

Design Process

14. To achieve the aims of this design guide it is essential to recognise the opportunities and constraints of individual sites. An analysis of the site must be the starting point in the design process. Too often in the past, designers, developers, and planners have attempted to fit all the design considerations to a pre-determined road layout with disappointing results. Road layouts should be designed to contribute to a distinctive spatial identity for each scheme, giving access in ways that respect the characteristics of the site and meeting the performance requirements of this design guide.



15. Nearly all new housing developments in Staffordshire will be either within or on the edge of an existing settlement. A fundamental principle of the design of residential environments is the visual and functional integration of new developments with their setting.



VISUAL INTEGRATION

16. Visual integration requires the harmonisation of new development with its surroundings by reflecting the form, character and materials of existing buildings, especially where there is an existing high environmental quality and strong design character such as in or near Conservation Areas. The achievement of integration and harmony need not rely on copying past styles and architectural details. The most satisfying results can often be achieved by re-interpretation of historic forms expressed in a contemporary manner respecting existing character yet enhancing the overall environment.



FUNCTIONAL INTEGRATION

17. Functional integration must ensure that movement and activities are accommodated in logical and convenient ways. It is necessary to consider the layout design in relation to movements within, through and beyond the site. Pedestrian and cycle routes should provide reasonably direct and safe connections to popular destinations such as schools, play areas, shops and bus stops. Particularly in mixed use projects and on redevelopment sites, new facilities within the development may also attract movements from other housing nearby and their location should recognise any potential wider role.

EACH SITE IS UNIQUE

18. The starting point for the design of all new residential developments, from the single infill house plot, to large town or village expansion schemes, is an analysis of the site and its surroundings. The site appraisal should lead to the identification of key design features to structure the form of the new development and give the designer a context within which a concept statement or framework proposal can be prepared.



Distinctive identity for each scheme

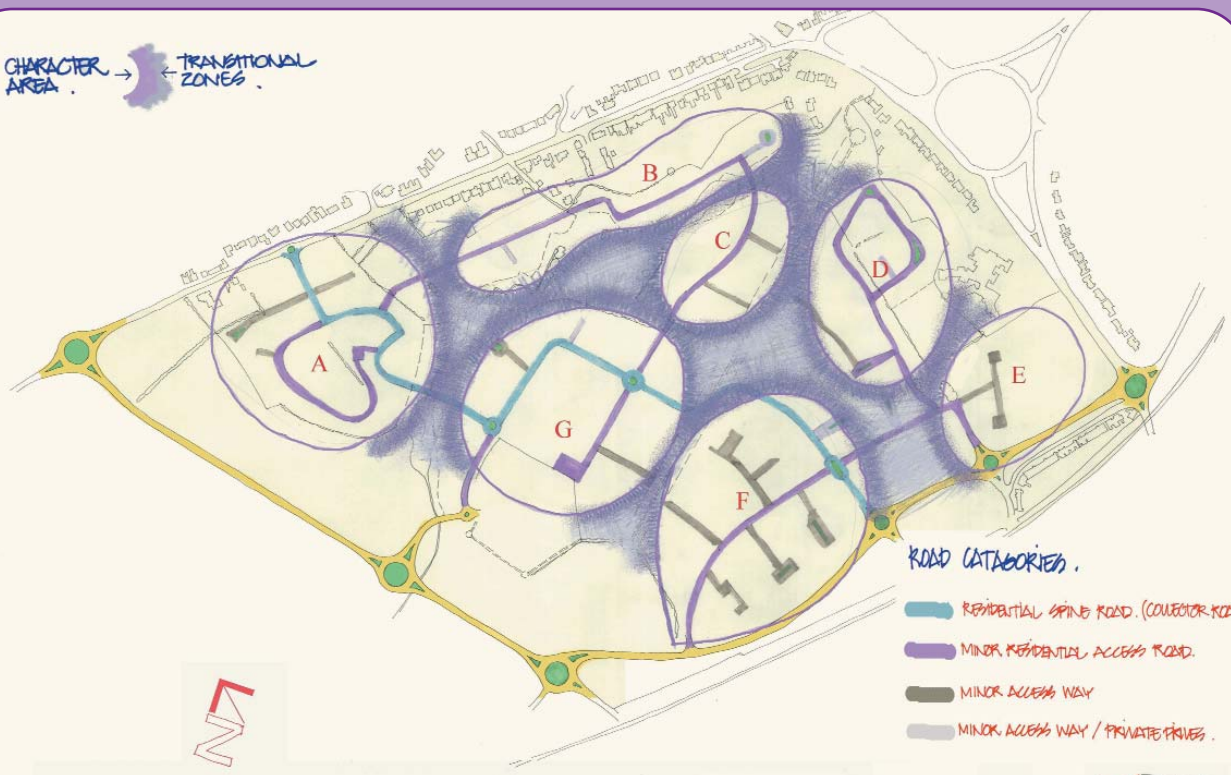
The Staffordshire Local Planning Authorities will require site appraisals and concept statements in annotated plan and/or written form as part of planning applications for most new residential development of any scale, or for relatively small scale developments in particularly sensitive surroundings. Site appraisal and concept work is particularly valuable in pre-application discussion and forms a basis for the early agreement of development principles. This should result in quicker decisions when planning applications are submitted.

