

2021 - 2027

LAOIS COUNTY COUNCIL
CHOMHAIRLE CHONTAE LAOISE



APPENDIX 7: RURAL DESIGN GUIDANCE

Laois County Development Plan 2021 – 2027:

January 2022

INTRODUCTION

Laois County Council has produced this Guidance for all those who are thinking of building a house in the countryside. It has been prepared to show the importance of good siting and sensitive design for one-off houses in the rural areas of County Laois.

The aim of the Guidance is:

- To describe the site planning and design issues that need to be addressed; and
- To clearly set out what is acceptable and what is **not** acceptable in terms of one-off houses in County Laois.

Laois County Council recognises the need to improve the quality of house design in the countryside and, in particular, that new houses are better related to their surroundings. The Guide does this by identifying crucial site planning and design principles that need to be taken into account when considering building a new house.

The Council promotes a creative interpretation of the key principles so that individual and contemporary house designs are achieved.

The County Council will expect *all* planning applications for one-off houses to demonstrate how these guidelines have been taken into account. Proposals which fully reflect the guidelines are likely to reduce requests for further information, while those that do not are unlikely to be successful.

Objectives:

- ✓ To foster greater consistency in planning decision making;
- ✓ To inform and inspire applicants, builders, designers and planners; and
- ✓ To help conserve and enhance the landscape, environment and visual amenity of County Laois.

Each Section of the Guide provides details on the steps that need to be taken when considering an application for a one-off house in the countryside.

Assess your requirements

- Draft a design brief
- Appoint an architect or suitably qualified designer
- Choose a suitable site

Select the site

- Landscape character and context
- Landform and vegetation
- Views into and out of the area
- Settlement pattern
- Micro-climate and sustainable energy
- Vehicle access requirements
- Service infrastructure

Plan the site

- consider the effects of
- topography
- energy efficiency
- building proportion and set back
- means of access and parking
- plot boundaries
- garden design

Design the house

- Consider
- building scale and form
- elevational treatments
- materials and colours
- roof profiles and chimneys
- fenestration- windows and doors

Make the application

- ensure that all drawings and required information are submitted in the right format and to the correct scale

CHECKLIST

- SITE SELECTION
- SITE PLANNING
- BUILDING FORM
- PLANNING APPLICATIONS

STEP 1

ASSESS YOUR REQUIREMENTS

The first step is to make a detailed list of your needs for the new house, or brief, for the agent to follow. Consider employing a **suitably qualified agent** at the start who can bring both experience and inspiration to the design process.

A suitably qualified agent will advise you on the choice of the right site and the correct approach to addressing the various constraints and requirements of the brief, the site, and its relationship to the landscape setting. The end result should be a well-designed house that is a desirable place to live, that is visually pleasing, energy efficient and appropriate to the context.



STEP 2:

SELECTING THE RIGHT SITE

Many rural houses in County Laois have developed over centuries and traditional forms of building are usually well integrated into their landscape setting. However, much of the more recent house construction has occurred without due regard to the effect on the receiving environment and the wider visual impact, particularly when viewed from key vantage points such as public thoroughfares.

The careful siting of new houses in the open countryside is essential to achieving acceptable development. Your designer will be able to interpret the landscape, identify the more suitable locations and, if the need arises, advise on alternative sites for potential development.

CONSULT The County Development Plan 2021-2027 and any Local Area Plan that may be applicable particularly in relation to:

- Landuse zoning;
- Policies for particular landscape areas as outlined in the Landscape Character Assessment of County Laois;
- Ground water protection policies;
- Roads Policies;
- Areas designated for heritage and amenity, such as Natural Heritage Areas [NHA's], Special Areas of Conservation and Special Protection Areas;
- Areas of Archaeological Interest, Record of Protected Structures, Record of Monuments and Places

and Architectural Conservation Areas.

If the site falls within or is situated on or in close proximity to any of these areas, the applicant is strongly advised to engage with the Planning Authority through the medium of a pre-planning meeting.

Having secured a potential site which is more than likely to satisfy most if not all of the normal requirements, the process now moves onto stage 3-the landscape context.

Landscape Context



The landscape analysis will determine the suitability of a potential site in terms of landscape character and the capacity of the wider area to absorb new development without detracting from that character. A creative response to the particular characteristics of a site will help secure a design solution that integrates comfortably with the landscape surroundings.

The following is a non-exhaustive list of the **main** factors to be considered:

- Will the new development interfere with **long and short distance views** in the area?
- Can the **local topography** readily accommodate the new development?
- Is there existing **vegetation** on and in the vicinity of the site to help absorb the new development?
- What is the likely impact on existing **on-site vegetation**?
- Can the long established **front boundary ditch** be maintained and still achieve adequate sight distances?
- Is the new development compatible with the prevailing **local settlement pattern**?
- Does the proposed site optimize the potential for use of **renewable energy sources**?
- How far is the proposed site from **key local services** such as schools, shops, health centres, churches?
- Do **ground conditions** on the site allow for satisfactory foul effluent drainage?
- Is the proposed site connected to **essential services** including water main, electricity, telephone?

If the potential site scores negatively for the majority of these criteria, an **alternative** location should be examined.

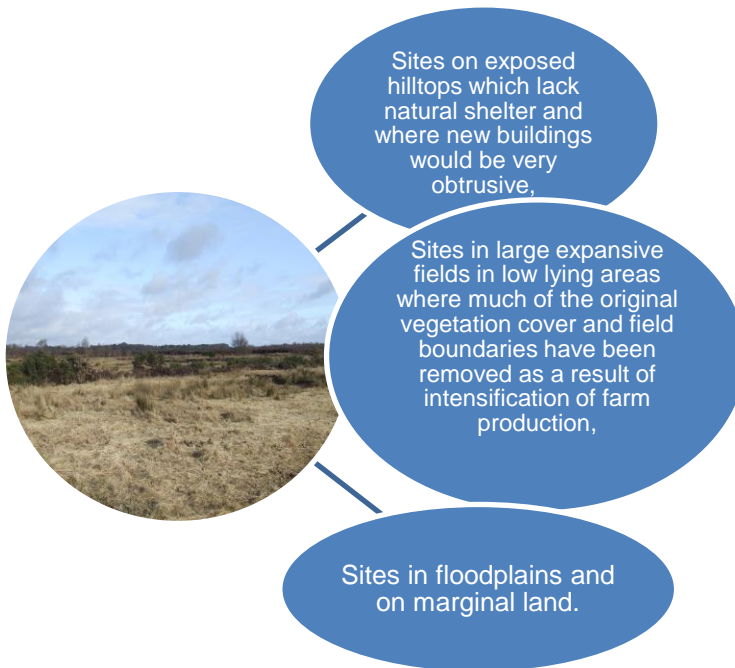
Landform

The impact of new development on the landscape can be highly variable depending mostly on the landform, topography and the nature and extent of vegetation cover. As detailed in the *Landscape Character Assessment of County Laois*, the seven (7) **Landscape Character Types** of County Laois range from the mountain areas [Slieve Bloys] of the northeast, the upland areas of the south and southeast [Cullenagh Mountain, Cullahill Mountain, Wolfhill, Killeshin] and the rolling hills, lowland areas

and river valleys of the centre, southwest and northeast.



