

THE CARADON *DESIGN* GUIDE

SECTION D

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BUILDING IN  
CONTEXT



Supplementary Planning Guidance

July 2000

# BUILDING IN CONTEXT

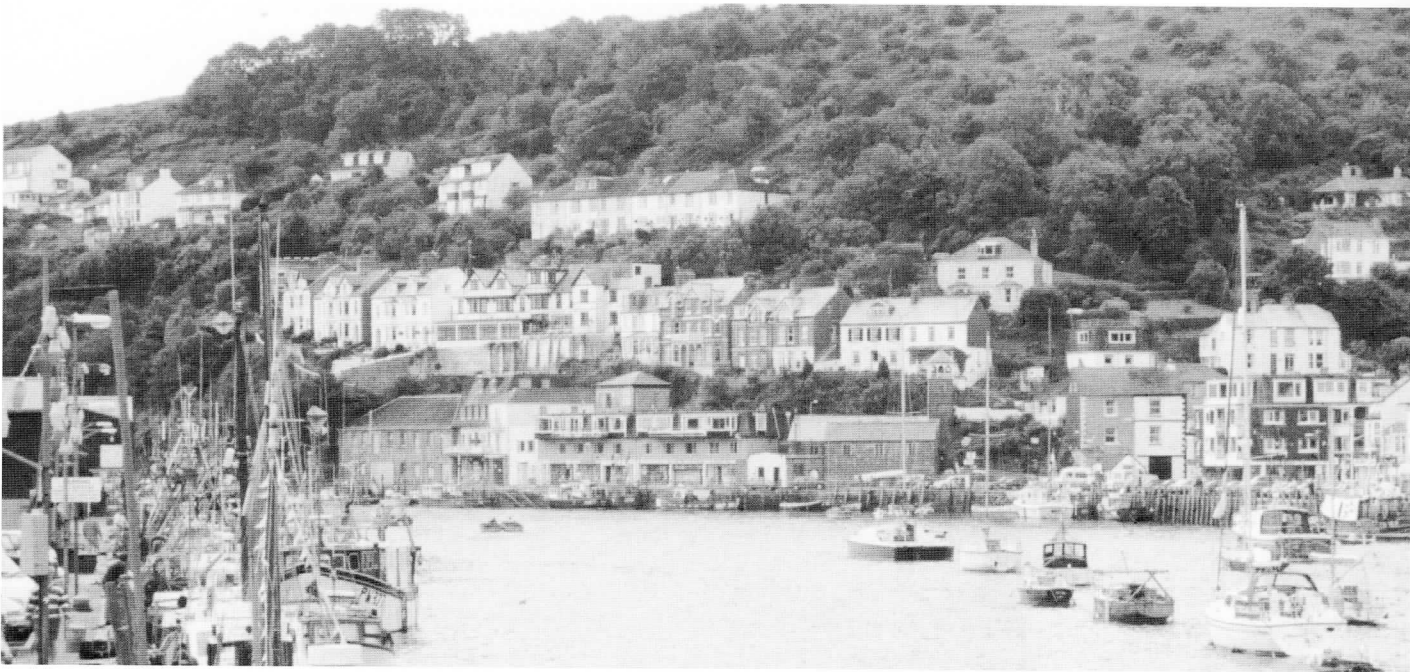


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BUILDING IN CONTEXT



*Always consider development in its context. Consider the scene as a whole.*

I N T R O D U C T I O N

*Caradon District Council has produced the Design Guide to help conserve and strengthen the special character of the built environment. Especially its traditional towns and villages. The aim of this Section is to provide guidance on how to recognise the potential of a site, and to develop a design that sits comfortably within its context, thereby ensuring that new development makes a positive contribution to the distinctive character of the district. Other sections of the Design Guide will provide valuable background information.*

- *Section A*      Explores the concept of local distinctiveness.
- *Section B*      Provides information on Design within the Planning System.
- *Section C*      Looks at fitting development into the landscape.
- *Section E*      Promotes good housing design.

## BUILDING IN CONTEXT

Every site is unique. It has a context of constraints and opportunities and its own 'sense of place' - even if it is initially perceived as negative. Never attempt to develop a site without thorough prior survey and analysis - this will provide an understanding of its potential. Frequently it is the existing features and the apparent constraints of a site that generate the most imaginative and appropriate design solutions.

## CONSTRAINTS AND OPPORTUNITIES

On submission of an application for full planning permission or reserved matters (following an outline planning permission) for new development, the District Council will require evidence that the following issues have been thoroughly considered, and appropriate solutions incorporated into the design. Applications on large or sensitive sites which are not accompanied by the relevant background information are likely to be refused.

