

15. URBAN DESIGN



AIM

To create vibrant and bustling towns and villages with a diverse mix of activities where residents can benefit from quality urban living.

15.1 BACKGROUND

Through the planning process, local authorities have a key role in relation to the formation of the built environment. The pattern of development over the past few decades differs significantly from the traditional compact urban form of the 20th century, being generally low-density suburban type single land use housing on greenfield sites at the edge of towns. Factors such as increased distance from the town centre, low density single land use and layouts based on a non-permeable system of hierarchical roads, have combined to make private transport necessary to access employment, shopping and other facilities, resulting in more unsustainable development patterns.

Many of Kildare's town and village centres display poor quality public realm, vacant shops, poor mix of uses and visual clutter. This chapter places an emphasis on the contribution that good places, streets, buildings and mix of uses can make on town and village centres based on the conviction that a successful public realm, where people feel safe and comfortable, and enjoy using streets and places both during the day and into the evening, is also likely to sustain the economic viability of the area.

The chapter also outlines guidelines to support a key element of the core strategy to consolidate urban centres and support the achievement of sustainable towns and villages, and should be read in conjunction with relevant guidelines in this area to include:

- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns and Villages), DEHLG, (2009).
- Urban Design Manual: A Best Practice Guide, DEHLG, (2009).
- Government Policy on Architecture 2009-2012, DEHLG (2009).
- Design Manual for Urban Roads and Streets, DTTS and DECLG (2013).
- Kildare Shopfront Guidelines, Kildare County Council (2013).
- Sustainable Urban Housing: Design Standards for New Apartments, DECLG (2015).

15.2 STRATEGY

The strategy seeks to realise the full potential of the inherent character of Kildare's towns by ensuring that they are:

- **Strengthened** so that they continue to remain and flourish at the heart of communities, providing vibrant, dynamic and diverse town centres.
- **Consolidated** improving connectivity and facilitating the comprehensive mixed-use regeneration of infill and brownfield development.
- **Extended** (where appropriate) by ensuring that the form and structure of the towns and villages are extended for the benefit of the existing communities

This approach seeks the creation of compact sustainable towns where citizens can have a good quality of life by reducing urban sprawl and unsustainable travel patterns.

15.3 STRENGTHENING

The last number of years has seen significant changes to town centres across the county. The onset of the economic recession in late 2007 has led to a very significant slowdown in the development of the retail sector, in particular in town centres. Tackling emerging vacancy rates is a particular challenge for this plan, and is a key component in maintaining the vitality and viability of our town centres. The success of town centres is also dependent on a positive image of the physical and environmental quality of the public realm. This is also necessary to ensure vibrant and bustling towns centres with a diverse mix of activities.

This section outlines the factors which can have a significant impact on the vibrancy and vitality of towns centres.

The Design Manual for Urban Roads and Streets, DTTS and DECLG (2013) contains guidance on street design including *inter alia* appropriate use of materials and finishes; street furniture; planting; signage in order to improve the public realm.

15.3.1 Town Centres

Town centres are dynamic environments. With the challenges they face today it is important that they reinvent themselves and evolve in order to provide attractive retail environments and a range of experiences and variety that can compete with out-of-town shopping centres. Shopping centres have set a new benchmark in terms of curated space, retail mix, value, entertainment and marketing against which town centres are judged. Town centres need to identify the challenges and evolve and compete.

The aim of this Plan is to support and further develop the role of town centres in their evolution as inclusive, diverse and attractive service, recreational and living centres for residents and visitors alike. Creativity and innovation will be promoted which contribute to the personality of individual town centres and respect their existing character.

In order to maintain the attractive characteristics of our town centres, applications for new development/ changes of use within town centres will need to ensure proposals will not detract from the amenity, vitality and character of the area.

Diversity of shops and businesses is required to ensure the vitality and viability of town centres. Therefore the greater the mix of shops and services, the greater the attraction of the town centre. Having large areas of the town and village centres with one single use can make daytime and evening time use of the public realm unattractive. Accommodating a mix of uses within the public realm to ensure daytime levels of activity combined with evening time activity such as pubs and restaurants will increase the vitality of the public realm. Good quality streets must have a good horizontal grain of active frontages and the right mix of uses. In cases where there is a proliferation of uses which threaten the vibrancy and mixed use character of the town centre they will be discouraged.

Apart from restaurants and bars, non-retail uses should be located on upper floors so that retail frontage can be maintained at street level. The Council will actively encourage initiatives such as 'living over the shop'. Independent street access to upper floors of shop units should therefore be retained to ensure use of the upper floors of buildings for residential accommodation and/or commercial development.

In an increasingly competitive retail environment best practice now advocates that town centres, in order to compete, should put in place visionary, strategic and strong operational management teams and co-ordinate efforts. The Council may consider the preparation of strategy documents which address specific issues that affect the appearance or functioning of a town centre and its retail areas.

15.3.2 Shopfronts

Towns and villages would benefit enormously from an improvement in the quality of shopfronts. Shopfronts and use of colour can have a significant impact on the quality of the public realm. The basic rules of good shopfront design are based on restraint in signage, sophisticated use of colour and complete harmony with the upper floor facades of their buildings. The architectural merit of buildings and the collective townscape qualities of the street are being eroded by poor quality shopfronts.

The council promotes and encourages high quality public realm through the design of shopfronts. Kildare Shopfront Guidelines provides guiding principles for both designers and shop owners on the aspects of good shopfront design.

The Council has established the Shop Front/ Town Centre Improvement Grant Scheme to financially assist and support independent business owners to improve the appearance of their shop fronts/ commercial properties. The use of Irish Language signage will be encouraged in the grant scheme. This funding is being provided in recognition of the fact that a building's facade makes a big impact on our town centres.

15.3.3 Cultural and Social Activity

Public spaces should be capable of accommodating civic activities such as markets, festivals and events which allow for an animated urban landscape, by day and by night, on a year round basis. The addition of public art into the urban landscape further enhances its attractiveness and can add greatly to a creative town.

