



- DESIGN GUIDANCE: SCALE -

Chapter 6 looks at issues to do with scale, and how new development can be scaled to sit comfortably in its context.

From simple home extensions and domestic projects such as new boundary walls or a new garage, to major mixed use developments or the adaptation of an historic industrial complex: the scale, massing and height of proposed development should be considered in relation to that of adjoining buildings; the topography; the general pattern of heights in the area; and views, vistas and landmarks.

DESIGN GUIDANCE: SCALE

Principles of good practice

1. From simple home extensions and domestic projects such as new boundary walls or a new garage, to major mixed use developments or the adaptation of an historic industrial complex: the scale, massing and height of proposed development should be considered in relation to that of adjoining buildings; the topography; the general pattern of heights in the area; and views, vistas and landmarks.
2. Modern forms of construction have many capabilities that traditional systems did not – particularly in respect of roof spans. But the limitations of traditional building technology, and the constraints that put on buildings' scale and proportions, is often what gives them character. If you are designing a large building, pay close attention to the roofscape and think in three dimensions: what looks like a reasonable height or plan depth on paper may translate as something very oddly proportioned in reality, which will not sit happily alongside traditionally proportioned neighbours.
3. The industrial built environment continually 'breaks the rules' in terms of height and massing – this is one of the contributing factors in the strong sense of place and the quirky character that many historic mill sites have. But generally, the notion that the scale of buildings should relate to the width of the street, or the extent of open space in front of them, is a good rule of thumb. If you are going to break the rules, there should be a design rationale behind it, and it should be based on an evaluation of the impact that a particular arrangement of buildings and spaces will have on the character and sense of place.

SCALE

- 6.1 Scale is the size of a building in relation to its surroundings (other buildings and spaces, or natural/landscape features), or the size of parts of a building or its details, particularly in relation to the size of a person.

Density and mix

The amount of development and the range of uses this influences, to include:

- The intensity of activity relative to a place's accessibility
- The place's vitality relative to the proximity and range of uses
- The development's viability

Height and massing

The scale of a building in relation to:

- The arrangement, volume and shape of a building (or group of buildings) in relation to other buildings and spaces
- The size of parts of a building and its details, particularly in relation to the size of a person
- The impact on views, vistas and skylines

Building type, building form

- The size of the building floorplate or 'footprint', its storey heights and means and location of access
- The relationship of the building to adjacent buildings and how it relates to external space at ground floor level
- The nature and extent of the building's setback at upper floors and roof treatment

HEIGHT AND MASSING

6.2 Having established an overall ‘flavour’ and capacity, through analysis of the urban structure and urban grain of a site and its surroundings, the density and mix can then be developed further. What goes exactly where? And how close to its neighbour? And how tall and wide should individual buildings be?

IHCA PDG2 **Large developments and tall or bulky buildings**
 The full impact of large developments or individual bulky/tall buildings on long range views and the setting of existing historic buildings will be a consideration when assessing proposals for development. Particular attention will be given to the effect that such proposals would have on the transition between built form and rural land, especially on the fringes of existing historic mill sites and small settlement groups. Development which would cause harm to this aspect of the IHCA character will not normally be permitted.

IHCA PDG3 **Tall or bulky buildings and landmark historic structures**
 The full impact of large developments or individual bulky/tall structures on the hierarchy of buildings within a particular group will be a consideration when assessing proposals for development. Development which has an overbearing effect on a group or inhibits the dominant/landmark qualities of its principal historic building(s) will not normally be permitted.

IHCA PDG4 **Infilling of key roadside gaps sites and breaks in development**
 The development of vacant plots or open spaces along the main roads of the conservation area will be permitted only where

- a) key views would be preserved or enhanced, and
- b) the development would not result in the infilling of significant breaks in built form or the merging of visually and/or historically distinct settlements / groups of buildings.

IHCA PDG18 **Canals and canalside development: infilling of key canalside gap sites and breaks in development**
 The development of vacant plots or open spaces along the canals will be permitted only where

- a) key views would be preserved or enhanced, and
- b) the development would not result in the infilling of significant breaks in built form or the merging of visually and/or historically distinct settlements / groups of buildings, and
- c) it would not result in uncharacteristic heavy enclosure on both banks of the canal

Proposals for departures will only be acceptable in exceptional circumstances, where there is an important strategic reason for deviation. Such proposals will be expected to perform well against all other relevant policy and design guidelines contained in the IHCA Management Proposals SPD.

