Residential Design Guide

Supplementary Planning Document




Foreword

These documents form the Urban Design Guide Supplementary Planning Document, which supports the development plan and provides a basis for achieving high standards and good quality design throughout the Borough.

They set out how the Council and our partner agencies can work together to improve the quality of the places that we create. Good design is essential to the future of the Borough. It adds to our quality of life, attracts business investment and reinforces pride in our towns and villages.

The guide is not intended to be prescriptive. We have been very concerned to ensure that the approach that we are taking will enable us to take into account local character. I very much hope that everybody involved in the development process will find it of help in bringing forward new developments, whether they be in urban parts of Oldham or in the rural villages of Saddleworth.

Councillor Hibbert
Oldham Metropolitan Borough Council

This guide is a great example of how Councils and their partner agencies can work together to ensure that through quality design we can protect and improve our towns and villages. We have listened to what all the stakeholders have said and we have focussed on those areas where design guidance can make a real difference, i.e. the design of new residential development and the public realm. With this guide we aim to bring in a local agenda that protects, enhances and sustains local communities and their distinct characters. The design guidance provides us with a vital tool to help developers and investors deliver what our local communities want and it will allow Planning Officers and Planning Committees to judge applications against the principles set out in this guidance.

Councillor Hobhouse
Rochdale Metropolitan Borough Council

This guide was adopted by Oldham Metropolitan Borough Council 1st October 2007 as part of the Urban Design Guide Supplementary Planning Document.

1 Introduction

1 Introduction

This Residential Design Guide forms one part of a series of Design Guides produced jointly by Oldham Metropolitan Borough Council, Rochdale Metropolitan Borough Council, and the Oldham Rochdale Partners In Action Housing Market Renewal. Its aim is to provide clear guidance to everyone involved in development (including architects, designers, public and private sector developers, house builders and engineers) on the quality of design expected by both Boroughs. The Guide will also be used by local authority officers to help assess the quality of planning applications.

The Boroughs of Rochdale and Oldham are set to undergo radical change in the next 10–20 years, and there will be a significant amount of new residential development. This is an opportunity to transform the quality of development within the area.

The Boroughs of Rochdale and Oldham have adopted the series of urban design guides as Supplementary Planning Documents (SPDs). This formal adoption process involved required consultation with local stakeholders, and this document has been amended in response to consultation.

A 'Design and Planning Process: A Guide to Good Practice' is also available, which gives advice on good practice for preparing and submitting planning applications.

This Residential Design Guide is informed by the Oldham and Rochdale Urban Design Guide, which provides design guidance for all types of development within the two boroughs.
The Urban Design Guide sets out the urban design principles, and these are listed opposite.

This Residential Design Guide is structured in five parts:

- Response to site and context
- Layout
- Public realm design
- Building design
- Bringing it all together

This Guide aims to assist all those involved in the development process design and implement high quality residential developments. It does not seek to impose a particular architectural style: all the developments pictured above are of high quality, yet their appearance is very different.

The principles

- Character: *Enhancing identity and sense of place*
- Safety and inclusion: *Ensuring places are safe, secure and welcoming for all*
- Diversity: *Providing variety and choice*
- Ease of movement: *Ensuring places that are easy to get to and movethrough*
- Legibility: *Ensuring places can be easily understood*
- Adaptability: *Anticipating the need for change*
- Sustainability: *Minimise the impact on our environment*
- Designing for future maintenance: *Designing buildings and spaces so that their quality can be maintained over time*
- Good streets and spaces: *Creating places with attractive outdoor spaces*
- Well designed buildings: *Constructing sustainable buildings appropriate to their function and context*

Rochdale Planning Policy

Oldham Planning Policy

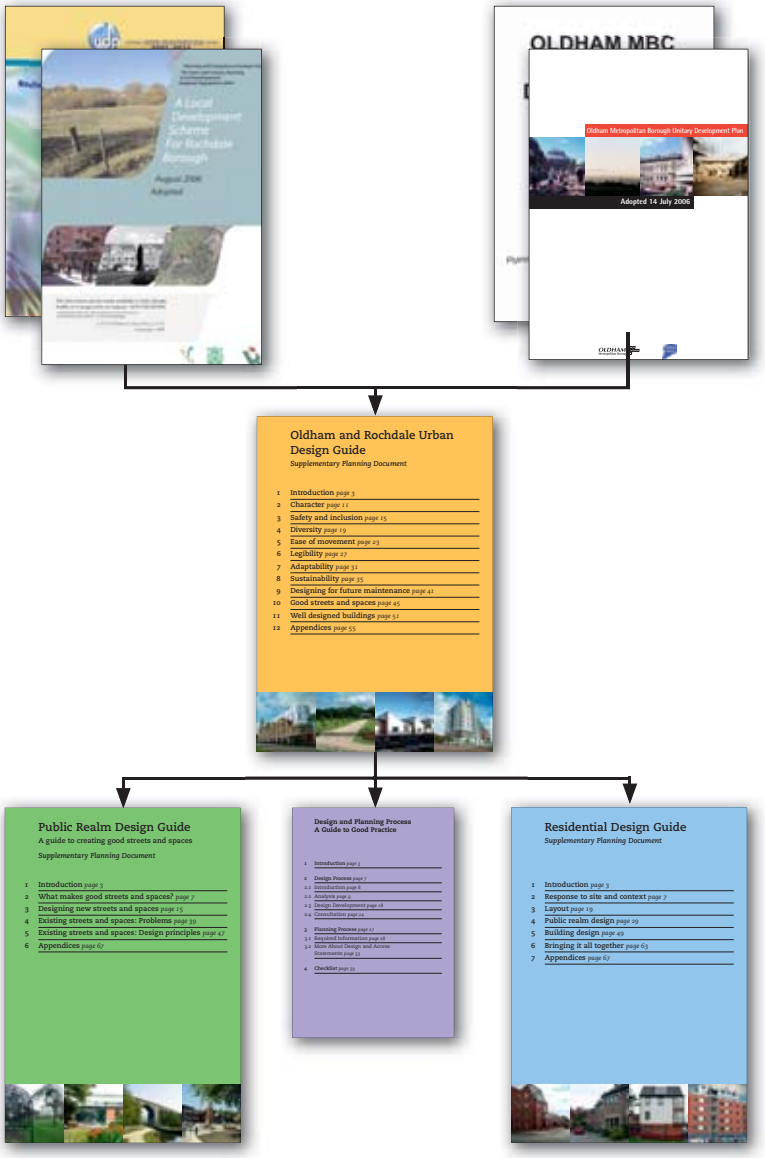


Diagram showing how the Design Guides relate to local planning policy.

2 Response to site and context

Good design responds positively to its context

2.1 Introduction

Good quality development is sensitive to its site and the surrounding area. This does not mean that it tries to replicate what is around it. Rather, it means that the design responds thoughtfully to a careful, thorough understanding of its context. Such an approach tends to result in development that has a sense of 'belonging' to the area, and avoids the blandness of 'standard' approaches that could be anywhere in the country.

It is important to develop an understanding of what makes the character of the local context. Design decisions can then be made on what aspects of the local character may be used to influence and inform the new development:

- Should the new development be designed to deliberately contrast with the characteristics of the local area? This can be an appropriate approach where the local area has a weak or negative character.
- Should the new development be designed to closely follow the design characteristics of the local area? This may be the right approach in an area with a clear, positive character such as a conservation area.
- Is there an approach somewhere between these two extremes, where positive aspects of the local place can be combined with new innovative designs?

The overall Urban Design Guide sets out the requirement that, for ALL types of development, the design process must include:

- an analysis of the surrounding context, and a clear demonstration of how the context has influenced the design of the proposed development; and
- an analysis of the site constraints and opportunities, drawing out how they influence design decisions.

2.2 Understanding the context

The next few pages provide an illustration of how analysis of the wider context and the site itself should be undertaken. A hypothetical inner urban site is used to help illustrate the analysis. It is a simplified approach, and does not include all the issues that a design team should investigate (e.g. traffic and ground conditions are not covered).

The analysis looks at:

- the character of the context; and
- routes and destinations in the wider area.

Character of the context

The level of detail to which analysis of the context is taken will need to relate to the design approach being taken – there is little point providing an in-depth analysis of poor quality townscape and buildings with which the development will be designed to contrast. On the other hand, development within a conservation area will require a more detailed approach that develops a thorough understanding of the local context.

