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1. Introduction

1.1 These guidelines set out the level of car parking expected for new developments in Waverley. The guidelines are divided into two main sections, one dealing with non-residential development, and one dealing with residential development. In addition to this, the document sets out guidelines for cycle parking provision, disabled parking and school parking requirements.

1.2 Surrey County Council has recently issued its “Vehicular and Cycle Parking Guidance” (January 2012). This guidance has been commended to the 11 local planning authorities in Surrey for use in their Local Development Frameworks (LDFs). This new guidance supersedes the County Council’s 2003 parking guidelines.

1.3 In relation to non-residential development the Waverley Borough Council is adopting the County Council’s Guidelines. The Council is also adopting the County Guidance in relation to cycle parking provision, disabled parking and school parking.

1.4 In relation to residential development, the Council has produced specific guidelines for Waverley. These are a development of the County Council’s guidance, reflecting local circumstances. There are different guidelines depending on the size of dwellings and depending on the location. Two zones have been proposed, based on the accessibility of a site to employment, services etc. and access to public transport.

1.5 Once adopted, the Waverley Borough Council Parking Guidelines will be a material consideration to be used to determine the appropriate level of parking within new developments in Waverley.

2. Policy Context

The National Planning Policy Framework (NPPF) (March 2012)

2.1 In March 2012 the Government published the new ‘National Planning Policy Framework’ (NPPF). An overriding aim of the NPPF is to contribute to the achievement of sustainable development. The NPPF contains a number of ‘Core Planning Principles’. One of these relates to transport and states that planning should actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and to focus significant development in locations which are or can be made sustainable.

2.2 There are a number of other Core Principles in the NPPF the achievement of which will be affected by the approach taken in relation to transportation and parking. For example, the aim of proactively driving and supporting sustainable economic

development; the aim of securing high quality design; the aim of supporting a transition to a low carbon future; and the aim of promoting mixed use developments. Another aim of the NPPF is to have positive planning policies that promote competitive town centre environments.

2.3 The NPPF contains a specific section on promoting sustainable transport. It says that the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. The NPPF recognises, however, that different policies and measures will be required in different communities and that the opportunities to maximise sustainable transport solutions will vary from urban to rural areas.

2.4 In relation to parking, the NPPF says that if setting local standards for residential and non-residential development, local 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
- An overall need to reduce the use of high-emission vehicles.

Department for Transport White Paper “Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen” (2011)

2.5 This White Paper forms part of an overall strategy to tackle carbon emissions from transport. It sets out what Government believes is the best way in the short term to reduce emissions at the local level, using the tools that are available now, principally by encouraging people to make more sustainable travel choices for shorter journeys. It suggests that either minimum or maximum standards are acceptable, depending on what is right for the area.

Waverley Borough Council Local Plan (2002)

2.6 Policy M14 of the Waverley Local Plan relates to car parking standards. It states that the level of car parking provision appropriate for individual development proposals will be assessed according to the location and type of development. It makes reference to the developer’s own requirements, the accessibility of the location, and national and regional policy on parking issues.

Waverley Borough Council Core Strategy Pre-Submission Version August 2012

2.7 Although the Draft Core Strategy is not yet adopted, it does contain a relevant chapter on sustainable transport. Draft policy CS3 sets out a list of matters that need to be addressed in new developments including:-

- They are located where they are accessible to other forms of transport.

- They include measures to encourage non-car use such as on-site cycle parking.
- They are consistent with the Surrey Local Transport Plan.
- They encourage the provision of new and improved footpaths, bridleways and cycleways.
- They make appropriate provision for car parking, having regard to the type of development and its location, in accordance with local parking standards to be developed by the Council.

Surrey Local Transport Plan (LTP3) (2011-2026)

2.8 The overall vision of the Surrey Local Transport Plan is to help people to meet their transport and travel needs effectively, reliably, safely and sustainably within Surrey; in order to promote economic vibrancy, protect and enhance the environment and improve the quality of life. Within the Surrey Transport Plan is a more detailed parking strategy with the following objectives:

- Reduce congestion caused by parked vehicles.
- Make best use of the parking space available.
- Enforce parking regulations fairly and efficiently.
- Provide appropriate parking where needed.