19. The size and complexity of the site will determine the emphasis of the appraisal and the depth in which specific factors are analysed. To avoid delay due to inadequate information, the content of site appraisals should be agreed with the Planning Authority. The checklist opposite is a guide to issues that may be relevant.

SITE CHECKLIST

- ✓ The topography of the site and its surroundings and the identification of natural and built features.
- ✓ The natural landform; ground conditions; the steepness of slopes and the availability of shelter, ridges or hollows etc. Slopes facing within 45° of south should be identified as these may present opportunities for the orientation of dwellings to maximise solar gain. Slopes facing within 45° of north will present particular problems for daylighting.
- ✓ Existing trees and hedgerows on the site and its boundaries, their size, age and condition should be recorded by full tree surveys.
- ✓ Existing ponds, watercourses, water table and natural drainage should be surveyed. The extent of any flood plain and the rate of water infiltration to aquifer could strongly influence the form of development.
- ✓ Features of archaeological, historic or natural history interest such as habitat for particular species of wildlife or plant should be recorded giving particular attention to the possible presence of protected species.
- ✓ The form and character of the existing settlement and the immediate environs of the site, and existing rights of way.
- ✓ The shape of the settlement and its main built characteristics.
- ✓ The scale and density of nearby development and its townscape characteristics; use of local building traditions or materials.
- ✓ Views into and out of the site; particularly to and from open countryside or public spaces.
- ✓ The existence of any contaminated or filled land, main sewers, pipelines or overhead electricity supplies.

CHARACTER AREA → TRANSITIONAL ZONES



DARWIN PARK, UCKFIELD.



DARWIN PARK, UCKFIELD.



Masterplan 1: 1250

LF 04

SITE APPRAISAL TO DESIGN CONCEPT

20. Taking account of the findings of the site appraisal, the design of the layout for a new housing development should start by the creation of a spatial design concept for the site. The concept is built up by integrating two aspects of design, a spatial and landscape strategy and a movement network strategy.



SPATIAL AND LANDSCAPE STRATEGY

21. The spatial and landscape strategy uses existing site features and the site's relationship with the surrounding landscape, to develop the preferred pattern of green and urban spaces within the site and the linkages between them. It should incorporate existing footpaths and landmarks such as trees and hedgerows and identify how key views can be retained.
22. The use and disposition of spaces, whether green or urban spaces, should be the strong defining element of the layout. Open spaces should be designed as nodes around which people can organise their sense of direction. Each should be distinctive and focused on the main movement routes through the development for vehicles and pedestrians. Variety should also extend to front boundary treatments where walls, fences, railings and hedges can be used to emphasise the shape of spaces and introduce neighbourhood identity. New planting can strengthen these ideas, with shrubs and trees helping to define spaces and enclosure, and species selection reinforcing local identity. All of these measures can be used to integrate new housing with its surroundings and help the legibility of the housing environment.