The following themes give a guide to the range of topics that should

be covered in an analysis of the character of the surrounding context:

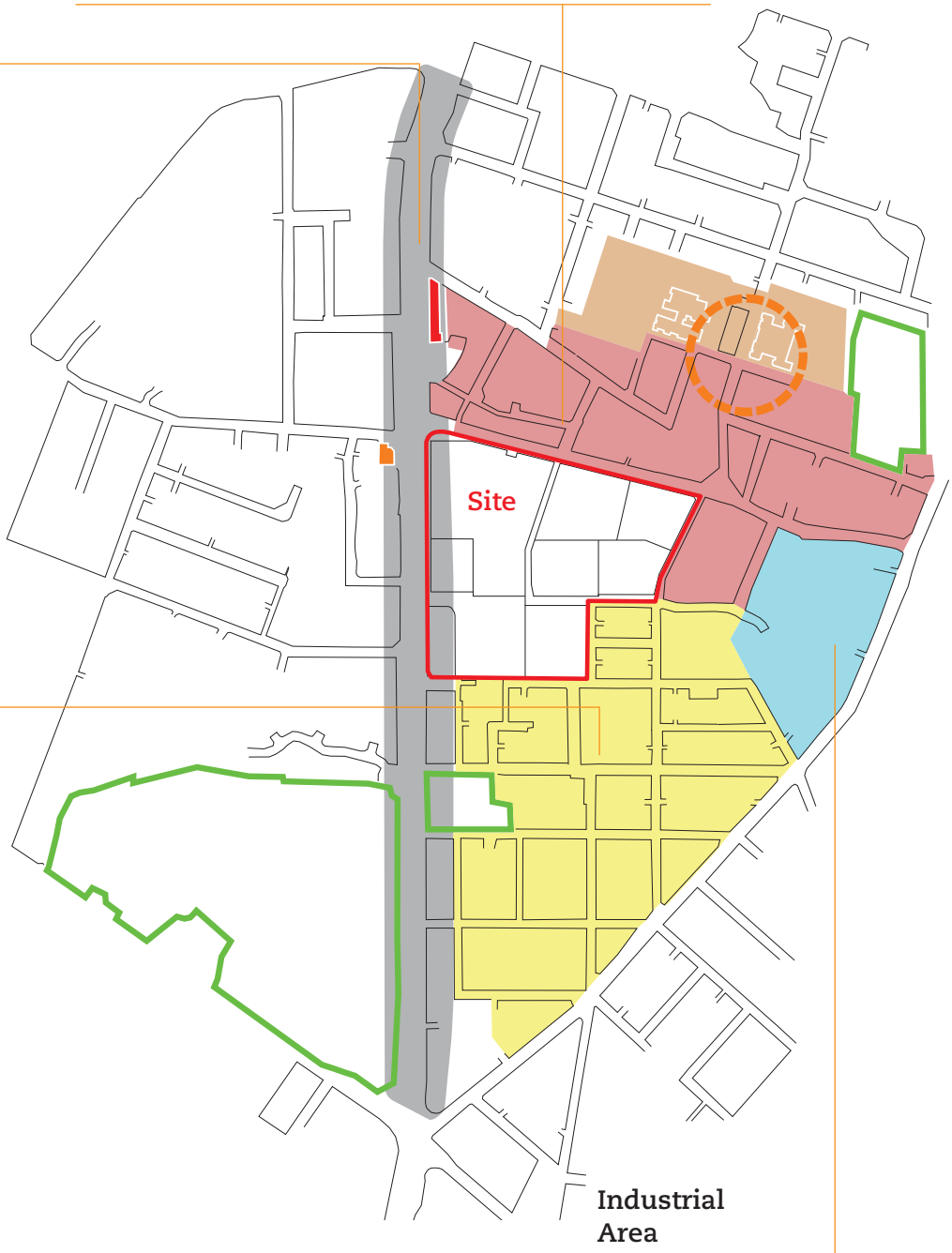
- layout of streets and spaces;
- block size and shape;
- streets and other routes;
- wider landscape character;
- relationship of buildings to streets;
- change to topography;
- scale and massing of buildings;
- building types; and
- materials and detailed design.

Design decisions on any development should be informed by the character of the surrounding area.

Diagram setting out summary of character of the context

Residential area with mixed character. Poor environment in places. On the whole, a weak rather than negative character.

Arterial Road: Traffic dominated area – poor pedestrian environment. Cuts the development site off from the area on the other side of the road.



Victorian Terraces: Strong character of red brick terraced housing, tight grid of streets. However, tends to be perceived as low quality – lack of open space and on-street parking are problems.

Key

- *Victorian terraces*
- *Arterial road*
- *Modern residential*
- *Mixed residential character*
- *School*
- *Focus of community active*
- *Neighbourhood parkl*
- *Site boundary*

Modern Residential: turns its back on the surrounding area. Character is not distinctive – could be anywhere.

Layout of streets and spaces

- Is the local context made up of traditional, regular, formal grids?
- Is it a looser more informal network of streets?
- Is it not a grid at all, but a series of culs-de-sac?
- How well does the layout accommodate other principles in this document – e.g. connecting places together, creating a safe environment?

Block size

- How big are the blocks that make up the surrounding area?
- How well do they allow connections between places to be made?

Streets and other routes

- Are all the streets in the surrounding area the same as one another – i.e. same dimensions, same materials? Is their character positive or negative?
- Or is there a variety of street types? How do these vary? Does their variety have a positive character?
- Are there trees or other landscape within the street?
- Are there other sorts of routes, such as back alleys or pedestrian-only links? Are these good or bad in terms of security and connecting places together? Are they something that should be echoed in the new development?

Wider landscape character

Consideration should be given as to how the development sits in the wider landscape context of the area, so that it respects this character and does not look out of place.

Relationship of buildings to street

- Where are buildings located in relation to the street – at the back edge of pavement? Set back behind a large front garden? Is this relationship consistent along streets or does it vary?
- Where there are front gardens, what is the edge treatment – walls, railings, hedges?

Scale and massing of buildings

- How high are buildings in the surrounding area?
- Is their mass a result of a simple building form, or many different building elements combined?
- What sort of roofs do buildings have?
- What is the rhythm of building plots? Is it regular or irregular?
- How much of its plot does each building cover (i.e. how does the 'footprint' of the building relate to the open space within its plot?

Relationship of buildings and streets to topography

- How are streets laid out in response to topography – do they ignore the slope? contour around? run directly up the slope?

- How do buildings respond to slopes – stepping up? sloping eaves lines? ignoring it?
- Does the topography open up long views to the site? How should new development respond to these?

Building types

- Does one type of building (e.g. two storey terrace) dominate the area? Or is there more of a mix?

Materials and detailed design

- What materials are used in the local area – e.g. stone, brick, render? What colours are typical?
- What are the windows like? Are their proportions vertical or horizontal? Are bay windows typical? Are there dormer windows? Where are doorways located? How are they designed?
- Are the buildings very plain with little detailing? Or is there a lot of intricate detail?

In assessing the character of the area, it is important that the elements set out above are not only described, but judgements made about whether and how they should influence the new development. For example, for this site the character influences from the surrounding area may be summarised as:

- the strongest character is the redbrick Victorian terraces. However, there are some negative associations with these. The design should take the positive elements (the strong street pattern, with continuous buildings lining the streets) but modify them to create a new less regimented environment with more green space; and
- the remaining areas around the site have little to offer in terms of positive character influences. The approach of creating a new character is therefore appropriate.

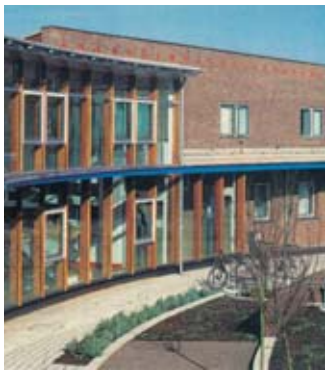





Routes and destinations

Understanding the context is not just about character: it is also about understanding the relationship of the site to the local facilities that residents will need in their day-to-day lives. There is an opportunity for urban infill developments to improve the wider urban area by providing connections to facilities such as schools, shops, places of worship and transport. The analysis, below, identifies key destinations around the illustrative site and existing routes to them. This helps the designer identify opportunities for connecting the new development to the wider area.

An analysis of routes and destinations should form part of the analysis of the context of all sites.



The new health centre is opposite the development site (far left).

