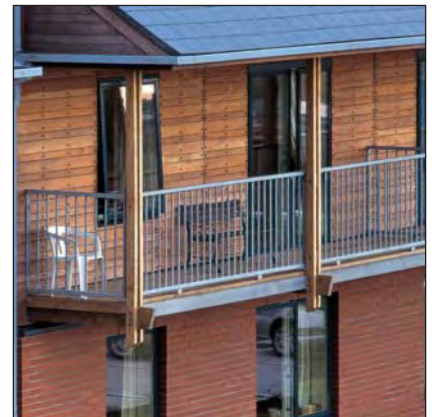


# a model design guide for **Wales** residential development







# preface



SWANSEA Foyer DEVELOPMENT  
GWALIA HOUSING GROUP /  
PCKO ARCHITECTS

LDA Design has produced this guide on behalf of the Planning Officers Society for Wales (POSW), with the benefit of financial assistance from the Welsh Assembly Government under the Planning Delivering for Wales Programme.

The main purpose of the document is drive up the standard of design in residential development regardless of scale. It does this by providing local planning authorities with a comprehensive structure for managing the design and development process. It also gives developers a strong basis for developing proposals with some certainty that the design objectives they are working to are the same as those accepted by the local authority.

The document has been subject of widespread consultation both prior to and following the drafting stage. This included workshop sessions as well as written consultation on a draft document prior to the publication of the final design guide in Spring 2005.

In order for the guide to be a useful and effective development control tool each local authority should seek to adopt the Design Guide as Supplementary Planning Guidance to the Development Plan. It is accepted that parts of the guide may need to be amended / supplemented, in order for it to adequately reflect local differences and local priorities.

The guide has been prepared with the support of: Andrew Dakin Welsh Development Agency; Alison Brown Merthyr Tydfil County Borough Council; Carole-Anne Davies DCfW; Cindy Harris DCfW; John Punter Cardiff University; David Wong Monmouthshire County Borough Council; Elfed Roberts City and County of Swansea; Lynda Healy House Builders Federation; Rebecca Phillips RTPi; Rhian Davies Caerphilly County Borough Council; Roger Tanner Caerphilly County Borough Council; Steve Trigg South Wales Police.

The Model Design Guide for Wales (Residential Development) was formally adopted by Blaenau Gwent County Borough Council on the 7th November 2007 as Supplementary Planning Guidance. It should be read in conjunction with the policies set out in Blaenau Gwent County Borough Council's Adopted Unitary Development Plan 1996 - 2011 and in particular policies D1 Residential Development (Layout and Design) and D2 Residential and Industrial Estates Roads. These along with the advice contained within this guidance are intended to provide a framework for the promotion of creative design that is sensitive to the urban and rural characteristics found in Blaenau Gwent.



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RAISDALE ROAD: LOYN & CO ARCHITECTS





# 1.0

## introduction

- 1.1 All design and development contributes to a nation's image and says much about its culture, confidence and aspirations. It also directly affects the social, economic and environmental well being of cities, towns and villages.
- 1.2 The Welsh Assembly Government is committed to achieving good design in all development at every scale throughout Wales. Good design is a key aim of the planning system and Planning Policy Wales [WAG 2002] requires that Unitary Development Plans (UDPs) provide clear policies setting out planning authorities' design expectations. Technical Advice Note 12 (TAN 12) [WAG 2002A] gives advice to local planning authorities on how good design may be facilitated within the planning system.
- 1.3 This document has been designed as a practical tool to be used by local planning authorities as supplementary planning guidance to meet the requirements of PPW and convey the design implications of TAN 12 to anyone proposing new residential development in excess of 1 dwelling. It is a requirement of PPW and TAN 12 that applications for planning permission are accompanied by a 'design statement'. This document therefore also clarifies the issues a design statement for new residential development should address.
- 1.4 The document seeks to establish a common design language for residential development in Wales, clarifying the fundamental design issues and how to address them by:
  - describing the key objectives of residential design and providing guidance on how they may be achieved;
  - describing the design process which should be followed to adequately address each objective;
  - providing information on how to submit a planning application to demonstrate how the requirement of good design has been addressed;
  - clarifying how proposals will be appraised on design grounds; and,
- 1.5 Local authorities are also required to have due regard to crime and disorder prevention in the exercise of their functions under Section 17 of the Crime and Disorder Act 1998 and consider the issue of accessibility for all including the needs of those with visual and hearing impairments and those with limited mobility, at an early stage in the design process. This document addresses these issues and aims to promote safe inclusive environments through good design.
- 1.6 Design is only one consideration when making a decision to approve or refuse an application for planning permission. In addition to addressing the requirements of this guide development proposals will need to demonstrate compliance with the UDP and other material considerations and in some cases be accompanied by a formal Environmental Impact Statement.

# 2.0

## the objectives of good design



TY NEWYDD:  
MAREDUDD AB IESTYN

**2.1** The general aim of **TAN 12** with respect to housing design and layout is to:

- create places with the needs of people in mind, which are distinctive and respect local character;
- promote layouts and design features which encourage community safety and accessibility;
- focus on the quality of the places and living environments for pedestrians rather than the movement and parking of vehicles;
- avoid inflexible planning standards and encourage layouts with reduced road widths;
- promote energy efficiency in new housing;
- secure the most efficient use of land including appropriate densities; and,
- consider and balance potential conflicts between these criteria.

**2.2** **Tan 12** spells out the objectives of good design and encourages a design process which seeks to address these aims from the outset of a project. The objectives of good design are based on an understanding of what makes existing places attractive and sustainable places in which to live.

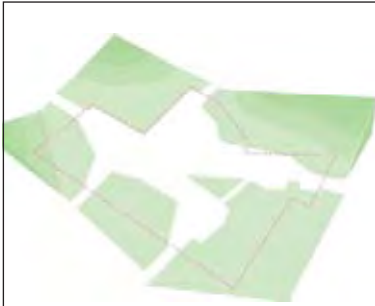
**2.3** This guide restates the objectives of good design set out in **TAN 12** and provides some simple guidance on how each objective can be addressed in a typical residential development to achieve high quality, safe and inclusive residential development.

**2.4** Anyone proposing a residential development will be expected to work with the local planning authority and stakeholders to develop a design that addresses each relevant objective. They should describe how their design achieves each objective in a 'design statement' to be submitted with the planning application. Design appraisal by the local planning authority may involve assessing how well each objective has been met before making a decision whether to support a proposal on design grounds.

**2.5** The best way to meet the requirements of this guide is to develop a clear vision for the site which addresses and integrates each objective.



# objective 1 | natural heritage



topography



woodland & water courses



ecological importance



potential development area

Development should be designed to integrate with, protect and enhance the landscape and biodiversity values of the site.

The landscape is one of the most important resources of Wales and needs to be protected and enhanced. This does not mean that there should be no change but requires high quality design solutions that complement or contribute to landscape character. Biodiversity is one of the building blocks of all life and needs to be preserved and enhanced wherever possible.

## design guidance

- use specialist input such as ecologists, landscape architects and landscape managers to advise on natural heritage issues;
- ensure a thorough understanding of natural processes (e.g. flooding) and natural heritage resources relevant to the site and design to positively incorporate areas with established importance;
- design in new features to promote biodiversity, for example by using native trees or developing the ecological value of sustainable urban drainage features;
- ensure that features with established ecological or landscape value are protected throughout the site clearance and construction process;
- compensate for any loss of biodiversity elsewhere on site or off site if necessary;
- put in place mechanisms for positive and sustainable management and aftercare of landscape and ecological resources.

## Box 1 | incorporating natural heritage

Landscape and ecological resources are often seen as a constraint to development. Often the reverse could be true. The sensitive incorporation of natural heritage can in fact help to give a site a distinct identity and possibly even a marketing advantage. The value of trees and other elements of natural heritage cannot be overstated. As well as giving a development a sense of instant maturity, a growing body of evidence points to health and well-being benefits. The key to addressing natural heritage is to ensure that it forms a positive part of the vision for the site's development and is not simply a hindrance to a standard layout.

ABOVE: SIMPLIFIED PROCESS OF CONSIDERING NATURAL HERITAGE RESOURCE AND DEFINING DEVELOPABLE AREA



# objective 2 | compactness

FLATS DEVELOPMENT IN TENBY. THE DENSITY OF THE SCHEME FITS WITH THE TOWN SCAPE WHILST AT THE SAME TIME PROVIDING A DENSITY OF USE THAT SUPPORTS THE FUNCTIONS OF THE TOWN CENTRE

Development should use land efficiently and where appropriate provide a density of use/population that supports public transport and commercial/community services.

Compact development forms minimise land take and encourages densities sufficient to support local services and amenities. This in turn enhances the sense of community and reduces the need to travel. This is not to suggest that compactness should be as high as possible everywhere. It will vary according to context and in some locations a low density solution may be most appropriate.



