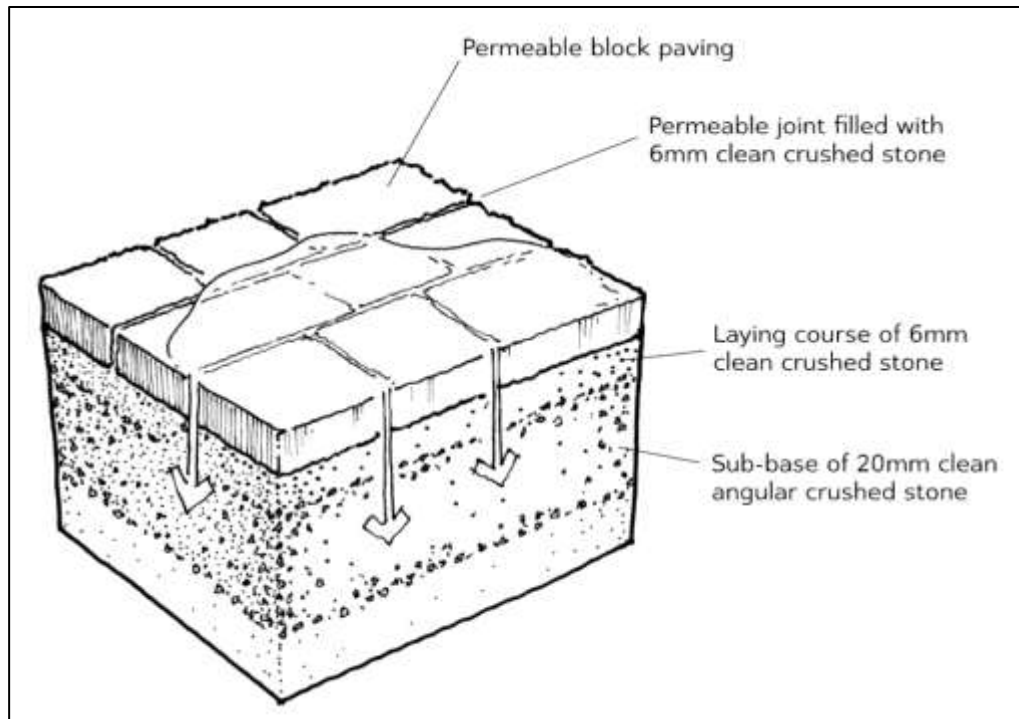


Diagram of a rainwater harvesting system

### V.6.3 Flood Risk Design Principles for New Developments

The landscaping of new developments should be designed to respond to the increased likelihood of both drought and flooding as a result of climate change.

Permeable surfaces should be used for all hardstanding, driveways and paved areas in new and existing development to allow for enhanced drainage of surface water.



Typical structure of permeable paving

Green roofs will be encouraged as an appropriate method of reducing and filtering storm water run-off from buildings; blue roofs are also an effective method of storing excess water.

#### Find Out More

Further information on green roofs is available in [Part E - Architectural Style, Construction and Materials](#)

CIRIA have produced a tool called the 'BEST tool' which can be used to calculate the monetary values of blue/green infrastructure. The tool can be used to assess how SuDS features contribute to the four pillars of water quantity, water quality, biodiversity and amenity value.

It is available to download at:

<https://www.susdrain.org/resources/best.html>

For developments where a Flood Risk Assessment is required, applicants must consider the climate change allowances for peak river flow, peak rainfall intensity and floodplain compensation. Where applicable, applicants will be encouraged to use the highest level of climate change allowance identified for the time period covering the lifetime of development, based on the appropriate River Basin serving the development. Further information is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

In line with Environment Agency advice, new development should maintain at least an 8m easement between any built development and the top of the bank of a watercourse and/or the toe of a flood defence to allow for maintenance and inspection requirements. Greater buffers of 20m are preferred as they can allow for access for larger maintenance works, minimise future impacts on flood flow routes, and account for the natural movement of watercourses during a development's lifetime. The suitability of a 20m buffer is dependent on several factors, including but not limited to:

- The size of the watercourse;
- Whether there are existing flooding issues from the watercourse in the vicinity of the site;
- The anticipated change to watercourse flows over time;
- The size of the development site;
- Whether there are alternative means to access the watercourse in the vicinity of the site; and
- Whether there are any flood defence works planned in the vicinity of the site.

Where a 20m buffer is considered appropriate and beneficial to the flood risk management of the site and will help reduce flood risk to the proposed development and/or surrounding area, these will be encouraged.

Buildings with stilts should not be used as a flood management method. Areas under stilts are often used as storage spaces and have the potential to become blocked during flood events which will have a cumulative impact in terms of flood risk.

### Case Study

An example of a non-residential development within the District which has successfully incorporated water efficiency is the [Jaguar Land Rover Case Study](#) in [Section V8](#) (Case Study 7)

## V7. Principle 5: Mitigating Biodiversity Loss

The effects of climate change are predicted to have particularly negative impacts on biodiversity and wildlife habitats, thereby affecting oxygen production, carbon storage and the natural filtering of toxins. [The Environment Bill](#), announced in October 2019, proposes to make provision for biodiversity net gain a condition of most planning permissions in England. As such, providing opportunity to mitigate against biodiversity loss and enable local plant and animal species to thrive is therefore considered to be a key goal for new development in the District. Core Strategy policies CS.6 (Natural Environment) and CS.7 (Green Infrastructure) set out the Council's approach to conserving and enhancing existing biodiversity assets and the creation of new biodiversity provision.

All measures to implement green infrastructure and enhance biodiversity should be undertaken holistically, ensuring that connectivity is maintained and enhanced. Development should maintain existing linear features such as hedgerows and respect existing blue/green corridors such as rivers in the landscape by leaving a buffer to enable people and wildlife to move freely in response to climate change. Maintaining and improving connectivity is crucial to ensuring the local populations are resilient. The impact of improving a site for wildlife is magnified when the site is connected to other species rich areas or wildlife corridors.

### V.7.1 Bio-Enhancing Existing Green Space

Opportunities to enhance biodiversity are available across all scales of development, with a need to minimise impacts on and provide net gains for biodiversity. Working with Warwickshire County Council, Major and Minor scale development proposals will be expected to secure a net gain in biodiversity, unless exceptional circumstances satisfactorily demonstrate that this is not possible. Warwickshire County Council Ecological Services have produced a Biodiversity Impact Assessment (BIA) calculation, based on the Defra metric, to measure the biodiversity impact of Minor and Major development proposals. Where a development will have a negative impact on a biodiversity asset, 'offsetting' will be sought in line with the [Warwickshire County Council biodiversity offsetting programme](#).

In order to enhance and mitigate against the loss of existing biodiversity, development proposals will be expected to provide wildlife friendly planting and landscaping within proposed green infrastructure. A variety of native species should be used to enhance local biodiversity. For details of species of plants native to different areas of the district, please refer to [Part N](#) (Biodiversity and Green Infrastructure) of this SPD and [Warwickshire Landscape Guidelines](#).

Proposed landscaping in major developments should incorporate informal areas of planting to encourage wildlife and biodiverse habitats.

#### Find Out More

For more information, please see

- <https://www.gov.uk/government/consultations/biodiversity-net-gain-updating-planning-requirements>
- [Part N \(Biodiversity and Green Infrastructure\)](#) of this SPD
- <https://www.warwickshire.gov.uk/biodiversityoffsetting>

### **V.7.2 Improving Background Wildlife Capacity**

Measures to improve the background wildlife capacity of an area should be incorporated into all new developments. These can include enhancements at a range of scales and can therefore be included in a variety of development types from householder applications to major developments.

It should be noted that the Environment Bill proposes to make biodiversity net gain a condition of all development proposals with the exception of householder developments and some brownfield sites. It is expected that this Bill will mandate the use of the Defra metric when calculating biodiversity impact in developments.

Wildlife habitat enhancements such as bird/bat nesting boxes, hibernacula (places for animals to hibernate), amphibian kerbs, hedgehog holes in fencing and hedgehog homes should be incorporated within all new developments wherever appropriate.

External lighting can negatively affect wildlife, as well as wasting energy. Applicants will be encouraged to assess as to whether developments could take place without external lighting or whether it can be designed and located to be less intrusive and/or regulated, such as timed to switch off late at night, to minimise its impact on nocturnal species.

Innovative methods to encourage biodiversity will be encouraged where sites are constrained by scale, topography or other considerations. For example, green walls can be incorporated into many different types of development including large scale commercial and residential buildings. These can be planted with native species of ferns and wildflowers to enhance the biodiversity of the development, without requiring any additional site area to implement. Green/brown roofs are another alternative where flat roofs are proposed, and can be retrofitted to existing buildings.

In major developments, proposals should aspire for less than 50% of the wider site (excluding buildings) to consist of paved/hardsurfaced areas. Lawns, planting beds, trees, allotments, gardens, ponds and other landscaping features can all contribute to enhancing local biodiversity, as well as providing a natural cooling effect and enhance drainage. Green roofs and walls can also contribute towards the 50% target.

Trees should be incorporated into all major developments and also into minor developments where feasible. Veteran trees and trees which are of high public amenity value should be retained within site layouts. The removal of protected trees will be resisted unless there are overriding planning reasons for doing so. Tree planting should take account of the considerations detailed in Section V5 to maximise cooling benefits to buildings, as well as the guidelines provided within Part M of this SPD.

Incorporating trees into street frontages has multiple benefits, including reducing local temperatures, improving air quality, enhancing biodiversity and improving wellbeing of residents. Major developments will be expected to include trees in all primary street frontages. Trees should also be incorporated into the street frontages of minor developments where possible. Trees should be provided with suitable protection from vehicle collision where near to vehicle routes and parking areas.

Development proposals should retain native species hedging within and surrounding sites wherever feasible. The planting of native species hedging within and surrounding sites will also be encouraged as a method to enhance biodiversity and background wildlife capacity. The District Planning Authority will not support proposals for close board fencing to the side and rear of properties where these would be visible in the public realm or adjacent to the countryside, in accordance with [Part D](#) (Buildings and Layout) of this document. In all other cases, it will discourage the use of close board fencing where hedgerows between properties and at the boundaries of sites would be appropriate. Such hedgerows should use wildlife friendly, and native plant species. Where close board fencing is proposed, such fencing should include 'hedgehog holes' so as to allow connectivity for wildlife.

### **V.7.3 Local Wildlife Nodes and Blue/Green Corridors**

Green/blue corridors are strips of green and/or blue infrastructure which link green/blue spaces in developments to the surrounding biodiversity network, enabling the bridging of habitats where they have been separated by human development. The provision of these will be encouraged in all major developments, and also in minor developments where appropriate. They can be either land or water corridors, and can be designed to incorporate walking and cycling routes, thereby reducing reliance on the car by promoting active travel, as well as enhancing biodiversity and encouraging wildlife in the area. Where walking and cycling routes are proposed, these should integrate green/blue infrastructure. Blue/green infrastructure can have multiple benefits, including flood management provision, the encouragement of biodiversity and the lowering of local temperatures.

The creation of local wildlife nodes, utilising underused land such as verges at junctions and street corners for wildlife friendly planting and wildlife habitats will be encouraged in new and existing developments. Proposed planting must appropriately maintain highway safety, such as keeping important pedestrian and vehicle visibility splays clear, and avoid long term conflicts with building foundations.

Development near watercourses, such as blue corridors, will be expected to provide easements in accordance with the criteria set out in [Section V.6.3](#).

Pocket parks are small areas of public green space which involve the reuse of areas of land for community benefit. They can be both natural and more formal in character, and provide a green open space that also offers habitat opportunities to enhance biodiversity and a way for people to connect with nature. Developments which propose the creation of appropriately managed pocket parks will be encouraged.