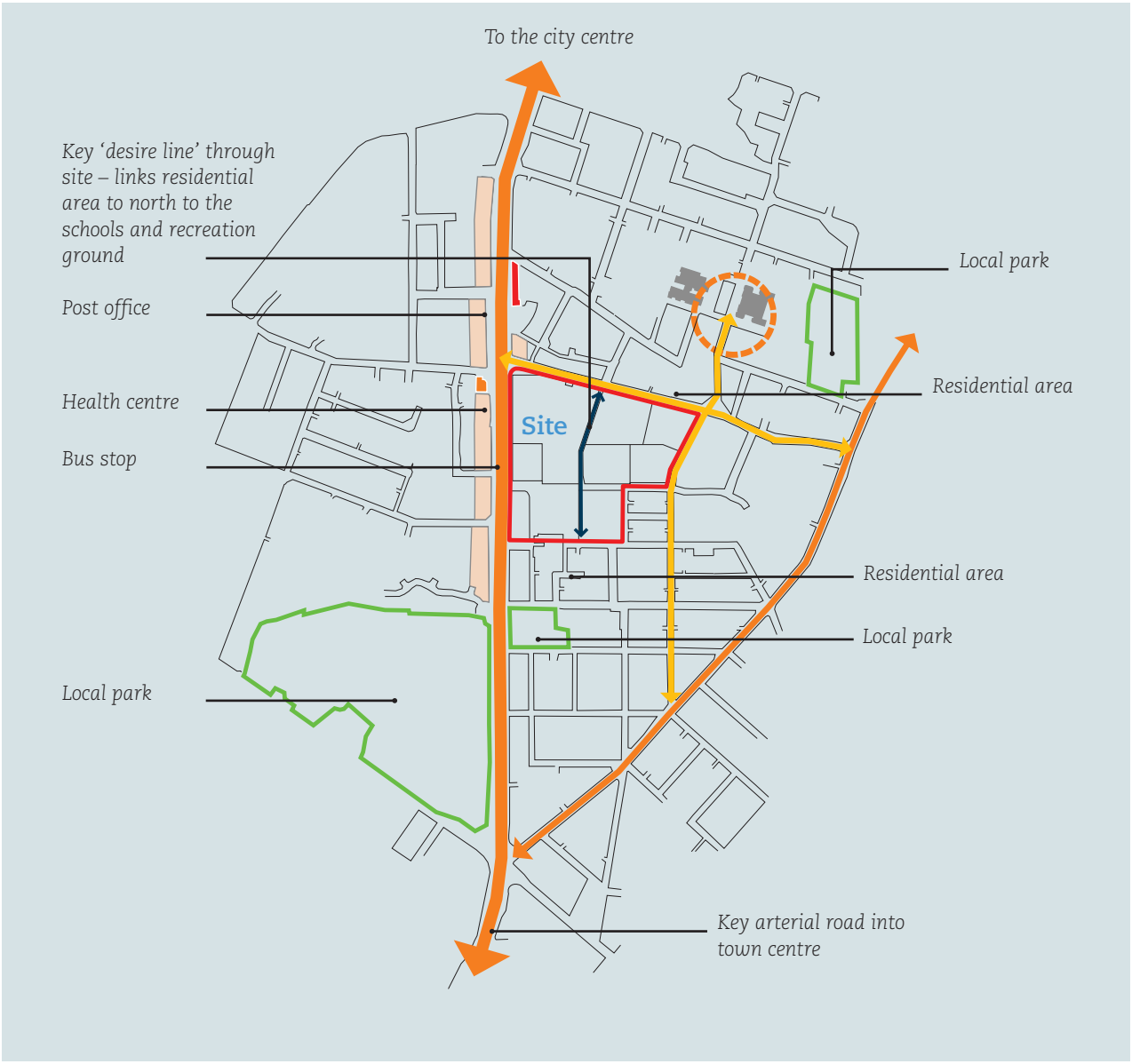
The nearby school is a key destination (left).

Most of the local housing is low-quality terraces (left below).

The local parks act as a 'breathing space' in an otherwise urban area.

Local shops are reasonably good, but new development on the site could strengthen the area's retail

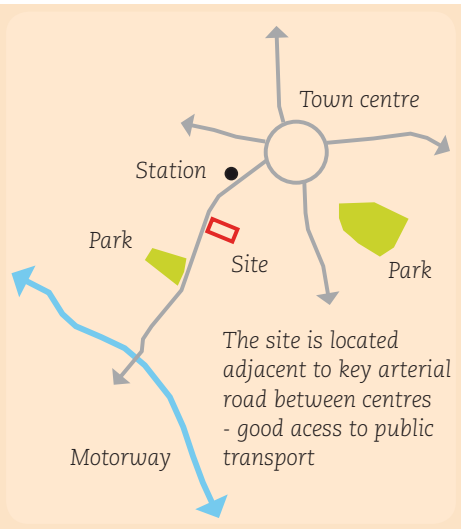
The site context



Key

- local shops
- School
- Focus of community activities
- Neighbourhood parks
- Main roads
- Important local route
- Desire line through site linking towards schools

The Strategic Context



2.3 Understanding the site

Developers must undertake an analysis of the site's constraints and opportunities, and explain how they have influenced the proposed development in a Design and Access Statement. This applies to all sites, whatever their size and location, except for individual householder applications

The following themes give a guide to the topics that should be covered in an urban design analysis of the site:

- existing buildings and other features;
- existing landscape and ecology;
- topography, views and microclimate;
- edge conditions; and
- access.

Existing buildings and other features

- Are there existing buildings on the site that will be retained and, if necessary, refurbished?
- What is their character? Should it influence the remainder of the development?
- What constraints do they bring – e.g. windows requiring space adjacent to the building?
- Are there features of archaeological or historic interest? What issues do they raise? Can they be integrated into the development?

Existing landscape and ecology

- What landscape is there on the site and what is its value?
- Can it be retained and integrated into the new development?
- Is there any important ecology on the site, and what constraints does it impose?
- Are there water features on the site? How can these be accommodated within the development?

Topography, views and microclimate

- Does the site slope? Are there significant changes in level such as embankments or retaining walls? How should development respond to these?
- Are there long views to the site? How should new development respond to these?
- What are the views out of the site like? Can development be oriented to make the most of attractive views?
- Is the site exposed to prevailing winds? Is it overshadowed? Where are the sunniest parts of the site? How should development respond?

Edge Conditions

- Are there neighbouring buildings where privacy needs to be respected?
- Are there unattractive neighbouring uses that the new development needs to be screened from?
- Are there existing streets and spaces adjacent to the site to which new development should relate?
- Are there noise problems from road traffic, railways or adjoining buildings?
- Is there neighbouring vegetation that may be affected by the redevelopment of the site?
- Does a waterway run along the edge of the site?