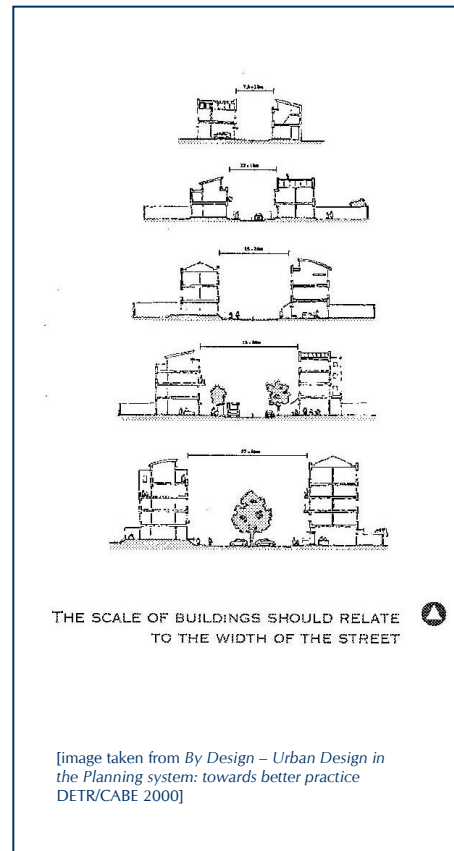
IHCA PDG24 **General: scale, proportions and detailing**
 New build, whether in the form of large new developments or small private extensions, will be expected to observe locally distinctive proportions and scale and (where the design is ‘traditional’) very close attention to locally distinctive details and craftsmanship. The scale, proportions and detailing must be appropriate to the particular context (the site or the host building) within the conservation area, and should seek to preserve or enhance the character and appearance of the IHCA ‘Character Part’ in which the site lies.

IHCA PDG30 **Roofscape: new-build proportions, scale, pitch and cladding**
 The impact of new development on the roofscape of the IHCA will be carefully considered. New development will be expected to reflect the proportion, pitch, cladding and variety of its context and to create a roofscape which is characteristic of groups of traditional buildings in the conservation area. Deep plan forms, which necessitate wide roof spans (resulting either in uncharacteristically tall ridge heights or slack roof pitches) should be avoided, unless they can be accommodated in a locally distinctive way, appropriate to the style of the building and the character and appearance of the surrounding area.

[Above] Design guidance in the IHCA Management Proposals SPD. Other policy and design guidelines (PDGs) may also be relevant: see Chapter 3 of the SPD.

Density and mix; buildings and spaces

- 6.3 There is a convention, reiterated in *'By Design'*, the government's companion guide to PPS1, that the scale of buildings should relate to the width of the street ... a sort of magic formula, which suggests that big, tall buildings should front onto big, broad spaces; and that small buildings should sit close together, across intimate spaces. This is generally a good rule of thumb, but the industrial built environment of the IHCA continually breaks the rules!
- 6.4 Many historic mill sites, particularly those where extensive expansion has taken place over a long period, contain a mix of extremely constrained, very enclosed spaces, and broad, expansive areas which are sometimes bordered by quite small buildings. This makes for a very distinctive sense of place.
- 6.5 Another widely exercised convention in new development on a waterside site is for the water's edge to be populated with tall buildings (typically, it seems, flats). But as the conservation area character appraisal has shown and examination of various of the Design Priorities (CHAPTER 4) has already discussed, taller buildings may be better suited to the 'inside' of the site, rather than the edge (see illustration on following page). The canal and road edges of many historic mill sites are traditionally dominated by lower built form, with a much more pronounced horizontal emphasis.



The industrial built environment continually 'breaks the rules' in terms of height and massing... and the result is an array of spaces that have enormous character and quirkiness.

Towering four storey buildings sit side-by side with their neighbours, across alleys that can be as narrow as 4-5m; while broad open spaces are sometimes bordered by diminutive 2-storey perimeter blocks – adding to the rather startling sense of expansiveness. The mixture of the two (extremely tight-knit and enclosed, and big, broad uncluttered yards) makes for a very distinctive sense of place, full of intrigue and surprise.