MAIN AIMS: SPATIAL STRATEGY

- ⊕ Integrate new development with the character of its surroundings.
- ⊕ Incorporate existing site features such as footpaths, trees and hedgerows wherever possible.
- ⊕ Provide variety and contrasts between spaces, the more diverse and distinctive the spaces, the easier it is for people to find their way around and to have a sense of identity.
- ⊕ Create diversity in a logical way, for Example, focal points or central nodes should have noticeably higher densities whereas it may be appropriate to reduce densities at the edges of settlements reflecting the traditional gradual transition between development and countryside.
- ⊕ Identify those places where landmark buildings, distinctive boundaries, or other design elements should be used to reinforce the perceived spatial structure.
- ⊕ Maximise the benefits of existing trees, hedgerows, and other natural features, in public spaces or in public views.
- ⊕ Protect and use any heritage elements as assets within the layout, notably archaeological sites, but a response to heritage could also include use of historic boundaries, routes or field patterns in the layout.



Distinctive use of open space as a node

MOVEMENT NETWORK STRATEGY

23. The network or hierarchy of spaces, which results from the consideration of these issues, should form the basis for the detailed design and layout of the site. The network of public spaces created within new housing schemes should be varied and visually stimulating to encourage walking and cycling journeys. A well-designed housing layout introduces contrasts within the scheme so that the spaces between the houses are not merely standard culs-de-sac, but avenues, squares, crescents, mews, courtyards, lanes, alleys and greens. Many of these words describe both the nature of the space and the route through it, emphasising that road design must be integrated with the spatial concepts.



24. A movement network strategy takes account of the way that the site will link into the existing pattern of roads, footpaths, cycleways and bus routes and the internal links necessary to connect all parts of the site to them. Priority should be given to ensuring that direct footpath and cycleway connections are made to existing local facilities and public transport stops. Wherever possible, access for bus services should be included in the residential development.

MAIN AIMS: MOVEMENT STRATEGY

- ⊕ Provide safe and convenient surroundings for the movement of people, including those with restricted mobility and cyclists.
- ⊕ Create safe routes for pedestrian, cycling and vehicular movement.
- ⊕ Keep vehicle flows and traffic speeds low in the vicinity of homes, and minimise the danger and nuisance created by non-access traffic.
- ⊕ Ensure that reasonable, and where possible direct, vehicular access to dwellings is available, and enable easy access for public transport and emergency vehicles.
- ⊕ Minimise the danger and inconvenience caused by indiscriminate on-street parking.
- ⊕ Allow for a diversity of spatial, architectural, and landscape elements appropriate to the unique character of the site and its surroundings.

THE DESIGN CONCEPT

25. The concept should begin to evolve during the site visit. Walking the land, understanding its shape and its setting is the start of the design process. The priority is to identify every opportunity to bring special elements of quality into the design, to use views, slopes and planting, to build on local identity and respond to the surrounding context.
26. Often the concept stems from the constraints of the site. That is one of the reasons why it is more common to find well designed schemes proposed for difficult urban infill sites than for flat and featureless green fields. The lack of constraints on many suburban sites means that designers have to create a concept from their imagination, using built form and spatial contrasts to inject character into the layout. These sites present the most difficult design problems and require good planning and design skills to create an imaginative concept.
27. The concept establishes an overall form for the housing layout and proposes elements that will provide a clear spatial structure leading to strong identity and legibility in the new housing. It should be expressed in the form of a spatial framework diagram, with some supporting interpretive notes. This will provide a useful basis for preliminary discussions with planning and highways authorities.
28. Designers should explain how their sketch proposals have developed from the concept, before drawing up a final scheme. It is essential that design information is explicit in describing the three intellectual stages of understanding the site, evolving a concept, and preparing a sketch layout. Developers should also be able to show how they have responded to the concept in a written statement supporting their planning application. The mutual understanding gained by this approach to design should result in better development proposals that can be processed and approved more quickly.
29. The design concept and spatial framework diagram should show how the hierarchy of roads serving the site relates to the character and intensity of the development proposed. It should also show the location of key local facilities such as shops, schools, community or recreation provision where these are to be included as part of the development or where they already exist close to the site. This will demonstrate how the facilities relate to the proposed road, footpath and public transport systems and will function as a community focus.



The existing site



Development of strategies



Working up the design concept - Rocester, East Staffs.