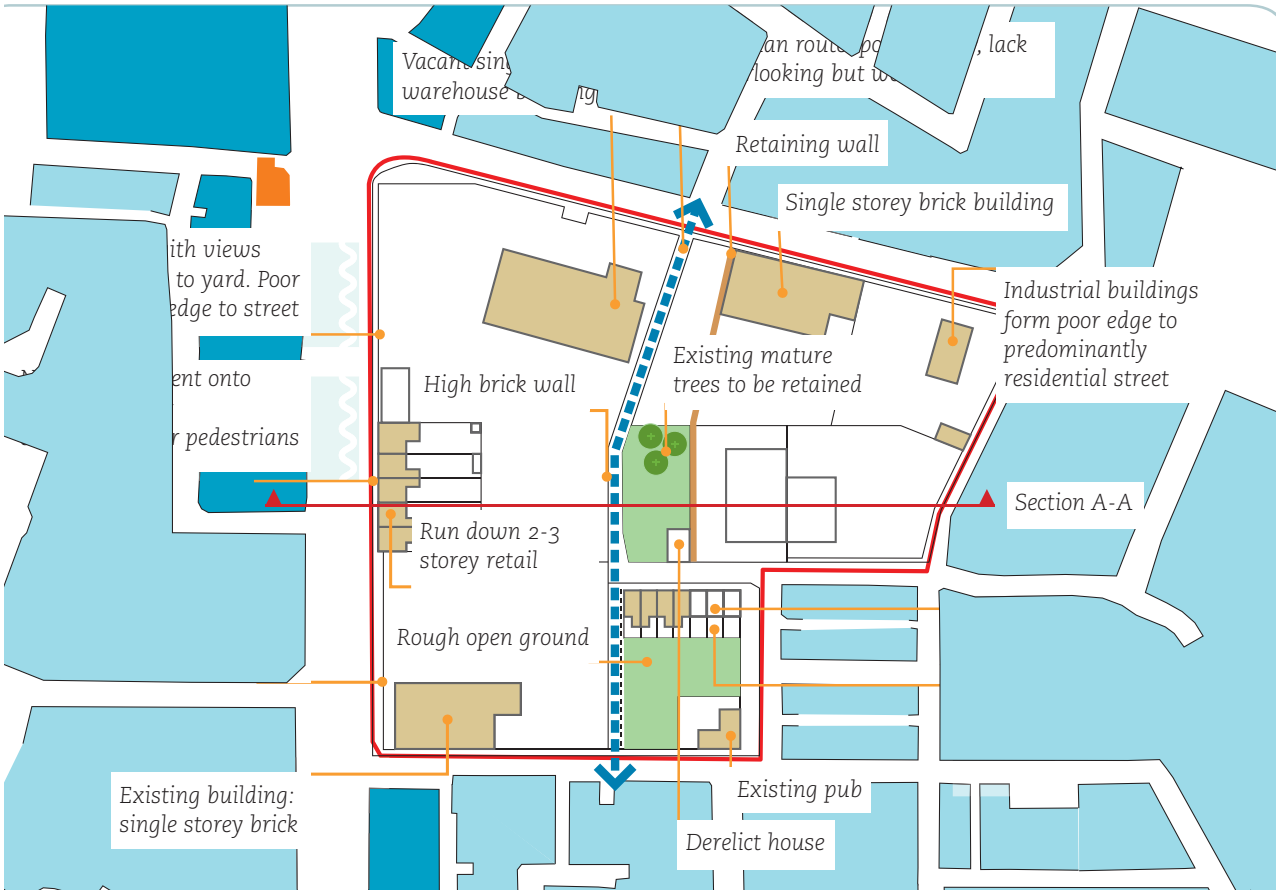
Access

- Where are the existing and potential vehicular, cycle and pedestrian access points to the site?
- Are there existing routes across the site? Can these be accommodated in the new development?
- Where are public transport facilities located in relation to the site?
- Are there existing public transport routes through or near the site? Are improvements required?

The surrounding area does not give much positive design inspiration. However, there is an opportunity to relate to local character through the use of traditional materials such as red brick.

There is an opportunity for new development to address the existing street (far left).

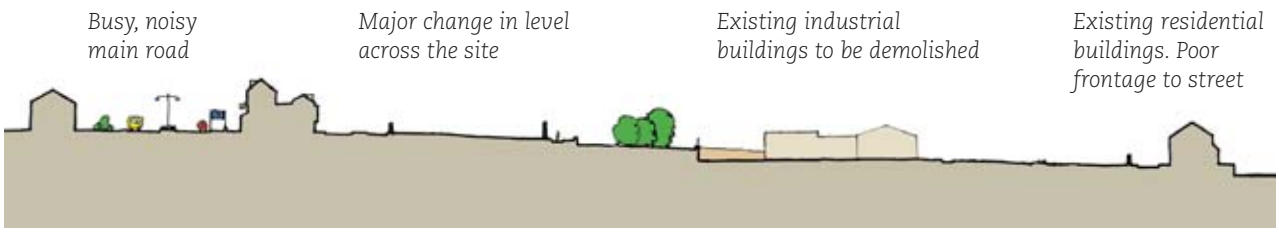
The existing desire line across the site should be retained as a pedestrian and cycle link if possible (left).



Key

- predominantly 2 storey buildings
- predominantly 3 & 4 storey buildings
- important destination
- existing buildings on site
- existing open space
- existing trees
- site boundary
- existing pedestrian desire line
- noisy road: need to protect new development from traffic noise

Sketch section A-A



3 Layout

A good layout of streets, spaces and buildings is fundamental to achieving high quality residential development.

3.1 Introduction

The layout of streets, spaces and buildings is the most important factor influencing the character and quality of new residential development. If the layout has problems, even high quality building design will not be able to turn the scheme around and make it into a good place.

This section begins by looking at the lessons on layout that can be learned from Oldham and Rochdale. It then goes on to set out principles for achieving the following objectives:

- making connections;
- creating a safe and secure place;
- creating a clear structure; and
- integrating sustainability.

This guidance should be read in conjunction not only with local planning policies, but also with:

- By Design: Urban Design In The Planning System – Towards Better Practice (2000);
- Better Places To Live By Design (2001); and
- North West Best Practice Design Guide (2006).

3.2 Learning from Rochdale & Oldham

Rochdale and Oldham provide useful lessons in how to lay out streets, spaces and buildings in residential areas. There are many different types of layout, and we look at three main types in this document:

- traditional networks – regular and irregular;
- suburban culs-de-sac; and
- experimental layouts such as Radburn.

Traditional networks

Traditional structures are often very simple grids of streets connected together. These grids may be very regular, creating rectangular or square blocks for buildings; or they may be irregular, creating a variety of block shapes for buildings. The character of both of these block types can be dramatically altered by a hilly topography, such as that found in Rochdale and Oldham. Smaller settlements may consist more of a 'web' and less of a grid of streets.

The character of buildings will modify the character of the blocks – formal designs may reduce the informality of an irregular layout; informal cottages can soften a regular grid. However, successful urban design tends to marry buildings, landscape and structure together to create a coherent character – e.g. irregular grid structure with informal buildings and natural landscape; formal grid with grand buildings and formal boulevard tree planting, for example.

These traditional networks of streets are easy for people to understand and to move around, as:

- it is usually obvious which streets are more important and which are less so;

- places are well connected to one another, giving convenient and direct routes (especially for pedestrians and cyclists); and
- houses front onto the streets, so the streets feel safe and it is easy (as a visitor) to find the front door.

Culs-de-sac

The housing estates of recent decades have often been based on a suburban cul-de-sac layout. Whilst the culs-de-sac themselves can result in quiet, attractive residential environments, layouts dominated by them have wider problems in that:

- there are few connections between the different streets. This results in very long walks for pedestrians, and discourages people to move about on foot;
- because of this, the car becomes more appealing. However, because only a few streets provide the 'connectors' all traffic is forced onto these limited streets – resulting in car-dominated streets. Buildings often turn their back on these connector streets – increasing their unfriendliness for pedestrians; and
- although there is a range of street types, they tend to look very similar to one another. Thus, it can be very difficult to tell where you are within the development.

These problems do not mean that culs-de-sac should not be developed – however, they should not dominate a place.

Irregular traditional grid

Regular traditional grid

Cul-de-sac layout

Experimental layouts

With ownership of the private car growing in the 1960s, designers began to explore layouts that could work well for both cars and residents. These included the 'Radburn' estate, where routes for cars and pedestrians are separated. The focus was intended to be on people, with houses turned away from the street to overlook public open space and footpaths. Other layouts include tower blocks and medium-rise flats in large areas of open space. These experimental layouts have a number of problems:

- vehicles and pedestrians have separate movement networks, resulting in a confusing web of routes with too many connections for pedestrians;
- there are too many open spaces with little or no function / unattractive areas of grass; and
- there is confusion between the fronts and backs of houses in many locations, resulting in open spaces not being overlooked and exposed / vulnerable back gardens.

The Radburn layout in particular is a useful reminder that we need to consider the quality of open space and the usefulness of connections. More of both is not necessarily better.

The layout of new residential developments should take on the best from these examples, and avoid the worst. In particular:

- streets should be connected together, providing pedestrians especially with direct routes between places;
- streets should have different characters that reflect their importance. This helps people to find their way around;
- more connections are not necessarily better than fewer – it is their quality and usefulness that is important;
- ensure that building fronts overlook streets and spaces, and avoid back gardens onto public space; and
- design open spaces to have a clear function. Avoid 'left over' space that has not been designed in from the outset.

The remainder of this section explores these themes, expanding them to provide detailed design principles.

Experimental layout

As houses in Radburn layouts tend not to front onto public spaces, as in more traditional layouts, spaces are not well overlooked.

This Radburn estate in Ardwick is being redeveloped to solve its problems of confusing fronts and backs of buildings, and lack of overlooking of streets and spaces.