#### **Find Out More**

Further information on enhancing biodiversity in developments can be found in [Part N – Biodiversity and Green Infrastructure](#)

#### **Case Study**

Examples of residential developments that have incorporated biodiversity are the [Meon Vale, Hampton Lucy and Wootton Wawen Case Studies](#) in [Section V8](#) (Case Studies 3, 4 and 6)

## V8. Case Studies

This section contains a number of case studies which address different aspects of climate change mitigation and adaptation and are considered to be examples of good practice.

### Case Study 1: The Arden Quarter, Stratford-upon-Avon

The Arden Quarter lies on the edge of Stratford-upon-Avon town centre consisting of 198 homes in a range of types and scales. Designed at a higher density, the site is in close proximity to a range of facilities such as the town centre, train station and bus interchange. As such, the development promotes the use of sustainable travel through its central location, reducing the need for travel by private car.

**Principle 1: Reducing the need to travel by private car**



The Arden Quarter, Stratford-upon-Avon

### Case Study 2: Northgate, Warwick

This scheme in Warwick Town Centre was undertaken by Warwickshire County Council in order to make the area more pedestrian and cyclist friendly. This area was heavily congested and very car dominant, making it extremely unsafe for pedestrians to cross and access the town centre.

For pedestrians, there have been improvements by way of wider pavements, increased lighting, landscaping and a small pedestrian square with seating area together with improved accessibility into the town centre. In order to make it safer for pedestrians and cyclists, informal crossing points have been constructed as well as a raised table and narrow carriageways for cars encouraging them to slow down.

**Principle 1: Reducing the need to travel by private car**



Before and after photographs of Northgate, Warwick  
(Source: Warwickshire County Council)



### Case Study 3: Meon Vale, Long Marston

Meon Vale is a large residential development which includes up to 1,050 new homes, a community centre, leisure centre, sports pitches and convenience store as well as a business park on a 190 hectare site.

This site has been designed to promote walking, cycling and public transport as realistic modes of travel but has also recognised the need to use the private car. The site provides direct cycle and pedestrian connections and parts of the site will link to the Greenway extension that runs through the site. This development has seen a 1 mile extension to the existing Greenway into Stratford upon Avon which allows connectivity to employment and leisure by walking and cycling.

There will be direct bus connections with the surrounding network which includes a 2 ½ hourly peak service between Moreton in Marsh and Stratford upon Avon. This is an increase in frequency of the current service.

The development has been sensitively designed to minimise the impact on local wildlife by retaining important habitats and maintaining or improving pathways to enable species to move freely within the site. There is public access to 35 acres of woodland which is provided as part of the development and an attractive lake and lakeside area as part of the Sustainable Urban Drainage System (SuDS).

**Principle 1: Reducing the need to travel by private car**

**Principle 4: Mitigating Flood Risk**

**Principle 5: Mitigating Biodiversity Loss**



Meon Vale, Long Marston

**Case Study 4: Replacement dwelling and additional new dwelling in Hampton Lucy**

This development incorporates a number of features that contribute to climate change adaptation and mitigation:

**Energy Efficiency**

The dwellings have been orientated to maximise solar gain and incorporates high quality walling and roofing materials to optimise insulation internally, along with triple glazed windows.

A powerwall home battery has been incorporated which charges using the energy from solar panels and a back-up storage solution. A Mechanical Heat Recovery System which can recover 90% of the heat from 'stale air' on extraction, in addition to a Heat Pump and Earth Energy Bank are also incorporated.

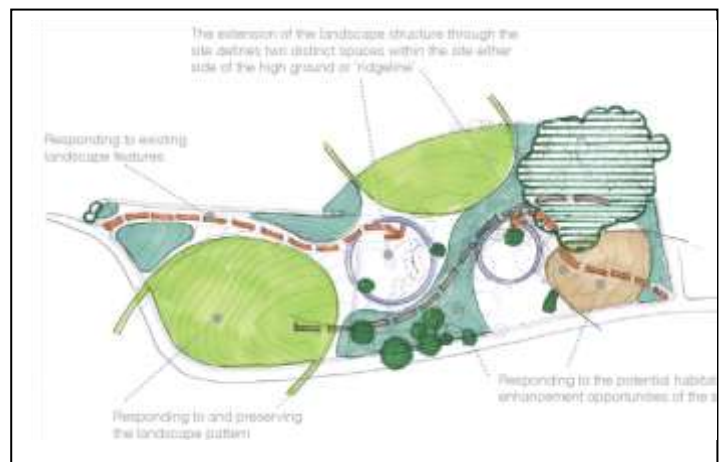
**Mitigating Flood Risk and Biodiversity Loss**

Enhancements to the site includes native species rich hedgerows, semi-improved grassland, a swale, species rich meadow, bird boxes and bat lofts.

**Principle 2: Improving Energy Efficiency**

**Principle 4: Mitigating Flood Risk**

**Principle 5: Mitigating Biodiversity Loss**



### Case Study 5: Hereburgh Way, Harbury

Consisting of 22 homes, including 13 affordable, this scheme incorporated SuDS, involving a swale and an infiltration basin, which provides for surface water run-off as well as creating a natural habitat area. Air source heat pumps were also incorporated in order to reduce the predicted carbon dioxide emission from the development by a minimum of 10%.

Principle 2: Improving Energy Efficiency

Principle 4: Mitigating Flood Risk



The swale leading to the infiltration basin at Hereburgh Way, Harbury

### Case Study 6: Passivhaus Scheme, Wootton Wawen

This is a development of 14 dwellings comprising a mixture of houses and bungalows built to a passivhaus standard.

Space heating costs will be 70% less than a standard house construction, achieved through levels of insulation, air tightness and orientation to max solar gain:

- Wrought iron canopy porches
- Brick corbel detailing
- Significant levels of insulation
- Triple glazing
- Ecological zones to promote wildlife and amenity value
- Community woodland belt

There is a 12 metre wide planted native tree buffer zone, which will act as an eco-soakaway for surface water and mitigate visual impact on the surrounding area.

**Principle 2: Improving Energy Efficiency**

**Principle 4: Mitigating Flood Risk**

**Principle 5: Mitigating Biodiversity Loss**



Photographs of the passivhaus houses and bungalows at Wootton Wawen.

## Case Study 7: Jaguar Land Rover, Advanced Product Creation Centre

The proposal was designed for the research, design and development of motor vehicles and to provide a new gateway and parking. These new offices are rated in the top 10 per cent of most sustainable non-domestic buildings in the UK and it is intended that this development will reach BREEAM 'excellent' rating.

**Energy** – This building has followed the energy hierarchy approach with up to 20% of its energy coming from almost 3,000 m<sup>2</sup> of photovoltaic solar panels on the roof, and the remainder from 100% renewable sources.

**Biodiversity** – A natural landscape is at the heart of the site, creating an ecologically diverse area reusing 80,000 m<sup>3</sup> of natural soil excavated during the construction process, which is the equivalent of 30 Olympic sized pools. Introduction of large lakes and water features also contribute to improving local biodiversity whilst providing new receptor sites for wildlife. There is also a protected species master plan for the site.

**Temperature Control** – The development has been designed to reduce overheating through the careful selection of glazing and appropriate shading and glazing/solid ratio in order to minimize the internal solar gains. The same glazing as the Eden Project has been used to bring natural light in to the building wherever possible and make it more energy efficient. The roof overhangs also provide shading to the facades and roof lights have high performance glazing, external fixed solar shading and internal blind system.

**Water Management** – The landscape integrates the SuDS. Roof and surface water run-off feed feature water channels that discharge into a system of lakes. Lakes provide attenuation during heavy rain period and mitigate the risk of flooding.

**Principle 2: Improving Energy Efficiency**

**Principle 3: Adapting to higher temperatures**

**Principle 4: Mitigating Flood Risk**

**Principle 5: Mitigating Biodiversity**



## V9. Climate Change Checklist

It is important that the principles of climate change adaptation and mitigation are considered from the outset of a development proposal to help shape the design.

It is the aim of the District Council to work with developers to maximise the opportunities for climate change adaptation and mitigation and the purpose of the checklist is to help developers consider the potential measures possible and thus encourage better design solutions.

As the evolution and use of adaptation and adaptation measures is rapidly growing across the UK, the ability for developments to respond to the impacts of climate change without compromising design quality is more achievable than ever. The aim is to create visually attractive sensitive development and to achieve an acceptable balance between good design and climate change measures.

Given the critical importance of ensuring that new development addresses the effects of climate change, satisfying this requirement will be given high priority when considering site specific proposals. However, it is acknowledged that proposals affecting Listed Buildings may not be able to fully comply and in these circumstances Case Officer discretion will be used as to what is feasible on a case-by-case basis. Guidance on how Part L (Energy Efficiency) of the Building Regulations can be applied to historic buildings is provided by Historic England in the following report: [Energy Efficiency and Historic Buildings: Application of Part L of Building Regulations \(2017\)](#).

The checklist is required to be completed and submitted with planning applications for certain householder, new build and conversion / change of use proposals. To assist applicants in the completion of a checklist, there are 3 separate checklists which identify the main mitigation and adaptation measures considered appropriate for that type of development. The checklists in Appendices 1 and 2 apply to both residential and non-residential development, while the checklist in Appendix 3 relates to residential householder developments.

The Checklists are set out in appendices to this SPD as follows:

- Appendix 1: Climate Change Checklist for new build developments
- Appendix 2: Climate Change Checklist for conversion and change of use developments
- Appendix 3: Climate Change Checklist for householder developments

The Council encourages applicants to maximise the number of measures incorporated into a development in order to address the problems of climate change. As a very minimum, proposals must incorporate at least one suitable adaptation and mitigation measure from each of the 5 principle areas. Measures that incorporate renewable energy as an option, at a scale that reduces the building's dependence on imported energy, will be strongly supported and is encouraged.

- For new build dwellings and new build non-residential developments over 20 square metres (external area measurement), at least 15 measures in total must be incorporated.
- For conversion and change of use proposals, at least 10 measures must be incorporated
- For householder proposals over 20 square metres (external area measurement), at least 5 measures are expected to be incorporated.

Where a particular measure has been provided which addresses more than one principle, this will only count as one measure overall (i.e. it cannot be counted as more than one measure).

The Council welcomes innovative and emerging technological solutions to help developments adapt and mitigate to climate change and an 'other' category has been added to each objective for this reason to enable suitable and appropriate alternative measures to be considered.

A holistic approach should be taken to the incorporation of measures into developments to ensure that they are considered as a whole and not in isolation. This will ensure that the benefits can be maximised and will reduce the need for future retrofitting.

Measures that are incorporated into developments are required to be appropriately managed and maintained and may be controlled through the use of planning conditions and / or S106 Agreements. The Council's planning enforcement and legal services teams are responsible for ensuring compliance with planning conditions and obligations.

### **Find Out More**

Further information can be found in [Part U – Section 106 Planning Obligations](#)

The Council will monitor the effectiveness of Part V of the SPD through the analysis of checklists on individual planning applications. This will inform any review of the SPD.

# Part W: Gypsies and Travellers and Travelling Showpeople

## Contents

- W1. Why we have prepared this guidance
- W2. Gypsy and Traveller and Travelling Showpeople housing needs
- W3. New Gypsy and Traveller and Travelling Showpeople housing
- W4. Design Criteria for new pitches/plots and sites/yards
- W5. Core Strategy Policy CS.21
- W6. Glossary

This part of the Development Requirements SPD provides further detailed guidance on the interpretation of a range of Core Strategy policies, as appropriate:

- CS.1 Sustainable Development
- CS.9 Design and Distinctiveness
- CS.21 Gypsies and Travellers and Travelling Showpeople

Because Gypsies and Travellers and Travelling Showpeople have specific housing requirements we need specific planning guidance to help deliver their homes. This Part of the SPD provides that guidance.