The resurgence in popularity of farmer's markets is something that will be encouraged and facilitated. Such markets serve as gathering places for people and help grow and connect urban and rural economies.

15.3.4 Architectural Style

Town and village centres should consist of a concentration of uses defined by architectural language and styles which have evolved over time. The design of individual buildings, and their form when combined into urban blocks, is central to defining the vitality and viability of towns and villages.

The quality of the architectural design improves economic value and is a key element in regeneration proposals. Improving the design of buildings so that they are well thought through, sustainable and contribute to the public spaces they affect will improve the experience of all communities in everyday life.

The Government's Policy on Architecture 2009-2015 seeks to promote awareness and understanding of the contribution of good design to civic life. It recognises that architectural quality is measured by a building's contextual and environmental response in addition to the aesthetic qualities of the individual building. The policy places an emphasis on the imperative to develop and maintain communities in a sustainable manner through the protection of the built heritage, the adaptation and reuse of the existing building stock and the application of urban and landscape design, urban and building conservation and architectural quality criteria at every level in the planning process.

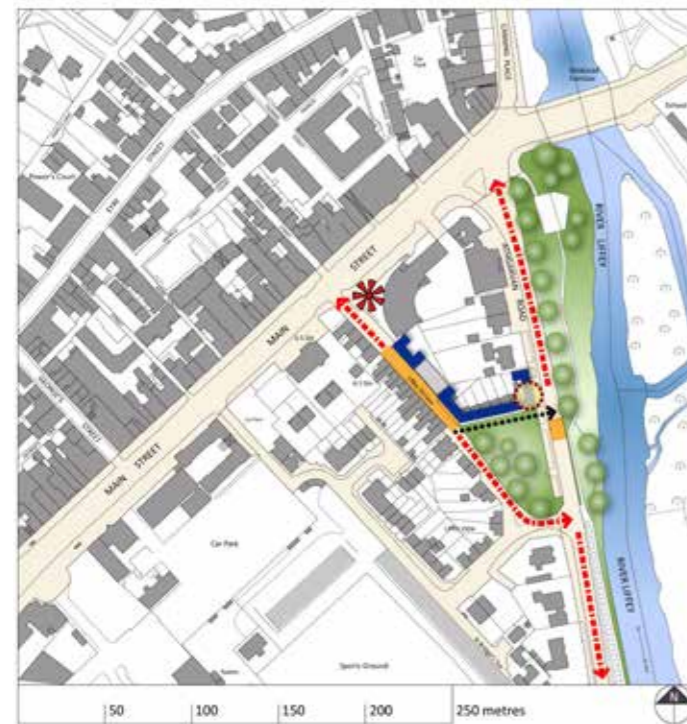


Figure 15.1
Example of Town Centre Infill Site Strategy

15.4 CONSOLIDATION

Increasing permeability and connectivity between the surrounding residential areas and town/village centres will provide easier pedestrian and cyclist access, thus aiding consolidation and ensuring the primacy of the town/village core as the main economic, commercial and retail area. Guidance relating to permeability and connectivity are contained in the Design Manual for Urban Roads and Streets, DTTS and DECLG (2013) and in section 15.8 - Overall Layout Design Considerations of this chapter.

Intensifying development within our urban areas can occur by utilising underdeveloped sites within the town centres. These underdeveloped sites include infill, derelict and brownfield sites.

15.4.1 Infill

Infill development opportunities exist throughout many towns and villages. They provide the opportunity to revitalise existing communities by promoting the development of commercial buildings, public facilities and new homes. Subject to the zoning provisions of each Local Area Plan, retail and commercial uses will be encouraged on the ground floor with offices and living accommodation on the upper floors. Table 15.1 outlines the key principles for infill development.

15.4.2 Brown Field

Previously developed lands often comprising 1970s industrial estates, factory buildings or storage facilities, former religious buildings or military barracks constitute brownfield sites. They are frequently located in or immediately adjacent to town and village centres comprising low density low grade architecture, and will be identified as part of the review of Local Area Plans. The intensive use of these lands through new developments presents opportunities to create sustainable urban quarters with a mix of uses, creating compact neighbourhoods with pedestrian orientated streets.