Surrey County Council Vehicular and Cycle Parking Guidance (2012)

2.9 The latest parking guidance from Surrey County Council sets out standards for both residential and non-residential development. In relation to non-residential development, these guidelines are expressed as a maximum, albeit that in many cases there is also some flexibility to take account of the type of development and its location in deciding on the appropriate level of parking provision. In relation to new residential development, the County Council's guidelines are not expressed as either a maximum or minimum. They vary for different sizes and type of dwelling and also depending on location.

3. Parking Guidelines for Non-Residential Development

3.1 In relation to non-residential development, the Council is adopting the County Council's guidelines. These are set out in **Appendix 1**. They provide guidelines for a range of commercial and other non-residential uses. In relation to these it should be noted that:-

- All parking levels relate to gross floor area and are recommended as a maximum unless otherwise stated.
- Provision for uses marked '**individual assessment**' will require their own justification and the inclusion of parking management plans, travel plans and cycle strategies where appropriate.
- Levels of parking per member of staff should be calculated using the average of those employed on the site at any one time.

4. Parking Guidelines for Residential Development

4.1 The Council has produced specific parking guidelines for residential development, in response to local circumstances and taking account of the guidance in the NPPF.

4.2 The development of residential parking guidelines specifically for Waverley is partly in response to concerns that have been raised about parking provision in some new housing developments not being adequate, resulting in parking spilling onto surrounding roads or vehicles being parked in unsuitable locations within a new development. Having regard to this, and the high levels of car ownership in Waverley compared with both the national average and the average in Surrey, it is considered that specific guidelines are needed for new residential development in Waverley. Therefore, the proposed Waverley specific residential parking standards are intended to provide a level of parking that more closely reflects demand, taking account of car ownership levels in the borough and levels of access to local services and public transport.

Car Ownership in Waverley

4.3 A comparison of car ownership levels in Waverley compared with those of Surrey, the south east as a whole and national statistics shows the following:

	All Households (TOTAL)	All cars or vans in the area	Average number of cars per household
Waverley	47,176	70,945	1.50
Surrey	433,176	633,771	1.46
South East	3,287,489	4,271,483	1.30
England	20,451,427	22,607,629	1.11

4.4 It is clear that the average car ownership levels in Waverley are higher than those of Surrey as a whole, but more importantly, in certain wards within the Borough levels vary greatly. For example, people residing in the Frensham, Dockfield and Tilford ward own, on average, 1.89 cars per household, in comparison to Surrey's average of 1.46. In fact, 20 of the 29 wards have higher car ownership levels than those defined for Surrey as a whole.

Accessibility Zoning

4.5 When formulating residential parking standards it is important to consider accessibility to services by car and other modes of transport. In promoting sustainable forms of transport, the NPPF recognises that measures will have to vary

depending, for example, on whether it is an urban area or a rural area. This can be achieved by creating zones based on accessibility, within which different standards will apply.

Accessibility in Waverley

4.6 The amount of parking provided should be practical to address the concerns associated with current parking provision, but sustainability is also an important consideration, given the broader aim of reducing carbon emissions by reducing the need to travel generally and encouraging non-car modes of transport where appropriate. Alternatives to the car should therefore be used wherever possible to encourage sustainable transport choices. Accessibility to main line train stations and other local services should be considered when devising parking standards.

Rail Travel

4.7 In Waverley practical alternatives to the car are fairly limited. There are two railway systems, the London Waterloo/Portsmouth line and the London Waterloo/Alton line. Both lines run a fairly frequent service so could be considered reasonable alternatives to the car; however both Witley and Milford stations are in more inaccessible locations.

Bus Travel

4.8 There is a network of bus routes through the main settlements. However, the rural areas of the Borough are less well served, partially due to high car ownership and consequentially low demand. Most services throughout the borough run hourly, with some even more infrequent services running in the rural areas. It is believed that none of these services therefore provide a complete alternative transport solution.

4.9 Given the rural/semi rural character of Waverley and the limitations of the local public transport system, it is unrealistic to assume that car ownership levels will decrease in areas where there is no immediate reliable alternative to the car. It is accepted that in Waverley, in most cases, local residents' principal means of travel will be by car.

4.10 The starting point for determining Waverley's residential parking guidelines was the Surrey County Council's recently published guidance. However, for residential development, it is not considered that this guidance adequately reflect local circumstances.

4.11 Therefore, the Council has produced its own local residential parking guidelines which it believes more accurately reflect the level of parking demand and the relative accessibility of different parts of Waverley Borough. The Council is proposing to use a zoning approach. These zones are intended to reflect the

accessibility of different locations, whilst also being easy to understand and apply, hence the use of existing defined town centre boundaries.