## Orientation

- Take account of the orientation of the site - especially for housing developments. Correct orientation can significantly save on energy for heating, and result in occupants enjoying sunny principal rooms and gardens.
- If possible orientate dwellings so that principal living rooms and some garden space face south or within 30° of south. East facing bedrooms and kitchens catch early morning sun.
- North facing windows should be small and few. Locate bathrooms, cloakrooms, utility rooms on this aspect.



*Windows facing north were traditionally small.*



*Analyse views from within the site. Focal points can take many forms.*



*Retain existing site features whenever possible. Match local laying patterns if constructing new walls.*

## BUILDING IN CONTEXT

Where good views conflict with orientation, consider designing 'through-room' living space, so that both sun and view can be enjoyed. Fixed light double glazing on the northern aspect and additional wall insulation will reduce energy loss.

Place dwellings on the north edge of plots, where possible. Attempt to minimise the effects of over-shadowing.

### Views

Analyse the views from within the site. Make the most of good views and any attractive existing natural or manmade features beyond the site - a church tower, distant range of hills, sea view - all these can be used to create vistas or focal points, and thereby developing a 'sense of place'. Try not to needlessly interrupt neighbours views.

Identify poor views and determine the need for on-site screen planting, modified layouts and internal plans. Screen planting should be of locally occurring species and planted as whips or transplants (avoid standard trees and Leylandii hedges). It may be planted well in advance of developing the site, to allow for establishment and growth. It will provide future wildlife habitats and shelter.

### Features on Site

An **ACCURATE SURVEY** of all existing features on site will be a valuable tool in designing an appropriate development.

Plot the position, canopy spread, condition and age of all trees and vegetation. The Arboricultural Association address is listed in Appendix 2, approved consultants can advise on the condition of existing trees. When retaining trees on site, plan the development so that they occur in front gardens, or within public open space - in this way they become an asset enjoyed by all and less likely to create serious overshadowing to private space. The proximity of trees to buildings will require careful consideration to avoid structural damage. Trees and hedges will require protection during construction work.

Plot the position of existing hedges, hedgebanks and walls and repair, retain and incorporate them into the development wherever possible. Patterns of wall and hedgebank construction vary within the District and new features should match those existing in the locality. It is best to design them into 'public space' where they are visible, and are more easily maintained.

## BUILDING IN CONTEXT

Existing built structures or features may be of architectural or local interest. e.g. gateposts, old stonebuilt stores, outhouses, boundary walls, pigsties, etc. These should be retained, restored and incorporated into the development where appropriate. Outhouses may be adapted into garages, workshops, or converted. See Section F.

Design the development to take advantage of existing watercourses, ponds or ditches. Consider draining surface water (not roads) into them to top-up levels. This will require consultation with, and consent from, the *Environment Agency*. Avoid culverting or filling-in these features if possible.

Cornwall has many sites of recent and ancient historic interest. In some cases archaeological investigation will be required. Respect and treat as an asset any historic features on or near the site.

**Wildlife and Habitats**

Some sites have areas of ecological or wildlife interest. Species such as badgers, Barn Owls and bats are protected by law and it is an offence to disturb or kill them. Old meadows, quarries and copses are often rich in native species. The District Council may require an ecological survey prior to development of certain sites.

**Services**

Service runs should be accurately plotted. Large mains and overhead wires can be a considerable constraint to development. Consult the relevant utility provider at the earliest stage.

**Existing Levels**

Few sites in the District are dead flat and some are very steep indeed. This will have a major effect on how development is laid out and its subsequent impact on the surrounding landscape. A datum point should be clearly shown on submitted plans.

Older villages appear to take advantage of steep sites by stepping down the contours, creating tightly knit streets of picturesque charm. This is most successful with narrow fronted terraced properties - where the additional cost incurred by flashings, and external walls above roof level, can be offset by the reduction in the amount of cut and fill, and retaining walls.

Avoid using modified standard plan types designed for flat sites. A skilled designer can generate more appropriate solutions.



*A strip elevation indicating small houses stepped against the contours. Avoid attempting to make a sloping site flat - work with the character of the site - not against it!*

BUILDING IN CONTEXT



*Traditional buildings often nestled into the landscape, enhancing the overall scene.*

### Exposure

■ The prevailing south westerly winds off the Atlantic are especially strong on the upland areas around Bodmin Moor. In order to conserve energy and increase levels of comfort, buildings were traditionally sited in the lee of hills - this had the added visual advantage of placing development below the skyline. Additionally, a shelter group of trees (often Corsican Pine or Ash) were planted on the south western aspect. In areas where trees are more numerous, the planting of shelterbelts may be appropriate.

■ Shelter belts should be of locally occurring native species at least 25m wide, and densely underplanted. Shelter is provided for a distance 10-15 times the height of the shelter belt.