## design guidance

- ensure density relates to the vision for the site and an understanding of its urban or landscape character context - for example is it 'tight and urban' or 'loose, leafy and suburban'?
- where ecological and landscape resources are to be protected design-in natural heritage as part of green space but discuss with the planning authority where it is appropriate to maintain overall site density by creating higher densities in certain areas;
- use higher densities positively to define spaces, frontages and main streets in accessible areas or around concentrations of services/facilities;
- design open space as an integral part of built form and locate provision so that it does not detract from density of use/population around concentrations of services/facilities;
- integrate parking at planning authority standards efficiently but design in some flexibility for parking growth without encouraging greater numbers and loss of compactness;
- ensure that the compact development form still allows for adequate green space and room for tree roots and canopies to spread.



AXONOMETRIC AND PLAN  
ILLUSTRATING POSSIBLE GRADATION IN  
DENSITY FROM CENTRE TO EDGE OF  
DEVELOPMENT

# objective 3

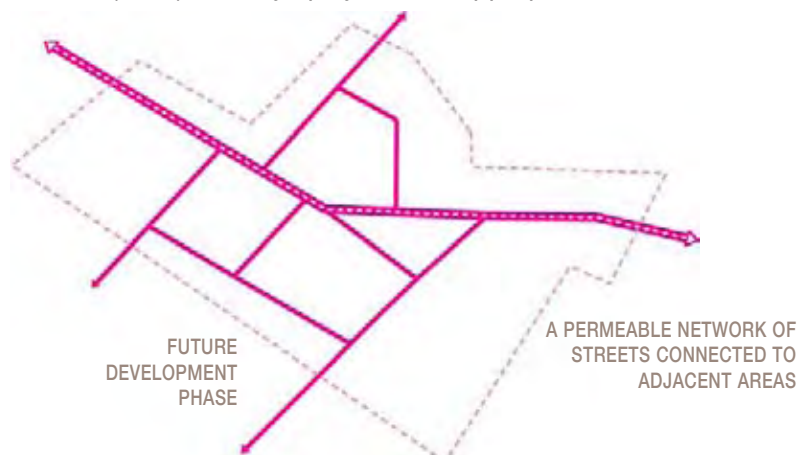
## accessibility & ease of movement

Create development layouts that are accessible to all in society, make links into surrounding areas, create new links where necessary and ensure that it is easy to get from A-B within a development.

Accessibility and ease of movement considerations effectively form the urban structure of a place. They determine how effectively it connects with the existing urban and rural fabric and influence key issues such as the 'walkability' of places, reducing car use and enhancing the life and vitality of streets and spaces. It is vital that the pattern of accessibility and ease of movement is designed hand in hand with measures to reduce crime and create safe and secure streets, spaces and buildings.

### design guidance

- ensure a collaborative design approach in which vehicular, pedestrian and cycle linkages are designed in conjunction with the 'urban design' for the site. In practice this means ensuring that the people responsible for the highways and urban design work closely together;
- design 'access for all' including the needs of those with visual and hearing impairments and those with limited mobility;
- design to connect with adjacent places and communities;
- ensure safe and efficient access for all modes of transport, emergency services and other service vehicles but wherever possible give priority to pedestrian and cyclist movement;
- ensure good access for/to public transport where available;
- ensure that routes within the site also allow for future stages of development;
- distinguish between primary routes, secondary routes and tertiary routes by varying street cross-section and design. This can help to reinforce a hierarchy of streets and spaces that makes the development easier to understand (see legibility below). It can also be important in defining areas that are public and those that are solely for residents, helping to discourage crime (see Box 2 on page 11);
- establish a layout that is permeable and interconnected within the site but avoid any 'short-cuts' or routes that will be underused or not overlooked;
- design for low vehicle speeds to ensure that streets and spaces are comfortable for pedestrians and cyclists to use. This can be done by minimising straight stretches of road with extended forward visibility and through the use of right angle junctions and minimum (2.4m) visibility splays where appropriate.



# objective 4.0 | legibility

Create development layouts that are easy to understand and find your way around.

The structure of key streets and spaces forms the main image of a place and makes it easy for people to orientate themselves and find their way around. It helps to create the identity of a place and the perception of it by others.

## design guidance

- ensure that the movement function of each street is reinforced by the width of the carriageway, the design of the public realm and the scale, form and design of adjacent buildings. In this way it is possible to create a hierarchy of streets, each with a clear movement role and identity which helps people to find their way around a development;
- design to create a positive image and sense of place for the development - avoid a negative identity such as, for example 'the estate off the 'ring road';
- tie the development into the existing pattern of landscape, streets and roads so that it is contiguous with the existing urban or rural fabric. In particular integrate with the main uninterrupted linear features, such as existing landscape elements, streets, footpaths and cycleways. This helps to reinforce the pattern and legibility of the site context;
- carefully consider the placement and design of landscape and buildings to create memorable spaces, landmarks, vistas and focal points;
- link to existing landmarks and views as orientating features;
- ensure that it would be easy for a resident of the proposed development to direct someone to where they live with reference to the key streets, spaces and landmarks.

LEGIBILITY: THE MAIN STREET CREATES THE SPINE OF THE DEVELOPMENT. LANDMARK BUILDINGS DEFINE THE ENTRANCE TO THE DEVELOPMENT





## Box 2 | hierarchy of streets and spaces

The development of a street and space hierarchy is the opportunity to bring together accessibility and urban form considerations into a cohesive plan. It requires collaborative working between the designer and the highways engineer. The pattern of streets and spaces should provide for the required vehicular, pedestrian and cyclist access whilst at the same time subdividing the site into blocks that create an attractive urban form. The development of a hierarchy implies making some streets more significant in both movement and urban design terms than others so that they 'stand out' helping people orientate themselves within a development, for example by being able to recognise that they are on the 'main street'. The most legible streets are often simple and uncluttered with an overall consistency of materials and architectural treatment. The hierarchy of streets and spaces is also important to crime prevention through design - secondary and tertiary streets on the hierarchy which may give access to the main areas of housing can be designed to discourage intruders by providing high levels of overlooking and creating the feeling of a semi-private environment.

Development of the hierarchy should involve:

- linking the principal streets within the urban structure (for example the 'High Street') with the principle accessibility function where traffic flows allow;
- differentiating streets through variations in cross section, building enclosure and detailed design in order to emphasise the relative importance of the street. For example the 'High Street' may have a wide carriageway, generous footpaths including tree planting and three storey houses. The secondary street may have a narrower carriageway, standard width footpaths and 2 storey buildings located to the edge of footpath. These simple devices serve to differentiate streets and spaces from each other.

Within an overall well connected and permeable urban structure there should be opportunities for the full range of streets including cul-de-sacs. However a monoculture of street types should normally be avoided.

For each street and space in the hierarchy within a development the developer / designer should be able to describe:

- **firstly**, its desired character and role within the structure of the development
- **secondly**, its accessibility and traffic function;
- **thirdly**, its design characteristics.

# accessibility and legibility

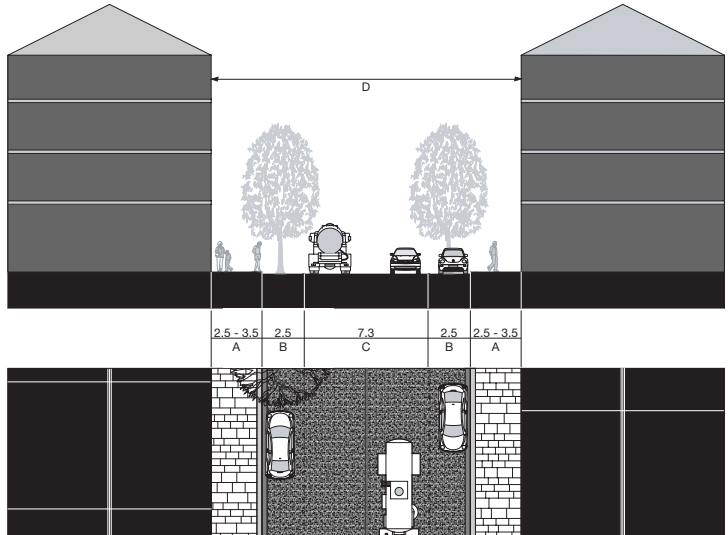
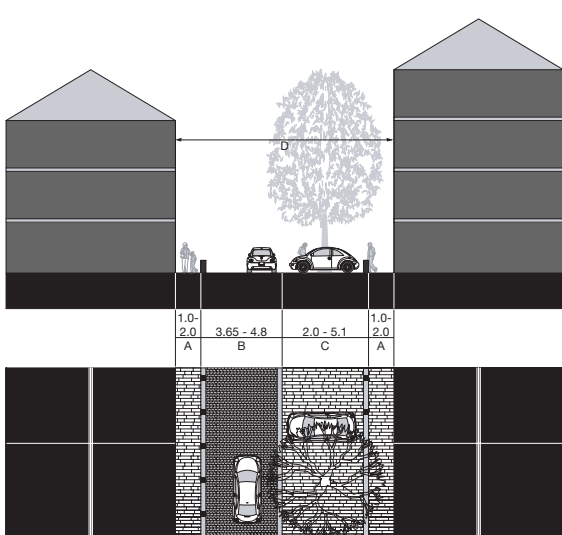


ACCESSIBILITY: PERMEABLE GRID PATTERN OF STREET



CULDE SAC - CIRCUITOUS ROUTES BETWEEN A AND B - POOR PEMEABILITY

BELOW: SUB DIVISION PATTERN CARDIFF - WITHIN THE GRID LAYOUT THERE IS A CLEAR HIERARCHY OF MOVEMENT WHICH IS SUPPORTED BY THE SCALE OF THE BUILT FORM. THE MAIN STREETS INTEGRATE WITH THE REST OF THE CITY, A PRINCIPLE WHICH CAN BE APPLIED TO A SITE OF ANY SIZE. HOWEVER ACCESSIBILITY AND LEGIBILITY IS JUST ONE ELEMENT OF URBAN FORM. USE, TENURE AND MANAGEMENT WILL ALSO INFLUENCE THE SUCCESS OF A PLACE



ABOVE: STREETS CAN BE GIVEN DIFFERENT CROSS SECTIONS TO EXPRESS THEIR RELATIVE IMPORTANCE IN TERMS OF BOTH MOVEMENT AND URBAN STRUCTURE STRENGTHENING LEGIBILITY

# objective 5 | character and context

Development should respond to the character and local distinctiveness of site context.