It will be used by Stratford-on-Avon District Council to help reach decisions on whether to approve or refuse planning applications. Making sure that applications comply with the guidance contained within the SPD will make it easier for the Council to grant planning permission. The Council's planning policies are set out in the Core Strategy available at: [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

Key words or terms which appear throughout the document are included in the [Glossary](#)

## W1. Why we have prepared this guidance

Stratford-on-Avon District Council is committed to developing sustainable communities that are strong, vibrant and healthy, and which meet the needs of all sectors of the community, including Gypsies and Travellers and Travelling Showpeople. The Public Sector Equality Duty requires councils to have due regard to eliminating discrimination and harassment, advancing equality of opportunity between members of protected groups and others, and to foster good relations between persons who share a relevant protected characteristic and those who do not. Meeting the accommodation needs of the Gypsy and Traveller and Travelling Showpeople community is an important objective of the Council's Housing Strategy 2021 to 2026 (Action 6) and includes a commitment to work in partnership to raise awareness of the housing waiting list amongst people who are socially and/or digitally excluded, including the Gypsy and Traveller community (Action 13.4).

Everyone should have the opportunity to live in a good quality home. The planning system plays an important role in ensuring fair and equal treatment for these communities by enabling provision of suitable accommodation. There is a distinction between Gypsy and Traveller sites and pitches and Travelling Showpeople yards and plots, which are typically larger to accommodate circus and fairground equipment.

The planning system already plans effectively for the settled community. Record levels of homes have been built in the District in recent years to ensure that its housing needs are and continue to be met. The Council has published guidance to assist in the delivery of 'bricks and mortar' housing and advise on what such homes should look like. Such advice is set out in other parts of the [Development Requirements SPD](#).

Meeting the accommodation needs of Gypsies and Travellers and Travelling Showpeople will enable the Council to control and manage their needs in the District. National policy ([Planning Policy for Traveller Sites, 2015](#)) emphasises the need for travellers to be provided with a settled base that reduces the need for long-distance travelling and the possibility of anti-social behaviour and environmental damage caused by unauthorised encampments. The lack of suitable permanent sites can lead to unauthorised encampments, whereas the identification of specific sites provides certainty to communities as to where development will take place rather than having to react to speculative applications or appeals.

Policy CS.21 (Gypsies and Travellers and Travelling Showpeople) of the Council's Core Strategy sets out the how applications for the provision of new accommodation will be considered across the District. A copy of the policy is set out in section W5.

Neighbourhood Development Plans (NDPs) are prepared by Parish Councils or Neighbourhood Forums. A number of communities across the District have taken the opportunity to prepare an NDP for their area. NDPs form part of the statutory Development Plan and are required to be in conformity with the Core Strategy including Policy CS.21 relating to the provision of new Gypsy and Traveller and Travelling Showpeople accommodation across the District. SPDs are guidance documents and are a material consideration in the determination of planning applications. This SPD seeks to provide guidance on the implementation of Policy CS.21 in order to satisfy District-wide needs.

This SPD can not allocate land for new Gypsy and Traveller accommodation. This can only be



done through the Local Plan / Development Plan process following full public consultation and examination in public. To this end the Council is looking to progress the allocation of sites within a future Development Plan Document / Local Plan. The latest timescales are available to view within the Council's [Local Development Scheme](#).

## W2. Gypsy and Traveller and Travelling Showpeople Housing Needs

Travelling is an integral part of the cultural identity for Gypsy and Traveller and Travelling Showpeople households. It is legally accepted that nomadism, and living in a caravan, is a reflection of the cultural heritage of such families, not simply a lifestyle choice. Gypsies and Travellers are recognised ethnic groups and are entitled to the same access to housing as the settled community. Often in a cycle of 'enforced' nomadism, being continually moved on by the authorities because of the shortage of authorised sites, means they are often more disadvantaged than any other ethnic group in terms of access to healthcare and education.

### Evidence of Needs

Strategic Objective 15 of the Stratford-on-Avon Core Strategy (2016) identified a need for 71 additional gypsy and traveller pitches by 2031 (based on the 2014 Gypsy and Traveller Needs Assessment). An updated 2019 Gypsy and Traveller Accommodation Assessment (GTAA) established up to date information on need across the District up to 2035. This is summarised in Table 1 below. Meeting this need will contribute to a better quality of life, promote better integration with the settled community and reduce the number of unauthorised encampments. The Council has signed up to a [protocol for dealing with unauthorised encampments in conjunction with Warwickshire Police](#).

There are differing approaches as to who constitutes a Gypsy and Traveller in planning terms. Table 1 provides two needs figures; first, one based on an ethnic identity definition and the second based on the needs of families who have not permanently ceased to travel (i.e. based on the national definition as set out in the 2015 Planning Policy for Traveller Sites). The main drivers of need are from 'hidden' households and new family formation. The main needs figure is that based on the 2015 definition (59), with the ethnic-based accommodation needs figure as a 'reserve' figure (70).

There is also a need for 6 additional Travelling Showpeople plots over the same period.

Table 1: Summary of additional Gypsy and Traveller and Travelling Showpeople accommodation needs within Stratford-on-Avon District 2019-2035 (pitches/plots)			
Period	Gypsy & Traveller pitches - Ethnic definition	Gypsy & Traveller pitches - PPTS 2015 definition	Travelling Showpeople plots
Total 2019-2024	36	28	3
Total 2024-2029	15	13	1
Total 2029-2035	19	18	2
<b>Overall Total 2019-2035</b>	<b>70</b>	<b>59</b>	<b>6</b>
Source: <a href="#">Stratford-on-Avon District Gypsy and Traveller Accommodation Assessment (April 2019)</a>			

The GTAA recommends that this need be met within the District in two ways:

- 1) The intensification and/or extension of existing traveller sites; and
- 2) The provision of new permanent traveller sites.

The GTAA does not identify the need for any transit sites within the District, rather it recommends a 'negotiated stopping policy' which would allow land to be temporarily used as authorised short-term (less than 28 days) stopping places. These sites would not require planning permission and as such are not covered in detail within this SPD. The Council is working with Warwickshire County Council and other partners to set up a county-wide approach to negotiated stopping.

### Monitoring the Need

The Council produces an [Authority Monitoring Report \(AMR\)](#) on an annual basis which includes information on how the needs of Gypsies, Travellers and Traveller Showpeople are being met within the District. The 2019/20 AMR confirms that 52 pitches have been granted planning permission since 2011. Since the GTAA was published in 2019, one additional permanent pitch was granted permission and a permission for six pitches has expired, resulting in a net loss in supply of 5 pitches. It can be concluded, therefore, that since the GTAA was published there is now an even greater need for additional accommodation.

### W3. New Gypsy and Traveller and Travelling Showpeople Housing

As evidenced in the 2019 GTAA (See Section W2 of this SPD), there is a need for more permanent sites within the District for Gypsies, Travellers and Travelling Showpeople.

Policy CS.21 of the adopted Core Strategy (July 2016) identifies two broad locations across the District within which new sites and yards will be preferred. These broad areas are shown on Map 1, replicated from the Core Strategy, which also shows the main settlements and transport corridors:

- Broad Location 1 – the 'Avon Valley' outside of the Green Belt
- Broad Location 2 – the remainder of the District, but outside the Cotswolds AONB

The Council acknowledges that these broad locations include a wide variety of existing land uses, including many areas and sites that may not be suitable for development e.g. local wildlife sites, conservation areas, ancient woodland etc. In line with criteria 9 of Policy CS.21, sites that make best use of previously developed, untidy or derelict land will be encouraged where available and suitable.

### Land Use Designations

Criterion 2 of Core Strategy Policy CS.21 guides the location of new pitches and plots as follows:

*The site is not located within an area of designated historic or environmental importance and will not compromise the objectives of any national or local designation, including Special Landscape Areas*

Taking this into account, the Council will assess the suitability of new provision in areas outside of the following designations in accordance with the relevant policies within the Core Strategy, notably CS.6 (Natural Environment), CS.7 Green Infrastructure and CS.8 (Historic Environment):

- Conservation Areas
- Local Wildlife Sites
- Sites of Special Scientific Interest (SSSIs)
- Ancient Woodland
- Local Nature Reserves
- Registered Parks and Gardens
- Historic Battlefields
- Scheduled Monuments

The impact of proposed sites that are outside of but within close proximity to these designations will also need to be assessed.

New provision will also need to be assessed with regards to the impact on Listed Buildings and their settings.

### **Landscape Designations**

Criterion 2 of Policy CS.21 seeks to ensure that sites do not compromise the objectives of any national or local designation, including Special Landscape Areas. The Core Strategy includes two landscape related local designations:

- Special Landscape Areas – Policy CS.12
- Areas of Restraint – Policy CS.13

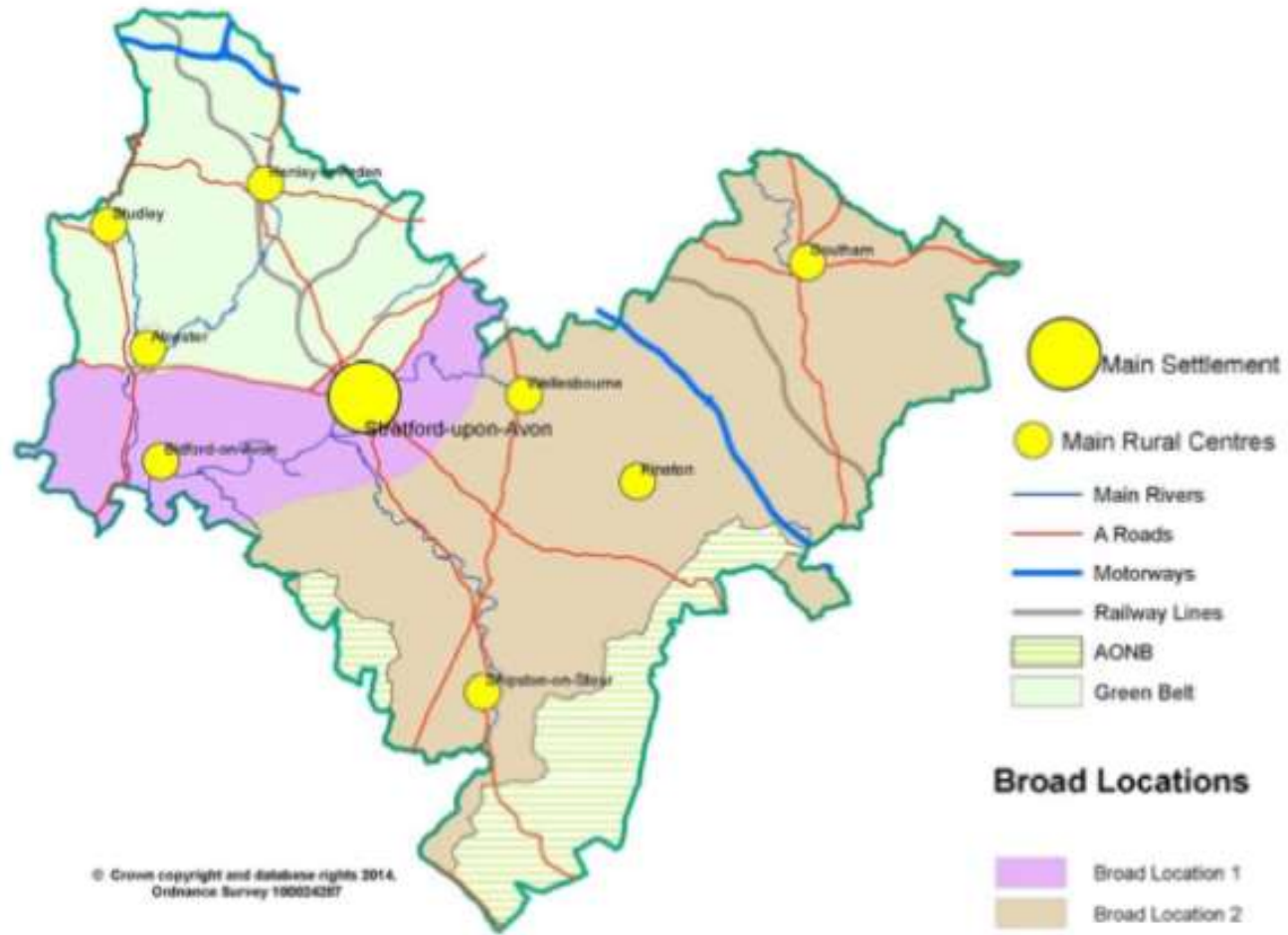
Where proposals for new Gypsy and Traveller or Travelling Showpeople accommodation are located within either a Special Landscape Area or an Area of Restraint, they will need to demonstrate that they satisfy the relevant policy requirements. This will be a key consideration in the determination of any planning application.

