Rural Design Advice for Individual Houses in the Countryside

Limerick County Council

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Dooradoyle
County Limerick

Rural Design Advice for Individual Houses in the Countryside: Limerick County

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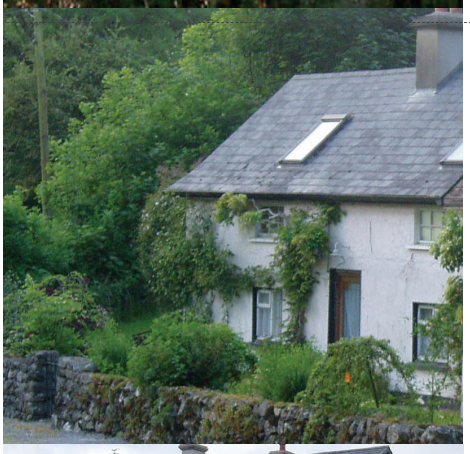

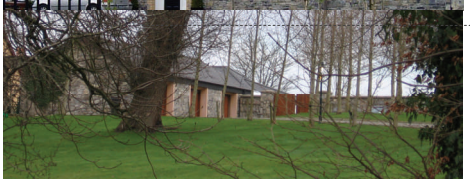

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1. INTRODUCTION


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Purpose of the Design Advice

This Design Advice is intended to be a working document that provides a common source of information and guidance for all those involved with building individual ('one-off') houses in the countryside. It does not set out a detailed account of all relevant building types and is not intended as a source of ready-made design solutions. Instead, the Design Advice describes a range of general approaches and principles concerning the planning and design of one-off houses in the countryside that the Council regard as necessary to consider in formulating specific design proposals.

The main emphasis of the Design Advice is to reinforce the distinctive local qualities of the County. It works on the basis that new development in the countryside should share some of the characteristics that define the locality in which it is located. It should be clear that the new house has appropriate features in common with buildings and landscapes of a similar kind in the surrounding area.

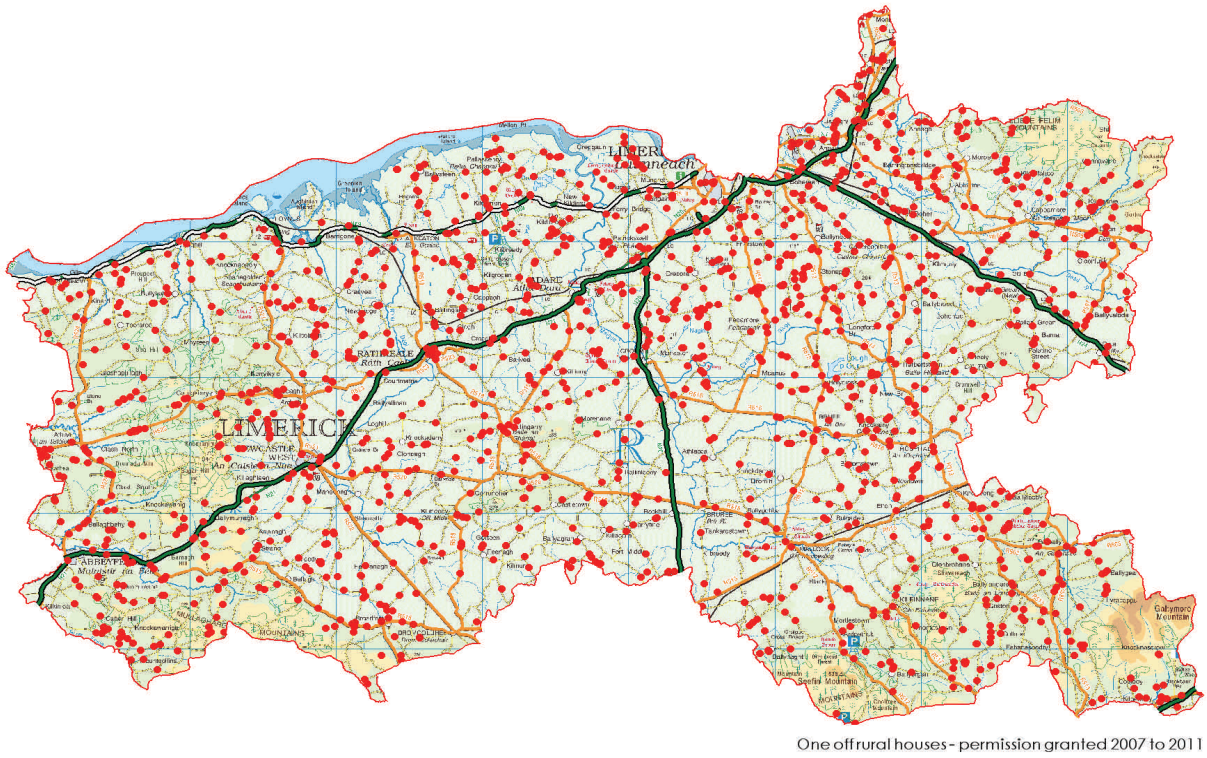
The Design Advice also recognises that it is necessary to reinvent the country house and develop a new rural architecture for the 21st century, rather than simply remodelling or recreating the methods and manners of the past.

Applicants for planning permission shall submit a design statement, which explains why a particular design solution is considered the most suitable for a particular site (see appendix 3) and show how they have given due consideration to the objectives and principles set out in the Design Advice in the formulation of proposed design.

Main Objectives of this Design Guide

- To stimulate debate about one-off house designs;
- 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 and environment in County Limerick.

The Design Advice should be read in conjunction with the provisions of the current Limerick County Development Plan.



One-Off Rural Houses – Permissions Granted in County Limerick 2007-2011

Recent Trends

In recent years there has been an unprecedented trend towards development of one-off housing throughout rural Ireland. Between 2007 and 2011 planning permission was granted for 51824 one off houses in the Country.

In County Limerick approximately 1,900 one-off houses were granted planning permission in the open countryside between 2007 and 2011.

The relatively high proportion of population living in the countryside, combined with a dispersed settlement pattern, make buildings a pervasive element of the County's landscape.

Whereas the form, materials and construction methods of older buildings tended to reflect the adaptation of rural society to its varied environments and particular economic and social structures. Newer buildings reflect the rapid pace of recent social change, usually departing from earlier building forms and materials and often lacking local distinctiveness.

The demand for one-off houses will continue, and it is increasingly recognised that high quality design and protection of natural resources are essential to successfully integrating such housing within the landscapes of County Limerick.

1. INTRODUCTION

The Local Planning Authority will promote increased awareness of good quality design in the countryside by:

- Providing lists of good local architects and designers with examples to illustrate their work.
- Holding workshops and seminars for agents specifically involved with one-off housing in the countryside.
- Making this Design Advice available to all those interested in the planning and design of one-off houses (as a purchasable document or to view on the Council web site).
- Organising public displays that illustrate local examples of successful siting and design.
- Providing detailed guidance at the pre-application stage to ensure that potential applicants are aware of the appropriate policies, and less likely to submit proposals that may be refused.
- Operating a new Design Award Scheme, with a specific category for *'Best new single house in the countryside'.*
- Requiring the submission of a design statement with all planning applications, to explain how the proposed design is suitable for the proposed site (see appendix 3).

Recently constructed one-off rural houses

Structure of the Design Advice

Following this Introduction, Section 2 of the Design Advice presents a brief overview of the evolution of different house types in County Limerick, from the medieval tower house through to the modern bungalow. Section 3 provides guidance on the considerations for selecting a suitable site for potential development and, in particular, on fully understanding the landscape context. Section 4 is concerned with the principles of acceptable site layout, including the importance of sustainable site planning and energy efficiency. Section 5 provides guidance on designing the main elements of the house, and Section 6 presents information required for making a Planning Application.

The Appendices provide further technical information to help inform and guide the planning application process.

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2. Evolution of the Country House

Learning from the Past
Castles and Fortified Houses
Classical Houses
Country Houses
Vernacular Cottages
Public Rural Housing
Main Features of the Traditional House
Modern House Types

The new country house is a response to a revitalised passion for countryside living

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Traditional domestic architecture can be simply divided into two main types, reflecting the circumstances and social divisions of history – the vernacular cottage descended from medieval and pre-historic roots, and the 'Classical' house that emulated the principles of the European Renaissance.

The formal floor plan, use of materials, white walls, regular windows, pitched roofs, simple details and economic use of scarce resources gives a sense of continuity between the smallest cottage and largest country house.

Learning from the Past

In recent times the countryside has progressively become a more attractive place in which to live. With the decline in agricultural employment has come a new type of rural dweller, with particular requirements and a new form of building.

By far the greatest pressure for one-off housing in the countryside is now urban-generated. The traditional and classical models that characterised the landscape up to fifty years or so ago have been replaced by different stylistic elements that do not always respond positively to their rural context.

The character of rural County Limerick is defined by its different landscapes containing a range of traditional buildings. For generations people who lived in the countryside were directly related to or involved in rural activities. This was reflected in the design of rural houses, dictated by the requirements of shelter, access, drainage, available materials and skills, as well as historical and cultural influences.

The traditional buildings of the County tend to be very simple, 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. The addition of byres and ancillary buildings, with lean-to and split level roofs, onto the gable ends of single-storey houses was common, adding variety and visual interest to the simple rectangular form.

Traditional two-storey houses were of simple classical proportions, with symmetrical façade and plan layout, translated from the grand country house through to the more humble farmhouse.

Wherever possible, the design of new houses in the countryside should respect and build upon this strong tradition, while interpreting present domestic needs in a contemporary way that continues to reinforce the built heritage of the County.


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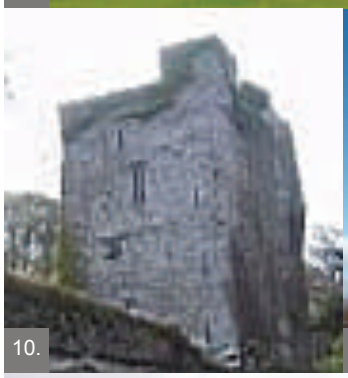
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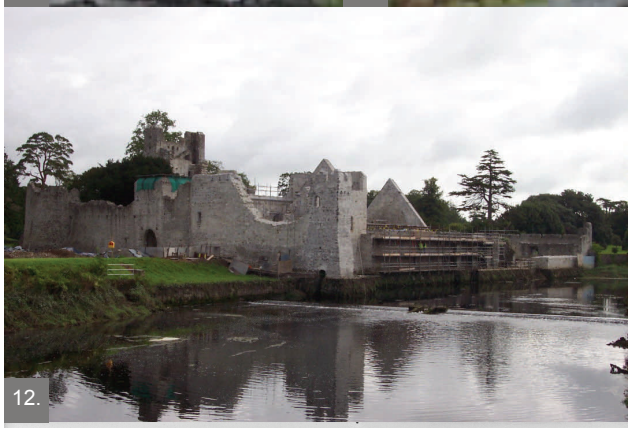
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Castles and Fortified Houses

In medieval times defence was the main priority and the tower house a common feature of the landscape. Although now mostly in ruins, many examples survive and the number of castles in Limerick exceeds any other county in Ireland.

The late 16th/early 17th century saw gradual change from well-defended but uncomfortable tower houses to more commodious, better lit accommodation, with an increased emphasis on privacy. As defence became less of a priority, the surrounding high walls were adapted to form an enclosed courtyard, extending the influence and reinforcing the domestic uses of the dwelling. Massive chimney stacks, usually on gable ends, were a common feature. Stairs were often added to an adjoining tower, rather than within the house – reinforcing the simple L, T and H shaped courtyard plan forms.

By the 18th century, most of the fortified houses had been enlarged and altered, for practical reasons but also to reflect the architectural fashions of the day and the desire for imposing a new Classical order on the landscape.


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Classical Houses

Around the early 18th century the undefended Classical house with stables and outbuildings, developed from the fortified tower house and became the dominant feature of the landscape - commonly known as the 'Big House'.

The distinctive features of these usually lavish houses included an imposing tall box form, typically square or rectangular with pedimented front and lines of regular Georgian windows. The defensive bawns were replaced by walled gardens. The Big House, often sited in a demesne with high walls and set in a designed landscape of walks and vistas, retained a sense of defensibility through a solid, closed quality – echoing the tradition of the tower house.

Although such houses were often of a grand scale, they presented a simplicity and clarity of plan and elevation, reflecting scarce resources and close proximity to agricultural reality. Many shared a formality and symmetry which was to become influential in a wide range of 18th century buildings, giving a formal tradition that extended from simple farmhouses to the largest mansions.

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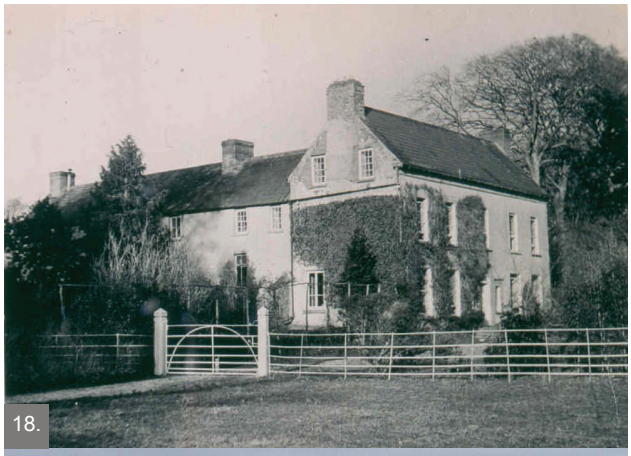
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Country Houses

In the late 18th and throughout the 19th century new two-storey and slated houses were increasingly built for the minor gentry, prosperous farmers and professional people. These often substantial dwellings, developed as elaborations of the basic vernacular patterns, reflected the emergence of a clear social hierarchy within the rural population.

Two slightly different house types emerged - one with pitched roof and chimneys on gable ends, and the other with hip-ended roof with chimney stacks on either side of a central hall. Both types adopted features from formal houses, such as large symmetrical windows and central (direct entry) front door with a 'Georgian' fanlight above. All tended to conform to the vernacular pattern of simple plan form, one or two bay deep, arranged around a central hallway. The main exterior elevation was plain without detail or additions. Larger, more elaborate versions of both are also common, including some 3-storey examples.


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Vernacular Cottages

Expansion of agriculture and the rural population during the 18th and early 19th century led to the construction of familiar 'cottage' architecture located on the estates of the Big House, in farmyards and by the side of roads all over the country. These humble dwellings, developed from the archaic structures of long houses or byre dwellings, presented a natural classic balance in the arrangement of simple materials and structure.

Predominantly single-storey with a simple rectangular plan, the vernacular cottage was rarely more than one room in width and with each room opening into the next without a passage. Nearly all were of rubble stone and mudwall construction, with primitive roof trusses, and sod or thatch oversailing roofs. Simple doorways and small square windows were located on side rather than end walls, often randomly placed but mostly central to the main elevation. Walls were thick plastered and whitewashed.

Many older cottages were enlarged incrementally to meet the specific requirements of the family, sometimes by elongation (incorporating attached byres and sheds into the house) or by additions to the original structure to form domestic courtyards.

Public Rural Housing

The cottage vernacular was carried into the 20th century with rural public housing, when local authorities re-housed large numbers of low income groups from often insanitary accommodation.

These County Council pattern-book houses were essentially improved versions of traditional dwellings Hipped roofs were replaced with gables and thatch with slates. Windows were arranged symmetrically around the front door. The pitched roofs, usually with a central chimney, contained lofts lit by gable windows, providing bedrooms on an upper floor. Numerous examples were built in small groups, close to the large estates and main cities. More were provided for ex-servicemen after World War 1. The simple houses were often painted and personalised in various other ways to meet the requirements of the owners.

Main Features of the Traditional Rural County Houses

Country House

- Two-storey, formal architectural tradition.
- Deep elementary rectangular plan, usually one room deep.
- Rendered stone construction with slate roofs.
- Simply proportioned, symmetrical arrangement of windows around central door.
- Central hallway giving access to two ground floor rooms occupying full width of house.
- Two or three bedrooms on upper storey.
- Sometimes large scale and with sufficient space around to form a presence in the landscape.
- Consistent roof pitch (40^{o}-50^{o}), with either chimneys on gable ends or located centrally.
- Hipped or gabled slate roofs.
- Slates flush with eaves and gables (no overhanging eaves or barge boards).
- Large windows with vertical emphasis.
- Georgian fanlight above front door.
- Outbuildings/walled enclosures to side or rear, usually developed as a composition and shaped into courtyards.
- Often formal garden to front, with working courtyard to rear.
- Similar forms widely built up to the 1950s.

Vernacular Cottage

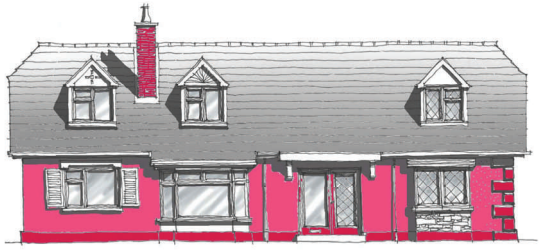
- Single-storey, vernacular tradition.
- Elongated rectangular plan, one room deep, giving long low frontage.
- Simple structure of locally-available materials (stone, timber, thatch/slate).
- Entrances and windows placed on side rather than end walls.
- Direct-entry door, usually placed centrally.
- Each room opening onto next without passage or central hall.
- Modest scale, low ceilings and eaves level.
- Consistent roof pitch (40^{o}-50^{o}), with single chimney usually located to one side of the door.
- Hipped or gabled roofs, thatch replaced with slate (or corrugated iron).
- Slates flush with eaves and gables (no overhanging eaves or barge boards).
- Roof space sometimes used for bedrooms.
- Rendered and painted walls.
- Sheds and outbuildings incrementally added, often forming sheltered cluster.
- Generally located where sheltered from wind, using landform to create improved micro-climate.
- Porch as a common addition.
- Developed forms include rural public housing with attic bedrooms and, more recently, the dormer house.

Adaptation of traditional forms

Modern House Types

Bungalows

The bungalow type of development that is now all-pervasive in rural areas was for the most part greatly influenced by foreign suburban house catalogues of the 1960s and early-1970s. Typified by a large mixture of often contrasting materials, disproportionate windows, expansive low pitched roofs, suburban-style landscaping and rigid siting, the majority of modern bungalows have little or no reference to the more traditional building types of the county.