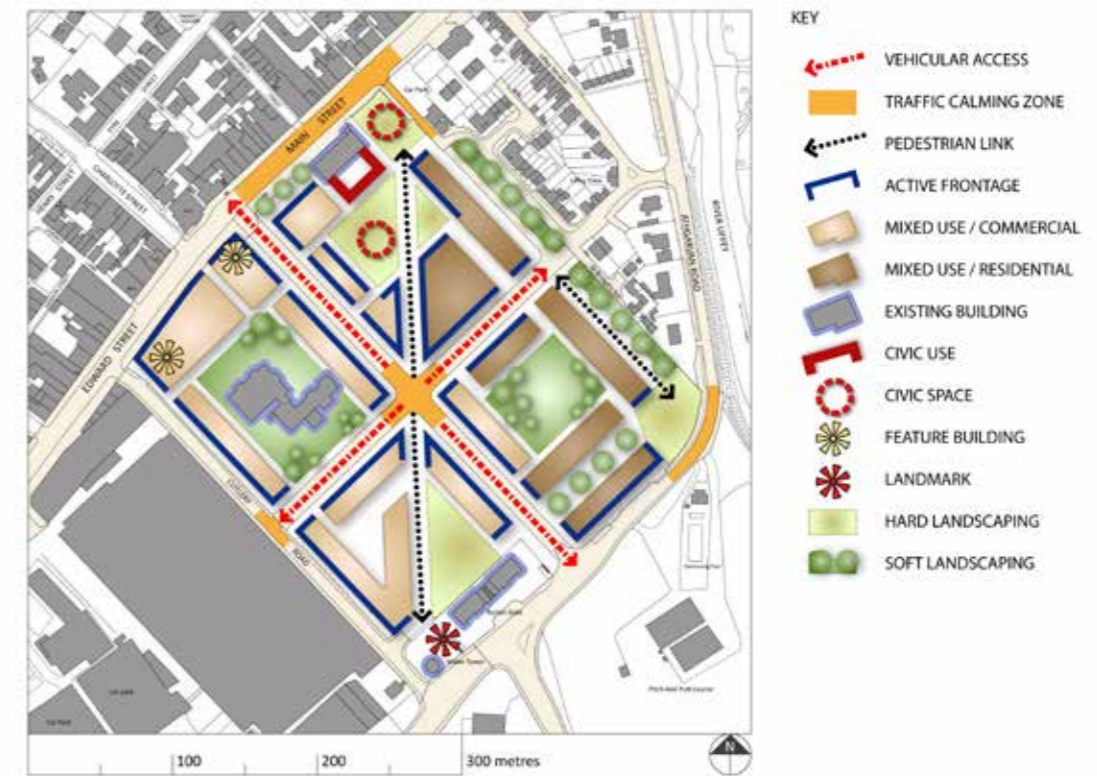


Figure 15.2
Example of Town Centre Brownfield Site Strategy

15.5 EXPANSION

The expansion of a town or village may be required in certain circumstances. This generally refers to the development of previously undeveloped land within or adjacent to the urban cores. The primary objective is to ensure that any expansion does not detract from the primacy of main streets as the core urban centre, but rather reinforces the activities there. Careful phasing of development may be required in order to integrate the new development into the existing core. Expansion should ensure the development of well connected sustainable neighbourhoods proximate to public transport services and a range of community infrastructure. This should be achieved through the development of green infrastructure strategies for recreation, amenity, biodiversity and climate change reasons. Chapter 13 – Natural Heritage and Green Infrastructure provides policies and objectives in relation Green Infrastructure.

15.5.1 Backland

Significant backland areas exist within many towns and villages throughout the county. They generally relate to undeveloped lands behind town centre buildings immediately to the rear of street fronting buildings, what might be considered the back gardens of these buildings. Opportunities exist to develop these plots singly or through an amalgamation of plots.

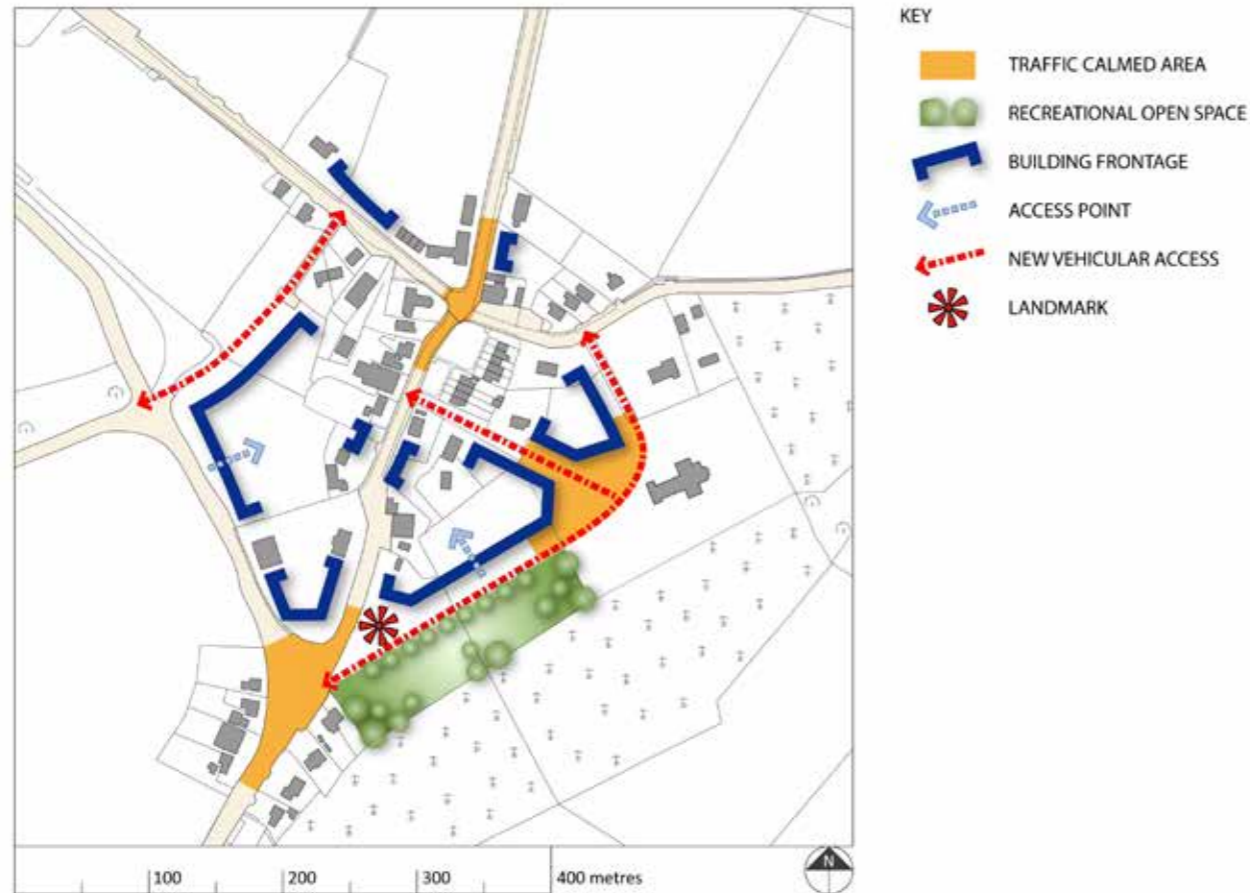


Figure 15.3
Example of Backland Site Strategy

15.5.2 Greenfield Edge

Development in edge of town / greenfield edge sites will primarily be residential development with supporting community uses and neighbourhood centres. The character of these areas should have less intensity of development, providing a transition towards the open countryside. Table 15.1 outlines the key principles for consolidation and expansion areas.