### Setting and Site Features

■ All sites sit within a context, which will have its own physical and visual characteristics generating a 'sense of place'. It is vitally important that the setting of a site is analysed and understood prior to commencing design.

■ Note existing routes and circulation patterns in the vicinity, or on site.



*Windsculpted trees near St. Winnow all on one line or symmetrical.*

## BUILDING IN CONTEXT

- Note the **scale, eaves height, plot size, successful boundary treatments, materials, building line and architectural character of adjoining development**, and respond with appropriate design solutions. Beware replicating a 'unique' existing building or focal point - keep it unique! For example, if the village contains one grand Victorian Vicarage, avoid attempting to build five more!
- Note the scale and character of the surrounding street pattern.
- Retain existing site features, where appropriate, to generate and shape the character and form of new development.

These may include:

*Architectural features*  
*Footpaths and tracks*  
*Vegetation and trees*

*Views*  
*Gradients*  
*Archaeology*

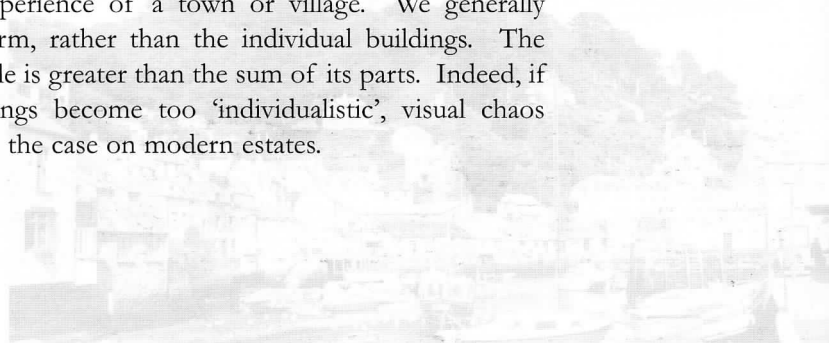
*Wildlife Habitats*  
*Water features*  
*Field patterns*

### DESIGN PRINCIPLES

In laying out new development it is important that individual buildings are not plotted as single, discrete units like 'chocolates' in a box. Consider the following Design Principles to create a built environment with a clear 'sense of place', and a local identity that successfully meshes into the existing context.

#### Existing Settlement Patterns

Traditional settlements are made up of a tapestry of spatial experiences, creating a sequence of legible and memorable 'places'. These shape our experience of a town or village. We generally remember spatial form, rather than the individual buildings. The character of the whole is greater than the sum of its parts. Indeed, if the individual buildings become too 'individualistic', visual chaos ensues. This is often the case on modern estates.





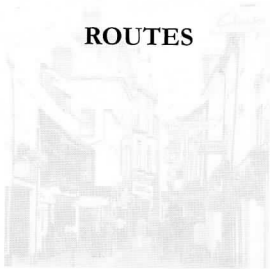
BUILDING IN CONTEXT

Vernacular settlements are composed of one, or a series of, the following physical or spatial elements.

EDGES

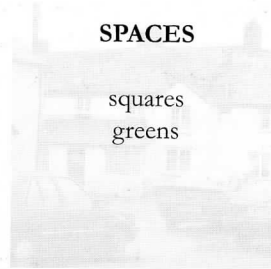
rivers  
coastline  
busy main road

ROUTES



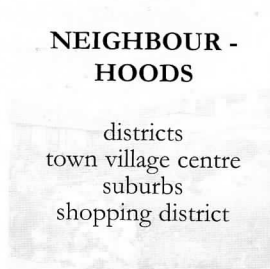
SPACES

squares  
greens



NEIGHBOURHOODS

districts  
town village centre  
suburbs  
shopping district



LANDMARKS

war memorial  
seats  
village noticeboards  
phone box  
unusual building  
post box



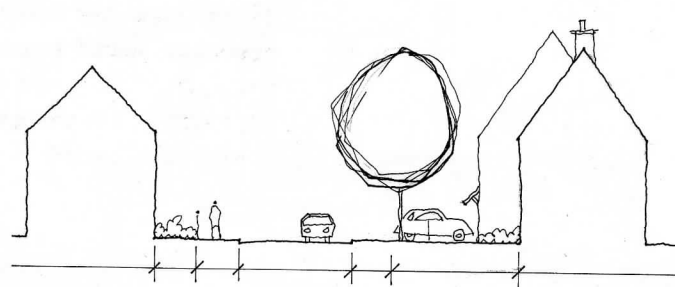
When designing new development use the elements listed above to create a cohesive layout that mirrors, and meshes into the existing settlement.

When designing new development always assess how the form and scale of new houses relate to one another - keep ridge lines and frontages **simple**.

The development should respect its immediate context and incorporate appropriate materials, features and local details. See Section E for further information regarding details and materials.