You can find out more about the planning designations on the Proposals Map that accompanies the adopted Core Strategy @ [www.stratford.gov.uk/corestrategy](http://www.stratford.gov.uk/corestrategy)

### **Additional pitches and plots on existing sites**

A range of considerations that will need to be taken into account for applications relating to additional pitches/plots on existing sites. This includes compliance with national and local planning policy, and the content of this SPD guidance. This will include consideration of the individual needs of the families present on the site given the existence of legitimate planning use on existing authorised sites.

### Map 1 - Gypsy and Traveller Sites Provision – Broad Locations



## W4. Design Criteria for new pitches/plots and sites/yards

This section establishes what the Council expects to see in terms of the design and layout of new Gypsy and Traveller sites and pitches, and Travelling Showpeople plots and yards. It takes into account national policy (PPTS, 2015) which requires proper consideration of the effect of local environmental quality on the health and well-being of residents and others.

National policy (PPTS, 2015) requires policies to reflect the extent to which traditional lifestyles can contribute to sustainability and give regard to the need for travelling showpeople to have mixed-use yards to allow residential accommodation and space for storage of equipment. As such, specific design principles have been included within the criteria to allow for this need.

Core Strategy Policy CS.9 (Design and Distinctiveness) highlights a range of factors that development should achieve in order to ensure high quality design. A number of these are particularly relevant to pitches/plots and sites/yards to ensure that they are:

- Attractive
- Sensitive
- Environmentally Sustainable
- Accessible
- Safe
- Healthy

In January 2021, [a guidance document to providing and managing Gypsy and Traveller homes 'Places we're proud of'](#) was published by the National Policy Advisory Panel on Gypsy and Traveller Housing. It provides useful information on site design and facilities.

### Design Criteria

The criteria set out in Table 2 apply to all schemes seeking to gain planning permission for additional pitches/plots on an existing site or a new permanent site, in so far as they are relevant to the site and its location. It is acknowledged that as all sites will have different characteristics, the guidance needs to be applied with a degree of flexibility and take into account the needs and demographics of families resident on them, including those with disabilities who may have specific needs. Applications for transit sites will be considered in line with the design criteria, although the use of temporary amenity buildings may be more appropriate than permanent buildings.

Applicants are also encouraged to consider Public Health Warwickshire's ['Promoting Health and Wellbeing through Spatial Planning'](#) in order to ensure the best health and wellbeing outcomes for Gypsy and Traveller and Travelling Showpeople communities when designing new accommodation.

You can find out more about design considerations including those relating to landscaping, sustainable urban drainage systems and green infrastructure in the Development Requirements SPD @ [www.stratford.gov.uk/devreq-spd](http://www.stratford.gov.uk/devreq-spd).

Table 2: Design Criteria for new Gypsy and Traveller and Travelling Showpeople accommodation

## **A: General Criteria**

### **Layout and Appearance**

A1. There is a clear demarcation of the site and pitch/plot boundaries using appropriate boundary treatments and landscaping which is characteristic of the local context. Guidance on landscape design is available within [Part M \(Landscape Design and Trees\) of the Council's Development Requirements SPD](#). Pitch boundaries may include fences, low walls, hedges and natural features. Pitches/plots should not extend to the site boundaries and suitable planting and landscaping using trees and shrubs is required to soften the visual impact.

A2. Layouts should aim to minimise the risk and perception of crime and disorder and social exclusion for residents through:

- a) Openness of design, enabling safe and easy travel through the site; and
- b) Maximising natural surveillance

A3. All permanent buildings and structures are designed to reflect and respect the wider character of the area in which they are located. Information on character considerations within the District is available within [Part B \(Character and Local Distinctiveness\) of the Council's Development Requirements SPD](#). Amenity blocks should be provided on individual pitches without the need for communal buildings, and meet the latest mobility standards set out in building regulations. The use of green roofs, solar panels and timber cladding on amenity buildings is encouraged.

### **Health & Safety and Access**

A4. All sites and pitches should conform to the latest health and safety guidance. To ensure fire safety, every caravan or mobile home is required to be separated from any other caravan or mobile home by a distance of at least 6 metres.

A5. Safe access from the site to the highway for pedestrians, cyclists and vehicles is provided including for turning and parking, vehicles towing caravans, emergency vehicles and servicing requirements, including waste collection. Access should avoid a significant adverse impact on minor rural roads. The availability of suitable footpaths and pavements in the proximity of the site will need to be considered to enable safe pedestrian movements to and from the site.

A6. The proposal will not have any unacceptable adverse or detrimental impacts on the health and living conditions of the residents of the site or on neighbouring uses, including as a result of contamination, excessive noise, dust, fumes, lighting, traffic generation or activity, and noise from commercial activities.

A7. Safe, secure boundaries should be provided to enable families to securely benefit from their environment. This is especially important in multi-family sites where a range of vehicles could be moving around the site presenting a danger to children and pedestrians.

### **On-Site Facilities**

A8. As a minimum the following utilities should be provided on site – mains electricity supply, adequate and safe water supply and drainage including sustainable urban drainage systems (SUDS) where appropriate, sanitation, broadband/wifi and provision for the screened storage and efficient collection of waste, including recyclable materials. Early engagement with Warwickshire County Council as the Lead Local Flood Authority at pre-planning stage is

encouraged. Further information is available at [www.warwickshire.gov.uk/flooding](http://www.warwickshire.gov.uk/flooding)<sup>25</sup>.

A9. Proportionate levels of external lighting will be provided based on the size of the site, its location and any potential biodiversity impact. Any lighting scheme is required to avoid a detrimental impact on the surrounding locality by avoiding light spill outside of the site.

A10. Existing environmental and heritage assets should be conserved and enhanced. Any adverse impacts on these assets will only be acceptable if satisfactory mitigating measures can be provided.

A11. Visitor space for friends and family to pull onto the site for short periods of time while travelling should also be factored into site design.

### **Pitch and Plot Provision**

A12. Each pitch or plot should measure at least 500 square metres (0.05ha) and provide as a minimum in order to accommodate a single household:<sup>26</sup>

- an amenity building;
- an amenity/garden area;
- hard standing for storage shed and drying;
- hard standing for a static caravan if a static caravan is to be situated on the pitch;
- hard standing for a touring caravan; and
- two car parking spaces.

The above facilities will be laid out to facilitate low maintenance and to ensure the safety of residents and allow ease of movement, whether walking, cycling or driving. On shared family sites it may be suitable to provide a communal amenity building as opposed to individual buildings in order to combat loneliness and provide a hub for support services to residents. However, on multi-family sites individual amenity buildings will be required.

<sup>24</sup> Connection to the existing foul sewer network is strongly advised to ensure no deterioration to the watercourse in line with the WFD. Any alternative foul drainage proposals would need an environmental investigation to demonstrate that there would be no adverse impact on the environment. This is in line with NPPF paragraph 170 and Stratford-on-Avon's Core Strategy Policy CS.4 "Water Environment and Flood Risk" to ensure there is no negative impact on water quality. Please note, under the Environmental Permitting (England and Wales) Regulations 2016, the discharge of polluting substances (including sewage effluent) into surface waters or the ground requires the authorisation of the Environment Agency.

This authorisation may be either an Environmental Permit to control the discharge or a registered exemption. This is irrespective of any Planning Permission and there is no guarantee this will be granted. Therefore, the Environment Agency should be contacted in the first instance for advice. Additional 'Environmental Permitting Guidance' can be found at: <https://www.gov.uk/environmental-permit-check-if-you-need-one>.

<sup>25</sup> Connection to the existing foul sewer network is strongly advised to ensure no deterioration to the watercourse in line with the WFD. Any alternative foul drainage proposals would need an environmental investigation to demonstrate that there would be no adverse impact on the environment. This is in line with NPPF paragraph 170 and Stratford-on-Avon's Core Strategy Policy CS.4 "Water Environment and Flood Risk" to ensure there is no negative impact on water quality. Please note, under the Environmental Permitting (England and Wales) Regulations 2016, the discharge of polluting substances (including sewage effluent) into surface waters or the ground requires the authorisation of the Environment Agency.

This authorisation may be either an Environmental Permit to control the discharge or a registered exemption. This is irrespective of any Planning Permission and there is no guarantee this will be granted. Therefore, the Environment Agency should be contacted in the first instance for advice. Additional 'Environmental Permitting Guidance' can be found at: <https://www.gov.uk/environmental-permit-check-if-you-need-one>.

<sup>26</sup> Based on advice contained within the [Stratford-on-Avon District Gypsy and Traveller Accommodation Assessment Update Study \(April 2019\)](#)

**B: Gypsy & Traveller accommodation specific criteria (in addition to criteria A1-A12)**

B1. There is clear separation between communal areas and pitches/plots, and between residential areas and any non-residential areas.

B2. If granting permission on a shared site on an open plan basis rather than individual private pitches (usually on sites with extended families), permission should be given on a pitch-by-pitch equivalent basis to the above. For example, an existing pitch which has enough space to accommodate 2 touring caravans and 2 static caravans along with 4 parking spaces, 2 amenity blocks etc. could be counted as 2 pitches.

**C: Travelling Showpeople accommodation specific criteria (in addition to criteria A1-A12)**

C1. Employment uses should be restricted to purposely designed live/work plots or areas specifically designated and properly designed for such use, recognising that large equipment is essential to the lifestyle of many travelling showpeople.

C2. Plots should have adequate space for the storage and maintenance of equipment and be laid out to avoid conflict between vehicles and residents.

**Strategic Flood Risk Assessment (SFRA)**

The most up to date available SFRA should be referred to in any future proposals to ensure development is located outside the floodplain, including the 1 in 100 year plus climate change extent. This is particularly so if the cumulative impacts of future development could make local areas susceptible to flooding under NPPF Paragraph 156. Climate Change Allowances

The Environment Agency has updated its guidance on how climate change could affect flood risk to new developments which came into immediate effect on 17th December 2019. These climate change allowances vary in each river catchment (Severn, Humber and Thames). Under the new guidance when determining the climate change allowances, there is increased emphasis on the flood risk vulnerability classification of the proposed development. For some development types and locations, two possible climate change allowances are given. It is the higher of these two allowances which should be used in any assessment and mitigation works, particularly if there are areas identified as particularly sensitive to fluvial flood risk in the SFRA. Additionally, the climate change allowances for floodplain compensation have been updated. The appropriate allowance to assess off-site impacts and calculate floodplain storage compensation depends on the land uses in affected areas. In the majority of cases the higher central allowance to calculate floodplain storage compensation should be used. It is for the developer to demonstrate with evidence that a lower allowance should be used.