AVOID



Instead there should be a concentration on sites which offer variations in landform and topography and have mature vegetation in the form of trees and ditches that enable buildings to be readily absorbed into the receiving landscape,

New houses in lowland areas can be especially conspicuous. Sites with existing vegetation should be selected rather than those which are devoid of planting. Setting a building against a backdrop of trees or behind an existing hedgerow can be one of

the most successful ways of blending new development with the landscape especially in flat or gently undulating areas.

Settlement Pattern

Respecting the existing settlement pattern in the vicinity of a potential site is fundamental to how well a new house will integrate with the landscape. The most intrusive form of new development is the suburban style plot that bears no resemblance to the rural character of the locality. The traditional rural settlement pattern is one of scattered development surrounded by land, with the buildings always subservient to the landscape; while the suburban pattern is of regular plots with buildings and their gardens forming the dominant image. Such development changes the character of the countryside for the worse, and when repeated leads to ribbon development and a loss of rural amenity.

Ribbon Development

In all cases new sites should not contribute to ribbon development along roads or within undeveloped areas between existing building clusters. Any prospective site that would exacerbate ribbon development, or lead to the coalescence of existing ribbon development, should be **avoided**.



'Ribbon development' is defined as 5 or more houses on either side of a given 250m of road frontage. It is undesirable because:

- It extends urban influences into the countryside;
- Results in numerous accesses onto rural roads;
- Leads to the loss of roadside features (hedgerows, sod-and-stone banks, ditches, etc.);
- Sterilises backlands and landlocks farmland;
- Interferes with traditional land drainage patterns;
- Creates servicing problems (e.g. water supply, drainage, footpaths, street lighting, etc.); and
- Intrudes on public views of the rural setting

Family Farmsteads

The provision of accommodation for family members on existing farmsteads can often be achieved by locating the new building as an integral part of the overall farm composition, as opposed to a more isolated location in poor proximity to the main buildings, or where new building may result in or contribute to ribbon development.

Where a grouping around the original buildings is not practical, consideration could be given to providing new dwellings for family members in suitable locations elsewhere on the farm holding, in reasonable proximity to the farm and with vehicle access via internal lanes from the existing entrance.

Certain clusters may also be especially suitable for sensitive restoration, combining traditional built form with contemporary building materials and living spaces. In all cases, the need to achieve sensitive location in the landscape, as well as appropriate good quality building design, will be essential requirements.

Sustainable Energy

Site selection should be strongly influenced by energy saving objectives, including being able to maximise on passive solar heating gains through site orientation and selecting a location sheltered from the wind.

In many rural locations it should also be possible to consider specific renewable energy installations, such as solar panels, wind turbines, ground (or air) heat pump systems, and 'grey-water' recycling facilities. A potential site needs to be assessed to determine whether it can support such sustainable energy objectives.

Sustainable Energy Ireland promotes and assists the development of sustainable energy and can provide wide ranging advice on current technologies (refer www.sei.ie).

Likely travel patterns are another important factor when selecting a suitable site. Energy used in driving from place to place can amount to a significant proportion of a household's total energy consumption. By locating a new dwelling closer to every day needs, such as the workplace, existing schools, shops, church, public transport routes, etc. transport energy consumption can be greatly reduced.

Service Infrastructure

The available services in the area should be assessed at an early stage. In particular, a constant water supply and a site that can accommodate the safe disposal of wastewater and sewage effluent are essential requirements.

When selecting a site, ensure that:

- The ground conditions are suitable, with adequate percolation for a sewage treatment system, in accordance with the EPA Code of Practice 'Waste Water Treatment and DISPO SAC systems serving single houses (p.e.≤10)'.

- It complies with the Council's current 'Ground Water Protection Scheme'.
- It is large enough to accommodate the requirements of a sewage treatment system.
- A maintenance agreement with an approved agent can be put in place to upkeep the system.
- That water supply from a public source is available - if joining a group water scheme, confirmation from the group secretary will be required.
- It is large enough to locate a well (if this is the only option) at least 10m from the septic tank or treatment system and 30–60m from the percolation area (depending on the percolation rate).
- It is connected or in reasonable proximity to existing telephone and electricity services.
- Is in reasonable proximity to essential community services;
- Is safely accessible from the existing road network;
- Is capable of connection to existing service infrastructure and can accommodate safe disposal of wastewater and sewage effluent; and
- Meets other planning criteria and policy requirements.

If a potential site does not satisfy the above requirements, it may be unsuitable for development.

Site Selection Summary

A well considered site for a new house in the countryside is one which:

- Will not have adverse impacts on sensitive landscape areas, protected structures or other aspects of heritage;
- Is located in an area that has the capacity to absorb another building, without adverse impact on visual amenity;
- Is capable of being visually integrated into the landscape through variations in landform and the presence of established trees and boundary hedges;
- Suits the existing settlement pattern of the locality;
- Will not contribute to ribbon development;
- Can take full advantage of renewable energy sources;

STEP 3

PLANNING THE SITE

Prepare a plan of your site showing all existing features and the proposed layout. Carefully consider the effects of:

- Site layout
- Topography
- Energy performance
- Building form and orientation
- Creating shelter
- Internal layout
- Means of vehicle access and parking
- Plot boundaries
- Open space design

Site Layout

Having found a location that satisfies the selection criteria set out in the previous section, the next step will be to examine more closely the existing features of the proposed site. New dwellings are often placed to be seen, and conceived in a far too fussy and over-complicated manner, and with minimal new landscaping. The outcome is invariably suburban, with buildings that appear awkward within their surroundings, especially when adjacent properties vie for attention, rather than unobtrusively settling into the landscape.

Understanding the details of a proposed site is **essential** to achieving an acceptable design solution. The analysis should provide the basis for your designer to develop a site layout that is more sympathetic and integrated into the landscape.