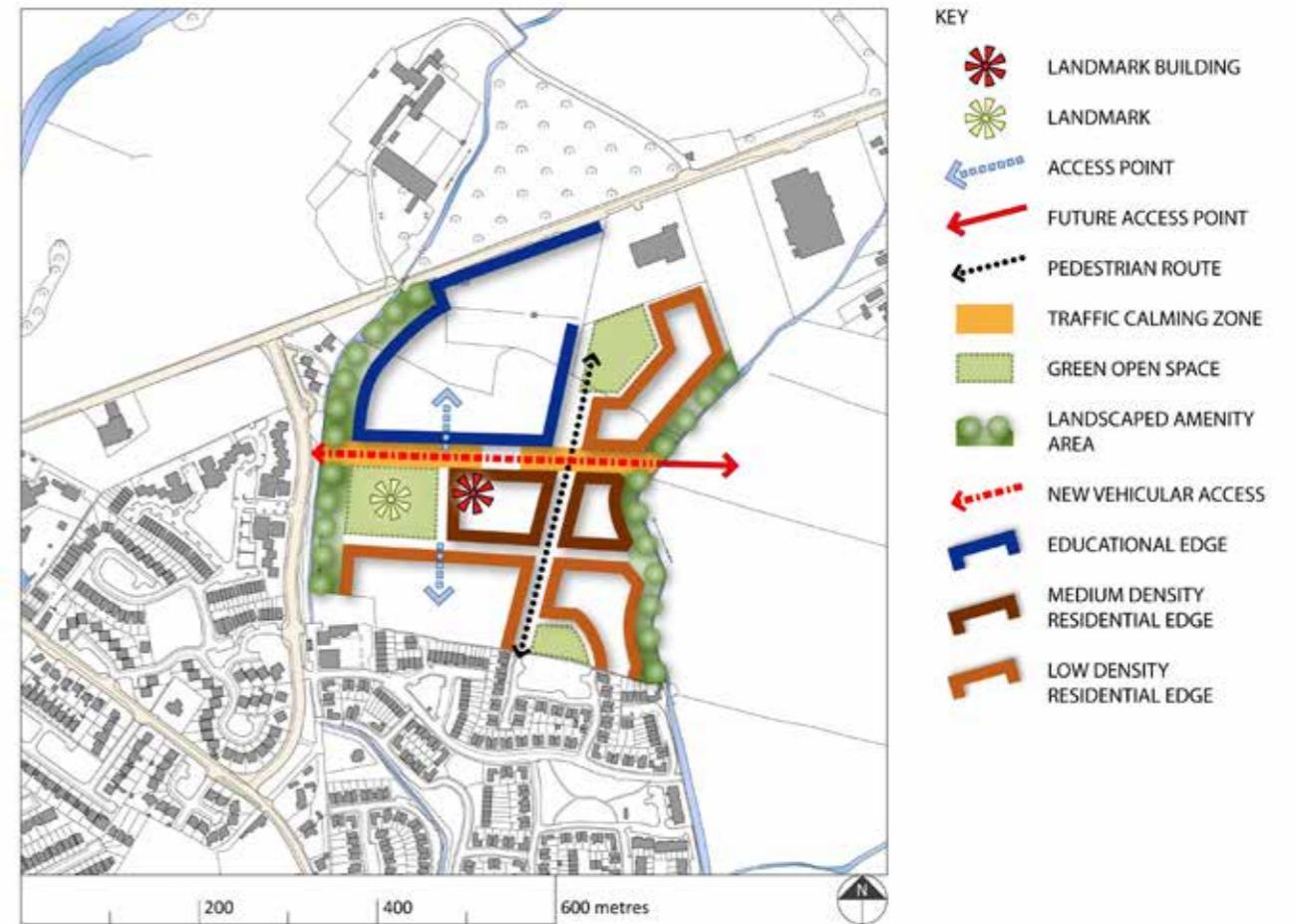


Figure 15.4
Example of Greenfield Site Strategy

15.6 BEST PRACTICE

To guide sustainable urban growth and to create a distinctive, enduring environment, the following principles should inform development proposals:

Character: A development that creates an identity and character which reinforces locally distinctive patterns of development and landscape.

Continuity and Enclosure: Public and private spaces that are clearly distinguished, and continuity of street frontages and enclosure of space by the built form, is achieved.

Quality of the Public Realm: Public spaces and routes that are attractive, safe, uncluttered and work effectively for all in society, including older people and people with mobility impairments.

Ease of Movement: Creation of areas which are easy to get to and move through, by putting people before traffic.

Legibility: Legible places provided with recognisable routes, intersections and landmarks.

Adaptability: Places that can change easily and can respond to changing social, technological and economic conditions.

Diversity: The promotion of choice through a mix of compatible developments and uses that work together to ensure a place that responds to local needs, as well as providing for a diverse society of different incomes at different stages of their lives.

Environmental Sustainability: Enhancing local ecology by promoting biodiversity, by allowing new wildlife habitats to establish and protecting existing ones.

Liveable Environments: Encouraging walkable environments which facilitate access to public transport in order to reduce reliance on the private car, as well as the provision of a well connected open space network.

Table 15.1

Guiding Principles for Development in Consolidation and Expansion Areas.