Analysis of existing settlements can help to formulate some principles for successfully absorbing new development into the existing fabric of Caradon District.

In order for the Council to assess the nature and quality of the 'settlement pattern' of new development, the submission of 'strip elevations' and 'spatial cross-sections' may be required. These should indicate at not less than 1:200 scale how the form of individual properties and their boundary treatments relate to one another.



*A strip elevation helps to evaluate the streetscene, rather than individual houses.*

*Cross sections help to assess street enclosure and scale.*

BUILDING IN CONTEXT

Learning from Existing Settlement Pattern

Doors opening straight off the street. A strong building line at the back of pavement defines the space.

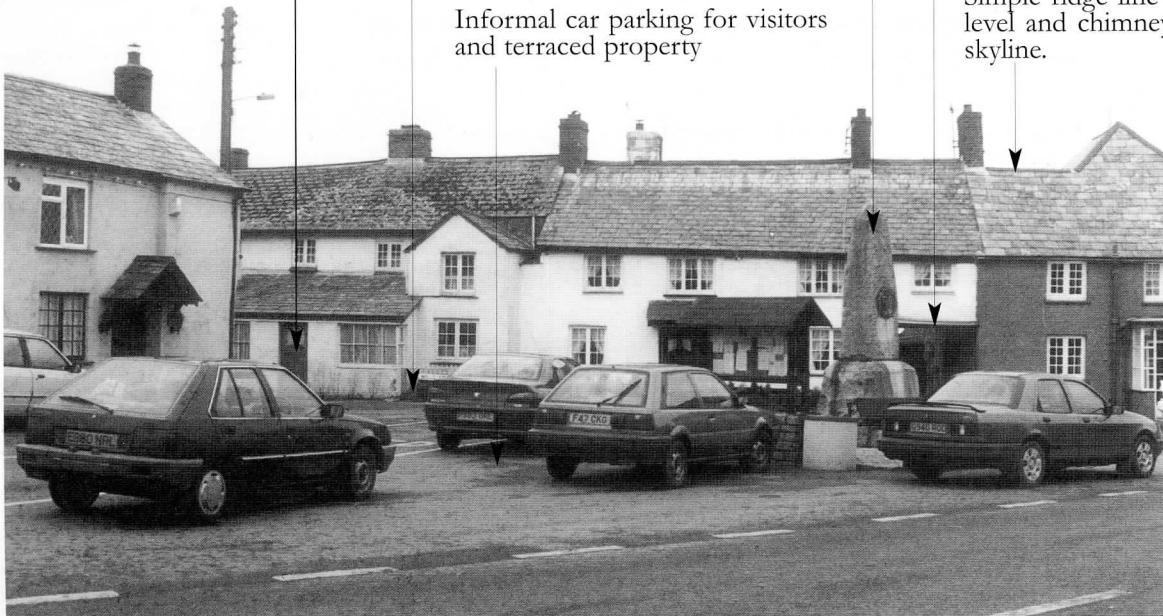
War memorial and notice board forms focus of space and community meeting place

Small fenced front gardens

Informal car parking for visitors and terraced property

Covered way access to rear yards

Simple ridge line with subtle changes of level and chimneys add interest to the skyline.



Existing Village Setting

Private drive access where appropriate

Pollarded tree, green and seat provides meeting place and focal point

Chimneys add interest to roof line

An occasional correctly proportioned gable adds accent to the overall streetscape

Passage to garage court

Back of pavement development

Car parking on cobbles

Small front gardens with railings or hedges

Strong and well defined building line



Learning from the past

BUILDING IN CONTEXT

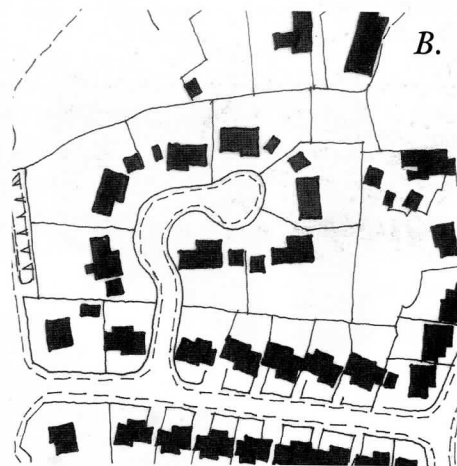
**Permeability**

The principle of permeability relates to the extent the environment allows a choice of access through it, from place to place, by foot, cycle or car. Traditionally routes linked 'places' together. Many modern estate layouts are not permeable, and are therefore isolated from the original settlement. In developing a permeable layout consider the following :

**Retain and incorporate** into the scheme as many existing routes and links as possible, and use them to generate layout pattern. This creates continuity and permeability between the new and old urban or village fabric, and the countryside beyond. This can help generate the form of the new development in a non-arbitrary manner. Emergency access will need to be considered.