However, sometimes the rules really do apply, and a big space in front of a big building is absolutely essential [below left]



Good neighbourliness

- 6.6 Usually, it is a matter of common sense to decide what sort of scale is appropriate for individual new buildings. Where the surrounding area consists almost entirely two-storey residential buildings, a new house of three storeys, or an even bigger building, will not be in keeping.
- 6.7 Sometimes it is the case that the juxtaposition of a small building with a very large one produces a distinctive character and a sense of drama, as at Brimscombe Port, where the relatively tiny salt warehouse is dominated by Port Mill. But the effect here is partly due to the fact that there is a large amount of open space around, and the little warehouse is still able to have a presence: it would be ‘lost’ if surrounded closely by significantly larger built form.
- 6.8 Take the example of the nine storey tower block shown on the cover of this chapter [and right], which has transformed the skyline of Plymouth. To an extent, its scale works because the building sits on the harbour edge and hence the conventional wisdom about big building fronting big spaces comes into action: it simply would not work if it were separated from other similarly large buildings by a relatively narrow street. So the new building stands in glorious isolation, a new local landmark. Except that it doesn’t. It actually has a profound effect on its historic neighbour – which itself is not a tiny building, when you observe the storey heights in relation to the people standing on the wharf. But our perception of its scale and its place in the hierarchy of the built environment has been shifted because of the scale of its new neighbour.
- 6.9 That being said, a building of such vast scale is never likely to be acceptable in the IHCA - although new big buildings (“big” in our local context) will undoubtedly have a place, and the conservation area is already well stocked with large buildings. So it should be remembered that, generally, tall buildings do need ‘breathing space’ and benefit from a degree of contrast with open space or lower scaled development around them. There are not many places in the conservation area where the built form is consistently large and tall – there are usually one or two clearly dominant buildings, which often become landmarks, either within the context of the site, or even in quite distant long range views.



[above]

Conventionally, canalside development tends to put very high densities and relatively tall buildings along the waterfront, as this illustration shows. However this approach would, in most situations along the canals in the IHCA, have an unacceptably overbearing impact – particularly if such development occurs on both sides of the canal (“the canyon effect’ as it has been called). Built form should generally be of one or two storeys’ height along canal frontages in the IHCA, providing a more characteristic horizontal emphasis, perhaps punctuated by taller elements where this would not be overbearing or contribute to a general sense of height along the length of the canal. Taller buildings are generally better sited towards the centre of a site, behind this frontage; or gable-end-on to the canal, extending back into the site.



[above] SUTTON HARBOUR, Plymouth

This nine-storey block of flats is not a good neighbour to the two-storey historic building it sits beside. The old wharf building is dwarfed, while the massively tall new building bears no relation to the prevailing scale of the historic environment around it, and has profoundly changed the skyline of the conservation area.

Landmarks, views and vistas

- 6.10 CHAPTER 5 has already highlighted the importance of identifying key views and vistas as constraints, in order to help establish the basic capacity of a site – an appropriate layout, density and mix. Views and landmarks are also important in creating or preserving a distinctive “sense of place” and helping to anchor development into its context.
- 6.11 Part of ‘good neighbourliness’ is ensuring that new development respects the hierarchy of the historic built environment in which it sits. This means it is crucial to identify features such as existing landmark buildings and key views and vistas, and to design the massing and height of new built form in a sensitive way.

Consider: -

- Views of the landmark building, the structure or the natural feature – both near and distant (long range and short range views)
- Key vistas through, into and out of the site, particularly the connection with the landscape setting
- The role of existing structures as a backdrop or foil to other buildings (how they relate in terms of scale and hierarchy; visual contrast or similarity)
- The way that new buildings would be seen as a backdrop for existing buildings, or could indeed become landmarks in their own right (would this challenge the existing character or compete unnecessarily with existing assets? or would it serve to enhance and compliment the situation?)



[left] The Hill Paul former clothing factory in Stroud is a major landmark building, with a scale (six storeys, plus a two-storey roof extension) that is notably different from anything around it. It demonstrates the importance of designing new development which is sensitive to the historic hierarchy of buildings and spaces. Looking at these images, consider the impact that development around it might have on;

- Views of the landmark building (long range and short range)
- Key vistas through, into and out of the site, particularly the connection with the landscape setting (here there are several existing key vistas, which make an important contribution to the town centre’s distinctive sense of connection with its rural landscape setting).
- The role of existing structures as a backdrop to other buildings and the way that new buildings will form a backdrop for existing buildings

While the historic urban grain suggests that infill development should sit close to the road edge and perhaps have fairly large building footprints, the existing high quality landmarks and views mean that ideally new buildings should be limited in height.