Show all existing features, including:

- The contours of the land;
- Vegetation cover including hedgerows and individual trees;

- Rock outcrops;
- Water courses, ditches and wetland areas;
- Location and type of boundaries;
- Existing buildings, including outbuildings;
- Other structures, such as wells, gate piers, and historical or archaeological features;
- All pipes, culverts, septic tanks, storage tanks, percolation areas, and land drainage.
- Roads, rights of way, footpaths and access tracks.

Topography

The position of a new dwelling in undulating and hilly areas needs to be carefully considered to achieve a practical design which does not look out of place.

- Use the natural folds of the landform to help absorb the new house.
- Select naturally-occurring shelves or the gentlest part of a slope so as to minimise earth moving and to avoid excessive scarring of the landscape.
- For steeply sloping sites (e.g. in excess of 1:5) consider suitable split level (stepped) schemes that relate more closely to existing ground levels.
- Avoid the need for excessive cut and fill.
- Carefully shape the land around the building so that it blends more successfully with the surroundings while creating further shelter.
- Either remove excess fill or carefully grade it around the building to suit the natural slope of the land.
- Let the natural slope of the land dictate the building form.



An example of a house which is integrated within the contours of the landscape

Energy Performance

As described in Step 2, being more efficient in how we use energy in our daily lives can strongly influence the selection of a site. Considering increased energy efficiency at the site planning stage can also have immediate benefits such as:

- Saving money on electricity and heating bills;
- Creating a more comfortable and convenient home;
- Making a vital contribution to reducing climate change.

The EU Directive on the Energy Performance of Buildings requires every home for sale or rent in Ireland to be rated as to its energy performance.

Building Form and Orientation

Traditionally buildings in the countryside were positioned to take advantage of available shelter, such as natural folds in the landform, orientating the building in relation to prevailing winds and the path of the sun, and using sheltered areas next to woodlands. Such factors are equally relevant to present day houses for energy conservation reasons.

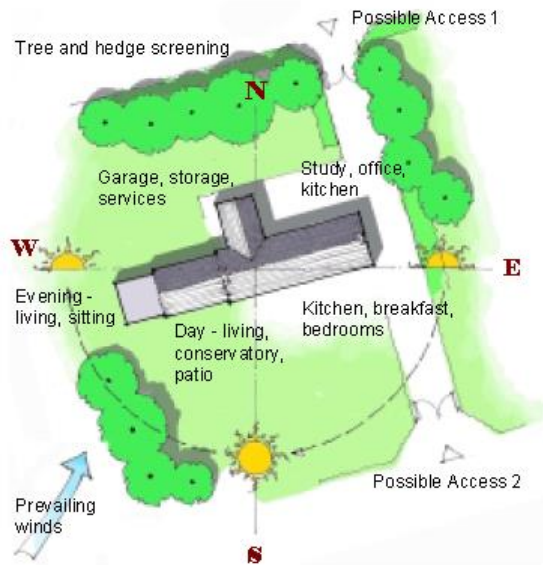
A compact building form is best for reducing heat loss. A rectangular building with one of the longer facades facing south can allow for increased solar heating, day-lighting and natural ventilation. Pitched roofs should also have one slope orientated south to allow for optimum performance of a roof-mounted or roof-integrated active solar heating system.

Creating Shelter

- Use existing natural features of the site to help protect the building from the elements.
- Arrange the site to guide the wind over and around the building.
- Use the house, out-buildings and garden walls to create a more enclosed micro-climate.
- Introduce shelter planting of native species to help dissipate the wind.
- Retain existing boundaries such as hedgerows, stone walls or earth and stone banks.

Internal Layout

Organise the internal layout of the house to make best use of sunshine and daylight - locate the most used rooms on the south side and least used rooms to the north side. As well as reducing energy costs, sunny south-facing rooms have high amenity value. Try to minimise projections such as bay and dormer windows, which increase the surface-to-volume ratio of a building and thereby increase heat loss. They also tend to be more difficult to insulate effectively.



Orientate the uses of the house to maximise on solar gain

Source: Draft Limerick Rural Design Guide

Renewable Energy Resources

Renewable energy resources are abundantly available throughout Ireland. They offer sustainable alternatives to the dependency on imported fossil fuels as well as reducing harmful greenhouse gas emissions.

Many decisions affecting the energy performance of a house need to be taken early in the site planning and design process - refer to current Sustainable Energy Ireland publications (e.g. 'Your Guide to Building an Energy-efficient Home').

Solar Energy

Solar is a clean, renewable energy generated from the sun. The main domestic applications are:

Solar Hot Water Heating Systems - for domestic applications comprise of a solar collector (solar panel, flat plate or evacuated tube), hot water storage cylinder and a pump. Panels should ideally face south and be mounted on the main property roof, or in some cases on a shed roof or floor/wall

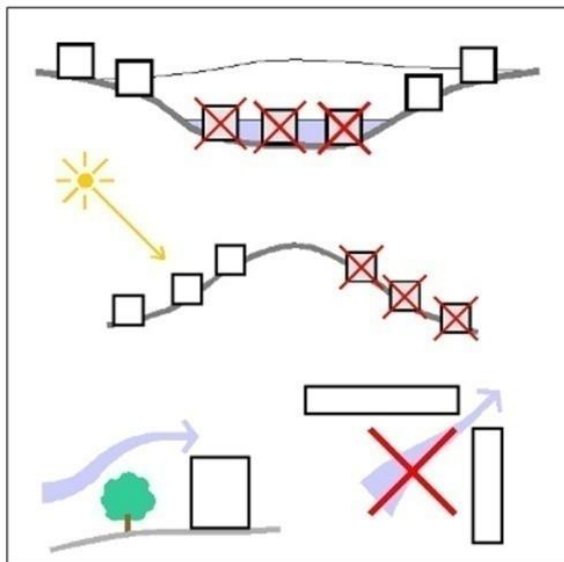
mounted. Flat plate collectors can be installed as an integral part of the roof construction, or retrofitted to existing buildings.

Solar Photovoltaic (PV) - involves generating electricity from the sun's energy that exists in daylight. Groups of PV cells are electrically configured into modules and arrays, which can be used to charge batteries, operate motors and to power electrical tools. With a converter, PV systems can produce alternating current (AC) compatible with conventional appliances. PV is silent and has low visual impact. Panels can be installed on or as an integral part of the roof. They should not be in shadow and work best if south facing. The total aperture of solar panels should not exceed 50% of the total roof area.

If considering the installation of solar panels, you will need to provide (as a minimum) the following information to Laois County Council:

- Dimensions of the panels, their number, type, and the projection above the roof slope.
- Their colour.
- Plan showing their position on the building.
- Brief technical specifications such as power output (as usually supplied by the manufacturer).