3.3 Making connections

The principles for making connections are:

- new developments should connect into existing routes around the site, and not turn their back on them;
- where there are existing desire lines across a site, these should be integrated into the new development;
- pedestrian routes within the site should connect with the places that people want to go to outside of the site area – for example, schools, shops, open spaces and public transport facilities; and
- new routes may include pedestrian and cycle only paths and open spaces as well as traditional streets, where these are appropriate to the development. A good example is shown below, where a car free square is linked to the existing street network via a pedestrian-only route overlooked by the fronts of buildings.

Typical cul-de-sac layout that fails to connect into neighbouring areas (far left).

This development in Beverley, Yorkshire connects well to the surrounding area, especially for pedestrians (left).

1 *Vehicular access*
2 *Pedestrian only route links to existing street*
3 *Principal vehicular access*
4 *Car free square*

Whilst this development has provided a connection to the local area, it is not well designed and is not overlooked by building fronts (far left).

The pedestrian-only route is carefully designed into the layout (left).

3.4 Creating a safe and secure place

There are two principles that are key to creating safe and secure residential environments:

- making sure that public places are overlooked by the fronts of buildings; and
- distinguishing clearly between public and private open space, so that there is no confusion.

These principles are closely related to one another. Consistently organising buildings so that they front onto and overlook streets and spaces results in a building form known as the 'perimeter block'.

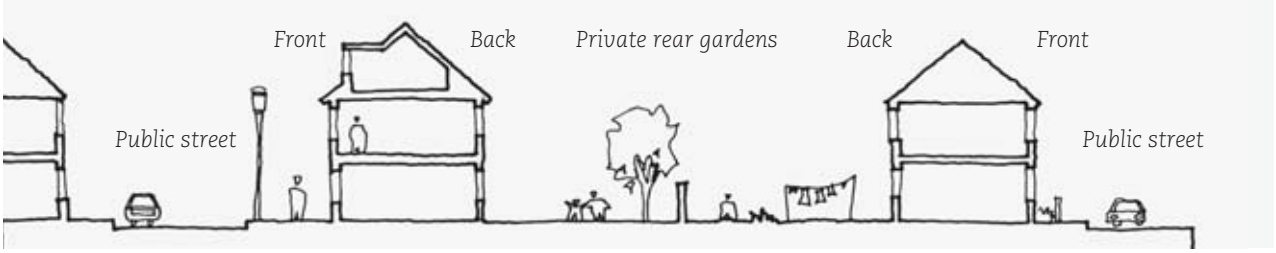
At the same time as overlooking the street, this arrangement uses the buildings as a 'barrier' between the public street at the front and the private areas to the rear of the buildings. Thus, there is a clear distinction between where members of the public may go and where they are intruding on private space.

This courtyard is well overlooked by buildings, and the planting areas mean that residents have a reason to linger in the courtyard and so bring life to it (far left).

A much less successful courtyard: overlooking is minimal and series of garage doors and gates is forbidding (left).

Rear boundaries onto public space are vulnerable to criminals, and are an unattractive edge to the space or street.

Traditional streets have a clear distinction between the public street and the private space that belongs to the houses.



This arrangement of perimeter blocks and fronts and backs is found in traditional forms of development, and has endured well over the years as our lifestyles have changed. However, the need to positively design parked cars into residential development, means that we must think beyond simple perimeter blocks to make environments that work.

Rear parking courtyards have increasingly become a popular way of accommodating the car. However, these straddle the 'public-private' divide and need to be very carefully designed if they are to be safe.

'Better Places to Live By Design' notes that courtyards which work well have three main characteristics:

- they are not car parks but places which have parking in them;
- they are overlooked by adjoining houses, or by buildings within the parking area; and
- they normally contain at most 10 parking spaces. If there are more space the courtyard layout should be broken up.

Thinking of courtyards as attractive places to be in their own right is critical in achieving good design. Well considered hard and soft landscape and lighting are essential to creating safe, inviting spaces.

Traditional perimeter block form

- cars are parked on street: good overlooking from dwellings but cars tend to overwhelm the street;
- corner buildings tend to have blank gable ends onto the street;
- alleys provide access to rear gardens: security often a problem as they are not overlooked; and
- dwellings face onto and overlook surrounding street.

Perimeter block designed to provide car parking within it

- view into courtyard ends on dwelling – showing passers-by that it is not just a place for cars;
- dwellings within courtyard provide overlooking, so improving security;
- dwellings face onto and overlook surrounding street;
- buildings designed to turn corner and provide overlooking of courtyard entrance; and
- courtyard provides convenient access to rear gardens, so that bins and lawn mowers do not have to be taken through houses.

3.5 Creating a clear structure

Over the past few decades, housing development has tended to result in bland places where everything looks the same – houses look similar to one another, and all the streets have the same character. This makes for a confusing place, where it is easy to get lost and disoriented.

Good developments incorporate the following principles:

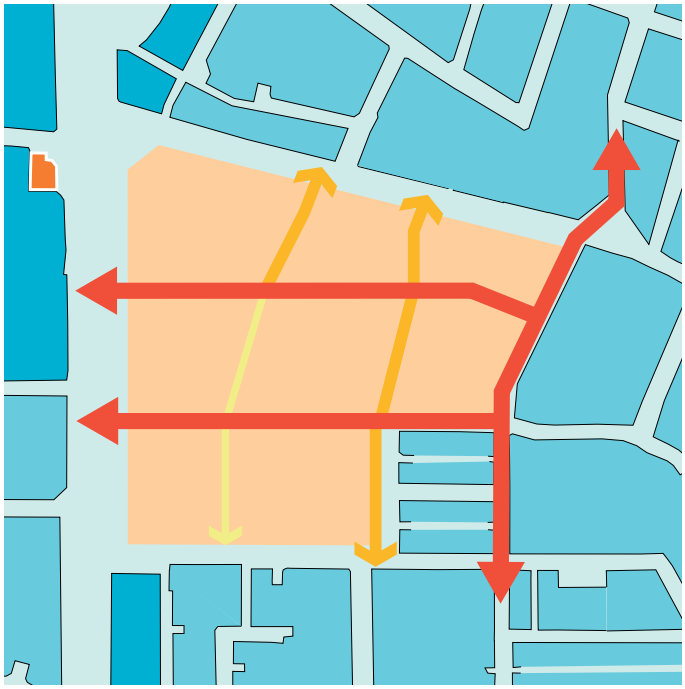
- they create identity and character by designing streets and spaces as places in their own right, not just a means of getting from A to B;
- there is a clear structure of streets and spaces. That is, it is obvious which are the more important streets that connect places together and are used by many people, and which are the more private, quieter streets that are mostly used by the people living on them. This goes hand-in-hand with creating a strong, positive character; and
- the clear structure incorporates:

  – a hierarchy of different street types;

  – new focal points such as squares and green spaces; and

  – views, especially towards existing landmarks.

Further guidance on street character is provided in Section 4: Public Realm Design.



development site

main street

secondary street

predominantly pedestrian route

3.6 Integrating Sustainability

A sustainable approach to design is critical if we are to create environments that endure over time. Many sustainable design principles dovetail with urban design principles – e.g. connecting a new development to the wider area not only ensures that it'belongs' to the place, it can also help to encourage walking and reduce reliance on the car. At the stage of designing the site layout, the following sustainable principles should be integrated into the design:

- making connections to the wider area, especially those that promote walking, cycling and use of public transport in preference to the car;
- retention and integration of existing landscape on the site, especially if it is of ecological value;
- retention and conversion of existing buildings where feasible;
- orienting the layout to provide shelter from prevailing winds and to maximise benefits from solar gain;
- the use of sustainable urban drainage systems (SUDS) to reduce the impact of runoff, recharge natural ground water (where appropriate) and provide wildlife habitats; and
- making efficient use of land, with minimum residential densities of 30 dwellings per hectare (dph) and higher densities in more accessible locations, and/or locations where higher densities are appropriate to the character of the surrounding area.

Developers should note that higher densities that compromise the principles set out in this guide by being inappropriate to their context will not be permitted.

Biodiversity can be encouraged even in urban environments such as Greenwich (far left).

Make connections to the wider area that promote walking and cycling, and integrate cycle parking facilities (left and below).

Drainage solutions should be integrated into the layout from the earliest stage. SUDs features can take many forms, and work with both urban and rural developments.

4 Public realm design

Pedestrian-friendly streets and spaces helps to create places where people want to live

4.1 Introduction

This section covers the design of the public spaces between the buildings – that is, streets, squares, courtyards, greenspaces, play areas, and car parking. Together these spaces are the 'public realm', and their quality is critical to the success of residential development. The design of the public realm should achieve the following objectives:

- creating pedestrian friendly streets and spaces;
- creating a public realm with a distinctive character;
- sensitively integrating car parking; and
- incorporating successful green spaces that promote biodiversity.