A.



B.

*A. Existing settlement pattern showing a distorted grid pattern of streets and a permeable network of roads and lanes.*

*B. Cul de sacs and arbitrary 'wiggly' layouts are a feature of many modern settlements patterns.*

**Main roads** - create links between settlements.

**Local roads and paths** - create links within the local community, for example between the school, medical centre, neighbourhoods, shops etc.

**New Links** - avoid the use of dead-end cul-de-sacs as much as possible. Aim at least to provide a pedestrian and cycle permeable network.

In order to reduce car dependency and to serve non-car users, new areas of housing should be designed to encourage use by **public transport** whenever possible. This will impact on road widths.

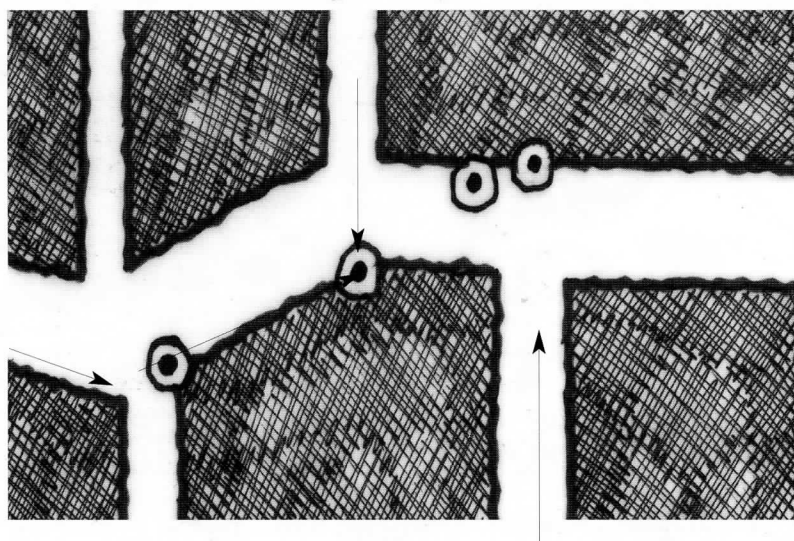
**Bus stops** need careful siting to avoid inconvenience to local residents. A correctly detailed permeable layout will obviate the need for a turning area. However, a waiting bay must be provided if a bus route terminates within an estate.

## BUILDING IN CONTEXT

- In order to reduce car dependency and increase user safety, the needs of **cyclists and pedestrians** and the provision of footpaths and cycle routes should be considered at an early stage.
- Routes must be: safe, direct and convenient, well-lit, overlooked and an integral part of the development.
- Consider the joint use of routes by pedestrians and cyclists. The different uses should be delineated by a change of materials, levels or bollards.

### The Distorted Grid

Traditional settlement patterns are usually a distorted, or informal, grid of roads, lanes and spaces. This is in marked contrast to the modern 'tree hierarchy' layouts with their random 'wiggly' informality, and disorientating dead-ends.



*The distorted grid creates opportunities for interesting and memorable streetscapes by closing views with a series of focal stops. These may be architectural features, or elements such as pillar boxes, seats or green spaces or trees.*

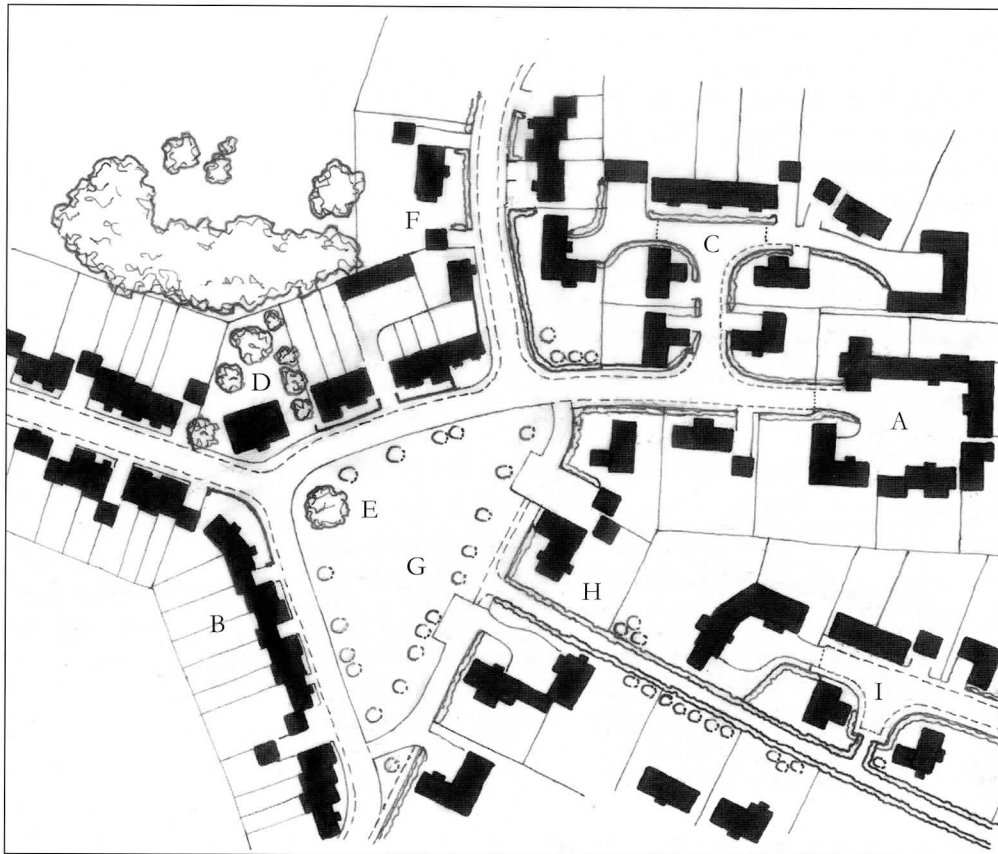
The distorted grid layout has a variety of advantages:

- It can be manipulated to create a series of routes and spaces. See Settlement Pattern, D8.
- The smaller the block size the greater the permeability.
- Distortion creates visual 'closure'. A squared grid creates long straight vistas, which may be appropriate in the creation of formality and grandeur. The informal intimate nature of our traditional settlements requires frequent visual closure. Visual stops must be carefully considered, and generally marked in some way - for example a gable end, colour highlight, landmark or landscape feature. A garage door or gap between properties, for example, would not be appropriate.

BUILDING IN CONTEXT

**Typical Layouts: Permeability and the Distorted Grid in Practice**

It is not always possible to reproduce the attractive road patterns of the past, because of the restrictions posed by modern highway standards. The challenge is to work with safety and functional criteria and standards such as Design Bulletin 32, yet create individual and lively new developments. By following the principles of permeability and the distorted grid, and other urban and landscape design principles, interesting new environments can be achieved.



- A. Farmstead Court.
- B. Terrace.
- C. Special building (form and detailing) at head of framed view.
- D. Retained existing building.
- E. Existing mature tree retained as focal point in new framed views.
- F. Enclosed front gardens (generally hedges or walls).
- G. Village green as focus of development.
- H. Green lane formed with Cornish hedgebanks.
- I. Permeability achieved with pedestrian links.

Consider the buildings, roads and landscape, as a three dimensional whole. Design in terms of street scenes, closing of vistas, spatial variety, framing of views and connectivity of spaces. This is the essence of urban design.

Refer to the 'Cornwall Design Guide for Residential Development' (1995), 'Construction Requirements and Specifications for Residential and Industrial Estate Roads' (1993) and 'Vehicle Parking Guidelines' (1994), all produced by Cornwall County Council.

## BUILDING IN CONTEXT

**Traffic Calming**

■ The formation of numerous routes and junctions disperse traffic flow and reduces traffic speed. For safety reasons a speed limit of 20mph is now generally favoured within housing schemes. In order to reduce speeds to this level the following measures may be incorporated into highway design.

*Restricted lengths of road  
between traffic calming  
measures or junctions.*

*Speed control bends  
Chicanes  
Gateways  
Pitchpoints  
Islands  
Overrun areas  
Mini roundabouts  
Road humps*

■ For further information contact the County Highways Department.

**Public and Private Space**

■ The principle of public 'fronts' and private 'backs' should be utilised to ensure privacy and security to rear gardens, and liveliness and surveillance within the public domain. The boundaries between public and private space should be clearly defined in an appropriate manner.

■ All public spaces and routes should be defined by 'fronts' or occasionally, well designed and securely defined 'backs'.

■ The majority of 'fronts' should face 'fronts', especially along existing roads or lanes.

■ 'Backs' should generally face 'backs'. This improves security, privacy and visual tidiness. Avoid unscreened, or inappropriately screened 'backs' within developments.

■ 'Backs' facing major roads should be planted with screen belts, or hedges of native species, or appropriately detailed screen walls.