The character and context of any development is created by the locally distinctive patterns and form of development, landscape, culture and biodiversity. These elements have often built up over a considerable time and tell a story of the site's history and evolution. The create its 'sense of place'.

The character and context of a site should influence design positively so that development does not simply replace what was there but reflects and responds to it. If the context to a development has been compromised by an earlier stage of development it should not be seen as a reason to perpetuate what has been done before. Opportunities should be sought to deliver high quality sustainable development that reflects the technologies and aesthetics of the 21<sup>st</sup> century and creates a strong sense of place.

## design guidance

- respond to not just the physical appearance of the site and context but also it's history and cultural importance. Old maps can be a great source of information and inspiration and often show how traditional forms of development addressed local conditions;
- ensure that the vision for the site responds to an appraisal of character and context - be able to describe what sort of place the development will become and how it will relate to the surrounding physical, historical and cultural context;
- decide whether to directly reference existing character or design to create a new identity that complements it;
- follow through the vision for the site to detailed design issues such as public realm, plot characteristics, building thresholds etc.;
- protect or enhance site elements contributing to site and context character where they have a long term sustainable future as part of the development;
- identify the pattern of streets and spaces in the best and most successful parts of nearby settlements and where possible design the proposed development to echo some of these characteristics;
- investigate plot width, depth and building height in good examples of locally distinctive development and see whether it is appropriate to adopt a similar pattern of built form;
- where possible adopt any locally distinctive, consistent and positive treatment of the area between the back of footpath and front of house (such as small front gardens);
- design to encourage the development of character and visual richness (see box 3 and 4, page 14);
- use plant material that contributes to biodiversity and grows and thrives locally;
- use local skills and expertise wherever possible - skilled local workmanship can result in development that is in keeping with local character.

LEFT TO RIGHT: BURRY PORT: GWALIA/PCKO ARCHITECTS | RAISADALE ROAD: LOYN & CO  
PRIVATE HOUSE: DAVID THOMAS



### Box 3 | character and context: innovative design

Often there is a perception that innovative 'contemporary' design conflicts with established patterns of settlement and traditional styles of architecture. In reality architectural styles and traditions have evolved numerous times in the past in response to changing social and economic conditions. There is no reason why design which uses modern materials and responds to contemporary aesthetics should not fit in with context as well as more traditional forms of development.

When the merits of 'contemporary' versus 'traditional' architecture are considered the debate often revolves around the style of the building itself. Often some of the most important design issues related to character and context are totally overlooked. These can be simple issues like building setback, plot width, building height or verticality. If these are responded to appropriately then architecture using modern materials and construction methods, with styling that reflects aesthetics of the 21st century, can be entirely in-keeping with character and context.

### Box 4 | character and context: visual richness

Visual richness does not imply fussy, complicated or expensive design. In fact many of our best settlements and built form models such as the Victorian terrace are very simple. The richness comes from the simple elegance of some of the basic architectural details (such as sash windows), scale and proportion and also from the tone and quality of materials. Public realm is also important with the natural weathering of good quality natural materials adding to richness over time. However richness also comes from knowing where to do something special. Added building height on corners, well thought out articulation where buildings turn corners and well-detailed facades at the ends of vistas are just a few simple examples where the richness of a scheme can be enhanced. This guide encourages richness of detail in all residential schemes.



LEFT TO RIGHT:

1. VISUAL RICHNESS IN A MODEST TERRACE WITH PERSONALISED FRONT GARDENS.
2. SUBTLE USE OF COLOUR AND JUXTAPOSITION WITH MODERN MATERIALS IN CARDIFF.
3. TIMBER SLATE AND STEEL IN A NEW DEVELOPMENT, BURYPORT.



# character and context



ABOVE:  
A TRADITIONAL APPROACH TO CHARACTER AND CONTEXT: AT THE CRICKHOWELL TELEVILLAGE THE DESIGNERS HAVE RESPONDED STRONGLY TO THE FEEL OF THE EXISTING SETTLEMENT ABOVE. LEFT: TRADITIONAL MATERIALS AND, IN PLACES, FRONTAGE TREATMENTS HAVE BEEN REPLICATED.



PLAS GWENFREWI: A SUCCESSFUL AND SENSITIVE CONTEMPORARY RESPONSE TO AN HISTORIC BUILDING



# objective 6

## continuity and enclosure

Streets and spaces should be overlooked with continuous street frontage:

Enclosure and continuity of street frontage creates spaces that are overlooked and are therefore safer and more pleasant to use. They maximise opportunities for social interaction and create a stronger sense of place and a more recognisable identity. Continuity and enclosure can also be created by tree and hedge planting, walls and fences. Over the centuries most of our best settlements have been based around the concept of clearly defined streets and spaces.

### design guidance

- ensure the block structure / layout allows for overlooking, enclosure of streets and spaces and a clear distinction between public and private areas. In practice perimeter blocks are the best way to achieve this;
- in the absence of building frontages use hard and soft landscape elements where necessary to provide continuity and enclosure of streets and spaces ;
- locate parking to avoid disruption to continuity of street frontage. This will mean avoiding on-plot parking to the front of house and considering on-street parking, courtyard parking or provision of parking at the side of house. However always ensure good overlooking and surveillance of parking areas by the car owners;
- ensure adequate building height in relation to street width to create a sense of enclosure;
- correlate the main pedestrian/cycle routes with the most overlooked areas to create a safe public realm;
- locate active frontages and entrances that contribute to the vitality of streets/spaces;
- clearly demarcate public and private space and avoid left over space;

CONTINUITY OF STREET FRONTAGE CREATED THROUGH TERRACED FORMS ALONG MAIN STREET. ELSEWHERE BUILDINGS TO FRONT PLOT MAINTAIN CONTINUITY





# continuity and enclosure



EXAMPLES ABOVE: SIMPLE APPROACHES TO CONTINUITY OF FRONTAGE AND ENCLOSURE OF STREETS AND SPACES. BUILDINGS ADDRESS THE STREET CREATING A SAFE AND OVERLOOKED PUBLIC REALM.



CONTEMPORARY URBAN INFILL MAINTAINS THE CONTINUITY OF BUILDING LINE AND ENCLOSURE OF THE STREET. ALTHOUGH ARCHITECTURALLY DISTINCTIVE IT FITS INTO THE HISTORIC STREET: PHOTO BY MIKE BIDDULPH

GOOD OVER LOOKING OF GREENSPACE - ESSENTIAL TO ENSURE SAFE AND CARED FOR PUBLIC REALM



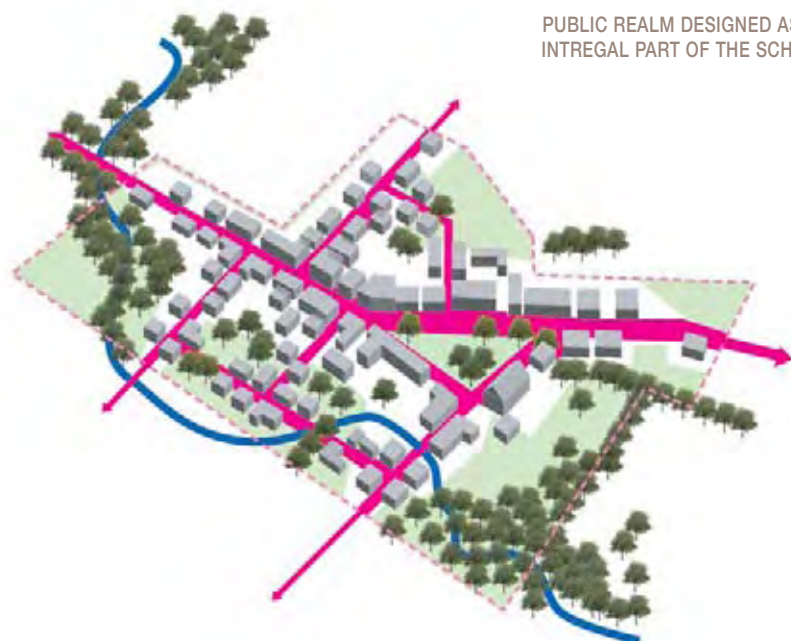
# objective 7 | public realm

Ensure high quality, attractive and safe streets and spaces for all members of society

Public realm is the space that is accessible physically, visually and culturally to the public. In residential developments it includes the streets, green spaces, squares and playgrounds. The public realm is where chance meetings between neighbours happen, or community events occur. It is vital not just to the quality of a development but how pleasant and sociable it is to live in.