Streets and spaces.

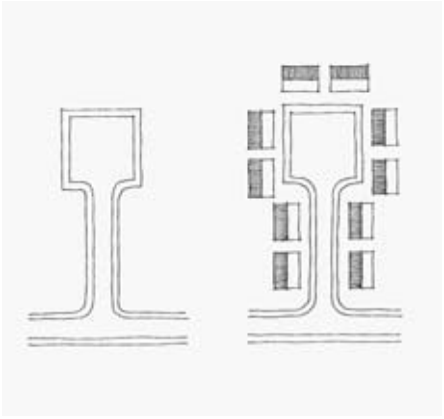
Car parking.

Green spaces & biodiversity.

4.2 Creating pedestrian friendly streets and spaces

Residential streets must be designed as pedestrian friendly places, not just as a means of getting from one place to another by car or a place to park cars. That is, they should be designed as places for people not places predominantly for cars. The principles for achieving pedestrian friendly streets are:

- start by thinking about the place rather than the car;
- design streets so that pedestrians and cyclists feel safe;
- design to minimise clutter; and
- design for easy maintenance.



Rather than fitting buildings around streets…

…fit streets between buildings.

Start by thinking about the placerather than the car

In far too many new residential developments, the roads are designed following a technical highways guide that places the emphasis on the geometries on junctions and turning heads. Once this layout has been set, houses are fitted in around the streets. The result is a bland development designed for the car. If we are to achieve the aim of creating places of character, then streets need to be thought about from the point of view of creating good places rather than the technical demands of vehicles.

However, this does not mean to say that technical requirements can be disregarded: early consultation with highway officers during the design process is strongly recommended.

These streets are not pedestrian-friendly as they have been designed for the car, not for people.

This housing development in Didsbury creates attractive streets that are not just for cars.

Design to reduce vehicle speeds

There is no need for vehicles to exceed 20mph within residential developments, and this is the maximum speed that will be permitted. Residential streets should be designed to keep speeds to 20mph or less by making exceeding these speeds difficult for the driver. Layout principles that can help reduce speed include:

- creating an intricate network of streets, so that distances between junctions are short so requiring drivers to stop and look frequently;
- ensuring that views along streets are contained by buildings and landscape so that, although a safe forward visibility distance is provided, drivers do not have long, open views along roads. Curving streets can help to contain forward views; and
- locating buildings close to or at the back edge of the footway, so that streets feel enclosed rather than open.

Additional traffic calming may also be required to slow vehicles down. The emphasis should be on designing calming features as a 'natural' part of the street scene rather than something that has been added into a street. 'Horizontal' traffic calming (such as narrowing at key gateway locations, and chicanes) tends to be more sympathetic to the street scene than 'vertical' traffic calming (road humps and speed tables). For this reason, horizontal traffic calming is the preferred approach.

This traffic island works well, as it not only makes cars change direction but it also provides pedestrians with an attractive crossing point to an open space.

This is a successful chicane, as the change of direction is tightly enclosed by buildings so limiting drivers' views forwards.

Some older places in Rochdale and Oldham are good examples of how traffic calming can be 'built in' to a place.
The narrow 'pinch points'and forward views tightly enclosed by buildings help to slow cars down.

Design streets so that pedestrians and cyclists feel safe by:

- ensuring that the fronts of buildings overlook streets and other spaces;
- minimising blank walls, especially in corner locations;
- provide good lighting;
- designing landscape to allow views through;
- avoiding barriers and other street furniture designed to 'protect' pedestrians from cars, and instead ensure that cars travel slowly; and
- ensuring that streets and spaces are accessible to all. So that people do not feel excluded and can move around easily.

Design to minimise clutter:

- consider the position of signs and other street furniture – can they be combined to reduce clutter?
- make the most of opportunities for locating lighting on buildings and other structures, so removing light columns from footways; and
- minimise the use of bollards to control the car.

Design for easy maintenance:

- involve those who will maintain the streets and spaces early in the design process so that technical requirements can be accommodated without compromising the design approach;
- ensure that materials and street furniture have a long life and, when necessary, can be replaced easily; and
- keep designs simple, so that they are easy to clean.

Neither of these places feels safe for the pedestrian: blank walls and rear garden boundaries means that there is no overlooking of the routes.

Many of the traditional terraces in Rochdale and Oldham have blank gable ends onto the street. A better environment is created if buildings are designed to turn the corner.

The landscape in both of these streets introduces greening, but still maintains good, open views along the street for pedestrians.

Design to minimise clutter – unlike this development.

4.3 Creating a distinctive character

Designing streets and spaces so that they have a distinctive character helps to create a memorable place that people can easily find their way around. The principles that help to create character in the public realm are:

- creating a hierarchy of different street types;
- designing buildings and streets to work together positively; and
- using changes in materials and landscape to support distinctive characters.

Create a hierarchy of different street types

Traditional highway authority technical design guides often specify a hierarchy of different road types, and these might typically include:

- a collector road, with a maximum speed of 30 mph
- a traditional estate road;
- an access road;
- a shared surface road; and
- a mews court.

The principle of creating a hierarchy of different road types is a good one, as it helps to create distinctive places. However, the traditional highway approach to street hierarchy is based on design speeds, road widths, and the number of units that may be served off each road type. It does not consider the character of the streets that are being created.

Developers will be expected to create a hierarchy of different street types for residential development that works with the overall design approach to character. Each development is different, so this guide cannot set out prescriptive details of how a hierarchy of streets should be designed.

The hierarchy may be very simple for a small site – for example, a main street and a series of small mews courts. For larger developments, a more complex hierarchy of five or six streets types will give the scope needed to create a richly varied environment. These may typically include:

- a main street that runs through the heart of the development, connecting it all together;
- secondary streets that connect to the main street, and also feed other streets and spaces;
- mews courts; and
- courtyards.

At New Hall, Harlow the different street types give the place a varied character.

The main street with its trees in grass verges and 3–4 storey buildings contrasts with the more intimate scale of the more simply designed streets and mews.

Design buildings and streets to work together

The character of a place is influenced not only by what buildings look like, but also the way in which buildings and spaces work together to create townscape. The relationship of buildings to streets and spaces is therefore critical to quality, and the following must be carefully considered:

- building height and street width;
- continuity of frontage; and
- front boundary treatments.

Building height and street width

Varying the width of streets helps to define where they stand in the overall hierarchy. Typical widths for residential roads may be as follows:

- A 5.5m carriageway allows for all vehicles to pass one another. This will normally be the maximum width needed for a residential road.
- A 4.8m carriageway allows a car to pass a large service lorry (such as a pantechnicon), but will not allow two large vehicles to pass one

another. However, traffic is still considered to be in free flow.

- At 4.1m two large cars can pass one another. However a large lorry cannot pass a car. This is the minimum width for a two-way residential street.
- Widths of less than 4m are realistically only for one-way traffic as cars can only pass one another at very low speeds.

However, it is not only the technical requirements of vehicles that should determine the width of a street.Other considerations should include:

- what is an appropriate distance between the fronts of houses to provide adequate daylight and sunlight to internal spaces? This will vary according to the orientation of the street and the height of the proposed buildings, and so needs to be considered specifically in relation to the site and not in the abstract sense of a 'pattern book' of street hierarchies.
- what is an appropriate distance for providing residents with privacy whilst inside the house?
- is landscape to be included within the street?
- is on-street car parking to be provided?

Most importantly, the height of the buildings in relation to the width of the street has a significant impact on the character. Two storey dwellings enclosing a narrow mews street will create a very different character from the same buildings along a wide tree lined boulevard.

The Manual for Streets provides detailed guidance on street design, and designers should consult this in addition to this Design Guide.