Infill Development Guiding Principles	Brownfield Development Guiding Principles	Other Guiding Principles Applicable to Infill and Brownfield		Backland Development Guiding Principles	Greenfield Edge Development Guiding Principles	Other Guiding Principles Applicable to Backland and Greenfield
<p>Within these areas proposals shall have regard to the surrounding character, particularly where the proposed development is located on a small plot. In cases where development is located on a large plot or significant infill site, it may be in a position to establish its own character.</p> <p>Development shall comprise a high quality design, fine grained active frontage blocks continuing the existing building line. Buildings shall provide a strong frontage that delineate spaces.</p> <p>New buildings should be permanent, timeless and contemporary structures, thereby promoting a town with a collection of new and historic buildings, presenting an appropriate mix of building styles.</p> <p>Streets may be punctuated intermittently by individually designed buildings where a landmark building is required to ensure visual interest and to develop a stimulating streetscape where appropriate.</p> <p>Development to the rear or adjacent to existing built form shall have regard to amenity of these buildings.</p>	<p>It is envisaged that development should be provided in the form of clearly defined blocks with semi-private enclosed courtyard type open spaces providing car parking, rear access and communal spaces. The landscape design of these spaces should respond to the various needs of the community by providing for active and supervised play in overlooked areas whilst ensuring recreational spaces in quieter areas.</p> <p>Mixed use buildings / schemes will be encouraged where compliant with the relevant zoning provisions. A mix of housing, community uses and offices shall overlook adjacent streets and landscaped courtyards. In particular apartment developments will be encouraged in the corner sites to enhance these prominent positions and take advantage of dual aspect.</p> <p>Pocket parks shall be incorporated into the layout to provide playgrounds, amenity for residents and green links between larger parks and the open countryside.</p> <p>Good public lighting shall be provided to the edge of open space, cycleways and pedestrian routes.</p>	<p>Quality public realm shall be achieved using a high standard of quality finishes and treatments</p> <p>The design and layout shall incorporate the principles of passive surveillance to encourage a community atmosphere and to discourage anti-social behaviour, by overlooked open space, cycleways and pedestrian routes, therefore reducing the need for CCTV technology.</p> <p>Private and public areas should be clearly delineated. Private areas should be protected from undue overlooking and public areas easily accessible and overlooked.</p>		<p>Access arrangements should be organised to avoid any adverse disruption to the appearance of the streetscape. An inner relief road may be required in certain circumstances. Care needs to be taken so that it does not create a 'second main street' threatening the viability of the existing town centre.</p> <p>To facilitate integration, linkages between the existing street and the backlands should be explored, along which development can occur.</p> <p>Development shall comprise active frontages at ground floor level with mixed use developments / schemes including community uses, as may be defined by the relevant zoning provisions.</p> <p>The built form shall comprise buildings following a perimeter block/courtyard form, with a quality public realm.</p> <p>Pocket parks shall be incorporated into the layout to provide playgrounds, amenity for residents and green links between larger parks and the open countryside.</p> <p>Good public lighting shall be provided to the edge of open space, cycleways and pedestrian routes.</p> <p>Private and public areas shall be delineated. Private areas shall be protected from undue overlooking, with accessible overlooked public areas.</p> <p>Development to the rear or adjacent to existing built form shall have regard to amenity of these buildings.</p>	<p>Development shall be of low intensity, providing a transition to the countryside.</p> <p>It shall generally be block structure and comprise a mix of house types. Apartments will not normally be permitted. Housing facing open countryside or addressing parkland may have the ability to absorb larger type houses.</p> <p>A broader variety of boundary treatments and the potential for direct vehicular access to dwellings should create a different character from other types of development within urban centres.</p> <p>Small pocket parks and more local areas of open space should be creatively incorporated into housing layouts, which should be overlooked in order to promote natural surveillance. These series of open spaces encourage integrated use and participation amongst the community, and in particular should provide for playgrounds, amenity space for residents and green links.</p> <p>Community facilities and neighbourhood centres and public transport linkages should be provided within an easy walking distance (400m) of any residential unit.</p> <p>Quality public realm shall be achieved using a high standard of quality finishes and treatments.</p> <p>Good public lighting shall be provided to the edge of open space, cycleways and pedestrian routes.</p>	<p>Any expansion should ensure the development of well connected sustainable neighbourhoods, proximate to public transport services and a range of community infrastructure.</p> <p>The design and layout shall be based on the development of a green infrastructure strategy for recreation, amenity, biodiversity and climate change reasons.</p> <p>The design and layout shall incorporate the principles of passive surveillance to encourage a community atmosphere and to discourage anti-social behaviour, by overlooked open space, cycleways and pedestrian routes, therefore reducing the need for CCTV technology.</p> <p>Buildings shall be positioned to provide transparency and glimpses of the public spaces defined by them.</p>

15.7 DETAILED URBAN DESIGN CONSIDERATIONS

The following sections outline detailed urban design considerations:

15.7.1 Scale / Mass / Composition

The size of a building should be relative to its surroundings. Scale is therefore one of the key elements in the design consideration for new buildings.

Scale, mass or bulk essentially refers to the size of the plot, average storey height and also the manner in which the façade is articulated. If these aspects of a building's design are excessively large when compared to adjoining buildings along a street, then the scale of the building is likely to be out of place on the streetscape. Exceptions may be permitted in the following circumstances:

- If it is a building of major public significance.
- If the nature of the use demands such a building and if the location is suitable for such a building.
- The degree to which it can contribute to the economic vitality of the town centre.

15.7.2 Key Buildings

Gateway and landmark buildings can emphasise the urban identity of a place. Their purpose is to provide a signal of a significant place either in terms of movement or use. These buildings have the potential to act as important landmarks and should therefore address the significance of the site.

Suitable locations for these buildings include important street corners or junctions, corner sites, the end of vistas and gateways, local centres and the edges of public squares. They ensure visual interest and develop a stimulating streetscape and should only occur at these locations.

In such instances it may be appropriate to increase building heights so as to provide greater emphasis on the building, but there will also be a greater expectation of design quality and architectural treatment. The significance of these buildings does not always need to be expressed in terms of height. Differentiation in building materials and form can also convey their importance.

15.7.3 Corner Sites

Corners shall be reinforced by buildings which address both street frontages. These buildings shall be designed with windows and, where appropriate, entrance ways onto both streets.

Various options can be explored, e.g. an increase or stepping up in building height, a round corner, a stepped back corner (for example, to create a civic space), or a simple splayed corner. Such buildings shall be designed to an exceptional standard on all elevations.



Figure 15.5:
Example of Corner Building

15.7.4 Building Line

Building lines are created by the position of the building frontage along the street edge. This is important as the position of the building line determines the width of the street, therefore influencing the sense of enclosure created.

In towns and villages throughout Kildare, building lines generally are continuous but not rigidly straight. They tend to be more organic in nature, staggering at certain intervals, adding significantly to the character of the street and sense of enclosure.