There are specific planning requirements for the installation or erection of a solar panel on, or within the curtilage of a house, or any buildings within the curtilage-refer to Step 6 Checklist for further details.



<http://www.europeanpassivehouses.org/>

Wind Energy

Wind turbines harness the wind to produce electrical power. The efficiency of a domestic system will depend on a number of factors including location, wind regime and surrounding environment. The optimum size for the average household is usually between 1.5 and 3 KWs. Because wind speed increases with height, a typical wind turbine needs to be mounted on a mast or tower. An ideal location is on a smooth-top hill with a flat, clear exposure and free from obstructions such as buildings, woodlands or other large trees that may cause excessive turbulence. Such siting may result in adverse visual and residential amenity impacts and needs to be carefully considered in relation to the context of the site.

The Greener Homes Scheme, administered by Sustainable Energy Ireland, is now available and provides assistance to homeowners who intend to purchase a new renewable energy heating system for either new or existing homes. Scheme eligibility criteria and terms and conditions are available from www.sei.ie/greenerhomes

If considering the installation of a wind turbine, you will need to provide (as a minimum) the following information to Laois County Council:

- Dimensions of the turbine (including rotar blades).
- Height above ground or building.
- Material type and finish.
- Plan showing position on the ground.
- Brief technical specifications such as power and noise output (as usually supplied by the manufacturer).

Geothermal Energy

Geothermal heat pumps transfer heat from the ground into a building to provide space heating and, in some cases, to pre-heat domestic hot water. The technology relies on the fact that the earth (beneath the surface) remains at a relatively constant temperature throughout the year and is warmer than the air above it during the winter.

A typical system can provide 95%-100% of a household's heating requirements. The ground source heat pump comprises a ground loop (series of pipes buried in the ground either horizontally or vertically), a heat pump, and a distribution system. There are specific planning requirements for the installation on or within the curtilage of a house of a ground heat pump system - refer to Step 6 Checklist for further details.

If considering the installation of a ground heat pump system, you will need to provide (as a minimum) the following information to Laois County Council:

- Existing and proposed ground levels in the vicinity of the system.
- The total area of the heat pump.

- Plans showing position on the ground.
- Brief technical specifications such as power and noise output (as usually supplied by the manufacturer).

Biomass Energy

Biomass energy is obtained from organic materials such as wood (chips or pellets) or natural oils (e.g. from crops such as rapeseed). This can be burned like a conventional fuel but unlike fossil fuels the equivalent amount of CO₂ released during burning is reabsorbed by the new crops and forests replanted after harvesting, resulting in a zero-emission rating.

Biofuels are currently 50% cheaper than fossil fuels to run. Wood pellets (highly compressed dried sawdust and bark) from sustainably managed wood sources (e.g. local woodland or specifically grown tree crops) can be burned in modern, computer-controlled boiler plant to provide space and hot water heating. A wood pellet boiler is relatively easy to install, and there is very little adjustment needed to existing plumbing if converting from a conventional system.

Water Recycling

Recent concerns over dwindling reserves of groundwater, increasing costs of domestic water supply, and costly sewage treatment plants have generated renewed interest in the recycling of domestic water.

Techniques that need to be considered at the site planning stage for reducing domestic water consumption include:

METHOD	DESCRIPTION
Water butt	A simple, low cost method for collecting rainwater from the roof and storing it for use in the garden instead of public water.
Rainwater harvesting	This provides an efficient and economic means for utilising the rainwater coming from roofs to supply toilets, washing machines and irrigation systems.
Greywater recycling	This enables slightly polluted water from the bath, shower and washbasin to be reused in the house (e.g. for toilet flushing, in the washing machine, watering the garden or for cleaning purposes). Proprietary systems comprise modular tanks, above or underground, gravity fed by the greywater. The clarified clean water is direct pressure fed back through the house or to an outside tap for re-use.

The benefits of water recycling include:

- Rainwater harvesting (including some versions of grey-water recycling) displaces a large proportion of the water that would otherwise need to be provided by the mains supply.
- Typically a household can expect to save up to 50% of their mains water needs, significantly reducing overall water supply costs.
- In more remote areas, rainwater can provide for an off-mains supply, which can be up-graded to fully drinkable standard (potable) by using non-chemical ultra-violet sterilisation.

- Rainwater recycling can form part of an attenuation and rainwater management scheme, by reducing storm-water runoff and controlling the flow-rate off site.

If considering a rainwater recycling system, you should take into account:

- For rainwater collection, the external drainage of the roof needs to be designed to bring the water to a central point.
- Access for an underground storage tank and excavation is required.
- Internal plumbing should usually separate out the drinking (including bathing) water from the nondrinking water (WC, washing machine, outside tap).

Surface Water Drainage

All domestic buildings should be provided with a drainage system to remove surface water from the roof, or other surfaces where rainwater might accumulate (such as paved areas). Surface water discharge should be carried out to a point of disposal that will not endanger the building, environment or the health and safety of people in the vicinity. The preferred method of discharge is the **Sustainable Urban Drainage System (SUDS)**, which comprises -

- Filter strips and swales;
- Filter drains and permeable surfaces;
- Infiltration devices; or
- Basins and ponds.

SUDS can be designed to fit into **most** rural settings and a variety of design solutions are available to suit the specific site conditions. If the site cannot drain to an infiltration system, it may be necessary to discharge to a water course. Where this is not feasible, surface water should discharge to the nearest storm-water sewer. The discharge of storm-water from roofed and

paved areas to a foul water sewer or onto the public road is **not** permitted.

Proportion and Set-back

At an early stage it is essential to consider the proportion of the proposed house in relation to both the size of the available site as well as the size of existing buildings in the surrounding area. The proposed house will also need to be set-back a suitable distance from the public carriageway. The set back distance will vary according to plot size, adjacent building lines and the natural features of the site.

The size of a new dwelling should be suitably proportioned to its plot and of a similar scale as any existing houses in the area. The new building should be arranged to respect the privacy of neighbours and to avoid any over-looking.

The height of a new building further affects the suitable set-back distance - a single-storey or small dormer house may require less separation from the road than a large dormer or 2-storey house. In areas of existing housing, the set-back distance should be varied from that of its neighbours so as to avoid the repetition that may otherwise occur from a linear series of buildings.

The set-back on sites that are elevated, exposed or in sensitive locations will need to be determined according to individual visual assessment.

Vehicle Access and Parking

The space around the new building should be considered as an integral part of the site layout, not as an afterthought.