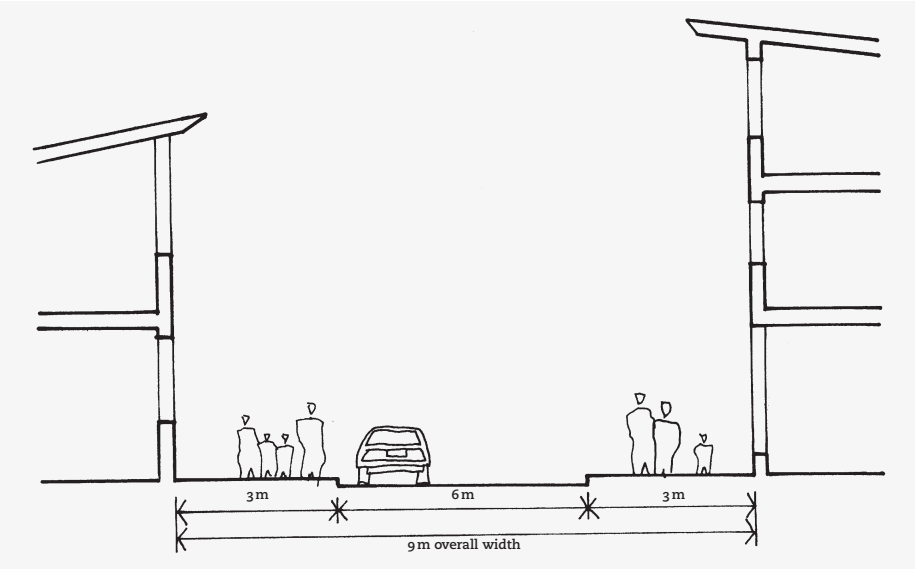
Continuity of frontage

Continuous building frontages (such as terraced houses) result in a stronger sense of enclosure to a street than discontinuous frontages (such as detached houses). More continuous building frontages tend to be associated with higher density more urban places, whereas less continuous frontages tend to reflect a more suburban or rural character. However, this is rather an oversimplification: for example, the hearts of Dobcross or Littleborough will have a very high degree of enclosure provided by continuous frontages. It must be stressed that a design approach must relate to place – what is appropriate in the town centres will not necessarily be appropriate on the rural fringe.

Continuity (or lack of it) should be a conscious part of the design process to create streets with a distinctive character. Designers considerations should include:

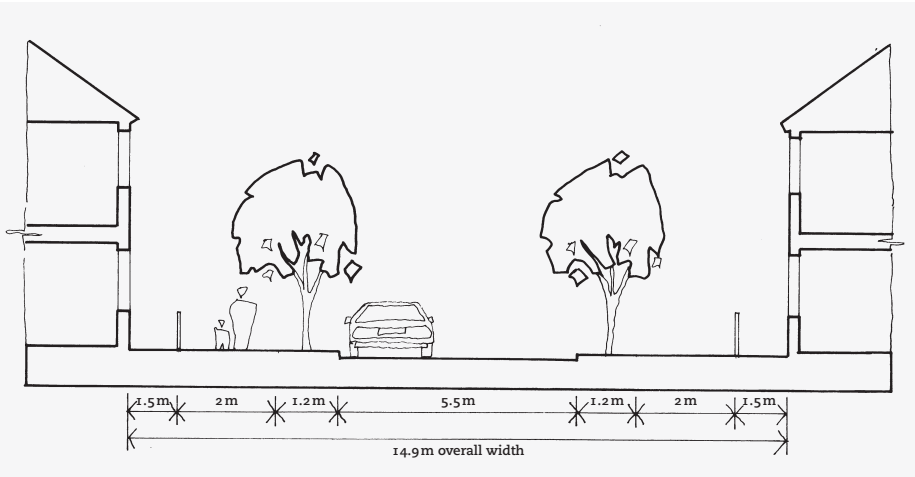
- house types: the greater the number of detached dwellings, the less the continuity and sense of enclosure; the greater the number of terraced dwellings, the greater the continuity and sense of enclosure;
- how garden walls, garages and outbuildings are used to add to continuity;
- the use of specific house types in corner locations; and
- the use of landscape to reinforce continuity.

High Street

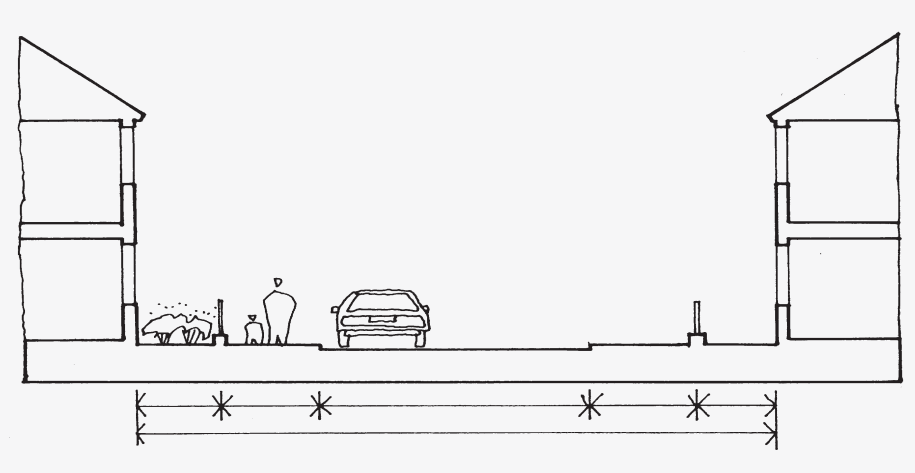


Street hierarchy for Lightmoor in Telford which aims to create: an enclosed urban character to the High Street; distinctive principal streets with boulevard tree planting connecting to the village centre; and simple streets that in turn connect to mews and courtyards.

Principal Street



Street



Front boundary treatments

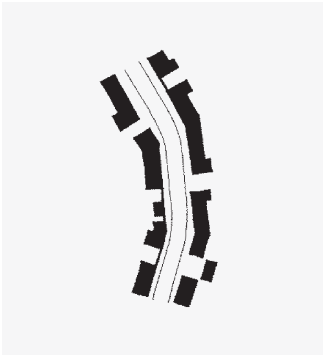
The character of the street will be affected by the distance buildings are set back from the footway, and the treatment of front gardens.

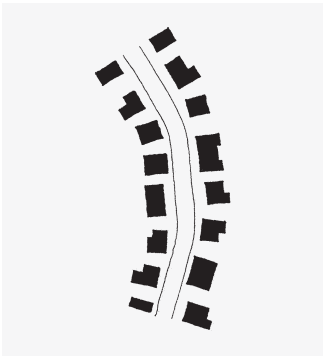
- buildings right at the back edge of the footway with no front garden result in a very strong sense of enclosure and an 'urban' feel to the street; whereas
- buildings set back behind large, green front gardens will enclose the street less strongly and have a quite different, more suburban character.

In addition to the setback distance, the boundary treatment itself will affect character. Fences, walls, hedges, railings or – alternatively – no boundary, all have a significant effect on character and should be designed in as part of the overall scheme.

Issues designers should also consider include:

- providing privacy from passers-by for residents with a change in level or small setback from the street;
- designing in locations for plants and other forms of 'personalisation' – 1 to 2 m is often sufficient;
- providing a place to pause before entering or leaving the dwelling, and preventing children running directly into the road; and
- designing in bin stores (see Avoiding detail compromising quality on page 57).





Different levels of enclosure and different characters can be created even with buildings of a similar scale. It all depends on the relationship to the street (setback, front gardens, landscape in the street) and the degree of continuity of the buildings (continuous terraces, semi-detached houses with gaps in between). The designer must make choices appropriate to his or her specific scheme.

This street in Greenhithe Kent has good continuity, as buildings and accesses to rear parking have been designed together to create a strong frontage to the street.

Landscape and materials

Landscape, materials and street furniture should be used to support the distinctive character of streets, and should be carefully considered in the development of the hierarchy of street types. For example:

- materials may change from bitmac for streets at the top of the hierarchy to brick pavers for courtyards and setts and bound gravel for mews streets;
- formal 'boulevard' tree planting along streets at the top of the hierarchy may change to informal, soft planting in a mews; and
- lamp columns may be free standing in wider streets, whereas lights may be attached to buildings in a mews.

It is important that arbitrary changes in materials, landscape and street furniture are avoided.

The varied approach to setback distances and boundary treatments give a different character to all of these streets.

Buildings at the back edge of the footway (left and below left) enclose the street more tightly than buildings set back from the pavement (below).

4.4 Sensitively integrating car parking

Designing good car parking into residential developments is a major challenge for designers, and a strategy for car parking should be developed early in the design process. There are two often conflicting principles with which designers must contend:

- cars parked on the street and in front of dwellings can seriously detract from the quality and character of a place. Reducing the visual impact of parked cars is a key principle in creating good residential environments; and
- residents should be provided with safe and convenient access to their cars. Hiding them away in poorly designed courtyards can lead to problems of crime and lack of personal security.
  Residents normally like to be able to see their parked car from within their house.