Generally, existing and established building lines should be maintained. Building lines may be relaxed to accentuate an important building or place or where important areas of public or civic space are required. Existing building lines may also be relaxed where innovative design solutions can demonstrate that the design will positively enhance the streetscape.

15.7.5 Roofline

The scale of buildings and their rooflines have a direct influence on the skyline. Rooftops of traditional buildings are generally constructed of slate and contain features such as chimneys which add visual interest and variety to the skyline. In many contemporary buildings, roofs tend to be flat; where this type of roof occurs on a building with a long façade it can result in monotony. In such cases the monotony can be relieved by variations in building height at appropriate locations (i.e. stepping up heights at the corners or at the centre of a symmetrical building). Regard should be had to the following:

- Rooflines should respond to the articulation of the rest of the façade so that the building can be read from the bottom to the top.
- The roofline should acknowledge the rhythm, harmony and scale of the entire street frontage.
- Materials should be chosen for their compatibility with the existing rooftops of towns in the county, e.g. dark grey slate.
- Machine and mechanical plant rooms should be designed as an integral part of the building and should not appear as a disruption of the roof line



Figure 15.6
Traditional building line and roofline typical throughout Co. Kildare.

15.7.6 Perimeter Block

Residential layouts should generally utilise the perimeter block principle, as a departure from more recent cul-de-sac type layouts. This will increase pedestrian permeability and legibility of a new development area and will help to define streets and public spaces.

15.7.7 Courtyard Buildings

Courtyards can occur primarily in town centre developments. They should be treated as semi-public/private space and their use is to provide:

- A communal outdoor space;
- A threshold space prior to access to the rear of properties; and
- A location for secure cycle and car parking.

These spaces must be safe environments that are policed by natural surveillance from the individual properties; it is therefore imperative that dead corners that may be hidden from view are avoided.

Priority should be given to pedestrian movement as it is intended that these areas will provide informal play for small children. Courtyards should therefore be treated as shared surfaces. Courtyard developments should be orientated to maximise daylight. Seating shall also be provided and orientated to capture the sunshine; this will allow casual residential users to engage with courtyard activities. Small areas of ornamental planting and patches of lawn shall be discouraged.

15.7.8 Building Type and Height

In order to conserve and develop the vitality of urban cores, a mix of uses and a healthy balance of economic, residential, cultural and recreational activity should be maintained. By increasing the amount of services and amenities within urban centres, the provision of a wide range of local jobs will be encouraged. It is therefore imperative that urban centres provide a diverse range of activities and uses. Development should be designed for a diverse community which encourages sustainable living and reinforces neighbourhood values.

Residential development should provide a variety of house types to accommodate a good mix of household types, including first time buyers, single people, families, empty nesters and the elderly, in order to ensure a social mix and balance is achieved.

In general, heights should respect the local streetscape. In towns varied building heights will be considered across residential, mixed use and town centre areas to support consolidation and to create a sense of place, urban legibility and visual diversity.

- Higher Buildings are higher than the overall building height in a given area, and can act as local or district landmarks.
- Tall Buildings are defined as buildings that are significantly higher than their surroundings and / or have a considerable impact on the skyline. For the purposes of this County Development Plan Tall Buildings are defined as buildings that exceed five storeys (c. 15 metres in height).

The Planning Authority will be positively disposed toward Higher Buildings in towns where it is demonstrated that the proposal will:

- Make a positive contribution to the locality and is of an exceptional design quality;
- Not unduly impact on any vistas or views towards significant natural, built and landscape features or amenities including designated views and prospects;
- Not result in any undue overshadowing of nearby properties, especially residential properties or areas of public open space, and
- Not have a detrimental effect on any existing building which has special visual identity.
- Tall buildings will only be considered at locations of strategic planning importance as identified in a Local Area Plan.

15.7.9 Neighbourhood Centres

Local or neighbourhood centres, where appropriate, may typically include services and facilities such as shops, pub, post office, crèche, doctor's surgery, health centre, community centre, civic space, park, playground, primary school, as well as some local services and/or employment uses, and should comply as appropriate with the relevant provisions of Chapter 9 Retail.

Local / neighbourhood centres should generally be located within five minutes walking distance (400 – 500m) of significant residential development schemes.

15.7.10 Car Parking

Parking standards are set out in Section 17.7.6 of Chapter 17. Regard shall be had to the following in relation to the location and layout of car parking areas:

- Car parking should generally be sited within established site boundaries in such a manner as to ensure minimal injury to the amenity of adjoining premises.
- In town centres parking spaces should be located behind buildings or underground wherever possible, to encourage the continuity of streetscapes.
- Landscaping and tree planting must be provided to counteract the appearance of parking areas.
- Where on-street parking is proposed properly marked car parking spaces shall be provided with regular tree planting and a high standard of kerbing and paving. Generally not more than five perpendicular or two parallel car parking spaces shall be provided between trees.
- Where surface car parking is required it should be designed to be overlooked and therefore comply with the principles of passive surveillance, and should not dominate the street frontage.
- Cycle parking facilities shall be conveniently located, secure, easy to use, adequately lit and well posted. Weather protected facilities should be considered where appropriate. In addition, parking should be placed within a populated, well-supervised area, and monitored by CCTV where possible.

15.7.11 Protection of the Existing Environment

All development proposals immediately adjoining existing development shall provide for the protection of existing residential amenities and shall have particular regard to minimising overlooking and visual intrusion. Kildare County Council places significance on the existing heritage fabric of the towns and villages within the county. These represent key heritage and cultural assets for Kildare and include protected structures of special architectural, historical and cultural interest.

15.7.12 Building Language and Finishes

Good modern architecture and design should prevail throughout developments. There should be consistency in materials, colour, proportions, roof pitches, building detail, street/route surfaces, planting and street furniture within a development.