4.12 The two zones proposed are:-

Zone 1: Town Centre -. (using the defined town centre boundaries in the Waverley Borough Local Plan 2002).

Zone 2: Rest of Waverley

4.13 The amount of car parking to be provided should be practical but, where appropriate, alternatives to the car should also be used to encourage sustainable transport choices. **Appendix 2** sets out the proposed residential parking guidelines for Waverley; these include an allowance for visitor parking. These guidelines set out a minimum number of parking spaces that would normally be expected in the two zones. Where space permits it may be appropriate to consider increased provision.

5. Cycle Parking Levels, Disabled Parking and School Parking

5.1 The County Council's guidance includes specific guidelines for disabled parking, parking at schools and cycle parking provision. These apply to both residential and non-residential development. The County guidance on these matters has been incorporated in full in these Waverley Guidelines. They are set out in **Appendix 3**.

6. General Design Considerations

6.1 Attached as **Appendix 4** is some more general guidance on matters relating to parking layout and design.

Appendix 1

Recommended Guidance for Non-Residential Development – Maximum Vehicular Parking Levels

Use Class	MAXIMUM per m² GFA
A1 Retail	
Food or non-food retail eg: small parades of shops serving the local community (up to 500m ²)*	1 car space per 30m ²
Food retail (500 m ² to 1000m ²)*	1 space per 25m ²
Food retail (above 1000m ²)*	1 car space per 14m ²
Non-food retail (500m ² or more)*	1 space per 25m ²
*Suggested reductions as stated or greater, to be applied based on location. Note: Retail parking to be provided as shared use where appropriate.	Town Centre 75% Edge of Centre 50% Suburban 25% Suburban/Edge/Village/Rural 0%
A3 Food and drink	
Restaurants, snack bars and café's. For sale & consumption on the premises (if located beyond Town Centre locations).	1 car space per 6m ² No parking in town centres
A4 Drinking establishments	
Public houses, wine bars or other drinking establishments but not nightclubs (if located beyond Town Centre locations).	Individual assessment/justification No parking in town centres
A5 Hot Food Takeaways	
For sale & consumption of hot food off the premises (if located beyond Town Centre locations).	1 car space per 6m ² No parking in town centres
B1 Business	
Offices, research & development, light industry appropriate in a residential area – threshold of 2500m ²	A maximum range of 1 car space per 30m ² to 1 car space per 100m ² depending on location
B2 General Industrial	
General industrial use	1 car space per 30m ²
B8 Storage/distribution (including open air storage)	

Warehouse – storage	1 car space per 100m ² 1 lorry space per 200m ²
Warehouse – distribution	1 car space per 70m ² 1 lorry space per 200m ²
Cash and carry	1 car space per 70m ² 1 lorry space per 200m ²
C1 Hotels	
Hotels, boarding and guest houses where no significant care is provided	1.5 car spaces per bedroom plus 1 coach space per 100 bedrooms OR Individual assessment/justification
C2 Residential Institutions	
Care home Nursing home	1 car space per 2 residents OR Individual assessment/justification
Hospitals	1 car space per 4 staff plus 1 car space per 3 daily visitors OR Individual assessment/justification
Residential colleges	Individual assessment/justification
Training centres	1 car space per 2 staff OR Individual assessment/justification
C3 Dwelling houses (family houses, up to 6 residents living as a single household, including households where care is provided)	See Waverley specific guidelines at Appendix 2
D1 Non-residential institutions	
Day Nurseries/Crèche	0.75 car spaces per member of staff plus 0.2 spaces per child
Doctor's practices	1 car space per consulting room remaining spaces on individual assessment
Dentist's practices	1 car space per consulting room remaining spaces on individual assessment
Veterinary practices	1 car space per consulting room remaining spaces on individual assessment