In particular:

- All parking requirements should be met on site and off road.
- Aim to achieve simple entranceway treatments.

- Vehicle access and provision for parking should not dominate the site.
- The driveway should preferably be indirect, gently crossing the natural contours of the site or curving subtly around existing site features, as opposed to taking a harsh straight line from the road.
- Surface materials should be sympathetic to the rural character of the site (such as gravel with soft edges as opposed to tarmac with pre-cast concrete kerbs).
- Frontage parking should be avoided and instead provided to the side or rear of the house.
- Where the garage is attached, it should be subservient to the scale of the building.

Boundaries

Destruction of existing roadside boundaries should be avoided, except to the **limited** extent necessary to create an entrance to the new house. Such features are highly important to the landscape - their removal may also lead to potential traffic hazard by inviting parking directly on the roadside.



New road boundaries and entrances need to be designed sympathetically, especially where several different frontages are adjacent to one another:

- Entranceways should be kept to a minimum width - with sight lines designed according to standards set out in the County Development Plan.
- New front boundaries should be restricted to a simple range of materials that are already common to the area, such as hedgerows, sod and stone banks and stone walls.
- Gateways should also be simple, constructed from timber or metal and defined by restrained piers of stone or painted render.
- For large houses constructed on substantial plots, higher standards for piers, splay walls and gates may be appropriate.
- For side boundaries, existing hedgerows are preferable, or simple timber fencing with new hedge planting.
- Suburban ranch-type fences, concrete block walls, and the regimented use of fast-growing conifers should be avoided.
- Vehicle access and parking should be treated as an integral part of the site layout.



Garden Design

The importance of respecting the landscape context and the need to link the new house with its surroundings in a positive manner is crucial in terms of best accommodating a new building in the countryside. This can

best be achieved by retaining existing vegetation on the site, appropriate boundary treatments and new garden design.

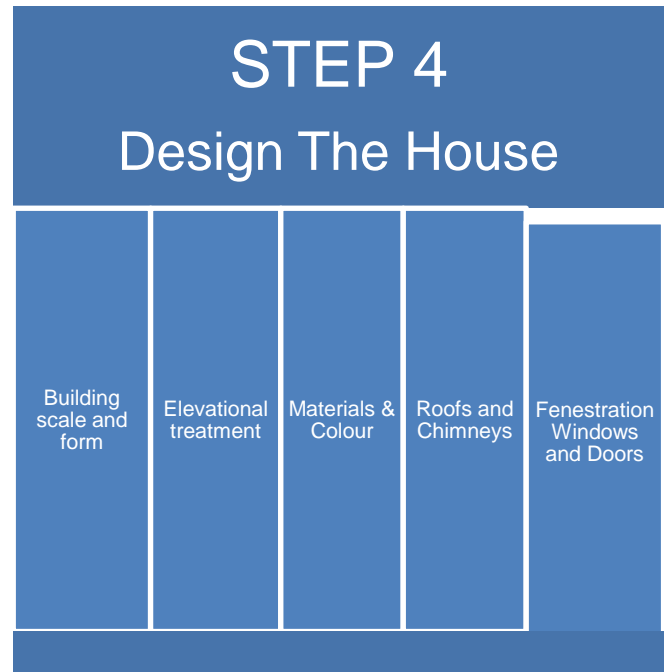
Use existing site features to help absorb the building and/or undertake new planting of mostly native species to provide a strong landscape structure.

Principles to be considered include:

- Retain all trees, hedgerows and other existing features (e.g. streams, rock outcrops) to provide a framework for the garden.
- Avoid large expanses of manicured lawns and suburban style gardens with exotic species; these often detract from their more natural surroundings and do not provide suitable habitats for wildlife.
- Plant the space between the house and the front boundary with trees in informal clumps.
- Create new hedgerows of mixed native species.
- Trees and shrubs which are indigenous to the locality will be easier to establish than more exotic species, and will be in keeping with the character of the area.
- On exposed sites, consider more substantial shelter planting of native trees to help reduce the effects of cold winds and driving rain, whilst also increasing privacy.
- Use hard elements (paths and walls) to sensitively sub-divide the garden and to link it with the landscape setting.
- Incorporate practical needs sensitively into the overall design of the site, such as fuel and refuse storage areas, a compost/recycling area, clothes drying area, and a safe place for children to play.

All applications for a new house in the countryside should be accompanied by a comprehensive landscape plan as part of

any application, showing existing features to be retained and landscaping proposals (both hard and soft elements).



BUILDING, SCALE & FORMS

Traditional house design

The traditional buildings of the county tended to be very simple, with little or no decorative detailing and built of a limited range of locally available natural materials. Many were only one room deep, giving a narrow rectangular plan form, which could be extended sequentially, and with consistent roof pitches. The addition of byres and ancillary buildings, with lean-to and split level roofs, onto the gable ends of houses was common, adding variety and visual interest to the simple rectangular form.



It is important to consider how the scale and form of a proposed new dwelling will affect the setting, its visibility in the landscape, and its relationship to nearby buildings. It is essential that the new building is designed to properly fit the site. The traditional linear plan form provides a versatile shape that is equally applicable to contemporary buildings. Rectangular narrow forms can adapt to most plot sizes and different landforms - running along a slope, stepping down a slope, or enclosing spaces such as courtyards - and are readily distinguished from their suburban counterparts. A dwelling with a large deep plan usually results in an over-scaled building with an expansive roof of shallow pitch. This is one of the reasons why bungalows often appear to be an inappropriate building design - they almost invariably are out of scale and incongruous to the countryside context.



Modern house design

New house design needs to be respectful of the past while also reflecting modern lifestyles and advanced building technologies in innovative ways. Many new dwellings have been designed in a far too 'fussy' and over complicated manner. These are often selected from pattern books, using imitation detailing and materials that are unsympathetic to a rural area - particularly when adjacent properties vie for attention, rather than sitting comfortably in the landscape.



Laois County Council promotes the contemporary design of new houses in the countryside where it satisfies the principles set out in this Guide. Good design is not just subjective - if issues such as proportion, scale, form and massing are skilfully handled, together with respect for context, the resultant building will inevitably appear appropriate or 'good'. The general approach should be one of simplicity, avoiding over-elaboration of elevational treatments and using a restricted palette of details and materials.

Bungalows

The single-storey bungalow, now all-pervasive in rural areas, was for the most part influenced by foreign suburban house catalogues of the 1960s and early-1970s.

Poorly designed and sited bungalows can represent an inappropriate building type in rural areas.