**Privacy from the Street**

Traditionally, a reasonable degree of privacy from the public domain was achieved by:

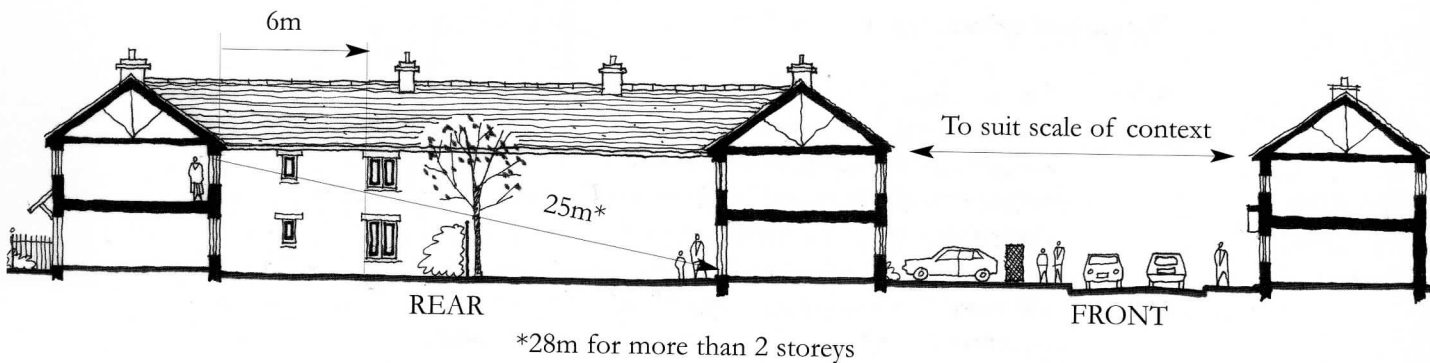
■ Setting houses close to the footpath, which reduces the field of view into the interior.

## BUILDING IN CONTEXT

- Relatively small windows, of vertical emphasis, which created a narrow field of vision to the passerby. Avoid large windows with horizontal emphasis.
- Small pane sizes meant that the eye focused on the glazing bars (often white), rather than gazing into the interior.
- Railings, hedges, cobbled strips and walls provided screening and kept the passersby at a distance.

### Outdoor Privacy

The diagrams below indicate the standard overlooking distances that generally apply. However, in small scale village settings it may be appropriate to **reduce** the front to front overlooking distances to suit the scale of the street. In such situations the **internal house plans, or window proportion must be designed to retain privacy**. Where 2 houses adjoin at right angles, habitable rooms should be separated by a distance of 6m, from the internal angle. Generally, a reduction of 'back to back' dimensions will not be acceptable.



The need for privacy in private rear gardens is a priority for many residents. The following principles should be observed:

- Overlooking of rear facing principle living rooms should be avoided.
- Where the backs of houses are at more than 30 degrees to one another this dimension can be reduced to 15 metres from the nearest corner.
- Where new development backs onto the rear of existing housing, existing residents are entitled to a greater degree of privacy. A minimum of 25m between backs may be acceptable.

## BUILDING IN CONTEXT

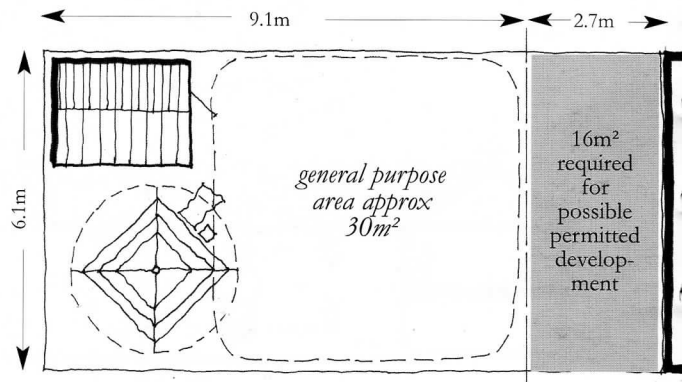
- Upper storey of flats can cause problems of overlooking from living rooms, and therefore an eye to eye distance of 35m may be appropriate. Oblique views across boundaries should also be considered.
- Overlooking distances may be reduced if dwellings are specifically designed not to overlook one another. This may be achieved by designing internal layouts so that only bathrooms and landings are rear facing, or by facing principle rooms in other directions.
- All dwellings should have some private sitting out space and be screened from adjacent properties or the public domain by walls, fences or hedgebanks.

### Outdoor Space

- The desirable minimum area and layout for **private rear gardens** is 50m<sup>2</sup> excluding an area of 16m<sup>2</sup> to accommodate permitted development.

- It is expected that a large proportion of gardens to new dwellings would exceed this.

- Private sitting out space should be provided for **flats and maisonettes**, with additional screened areas for clothes drying, refuse bins and car parking, unless provided integrally within the building.



- A private sitting out space of not less than 10m<sup>2</sup> per dwelling should be provided in **sheltered housing**, in addition to an area of communal open space.

- The minimum standard for **Public Open Space** and **play areas** is a mixed provision of 2.43 hectares/1000 population.