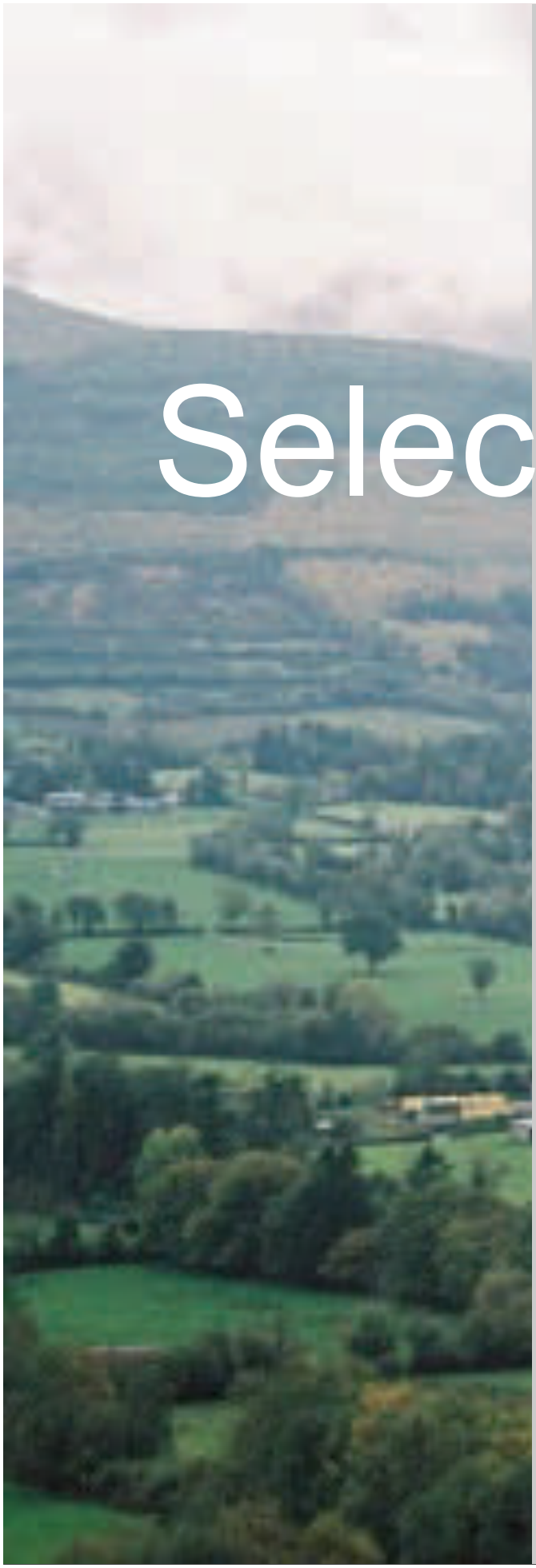


Dormer Houses

The dormer house emerged from the 1960s onwards in response to gaining more accommodation in the roof space. Most were derived from pattern-book designs that had no basis in traditional architecture, resulting in an uninhibited range of mostly suburban forms and styles. Typically comprising irregularly pitched and shaped roofs, asymmetrical elevations, ill-proportioned doors and windows, artificial materials and elaborate detailing, together with often poor siting within expanses of lawn, the dormer house usually appears alien to the rural surroundings.

Two-storey Houses

Numerous large two-storey houses in a wide variety of styles have been more recently constructed throughout the county to meet the growing demand for living in the countryside. Whereas many of these may make reference to traditional forms, the majority appear over-scaled or unnecessarily elaborate in their detailing. The simple elegance of vernacular buildings has been avoided in the quest for making individual statements, while innovative design in a contemporary form is rarely achieved.



3. Selecting the Site

Landscape Character
Site Location
Using Natural features
Existing Development Pattern
Roads and Infrastructure
Site Orientation
Site Selection Checklist

If a proper fit in the landscape is not achieved, then even a well-designed building can fail

Landscape Character

Careful siting and location of new housing in the countryside are essential to achieve sensitive development.

Much of the character and quality of the countryside in County Limerick stems from the presence of a range of traditional buildings, local styles and local materials. Rural buildings are an important part of the culture, contributing to regional identity, and have developed in response to their setting and their function on the land. New buildings need to respect that long-established link and not attempt to dominate the landscape.

County Limerick has a very varied landscape. Much is low and undulating, particularly in the east (Golden Vale), but with considerable elevations to the fringes – including the Galtee mountains to the south-east.

Ten landscape character areas are identified in the County Development Plan where it is necessary to promote distinctiveness and to ensure appropriate forms of development. These landscapes have different capacities to accommodate development. It is therefore crucial that the proposed location and siting of new housing fully considers the impact on the landscape, in terms of both the immediate and wider surroundings.

Particular care needs to be taken to protect those features that contribute to local distinctiveness, including:

- The pattern of landscape features (land-cover, habitats, trees, hedgerows);
- Historic and archaeological areas and features;
- Water bodies (including rivers, lakes, streams and ditches); and
- Ridges, skylines, topographical features, geological features, and important views and prospects.

Designing with the Landscape

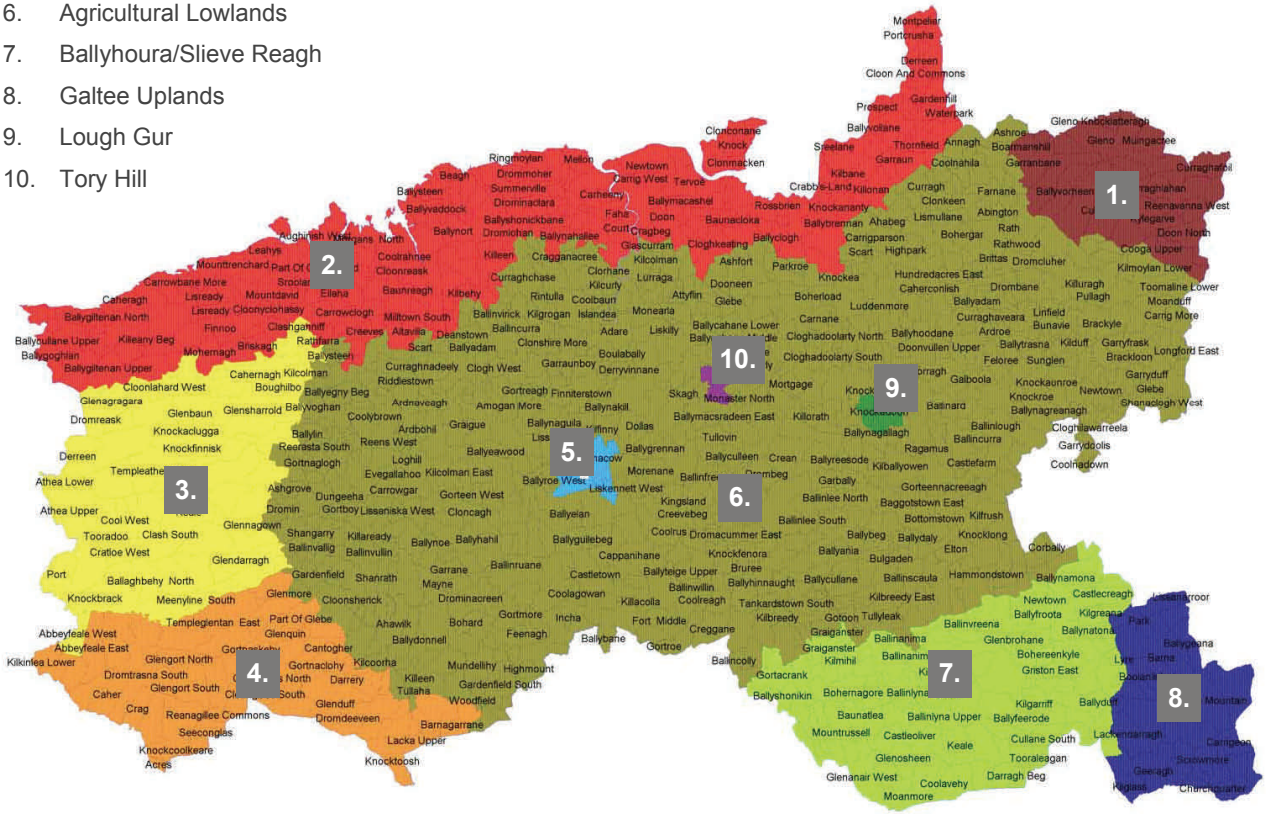
Overall, a well-designed house must be sensitive to the particular landscape in which it is set. It must be informed by and respond to it, in a way that reinforces the local character and distinctiveness of an area.

County Landscape Character Areas:

1. Slieve Felim Uplands
2. Shannon Estuary
3. Western Hills/Barnagh Gap/Sugar Hill
4. Southern Uplands
5. Knockfierna Hill
6. Agricultural Lowlands
7. Ballyhoura/Slieve Reagh
8. Galtee Uplands
9. Lough Gur
10. Tory Hill

For the purposes of this Design Advice the 10 County Character Areas have been grouped into the following 4 landscape zones:

- **Agricultural Lowlands**
- **Shannon Estuary**
- **Central Uplands**
- **Peripheral Uplands**



Limerick County Landscape Areas

3. SELECTING THE SITE

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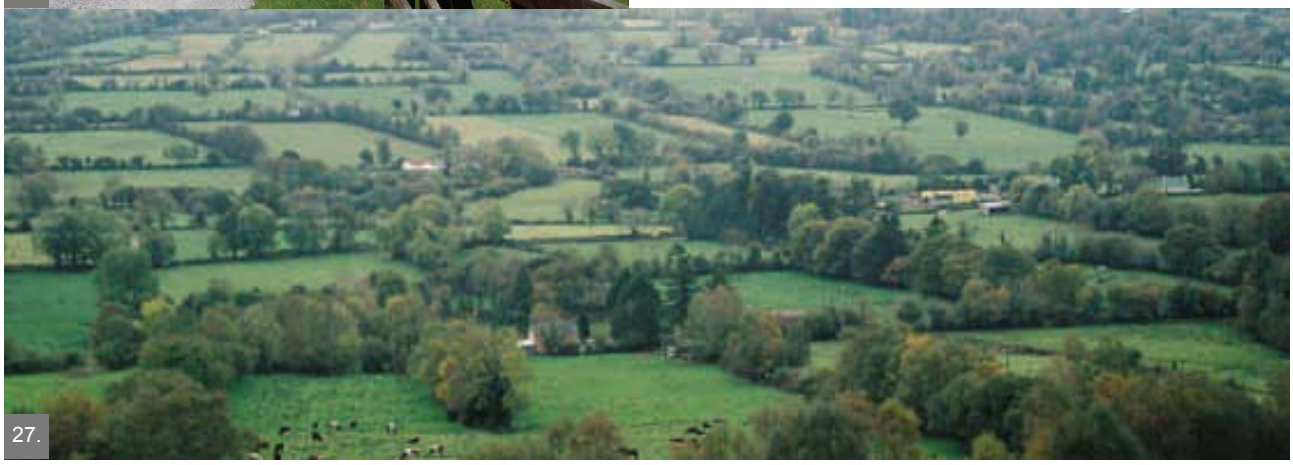
Agricultural Lowlands

This is the largest landscape character area of the County, comprising most of the central plain. The area is predominantly agricultural, mostly defined by well-established hedgerows and clumps of mature trees. Locally prominent hills and ridges add interest to the otherwise flat landscape.

There are a number of relatively prosperous estate and two-storey farm houses, often with outbuildings arranged around courtyards. The largest towns are also located on the plain and the rapid urbanisation of the county is most evident in this area. Ribbon development extending from the urban centres, housing estates on the periphery of towns and villages, and numerous one-off houses can be discordant features of the countryside.



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Agricultural Lowlands

Houses located in this character area are often visible for many miles, especially where vegetation is more sparse and if viewed from higher locations. Generally where new housing is permitted, it should be located in relation to existing features such as hedgerows and trees in order to help absorb the impact on the flat landscape.

Locally prominent sites should be avoided. Subject to the location, two-storey designs based on the proportions of building forms traditional to the area may be appropriate. In more exposed locations, screen planting and, where appropriate, sensitive earth moulding would be required to help assimilate new development. The favourable soil conditions provide an opportunity for increasing tree cover to enhance the settings of isolated houses and the landscape structure generally.

Shannon Estuary

This character area comprises a large area of northern County Limerick adjoining the Shannon Estuary. To the south lies the flat central plain and the undulating hills of the Western Uplands. The landscape is flat and mostly farmed, similar in character to the Agricultural Lowlands but with a more irregular hedgerow pattern and clumps of trees. The Shannon dominates the general landscape character. Land between the river and the N69 Foynes road is particularly sensitive to development due to the quality of long distance uninterrupted views and only in exceptional circumstances (e.g. domestic extensions) will new development be allowed between the N69 and the estuary.

Urban influences are also less pronounced with distance from Limerick and settlements irregular and more widely dispersed. There are several large estate houses which have influenced the design of single rural housing, and two-storey farmhouses with outbuildings. Sensitive siting and design of individual buildings, and a high standard of site treatment, will be of particular importance in this landscape. New development would be limited to single storey buildings where close to the estuary.

View from Glin to River Shannon

Central Uplands

The agricultural lowlands are interrupted by three prominent upland areas comprising Knockfierna, Lough Gur and Tory Hill. These local landforms form dominant scenic components of the County, and also possess a variety of important archaeological sites. The vegetation cover of the higher ground is mostly upland grassland with well-developed hedgerow boundaries, small woodlands and clumps of trees.

Knockfierna is perhaps the most dominant of three upland areas, rising abruptly from the flat landscape of the central plain.

Lough Gur is the most significant archaeological site in the County. The lake is enclosed by undulating hills, offering panoramic views across the central lowlands in all directions. The natural features of the site combine to form a unique landscape resource with a long history of human habitation.

Dramatic landscape of Lough Gur

Tory Hill is another locally important feature of the countryside, supporting areas of scrub woodland and limestone grassland. The hill is also of geologic importance due to the deposits of gravel from the last ice age.

Generally there are far fewer houses within these central upland areas, and the influences of recent urban development are less pronounced. Traditional buildings comprise modest single and 1.5-storey farmhouses which have often grown incrementally through the addition of extensions and outbuildings.

Single-storey cottage in the Central Uplands

3. SELECTING THE SITE

Western Uplands

Due to reasons of siting, scale, simplicity in form and use of consistent materials, they for the most part respond sympathetically to their context and appear as an integral part of the landscape.

Any new housing development should fully respect the sensitive landscape and archaeological context of these sensitive areas. It is essential that the scenic qualities are protected, in terms of both immediate views and long distance views from the surrounding countryside. The disruption of ridgelines or development of locally prominent sites should be avoided.

Detailed siting of development should take advantage of localised topography and existing vegetation to help assimilate it in the landscape. Dwellings should be of high quality site-specific designs incorporating materials that further assist their integration with the surroundings.

In the vicinity of Lough Gur there will be a presumption against development, including new houses, in the area of Special Development Control, except in exceptional circumstances. Similarly, given the prominent nature of Tory Hill, where the landscape effects would be accentuated, there is a presumption against development in this location.

Peripheral Uplands

The upland areas of the county comprise the Slieve Felim Mountains to the north-east, the Ballyhoura/Slieve Reagh and Galtee Uplands to the south-east, the Southern Uplands (Mullaghareirk hills) on the Cork and Kerry boundaries, and the Western Uplands (Barnagh hill) to the west of Newcastle West, all forming an impressive undulating backdrop to the central plain.

The character of these upland areas changes as altitude increases, with a predominantly pastoral landscape giving way to commercial forestry interspersed with upland grassland, heaths and remnant peat bogs.

View to the Galtee Uplands

The existing settlement pattern of the uplands is sparse and mostly restricted to the middle and lower elevations. Isolated single-storey farms with associated outbuildings, often nestled into the folds of the hills for shelter, represent the traditional form of building.

The sensitive conversion of existing buildings would be most appropriate in these areas.

Where new housing is permitted it should be confined to the lower and mid slopes in order to safeguard the scenic qualities of the hills.

In all such sensitive locations new housing should be of high quality, site-specific design, of an appropriate scale, carefully located to respond to the local topography and with the retention of existing landscape features and their use in helping development to successfully blend into the surroundings.

In many of the upland areas there is often an established building zone lying between the more exposed higher ground of the hilltops and lower-lying areas used for intensive agricultural purposes or which may be subject to poor drainage. Sheltered sites within these mid-zones will be preferable to elevated and exposed locations such as hilltops and ridgelines which should be avoided. These and similar natural constraints need to be fully carefully considered before selecting a site for potential development.

Traditional development siting on mid slopes of upland areas

3. SELECTING THE SITE

Site Location

Location is concerned with site selection within the more immediate landscape. Having assessed the general landscape characteristics of the area within which new development may be planned, it is necessary to study the more detailed attributes of the receiving landscape in order to choose the best location for the new house.

In all cases the Local Planning Authority will require that houses in rural areas be sited and designed to integrate well with their physical surroundings and be generally compatible with the following, as set out in *Sustainable Rural Housing, Guidelines for Planning Authorities* (April 2005):

1. The protection of water quality in the arrangements made for on site wastewater disposal facilities;
2. The provision and safe access in relation to road and public safety;
3. The conservation of sensitive areas such as natural habitats, the environs of protected structures and other aspects of heritage.

When selecting a site check the Limerick County Development Plan, and any Local Area Plans that may apply, especially in relation to:

- Policies for particular landscape areas;
- Areas designated for heritage or amenity, such as Natural Heritage Areas (NHAs), Special Protection Areas (SPAs), Special Areas of Conservation (SAC), and Areas of Archaeological Interest;
- Archaeology policies, Record of Protected Structures and the Record of Monuments and Places.

If a site falls within or is located close to any such areas it will be necessary to take advice from the County Planning Department before proceeding.

Siting new development in rural areas in a way that protects the integrity of these natural and man-made features is an essential part of sustainable development. The County Development Plan has a key role to play in identifying such features and providing helpful advice.

Some areas of the County are so prominent or otherwise sensitive that it is accepted that any development in such locations would be detrimental to the context. The Development Plan includes specific policies to protect especially vulnerable areas from inappropriate development and to preserve important views and prospects where necessary.

All new developments in the countryside should aim to fit into or nestle within the landscape. As previously outlined, the capacity of the rural landscape to absorb buildings varies greatly according to its character. Generally undulating landscapes are more capable of assimilating new development than very flat landscape with limited tree cover.