Details on the above guidance and allowances to be used can be found here: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>.

Additional Information Under Table 3 of the 'Flood Risk and Coastal Change' section of the Planning Practice Guidance, 'highly vulnerable' development, including caravans, mobile homes and park homes intended for permanent residential use should not be permitted in Flood Zone 3. Additional information can be found at <https://www.gov.uk/guidance/flood-risk-andcoastal-change>.



## W5. Core Strategy Policy CS.21: Gypsies and Travellers and Travelling Showpeople

View the full adopted Core Strategy (2016) at [Core Strategy | Stratford-on-Avon District Council](#)

Proposals for the provision of permanent, temporary and transit Gypsy and Traveller pitches and Travelling Showpeople plots will be considered against the following criteria:

- 1 The site is not located within the Green Belt, unless there are very special circumstances, or the Cotswolds Area of Outstanding Natural Beauty (AONB), unless it complies with Policy CS.11;
- 2 The site is not located within an area of designated historic or environmental importance and will not compromise the objectives of any national or local designation, including Special Landscape Areas;
- 3 If located in proximity to the Cotswolds AONB, the site will have a buffer of appropriate scale and landscaping to minimise any adverse visual impact upon the AONB;
- 4 The site should avoid areas prone to fluvial, pluvial or surface water flooding, and exclude areas with a 1 in 100 or greater annual probability of flooding;
- 5 The site will not be located on unstable or contaminated land that cannot be mitigated;
- 6 The site will have safe access to the highway and avoid significant impact on minor rural roads;
- 7 The site will be in a sustainable location in reasonable proximity to local services and facilities, including health and emergency services, making them accessible by modes of transport more sustainable than the private car;
- 8 The location of the site will not result in unacceptable environmental impacts on the amenity of future occupiers of the site;
- 9 The development and use of the site makes best use of previously developed, untidy or derelict land where available and suitable and will not have unacceptable adverse impacts on the landscape, biodiversity or the built environment;
- 10 The site will have a good residential environment and be of good quality layout and design incorporating appropriate landscaping, security, utilities and facilities, and be acceptable in terms of foul and surface water drainage and waste storage and disposal;
- 11 The site will not have an unacceptable adverse impact on neighbouring residential amenity, including noise from any commercial activities;
- 12 Arrangements are put in place to ensure the proper management of the site to seek to ensure community cohesion between the settled and traveller communities.

The Gypsy and Traveller Local Plan will identify sites but consideration will also be given to the provision of pitches as a component of sites allocated for development in the Core Strategy, where this is considered appropriate.

## W6. Glossary

Term	Definition
Allocation/ Allocated Site	A piece of land that has a particular use earmarked to it via the Local Plan. This might be for housing, employment or another purpose such as a Gypsy and Traveller site.
Amenity Building	A building that provides facilities for an individual pitch (private) or a site (communal). These can vary in size and in the facilities they provide, although a basic amenity building on a pitch should include, as a minimum: hot and cold water supply, electricity supply, a separate toilet and hand wash basin, a bath/shower room, a kitchen and dining area.
Amenity Space	This can refer to a garden area on an individual pitch or a communal area of open space / playground on a larger site that is shared by a number of pitches.
Authorised site	A site with planning permission for use as a Gypsy and Traveller or Travelling Showpeople site. It can be privately owned, leased or socially rented (owned by a council or registered provider).
Development Plan	This refers to the statutory planning documents covering the District.
Development Plan Document	Development Plan Documents are the parts of the Local Plan which are subject to independent examination and which provide the statutory planning guidance for the District.
Enforcement Action	Action taken by the Council against failure to obtain planning permission for a use or development, or carrying out a use or development which does not accord with a permission or condition.
Gypsy and Traveller	As defined by the Government's Planning Policy for Traveller Sites (August 2015): <i>Persons of nomadic habit of life whatever their race or origin, including such persons who on grounds only of their own or their family's or dependants' educational or health needs or old age have ceased to travel temporarily, but excluding members of an organised group of travelling showpeople or circus people travelling together as such.</i> This guidance also states that in determining whether persons are "gypsies and travellers" for the purposes of planning policy, consideration should be given to the following issues amongst other relevant matters: a) whether they previously led a nomadic habit of life b) the reasons for ceasing their nomadic habit of life c) whether there is an intention of living a nomadic habit of life in the future, and if so, how soon and in what circumstances.
Heritage Assets	The term used in the National Planning Policy Framework to describe a range of features of heritage value, which may include archaeology, buildings, structures or designed landscapes. These assets may be designated or undesignated. Designated assets include Listed Buildings, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields and Conservation Areas.

<b>Term</b>	<b>Definition</b>
National Planning Policy Framework	The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.
Permanent residential site	A site intended for long-stay use by residents. They have no maximum length of stay but often constraints on travelling away from the site.
Pitch	A pitch is the space required to accommodate one Gypsy and Traveller household. The Stratford-on-Avon GTAA (April 2019) recommends that typical permanent pitches should be capable of accommodating hard standing for a touring caravan and a static caravan, 2 car parking spaces, 1 amenity block, hard standing for storage shed and drying and garden/amenity area.
Planning Condition	Planning conditions impose restrictions on the grant of planning permission. Planning obligations should only be agreed where planning conditions are not sufficient.
Planning Obligation	In the form of a legal agreement, planning obligations apply to an area of land and are secured to ensure that developers mitigate for the impacts of, and provide for, the infrastructural requirements arising from, development.
Plot	Area on a yard for Travelling Showpeople to live. As well as dwelling units, Travelling Showpeople often keep their commercial equipment on a plot.
Private rented pitches	Pitches on sites which are rented on a commercial basis to other Gypsies and Travellers. The actual pitches tend to be less clearly defined than on socially rented sites.
Settled Community	A term used to refer to non-travellers.
Shared Site	A shared site is a site occupied by more than one Gypsy or Traveller or Travelling Showpeople family.
Site	An area of land laid out and/or used for Gypsy and Traveller or caravans for residential occupation, which can be authorised (have planning permission) or unauthorised. Sites can be self-owned by a Gypsy and Traveller or Travelling Showperson resident, or rented from a private or social landlord. Sites vary in type and size and can range from one-caravan private family sites through to large local authority sites. Authorised private sites (those with planning permission) can be small, family-run, or larger, privately-owned rented sites.
Sustainable Drainage Systems (SUDS)	An approach to managing rainwater runoff from buildings and hardstanding. A benefit of the system is to reduce the quantity and rate of surface water flow running directly to rivers via stormwater networks.
Temporary Site	This is an authorised site that has been granted temporary planning permission. At the end of the specified time period (usually between 2-5 years, defined by a planning condition) the use of the site must cease and the site should be restored to its former condition.
Travelling Showpeople	People who organise circuses and fairgrounds and who live on yards when not travelling between locations. Most Travelling Showpeople are members of the Showmen's Guild of Great Britain.

Term	Definition
	<p>A plot for Travelling Showpersons, sometimes called a yard, has capacity for residential accommodation plus space for the storage (and maintenance) of equipment.</p> <p>Travelling Showpeople’s needs are distinct to the needs of the wider Gypsy &amp; Traveller community and the sites are usually mixed-use (i.e. residential and storage use).</p>
Unauthorised encampment	Unauthorised developments include situations where the land is owned by the occupier, or the occupier has the consent of the owner (e.g. is tolerated /no trespass has occurred), but where relevant planning permission has not been granted.
Unauthorised site	Land occupied by Gypsies and Travellers or Travelling Showpeople without the appropriate planning or other permissions. The term includes both unauthorised development and unauthorised encampment.
Yard	An area of land laid out for Travelling Showpeople. As well as space for living quarters, due to work, Travelling Showpeople often require additional space in order to store and maintain large equipment.

**Appendix 1: Climate Change Checklist for new build dwellings and new build non-residential developments where over 20 square metres of additional floorspace is proposed (external area measurement)**

NB: Highlighted measure **MUST** be provided for all new build developments

Principle	Relevant Core Strategy Policies	Objective	Measures expected based on type and scale of new build minor and major development	Has this been addressed in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Design and Access Statement, Layout Plans, Planning Statement with paragraph/page/plan reference) If No or Not Applicable (N/A) please state justification for this.
<b>Increasing accessibility - Reducing the need to travel by private car</b>	CS.2 (Climate Change and Sustainable Construction) CS.9 (Design and Distinctiveness) CS.22 (Economic Development) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.19 (Housing Mix and Type) CS.25 (Healthy Communities) CS.26 (Transport and Communications)	V.3.1 Density and Mixed Uses	Higher densities and mixed uses in sustainable locations and at key transport nodes		
			Design standards to allow for future building adaptation including technological adaptation		
			Horizontal and vertical mix of uses within blocks where appropriate		
			Other- please state		
		V.3.2 Permeability/ Walkability	Active frontages/edges with opportunities for natural surveillance		
			Use of sensory features and opportunities to stand and stay, places to sit and stand utilising views and sun		
			Pedestrian friendly – no obstacles, good surface, access for all, crossings, good sightlines, appropriate lighting, interesting facades		
			Signposting to local facilities		
			Appropriate block sizes to location		
			Local facilities accessible through walking/cycling (within 800m of new developments)		
			Maximising the number of internal pedestrian routes through the site		
			Maximising the number of pedestrian external routes in and out of the site linking to the wider area		
		V.3.3 Integrated Active Travel	Other- please state		
			Easy access to a range of transport modes		
			Signposting of active travel routes and facilities		
			Easy transition from cycling and walking to public transport		
			Education/promotion campaigns to residents		
			Well lit travel facilities and appropriate crossings for pedestrians and cyclists		
		V.3.4 Cycling	Other- please state		
			Covered and well-located cycle storage facilities		
			Cycle routes linking to wider area		
			Shower facilities provided in non-residential developments		
			Off-road cycle routes		
Short cuts for cyclists					
Cyclist priority at junctions					
Clearly marked or segregated cycle lanes					
V.3.5 Planning for the car	Other- please state				
	Car-free, limited and timed zones at certain times and/or locations				
	<b>Use of electric vehicle/cycle charging points</b>	<b>REQUIRED</b>			
	Co-ordinated traffic calming approaches				
<b>Improving</b>	CS.2 (Climate Change and	V.4.1 Reducing the need for energy	Other- please state:		
			Plot and block orientation to maximise solar gain		