## design guidance

- plan the public realm as an integral part of the development and not as an add-on. This means agreeing how much public open space is required with the planning authority and designing it in as a positive part of the urban form, often in conjunction with measures to protect and manage natural heritage on the site;
- avoid shared private drives in which the responsibility to care for and maintain public realm is not absolutely clear;
- ensure that public realm is clearly separate from private space; integrate the public realm design with that of the built form - for example create higher density areas with taller houses around a focal square or centre which could serve as a community focus;
- use a limited palette of simple, robust hard wearing and preferably natural materials for hard landscape areas, ensuring that they have been agreed with the planning authority;
- create simple, well enclosed spaces with simple, well designed and robust street furniture located to minimise visual clutter, physical obstruction and avoid anti-social behaviour;
- carefully consider the scale and form of key streets and spaces - visit other spaces of a similar size to ensure that it is appropriate to the type of use planned;
- minimise 'landscape' areas that serve no useful function as part of the public realm. Instead optimise the impact of street trees and private realm landscape as a means to green the development.



PUBLIC REALM DESIGNED AS AN INTEGRAL PART OF THE SCHEME



# objective 8

## variety and diversity

Wherever possible there should be a mix of uses, and variety and choice in types of properties and places.

Although this guide is intended principally for applicants for residential development, there is increasingly a need to mix uses in order to build sustainable communities. Whilst this is particularly the case for larger developments, even small developments may be able to offer opportunities to contribute to local sustainability through the provision of facilities such as shops, offices or workspaces.

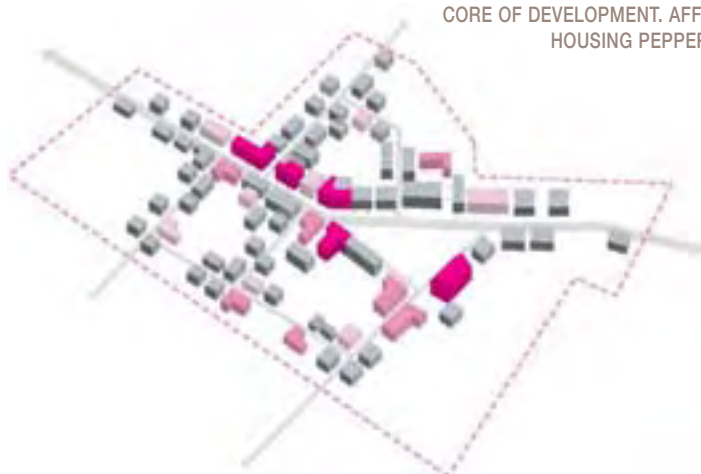
BELOW:  
BRAINS BREWERY CARDIFF.  
A SUCCESSFUL INNER CITY MIXED USE  
DEVELOPMENT WITH RESIDENTIAL,  
LEISURE AND RETAIL USES



### design guidance

- consider whether there are opportunities to provide other uses, in addition to residential, that will make the development more self-contained, reducing the need for car use; and/or provide facilities and services that will make the local area more sustainable;
- where other uses are appropriate, consider greater numbers of smaller uses in preference to one larger site user. For example, a range of businesses and smaller shops will help to animate public streets and spaces more successfully than a single large supermarket;
- mix uses vertically as well as horizontally. For example consider residential or above ground floor office use or the provision of live-work units;
- allow for future changes in the use of ground floor units in key locations such as next to public spaces and on street corners. This may involve allowing greater floor to ceiling heights and flexible spaces within the ground floor of such buildings;
- avoid any ground floor uses that do not provide an active frontage such as large buildings without door or window openings at ground floor level;
- provide a mix of tenures and property types within sufficiently large development to encourage the development of a diverse community with living opportunities for all members of society. Pepper-pot the 'affordable' housing to meet the requirements of the registered social landlord. Normally this means in clusters;
- old buildings can be retained to add interest and diversity to the development;

NON RESIDENTIAL USES INTEGRATED AT  
CORE OF DEVELOPMENT. AFFORDABLE  
HOUSING PEPPER-POTTED



# objective 9 | adaptability

Buildings and spaces should be designed so that they are flexible and adaptable and can be used for a variety of uses over time.

Successful buildings change use several times over their lifetime and flexibility is vital to long-term sustainability and longevity.

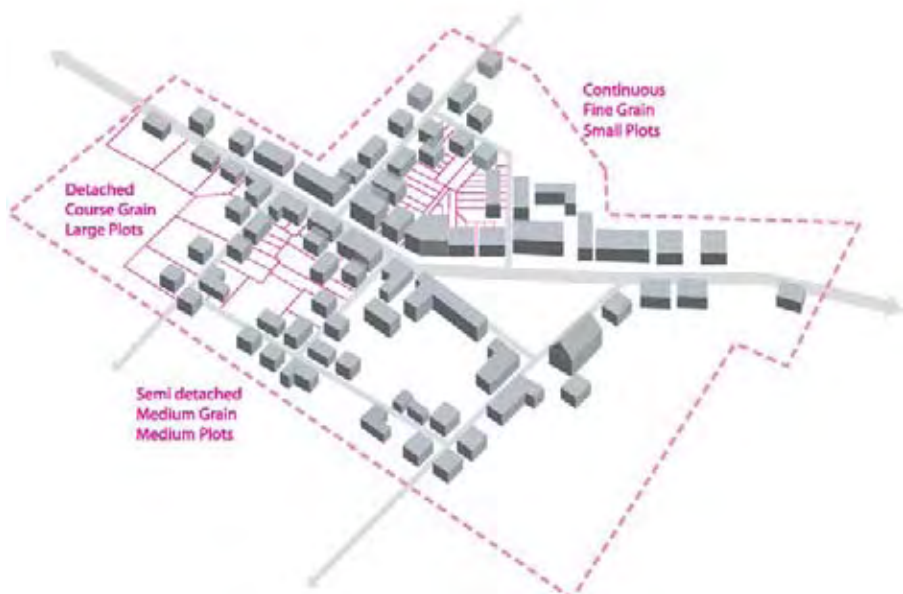
PLAS GWENFREWI:  
BUILDINGS CAN CHANGE USE SEVERAL TIMES OVER THEIR LIFETIME AND SHOULD BE DESIGNED TO BE FLEXIBLE AND ADAPTABLE AS THIS OLD CHAPEL HAS PROVED TO BE.



## design guidance

- create a street layout or block structure that integrates with the surrounding urban or rural fabric and which allows maximum flexibility for redevelopment in the future. On sites where the topography allows, a well-connected and permeable grid may be the best way of achieving this. Look at the best parts of existing settlements in the area and consider how and why they have stood the test of time;
- design streets and spaces to be robust, simple and clutter free, allowing for a variety of possible uses;
- design buildings to be flexible and adaptable. In practice this means providing the room for expansion together with building forms that are capable of conversion and expansion such as framed construction. Residential units designed with higher ceilings at ground floor level would allow conversion to retail at a later date, for example. This concept can also be applied to internal spaces which should be capable of being adapted to meet the requirements of different users in the future;
- planned open space should be designed to be flexible and capable of being used for a variety of uses over its lifetime;
- wherever possible design for longevity.

AN ADAPTABLE BLOCK STRUCTURE  
CAPABLE OF ACCOMMODATING A RANGE  
OF DEVELOPMENT SCENARIOS



# objective 10

## resource efficiency

Buildings and landscape should minimise resource use in their construction, operation and maintenance.

The energy consumed in the construction and operation of a building results in at least 50% of UK CO<sup>2</sup> emissions. The initial design of a building can have a huge impact on energy usage over its lifetime. However, energy use can also be minimised by making the best use of buildings and materials already on site, working with the topography to create suitable microclimates, and using tree planting and shelterbelts to improve microclimate.

BELOW: SUSTAINABLE FEATURES WERE BUILT INTO THE SWANSEA FOYER BY GWALIA / PCKO ARCHITECTS FROM THE OUTSET



### design guidance

- always consider the re-use of existing buildings on the site where feasible and recycle existing materials gained from demolition and site clearance;
- 'passive design' can be an effective way to deliver energy efficiency. This involves considering the orientation of buildings to create the correct balance of shade and solar gain, optimal levels of insulation, compact building forms, use of natural ventilation and window size etc. to achieve appropriate thermal mass and air tightness;
- consider the use of materials that are durable, sustainably produced and have low embodied energy both in terms of their production and transportation to site. This would favour the use of locally sourced materials. However it may equally mean using extremely 'low energy' materials made elsewhere or provided to the site as pre-fabricated elements. Encourage the use of reused/recycled materials and components;
- design in sustainable urban drainage systems (SUDS) from the outset of the project and not as an afterthought. Soak-aways, balancing ponds, reed beds and other sustainable urban drainage elements should always be integrated as a positive part of the layout where possible;
- on large sites or development areas consider low-carbon heating systems and renewable energy installations (TAN 8) such as solar water heating and use of biofuels. Also on large sites consider the use of combined heat power (CHP) as a possible source of heating and power. These need to be designed-in as part of the infrastructure right from the outset of projects;
- design buildings and external spaces to provide space for effective recycling and composting facilities;
- conserve and protect existing site topsoil where possible and reuse in landscape schemes to minimise the need to import additional topsoil or soil ameliorants;
- design landscape to thrive in local microclimatic and soil conditions. This normally requires some use of native locally occurring species or species well adapted to local conditions;
- reference technical sources on how resource efficiency can be delivered, for example the WWF guide to sustainable housing.