Contemporary Alternatives

The traditional single-storey house can be reinterpreted in many different ways in response to the brief, the landscape context and the size and configuration of the plot.

By following the general principles set out in the Guide, it is possible to achieve an innovative design solution for a variety of single-storey house sizes which meets your living needs and respects the local character of the countryside.

Dormer Houses

The dormer house evolved from the bungalow during the 1960s onwards in response to gaining more accommodation in the roof. Many were derived from pattern-book designs, resulting in an uninhibited range of mostly suburban forms and styles frequently comprising of irregularly shaped roofs, asymmetrical elevations, use of artificial materials and elaborate detailing. When combined with poor siting within expanses of lawn, the dormer house usually appears alien to its rural surroundings.



Contemporary Alternatives

The dormer house can provide a suitable building type in the countryside but the design needs to be carefully considered so as to avoid over-complicated roof planes and eaves lines. In many cases, depending on the design requirements and the context of the site, a 2- storey building may be preferable.

Where dormers are proposed, they can often be best located on the rear (private) roof slopes as opposed to the public front of the dwelling. Traditional eaves dormers are the preferred form, simply detailed to suit the style of the house. Rooflights should be considered to avoid a proliferation of dormers and in preference to mid-roof dormers.

Two-storey Houses

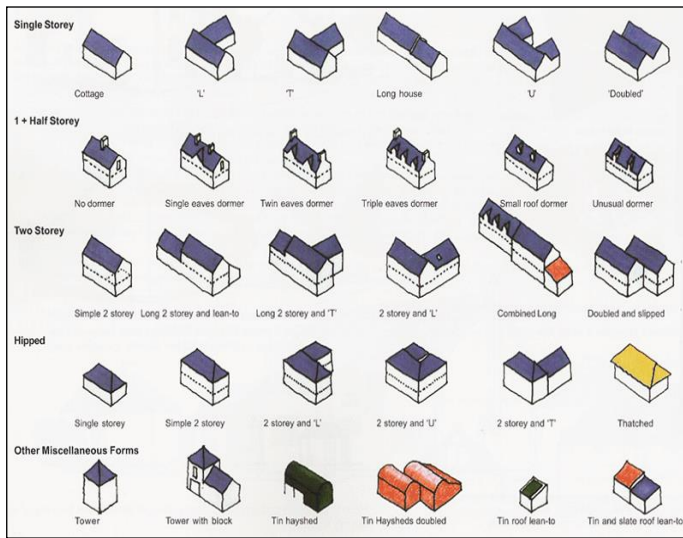
Numerous two-storey houses in a wide variety of styles have been recently constructed throughout the County to meet the growing demand for living in the countryside. Many of these may make reference to traditional forms, but frequently they appear over-scaled or unnecessarily elaborate in their detailing.



Contemporary Alternatives

The main design emphasis for 2-storey houses should be to reduce the mass of the floor plan (especially for large houses) so as to avoid irregular boxy building shapes that may not sit comfortably on their sites.

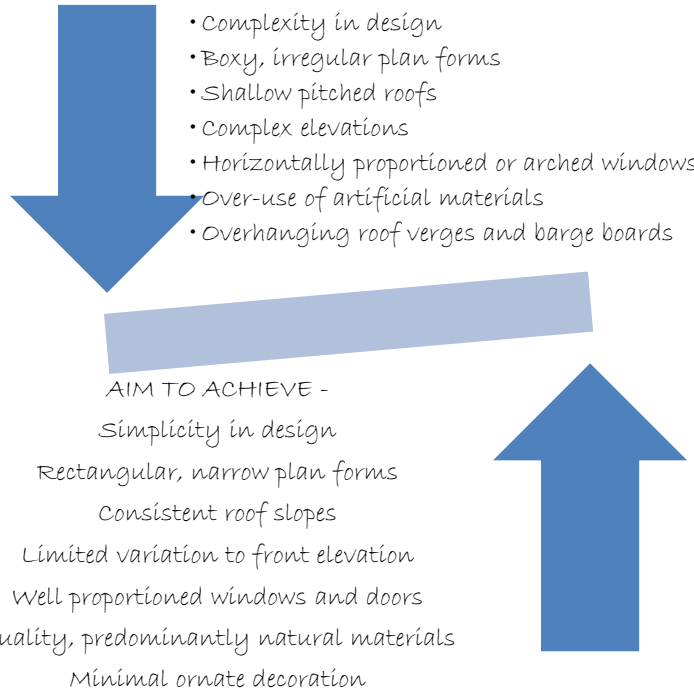
The narrow rectangular plan house does not result in overly high or shallow pitched roofs, and allows subservient additions and extensions to the main structure. On hilly and undulating sites, the narrow plan form reduces the need for an excavated platform and enables the building to more fully respond to the natural contours of the site.



ELEVATIONAL TREATMENT

Try to avoid:

- Complexity in design
- Boxy, irregular plan forms
- Shallow pitched roofs
- Complex elevations
- Horizontally proportioned or arched windows
- Over-use of artificial materials
- Overhanging roof verges and barge boards



Great care and attention to detail is needed to ensure that new buildings enhance rather than detract from the landscape.

Generally:

- Avoid 'off-the-shelf' designs and use of inappropriate standard materials.
- Avoid using 'images' of past architectural styles, such as medieval leaded lights, mock Georgian porticos and doors, ornamental barge boards and half timbering.
- Take care not to overuse ornamental detailing such as coloured brick banding, applied quoins and unusual window shapes.

Materials

Wherever possible, building materials that are more sustainable should be used, including:

MATERIALS	TYPES
Natural raw materials	<ul style="list-style-type: none"> ✓ unfired earth/clay blocks; ✓ clay tiles; ✓ slates; and ✓ wooden fibreboard <p>as a more sustainable alternative to concrete based products.</p>
Insulation	sheep's wool, flax and hemp which can be used as a natural fibre insulation material.
Timber	sourced from well managed forests.
Lime-Based Mortar and Render	which gives flexibility and allows the masonry to breathe. Render can be self coloured.
Natural Paints	based on plant oils and extracts and simple minerals.
Glazing	double glazed 'E glass' has an invisible metallic coating that reflects the heat back into the room.

Contemporary materials such as copper and zinc can be successfully combined with timber, glass, slate, rendered and painted blockwork to create attractive houses.



Although many traditional houses were constructed from stone, they almost always had a painted plaster finish (except for grand classical houses or the more

important civic buildings). In new houses, stone should be used in a restrained manner to provide contrast and, in suitable locations, to help integrate the building with the landscape. In contemporary houses, the skilful use of stone can provide an attractive interplay of 'solid' and 'light' materials.