Certain principles will apply in relation to materials and finishes for a development, as follows:

- In general, finishes and materials should be of a high quality nature and should be used in a consistent and restrained manner.
- Where possible natural materials should be used including wood, stone, slate etc. The use of native Irish material should be maximised.
- Materials and finishes should, as far as possible, reflect an Irish vernacular and, where appropriate and feasible, a Kildare vernacular.
- Use of non-natural materials such as clay pantiles will be permitted in limited circumstances where it is considered that such use contributes to the overall design quality of the scheme.
- In the interests of sustainable development environmentally friendly materials should be used.
- In cases where it can be demonstrated that the design of a building is of an exceptional nature and particularly in the case of gateway and landmark buildings, consideration will be given to the use of modern materials in the context of a modern design approach to such buildings.
- External wall finishes may include render, dry dash and brick. Timber cladding will be considered in exceptional circumstances, particularly in apartment and mixed use development schemes, and shall be assessed at planning application stage on a case by case basis as follows:

- In all cases, details of the type of timber proposed and the reason for using timber as part of the development scheme shall be demonstrated as part of the planning application. In the case of apartment and mixed use development schemes and in addition to the above, a maintenance agreement shall be put in place which shall provide for regular maintenance and cleaning of the timber finishes and replacement as appropriate.
- The use of colour should form part of any design proposal; however, this should have regard to the traditional use of colour in the Irish context.
- In general, the design of schemes should focus on having a commonality of approach in terms of particular housing areas, with a clearly different approach between housing areas.
- In addition, there should also be an overall and consistent design paradigm for the entire scheme.
- All walking and cycling routes should be overlooked where feasible by adjoining uses to ensure passive surveillance.

15.8 OVERALL LAYOUT DESIGN CONSIDERATIONS

Understanding the context and the potential of a site through a detailed site analysis will inform the design process for future development proposals. The urban structure shall consist of a framework of routes and spaces that provide connectivity within a development as well as to existing and planned routes in adjoining developments.

Design considerations should include:

- Recognisable routes, intersections and key buildings should be provided to help people find their way around.
- Priority should be given to pedestrians and cyclists by providing routes that are direct, safe and secure.
- Streets should be designed and well lit to give control to pedestrians and therefore encourage pedestrian activity.
- Attractive and successful outdoor areas should provide a quality public realm which is essential to providing each area with its own individual identity.
- Passive supervision of the public realm, which is the most effective means of preventing anti-social behaviour.

- Buildings should be orientated to maximise privacy, where appropriate, and elements such as planting and boundary treatment used to maximum effect.
- Residential layouts should, where appropriate, utilise the perimeter block principle as a departure from more recent cul-de-sac type layouts.
- All housing should at a minimum be dual aspect and designed so that greatest advantage is taken of southwest orientation.
- Development should be designed for a diverse community which will encourage sustainable living and reinforce neighbourhood values.

15.8.1 Permeability

Central to the vitality of any urban centre is its network of pedestrian paths and routes. A fine grained network is critical to the creation of a human scale environment attractive and accessible for the pedestrian. All new development should provide a fully permeable and recognisable interconnecting network of streets. Permeability within town and village centre must be protected and where possible improved. Any new development should open up new routes as part of the development. Permeability through existing housing estates shall be subject to local public consultation.

15.8.2 Legibility

All new development should provide:

- Recognisable routes which provide a coherent and easily read pattern of streets, lanes, squares, urban rooms and green spaces.
- Intersections and landmark buildings which are provided to help people find their way around and aid orientation.
- Main routes should be distinguished by exploiting vistas, key buildings and landmarks.
- The activities and functions of the places should be made visible, thus bringing a sense of liveliness to places.

15.8.3 Streetscape

The streetscape should be characterised by quality buildings and a high consistent standard of finishes and treatments such as paving, landscaping and street furniture, thereby creating an environment with a definite sense of place.

All streets/roads, walking/cycling routes and public spaces should be overlooked by adjoining accommodation to ensure passive surveillance to

diminish the need for CCTV technology. The creation of observed public spaces and route ways should not reduce or detract from the private nature of other spaces and buildings.

15.8.4 Public Space

To create vibrant bustling towns and villages and to integrate new development into the backland areas the provision of a network of public spaces should be explored. These spaces should be designed to vary in size and use, providing for children's play and kick-about spaces, passive recreation and landscaped and planted areas to serve the entire community. Public spaces should be linked through high quality pedestrian and cycle routes combined with views and vistas and should be overlooked by adjoining accommodation to ensure passive surveillance.

15.8.5 Transportation Network

Development must emphasise permeability for all modes of transport and should be designed on the basis of the following considerations:

- Pedestrians and cyclists
- Public Transport
- Access for emergency vehicles
- Efficient circulation of local traffic
- Externalising non-local traffic

15.8.6 Cycling and Pedestrian Linkages

Cycling and pedestrian linkages are necessary to promote integration and sustainable development patterns. New development should seek to achieve:

- Convenient and prominent pedestrian access points in terms of signage, lighting and gradients;
- A pattern of footpaths/pavements, which allows easy permeability and a choice of routes filtering through the area;
- Routes from houses to local facilities, including shops, schools and bus stops, shall be direct and pleasant avoiding steep slopes or steps/kerbs where possible;
- Utilising green open space networks for longer distance walks;
- Providing dedicated pedestrian routes along green corridors.

For a cycle network to be successful it should be continuous and convenient with appropriate trip-end provision.

15.8.7 Street Hierarchy

A network of high quality, attractive streets, comprising of a high standard of quality finishes and treatments such as paving and landscaping, to create an environment with a definite sense of place, should be achieved. All development should include a hierarchy of streets designed to recognise the needs of pedestrians and cyclists and therefore encourage healthy activity. This can be achieved by paying close attention to the design of street surfaces and planting, which should be integrated with passive traffic calming measures such as changes in road colour, planting, narrowing of streets or other forms of traffic calming.

The purpose of any proposed network is to adequately serve the maximum extent of development whilst discouraging unnecessary through-traffic. Guidance relating to street design is contained in the *Design Manual for Urban Roads and Streets*, DECLG (2013).