# 3.0

## the design process

3.0.1 Without a logical, comprehensive and inclusive design process it will be virtually impossible to achieve good design. An effective design process consists of:

- effective consultation and engagement throughout the project
- an inception phase
- policy review
- context and site appraisal
- visioning
- design development and refinement

Planning authorities will expect anyone proposing residential development to describe the design process followed in a design statement which should accompany every application. It is therefore advisable to agree the design process with the planning authority before developing plans for any site.

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### 3.1 consultation and engagement

3.1.1 Designs should be developed in consultation and engagement with the planning authority, local stakeholders and the community. Consultation is essential to address key planning and design concerns before taking a design too far. The first consultee should be the planning authority to fully understand the issues that will need to be addressed in developing the design. This initial meeting may help to clarify which skills will be needed on the design team, other stakeholders to consult as well as confirming contacts and a programme for submitting the application. Key issues to consider in carrying out a programme of consultation and engagement are:

- develop the consultation/engagement programme in agreement with the planning authority to reflect the local importance or scale of the project. In the simplest of cases this may involve little more than informing the neighbours and discussing concerns with them. For larger projects it may involve a more extensive series of events and meetings such as visioning events, enquiry by design or focus group meetings;
- consider the use of experts who are experienced in the management and facilitation of consultation and engagement;
- clearly set out the parameters of the consultation and engagement process to participants at the outset and spell out the fixes such as the number and density of houses allocated for the site. Avoid revisiting first principles such as whether the site should have been identified for development in the first place;



IMAGES: THE LEVEL OF CONSULTATION WILL VARY FROM PROJECT TO PROJECT. FOR LARGE OR SENSITIVE PROJECTS VISIONING AND DESIGN DEVELOPMENT CAN INCLUDE 'ENQUIRY BY DESIGN' IN WHICH STAKEHOLDERS ARE INVOLVED IN THE DESIGN PROCESS. CONSULTEES CAN BE ENCOURAGED TO PROVIDE CREATIVE INPUT IN A VARIETY OF WAYS.



- always hold pre-application discussions with the planning authority to confirm the vision (3.5) for the site before plans have been resolved;
- consult with relevant authorities including the police (through the local architectural liaison officer), Environment Agency, Countryside Council for Wales etc.;
- provide opportunities for the community and stakeholders to provide input into the design process before plans have been prepared so that there is a genuine opportunity for ideas and suggestions to be responded to;
- always let people know how their comments / input will be used at the outset and give them feedback on how/if comments have been taken into account;
- consultation and engagement should be seen as part of a collaborative approach in which the design team, planning authority and stakeholders influence the final design solution.

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## 3.2 inception phase

3.2.1 The easiest way to deliver well-designed, sustainable development is to employ a good design team. On the whole, good designers produce good design and quicker planning permission. In considering what consultants to appoint always:

- use consultants with a proven track record and skills in the delivery of well designed sustainable development; and,
- select consultants on the basis of quality as well as price - in the long run a good designer will be cost effective and should be able to secure a planning permission efficiently.

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## 3.3 policy review

3.3.1 Developers and designers must understand the planning policy context within which they are working.

3.3.2 In particular the following should be considered:

- National policy and guidance;
- Development Plan Policies in the Development Plan;
- Other Supplementary Planning Guidance;
- Standards and regulations applying within the LPA area;



TAN 12

- Advice from statutory consultees.
- Legal/planning constraints (eg Public Rights of Way, Listed Buildings, Tree Preservation Orders, easements etc.).
- Local initiatives such as design advisory panels, Conservation Area advisory groups etc. who may be a source of assistance and information.
- Planning history including previous planning and appeal decisions and results of public consultations, particularly with respect to design issues.
- Non-statutory design guidance.

## 3.4 context and site appraisal

3.4.1 To adequately address each design objective, certain characteristics of the context and site need to be identified, recorded and responded to by the designer. The attributes of context and site essential to an understanding of any place and to enable development are:

- its history and pattern of growth;
- its landscape and biodiversity;
- the social and economic profile;
- patterns of movement and the location of local facilities and services;
- site constraints and opportunities, (including topography and existing buildings)

3.4.2 Not all of these will be relevant to all projects. The local authority can advise on the main site and context issues to concentrate on.

3.4.3 Site and context appraisal should always be carried out by qualified professionals. These may include:

- |                       |             |                   |
|-----------------------|-------------|-------------------|
| ■ landscape architect | ■ engineer  | ■ town planner    |
| ■ urban designer      | ■ ecologist | ■ arboriculturist |
| ■ architect           | ■ surveyor  |                   |

3.4.4 Where they have been completed Biodiversity Action Plans, Conservation Strategies, LANDMAP studies and others carried out by the LPA should be referred to as these may be useful sources of data relating to the site and context. LANDMAP studies normally include information on scenic, sensory, ecological, archaeological and cultural aspects of an area.



LEFT: AN ECOLOGICAL SURVEY SHOULD ALWAYS BE A PRECURSOR TO THE DEVELOPMENT OF ANY SITE. MANY SPECIES ARE PROTECT BY LAW AND DISTURBING THEM IS AN OFFENCE.

## History and pattern of growth

3.4.5 The way in which a place has developed and evolved in the past can give clues as to how change should occur in the future. For example does the form of a place reflect a pattern of incremental linear growth? This may place special importance on street frontages and building setbacks along main roads. Analysis of growth patterns can give important clues as to how to deal with site characteristics such as steep slopes or poor microclimate; how did they deal with these factors in the past? How should we deal with them using modern techniques?

3.4.6 The best way to appraise history and patterns of growth is by looking at historic and present day plans, together with topographic and geological plans.

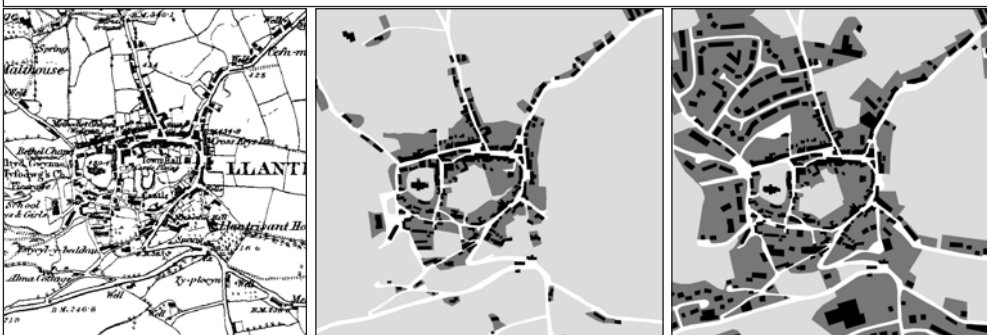
Factors to consider in the appraisal of history and pattern of growth include:

- the origins and historical development of the settlement within its natural setting;
- settlement form and surviving elements of historic street pattern or plot subdivisions;
- areas of distinctive townscape character;
- distinctive layout, form, scale and uses of buildings and spaces;
- typical building plot characteristics (density, size, shape, ratio of building to space etc.);
- typical treatment of building setbacks, frontages and boundaries;
- local/regional building traditions (form and architectural style), materials and design details;
- prevalent colours and textures or other special or distinctive features;
- important buildings, landmarks, gateways and important views and vistas;

## Natural Heritage

3.4.7 The character of an area can be reflected in new development through the pattern of built form and its relationship to topography; the form and materials used for building; and the approach to landscape design. What is important in terms of landscape character and how should the proposed development respond to it?

3.4.8 The biodiversity of a site for development must always be understood in detail and will require on-site survey. Biodiversity of site context can be ascertained by sourcing existing information such as the CCW Phase 1 Ecological Survey, by talking to local ecological and wildlife groups or through new ecological survey.



LEFT: LLANTRISANT HISTORIC MAP, BLOCK PATTERN 1885 AND PRESENT DAY - CONSIDERATION OF HOW A SETTLEMENT HAS GROWN CAN HELP TO IDENTIFY THE MOST APPROPRIATE PATTERN FOR NEW GROWTH AND THE MOST IMPORTANT SPATIAL QUALITIES TO RETAIN.