New houses in the countryside need to be able to integrate well with their physical surroundings

Exposed sites with alien landscaping should be avoided

Consider the natural qualities of the landscape when selecting a site

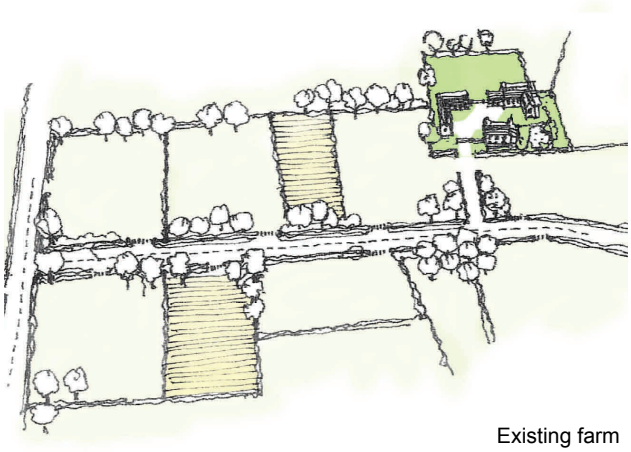
Using Natural Features

The use of natural features such as the localised landform, established trees and boundary hedges can all help to assimilate new development into the surroundings. Such features should be fully appraised at the site selection stage to ensure that the house is appropriate to the site and its context.

Sites with existing vegetation should be selected in preference to those that are devoid of planting. Setting a building against a backdrop of trees can be one of the most successful ways for blending new development with the landscape, especially for flat or gently undulating areas.

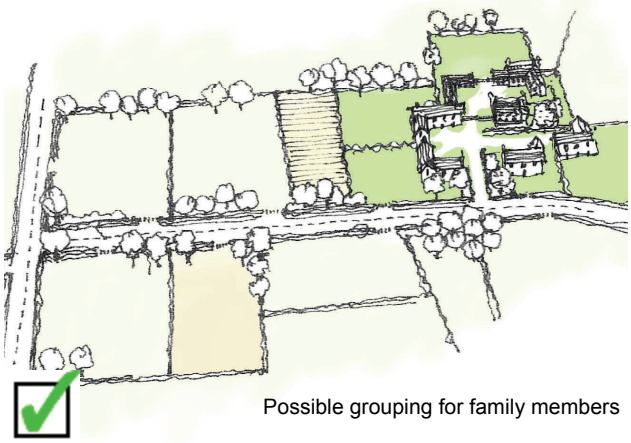
In all cases where trees exist they should be retained, either singly or in clumps, so as to minimise impact on the landscape and to provide an immediate and appropriate setting for the new building. Similarly, boundary hedgerows, especially to a road frontage, should always be retained to help enclose and screen development plots.

New dwelling sensitively integrated with the surroundings



Existing farm

Unacceptable ribbon development



Possible grouping for family members

Provision for family members on a farm holding should preferably be in the form of a cluster grouped around the existing building. Vehicle access should be via an existing internal access lane from the existing entrance, thereby avoiding ribbon development and reducing impact on road safety.

Existing Development Pattern

The traditional approaches to building patterns and site location can be especially helpful in assessing the suitability of new development in the landscape.

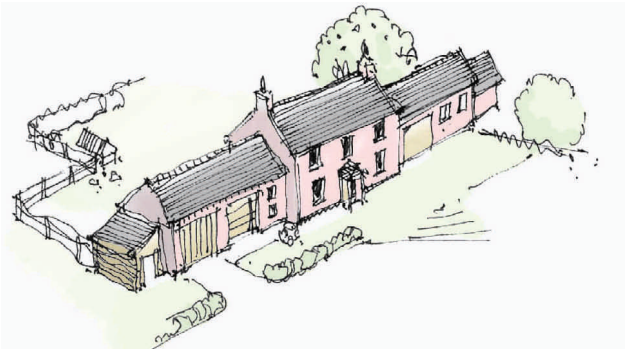
Traditional building forms were either isolated, such as in more remote areas of the County (or else for defensive purposes), and elsewhere grouped into small clusters in response to practical needs and local climatic conditions.

Many traditional farmsteads evolved organically according to the needs of the farm and its changing circumstances. The main living accommodation would be extended as resources permitted either in a linear manner, or through the addition of out-buidings extending to the rear or side of the main house to form sheltered internal courtyards.

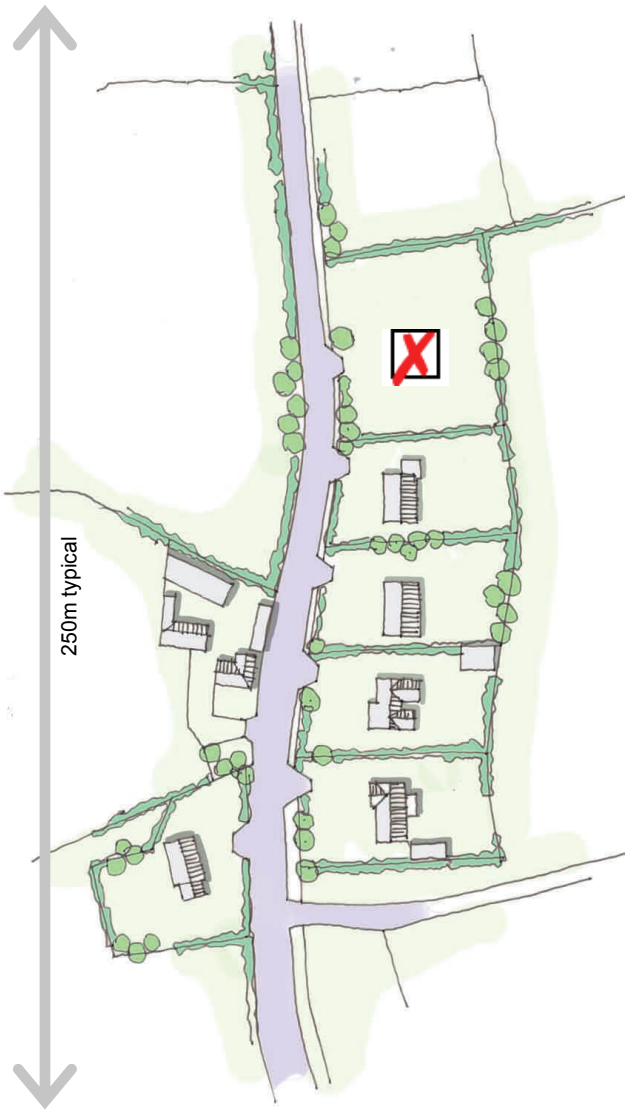
Such building types can be particularly suitable for reinterpretation in a contemporary manner in order to reduce the overall mass of an otherwise large structure and to provide versatile accommodation to meet changing family needs.

Similarly, the provision of new accommodation for family members on existing farmsteads can often be best achieved by locating the 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 would result in or contribute to ribbon development.

Developed courtyard form



Traditional linear form

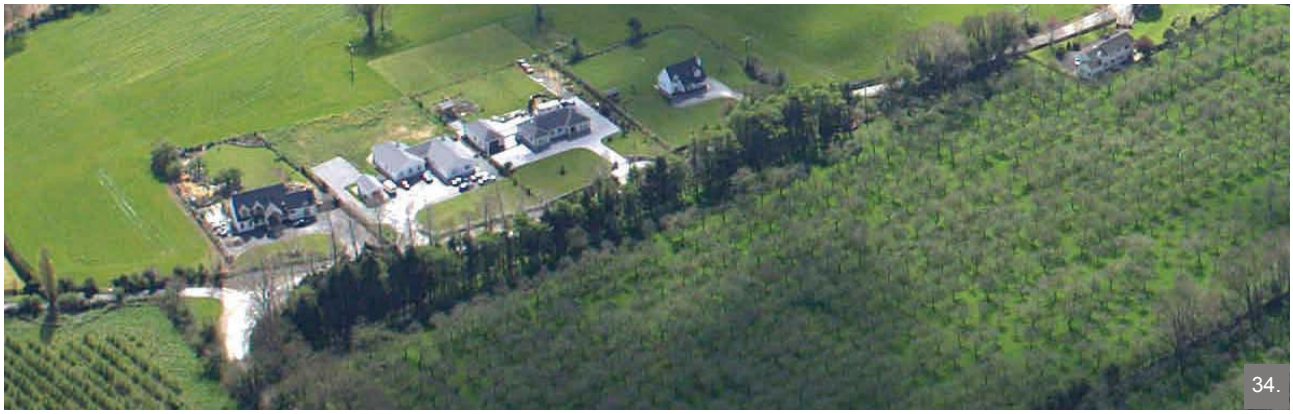


Site selection should avoid contributing to or exacerbating ribbon development

In all cases new development should not contribute to ribbon development along roads extending from existing towns and villages or within undeveloped areas between existing building clusters.

Such ribbon development is typified by a high density of almost continuous road frontage type development, for example where more than 4 houses exist on any one side of a given 250 metres of road frontage.

Subject to the type of rural area, any prospective site that would exacerbate such ribbon development, or lead to the coalescence of existing ribbon development, should be avoided.



Typical one-off housing leading to ribbon development

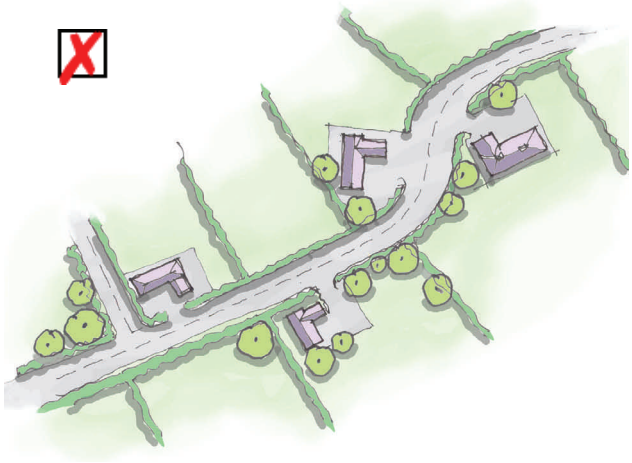
Roads and Infrastructure

The means of vehicle access to a selected site needs to be carefully considered in relation to the distance from the road and the category of the road. In several locations in the County the main roads already serve a large number of houses, creating ribbon development extending from and sometimes interconnecting the urban centres.

The *Sustainable Rural Housing, Guidelines for Planning Authorities* (April 2005) restricts access to individual properties on both national and non-national road categories due to safety reasons, preferring shared access to new development away from such roads where suitable.

When considering vehicle access, safety concerns are paramount and proposals need to satisfy the requirements of the Council's Engineering Department. Where possible, access is preferred from existing entrance points on suitable existing roads, modified where necessary to meet sightline requirements.

The removal of traditional roadside boundaries should be avoided, even if this requires discounting a site where such features would need to be removed for traffic safety reasons.



Development will not be permitted where there is poor visibility along the road from the proposed site entrance, or where there is inadequate site depth for set-back of the building

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Roadside boundary features such as hedgerows, ditches and stone walls should be capable of retention as part of the site selection process

The available service infrastructure in the area should be checked, such as water and sewerage, telephone and electricity, etc., and a full site assessment undertaken to determine whether the ground conditions are suitable, particularly that there is adequate percolation for a sewage treatment system.

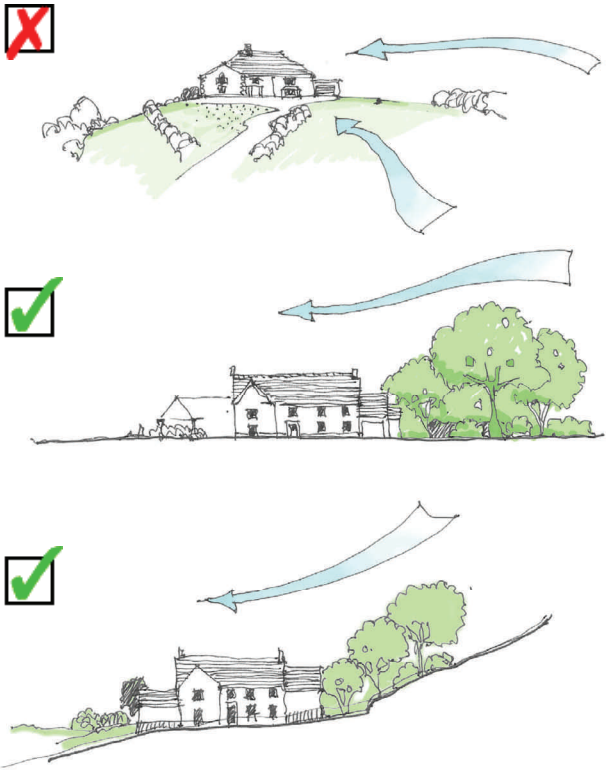
Early consideration should also be given to the proximity of a potential site to existing facilities, such as schools, shops, church and pub, so as to avoid unnecessary travel and over-dependence on the family car.

Site Orientation

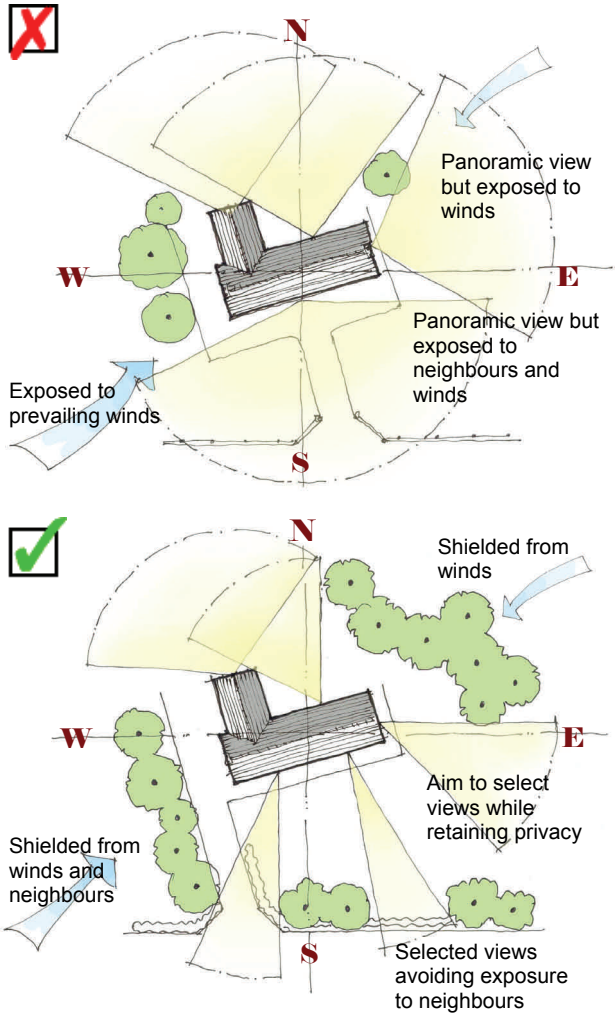
Traditionally buildings in the countryside were positioned to take advantage of natural shelter, such as making use of natural folds in the topography, orientating the building in relation to prevailing winds and the path of the sun, and using sheltered areas next to woodlands.

Such factors are equally relevant to the present day siting of houses. Energy-efficient design:

- recognises local climate and orientation;
- considers the opportunities a particular site offers for shelter;
- meets the site constraints positively; and
- answers the challenge to provide heat, light and comfortable indoor spaces with minimal use of fossil fuels.



Prominent sites exposed to the elements are to be avoided



Building orientation needs to take full account of the elements as well as impact on views and neighbours

The application of sustainable design principles, which recognise energy efficiency, lifetime cost of materials, non-toxicity, wastewater treatment, and water and waste reduction will produce buildings that are more environmentally friendly. Further guidelines are given in Section 4 - Sustainable Site Planning.

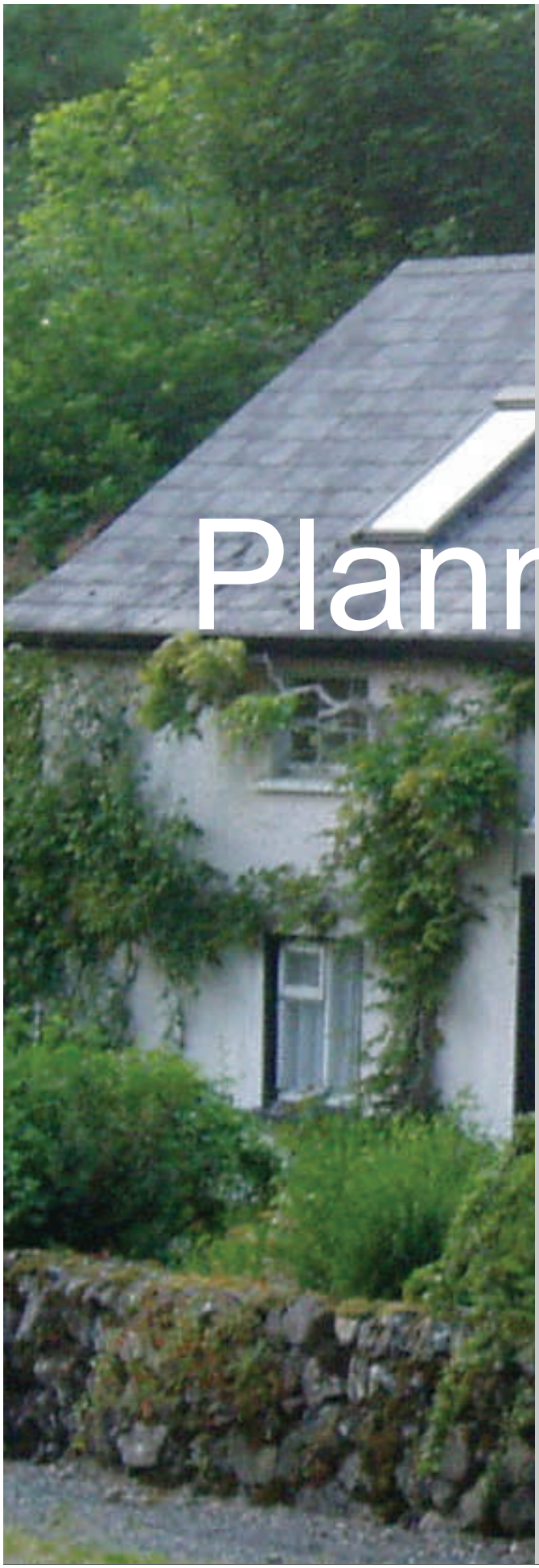
3. SELECTING THE SITE

Site Selection Checklist

The following checklist summarises the main Site Selection factors that need to be taken into account when considering an application for a one-off house in the countryside.