6.12 The chimneys, water towers and clock towers of the conservation area’s industrial environment contribute hugely to its character and distinctiveness. Like the church towers of the rural Frome vale, these are local landmarks, and there is often a visual dialogue between them in long range views. Their landmark qualities help to punctuate the rhythmic settlement pattern of the conservation area as well – mills sit at intervals along the watercourses in this linear conservation area, separated by stretches of open green space.

6.13 Features like this can act as a focal point when sites are redeveloped or development is located near to them; they can help to provide a strong sense of place, character and identity (see chapter cover image, page 58). Ensure that good views are maintained or, where possible, enhanced by new built form and the layout of buildings and spaces

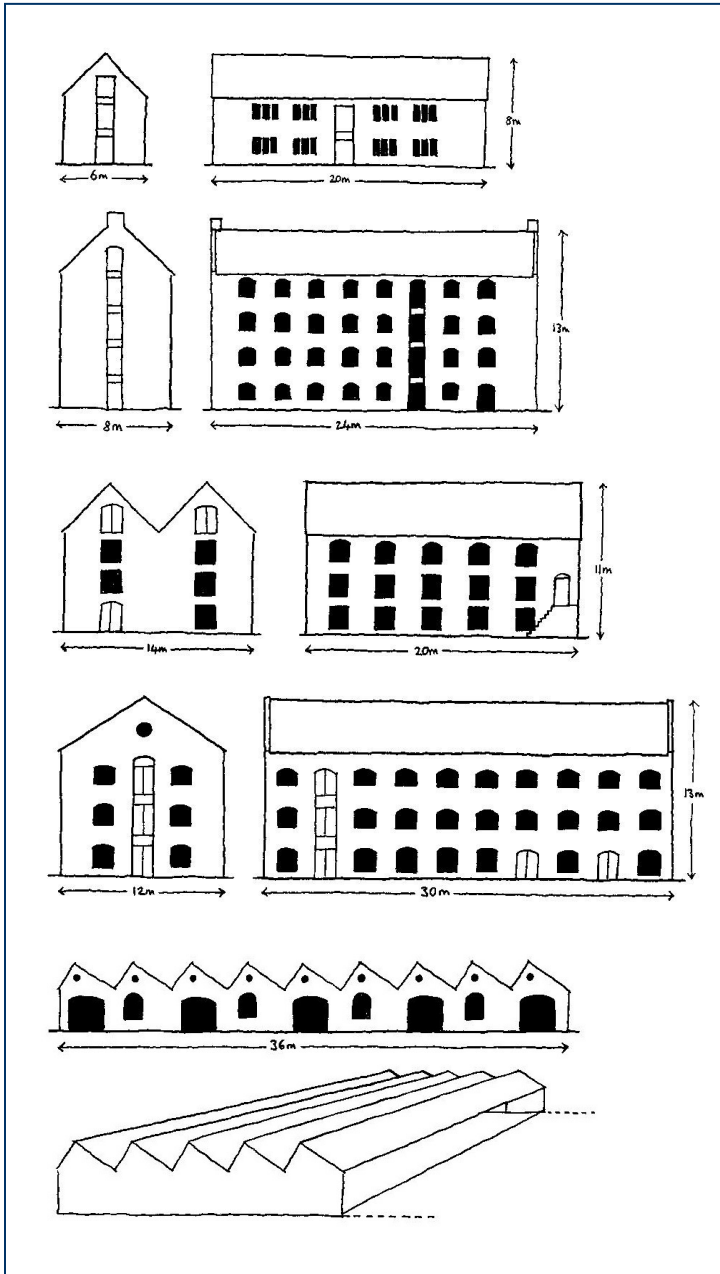
6.14 Landmarks are important for “legibility” and our ability to create of a mental map of a place. They can help practically by being a visual cue to help us navigate our way around, but they can also help us as psychological signposts: signalling ‘gateways’ between places or identifying a central core or focal point.