Libraries, museums and art galleries	1 car space per 30m ² OR Individual assessment/justification
Public halls licensed for entertainment, unlicensed youth and community centres and Scout huts etc	1 car space per 3 persons OR per 3 seats OR per 20 m ² OR Individual assessment/justification
Places of worship	1 car space per 10 seats OR Individual assessment/justification
Schools/colleges/childrens centres, including student accommodation	Individual assessment/justification
D2 Assembly and leisure	
Theatres, cinemas, bingo clubs, dance halls and clubs	1 car space per 5 licensed persons OR Individual assessment/justification
Conference Centres	1 car space per 5 seats OR Individual assessment/justification
Exhibition Halls	1 car space per 6 m ² OR Individual assessment/justification
Stadia	1 car space per 15 seats OR individual assessment/justification
Health clubs/leisure centres	Individual assessment/justification
Tennis and Badminton Clubs	4 car spaces per court OR Individual assessment/justification
Squash Clubs	2 car spaces per court OR Individual assessment/justification
Marinas and water sports	3 car spaces per hectare of water OR Individual assessment/justification
Field Sports Clubs	1 car space per 2 playing participants OR Individual assessment/justification
Golf Clubs and driving ranges	1 car space per 0.3 holes OR per driving bay OR Individual

	assessment/justification
Equestrian centres	1 car space per stable OR Individual assessment/justification
Other uses	
Pick your own fruit farms	9 car spaces per hectare of farmland OR Individual assessment/justification
Vehicle repair, garage and spares stores	1 car space per 20m ² OR Individual assessment/justification
Car sales establishments	1 car space per 50m ² car display area OR Individual assessment/justification
Exhaust and tyre centres	1 car space per 0.3-0.5 bays OR Individual assessment/justification
Sui Generis and all other uses not mentioned above	Individual assessment/justification

Appendix 2

Recommended Guidance for Residential Development

Locational Characteristics	Town Centre	Rest of Waverley
1 bed	1 space per unit	1 space per unit
2 bed	1 space per unit	1.5 spaces per unit
3 + bed	1.5 spaces per unit	2 spaces per unit

Elderly (sheltered) Housing:

- 1 car space per one or two bed self-contained unit; or
- 0.5 space per communal unit; or
- individual assessment

Accompanying Notes

- (1) If it is considered that the number of spaces required is more than is necessary, information should be submitted with the application to justify a decreased provision (applies to all standards).
- (2) Where space permits it may be appropriate to consider increased provision.

Appendix 3

Recommended Guidance for Minimum Cycle Parking Levels -

Use Class	MINIMUM Standard
A1 Retail	
Food retail	1 space per 350m ² (out of centre) 1 space per 125m ² (town/local centre)
Non-food retail	1 space per 1500m ² (out of centre) with minimum 4 spaces 1 space per 300m ² (town/local centre)
Garden Centre (can also be classed under sui generis)	1 space per 300m ² (min 2 spaces)
All other retail uses	Individual assessment
A3 Food and drink	
Restaurants, snack bars and café's. For sale & consumption on the premises (if located beyond Town Centre locations).	1 space per 20 seats (min 2 spaces), town centre parking not necessarily required
A4 Drinking establishments	
Public houses, wine bars or other drinking establishments but not nightclubs (if located beyond Town Centre locations).	1 space per 100m ² (min 2 spaces), town centre parking not necessarily required
A5 Hot Food Takeaways	
For sale & consumption of hot food off the premises (if located beyond Town Centre locations).	1 space per 50 m ² (min 2 spaces), town centre parking not necessarily required
B1 Business	
Offices	1 space per 125m ² (min 2 spaces)
Research & development / light industry	1 space per 250m ² (min 2 spaces)

B2 General Industrial	1 space per 500m ² (min 2 spaces)
B8 Storage or distribution (inc. open air storage)	1 space per 500m ² (min 2 spaces)
C1 Hotels/Guest houses	Individual assessment
C2 Residential Institutions	
Care homes/Nursing homes	Individual assessment
Hospitals	Individual assessment
Residential colleges	1 space per 2 students 1 space per 2staff
Training centres	Individual assessment
C3 Dwelling houses (family houses, up to 6 residents living as a single household, including households where care is provided)	
Flats / houses without garages or gardens: 1 and 2 bedroom unit 3 or more bedroom unit	1 space 2 spaces
D1 Non-residential institutions	
Day Nurseries/Crèche	1 space per 5 staff plus minimum 2 spaces
Doctor's practices	1 space per 2 consulting rooms minimum 2 spaces
Dentist's practices	1 space per 2 consulting rooms minimum 2 spaces
Veterinary practices	1 space per 2 consulting rooms minimum 2 spaces
Libraries, museums and art galleries	Individual assessment
Public halls licensed for entertainment, unlicensed youth and community centres and Scout huts etc	Individual assessment
Places of worship	Individual assessment
Schools/colleges	School Travel Plan required, to incorporate a site specific cycle strategy
D2 Assembly and leisure	Individual assessment
Sui Generis and all other uses not mentioned above	Individual assessment

Disabled Parking

Parking for disabled drivers should be designed and provided in accordance with the appropriate government guidance. As a starting point, for non-residential development, an additional 5% of total parking spaces should be allocated for disabled users or a minimum of 1 space per 750m² (whichever is the greater) to meet demand. Such spaces should have dimensions of 3.6m by 5m and be located no further than 50m from an accessible entrance, (ideally the main entrance), clearly signed and under cover.