A Schedule of Documents Checklist for information to be submitted with an application is given in *'Your Guide to the Planning Process'* - refer Section 6 Designing with the Planning System.

Main Factors to be considered:	***Further Details/Information***
☐ Assess the suitability of a site in terms of its landscape character and the sensitivity and capacity of the area to absorb development.	*The County Development Plan identifies 10 different landscape character areas with different capacities to absorb development.*
☐ Consult with the Local Planning Authority if a site falls within or is located close to sensitive landscape areas or other environmental designation.	*The County also has many designated areas for environmental protection, e.g. Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Natural Heritage Areas (NHA), as well as designations for heritage protection such Architectural Conservation Areas (ACAs) and Protected Structures. There are also numerous archaeological sites listed as Recorded Monuments for protection.*
☐ Appraise the form of traditional buildings before selecting a site to ensure that new development will be compatible with the existing character of the area.	
☐ Select a site where natural features such as trees and hedgerows can help assimilate new development with the surroundings.	
☐ Avoid a hilly site where development may break the skyline when viewed from a distance, or would result in excessive cutting or filling of the local topography.	*Undertake a detailed assessment of the context to determine views into and out of the site; landscape characteristics (vegetation pattern, landform, natural features); development pattern and building types; orientation (sun path and prevailing winds); and access to existing facilities.*
☐ Avoid elevated and exposed locations such as hilltops and ridgelines, which would increase energy consumption and fuel costs.	
☐ Avoid sites that are subject to flooding, boggy, or in a frost pocket.	
☐ Ensure that a site will not contribute to ribbon development or other inappropriate development form.	
☐ Consider the proximity of a site to existing facilities, such as schools, shops, church, pub).	



4. Planning the Site

Context
General Design Principles
Scale, Building Line and Set-back
Building Form and Proportion
Topography
Building Orientation
Sustainable Site Planning
Vehicle Access and Parking
Boundaries
Garden Design
Site Planning Checklist

4. PLANNING THE SITE

Context

The new country house reflects a renewed sense of optimism and confidence about rural life. It reflects the desires and preferred lifestyles of an increasing number of people looking for a combination of the pastoral and the provincial. The country house has always been related to ideas of status, class, wealth and aspirations of the owner—it is not just a home, but often a symbol of success, privilege and social position.

To build houses that complement the different landscape characters of County Limerick requires a sympathetic and understanding eye, together with construction skill and craftsmanship. The numerous pattern-book examples of new houses too often demonstrate the consequences of inappropriate styling and design.

Houses are often designed in a far too fussy and over-complicated manner, using 'imitation' materials, under the misconception that this will create an acceptable 'rural' effect. The outcome is invariable 'suburban', with new housing that appears awkward within its surroundings, especially when adjacent properties vie for attention, rather than unobtrusively settling into the landscape.

Whereas the grand country house sought to dominate the landscape, the new country house can take the opposite approach by seeking to integrate with the landscape - the setting becomes the inspiration and organising force around the design of the building. The new country house seeks a comfortable place within the landscape - context is everything.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The main approach should be to reinvent the country house and develop a new rural architecture for the 21st century, rather than simply remodelling or recreating the methods and manners of the past

General Design Principles

New house design needs to respond not only to the context of individual sites (as described in the previous Section), but should also reflect modern lifestyles and advanced building technologies. The objective of this Design Advice is to promote high quality design in the countryside that is innovative and firmly of its time, while respecting and contribute
ng to the character of the area within which it is located.

The design of new buildings in the countryside presents an opportunity for re-examining some of the trends that have dominated traditional and more recent influences, so as to arrive at a fresh approach to design that is contemporary while being respectful of the past.

This Design Advice cannot provide a 'blueprint' for good design, as this in itself would result in standardisation and lack of innovation. Instead it sets out a number of basic principles aimed at achieving more appropriate and good-mannered rural buildings. Foremost of these is context, followed by issues such as proportion, form scale and massing, which all need to be carefully considered in relation to the site and its neighbours.

In most cases it is recommended that the services of a qualified architect are sought to deal not only with the design of the house, but also to understand the constraints and steer the development through the planning requirements, thereby speeding-up the house building process.


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Examples of award-winning rural Irish houses (this page and previous) illustrating well-considered design solutions, providing modern living requirements that respect the context of the site in terms of siting, proportion and landscaping, while combining an appropriate mix of traditional and contemporary building styles and materials.

Scale, Building Line and Set-back

At an early stage it is essential to consider the scale of the proposed house in relation to both the size of the selected plot and the size of existing buildings in the vicinity. Achieving an appropriate scale of a new building in the countryside is one of the most important considerations of the site planning process.

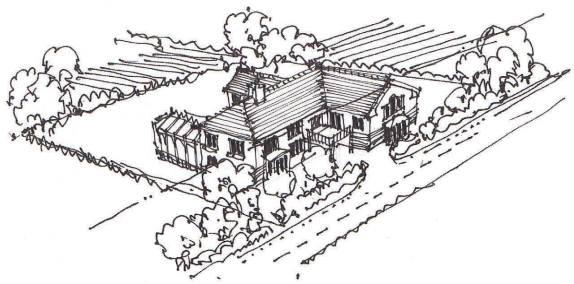
A large house located in a landscape of small field patterns or within an area of existing small houses will appear incongruous and over-bearing, whereas a small house isolated within a large plot surrounded by open landscape will appear equally out of place.

Generally, a large house needs an adequately-sized plot that is capable of comfortably accommodating it, and is in proportion with the surroundings.

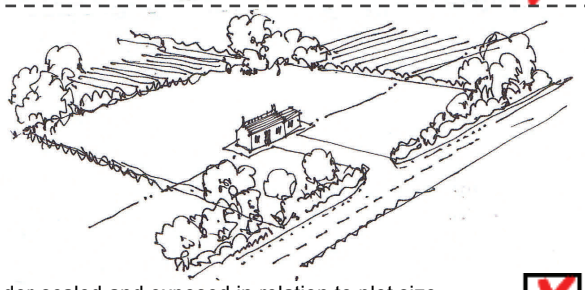
New houses will need to be set back an acceptable distance from the road to provide adequate frontage for planting and to reduce the visual impact of development. In areas of existing housing, the set back distance should generally be varied from that of its neighbours so as to avoid the repetition that may otherwise arise from a linear series of buildings.

Generally, a minimum set back of 20 metres from the nearest edge of road surface will be required along County and Regional roads and a set back of 30 metres along National Primary and National Secondary roads. Along New National Primary Roads a set back of 90 metres may be required (although the new development may be located closer if it can be demonstrated that acceptable noise levels can be achieved). In all cases the amenities of nearby residents need to be fully considered.

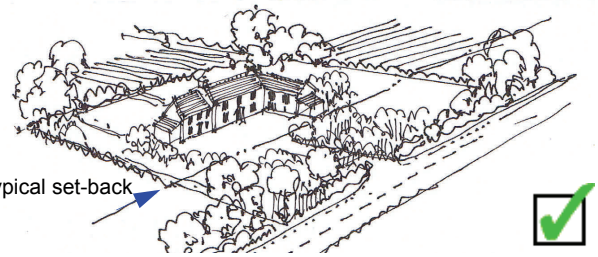
Careful consideration also needs to be given to the scale of proposed building in relation to its neighbours. A large house should not be placed in proximity to a small one, and conversely a new small house insensitively located can detract from the appearance of an established large house. In all cases, the new building should be arranged to respect the privacy of neighbours and to avoid any over-looking.



Over-scaled in relation to plot and distance from road



Under-scaled and exposed in relation to plot size



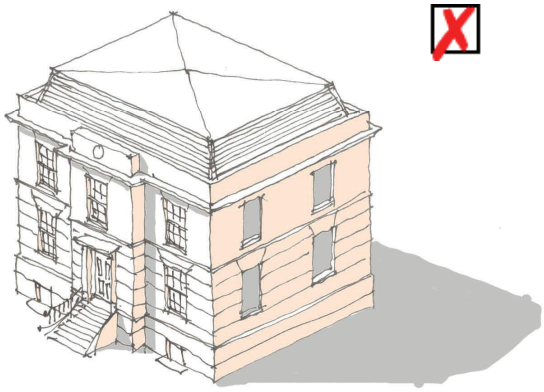
Adequately set-back from road and absorbed by planting

Scale and Set-back Considerations

Size of a new house should be suitably proportioned to its plot and not overwhelm smaller scale neighbours

Simple grouping of building forms

Avoid over-scaling traditional form and altering roof pitch to suit



Avoid “façade” architecture of all types and periods

Building Form and Proportion

New houses in the countryside should aim to reflect the simple traditional forms, while adapting to meet modern needs. Overall, a building’s proportions are determined by the envelope (the width, height and depth of walls) together with the roof pitch (angle). Traditional rural buildings have a wide frontage and narrow plan, which controls their scale and proportions and results in a constant roof pitch. Altering the proportions of the plan, while retaining the same roof pitch, quickly leads to a less appropriate building form.

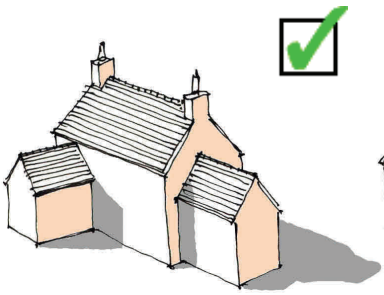
For most new rural houses, simple, familiar forms will appear most appropriate. The general aim should be to adapt the best from the local elements and to interpret shapes and sizes in a contemporary manner. Achieving the right proportions of a new building is an essential prerequisite of successful design.

Where necessary the apparent size of a house can be reduced by breaking down the plan footprint into smaller elements, thereby decreasing the overall scale of building and providing the opportunity for a more interesting built form.

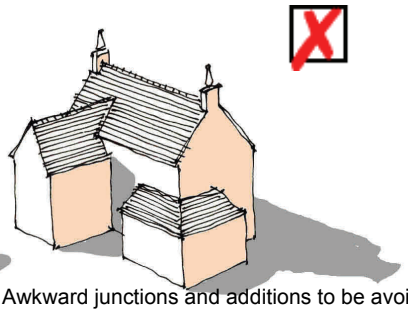
A rectangular floor plan maximises light and circulation and, with additions that are subservient to the main block, presents a flexible template that can be interpreted and refined in a variety of contemporary ways. The solutions are almost limitless and need to be determined by the owners brief for the new house, the landscape context, and the detailed siting considerations as set out previously in this Design Advice.

In all situations, new house design must be in accordance with current Irish building regulations (refer Appendix 2). This can require skilful interpretation of standards to achieve the best proportional relationships and design solutions to sometimes competing objectives.

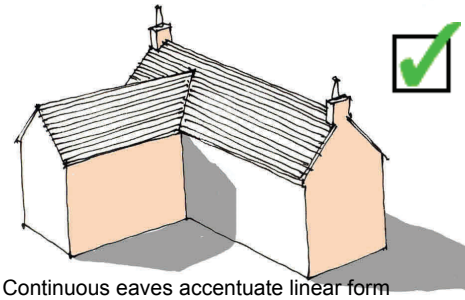
A well-proportioned contemporary house



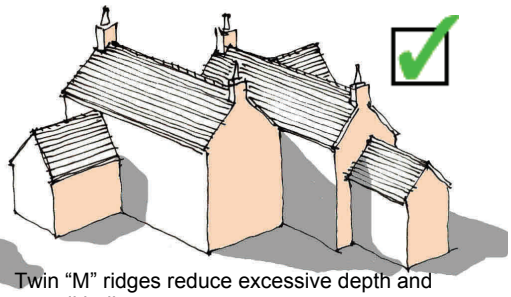
Simple dominant form with additions



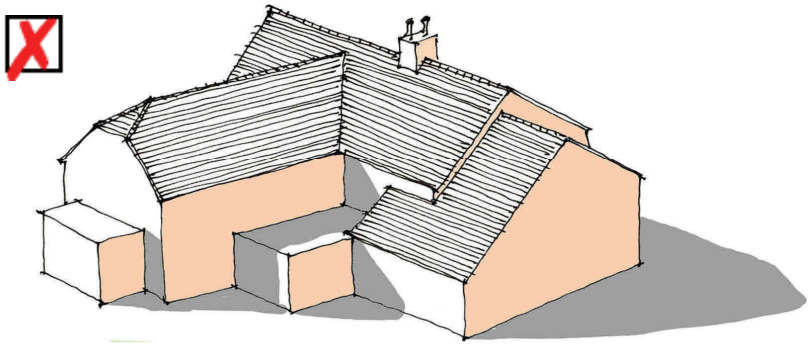
Awkward junctions and additions to be avoided



Continuous eaves accentuate linear form



Twin “M” ridges reduce excessive depth and overall bulk



Avoid deep complex plans giving a dominant boxy form, unresolved extensions, disproportionate gabling and ‘foreign’ hip detailing

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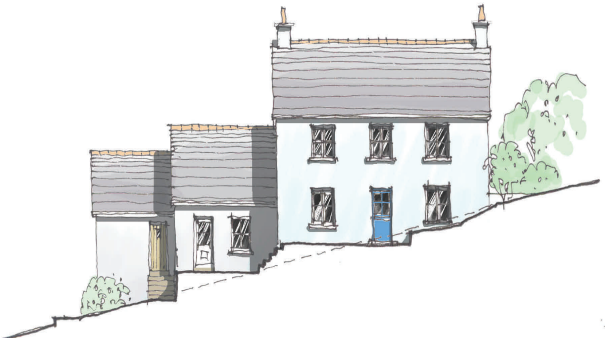
A new rural house needs to effectively satisfy a wide range of design criteria and building standards

Topography

Positioning of a new building in undulating and hilly areas needs careful consideration to allow a practical house design which does not look out of place. Buildings that break or disrupt the skyline should be avoided. Instead the natural folds of the local topography should be used to help absorb the new house. Naturally-occurring shelves or the gentlest part of a slope should be selected wherever possible in order to minimise earth moving and to avoid excessive scarring of the landscape.

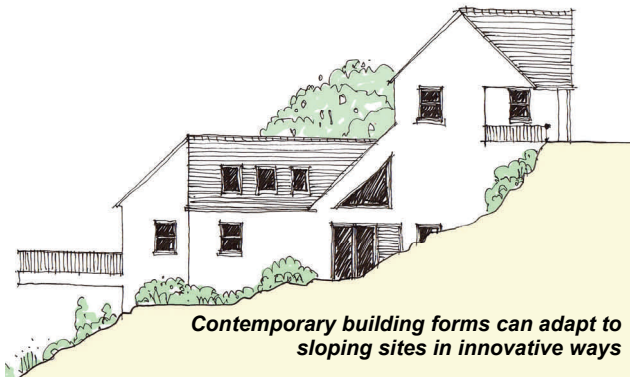
Sloping sites can also present the opportunity for creating an innovative solution to house design without detracting from the character of the hillside. By responding to the difference in levels in a creative manner, a distinctive stepped construction can be achieved which can be far more appropriate than the use of artificially-created platforms. In such situations the narrowest elevation of the building should face down the hill, avoiding the need for excessive cut and fill.



A new building should respond positively to a sloping site

Avoid over-excavation or creating an artificial plateau

Let the natural slope of the land dictate the building form



Contemporary building forms can adapt to sloping sites in innovative ways

Careful shaping of the land around the building, with a preference for cut rather than fill, can also help it blend more successfully with the surroundings while creating further shelter. Excess fill should be either removed or carefully graded to suit the natural slope of the hillside.

In flatter and low-lying areas the position of the building on its site needs to take full account of views from surrounding areas and the means for creating privacy and enclosure. Retaining existing features, building set-back from the front of the site and the treatment of the boundaries are all of special importance in such areas.

Building Orientation

Orientation is concerned with the location of the proposed house in relation to views (both to and from the site) and to the elements (wind direction and path of the sun). The most acceptable site layout needs to achieve a number of often conflicting considerations, such as views and prospects, climate, shelter, privacy, and minimising impact on the surroundings.

Whereas orientating a house to take full advantage of views can be of benefit to the owner, this may well result in the house being over-conspicuous in the landscape. Sometimes a partial or glimpsed view outwards may suffice, framed by vegetation or the local topography. Elsewhere it may be necessary to orientate the house so that just a specific part of it has access to the view (e.g. from a gable end).

A thorough site appraisal is required to ensure that views both of and from the property are considered from a variety of different vantage points.

Building form arranged to create shelter and privacy

Sustainable Site Planning

Being more efficient in how we use energy in our daily lives can strongly influence the selection of a site. Many decisions affecting the energy performance of a house need to be taken early in the site planning and design process. Considering increased energy efficiency at an early stage can also have immediate benefits such as:

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

Energy Performance

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. This must be determined and demonstrated in two distinct ways - all new dwellings must address both:

- *Building Regulations*
- *Technical Guidance Document - L*

The Building Regulations require that all houses are constructed to minimum standards of materials, workmanship, services and energy consumption. The Technical Guidance Documents (TGD) give instruction and guidance on the manner in which compliance with the building regulation can be made. TGD – L concerns energy use and CO_2 emissions from buildings. The primary method of demonstrating compliance with the building regulation under TGD – L is by minimising CO_2 emissions associated with energy consumption in the building. The method of determining the energy and CO_2 performance is the Domestic Energy Assessment Procedure (DEAP).

Building Energy Rating

The EU Directive on the Energy Performance of Buildings requires every new home constructed, sold or rented must be rated as to its energy & CO_2 performance. New houses constructed after 2007 should have a BER of B1 or better.