Natural stone garden and boundary walls can be especially effective in linking the new house with the landscape. In all cases where stone is used it should be sourced from the locality.

A random mix of materials such as brick, stone and concrete should be **avoided**. Artificial materials, including pvc doors, windows, eaves and weatherboarding, fibre cement slates and concrete roof tiles should generally be avoided.

Colours

The colour of a new building should aim to blend with the local landscape. Bold, vivid colours should be avoided, especially on walls and roofs. Generally the use of 'earthy' colours that complement the natural hues of the countryside will be most appropriate for large surfaces (walls).

Roof should appear darker than the walls. Whites, off-whites, light greys and ochres were often the dominant colours for walls of traditional buildings, and can effectively offset more brightly painted elements such as doors. Windows and their surrounds should preferably also be muted in colour.

Roofs and Chimneys

- Roofs can be the most dominant element of a building when seen in the landscape, especially from elevated view points.
- Roofs on new houses should aim to be simple and consistently pitched.
- Roofs that oversail the external walls should be avoided, unless an integral part of a contemporary design. Natural roofing materials

should be used, such as flat dark tiles and natural slate (which are slightly textured and weather readily), sized to suit the scale of the roof and laid in diminishing courses from the eaves.

- Rainwater goods should be as discrete as practicable.
- Chimneys are an expected feature of houses in the countryside and can add interest to most types of building; their proportions and details should be appropriate to the size and style of house.

Windows and Doors

The elevational appearance of a building is determined more than anything else by the positioning, size and design of door and window openings.

- The total area of window and door openings needs to be in proportion to the scale and style of the house.
- Gable end and north facing walls will usually benefit from a lower ratio of opening to wall.
- Windows should usually line-up over each other - although a carefully considered contemporary design can result in a visually balanced elevation with less regular pattern of openings.
- The size of opening should reflect the function of the room - very small bathroom, cloakroom or landing windows can contribute to the composition of a façade by contrasting with more expansive openings to principal living areas.
- Irregularly-sized windows and elaborate bay windows should be avoided.

Extensions and Garages

The addition of outbuildings or extensions can be one of the most controversial parts in the design of a house. The key objective

is ensuring that the main house is clearly seen as the dominant element. The scale and detail of additions, garages in particular, should match the balance of the house and be subservient to it. With larger houses, detached garages may be more suitable, located discreetly to the rear or side of the main building. Extensions and garages should generally be built with similar materials to the existing house. Flat roof extensions should be avoided where they would conflict with the style of the main building. Over-scaled garage doors and the use of artificial materials should generally be avoided.

Conservatories/Sun Rooms

Conservatories or sun rooms can form attractive additions to the house if well-located, as well as a means for achieving solar gain. Considerations of scale, proportion and spatial layout of the house are all important to ensure that a conservatory is an appropriate addition. They should not be added to front elevations, or appear too suburban or elaborate in style. Additions to gable ends or rear elevations are usually most appropriate.

Artificial materials (e.g. UPVc) should be avoided. Generally painted timber is preferred, finished in muted tones such as grey-green. Whites and bright colours can be over-conspicuous, detracting from the appearance of the house.

Re-use/conversion of Existing Buildings

The adaptation and reuse of existing buildings is an important principle of sustainable development. The conversion of traditional rural buildings into contemporary living spaces can not only bring buildings back to life but may also provide opportunities to sensitively conserve the built heritage and maintain the character and distinctiveness of the area.

There are numerous cases of empty and abandoned buildings located throughout

rural County Laois. Many of these are former farm houses with ancillary out-buildings, located on well sized plots with mature screening and existing vehicular entrances.

The approach to conversion should be simple and uncluttered, with no attempt to over-domesticate or suburbanise the building or its setting. The original idiosyncrasies of the building should be conserved and enhanced.

Factors to be considered include:

- The original building height and eaves lines must be fully respected.
- The internal room layout should be arranged so that the original structure, openings and features can be retained, or adapted with as few external changes as possible.
- The existing roof structure should be retained wherever possible, and left uncluttered.
- Flush fitting roof lights are more suitable for buildings with low eaves, provided that they are narrow and not too large or numerous.
- Roofing materials should be slate, laid to the original pattern.
- All existing materials should be salvaged and reused - only good quality natural materials should be added and wherever possible of local origin.
- The size, coursing, joint width and pointing on new stonework should match the original.
- Window and door openings should preferably be unaltered - new openings where necessary should be vertically proportioned.
- New window and door joinery should be purpose made.
- Garages and workshops should preferably be provided by sensitively converting associated sheds and outbuildings.
- Any essential new additions should be of materials that match or

complement the main building to be converted, and carefully sited so as not to detract from its setting.

STEP 5

Submitting Your Application

Laois County Council is committed to securing high quality design throughout the county and engaging effectively with applicants. The Council has a duty to communicate to applicants the particular issues that need to be considered before making an application, and to explain to them what is required. Pre-planning meetings are therefore encouraged. Likewise applicants will be expected to demonstrate from the outset that careful consideration has been given to the location, siting, servicing and design of new housing in the countryside.

In most cases the assistance of suitably qualified agents should be sought for preparing the application, especially where sensitive locations are involved. Not alone will this help foster good quality design work throughout the county, it should also bring about a reduction in the number of applications being refused outright for this reason or deferred pending submission of suitably amended plans.

Applicants, and their agents, should familiarise themselves with the relevant policies of the County Development Plan, as well as the principles and advice contained in this Guide and other relevant Council documents.

Guidance notes for completing a Planning Application form are obtainable from the Council. Failure to fully meet the

requirements may result in an application being rejected as invalid or in a request for further information. It is in the applicants own interest to ensure that all required information and documentation are submitted at the beginning of the process so as to avoid unnecessary delay in processing the application.

With applications for one-off houses in the countryside, the omissions that **commonly** occur include:

Lack of sufficient site survey information	Indicate existing and proposed site levels, and finished floor levels for all new houses. Many sites especially in the upland areas of the north-east and south-east of the county are sloping and the development must be designed with this factor in mind. However, even applications sites on more level terrain should be accompanied by this basic information.
Inappropriate Site Layout	Not maximising the impact of solar gain on living areas
Indicate in as much detail as possible	proposed building materials for all building elements including their colour, texture and form
The scale and orientation of any adjoining buildings	The provision of contiguous elevations and cross sections as well as photo-montages are crucial in assessing the interrelationship of new house types.
Proper consideration of the landscaping factor can often be the difference in whether a scheme is	Consider the spaces between buildings, their landscaping, planting and materials at the earliest stage in the design. A suitably qualified Landscape

ultimately approved or not.