Principle	Relevant Core Strategy Policies	Objective	Measures expected based on type and scale of new build minor and major development	Has this been addressed in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Design and Access Statement, Layout Plans, Planning Statement with paragraph/page/plan reference) If No or Not Applicable (N/A) please state justification for this.		
energy efficiency	Sustainable Construction) CS.3 (Sustainable Energy) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) CS.19 (Housing Mix and Type) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites)  CS.25 (Healthy Communities)	V.4.2 Using energy more efficiently	Window positioning to maximise solar gain				
			Use of vegetation for shade in summer				
			Natural ventilation and easy to regulate ventilation (air tight when needed)				
			Private outdoor space for food growing				
			Community Food Growing opportunities (such as allotments, orchards and 'Edible Planting')				
			Other- please state:				
		V.4.3 Using renewable energy	Solar/low energy internal and external lighting (e.g. LED lightbulbs)				
			Using a higher level of insulation than required by Building Regulations				
			Other- please state:				
		V.4.4 Any fossil fuel use to be clean and efficient	Composting and Community composting				
			Renewable energy sources		This measure will be strongly supported and is encouraged.		
			Other- please state:				
Adapting to higher temperatures	CS.2 (Climate Change and Sustainable Construction) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.25 (Healthy Communities)	V.5.1 Shade and Ventilation – The Cooling Hierarchy	Adherence to the Cooling Hierarchy with either option 1(passive design) or option 2 (passive/natural cooling) utilised within the proposal				
			Other- please state:				
		V.5.2 Use of Cool Materials	Use of roof and paving materials that minimise heat gain in summer				
			Other- please state:				
		V.5.3 Green Infrastructure	Trees and landscaping in parking areas and open space areas to provide shade				
			Relationship between vegetation and building to maximise natural ventilation				
			Green & blue infrastructure in private outdoor space – e.g. trees, hedges, water, green/brown/blue roofs, vertical climbers and landscaping				
			Other- please state:				
		Mitigating flood risk	CS.2 (Climate Change and Sustainable Construction) CS.4 (Water Environment and Flood Risk) CS.6 (Natural Environment)  CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural	V.6.1 Sustainable Urban Drainage Systems (SUDS)	SUDs such as raingardens, swales, natural water courses, communal soakaways, filter strips		
					Other- please state:		
				V.6.2 Water Efficiency and Rainwater harvesting	Co-ordinated greywater recycling and reuse systems in apartments and mixed uses		
					Private, and communal where appropriate, rainwater collection and reuse points / water butts		
Other- please state:							
V.6.3 Flood Risk Design Principles for New Development	Use of permeable surfaces for roads, car parking areas, hard surfacing and pavements						
	Natural vegetation e.g. green/brown roofs, communal basins and ponds, blue roofs, green spaces within blocks, green verges						

Principle	Relevant Core Strategy Policies	Objective	Measures expected based on type and scale of new build minor and major development	Has this been addressed in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Design and Access Statement, Layout Plans, Planning Statement with paragraph/page/plan reference) If No or Not Applicable (N/A) please state justification for this.
	Brownfield Sites) CS.25 (Healthy Communities)		Using the highest level of climate change allowance for the time period covering the lifetime of the development  Other- please state:		
<b>Mitigating biodiversity loss</b>	CS.2 (Climate Change and Sustainable Construction) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.25 (Healthy Communities)	V.7.1 Bio-enhancing existing green space	Using different varieties of native species for landscaping  Other- please state:		
		V.7.2 Background wildlife capacity	Trees incorporated into primary street frontages  Restore old hedgerows or plant new hedges and other new planting  Green/brown roofs and wall climbers  At least one of the following: bird/bat boxes/ amphibian kerbs/ hibernacula/hedgehog holes/ hedgehog homes/garden ponds.  Other- please state:		
		V.7.3 Local wildlife nodes and blue / green corridors	Green/brown/blue roofs/walls  Private outdoor space  Green/blue buffers  Wildlife nodes at junctions & street corners  Pocket parks  Other- please state:		

**Appendix 2: Climate Change Checklist for Conversion and Change of Use developments**

Principle	Relevant Core Strategy Policies	Objective	Measures expected based on type and scale of conversion and change of use development	Has this been addressed in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Design and Access Statement, Layout Plans, Planning Statement with paragraph/page/plan reference) If No or Not Applicable (N/A) please state justification for this.
<b>Increasing accessibility - Reducing the need to travel by private car</b>	CS.2 (Climate Change and Sustainable Construction) CS.9 (Design and Distinctiveness) CS.22 (Economic Development) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.19 (Housing Mix and Type) CS.25 (Healthy Communities) CS.26 (Transport and Communications)	V.3.1 Density and Mixed Uses	Higher densities and mixed uses in sustainable locations and at key transport nodes		
			Design standards to allow for future building adaptation including technological adaptation		
			Horizontal and vertical mix of uses within blocks where appropriate		
			Other- please state:		
		V.3.2 Permeability / Walkability	Active frontages/edges with opportunities for natural surveillance		
			Other- please state:		
		V.3.3 Integrated Active Travel	Education/promotion campaigns to residents		
			Other- please state:		
		V.3.4 Cycling	Covered and well-located cycle storage facilities		
			Shower facilities provided in non-residential developments		
			Other- please state:		
		V.3.5 Planning for the car	Use of electric vehicle/cycle charging points		
			Other- please state:		
		<b>Improving energy efficiency</b>	CS.2 (Climate Change and Sustainable Construction) CS.3 (Sustainable Energy) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) CS.19 (Housing Mix and Type) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.25 (Healthy Communities)	V.4.1 Reducing the need for energy	Window positioning to maximise solar gain
Natural ventilation and easy to regulate ventilation (air tight when needed).					
Private outdoor space for food growing					
Other- please state:					
V.4.2 Using energy more efficiently	Solar/low energy internal and external lighting (e.g. LED lightbulbs)				
	Using a higher level of insulation than required by Building Regulations				
	Other- please state:				
V.4.3 Using renewable energy	Renewable energy sources				This measure will be strongly supported and is encouraged.
	Other- please state:				
V.4.4 Any fossil fuel use to be clean and efficient	Combined Heat & Power (CHP)				
	Other- please state:				
<b>Adapting to higher temperatures</b>	CS.2 (Climate Change and Sustainable Construction) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness)			V.5.1 Shade and Ventilation – The Cooling Hierarchy	Adherence to the Cooling Hierarchy with either option 1(passive design) or option 2 (passive/natural cooling) utilised within the proposal
		Other- please state:			
		V.5.2 Use of Cool	Use of roof and paving materials that minimise heat gain in summer		



Principle	Relevant Core Strategy Policies	Objective	Measures expected based on type and scale of conversion and change of use development	Has this been addressed in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Design and Access Statement, Layout Plans, Planning Statement with paragraph/page/plan reference) If No or Not Applicable (N/A) please state justification for this.
	AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.25 (Healthy Communities)	Materials	Other- please state:		
		V.5.3 Green Infrastructure	Trees and landscaping in parking areas and open space areas to provide shade		
			Relationship between vegetation and building to maximise natural ventilation		
			Green & blue infrastructure in private outdoor space – e.g. trees, hedges, water, green/brown/blue roofs, vertical climbers and landscaping		
		Other- please state:			
<b>Mitigating flood risk</b>	CS.2 (Climate Change and Sustainable Construction) CS.4 (Water Environment and Flood Risk) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.25 (Healthy Communities)	V.6.1 Sustainable Urban Drainage Systems (SUDS)	SUDs such as raingardens, swales, natural water courses, communal soakaways, filter strips		
			Other- please state:		
		V.6.2 Water Efficiency and Rainwater harvesting	Co-ordinated greywater recycling and reuse systems in apartments and mixed uses		
			Private, and communal where appropriate, rainwater collection and reuse points / water butts		
			Other- please state:		
		V.6.3 Flood Risk Design Principles for New Development	Use of permeable surfaces for roads, car parking areas, hard surfacing and pavements		
			Natural vegetation e.g. green/brown roofs, communal basins and ponds, blue roofs, green spaces within blocks, green verges		
			Using the highest level of climate change allowance for the time period covering the lifetime of the development		
			Other- please state:		
		<b>Mitigating biodiversity loss</b>	CS.2 (Climate Change and Sustainable Construction) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) AS.11 (Large Rural Brownfield Sites) CS.25 (Healthy Communities)	V.7.1 Bio-enhancing existing green space	Using different varieties of native species for landscaping
Other- please state:					
V.7.2 Background wildlife capacity	Green/brown roofs and wall climbers				
	At least one of the following: bird/bat boxes/ amphibian kerbs/ hibernacula/ hedgehog holes/ hedgehog homes/garden ponds.				
	Other- please state:				
V.7.3 Local wildlife nodes and blue / green corridors	Green/brown/blue roofs or walls				
	Private outdoor space				
Other- please state:					

### Appendix 3: Climate Change Checklist for Householder Developments where over 20 square metres of additional floorspace is proposed (external area measurement)

Principle	Relevant Core Strategy Policies	Objective	Expected Measures	Has this been considered in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Layout Plans, Planning Statement with paragraph/page/ plan reference) If No or Not Applicable (N/A) please state justification for this
Increasing accessibility - Reducing the need to travel by private car	CS.2 (Climate Change and Sustainable Construction) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside & Villages) CS.19 (Housing Mix and Type) CS.25 (Healthy Communities) CS.26 (Transport & Communications)	V.3.1 Density and Mixed Uses	Design to allow for future adaptation of buildings / extensions including technological adaptation		
			Other:		
		V.3.2 Permeability / Walkability	Provision of habitable rooms facing the street at ground floor level with appropriate windows and doors to provide activity and allow for natural surveillance		
			Other:		
		V.3.3 Integrated Active Travel	Not applicable		
		V.3.4 Cycling	Cycle parking / storage		
			Other:		
V.3.5 Planning for the car	Use of electric vehicle/cycle charging points				
	Other:				
Improving energy efficiency	CS.2 (Climate Change and Sustainable Construction) CS.3 (Sustainable Energy) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) CS.19 (Housing Mix and Type)	V.4.1 Reducing the need for energy	Window positioning		
			Use of planting to provide shade in summer		
			Natural ventilation and easy to regulate ventilation (air tight when needed)		
			Private outdoor space for food growing		
			Other:		
		V.4.2 Using energy more efficiently	Using a higher level of insulation than required by Building Regulations		

Principle	Relevant Core Strategy Policies	Objective	Expected Measures	Has this been considered in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Layout Plans, Planning Statement with paragraph/page/ plan reference) If No or Not Applicable (N/A) please state justification for this		
	AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) CS.25 (Healthy Communities)		Solar/low energy internal and external lighting (e.g. LED lightbulbs)				
			Other:				
		V.4.3 Using renewable energy	Renewable energy sources such as solar panels or heat pumps		This measure will be strongly supported and is encouraged.		
			Other:				
		V.4.4 Any fossil fuel use to be clean and efficient	Combined Heat & Power (CHP)				
			Other:				
<b>Adapting to higher temperatures</b>	CS.2 (Climate Change and Sustainable Construction) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside and Villages) CS.25 (Healthy Communities)	V.5.1 Shade and Ventilation – The Cooling Hierarchy	Glazing designed for natural ventilation and reducing heat gain				
			Other:				
		V.5.2 Use of Cool Materials	Exterior materials that minimise heat gain in summer				
			Other:				
		V.5.3 Greenspace Infrastructure	Relationship between landscaping and building to maximise natural ventilation				
			Planting and water features in private outdoor space – e.g. trees, hedges, ponds, green/brown/blue roofs, vertical climbers and landscaping				
			Other:				
			CS.2 (Climate Change and Sustainable Construction) CS.4 (Water Environment & Flood Risk) CS.6 (Natural Environment)	V.6.1 Sustainable Urban Drainage Systems (SUDS)	SUDs such as raingardens		
					Other:		
V.6.2 Water Efficiency and Rainwater harvesting	Rainwater collection such as water butts						
	Other:						
V.6.3 Flood Risk Design Principles for New	Use of permeable surfaces for hard surfacing and car parking areas						
	Other:						

Principle	Relevant Core Strategy Policies	Objective	Expected Measures	Has this been considered in the planning application submission? (Yes/No/Not Applicable)	If Yes please signpost to relevant information within planning application submission (e.g. Layout Plans, Planning Statement with paragraph/page/ plan reference) If No or Not Applicable (N/A) please state justification for this
	CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside & Villages) CS.25 (Healthy Communities)	Development	Planting e.g. green/brown roofs, walls and green verges, blue roofs  Other:		
<b>Mitigating biodiversity loss</b>	CS.2 (Climate Change and Sustainable Construction) CS.6 (Natural Environment) CS.7 (Green Infrastructure) CS.9 (Design and Distinctiveness) AS.1-9 (Area Strategies) AS.10 (Countryside & Villages) CS.25 (Healthy Communities)	V.7.1 Bio-enhancing existing green space	Using different varieties of native species for landscaping  Other:		
		V.7.2 Background wildlife capacity	Green/brown roofs and wall climbers  At least one of the following: bird/bat boxes/ amphibian kerbs/ hibernacula/ hedgehog holes/ hedgehog homes/garden ponds.  Other:		
		V.7.3 Local wildlife nodes and blue / green corridors	Green/brown/blue roofs or walls		
			Private outdoor space		
			Other:		

# Glossary of Technical Terms

**Affordable housing:** Social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market. Eligibility is determined with regard to local incomes and local house prices. Affordable housing should include provisions to remain at an affordable price for future eligible households.