Building Location and Form

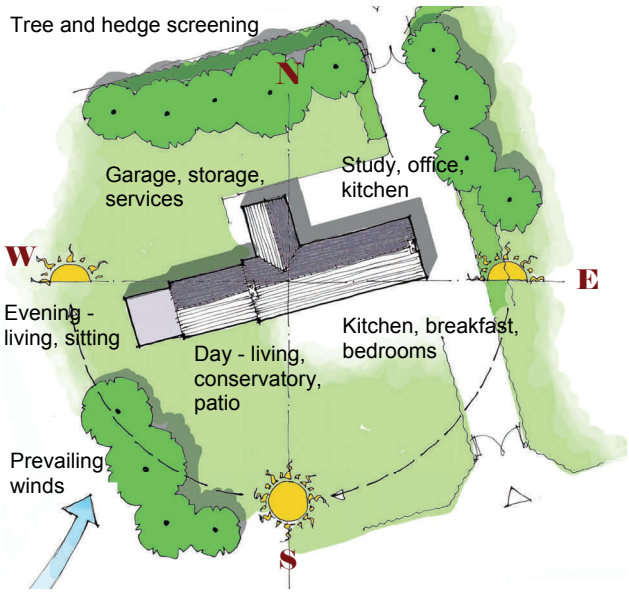
Traditionally buildings in the countryside were positioned to take advantage of available shelter, such as natural folds in the landform, orientating the building in relation to prevailing winds and the path of the sun, and using sheltered areas next to woodlands. Such factors are equally relevant to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

A detached house in the countryside can present a large exposed surface area that needs to be carefully considered in relation to energy efficiency. Layouts should try to avoid any unnecessary exposure to the elements and the new building positioned to take account of the prevailing wind direction (particularly from the south-west) and to create a good micro-climate.

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.

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 and lowering fuel bills, 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.

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.

Traditional grouping of buildings for natural internal shelter

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 emissions.

For further details refer to Sustainable Energy Ireland publications (e.g. '*Your Guide to Building an Energy-efficient Home'*) and to the Limerick Clare Energy Agency (LCEA) website for available publications and useful sources of information.

The Department of Environment, Heritage and Local Government has published amendments to the Exempted Development Provisions of the Planning & Development Regulations 2001, in respect of micro-renewables for domestic use. The exemptions are a welcome guide to the inclusion of renewable energy technologies. The exemptions will apply to:

- Solar thermal panels, up to 12 m2 (with conditions);
- Solar PV panels up to 12 m2 (with conditions);
- Heat Pumps, various types (with conditions);
- Small Wind turbines & masts (with conditions); and
- Biomass boilers & storage facilities (with conditions).

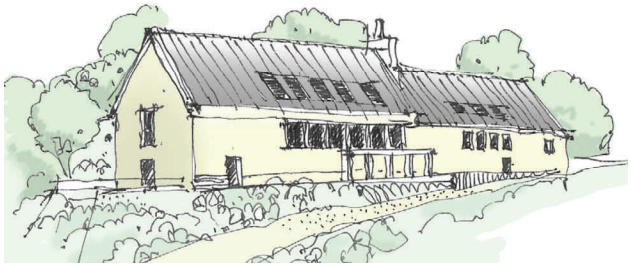
46.

Award-winning family home based on sustainable design principles, including sheltered location, use of a ground source heat recovery system, high levels of thermal insulation, maximum use of natural lighting, and maintenance-free materials.

Please Note:

Exemption from planning does NOT excuse you from the proper design and installation of micro renewable equipment, and in particular from very strict technical requirements for the installation of electrical micro generation equipment. The Limerick Clare Energy Agency would draw your attention to the following requirements and recommends that you comply fully with them:

- A competent person should accurately size the micro renewable installation, contributing to the thermal or electrical requirements of the building;
- A competent person should install the micro renewable equipment, storage equipment and controls. Connections to the buildings electrical system must comply with the latest standards of the Electro Technical Council of Ireland (ECTI);
- Where such micro electricity generation equipment may be connected to the Electricity Supply Grid (directly or indirectly), connections to and from the building electrical system must comply with the latest standards of the Electro Technical Council of Ireland, and comply with the interface protection settings of the G10 standard (Annex A of EN50438);
- A license (permission) will be required to export electricity to the public grid, even if you are exporting it free of charge; and
- Failure to comply with the technical regulations outlined above could endanger the life of electrical repair persons, and may expose you to sever financial penalty.



The total aperture of solar panels should not exceed 50% of the total roof area.

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.
Solar panels are most effective when located on a pitched roof (or a frame of suitable pitch) facing south-east, south, or south-west (preferably). They should not be in shadow. The pitch of the panel should be between 35-45 degrees.

If considering the installation of solar panels, you will need to provide (as a minimum) the following information to Limerick 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); or
- Grounds for exemption (if being claimed).

SEAI operates a number of programmes that provide financial support in the provision of superior energy technologies.
Scheme eligibility criteria and terms and conditions are available from www.sei.ie.

Wind Energy

Wind turbines harness the wind to produce electrical power. The efficiency of a domestic system will depend on factors such as location and surrounding environment. The LCEA suggest that the useful size for a rural dwelling is 0.6-2.0kW.

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 could result in adverse visual impacts and needs to be carefully considered in relation to the context of the site.

If considering the installation of a wind turbine, you will need to provide (as a minimum) the following information to Limerick 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).

There are specific planning requirements for the installation or erection of a solar panels and wind turbines on, or within the curtilage of a house, or any buildings within the curtilage.

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, 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.

If considering the installation of a ground heat pump system, you will need to provide (as a minimum) the following information to Limerick 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); or
- Grounds for exemption (if being claimed).

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 CO^2 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/biomass 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 simple to install, and there is very little adjustment needed to existing plumbing if converting from a conventional system. Wood chips provide heating fuel to commercial buildings and may be suitable for domestic biomass boilers. Check with the supplier of your boiler that it is capable of burning pellets and chip biomass fuel. Take special care that the standard of fuel you use complies with the operating requirements of your boiler.

Water Recycling

Recent concerns over dwindling reserves of groundwater, increasing costs of domestic water supply, and costly sewage treatment plants has 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:

Water butt - a simple, low cost method for collecting rainwater from the roof and storing if for use in the garden (e.g. instead of a mains-water hosepipe for lawns, etc).

Rainwater harvesting - provides an efficient and economic means for utilising the rainwater coming from roofs to supply toilets, washing machines and irrigation systems.

Greywater recycling - 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 under ground, 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.

Generally, LCEA would suggest that grey water recycling is not recommended unless the proper filtration and disinfection system is used. This would normally entail a reed bed filtration with resin filters followed by disinfection (possibly UV). The use of grey water without proper filtration and disinfection can lead to a variety of odour and possible indirect contamination.

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 non-drinking water (WC, washing machine, outside tap).

Explore new technologies for achieving contemporary forms improved energy conservation

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 heath 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.

Specific information is required to support an application for discharging water to a soakaway, water-course or storm-water sewer. If in doubt, contact the Water Services Section of Limerick County Council.

4. PLANNING THE SITE

A. Local Sustainable Development ***Sustainability Checklist***

A1	**SITE INTEGRATION**	√	Comment:
a.	Development strategy demonstrating links to community facilities (educational, social, health)		
b.	Development strategy demonstrating links to commercial facilities (shops, work)		
c.	Development strategy demonstrating links to transport link(s)/ Mass transit, pedestrian, bicycle etc.		
d.	Development strategy demonstrating links to district energy sources (District heating scheme, combined heat & power)		
e.	Provision of Household / Garden / Sanitary waste management		
f.	Other positive ecological features (please specify)		

A2	**LANDSCAPING & SHELTER**	√	Comment:
a.	Use of site contours		
b.	Reduce site exposure via earth beaming, shelter planting, or wind barriers		
c.	Preservation of local flora		
d.	Assessment of site liability to flooding		
e.	Site percolation test conducted		
A3	**LOCAL ENERGY AUTONOMY**	√	Comment:
a.	Energy from local sustainable resources (low / carbon neutral)		
b.	Site specific Combined Heat & Power (CHP)		
c.	Site specific district heating system		
d.	Site specific electricity auto generation (from low / carbon neutral resources)		
e.	Other renewable energy sources		

B. Building Fabric

B1	**DESIGN & ORIENTATION**	√	Comment:
a.	Minimise surface area for heat loss (in proportion to volume)		
b.	Orientation and internal zoning to facilitate passive solar heat gain		
c.	Orientation to optimise day light		
d.	Thermal mass to facilitate passive solar thermal gains		
e.	Natural ventilation & cooling		
f.	Sunspaces and collector walls / floors		
g.	Design for spatial / functional adaptability		
h.	Design for accessibility		
B2	**BUILDING ELEMENTS**	√	Comment:
a.	Building Regulation Compliance:- Demonstrate that the building energy & carbon emissions are in compliance with the current building regulations, Technical Guidance Document (TGD) Part L. The Domestic Energy Assessment Procedure is the primary method of demonstrating compliance.		
b.	Assessment of building fabric material procurement from local resources		
c.	Assessment of material toxicity and CFC – HCFC free		
d.	Potential for material recycling		

Consider vehicle access as an integral part of the site layout

47.

Avoid over-dominance of vehicle access

48.

Indirect vehicle access

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, and treated in relation to the surrounding environment. In particular, the means of vehicle access and provision for parking should not dominate the site.

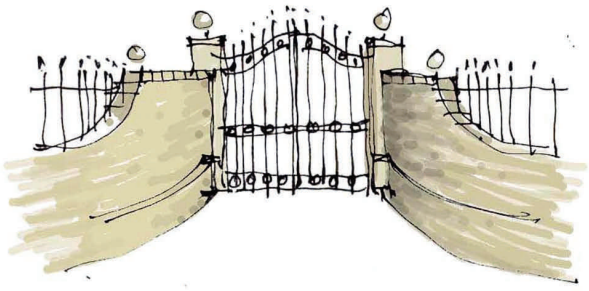
The driveway should preferably be indirect, gently crossing the natural contours of the site or curving subtly around existing site features, as opposed to taking a harsh straight line from the road. Surface materials should be sympathetic to the rural character of the site (such as gravel with soft edges as opposed to tarmac with pre-cast concrete kerbs).

Cars should be accommodated as unobtrusively as possible. 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.

49.

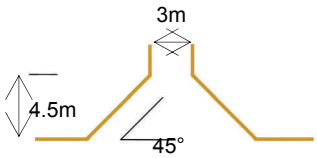
Traditional entranceways

50.



Avoid over-elaborate entranceways

Avoid over-fussy boundary treatments



General principles of splay

Splay with rendered walls and traditional barred gate

Convex with hedges and traditional barred gate

Concave with stone wall/hedge and traditional iron gate

Aim to achieve simple entranceway treatments

Boundaries

Roadside boundaries, including hedgerows, sod and stone banks and stone walls, provide important features of the landscape and ecology of rural areas.

The treatment of site boundaries can have a major influence on how well the building sits within the landscape. New road boundaries and entrances in particular may appear intrusive in rural areas if not designed sympathetically, especially where several different frontages are adjacent to one another.

Entranceways should therefore be kept to a minimum width and located according to road safety requirements and in relation to views of the house (which should preferably not be direct along the driveway).

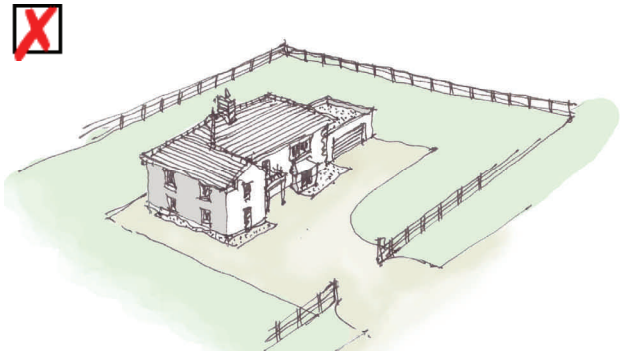
The removal of existing roadside boundaries should be avoided, even if this requires the relocation of a site for traffic safety reasons. Wherever possible an existing hedgerow, ditch or stonewall should always be retained, and reinforced or repaired as required.

Where an existing boundary feature needs to be removed in order to achieve clear forward visibility, this can often be effectively set back to achieve the required visibility splay without diminishing the rural character of the road.

New front boundaries should be restricted to a simple range of materials that are already common to the area, including stone, low rendered wall with hedge, hedgerow or ditch/earth bank features. Gateways should also be simple, constructed from timber or metal and defined by restrained piers of stone or painted render.

Existing hedgerows are preferable for side boundaries, or simple fencing and new hedge planting. On all boundaries, suburban ranch-type fences of artificial materials, concrete block walls and the regimented use of fast-growing conifers should be avoided.

51.



Avoid large expanses of grass with hard surface up to building line and ranch-style fencing

52.

Use existing site features to help absorb the building and/ or under-take new planting of mostly native species

Garden Design

The open space surrounding the house needs to be designed as an integral part of the site planning process. In a countryside context a naturalistic approach should be adopted to help assimilate the building with its surroundings. Manicured suburban-style gardens often found in rural areas appear alien to their surroundings and do not provide either suitable climatic provision or habitats for wildlife.

The purpose of new planting is not to screen or hide new development, but instead to help integration with the surrounding landscape. All existing landscape features should be retained, to provide a structure for the development and a basis for new planting.

Trees and shrubs which are locally native will be easier to establish than more exotic species, and will be more in keeping with the character of the area - refer to Appendix 1 for recommended planting types.

In exposed sites, more substantial shelter planting of native trees may be required to help reduce the effects of cold winds and driving rain, whilst also increasing privacy and improving the appearance of the landscape by softening building lines.

The garden also needs to satisfy a number of practical requirements, such as fuel and refuse storage areas, a compost/recycling area, clothes drying area, and a safe place for children to play. These areas should be considered from the outset and incorporated sensitively into the overall design of the site.

53.

Site Planning Checklist

The following checklist summarises the main Site Planning factors that need to be taken into account when developing an application for a one-off house in the countryside.

A Schedule of Documents Checklist for information to be submitted with an application is given in *'Your Guide to the Planning Process'* - refer Section 6 Designing with the Planning System.

Main Factors:	**Further Details/Information**
☐ Prepare a detailed analysis of your site showing all existing features. ☐ 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. ☐ Examine the requirements for incorporating 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. ☐ Ensure that the building can be positioned to 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. ☐ Carefully consider the means of vehicle access to the site. ☐ Ensure that sufficient front boundary vegetation can be retained while accommodating vehicle access requirements. ☐ Establish the means for protecting existing trees, hedgerows and banks, and note opportunities for extending existing vegetation patterns into, or around, the site to help absorb or screen the new development into its setting. ☐ Consider appropriate boundary treatments. ☐ Prepare a landscaping plan showing all existing features to be retained and new planting and hard surfaces.	Obtain a detailed survey of the site and its immediate surroundings showing contours; vegetation; boundaries; existing structures; historical or archaeological features; all pipes, septic tanks, wells, percolation areas, etc.; roads, rights of way and access tracks; water courses and wetlands; soil types and land drainage characteristics. The Planning and Development Regulations 2007 make specific provision for renewable energy installations.

5. Designing the House

Different Approaches

Building Form Checklist

Building Elements

Conservatories, Garages and Extensions

Building Conversions

5. DESIGNING THE HOUSE

The use of standard house types that take no, or little, account of the context of the site or the traditional style of County Limerick is to be strongly avoided

Typical over-complicated house types recently constructed

Different Approaches

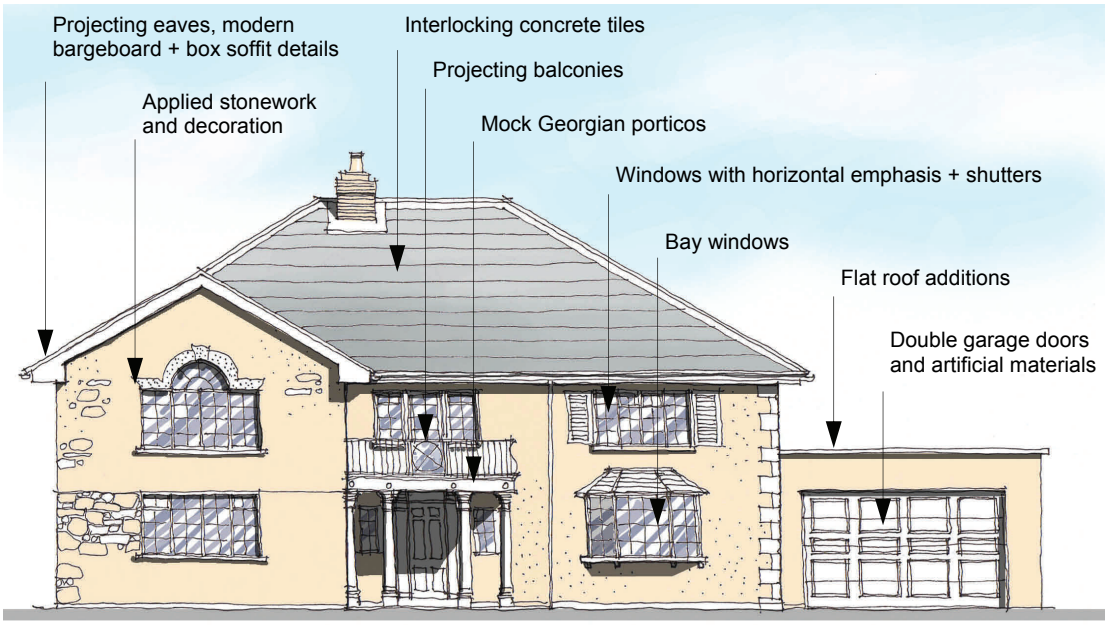
A sensitively designed house is a subtle blend of materials, scale, proportions and traditional details, producing a timeless composition of unsophisticated simplicity. Much modern housing betrays a lack of appreciation of the distinctiveness of the traditional County Limerick building style, or attempts to mimic it through inappropriate plan layouts, styles, decorative motifs and unsuitable materials. Houses are often designed in a far too 'fussy' and over complicated manner, using imitation detailing and materials under the misconception that such adornment will create an appropriate 'Olde Worlde' effect.

It is necessary to take a fresh approach that is contemporary while being respectful of the past.

In many cases, such designs are selected from pattern books, or else comprise a collection of random design elements chosen from a range of different sources. The result is usually confused building forms that frequently lack visual repose and appear alien to their rural setting - particularly when adjacent properties vie for attention, rather than sitting unobtrusively in the landscape.