Architect with special expertise in these matters should be involved in scheme design wherever possible, especially for sensitive or conspicuous sites. Include sufficient details on existing and proposed vegetation, hard landscaping materials and boundary treatments, planting species, and phasing of the landscape construction.

Lack of sufficient details showing how the house will be serviced for wastewater disposal, water, access, surface water drainage and renewable energy sources

There will be a presumption **against** the wholesale removal of mature front boundary ditches and hedgerows so as to achieve satisfactory sight distances. This will only be allowed in exceptional cases.



STEP 6: CHECKLIST

Site Selection

The applicant should:

- Assess the suitability of a site in terms of its landscape character and the sensitivity and capacity of the area to absorb development? A thorough photographic record is essential for use during the site assessment process. Panoramic views are very useful for assessing the impact of potential development on the landscape setting.
- Consult with Laois County Council if a site falls within or is located close to sensitive landscape areas or other environmental designation? County Laois has many designated areas for environmental protection, e.g. Special Areas of Conservation (SACs), Special Protection Area (SPA) and Natural Heritage Areas (NHAs), as well as designations for *proposed* heritage protection such as Architectural Conservation Areas (ACAs) and Protected Structures. There are also numerous archaeological sites listed as Recorded Monuments for protection.
- Prepare a written brief of the overall requirements for the house.

- Consider the early appointment of a suitably qualified agent to advance the application through the planning process.
- Appraise the form of existing buildings before selecting a site to ensure that new development will be compatible with the existing character of the area.
- Consider a site where natural features such as trees and hedgerows can help assimilate new development with the surroundings. For new planting, only indigenous species [primarily deciduous] to be used.

- Whitethorn *Crataegus laevigata* 10%
- Blackthorn *Prunus spinosa* 60%
- Holly *Ilex aquifolium* 5%
- Hazel *Corylus avellana* 10%
- Guelder Rose *Viburnum Opulus*
- 5% Spindle *Euonymus europeus*
- 5% Dog Rose *Rosa rugosa* 5%.

Hedgerows



- Common Ash *Fraxinus excelsior* 20%
- European Beech *Fagus sylvatica* 20%
- Alder *Alnus glutinosa* 15%
- English Oak *Quercus robur* 5%
- Durmast Oak *Quercus petraea* 5%
- Rowan *Sorbus aucuparia* 15%
- Hawthorn *Crataegus monogyna* 10%
- Larch *Larix decidua* 5%
- Scot's Pine *Pinus sylvestris* 5%.

Trees



- All trees and bare rooted shrubs should be planted from early November up to the end of March.
- Prepare a contour plan and cross-sections of the site illustrating the general shape of the landform.

- Avoid hilly sites where development may break the skyline when viewed from a distance, or would result in excessive cutting or filling of the local topography.
- Avoid elevated and exposed locations such as hilltops and ridgelines which would result in visual obtrusion and increase energy consumption and fuel costs.
- Avoid sites that are subject to flooding. Consider the implications of DoEHLG SFRA guidelines.
- Ensure that a site will not contribute to ribbon development or other inappropriate development form.
- Consider the micro-climate and the benefits of sustainable energy, south facing slopes and orientation to benefit from solar gain, potential frost and mist hollows, existing tree belts to provide shelter, prevailing winds and potential areas of shelter provided by topography.
- Consider the proximity of a site to existing facilities, such as schools, shops, community halls, pitch, church, pub.
- Ensure that the site is accessible from the public road and can achieve adequate sight lines at the entrance without excessive loss of the existing roadside boundary. Refer to the requirements of NRA 'Policy Statement on Development Management and Access to National Roads', May 2006 and Laois County Council road standards.
- Consider the availability of existing services infrastructure, including water supply, telephone and electricity.
- Undertake a Site Suitability Assessment (Percolation tests) in accordance with the EPA Wastewater Treatment Manuals to determine whether ground conditions are suitable for effluent disposal.

	Use.....:	Avoid..... :
Site Planning	<ul style="list-style-type: none"> • Prepare a detailed analysis of your site showing all existing features whether natural or man-made; • Consider the detailed effects of topography in terms of building form and avoiding excessive cut and fill; • Identify south facing slopes and orientation to benefit from solar gain, and note potential frost and mist hollows, prevailing winds and potential areas of shelter afforded by topography; • Incorporate renewable energy sources; • Consider the proportion of the house in relation to the size of the plot and scale of any existing buildings in the locality; • Avoid overlooking or loss of light/privacy to neighbouring properties; • Ensure that the site has sufficient depth to be able to locate the building back from the road edge; • Consider the means of vehicle access to the site; • Retain front boundary vegetation except where accommodating vehicle access requirements; • Screen the new development into its setting with existing or augmented / new vegetation; • Consider appropriate boundary treatments; • Prepare a landscaping plan showing all existing features to be retained and new planting and hard surfaces. 	
Building Form	<ul style="list-style-type: none"> • A contemporary design that reflects modern lifestyles while being respectful of the past; • A simple design solution; • A wide frontage and narrow depth plan form, with additive elements only where required and suitable; • An external appearance that reflects the internal plan arrangement; • A main elevation that is generally flat-fronted, except for porches, with subtle breaks in the building line used to add interest and to create and define external spaces; • A limited range of building materials and, wherever possible, locally available; • The use of natural materials - stone, timber, slate - in preference to artificial ones; • Limited colours, and neutral in hues; • Consistently pitched roofs, dark tiled and with neat eaves detailing; • Fenestration-windows, doors and chimneys - which do not detract from the main building form; • Extensions or additions that are subservient to the main building form and of similar proportion and style. 	<ul style="list-style-type: none"> • An over-scaling of traditional form and altering roof pitch to suit; • A complex design solution; • A cumbersome, weighty and near-square floor plan; • Unusual and elaborate forms, complicated roof shapes, exaggerated and random changes in ridge line; • Imitation styles, such as haciendas, chalets, log cabins and pattern book designs; • Façade architecture and randomly applied external finishes; • Predominant use of artificial materials; • Arbitrary changes in materials; • Over-domineering and bright garish colours, especially in structural elements such as roofs and walls; • Over-sailing roofs and boxed verges; • Irregularly placed or over-large roof lights; • Protruding bay windows and elaborate porches; • Ill-proportioned openings and dormers; • Over-scaled or contrasting additions (garages, conservatories, sun rooms); • External floodlighting; • Non-native tree, hedgerow, shrub species.