Factors to consider in the appraisal of natural heritage include:

- visibility of site;
- role/prominence of the site in important views within the area from which the site is visible;
- the character of the landscape surrounding the site and important features that contribute to it;
- the role of the site, if any, in contributing to the character of the surrounding landscape;
- how the site relates to the surrounding landscape (e.g. position in relation to topography, aspect, character of edges, visual prominence etc.);
- the features that define its natural setting and natural edges (e.g. ridge-lines, valleys, blocks of vegetation);
- the role, if any, of the site in relation to the setting of any adjacent settlement;
- important landmarks, views and skylines to be respected;
- green spaces, corridors, trees, hedges, other cultivated elements and natural features (e.g. semi-natural vegetation, watercourses and wetlands etc.);
- the character and condition of the site boundaries and the relationship between the site and contiguous areas of landscape and townscape;
- positive characteristics of the local landscape and vegetation immediately adjacent to the site, including its quality, condition, scale, enclosure, and important links to be maintained (e.g. green corridors);
- features or intrusive influences that detract from the character and quality of the site and need to be mitigated as part of the development proposals;
- ecological survey of site;  
review of ecological data related to site context, for example Phase 1 ecological survey.

## Social and economic profile

3.4.9 An understanding of the social and economic profile of an area can be useful for large or complex sites but may not be necessary for smaller allocated sites. It can help a developer deliver a mix and tenure of properties that meet the identified needs of the local area. It is particularly important for mixed use development in which a good understanding of the local market is essential to be able to plan effectively for employment and retail uses. An understanding of issues related to crime and disorder can also be very important at the outset of the project and can help the designer to ensure that the development contributes to a safe and secure community.

RIGHT: IT IS VITAL TO UNDERSTAND HOW VISIBLE A SITE IS AND WHAT IMPACT THE VIEWS WILL HAVE. THERE IS NO REASON FOR DEVELOPMENT TO HAVE A NEGATIVE VISUAL IMPACT BUT IF NOT DESIGNED CAREFULLY IT CAN SERIOUSLY DETRACT FROM LANDSCAPE CHARACTER.





Factors to consider in the appraisal of social and economic profile include:

- population of area;
- social and economic needs - how can the proposed development contribute;
- issues related to crime and disorder;
- market demands and deficiencies;

## Patterns of Movement and Use

3.4.10 Development proposals need to be taken forward from a position of having a clear understanding of the surrounding movement network so that they can be positively designed to complement it.

Factors to consider in the appraisal of patterns of use and movement include:

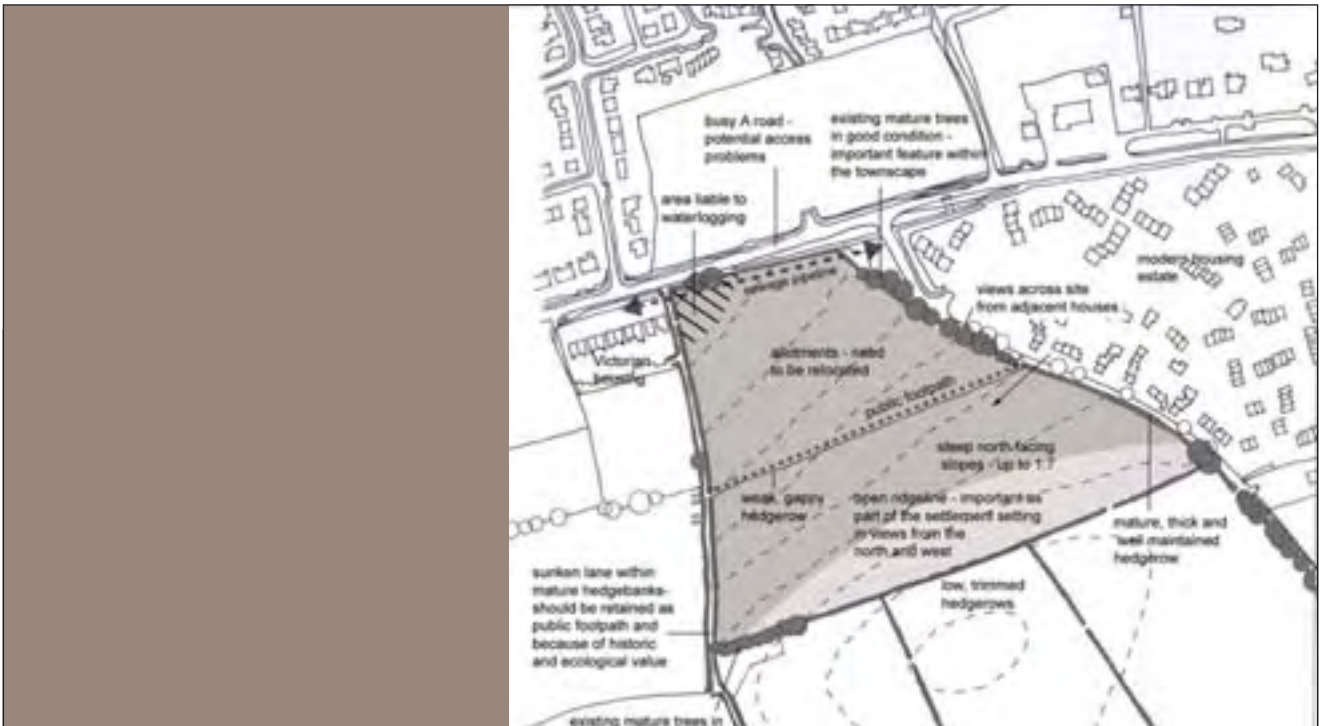
- existing patterns of movement and opportunities for linkage;
- pattern and distribution of uses including parks, schools, shops and other facilities including public transport;
- barriers to movement (roads, watercourses etc.);
- rights of way and other paths and evidence of recreational or other use of the site;
- potential main access points and other potential access links (e.g. footpath and bridleway) from adjacent areas into the site;
- potential linkages to subsequent stages of development.

## Site constraints and opportunities

3.4.11 The physical characteristics of a site need to be identified and recorded to allow a development to proceed in the full knowledge of all site features, archaeology, infrastructure, services and ground conditions.

Factors to consider in the appraisal of site constraints and opportunities include:

- the physical characteristics of the site (e.g. slope, aspect, soils, ground conditions, drainage, microclimate etc.) which may influence development capacity;
- archaeology;
- the location and condition of features to be retained (e.g. trees, shrubs, hedges, ponds, watercourses, buildings, structures, walls etc.);



- the presence and location of services (e.g. drains, sewers, ducts, utilities, wayleaves, power cables etc.);
- the siting of neighbouring buildings, especially housing, in order to ensure development protects existing amenities.

## 3.5 visioning

- 3.5.1 All projects should be supported by a design statement including a 'vision' describing clearly the special role and distinctive character that the development is seeking to achieve.
- 3.5.2 A vision is not the same as a design; it is the idea behind the design, for example whether a site will be developed as a 'loose leafy suburb' or a 'tight urban village'. Vision does not necessarily mean something exciting or out of the ordinary. In fact a vision could be simply 'to create an attractive bit of town in keeping with the local area'. The vision for the site will inform all elements of the design. For example if a development is 'tight and urban' it is likely to be high density with well enclosed streets and spaces. If 'loose, leafy and suburban' it may be spacious, with a lot of trees and low density.
- 3.5.3 The development of the vision should precede design development. The process of vision development is an excellent time to engage the planning authority, community and other stakeholders in the design process. Anyone proposing new residential development should have a vision for the site which answers the following questions:

- what sort of place should this site become taking into account its natural heritage characteristics and context?
- what key words or phrases describe the qualities that it is hoped development will achieve?
- what character and uses would achieve these qualities?

3.5.4 Sometimes it is necessary to think big and be bold. Strong and simple ideas are usually the best.

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## 3.6 design development and refinement

3.6.1 Design development will involve considering how each design and sustainability objective can be achieved on a particular site.

3.6.2 Developers and designers should always talk to the local authority before detailed proposals have been developed. A pre-application discussion can help the authority give an opinion on a development proposal at an early stage. At a pre-application discussion the designer or developer should be able to convey:

- the policy background;
- the results of the site and context appraisal;
- reports of any relevant consultations;
- the initial 'vision' for the site's development in response to the policy background, the site and its settings, the purpose of development and the desire to create a high quality of life for residents; and,
- an initial indication of how each of the design and sustainability objectives will be achieved.

3.6.3 This information can be set out in a pre-application statement.

3.6.4 Ideally the developer and the local authority should work together to produce an agreed vision statement and approach to the design principles before detailed design development proceeds. This will ensure that all parties are clear about the aims and objectives of the project at the outset.