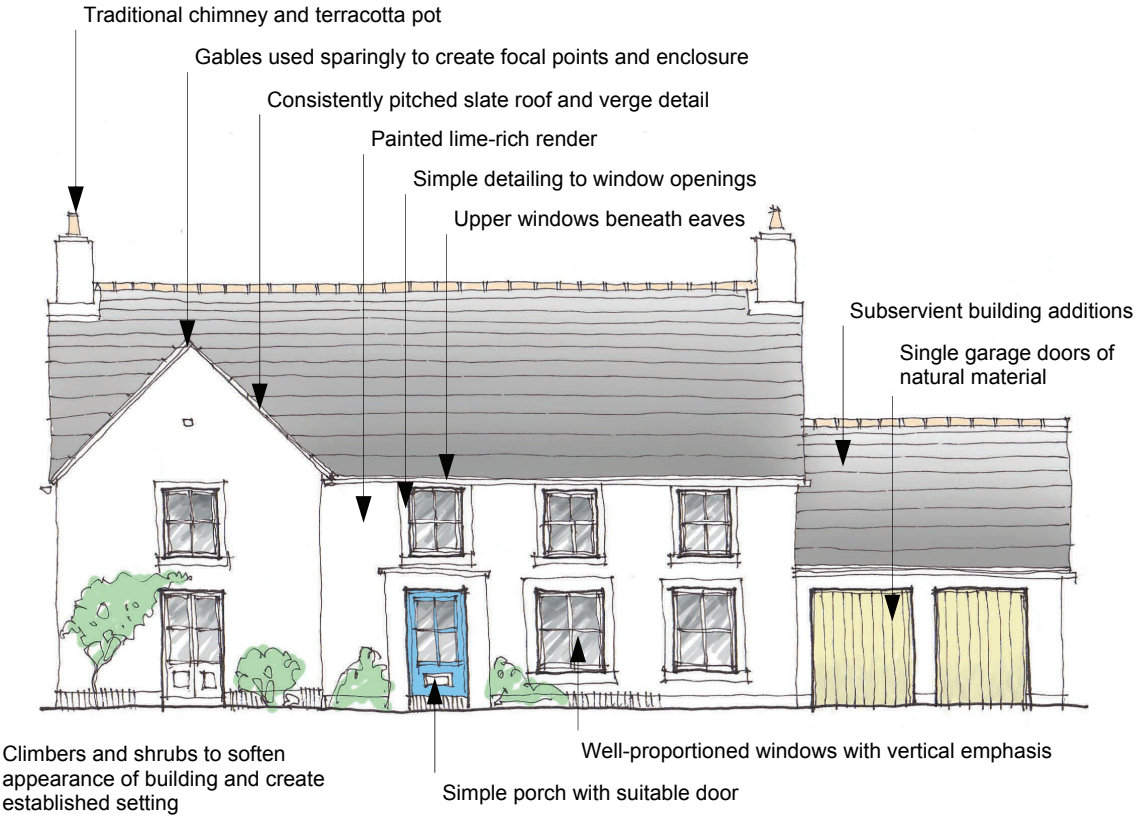
As described previously in this Design Advice, there are a number of basic principles that need to be considered. One of the most important of these is context, followed by issues such as proportion, form, scale and massing, as considered in the previous section of the Design Advice. This section describes the more detailed elements of house design that need to be considered in order to achieve more appropriate and good-mannered rural buildings.

Successful contemporary interpretation of traditional forms



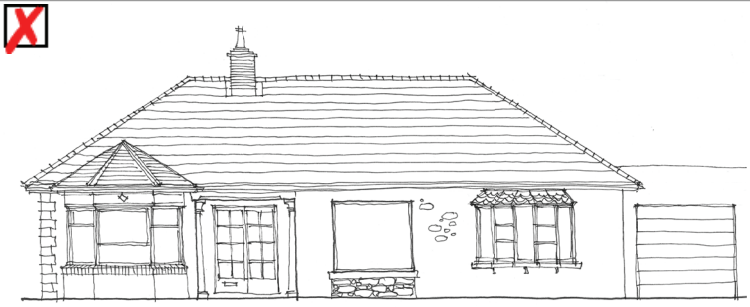
☒ Complexity

Unsympathetic



☑ Simplicity

Sympathetic



Try to avoid:

- Shallow pitched, hipped roof
- Projecting 'fussy' bay windows
- Applied stonework and decoration
- Over-scaled and elaborate door
- Randomly placed windows with horizontal emphasis and mixed detailing
- Dominant garage addition of artificial materials

Aim to achieve:

- Uninterrupted pitched roof
- Eaves with simple end detail
- Chimneys flush with gables
- Well-proportioned arrangement of recessed openings
- Vertical window emphasis with plaster surround and sill
- Simple porch and door detailing
- Subservient additions (garage/workshop) with similar detailing

Single-storey Houses

Try to avoid:

- Shallow pitched, over-sailing roof
- Over-scaled dormers
- Chimney on pitch of roof
- Randomly applied quoins
- Applied stonework and decoration
- Ornate portico
- Over-elaborate door
- Multi-paned windows flush with façade
- Inconsistent detailing around window openings

Aim to achieve:

- Consistently pitched roof
- Minimal eaves and verge
- Chimneys flush with gables
- Well-proportioned arrangement of recessed openings
- Simple porch and door detailing

Small Dormer Houses

Try to avoid:

- Use of breakfront elevation, giving unbalanced arrangement of main elements
- Complex hipped roof patterns
- Use of UPVc boxed eaves and barges
- Elaborate projecting bay windows
- Artificial stonework and unnecessary decoration
- Poorly divided windows with horizontal emphasis
- Sun room with hipped roof and ill-proportioned openings

Aim to achieve:

- Consistently pitched roofs, with minimal eaves and verge, and chimneys flush to gables
- Simply stepped elevation retaining balanced composition and breaking long run of wall-plate dormers
- Well-proportioned arrangement of recessed openings
- Vertical window emphasis with plaster surrounds and sills
- Simple porch and door detailing
- Subservient additions (sun room) with similar detailing

Large Dormer Houses

Try to avoid:

- Addition of protruding elements to main elevation (e.g. octagonal turret and double bay windows)
- Confused ridge lines and gables
- Use of UPVc boxed eaves and barges
- Poorly spaced and proportioned windows
- Over-emphasised door
- Unnecessary quoinage and lintel detailing
- Dominant garage with 'up and over' door of artificial material

Aim to achieve:

- Uninterrupted ridge lines with consistently pitched roofs
- Simple plan with extensions in proportion to the main building
- Garage in secondary location and of appropriate scale and materials
- Balanced door and window openings with simple detailing
- Conservatory/Sun room of appropriate scale and natural materials

Large 2-storey Houses

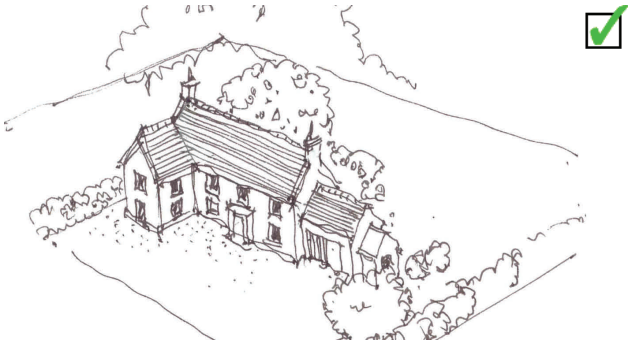
Building Form - Summary Checklist

Aim to Achieve:

- Wide frontage and narrow depth plan forms, with additive elements where required/suitable.
- The external appearance of the building should be arranged to reflect the internal plan arrangement.
- The main elevation should generally be flat-fronted, except for porches, with subtle breaks in the building line used to add interest and to create and define external spaces.
- Most two-storey houses should be double-fronted (with central front door).
- The range of building materials should be limited and, wherever possible, locally available.
- Real materials - stone, timber, slate - are preferable to artificial ones.
- A change in material should reflect a change in structural function.
- Colours should also be limited, and muted in hues.
- Chimneys add interest to the roofscape, and should be carefully located and detailed.
- Roofs should be consistently pitched, dark tiled (preferably slate) and with neat eaves detailing.
- The proportion of void to solid on any façade needs to be carefully considered.

Try to Avoid:

- Cumbersome, boxy and near-square floor plans.
- Unusual and elaborate forms, complicated roof shapes exaggerated and random changes in ridge line.
- Over-scaling of traditional form and altering roof pitch to suit.
- Imitation styles, such as haciendas, chalets, log cabins and pattern book designs.
- 'Façade' architecture and randomly applied external finishes.
- Artificial materials (uPVC in particular) should be avoided.
- Arbitrary changes of materials.
- Excessive use of natural stone.
- 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.
- Over-scaled or contrasting additions (garages, conservatories, sun rooms).
- Ill-proportioned openings, bay windows and dormers.



Building Elements

Materials and Colours

The traditional buildings of the County tend to be very simple in form, with limited decoration, and built of a limited range of locally obtainable materials - slate roofs, rendered walls, painted timber windows and doors. Local stone was used for construction of walls, but often concealed by whitewash or rough harl rendering. Exposed stone construction was reserved for outbuildings associated with the main house. Good quality ashlar stonework was rarely used in vernacular buildings, except for architectural detailing such as quoins, lintels and chimney stacks, mainly in estate cottages and in proximity to quarries. Elsewhere cut stone was reserved for important civic buildings (churches, courthouses, schools, etc.) or for large country mansions.


57.

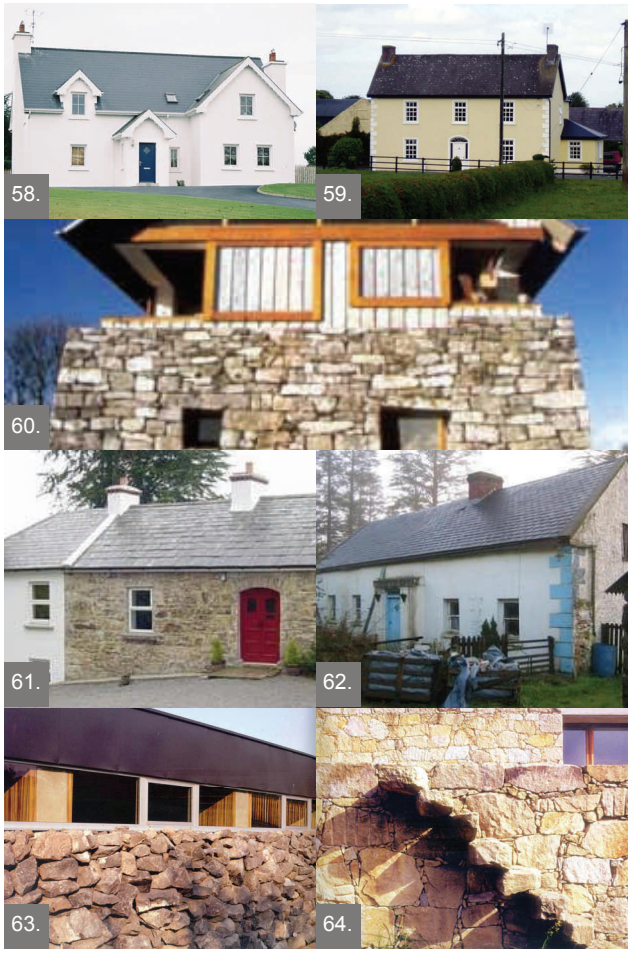
Simple materials and colours of traditional cottage

The range of contemporary building materials has increased greatly in recent years, providing new opportunities for the creative use of natural products. Artificial materials, including pvc doors, windows, eaves and weatherboarding, fibre-cement slates and concrete roof tiles should all be avoided.

Wherever possible, natural materials that are more sustainable should be used. Timber, glass, slate, plaster, lime mortar, insulation such as sheeps wool, rendered and painted blockwork and the appropriate use of stone can be successfully combined to create attractive contemporary houses. Natural materials such as these will also allow good ventilation in the home, which has consequent health benefits. A random mix of materials such as brick, stone and concrete should be avoided.

Applied 2-dimensional embellishments, such as artificial cladding, quoins and columns, should always be avoided

The colour of a new building should aim to blend with surrounding buildings and 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). Whites, off-whites and light greys were often the dominant colours of traditional buildings, and can effectively off-set more brightly painted elements such as doors. Windows and their surrounds should preferably also be muted in colour.

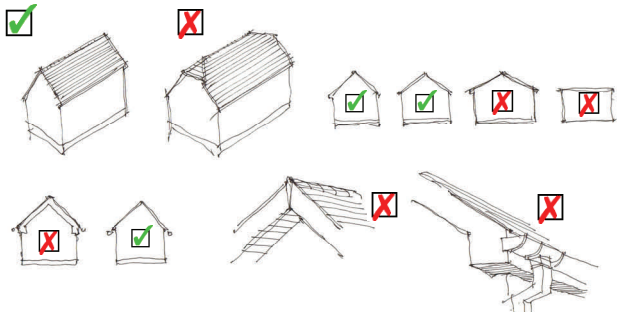

58. 59. 60. 61. 62. 63. 64.

Roofs and Chimneys

The roofs of traditional rural houses in County Limerick tend to be either hipped or gabled, with a consistent pitch of between 40° - 50°. Thatch was progressively replaced by slate as the preferred roofing material, or else with painted corrugated sheeting.

Roofs on new houses should aim to be simple, consistently pitched and with special attention paid to edge detailing, avoiding forms that may appear alien to the rural setting. Roofs that oversail the external walls, invariably finished in white pvc, should be avoided. Flat dark tiles (with slate as the preferred material) should be sized to suit the scale of the roof and laid in diminishing courses from the eaves.

Rainwater goods should be as discrete as practical, rounded and of cast iron or plastic (painted black).



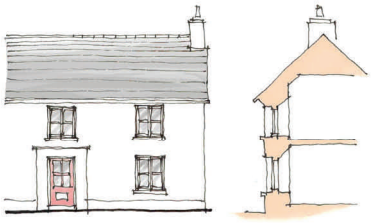
Boxed verges and eaves to be avoided

Roof Types

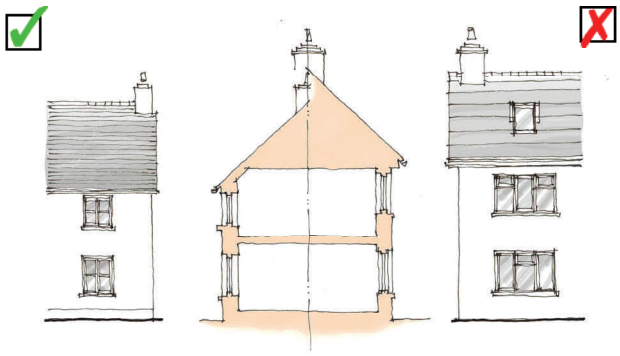
65.

Contemporary use of natural slate

Traditional houses were low with steep roofs (45°) making for a compact building which hugged the ground



In new building eaves should be kept down and roof pitches should remain +/- 45°



Large roof-lights can dominate, resulting in reflections of open sky and sunlight.
New-build without regard for proportion results in bad balance of windows and unnecessary height.

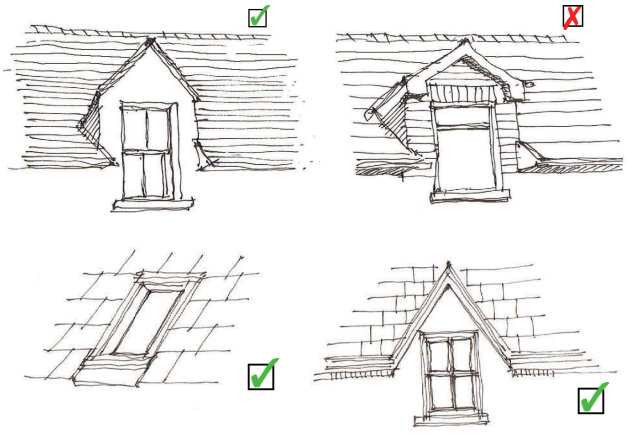
Locating well-proportioned dormers within lower ⅔ of the roof helps to ensure that they do not dominate the house

Chimneys are an important characteristic of traditional rural housing, either located on gable ends and breaching the ridgeline of the roof to avoid long slender stacks exposed to the weather, or arranged symmetrically towards the centre of the roof above an internal hallway. In the interests of energy efficiency, it is considered good practice to locate new chimneys centrally, rather than on a gable. Chimneys should be designed with care, ensuring that the proportions and details are appropriate to the size and style of house.

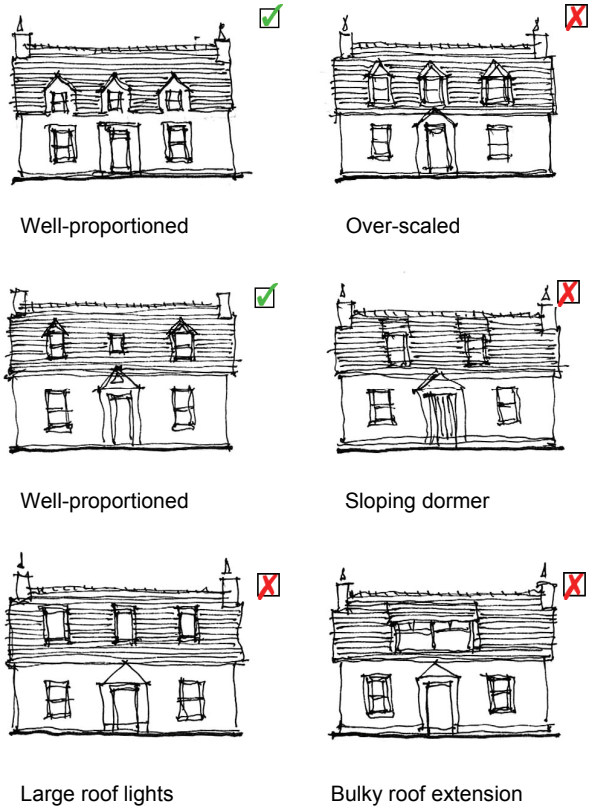
Dormers and Roof lights

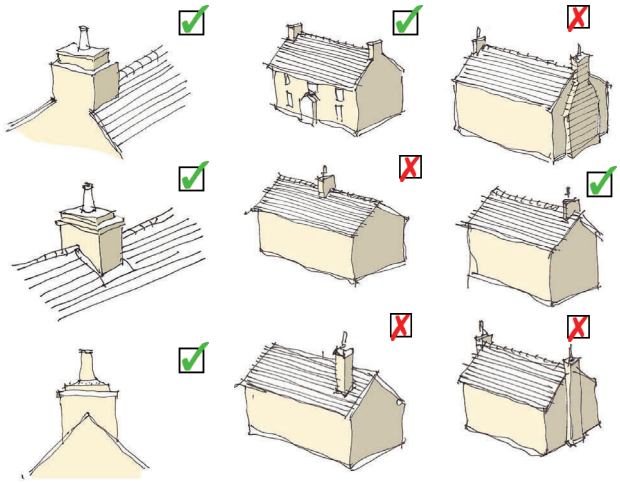
The dormer bungalow house is now a prevalent building form throughout the County. Although many dormers have traditional roots, there are numerous modern examples of over-scaled and bulky dormer additions that can detract from the rural character of an area.