School Parking

New Schools, or those where expansion is proposed, are expected to develop, update and monitor School Travel Plans.

Cars

Operational requirements (broadly defined as staff and visitors) should be provided for only, together with overflow parking areas for community uses. Parent parking, pupil parking and drop off/pick up areas should not be provided as this is a disincentive to travelling by sustainable modes. Existing sites may be an exception if further on-street parking reduces highway safety or emergency access.

Measures to discourage parking should be considered first and could include car sharing, staggered school days, parking restrictions, parking permits issued on the basis of need and other measures as appropriate.

A parking management plan should be prepared and submitted as an integral part of any planning application where parking is an acknowledged problem.

Coach/Bus

On all new school sites where it is likely that pupils will travel to and from school in coaches, sufficient space should be reserved to allow coaches to enter the site, drop off and pick up pupils. Where appropriate, bus stops, bays, raised kerbs, seating and shelters shall be provided on the highway by the applicant.

Cycles and non-motorised Scooters

Provision of cycle and non-motorised scooter* parking will be a condition of any new or expanded school. Whenever possible, improvements to cycle routes and other appropriate safety measures should be provided by the applicant.

*for Pre-school and Primary School education.

Appendix 4 – General Design Considerations

Layout considerations

‘Surrey Design’ (2002), published by the Surrey Local Government Association provides guidance for technical specifications and design issues associated with parking standards.

It recommends that where appropriate, parking should be designed so that it can be used by different user groups throughout the day. The needs of disabled drivers must always be taken into account and may require special design solutions.

The emphasis on parking provision should be on using a range of design solutions to accommodate parking. The Surrey Design Guide emphasises that parking that is situated in front of buildings, such as in front of integral garages, will require buildings to be set back and therefore tend to make the enclosure of space more difficult. It states that the solution would be to bring buildings forward and locate parking between, beneath or to the rear of buildings. On-street parking can also be designed into a scheme, often performing an additional traffic calming function.

‘Car Parking, What Works Where’ produced by English Partnerships presents many case studies of where parking to the front of dwellings successfully generates distinctive, creative responses to numerous layout conditions. It should therefore be recognised that design standards and appropriate solutions to parking will vary from site to site, including between rural and urban environments.

The location of car parking is important to the success of a scheme. It is the general expectation of car owners that they should be able to park as close to their destination as possible, preferably within view, however this desire has to be balanced against the need to maintain the overall design for an area.

In order to be effective car parking spaces need to be large enough to allow a person to gain access/egress of the vehicle and sufficient to ensure that spaces can be used properly.

Parking particularly needs to be provided for those with disabilities close to the entrance to a property

Technical Information

(Also refer to Surrey County Council Standing Highway Design Advice and DfT’s Manual for Streets)

Surrey Design (2002) also recommends that parking spaces conform to the requirements of the design guide to ensure the required size is provided as well as the appropriate manoeuvring space.

The minimum sizes are as follows:

Access from the end	2.4m x 4.8m
Access from the side	2.4m x 4.8m
Disabled parking bay	At least 3m x 4.8m

Where a space is located in front of a garage, the space needs to be 5.5m long from the back of the highway to allow the garage door to be opened without the vehicle overhanging the highway.

Parking spaces at right angles to the carriageway should have an 800 mm clearance between the parking space and the footway in order to accommodate any overhang. This can be surfaced or planted in order to deter pedestrian use, although pedestrian crossing points should be provided. A 6m paved surface is required to manoeuvre into and out of these spaces, such as in parking squares and courts. The gradient should not be steeper than 5% (1:20).

Parking spaces provided in lay-bys parallel to the carriageway should be 6m long with crossfalls between 2% (1:50) and 3% (1:33).

Covered parking areas (such as carriage arches) should have clear headroom of 2.5m throughout. Covered areas that will be accessed by service vehicles should have clear headroom of 4m, provided the entry is flat.