Simplified Design Process	Design Objective
<p>01. Develop and commence consultation process</p> <p>02. Set up integrated design team - commence visioning</p>	
<p>03. Consider the basic zoning of the various elements of the development. For example, for large sites, are there areas which should be higher density due to proximity to services, public transport or other good linkages. Exclude areas of high environmental capital and other sensitive areas.</p>	<p>Natural heritage</p> <p>Compactness</p>
<p>04. Consider where access points into the site should be.</p> <p>Identify potential linkages into and through the site including those to subsequent phases of development.</p> <p>Establish a framework which allows for ease of movement within the development whilst at the same time creating a positive urban structure with attractive, pedestrian friendly streets and spaces that provide a high quality of life</p> <p>Consider the hierarchy of streets and spaces that define primary, secondary and tertiary routes within the development.</p>	<p>Accessibility and ease of movement</p> <p>Character and Context</p> <p>(See also Resource Efficiency)</p> <p>Legibility</p>
<p>05. Develop a strategy for sustainability, a built form and architectural concept to create safe and attractive well defined streets and spaces and buildings which are appropriate and sustainable.</p>	<p>Continuity and Enclosure</p> <p>Public Realm</p> <p>Variety and Diversity</p> <p>Adaptability</p> <p>Resource Efficiency</p>



# 4.0

## submitting the planning application

4.1 The requirements for submitting a planning application will vary from council to council. The supporting information outlined in this section gives an indication of minimum requirements.

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### 4.2 design statement

4.2.1 PPW and TAN 12 require that applications for planning permission are accompanied by a design statement. A design statement is an opportunity for developers and designers to describe their vision for a site and demonstrate how they have responded to each of the key design and sustainability principles.

4.2.2 TAN 12 spells out the required content for a design statement as:

- the design principles and design concept;
- how these are reflected in the development 's location, layout, density, scale, detailed design and landscape;
- how the design relates to its site and its wider context;and
- how the development will meet UDP design policies and SPG requirements.

4.2.3 In preparing a design statement to meet these requirements the following are of particular importance to demonstrate compliance with this guide:

- the design concept should meet the requirements of section 3.5 of this guide setting out a holistic vision for the site's development;
- the 'design principles' should specifically set out how each of the relevant design objectives included in this guide have been addressed;

4.2.4 A written design statement should be illustrated, as appropriate by:

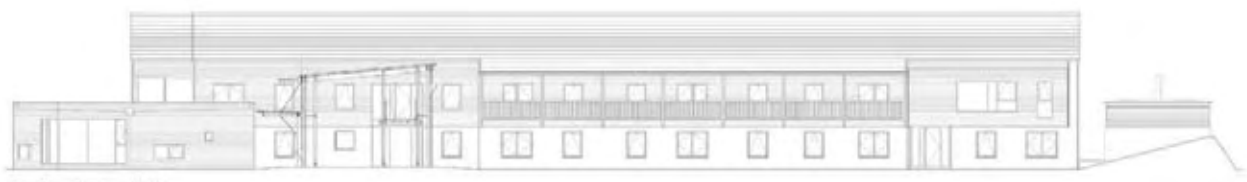
- plans and elevations;
- photographs of the site and its surroundings;and
- other illustrations such as perspectives.

4.2.5 The appendix contains a checklist of information requirements for a planning application which local planning authorities are encouraged to use as a model and adapt to individual circumstances.

# Design Statement Checklist

	✓	x
UDP design policies and SPG		
Site and context appraisal		
Vision describing the 'place' and how it relates to site and context		
Design principles and how they respond to site and context appraisal		
Natural Heritage		
Compactness		
Accessibility and ease of movement		
Legibility		
Character and context		
Continuity and enclosure		
Public realm		
Variety and diversity		
Adaptability		
Resource efficiency		
Supporting information (see appendix 1)		

SUPPORTING INFORMATION, PLANS AND ELEVATIONS FOR ASSISTED LIVING AND DAY CARE CENTRE, BURRY PORT.



East Elevation from Garden

# 5.0

## design appraisal

- 5.1 This guide spells out the design objectives which should be taken into account by anyone proposing a new residential development in excess of one dwelling. It requires a design statement describing a vision for the site and how the proposal meets each objective.
- 5.2 Design appraisal will be carried out by the planning authority and may involve:
- asking whether the proposal/design statement includes a clear and appropriate vision / design concept which relates to the policy review and site appraisal process; and,
  - appraising how well the development proposal addresses each of the relevant design objectives.
- 5.3 The design appraisal process should be carried out to allow sufficient time before determination of the application to allow design improvements to be made. The appraisal may be carried out collaboratively between the planning authority and the person or team proposing the development. It should be a positive and creative process to identify specific areas in which improvements can be made.
- 5.4 It will not be possible to make a fundamentally poor development proposal acceptable through compliance with this guide. However proposals for sites supported by the UDP and which have a strong vision and which respond to each relevant design objective should be supported by the planning authority on design grounds.
- 5.5 For major applications, those important to the local community or likely to set a precedent any one proposing development may wish the Design Commission for Wales (DCfW) to review the proposals. The Design Commission for Wales is a national organisation established and core funded by the National Assembly for Wales. DCFW's mission is to champion high standards of architecture, landscape and urban design in Wales, promoting wider understanding of the importance of good quality in the built environment, supporting skill building, encouraging social inclusion and sustainable development. DCFW has its own design review process which can be found on its website at [www.dcfw.org](http://www.dcfw.org). Contact details are: DCFW, 4th Floor Building, Two Caspian Point, Caspian Way, Cardiff Bay CF10 4DQ.





# appendix

## List of requirements for submitting a planning application from TAN 12.

### Location plan

- Scale 1:1250 preferably and no smaller than 1:2500
- North point, date and drawing number
- Outline the application property, and indicate any adjoining property owned or controlled by the applicant
- Show the application property in relation to all adjoining properties and the immediate surrounding area, including roads
- Show vehicular access to a highway if the site does not adjoin a highway

### Details of existing site layout

- Scale, typically 1:200 or appropriate scale to ascertain required level of detail
- North point, date and number on plans
- Show the whole property, including all buildings, gardens, open spaces and car parking
- Where appropriate: Tree survey. - Nature conservation, biodiversity, drainage and other natural features. - Existing services

### Details of proposed site layout

- Scale, typically 1:200
- North point, date and number on plans
- Show the siting of any new building or extension, vehicular/pedestrian access, changes in levels, landscape proposals, including trees to be removed, new planting, new or altered boundary walls and fences, and new hard-surfaced open spaces
- Show proposals in the context of adjacent buildings

### Floor plans

- Scale 1:50 or 1:100
- In the case of an extension, show the floor layout of the existing building to indicate the relationship between the two, clearly indicating new work
- Show floor plans in the context of adjacent buildings, where appropriate
- In the case of minor applications it may be appropriate to combine the layout and floor plan (unless any demolition is involved)
- Include a roof plan where necessary to show a complex roof or alteration to one

### Elevations

- Scale 1:50 or 1:100 (consistent with floor plans)
- Show every elevation of a new building or extension
- For an extension or alteration, clearly distinguish existing and proposed elevations
- Include details of material and external appearance
- Show elevations in the context of adjacent buildings, where appropriate

### Cross Sections

- Scale 1:50 / 1:100 (consistent with floor plans), where appropriate.

### Supporting Information

- Use of photomontages, artist's impressions and / or CAD visualisations to illustrate schemes.
- 3D built models are valuable on major schemes to help show massing and relationship between buildings.

### Other matters which may be included where appropriate are:

- Energy use and efficiency aspects
- On site waste management
- Future maintenance implications and commitment

# further reading

This document is not a comprehensive design guide. Further detailed information on how to address each design objective can be found in numerous other documents including those listed below:

**Audit Commission 1999**, Listen Up! Effective Community Consultation,  
**BRE 2000**, The Green Guide to Housing Specification  
**BRE 2004** Thinking Business Space,  
**BREEAM** (BRE Environmental Assessment Method), [www.breeam.org](http://www.breeam.org)  
**British Standards Institute BS8300**, 'Access for Disabled People'  
**CABE 2002**, The Value of Good Design,  
**CABE/DCfW 2004**, Creating Excellent Buildings  
**CABE/DCfW 2004**, Creating Successful Masterplans  
**Cardiff University/WWF 2004**, Sustainable Construction - Practical Guidance for Crime and Disorder Act 1998, Section 17  
**Planners and Developers**, Sustainable Housing Design Strategy for Wales  
**CIRIA 2004**, Code of Practice: Rights of Access - Goods facilities, services and premises, Considerate Constructors Scheme, [www.ccscheme.org.uk](http://www.ccscheme.org.uk)  
**DETR 1998**, Places Streets and Movement  
**DETR 2000**, By Design  
**DETR GPG274**, Environmentally Smart Buildings - a Quantity Surveyors Guide to the cost - effectiveness of energy efficient offices  
**DETR GPG287**, The Design Team's Guide to Environmentally Smart Buildings  
**Disability Rights Commission** [www.drc.org.uk](http://www.drc.org.uk), Designing for Accessibility, Centre for Accessible Environments [www.cae.org.uk](http://www.cae.org.uk)  
**DTLR/CABE, 2001**, Better Places to Live  
**English Partnerships, 2000**, Urban Design Compendium  
**Evans et al November 1998** - The Long Term Costs of Owning and Using Buildings, The Royal Academy of Engineering  
**Faber Maunsell/DTI 2004**, Engage - how to deliver socially responsible construction - a client's guide  
**Housing Forum February 2002**, Rethinking Construction, 20 steps to encourage the use of whole life costing  
**IDeA Knowledge and WWF (website)**, Mainstreaming Sustainable Development through Modernisation  
**King Sturge 2004**, Property Sustainability Matters - Caveat Emptor  
**Local Planning Authorities**, Local Biodiversity Action Plans  
**National Assembly for Wales 2004**, Starting to Live Differently  
**ODPM 2004**, Safer Places - The Planning System and Crime Prevention  
**Sustainable Buildings: Benefits for occupiers**, BRE Information paper  
**TCPA 2004**, Biodiversity by Design - A Guide for Sustainable Communities  
**UWE 2003**, Shaping Neighbourhoods  
**UWE/LGMB, 1995**, Sustainable Settlements  
**WDA 1995**, Landscapes Working for Wales  
**WDA 2003**, Biodiversity Guidelines  
**WDA 2005**, 'The Welsh Development Agency Design Strategy'  
**Welsh Assembly Government 2002**, Planning Policy Wales  
**Welsh Assembly Government 2002a**, TAN 12 Design  
**Welsh Assembly Government 2004**, Sustainable Development Action Plan  
**Welsh Office Circular 16/94**, 'Planning Out Crime'

# glossary: a language for design

From: DETR and CABE (2000) *By Design: Urban design in the Planning System - Towards Better Practice*, London, Thomas Telford Publishing

**Accessibility** The ability of people to move round an area and to reach places and facilities, including elderly and disabled people, those with young children and those encumbered with luggage or shopping.