Where dormer windows are to be used, to gain additional accommodation in the roof space, they should preferably take the form of traditional types. Again simplicity in detailing and construction is required, avoiding the use of artificial cladding materials. Roof lights of vertical proportions can be a preferred alternative to dormers, but need to be considered as an integral part of the roof design. Randomly placed and different sized roof lights should be avoided.



Dormers and roof lights





Roof, chimney and dormer types

Successful new roof and dormers

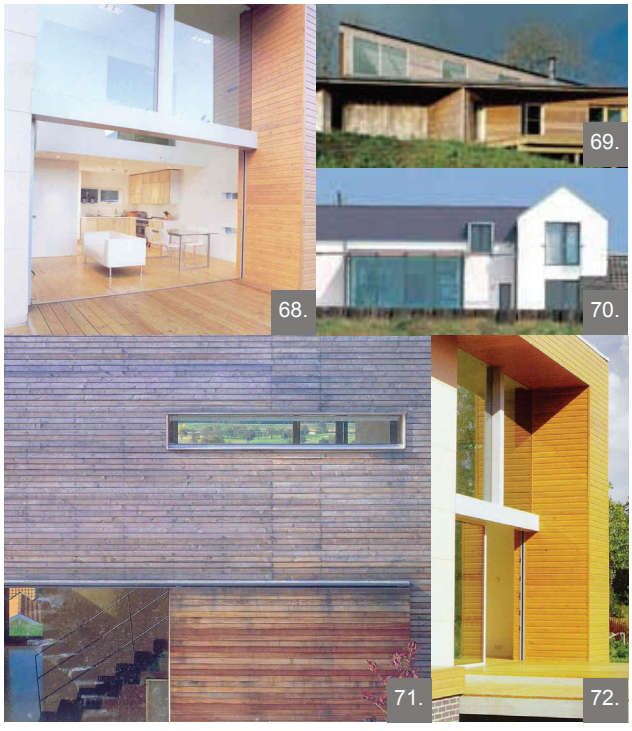
Doors, Porches and Windows

The most important outside feature of a house is the front door (in early dwellings it was sometimes the only one). The traditional door served not only as a means of entry for people and animals, but often as the only source of light. Early doors were made of timber from a series of solid planks, simply hung by metal straps into the stone frame of the house.

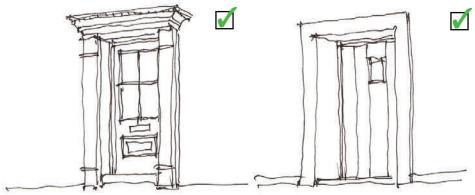
With the advent of the doorframe during the 16th century, heavy doors could be replaced by framed and panelled doors which were much lighter and fitted more neatly. Doors and their surrounds could then be more elaborate, and by the late 19th century front doors began to have their upper panels replaced with glass, always obscured and often coloured. In new country houses, the front door presents an opportunity for adding interest at the focal point of the main elevation.

New door construction should be simple, and preferably of painted timber. While glazed panels in the door and fanlights above admit more light to the hallway, they should be considered carefully in relation to the overall style of the house.

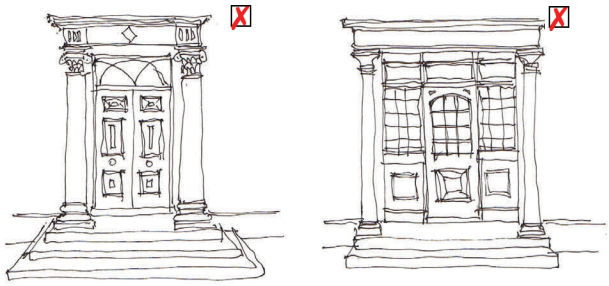
Traditional door and window openings



Contemporary door and window openings



Neo-Classical and traditional



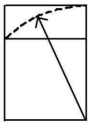
Over-elaborate for rural areas

Doorways

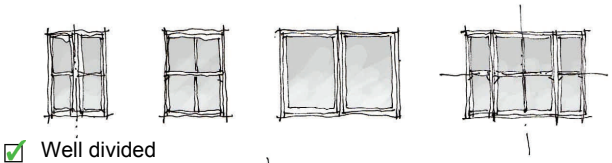
Porches are a fairly recent addition to traditional rural houses, usually introduced for providing shelter to the main door. Where porches are considered necessary on a new house, they should be designed as an integral part of the elevation and not as an after-thought. Good quality materials that match those of the house should be used, as opposed to imitation or artificial types. On simple houses it should not be necessary to introduce a different material for the porch. In all cases, the size and shape of the porch should be well-proportioned.

Generally the total area of window and door openings should not exceed one-third of the overall wall area. Gable end and north facing walls will usually benefit from an even lower ratio of opening to wall.

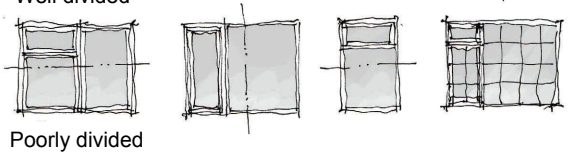
Windows should usually line-up over each other - although a carefully considered contemporary design can result in a visually balanced elevation with less regular pattern of openings. The size of opening should reflect the function of the room. Very small bathroom, cloakroom or landing windows can contribute to the composition of a façade by contrasting with more expansive openings to principal living areas.



'Golden Section'



Well divided

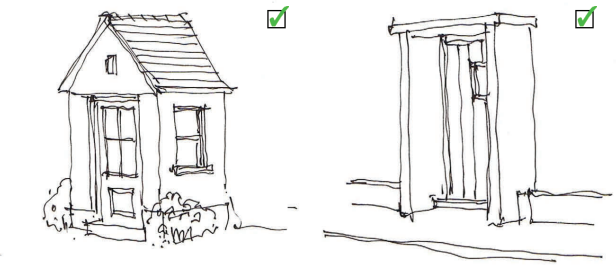


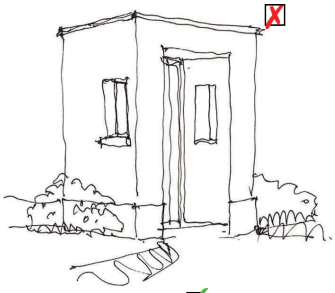
Poorly divided

Recessed sliding sash with painted surround

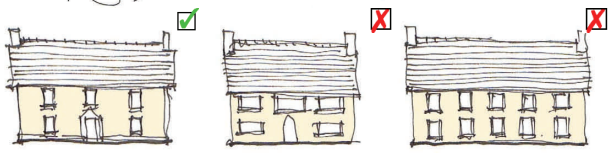
Elaborate bay

Window types

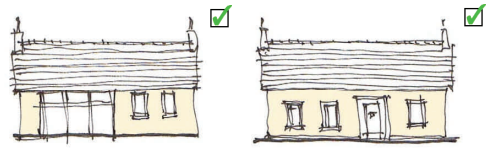




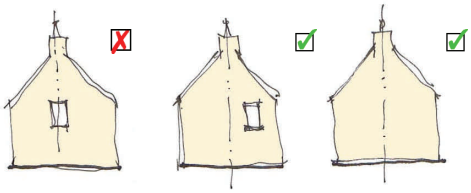
Porches



Good proportion Too wide Too many



Good contemporary Good traditional



End gables

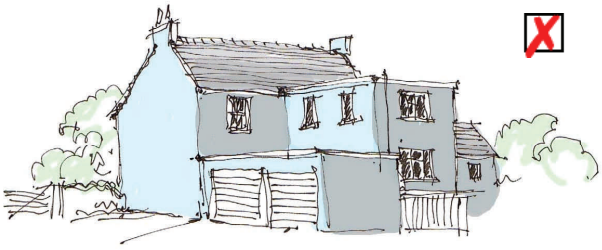
Window positioning

Irregularly-sized and too many windows should be avoided

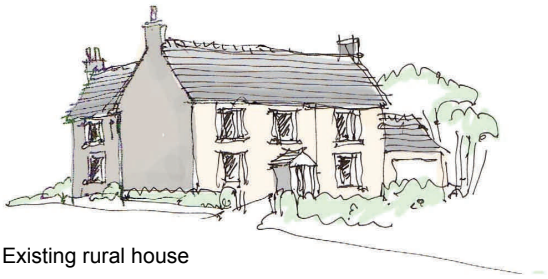
Conservatories, Garages and Other Extensions

The addition of outbuildings or extensions can be one of the most controversial parts in the design of a house. The relationship of the addition to the overall composition reflects on both the style of the house and how the owners wish to express themselves.

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.
Extensions should generally be built with similar materials to the existing house, and located discreetly to the side or rear. Flat roof extensions should always be avoided.



Inappropriate building extensions and garages



Existing rural house

Extending an existing house

Well proportioned building extensions

Conservatories or sun rooms can form attractive additions to the house if well-located, as well as a means for achieving solar gain. 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.

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.

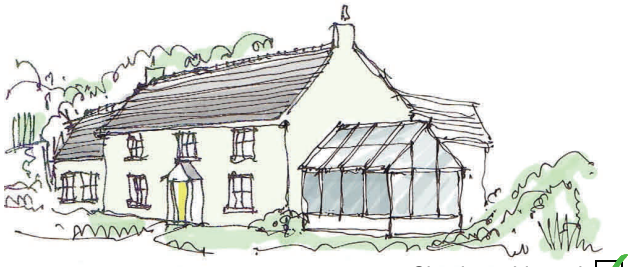
Inappropriate building extension

Appropriate building extensions

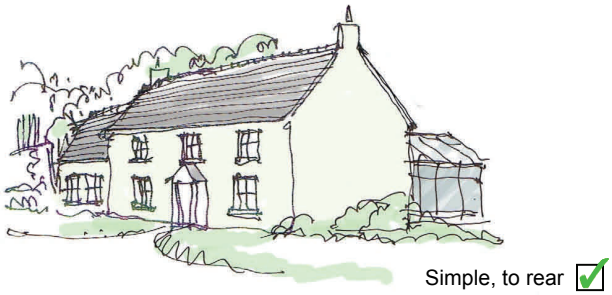
Flat roof

Front elevation

Over-elaborate



Simple, gable end



Simple, to rear

Conservatories and Sun Rooms

Building Conversions

General

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 deserted buildings throughout County Limerick, often located on good sized sites with road access and within mature landscape settings.

The sympathetic restoration of buildings which are structurally sound, reasonably intact, safely accessible and capable of being connected to water and other services should be viewed as an important alternative to building new houses in the countryside. Former farm buildings and their outbuildings can create very special and attractive properties, but it is very important that the conversion should respect and retain the essential character of the original structure.


75.


76.

Potential buildings for conversion


77.


78.


79.


80.


81.

Sensitively converted buildings

Design Principles

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.

The original building height and eaves lines must be fully respected. A traditional two-storey building should not be converted by raising the roof structure, which would completely change its character and appearance. 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.
Roofs are particularly important features of traditional buildings and should not be 'over-restored'. The existing structure should be retained wherever possible, and the expanse of roof left uncluttered. The addition of an external chimney stack is almost always unsuitable.

The addition of dormers are usually too domestic in character and should be avoided. Where required, flush fitting rooflights 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 (usually graduated with large slates at the eaves diminishing in size towards the ridge).
All existing materials should be salvaged and re-used. Only good quality natural materials should be added, and wherever possible of local origin.

Where new stonework is required, the size, coursing, joint width and pointing should match the original as closely as possible. New pointing or re-pointing should be carried out using a lime-rich mortar with flush finished joints.

Window and door openings should be retained unaltered whenever possible. If new openings are necessary they should be vertically proportioned. Doors and windows should be recessed to create strong shadow lines and to give good weather protection. Most new window and door joinery will need to be purpose-made (original doors and windows may be repaired or their pattern reused or adapted for new joinery).

Before and after views of an award-winning conversion

Extensions to traditional buildings will not normally be acceptable where it would undermine the intrinsic character of the building. Where extensions are considered suitable, they should be subservient to the original structure, of similar proportions and of the same materials and detailing. Extensions of high quality contemporary design can help to enhance an older building subject to advice from a suitably qualified architect.

Garages and workshops should preferably be provided within existing buildings on the site, by sensitively converting associated sheds and outbuildings. If suitable buildings are not available, the introduction of any new garage or workshop should be of materials that match or complement the main building to be converted.

Any new structures should be carefully sited so as not to detract from the setting of the main building. Attractive useable spaces between buildings should be created, using traditional elements such as walls and hedges to define them. The design of the external areas is of equal importance to the conversion of the building.

Protected Structures

When considering any building for potential conversion it is essential to view the Record of Protected Structures applicable to the area and to have early discussions with the local planning authority. In most cases, the services of an architect specialising in historic buildings will be required to develop and oversee the proposals.

If an application involves altering a Protected Structure or a building in an Area of Architectural Conservation, a detailed measured survey of the existing plans and elevations will be required. In such circumstances, details such as the shape and material of guttering or glazing bars can be important features of historic properties that need careful recording.

The interior structure and fittings of a Protected Structure, such as fire surrounds or ceiling plaster work, and the setting (e.g. garden, walls, gates), are also protected by the listing. It will be necessary to obtain planning permission and/or a Section 57 declaration to carry out any work on a Protected Structure.

6. Designing with the Planning System

Considering an Application

Submitting an Application

Planning Application Drawings

Considering an Application

The local planning authority is committed to securing high quality design in the County and the need to engage 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 and design of new housing in the countryside. In most cases the assistance of skilled architects and designers should be sought for preparing the application, especially for sensitive locations. This will not only help achieve good quality design, but may also speed-up the planning process. 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 Design Advice and other relevant Council documents.

Submitting an Application

Guidance notes regarding the scale, level of detail and drawings necessary for applying for Planning Permission are obtainable from the County Council - a typical example of a comprehensive application for a one-off house in the countryside is shown on the following pages.

'Your Guide to the Planning Process' (Limerick County Council Planning Department) contains some general information about applying for planning permission, gives help to complete the application form and sets out clearly all of the information which should be submitted with the application. If careful attention is paid to the information in the guide, you will greatly assist the Council in considering your application and will save time in having a decision reached.

However, there are some problems and omissions that commonly occur:

- Lack of sufficient level of information. Indicate existing and proposed site levels, and finished floor levels for all new houses. Many sites in the County are sloping and must be designed accordingly.
- Indicate in as much detail as possible proposed building materials for all building elements - including their colour and texture, and if possible their manufacturer/supplier.
- Remember to consider the scale and orientation of any adjoining buildings. Contiguous elevations and cross sections may be especially important in assessing the interrelationship of new house types, and may be required as part of the application for certain schemes;
- Consider the spaces between buildings, their landscaping, planting and materials at the earliest stage in the design. A qualified Landscape Architect will have special expertise in these matters and should be involved in scheme design wherever possible, especially for sensitive or conspicuous sites.
- Submit a design statement with the planning application—see appendix 3.

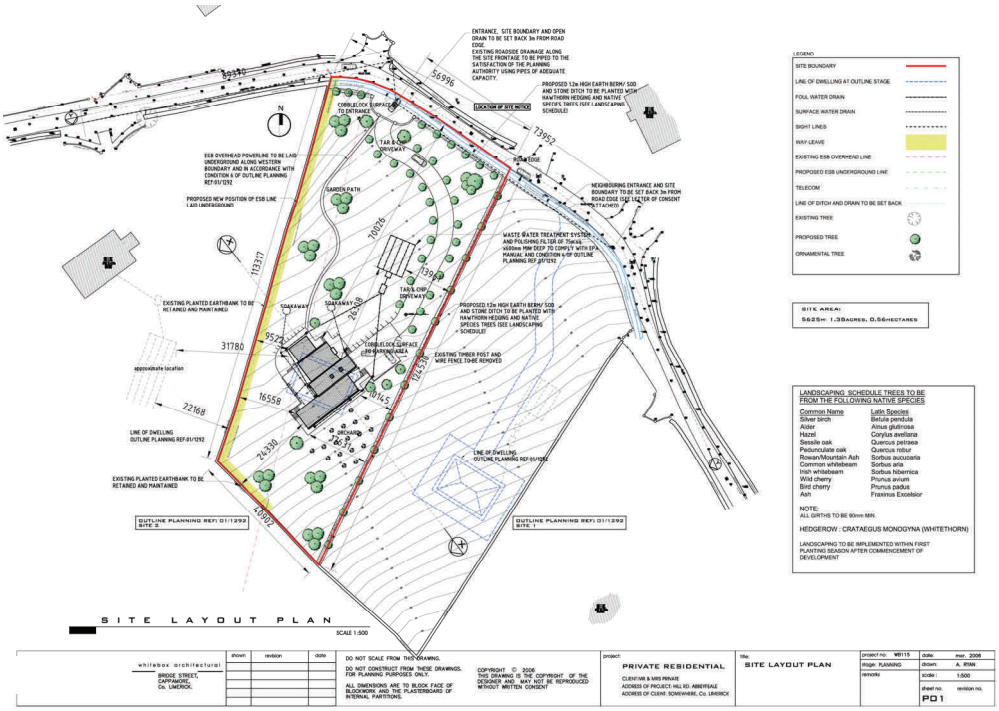
In most cases, preparation of the planning application will require the services of an architect or agent at some point in the planning process. It is recommended that a qualified architect is employed where a house is large or in a sensitive location.

An 'agent' can act on your behalf in terms of planning advice, particularly for smaller developments such as one-off houses, as well as preparing the drawings necessary for the application to be considered by the planning authority. Instead, it is possible to have someone prepare the plans/drawings for you to submit with the application.