Social rented housing is owned by local authorities and private registered providers (as defined in section 80 of the Housing and Regeneration Act 2008), for which guideline target rents are determined through the national rent regime.

Affordable rented housing is let by local authorities or private registered providers of social housing to households who are eligible for social rented housing.

Intermediate housing is homes for sale and rent provided at a cost above social rent, but below market levels. These can include shared equity (shared ownership and equity loans), other low cost homes for sale and intermediate rent, but not affordable rented housing.

Homes that do not meet the above definition of affordable housing, such as low cost market housing, may not be considered as affordable housing for planning purposes.

See also definitions for General Needs Housing, Low Cost Market Housing and Specialised Accommodation.

**Air Quality Management Area (AQMA):** Areas designated by Local Authorities because they are not likely to achieve national air quality objectives by the relevant deadlines. The area may encompass just one or two streets, or it could be much larger. The Local Authority is subsequently required to put together a plan to improve air quality in that area – a Local Air Quality Action Plan.

**Albedo:** The amount of solar radiation that is reflected from an object or surface. It is usually expressed as a percentage, and the higher the albedo, the more solar radiation is reflected back into the atmosphere. Light surfaces have a higher albedo than dark surfaces.

**Amphibian Kerbs:** Small grooves in the curb that allow amphibians to go around drains rather than in them. They work on the basis that amphibians like to travel alongside vertical surfaces, and by creating an indent in the curb it acts as a bypass around the drain.

**Area of Outstanding Natural Beauty (AONB):** An AONB is an area of high scenic quality which has statutory protection in order to conserve and enhance the natural beauty of its landscape. Natural England has a statutory power to designate land as AONBs under the Countryside and Rights of Way Act 2000. They have equal status to National Parks in terms of their designation being of national importance.

**Areas of Restraint:** A specifically defined and protected environmental area of open land that is subject to protection to preserve the structure and character of the settlement which it helps to shape.

**Attenuation:** The process of slowing and storing water and then discharging it at a specified maximum rate to a suitable outfall, this is often achieved through the use of Sustainable Drainage Systems.

**Biodiversity:** A term commonly used to describe the variety of life on earth. It encompasses the whole of the natural world and all living things including plants, animals, and other organisms which, together, interact in complex ways with the inanimate environment to create living ecosystems.

**Bio-liquids:** Bio liquids are a type of fuel derived from organic matter (such as vegetable and seed oils) that are used for energy purposes other than transport.

**Blue Infrastructure:** Infrastructure involving water, for example canals, ponds, wetlands, streams, rivers

**Building Research Establishment Environmental Assessment Method (BREEAM):** An assessment method used to improve measure and certify the social, environmental and economic sustainability of new buildings, particularly non-domestic buildings.

**Building for Life:** A measurement of the quality of development initiated by the Commission for Architecture and the Built Environment (CABE).

**Carbon Neutral Targets:** In June 2019 a pledge was made by the UK government to cut greenhouse gas emissions to almost zero. The UK is the first country to propose such a target.

**Carbon Storage:** Carbon Dioxide is naturally captured from the atmosphere through a number of biological, chemical and physical processes. Many habitat areas contain large amounts of stored carbon dioxide in the form of plants, and the removal of these habitats would release the carbon dioxide back into the atmosphere.

**CCHP/Combined Cooling Heat and Power:** CCHP also sometimes known as Trigenation, is when a power plant simultaneously creates heat and electricity, as well as chilled water for air conditioning and refrigeration.

**CHP/Combined heat and Power:** CHP is the generation of both usable heat and power (electricity) in a single, highly efficient process. CHP can use renewables or fossil fuels.

**Climate Change Adaptation:** Adjustments made to natural or human systems in response to the actual or anticipated impacts of climate change, to mitigate harm or exploit beneficial opportunities.

**Climate Change Mitigation:** Action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

**Combined Heat and Power (CHP):** CHP is the generation of both usable heat and power (electricity) in a single, highly efficient process. CHP can use renewable or fossil fuels.

**Community facilities:** The term community facilities includes provision for health and social care, education, emergency services, meeting spaces and cultural facilities (including libraries, arts and places of worship), open space, sports venues and local shops and pubs.

**Community Infrastructure Levy (CIL):** A charge or levy that Local Authorities in England and Wales are empowered, but not required, to charge on most types of new development in their area. CIL charges are based on simple formulae that relate the charge to the size and character of the development paying for it. This allows Local Authorities to raise funds from owners or developers of land undertaking new building projects in their area which can be used to fund a wide range of infrastructure needed to support the development of the local area.

**Conservation Area:** A specifically defined and protected environmental area in view of its special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. They are designated by Local Planning Authorities. It is a statutory recognition of the value of a group of buildings and their surroundings and the need to protect not just the individual buildings, but the character of the area as a whole.

**Core Strategy:** The Core Strategy sets out a Local Planning Authority's development strategy and planning policies. These policies usually include the allocation of strategic employment and housing sites, along with guidance on provision on infrastructure and services. Within Stratford-upon-Avon the current Core Strategy establishes the overall spatial vision for the District up to 2031 and establishes the framework that our other planning documents will build upon. The Council adopted the Core Strategy on 11 July 2016.

**Curtilage:** The legal term for the property boundary, for example a house and its garden.

**Decentralised Energy:** The term broadly refers to energy that is generated off the main grid, including micro (small scale) renewables, heating and cooling. It can refer to energy from waste plants, combined heat and power, district heating and cooling, as well as geothermal, biomass and solar energy. Schemes can serve a single building or a whole settlement.

**Detention Basins:** Detention Basins are large surface depressions that are usually dry, but following heavy rain periods can collect and store water, before slowly filtering it on to other areas. By collecting water, they reduce the risk of flooding. Whilst not being used to store water they can be used for recreational or wildlife purposes.

**Decentralised Energy:** This term broadly refers to energy that is generated off the main grid, including micro (small scale) renewables, heating and cooling. It can refer to energy from waste plants, combined heat and power, district heating and cooling, as well as geothermal, biomass and solar energy. Schemes can serve a single building or a whole settlement.

**Development Plan:** A statutory document within the Local Development Framework (LDF). The collective term for all of the adopted plans and documents that can be used to determine planning applications. The LDF sets out the Local Authority's policies and proposals for the development and use of land in their area. For Stratford-on-Avon District, the Development Plan will eventually comprise the Core Strategy, the Gypsy and Traveller Local Plan and the Site Allocations Plan prepared by the District Council, the Minerals Local Plan and Waste Local Plan prepared by Warwickshire County Council, and any Neighbourhood Plans prepared by Parish and Town Councils. The term also covers policies in the existing Local Plan which have been saved under the Planning and Compulsory Purchase Act 2004, until they are replaced.

**District Heating:** District heating (also known as heat networks) comprises a network of subterranean insulated pipes which distribute heating and/or cooling in the form of hot or chilled water from the local energy centre, such as a Water Source Heat Pump (WSHP) or a Combined Heat and Power (CHP), and deliver this directly to homes and businesses. This means that households and businesses do not need to generate their own heat or use centralised energy sources, such as individual gas boilers, as a primary heating source. District heating can reduce carbon emissions, improve air quality and benefit residents and businesses through cheaper heating and greater security of supply. When a district heating network incorporates CHP it can also supply electricity at reduced cost.

**Electric Vehicle Charging Points (EVCPs):** Are post mounted or street light (footway) mounted and off street charging points in external car parks (usually surface level) or within the curtilage of a dwelling can be post or wall mounted.

**Energy Hierarchy:** The Energy Hierarchy is a classification of energy options that prioritises a sustainable approach. The top of the energy hierarchy aims to reduce the need for energy, and the bottom falls back on using conventional fossil fuels. The middle tiers look at using renewable energy sources and being efficient with the energy created to reduce waste.

**Evapotranspiration:** The process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants.

**Extra-care Housing:** Extra care housing developments comprise self-contained homes with design features and support and care services available to enable self-care and independent living. Each household has its own front door. It is for people whose disabilities, frailty or health needs make ordinary housing unsuitable but who do not need or want to move to long term care (residential or nursing homes).

**Fenestration:** The arrangement, proportioning, and design of windows, vents and doors in a building that allows for the correct amount of light and ventilation into a building.

**Filter Drains:** Gravel filled trenches that collect water after heavy rain periods. The presence of gravel acts as a filtering system that slows down the water flow, as well as removing sediment and other particulates. Once collected, the water flows to another point where appropriate measures are in place to deal with excess water. They are often used on roads and in car parks to reduce the risks of flooding.

**Filter Strips:** Gently sloping areas of vegetated land that are designed to accept runoff following heavy rain periods. They generally sit between a hard-surfaced area (such as a road) and a small stream that is able to carry the water to a more suitable location.

**Fuel Poverty:** The state of being unable to heat one's home adequately.

**General Needs Housing:** All housing of any tenure other than that which is specialised housing. See also definition of Specialised Accommodation.

**Good Homes Alliance:** A body that aims to promote and encourage the building of quality sustainable homes and communities.

**Green Belt:** A specifically defined area within which most forms of development are strictly controlled. The purpose of the Green Belt is to maintain the 'openness' of the land and prevent urban sprawl (i.e. unplanned development). Importantly, the quality of the landscape is not relevant to its inclusion within the Green Belt. Green Belt is different to Greenfield land. There is a general presumption against inappropriate development, which is defined as development that is harmful to the purposes of the Green Belt. The Government attaches substantial weight to the need to avoid harm to the Green Belt. More specifically, the National Planning Policy Framework (NPPF) indicates that most forms of development are inappropriate, with some specified exceptions to this that will be permitted as long as they meet certain criteria, such as maintaining the openness of the area and not conflicting with the purposes of including land in the Green Belt.

**Green Infrastructure:** A network of high quality, multi-functional green spaces and other environmental features, urban and rural. The greatest benefits will be gained when it is designed and managed as a multifunctional resource which is capable of delivering a wide range of environmental and quality of life benefits for local communities.



**Green Walls:** A vertical surface that is partially or completely covered in plants and other vegetation. Installations might be supported on a framework and might include drainage and irrigation systems. They work to reduce air pollution and to increase biodiversity.

**'Heat Island' effect:** A term often used when discussing the high temperatures of built up areas in comparison to the surrounding rural areas.

**Heritage asset:** A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. They include nationally designated heritage assets, e.g. Ancient Monuments, Listed Buildings, and those identified by the Local Planning Authority, including local listing.

**Historic Environment:** The Government defines the historic environment as all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.

**Infiltration Basins and Trenches:** Vegetated depressions that hold water after heavy rain periods and slowly release it into the below soil and ground water

**Infrastructure:** The network of essential physical services that most buildings or activities are connected to. It includes not only physical services in an area (eg. gas, electricity and water provision, telecommunications, sewerage) and networks of roads, public transport routes, footpaths etc. but also community facilities and green infrastructure. New or improved infrastructure will generally need to be provided where significant levels of new development are proposed.