**Adaptability** The capacity of a building or space to be changed so as to respond to changing social, technological and economic conditions.

**Area appraisal** An assessment of an area's land uses, built and natural environment, and social and physical characteristics.

**Brief** This guide refers to site-specific briefs as development briefs. Site-specific briefs are also called a variety of other names, including design briefs, planning briefs and development frameworks.

**Building line** The line formed by the frontages of buildings along a street. The building line can be shown on a plan or section.

**Bulk** The combined effect of the arrangement, volume and shape of a building or group of buildings. Also called massing.

**Character assessment** An area appraisal identifying distinguishing physical features and emphasizing historical and cultural associations.

**Charrette** An event (ranging from a couple of hours to several days) which brings together a range of people to discuss design issues. A charrette may or may not use techniques of collaborative design. Also known as a design workshop.

**Conservation area character appraisal** A published document defining the special architectural or historic interest which warranted the area being designated.

**Context** The setting of a site or area, including factors such as traffic, activities and land uses as well as landscape and built form.

**Context (or site and area) appraisal** A detailed analysis of the features of a site or area (including land uses, built and natural environment, and social and physical characteristics) which serves as the basis for an urban design framework, development brief, design guide or other policy or guidance.

**Density** The floorspace of a building or buildings or some other unit measure in relation to a given area of land.

**Built density** can be expressed in terms of plot ratio (for commercial development); number of units or habitable rooms per hectare (for residential development); site coverage plus the number of floors or a maximum building height; or a combination of these.

**Design advisory panel** A group of people (often architects) with specialist knowledge, which advises a local authority on the design merits of planning applications or other design issues. Also known as an architects panel.

**Design assessment** An independent assessment of a design usually carried out for a local authority by consultants, another local authority or some other agency.

**Design guide** A document providing guidance on how development can be carried out in accordance with the design policies of a local authority or other organisation often with a view to retaining local distinctiveness.

**Design principle** An expression of one of the basic design ideas at the heart of an urban design framework, design guide, development brief or a development.

**Design standards** Specific, usually quantifiable measures of amenity and safety in residential areas.

**Design statement (a)** A pre-application design statement is made by a developer to indicate the design principles on which a development proposal in progress is based. It enables the local authority to give an initial response to the main issues raised by the proposal. (b) A planning application design statement sets out the design principles that the planning applicant has adopted in relation to the site and its wider context, as required by PPG1.

**Design workshop** see 'charrette'.

**Desire line** An imaginary line linking facilities or places which people would find it convenient to travel between easily.

**Development brief** A document, prepared by a local planning authority, a developer, or jointly, providing guidance on how a site of significant size or sensitivity should be developed. Site-specific briefs are sometimes known as planning briefs, design briefs and development frameworks.

**Elevation** The facade of a building, or the drawing of a facade. Enclosure The use of buildings to create a sense of defined space.

**Energy efficiency** The extent to which the use of energy is reduced through the way in which buildings are constructed and arranged on site.

**Feasibility** The viability of development in relation to economic and market conditions.

**Fenestration** The arrangement of windows on a facade.

**Figure and ground (or figure/ground, or Nolli) diagram** A plan showing the relationship between built form and publicly accessible space (including streets) by presenting the former in black and the latter as a white background (or the other way round).

**Form** The layout (structure and urban grain), density, scale (height and massing), appearance (materials and details) and landscape of development.

**Height** The height of a building can be expressed in terms of a maximum number of floors; a maximum height of parapet or ridge; a maximum overall height; any of these maximum heights in combination with a maximum number of floors; a ratio of building height to street or space width; height relative to particular landmarks or background buildings; or strategic views.

**Human scale** The use within development of elements which relate well in size to an individual human being and their assembly in a way which makes people feel comfortable rather than overwhelmed.

**Indicative sketch** A drawing of building forms and spaces which is intended to convey the basic elements of a possible design.

**Landmark** A building or structure that stands out from its background by virtue of height, size or some other aspect of design.

**Landscape** The character and appearance of land, including its shape, form, ecology, natural features, colours and elements and the way these components combine. Landscape character can be expressed through landscape appraisal, and maps or plans. In towns 'townscape' describes the same concept.

**Layout** The way buildings, routes and open spaces are placed in relation to each other.

**Layout structure** The framework or hierarchy of routes that connect in the local area and at wider scales.

**Legibility** The degree to which a place can be easily understood and traversed.

**Local distinctiveness** The positive features of a place and its communities which contribute to its special character and sense of place.



**Massing** The combined effect of the height, bulk and silhouette of a building or group of buildings.

**Mixed uses** A mix of uses within a building, on a site or within a particular area. 'Horizontal' mixed uses are side by side, usually in different buildings. 'Vertical' mixed uses are on different floors of the same building.

**Movement** People and vehicles going to and passing through buildings, places and spaces. The movement network can be shown on plans, by space syntax analysis, by highway designations, by figure and ground diagrams, through data on origins and destinations or pedestrian flows, by desire lines, by details of public transport services, by walk bands or by details of cycle routes.

**Natural surveillance (or supervision)** The discouragement to wrong-doing by the presence of passers-by or the ability of people to be seen out of surrounding windows. Also known as passive surveillance (or supervision).

**Node** A place where activity and routes are concentrated often used as a synonym for junction.

**Passive surveillance** See 'natural surveillance'.

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

**Planning brief** This guide refers to site-specific briefs as development briefs. Other names, including planning briefs, design briefs and development frameworks are also used.

**Technical Advice Notes (TANs)** Documents embodying Welsh Assembly Government guidance on general and specific aspects of planning policy to be taken into account in formulating development plan policies and in making planning decisions.

**Plot ratio** A measurement of density generally expressed as gross floor area divided by the net site area.

**Proactive development control** Any process by which a local authority works with potential planning applicants to improve the quality of development proposals as early as possible before a planning application is submitted.

**Public art** Permanent or temporary physical works of art visible to the general public, whether part of the building or free-standing: can include sculpture, lighting effects, street furniture, paving, railings and signs.

**Public domain** The parts of a village, town or city (whether publicly or privately owned) that are available, without charge, for everyone to use or see, including streets, squares and parks. Also called public realm.

**Public realm** See 'public domain'.

**Scale** The impression of a building when seen in relation to its surroundings, or the size of parts of a building or its details, particularly as experienced in relation to the size of a person. Sometimes it is the total dimensions of a building which give it its sense of scale: at other times it is the size of the elements and the way they are combined. The concept is a difficult and ambiguous one: often the word is used simply as a synonym for 'size'. See 'Human scale'.

**Section Drawing** showing a slice through a building or site.

**Settlement pattern** The distinctive way that the roads, paths and buildings are laid out in a particular place.

**Sight line** The line of sight from a travelling vehicle or person. Sight lines will help to determine how fast vehicles are likely to move and how safe other road users are likely to be.

**Street furniture** Structures in and adjacent to the highway which contribute to the street scene, such as bus shelters, litter bins, seating, lighting, railings and signs.

**Surveillance** The discouragement to wrong-doing by the presence of passers-by or the ability of people to be seen from surrounding windows.

**Tissue study** Comparison of scale and layout of different settlements. This technique makes use of overprinting or tracing maps of successful places over the proposed development site or area, at the same scale. It gives the designer a clue to the capacity of a place and how it may be structured.

**Topography** A description or representation of artificial or natural features on or of the ground.

**Urban design** The art of making places. Urban design involves the design of buildings, groups of buildings, spaces and landscapes, in villages, towns and cities, and the establishment of frameworks and processes which facilitate successful development.

**Urban design framework** A document which informs the preparation of development plan policies, or sets out in detail how they are to be implemented in a particular area where there is a need to control, guide and promote change. Area development frameworks are also called a variety of other names, including urban design strategies, area development frameworks, spatial masterplans, and planning and urban design frameworks.

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

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

**View** What is visible from a particular point. Compare 'Vista'.

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