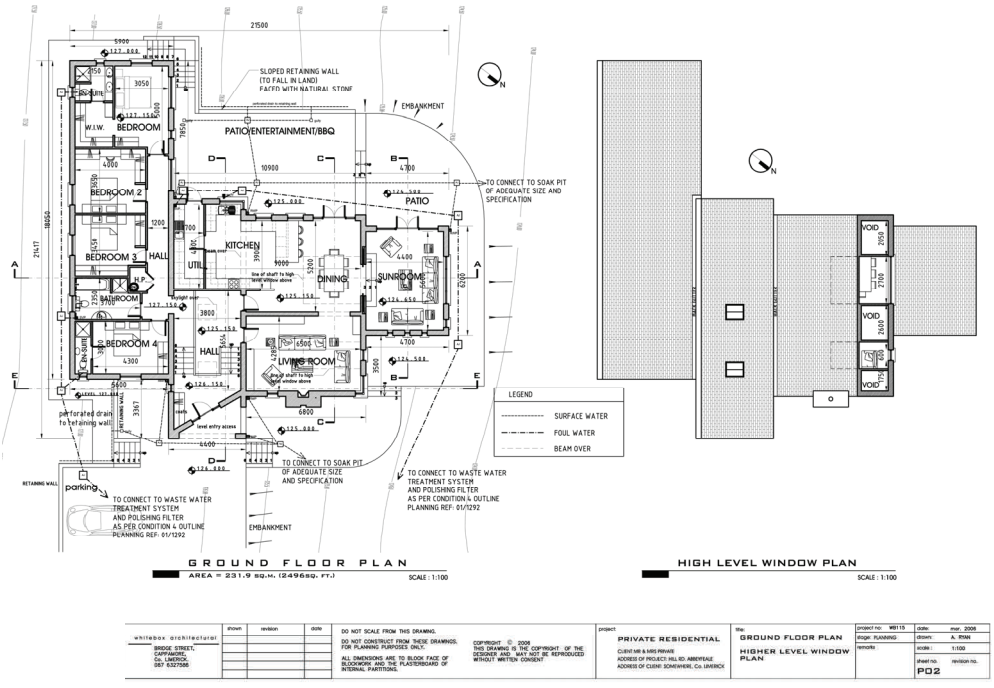
In either instance, it is essential that whoever prepares the application is familiar with this Design Advice as well as other specific requirements of the Council such as siting, traffic safety, public health, design standards, etc. as contained in the current County Development Plan.

Comprehensive Planning Application Drawings

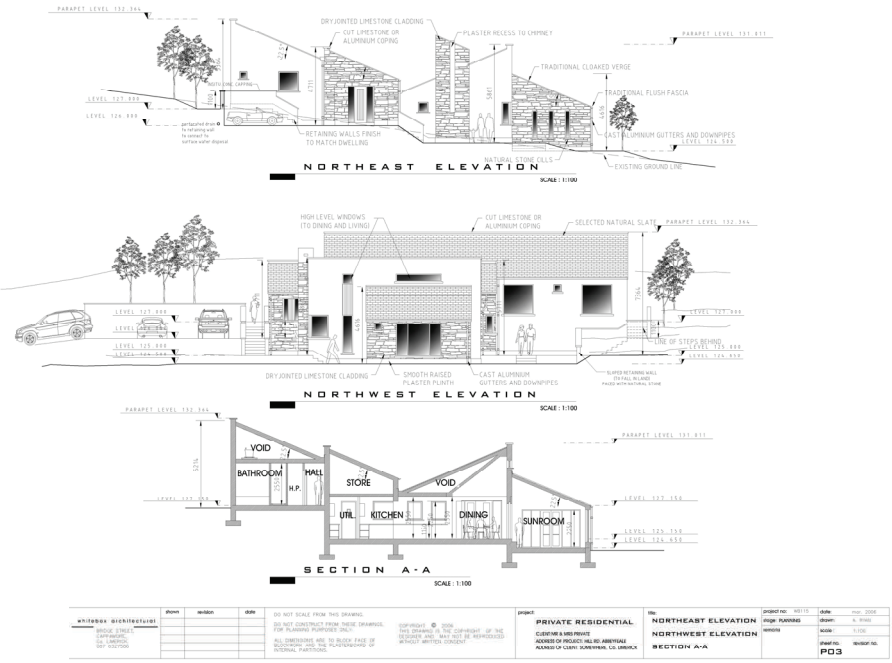
(Courtesy of Alan David Ryan)



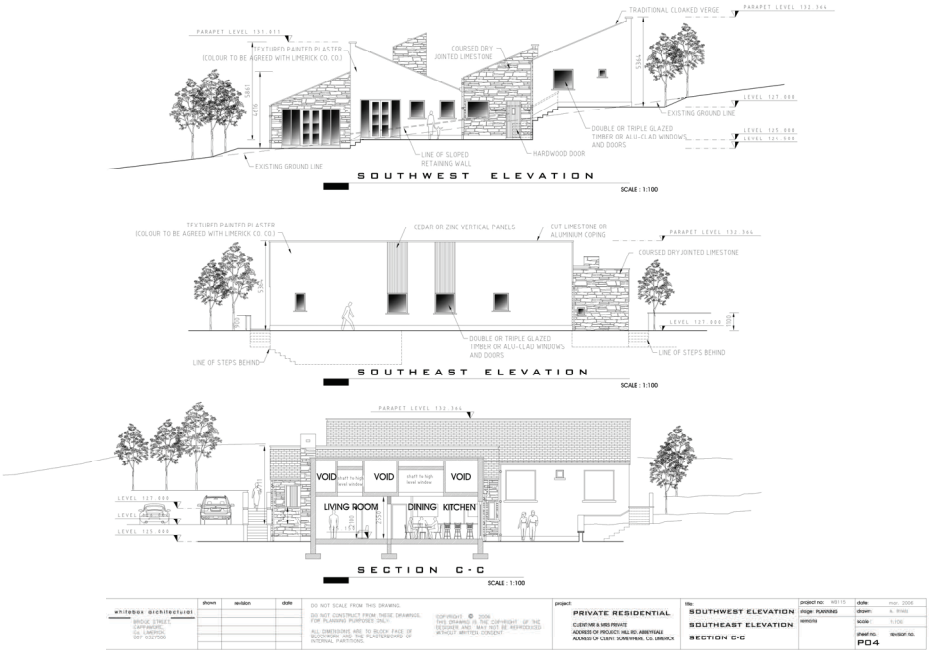
Detailed Site Layout Plan



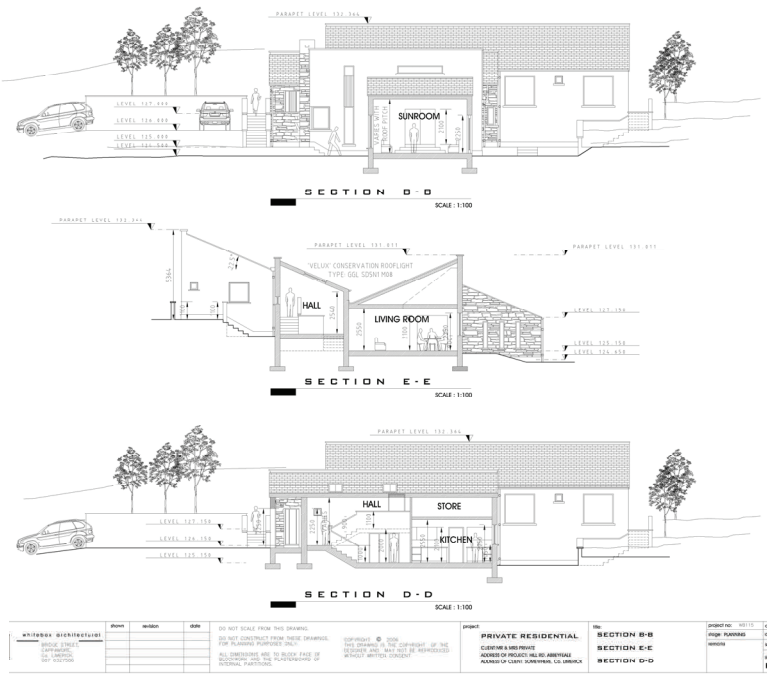
Detailed Floor and Roof Plans



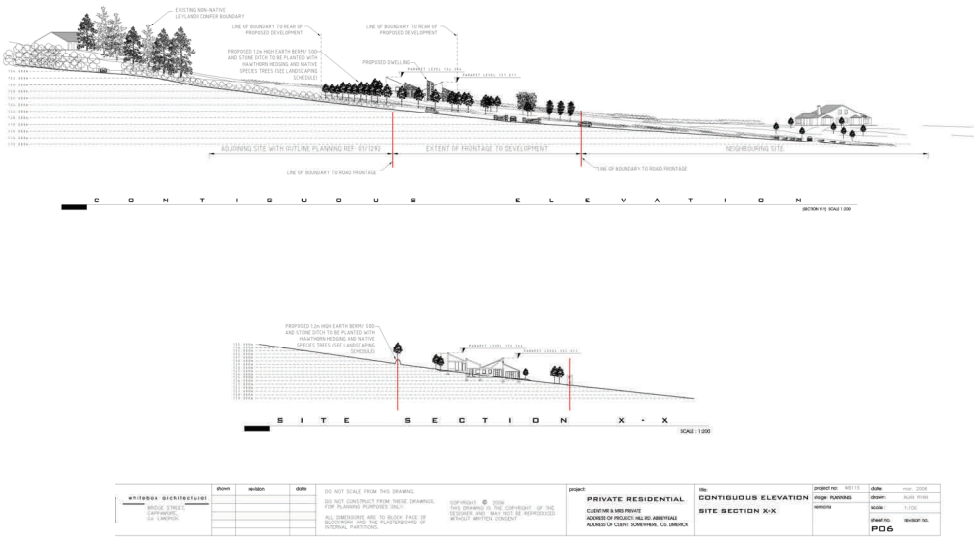
Detailed Elevations and Sections



Detailed Elevations and Sections



Detailed Sections



Contiguous Elevation

6. DESIGNING WITH THE PLANNING SYSTEM

Appendix

1. **Recommended Planting Types**
2. **Building Regulations**
3. **Design Statement**

1. APPENDIX

Recommended Planting Types

Rural gardens should aim to be natural in appearance and in harmony with the landscape character of the site location. Suburban garden styles should be avoided. In the majority of cases, planting should be of native species - these not only respect and reinforce the character of the landscape but also support wildlife and help to meet bio-diversity targets.

The main planting types to be considered when planning a new garden comprise:

- Woodlands/Shelter Belts
- Hedgerows
- Specimen Trees
- Shrubs

Woodland Planting

Woodland planting can be used to create naturalistic screening of particular views or to help the new house integrate more effectively with the surroundings.
Typically woodland (or Shelter Belt) planting should contain a large percentage of small trees (feathered or whips) interspersed with larger trees (clear stem) to provide a more immediate effect - e.g. :

80% feathered/whips (60-90cm height) planted at 1.2m centres
20% Standard Trees (6-8cm girth, 10-12cm girth, 14-16cm girth, and 16-18cm girth)

Typical recommended species/mix :

Common Ash	Fraxinus exselsior	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%*

Typically plants are available from the nursery in the following forms:

Feathered *Shrubs* *Multi-Stem* *Conifer* *Standard*

Hedgerows

New hedgerows should consist of a combination of native tree species with under-storey planting of mult-stemmed shrubs. Shrubs should be planted in a double-staggered row, around 0.9m apart (2-3 plants/sq.m.), with trees (species as per Woodland) randomly interspersed.Shrubs should comprise bare-root whips (min. 60-90cm height).

Typical recommended species/mix:

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

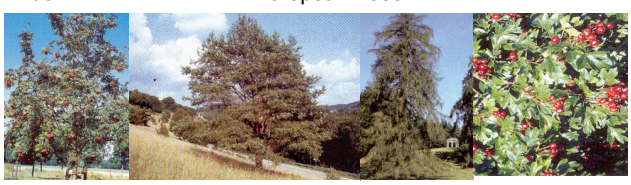
Specimen Trees

Trees planted singly or in small groups (3-5) should be of a large size, Advanced Heavy Standard Trees (16 – 18cm girth), to make an immediate impression .

Typical recommended species include:

Common Ash	Fraxinus exselsior
European Beech	*Fagus sylvatica*
English Oak	*Quercus robur*
Durmast Oak	*Quercus petraea*
Rowan	*Sorbus aucuparia*
Larch	*Larix decidua*

Alder European Beech Ash



Rowan Scots Pine Larch Hawthorn

Common Native Trees

Shrubs

Shrub species can be planted in bold groups to the edges of Woodland/Shelter Belts to provide added interest and a lower layer of vegetation. They should be planted as bare-root whips (min. 60-90cm girth) or in 2-5 litre containers, at around 2 plants/sq.m.

Typical recommended species include:

Whitethorn	Crataegus laevigata
Blackthorn	*Prunus spinosa*
Holly	*Ilex aquifolium*
Hazel	*Corylus avellana*
Guelder Rose	*Vibernum Opulus*
Buckthorn	*Rhamnus frangula*
Spindle	*Euonymus europeaus*
Dog Rose	*Rosa rugosa*

All trees and bare rooted shrubs should be planted from early November up to the end of March.

Hazel Spindle Dog Rose

Cornus C. ‘Sibirica’ Ivy

Blackthorn Guelder Rose Holly

Blackthorn Beech (hedge)

Common Native Shrubs

Building Regulations

The Building Control Act 1990 establishes a statutory duty to design and construct in accordance with the building regulations. Every building to which the Building Regulations apply should be designed and constructed in accordance with the provisions of such regulations, and the responsibility for compliance rests with the designers, the constructor and the building owners.

The Building Regulations 1997—2011 set out the technical requirements for the design and construction of building works. The Regulations are divided into 12 parts, and for private dwelling houses, the most common areas to be addressed as follows:

This information is a guideline only, and not a detailed review of the Building Regulations. Applicants should seek professional advice for their own specific situations and should consult the current technical guidance documents and current regulations.

In accordance with the Building Control Regulations 1997, a Commencement Notice must be submitted to the Building Control Section of Limerick County Council, County Hall, Dooradoyle, Limerick, 14-28 days before the commencement of works.

All queries on Building Control issues and Building Regulations can be directed to the Building Control Section of Limerick County Council at (061) 496 000.

Part	Description	Requirements
A	Structure	This requires buildings to be designed and constructed so as to ensure that they can withstand the combined loads without impairing the stability of any part of the building.
B	Fire Safety	Mains powered Fire Detection and alarm system, window sizes for escape or rescue. Adequate Fire Resistance.
C	Site preparation and Resistance to Moisture	Site preparation, drainage, dangerous substances (e.g. Radon), resistance to weather and ground moisture.
D	Materials and Workmanship	Fitness of Materials and Adequacy of Workmanship
E	Sound	Resistance of noise pollution from one dwelling to another.
F	Ventilation	Ventilation of rooms of specific floor area and condensation in roofs.
G	Hygiene	Installation of adequate washing and toilet facilities.
H	Drainage and Waste Water Disposal	Installation of adequate wastewater drainage and septic tanks.
J	Heat Producing Appliances	Appliances designed to burn solid fuel, oil or gas. Adequate design and installation of Air Supplies, Exhaust Gases, protection of the Building and Oil Storage Tanks
K	Stairways, Ladders, Ramps and Guards	Safe and Adequate Design of stairs and protection from Falls.
L	Conservation of Fuel and Energy	Limiting heat loss, maximize heat gains and controlling output.
M	Access for people with disabilities	Approach to, access into and circulation within a dwelling, access to electrical switches etc. Also the provision of Sanitary accommodation.

DESIGN STATEMENT

1.0 Introduction

1.1 In accordance with Section 10.4 of the Limerick County Development Plan 2010-2016, the Planning Authority will require all planning applications for **5 or more dwellings or a single rural house or commercial / industrial developments over 1,000 sq. metres** to include a 'Design Statement'.

1.2 A 'Design Statement' is a short document which enables the applicant to explain why a particular design solution is considered the most suitable for a particular site.

1.3 A Design Statement should be prepared at the early stage of the design process. The design statement should address urban design, landscape and building design issues and clearly explain the development process, design options considered and the adopted development strategy. The Design Statement should take the form of a concise illustration or series of illustrations, photographs of the site and surroundings and a written statement, however, it is not intended to duplicate planning application documents. This material may form the basis of meaningful pre-application discussions with the Planning Authority. Statements should evolve throughout the design process. Reference and cognisance to the 12 criteria outlined in the DEHLG *'Urban Design Manual'* 2009 and the guidance contained in *'Sustainable Residential Development in Urban Areas'* 2009 documents shall also be made for relevant developments. The level of detail will depend on the scale and sensitivity of the development.

1.4 A Design Statement should outline:

- The policy background, identifying all relevant policies, design guides, standards and regulations and in the case of developments in areas with local area plans shall show compliance with the relevant urban design and architectural principles and guidance;
- The urban / rural design and architectural context including a site and area appraisal (illustrated with diagrams / photographs), summaries of relevant studies and reports of any relevant consultations;
- The development strategy for the site including design principles which have been formulated in response to the policy background, the site and its settings and the purpose of the development.
- In the case of urban developments an explanation of the urban structure, including approach to movement and accessibility, landscape, development blocks, land uses, density, urban grain, visual context and built form;
- A programme of meetings with the local authority and other bodies; if appropriate.

Design Statement for single rural dwelling

All planning applications should be accompanied by a detailed Design Statement outlining the rationale of the proposed design. The design statement for a single rural dwelling should address the following:

3.1 Site Selection:

- Site location characteristics, including the wider landscape character and the more immediate landscape and other designations such as Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas.
- Use of sites existing natural qualities / features
- Existing development pattern
- Roads and Infrastructure
- Site orientation.

3.2 Layout:

- Site context
- Design principles considered
- Scale, building line and set-back
- Building form and proportion
- Topography
- Building orientation
- Vehicle parking & access
- Boundaries / landscaping.

3.3 House Design:

- Building form
- Universal Access (access for mobility impaired)
- Building elements
  - Materials and colours
  - Roofs and chimneys
  - Dormers and roof lights
  - Doors, porches and windows
  - Conservatories, garages and other extensions.
- Details of how the proposal will optimize natural light in building design, location and orientation
- Where a sun room/ conservatory is incorporated, is it designed so that it respects the proportions and materials of the house and is appropriately orientated and energy efficient?
- Indicate any re-use / renovation of existing buildings
- Details of other sustainable design approaches/renewable energy technologies