### External Works

- Use planting to create and reinforce the spatial qualities and character of a development.
- Consider planting from the earliest design stage, as an integral part of the scheme, not just decorative infill.

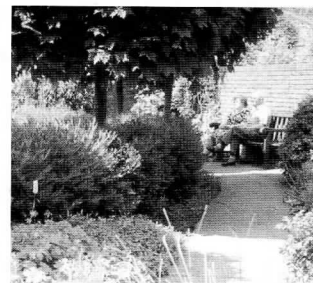


BUILDING IN CONTEXT

Planting can be used to :

*Create a sense of enclosure*  
*Frame views*  
*Provide shelter*  
*Form visual 'stops'*  
*Screen cars and poor views*

*'Soften' the impact of buildings*  
*Create a landscape setting and*  
*sense of 'belonging' in a wider*  
*landscape.*



Choose plants that are appropriate for the context. In rural areas use mainly locally occurring native shrubs and trees.

Use typically 'Cornish' plants within developments. See Gardens, Driveways and Boundaries Section E. Avoid large areas of block planting with variegated foliage, purple leaved varieties, or fast growing conifers.

All tree works should conform to BS 3998 (1989).

Avoid 'showy' ornamental species for street planting or public spaces such as 'Greens' or 'Squares'. Pollarding creates a more formal effect in urban settings. Consider planting Corsican Pine as single specimens, or as a shelter group. Cabbage Palms may be suitable for Interwar Period neighbourhoods in some coastal locations.

Avoid tall dense planting adjacent to secluded footpaths, to eliminate potential hiding places.

Shrub planting in traditional villages should be of simple design of traditional 'Cornish' species and mainly restricted to private gardens.

Shrubs should be planted 25% closer than recommended for private gardens, to produce immediate effect and reduce weed growth.

Ground cover planting (species with an ultimate height less than 300mm) may be suitable within visibility splays.

Avoid small areas of grass less than 1m wide.

Avoid numerous 'obstacles' in areas of mown grass. They make maintenance difficult.

### Paving

Avoid large areas of red or brown coloured paving materials. Buff/Grey is more appropriate.

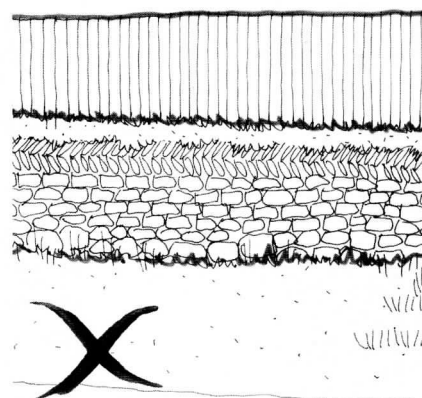
Avoid random and complicated paving patterns. Changes in materials and texture should be logical.

## BUILDING IN CONTEXT

- Avoid large unbroken areas of paving, especially tarmac. Areas can be successfully broken up using materials of the same colour, but different textures.
- Consider using small unit kerb blocks (grey), and reduced kerb heights as appropriate.
- Dropped kerbs and tactile paving may be necessary in certain situations to assist the mobility impaired.

### Boundary Treatments

- Boundaries should generally be clearly defined, in a manner that is appropriate to the location. For further information see Section E.
- Avoid visible lengths of close boarded fencing.
- Avoid mounting timber fencing on top of new hedge banks. Where screening is required, traditional walls should be of sufficient width to incorporate a hedge.
- Consider using hedges, and walls to delineate private and public space and screen car parking areas.



*Avoid mounting close boarded fencing onto hedge banks.*

### Conservation and other Designated Areas

- **Paving design should be simple and of a very high standard.** Use natural materials whenever possible, the following would generally be suitable depending on context:
  - Granite slabs are traditional in larger towns.
  - Granite setts are available in different sizes, and can be laid in a variety of traditional patterns.
  - Cobbles should be egg shaped and laid tightly packed. They make effective deterrent paving.
  - Gravel can be loose, or self binding if supplied with fines and rolled.
  - Kerbs should be granite, or textured 'conservation' type.
  - Tumbled concrete setts (grey) laid in running bond may be suitable.

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Rediscovering a Cornish Building Tradition

Avoid jarring, over complicated ridge lines

Avoid large dormers

Avoid complicated plan forms. Aim for flat fronted plans.

Avoid open plan front gardens

Avoid exposed timber fencing to front boundaries.



Trees to frame views

Simple ridge lines, with terracotta ridge tiles.

Chimneys with corbels and pots

Slate verge detail

Gable creates visual interest in the street scene

Simple porch and front door with vertical emphasis

Hedges define front boundaries and provide privacy and security. Where appropriate consider building at back of pavement.

Granite or concrete setts and kerb units

