How to:
Assess the Design Quality of a Housing Layout

bluepencil

5 characteristics to look for in a housing layout

Assuming the layout is 100% policy compliant in every way, 5 important characteristics to look for in a housing layout at both outline and detailed planning are :

1. Is it designed in 3D?
2. Are the streets designed as compositions?
3. Does it include gateway buildings, vista stop buildings and key buildings?
4. Are all dwellings facing a street or green space?
5. Is it clear how analysis of the surroundings has shaped the layout?

1. Is it designed in 3D?

The housing development will be 3 dimensional so the design should be conceived in 3D and presented in 3D at the very earliest stages of the design process. If a layout is designed and presented only in plan form it is difficult to understand the scale and massing of the buildings and spaces or the relationships between the buildings. Sometimes expensive CGIs are produced to 'sell' the scheme but this is usually only done at the end of the design process - by which time it is too late.

3D model of outline planning application layout

1. Are the streets designed as compositions?

This is the most commonly missing element of housing layout design. When streets are designed as compositions rather than a pick and mix of different house types they create a far more attractive development with its own unique character. The compositions should be designed in 3D so that the scale and massing is understood. Hipped roofs should not be adjacent to gable roofs and roof pitches should be consistent, whilst ridge heights can vary. This is far more important than the materials used on the elevations.

Coloured roofs show compositions

3. Does it include gateway buildings, vista stop buildings and key buildings?

These buildings add a richness to the development. Gateway buildings placed at the entrance to the development and at road junctions create a sense of place. Buildings placed at the end of vistas and key buildings placed in important locations help us navigate through housing developments creating a character that is unique to the development. Using symmetry in a layout (for example a pair of gateway buildings either side of a road) helps generate a feeling of balance and correctness.

Coloured roof show gateway buildings

Coloured roofs show vista stop and key buildings

4. Are all dwellings facing a street or green space?

All open spaces and streets should be overlooked with the fronts of houses facing onto them, unless there is a very good and justifiable reason not to. This increases the perception of safety for those using the spaces and streets, adds value to the houses and makes the spaces and streets more attractive.

All buildings face a street or green space

4. Is it clear how analysis of the surroundings has shaped the layout?

Design and Access Statements for outline planning applications require designers to explain the analysis work that has gone into shaping the design. This work should include townscape and landscape but so often it only includes a material palette. The influence of the analysis on the design should be clearly shown in the layout. If it is not clear, the designer should be asked to justify why it is not.

In the example used for this article the analysis set out in the Design and Access Statement included the height to width ratio of buildings either side of incidental green spaces found in surrounding villages. A combination of wide and narrow fronted buildings at the back edge of pavements, with roof pitches of 50 degrees and with varying ridge heights characterise the built form of surrounding villages. Cart lodges and small buildings are found to be tucked back behind building lines. The village centres are compact in the middle and looser at the edges. All these characteristics have been included in the outline planning application layout.

Coloured roofs reflect key characteristics of surrounding villages

3D model of Outline Planning application layout

CGI of approved detailed planning application (by others)

Is the approved scheme true to the original concept?
Do you see the 5 characteristics described in this article?
Is the final development an example of a good quality layout?

Here is a quick exercise for you-

Score these three layouts (each designed by different architectural practices) as follows;

1. If you believe it has been designed in 3D, score = 2 points
2. If it looks as though the streets are designed as compositions, score = 2 points
3. If you can see gateway buildings, vista stop buildings and key buildings, score = 1 point
4. If all dwellings face either a green space or a street, score = 1 point

5. Is it clear how analysis of the surroundings has shaped the layout? *For the purposes of this exercise this scores o points because you don't have the benefit of seeing the Design and Access Statement to help you make a decision.*

The maximum score for each layout is 6 points. You decide how they each perform against the scoring system.....

Site A

1 =
2 =
3 =
4 =
Total Score =

Site B

1 =
2 =
3 =
4 =
Total Score =

Site C

1 =
2 =
3 =
4 =
Total Score =

Below are scores and explanations for each of the three sites:

Site A

1 = 0
2 = 0
3 = 1
4 = 1
Total Score = 2

This layout has maximised the site capacity but at the expense of everything else. We do not know what the architects brief was but this layout could fail to gain a planning consent on the grounds of 'poor design' which would be straightforward to describe.

Site B

1 = 0
2 = 2
3 = 0
4 = 1
Total Score = 3

This layout looks very attractive because it is nicely drawn. The streetscape has been thought about. It would have scored higher if there had been gateway buildings at junctions and vista stop buildings at the end of the three cul-de-sacs.

Site C

1 = 0
2 = 0
3 = 1
4 = 1
Total Score = 2

This layout looks very attractive because it is hand drawn. However it is not policy compliant due to inaccurate garage, garden, road and footpath sizes. It would risk a planning application refusal because the dwellings back onto the northern and western boundaries. Landowners and local authorities should be careful with inaccurate hand drawn layouts which usually illustrate unrealistic capacity.

Illustrative or indicative layouts need to be accurate or they are worthless. There is no excuse for inaccuracy. If asked for a rough sketch layout, the architect should refuse. It is simply not cost effective for the client to be led astray (as in layout c) with a rough, hand drawn layout. It takes the same time to produce an accurate layout as it does to produce an inaccurate one.

Using CAD speeds up the process. Hand drawing slows it down. Hand drawn plans and illustrations may be used for presentation but should always be based on accurate designs.