**Listed Building:** A building or structure that is considered to be of special national architectural or historic interest. It is protected by law from unauthorised alterations or demolition.

**Local Development Documents:** This is the collective terms for different documents that are associated with Planning Policy. Such as Development Plan documents, Supplementary Planning documents and Statements of community involvement.

**Local distinctiveness:** A term that describes the unique features of a place and embraces issues such as landscape character, biodiversity, historic features and building design.

**Local Planning Authority:** The public authority whose duty it is to carry out specific planning functions for a particular area. All references to the local planning authority apply to Stratford-on-Avon District Council in its statutory duty to produce a Development Plan and determine planning applications.

**Local Transport Plan (LTP):** The Transport Act 2000 introduced a statutory requirement for local transport authorities to produce a LTP every five years and to keep it under review. The Department for Transport expects authorities to consider their contribution to national transport goals as over-arching priorities for their LTPs.

**Local Wildlife Nodes:** Areas where underutilised land is developed to encourage biodiversity.

**Local Wildlife Sites:** Non-statutory areas of local importance for nature conservation that complement nationally and internationally designated geological and wildlife sites. More information on wildlife sites including their location can be found at [Nature Reserves | Warwickshire Wildlife Trust](#)

**Louvres:** A window blind or shutter that consists of angled horizontal slats that let in light and air, but prevent direct sunlight and rain entering. They can be used to keep rooms cool.

**Low-e Glass:** A type of glass that reduces the amount of heat that can escape through the window. For this reason it is very energy efficient.

**LPG/Liquefied Petroleum Gas:** Liquefied mixes of hydrocarbon gas that can be used as fuel. It is highly efficient and usually stored in pressurised steel canisters.

**National Planning Policy Framework (NPPF):** Originally published in 2012, and then revised in July 2018 and February 2019. The National Planning Policy Framework (NPPF) sets out the Government's economic, environmental and social planning policies for England. The policies set out in this framework apply to the preparation of local and neighbourhood plans and to decisions on planning applications. The NPPF covers a wide range of topics including: housing, business, economic development, transport and the natural environment.

**Natural Filtering:** Toxins can be taken out of the atmosphere and removed from water sources, in a number of natural ways. One such way is through photosynthesis, where carbon dioxide is removed from the atmosphere by plants and turned into oxygen.

**Neighbourhood Development Plans:** A plan prepared by Parish/Town Councils or Neighbourhood Forums to establish general planning policies for the development and use of land within a particular neighbourhood area. Subject to conformity with the strategic policies of the Core Strategy or Local Plan, an independent examination and support in a community referendum, a Neighbourhood Plan will become part of the planning framework for land uses in the local area. Neighbourhood Development Plans are not compulsory and it is down to individual communities to decide whether they wish to produce a Neighbourhood Development Plan.

**Night Purging:** At night the air cools, and night purging is the passive movement of this cool air into buildings to replace any stale hot air.

**Offsetting:** In relation to the planning system, offsetting is a system to fully compensate for the impacts resulting from a development. A common example of this is biodiversity offsetting.

**Passive Solar Design:** Passive Solar Design aims to utilise the sun's energy for both heating and cooling effects. When designing the buildings architects look at the orientation, materials and any nearby buildings that may block sunlight. They take into consideration the sun's changes throughout the year and aim to provide comfortable environments that require less generated energy for heating and cooling.

**Passivhaus:** A standard for energy efficiency that focuses on air quality and comfort. It aims to reduce the requirements for space heating by looking at insulation, window sizes and orientations, and junction details.

**Permeability:** The level of permeability refers to the ease in which something can travel through.

**Permeable Surfaces:** Surfaces that allow water to penetrate through.

**Photovoltaic** Otherwise known as solar panels, photovoltaic systems convert solar energy into electrical energy.

**Planning Condition:** A condition imposed on a grant of planning permission (in accordance with the Town and Country Planning Act 1990) or a condition included in a Local Development Order or Neighbourhood Development Order. Such conditions permit development to go ahead only if their stipulations are satisfied.

**Planning Obligation:** Legally enforceable agreements between a Local Planning Authority and a developer, or undertakings offered unilaterally by a developer, which ensure that necessary mitigating works related to development are undertaken. They are often called Section 106 Agreements.

**Rainwater Gardens:** Small depressions that collect rainwater run-off. They are planted up with species that can handle occasional flooding.

**Receptor Sites:** New sites that allow wildlife to spread and biodiversity to increase.

**Registered Social Landlord:** A term introduced in the Housing Act 1996 to describe local housing companies and housing associations that are registered and monitored by the Housing Corporation (now the Homes and Communities Agency).

**Regulation 123 List:** Regulation 123 restricts the use of planning obligations for infrastructure that will be funded in whole or in part by the Community Infrastructure Levy (CIL). The Local Authority is expected to publish a list of infrastructure that will benefit from CIL on its website. The key purpose of the Regulation 123 List is to define the items where Section 106 contributions will not be sought, rather than to restrict the use of CIL funds.

**Renewable and Low Carbon Energy:** Includes energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass and deep geothermal heat. Low carbon technologies are those that can help reduce emissions, compared to conventional use of fossil fuels.

**Renewable Energy:** Includes energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass and deep geothermal heat.

**Retention Ponds:** Permanent ponds or pools of water that are designed to act as additional storage following a heavy rainfall period. They do not transport the water elsewhere and instead naturally treat the water and remove pollutants, therefore improving the water quality.

**Scheduled Monument:** Features (both underground or on the surface) of national archaeological or historic interest designated by the Secretary of State for Culture, Media and Sport, which are the subject of legal protection to prevent them being damaged or destroyed. The regulations are similar to those applied to listed buildings but are administered by English Heritage rather than Local Authorities.

**Section 106 Agreement:** A legal agreement between developers and a Local Planning Authority made in accordance with section 106 (s.106) of the 1991 Planning Act, usually to secure benefits for local residents without which a planning application would be refused (also see **Planning Obligations**).

**Section 278 Agreement:** A legal agreement made between a developer and the Highway Authority (i.e. Warwickshire County Council) to enable works to be carried out on the public highway to facilitate development.

**Sedum Blanket:** A layer of living plants on top of a waterproof roof surface.

**Sites of Special Scientific Interest (SSSI):** Specifically defined sites or areas designated as being of national importance because of their wildlife, plants or flowering species and/or their unusual or atypical geological features. SSSIs are designated by Natural England and have protected status under the Wildlife and Countryside Act 1981. The protection is subject to Government Regulations.

**Smart Glass:** Glass that alters its light transmission properties if voltage, light or heat are applied. The glass can change from transparent to translucent and can block certain wavelengths.

**Soakaway:** A drainage feature that collects and allows water to seep down. It is an efficient way to deal with surface water in a way that has little environmental impact.

**Social Rented:** This is housing available to rent at below market levels. Lower rents are possible because the Government subsidises Local Authorities and Registered Social Landlords (RSLs) in order to meet local affordable housing needs.

**Solar Water Heating:** Systems that use solar energy to heat up water. The energy is converted using a solar collector

**Special Landscape Area:** A designation covering in landscape in the District which is judged to be of high quality at the local level and which requires protection from inappropriate forms of development and activity.

**Strategic Environmental Assessment (SEA):** A procedure set out in the Environmental Assessment of Plans and Programmes Regulations 2004 which requires the formal environmental assessment of certain plans and programmes which are likely to have significant effects on the environment.

**Strategic Housing Market Assessment (SHMA):** The purpose of a SHMA is to analyse data and trends relating to local housing markets within a sub-region and across administrative boundaries and to guide, inform and support the development of planning and housing policies over that area. It provides evidence for the preparation of Development Plan Documents for the local authority areas covered.

**Sun Orientation:** The alignment of a building in relation to the movement of the sun across the sky.

**Sustainable Development:** Sustainable development should meet the needs of the present without compromising the ability of future generations meeting their own needs.

**Sustainable Urban Drainage System (SuDS):** The SuDS approach involves slowing down and reducing the quantity of surface water run off for a developed area to manage flood risk downstream, and reduce the risk of run off causing pollution. This is achieved by harvesting, infiltrating, slowing, storing, conveying and treating run off on site. SuDS allow water to become a more visible and tangible part of the built environment, which can be enjoyed by everyone.

**Sustainable modes of transport:** Any efficient, safe and accessible means of transport, other than the private car, which has an overall low impact on the environment, including walking and cycling, low and ultra-low emission vehicles, car sharing and public transport.

**Supplementary Planning Document (SPD):** Provides further detail to explain how the policies in a Core Strategy, Local Plan or other Development Plan Document will be implemented. They can be used to provide further guidance for development on specific

sites, or on particular issues, such as design. SPDs are capable of being a material consideration in planning decisions but are not part of the Development Plan.

**Supported Housing:** Any Housing scheme where accommodation is provided alongside care, support or supervision to help people live as independently as possible in the community.

**Sustainable transport:** Any efficient, safe and accessible means of transport, other than the private car, which has an overall low impact on the environment, including walking and cycling, low and ultra-low emission vehicles, car sharing and public transport.

**Sustainability Appraisal:** The Planning and Compulsory Purchase Act 2004 requires Local Development Documents (LDDs) to be prepared with a view to contributing to the achievement of sustainable development. Sustainability appraisal is a systematic process that assesses the social, environmental and economic effects of the strategies and policies in a LDD from the outset of the preparation process. This helps to ensure that decisions are made that accord with sustainable development requirements.

**Sustainable Development:** In broad terms, this means development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The Government has set out five guiding principles for sustainable development in its strategy 'Securing the Future – UK Government Strategy for Sustainable Development'. The five guiding principles, to be achieved simultaneously, are:

- Living within environmental limits
- Ensuring a strong, healthy and just society
- Achieving a sustainable economy
- Promoting good governance
- Using sound science responsibly.

The NPPF sets out a definition of sustainable development and identifies how it is to be identified and delivered (see paragraphs 7-14).

**Sustainable urban Drainage System (SuDS):** Seeks to minimise wastage of water, including the use of appropriate groundcover to enable maximum penetration of clean water run-off into the ground, promote the filtration and evaporation of water as close to the source as possible and break down pollutants and, where appropriate, recycle grey water within the development. Designed to minimise the impact of development on the natural water environment, they are an alternative to drainage through pipes directly to a water course and help enhance water quality and biodiversity, maintain groundwater levels and reduce the risk of flooding.

**Swales:** Broad vegetated channels that can store and transport water following heavy rain periods.

**Thermal Stores:** A way of storing heat until required, often in the form of well insulated water tanks.

**Topography:** The arrangement of the visible natural and artificial features of an area.

**Town Centre:** Area defined by the Local Authority's Development Plan and shown on the Policies Map, including the primary shopping area and areas predominantly occupied by main town centre uses within or adjacent to the primary shopping area.

**Transport Assessment:** A comprehensive and systematic process that sets out transport issues relating to a proposed development. It identifies what measures will be required to

improve accessibility and safety for all modes of travel, particularly for alternatives to the car such as walking, cycling and public transport, and what measures will need to be taken to deal with the anticipated transport impacts of the development.

**Transport Statement:** A simplified version of a transport assessment where it is agreed the transport issues arising out of a development proposal are limited and a full Transport Assessment is not required.

**Travel Plan:** A long-term management strategy for an organisation or site that seeks to deliver sustainable transport objectives through action and is articulated in a document that is regularly reviewed.

**Wildlife Capacity:** The amount of wildlife that an area can sustainably withstand.