While it is normally feasible in domestic situations for two cars to be parked in "tandem" (one behind another), it is considered that this is the maximum number of such spaces in line astern as otherwise there has to be excessive manoeuvring which practically means that the innermost space is not used. Thus in assessing standards for residential development a maximum of two spaces will be considered behind each other.

Garages used solely for the purposes of parking a vehicle should be a minimum of 4.8m long by 2.5m wide internally. This is to allow a vehicle to gain access/egress and there to be some space for the occupiers of the vehicle to get out. However in cases where no alternative storage for utility equipment is provided, garages on the curtilage of the property are to have the minimum dimensions of either 4.5m long by 3m wide internally or 5.8m long by 2.5m internally. As with conventional parking

there should not normally be more than one space outside a garage (i.e. a maximum of two cars in tandem).

Manual for Streets guidance

In terms of planning for cycle parking, the Department for Transport's Manual for Streets provides some useful guidance. The amount of cycle parking provided, as well as accessibility of it should be considered by the developer, whilst also considering how safe and secure it is. It is considered that shared cycle parking is more efficient than individual parking provision.

Safety is an important aspect of cycle parking to encourage people to choose to use this mode of transport. The cycle storage should be located where there is natural surveillance from nearby buildings or well used thoroughfares. They should be reasonably open to reduce the fear of crime by the users.

Cycles are not necessarily suited to overnight storage outdoors as they are vulnerable to theft and adverse weather. For this reason, at the very least, covered, lockable cycle storage should be provided on site.

If separate cycle parking is to be provided within the building, it needs to be conveniently located and close to the main point of access. If cycle parking is to be provided in a separate detached building, it must be secure, with doors designed for easy access.

In terms of visitor parking, guidance suggests that it is best provided in well-overlooked areas, and although there are a wide variety of design options, simple and unobtrusive solutions, such as Sheffield stands, are preferred.

Cycle stands should be located clear of preferred pedestrian walkways, and generally closer to the carriageway than buildings.

Parking Design

Parking spaces within streets and accessed directly from them minimise the amount of land given over to access ways and manoeuvring areas. They also offer 'natural surveillance' of parked vehicles, thereby reducing concerns about security. An arrangement of discrete parking bays adjacent to the flow of traffic is often the preferred way of providing on-street parking. It is recommended that, in most circumstances, at least some parking demand in residential and mixed-use areas is met with well-designed on-street parking.

The following key principals for best practice for car parking arrangements have been taken from the Department for Transport's Manual for Streets:

- The design quality of the street is paramount.
- There is no single best solution to providing car parking – a combination of on-plot, off-plot and on-street will often be appropriate.
- The street can provide a very good car park – on-street parking is efficient, understandable and can increase vitality and safety.
- Parking within a block is recommended only after parking at the front and on-street has been fully considered – rear courtyards should support on-street parking, not replace it.
- Car parking needs to be designed with security in mind.
- Consideration needs to be given to parking for visitors and disabled people.

It is therefore essential that the design of the car parking spaces is introduced at the planning stage if it is to be well integrated with a high quality public realm. A range of approaches to car parking designed should be examined before reaching the appropriate solution, and in some cases it may result in a combination of designs being implemented as the most successful solution.

Sustainable Design

The design of car parking facilities should also take into account sustainable design techniques. In many cases parking facilities are impermeable areas that cause problems with increased surface water run-off. To implement a sustainable design the use of permeable areas should be considered to allow water infiltration and reduce run-off. Where impermeable materials are used the use of Sustainable Urban Drainage Systems (SUDS) should be considered.

Planting can also be a valuable part of sustainable design and should be considered in parking areas. The use of trees and shrubs can be used to provide shelter in car parks during the summer as well as reducing the storm water run off, helping to lower the risk of urban flooding.

Ultimately, the suitability of particular SUDS techniques to a specific development should be assessed on a site-by-site basis.

Parking and Crime

During the design stage of parking areas, the prevention of crime should be taken into consideration. In 2004 the Government produced 'Safer Places – the Planning System and Crime Prevention' which advises Local Planning Authorities to consider crime prevention and community safety.

The document states that parked cars can be particularly vulnerable to crime and, unless they are in a private garage, must be overlooked. It is important that

appropriate lighting is provided and parking facilities are designed with natural surveillance from surrounding buildings.