6.15 Designing new landmark features for development sites offers some great creative opportunities, particularly if the richness and diversity of the shapes, colours and forms that pepper the historic industrial environment is used for inspiration. ‘Landmarks’ don’t have to be huge; a modestly sized piece of public art or even a tree can have landmark qualities if it helps us to navigate around and understand how a place works and fits together.



Large buildings: scale and proportion

- 6.16 The integration of new large buildings into the conservation area requires particular skill and sensitivity to context. Big buildings simply will not fade into the background. They cannot be ‘hidden’. They will always be conspicuous and, indeed, are likely to become landmarks of the future.
- 6.17 When designing a new large building for the conservation area, it is important to have an appreciation of just how big ‘big’ traditionally is in this context.
- 6.18 Although the industrial environment does provide plenty of precedents for large buildings, the conservation area’s largest historic buildings are probably not as large as you might imagine. Ebley Mill, for example (one of the area’s most imposingly scaled mills – and therefore an exception rather than a rule) has a fairly conventional long, narrow block, which dates to the early-19th century. It is around 57m long and 10.5m wide and it is four storeys high with an attic. The mill also has a taller squarer ‘tower’ block, which is later in date and less typical of the Stroud valleys mill shape. This block measures approximately 20m wide and 20m deep.
- 6.19 More typically, archetypal stone-built Stroud valleys mills have dimensions of between 20-40m in length and 6-10m in width. Some of the later 19th century brick mills (such as Dyers Mill at Thrupp, and Lewiston Mill at Toadsmoor) have slightly stouter dimensions (25-30m long, 10-12m wide), but plan depths very rarely exceed 12m, and these wider buildings are not always roofed under a single-span pitched roof. Belvedere Mill at Chalford, for example, has a footprint of almost 14m wide, but it is effectively made up from two narrow ranges, sitting side-by-side with a double pile roof.
- 6.20 Some of the largest footprints in the conservation area belong to ‘northlight’ factory buildings, which tend to date from the late 19th century or first half of the 20th century. These low-level buildings (typically a tall single storey) can carpet over vast areas - up to 50m wide by typically 30-40m deep, and the distinctive self-supporting roof can span huge internal spaces without the need for partitions – making very adaptable buildings.
- 6.21 Apart from mills, some of the largest buildings in the countryside are agriculture-related: traditional stone, brick or timber frame barns, or much larger ‘Dutch’ barns, with their distinctive barrel profile and modular form. Like the northlight roof system, Dutch barns can span huge single spaces – but in both cases the individual ‘modules’ have quite modest spans, resulting in a traditional roofscape, which is quite unlike that of the massive portal frame sheds that tend to be prevalent in modern industrial estates and, increasingly, business parks and agricultural settings.
- 6.22 Modern forms of construction have many capabilities that traditional roofing systems did not. But the limitations of traditional buildings, and the constraints that put on their scale and proportions, is often what gives them character. If you are designing a large building, pay close attention to the roofscape and think in three dimensions: what looks like a reasonable height or plan depth on paper may translate as something very oddly proportioned in reality, which will not sit happily alongside traditionally proportioned neighbours.
- 6.23 Getting the materials and detailing right on a large building is essential. The proportions of features such as windows and doors will often have to be scaled up, and the detailing around them should be robust: features such as a contrasting coloured brick course may barely register visually, unless several bricks wide. Render should generally be avoided as a principal walling finish on large buildings. Although lime render (both smooth and roughcast) is a locally distinctive material, it is never traditionally used on very big buildings: it tends to be a more domestic material. Materials and detailing are covered in greater depth in CHAPTER 7, including the types of shapes, materials, details and colours that are distinctive of the industrial environment – where the majority of new large buildings in the conservation area are likely to be sited.
- (Refer also to CHAPTER 3, *Building in Context*, for general advice on ‘scaling up’ and ‘stepping down’ – paragraph 3.10).