Arterial Streets

Arterial Streets should be provided in the form of spacious, tree-lined streets to provide a safe environment for pedestrians and cyclists with associated cycle lanes, footpaths and verges. These streets should be fronted by buildings and comprise a high quality public realm, planted with appropriate native species.



Figure 15.7
Arterial Street

Link Streets

The majority of circulation routes within new developments should be provided by link streets. The design of the link street shall vary according to the density of the area it is in, and this largely affects the distribution of parking and kerb alignment.

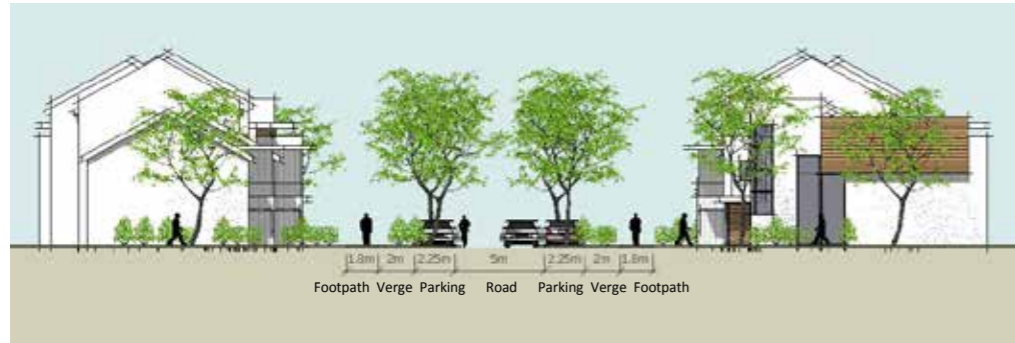


Figure 15.8
Link Street

Where the density is medium the road width will be maintained as above but the parking will be provided on one side only and staggered along the length of the street.

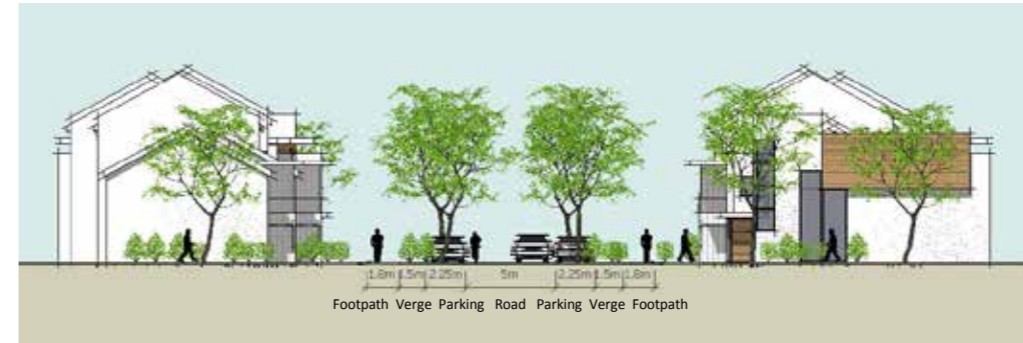


Figure 15.9
Link Street

Where the built density decreases away from the urban area, the street design will largely be less formal in character as appropriate at the edges of a built up area. Streets may be characterised by a variable kerb alignment and road width.



Figure 15.10
Link Street

Mews / Shared Surface Streets

Shared surface streets may occur where the character is most urban, typically in the town centres. These streets should be designed as shared level surfaces, where pedestrians and cyclists have equal priority with vehicles, therefore having the advantage of providing sufficient space for large vehicles to approach close to buildings without giving the impression of a 'tarmac prairie'. These streets must have building frontages on both sides.



Figure 15.11
Shared Surface Street

15.8.8 Storm Water Run-off

Permeable surfaces (gravel, turf and structurally reinforced turf, 'grass-crete', trees and shrubbed areas etc.) should be used to aid water runoff wherever possible.

Porous pavements give trees the rooting space they need to grow to full size, and in the void spaces within these surfaces naturally occurring micro-organisms digest car oils and the oil ceases to exist as a pollutant.

Rainwater infiltration through the pavement into underlying soil reduces stormwater volumes and restores natural subsurface flow paths.

15.8.9 Sustainable Urban Drainage Systems (SuDS)

SuDS should be an important part of the drainage infrastructure of a development. The system should provide the major structuring element of landscape and it is important that all development considers the relationship with SuDS as an element of drainage infrastructure as well as a leisure and visual amenity.

The use of 'swales' should be explored as part of SuDS to retain and discharge water. Swales should be linked and have a storage and infiltration function and mainly convey runoff to shallow storage wetlands appropriately located. Swales located throughout the development lands should also provide the underlying basis of the landscape structure of new development and form part of a cohesive urban structure, integrated with both the streets and built form.

SuDS should be planted utilising indigenous species that can withstand both dry and very wet conditions. A similar landscape treatment will be utilised across the system so that it reads as a single network.

The system should be capable of accommodating all storm events. Designers should be mindful that future surface water drainage systems should have regard to the natural drainage of the area. The development of an appropriate management regime is also critical in the avoidance of future problems. Figures 15.12 – 15.14 show how swales may be incorporated into the landscape and could provide developments with a sense of place.

There can be a perception that SuDS components, especially ponds and wetlands, pose some public safety risks. With careful design these perceived risks to public safety can be reduced. If ponds are properly designed with shallow side slopes, shallow shelving edges and strategically placed barrier vegetation they are at least as safe as many other watercourses, ponds and lakes that are unfenced in parks, country parks and similar locations.

It is good practice to undertake a safety audit or risk assessment of a SuDS scheme before the design is finalised to ensure that risks to maintenance workers and the public (especially children) have been designed out as far as possible.

Designs to implement sustainable urban drainage systems to manage surface water and flooding within developments shall be identified. Details of maintenance agreements should be agreed with the planning authority in writing prior to commencement of development.



Figure 15.12
Swales at Upton, Northhampton, UK



Figure 15.13
Swales at Upton, Northhampton, UK



Figure 15.14
Swales at Upton, Northhampton, UK