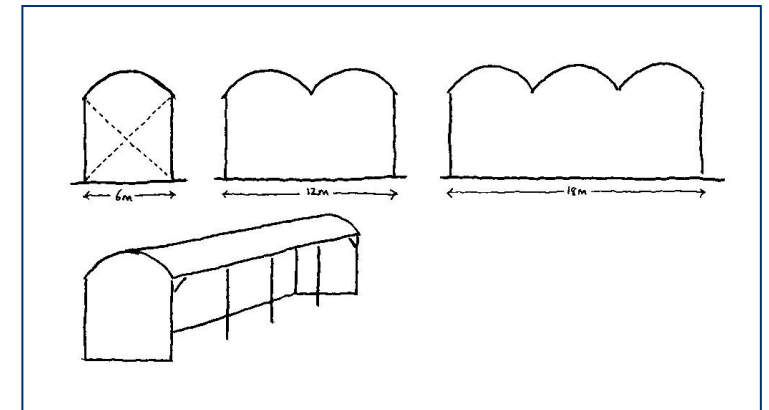
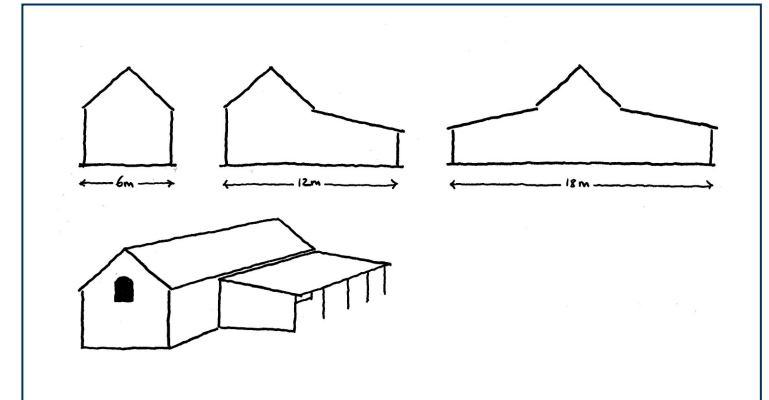
[above]

Dyers Mill at Thrupp. This is a BIG building in the conservation area. But at 30m long, 12m wide and with a height of 13m to the ridge, it is perhaps not as big as might be assumed...

[left and right] Typical scale and proportions

When designing a new large building, be aware that traditional plan depths exceeding 12m are atypical in the conservation area, four storeys should be considered at the upper end of 'large' and a height of five full storeys is quite exceptional.

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Building in context: appraising scale

1 The site

- How does the proposed building relate to the site?
- Is there a positive and imaginative response to any problems and constraints?
- Have the physical aspects of the site been considered, such as any changes in level within or beyond it?
- Can the amount of accommodation required be fitted on the site in an elegant way?

2 Wider setting

- How does the proposal relate to its wider setting?
- Are the street pattern and grain of the surroundings respected?
- Are there changes in height between the existing and new development and if so how are they managed?
- Will the result enhance or damage the quality of the townscape?

3 Density

- How is the density of the proposal related to that of existing and neighbouring uses?
- If there are differences, are they acceptable?

4 Impact on close views

- Has the impact of the building in close views been assessed?
- Is it either weak or overpowering?
- Does it respect the scale and rhythm of its neighbours?

9 Vistas and views

- In the wider setting, has the impact of the building in views and vistas been considered? Does it make a positive or negative impact?
- Does it form an harmonious group or composition with existing buildings or features in the landscape?
- Does it distract the eye from the focus of the view and if so does it provide something better to look at?

Further information

Stroud District Householder Design Guide SPA

[Stroud District Council, 2008] www.stroud.gov.uk

Stroud District Residential Design Guide SPG

[Stroud District Council, November 2000] www.stroud.gov.uk

Quick check: how does the scheme match up to national policy guidance on design and scale?

PPG 15: Planning and the Historic Environment

Para 2.14

“The design of new buildings intended to stand alongside historic buildings needs very careful consideration. In general, it is better that old buildings are not set apart, but are woven into the fabric of the living and working community.”

Para 2.11

[Local authorities]...“should expect developers to assess the likely impact of their proposals on the special interest of the site or structure in question, and to provide such written information or drawings as may be required to understand the significance of a site or structure before an application is determined.”

PPS 1: Delivering sustainable development

Para 13, key principle (iv)

“Planning policies should promote high quality inclusive design in the layout of new developments and individual buildings, in terms of function and impact, not just for the short term but over the lifetime of the development. Design which fails to take the opportunities available for improving the character and quality of an area should not be accepted”

PPS 3: Housing

Para 37

“New development should be of high quality inclusive design and layout... and be informed by its wider context, having regard not just to neighbouring buildings but to the townscape and landscape of the wider locality... The key test should be whether a development positively improves the character of an area and the way it functions.”