There are several approaches to car parking:

- parking within the dwelling itself (i.e. an integral garage) or in the private area owned by the house (the 'curtilage' of the dwelling') – referred to as 'in-curtilage' parking;
- parking in communal areas, which may be either to the front or the rear of the dwellings; and
- on-street parking.

Good layouts tend to use a combination of these different approaches, rather than using just one solution to parking.

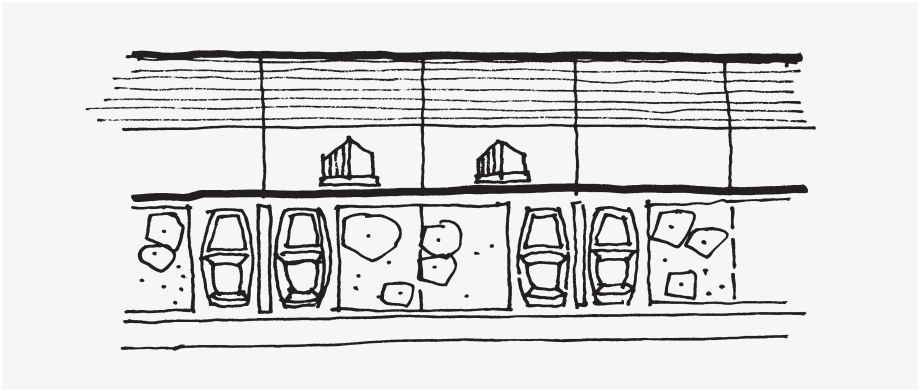
The principles that help to sensitively integrate car parking are:

- minimise the visual impact of cars parked within the curtilage of a dwelling;
- integrate garages into the townscape;
- create high-quality, safe communal parking areas; and
- design on-street parking into the layout.

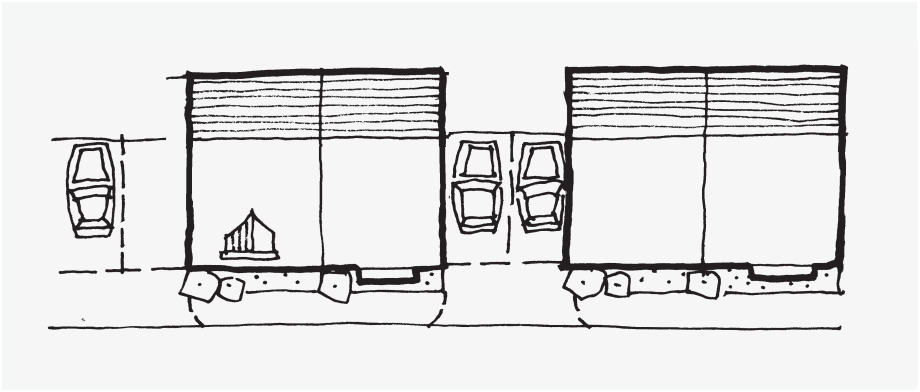
Minimising visual impact

Cars parked in front of houses tends to result in cars dominating the view along the street. This approach needs very careful landscape treatment to soften the visual impact of parked cars. For this reason, parking in front of dwellings should be avoided where possible.

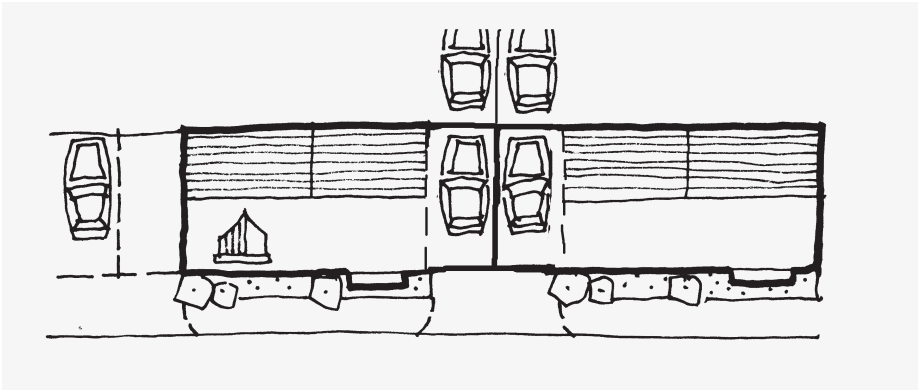
If parking is to be accessible from the street, its visual impact can be reduced by locating it between buildings or taking it through to garages or parking spaces in the rear garden. Wide frontage, shallow depth dwellings can be an effective and attractive way of taking cars under buildings and into the rear area.



Parking in front of houses should be avoided where possible.



Parking accessible from the street should be designed to minimise the visual impact of the car (left and below).



Integrating garages

Where garages are an integral part of the dwelling (most commonly in a 'town house'), a garage door will front onto the street. It is important that these are sensitively designed into the facade of the building, with windows and doors to other rooms providing an 'active' frontage to the street. Long rows (i.e. more than three) garage doors unrelieved by doors or windows to other rooms will not be permitted.

There is an opportunity for stand-alone garages to contribute positively to the street scene by designing them as 'outbuildings' to the dwelling they serve.

Parking in front of dwellings must be very carefully designed if it is to be successful (far left).

At Didsbury the landscape and recessed garage doors combine to reduce the visual impact of cars (left).

Mews flats over garages can help create attractive, safe environments.

These garages have been designed to appear as workshops or outbuildings, and contribute positively to the street (far left).

Too many garage doors, unrelieved by windows and doors result in a hostile environment.(left).

Creating high quality, safe communal areas

At the higher residential densities now expected, some car parking will need to be accommodated in communal areas, of which there are two types:

- 'public' areas to the fronts of buildings; and
- 'private' areas to the rear.

Communal parking in public areas provides an opportunity to create squares and other urban 'set pieces' that – if well designed – can create a focal point within a development, that has the flexibility to accommodate other uses, when not occupied by cars.

For this type of parking to work well, it should be designed so that:

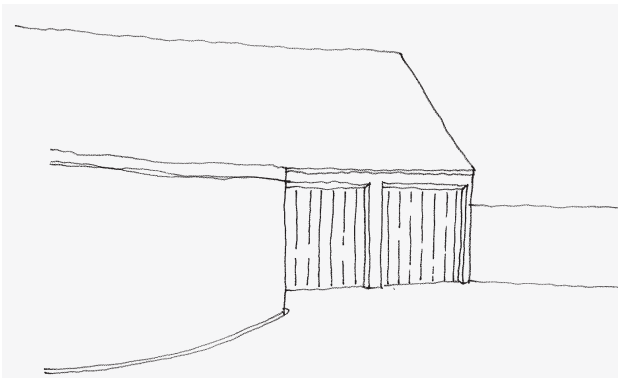
- the space is overlooked and defined by the fronts of dwellings;
- good quality materials are used, avoiding wall-to-wall tarmac;
- landscape is used to soften the visual impact of cars and to structure the spaces – e.g. trees forming a grid, rather than shrubs being planted in 'left over' corners;
- parked cars are organised in small groups (e.g. five in a row as a maximum) and large areas of parking are avoided; and
- the space is designed to look good both with and without cars parked in it.

Parking in private courtyards to the rear of dwellings can help to create an urban character to the streetscape (as it helps to push buildings forward to enclose streets) as well as providing residents with convenient car parking. However, private courtyards must be carefully designed if they are to be safe, secure and attractive. The key principles are:

- design private courtyards as attractive places to be in their own right, not just as places to park cars. Incorporate good quality materials and landscape;
- design entrances to give a feeling of entering private space – e.g. ensure that buildings at the entrances to courtyards are designed to 'turn the corner' and so providing overlooking; continue buildings above the entrance;

- where courtyards are sufficiently large, locate dwellings within them to provide activity and overlooking. Special dwelling types such as mews, flats above garages can be very effective;
- design robust boundaries to rear gardens constructed of brick, stone or other durable material; and
- consider views into the courtyard from the public street, and terminate them with something positive (the front of a dwelling, the entrance to a mews flat above a garage, a mature tree) rather than something that suggests an uncared for place (a sub-station, parked cars)

Ballard Close in Littleborough has been designed so that the communal parking areas are attractive spaces, and not just places to park cars.



How not to design a rear parking court: blank walls, no overlooking, low quality surfacing, no landscape.

The entrance to this rear parking court is well overlooked by houses, which helps give it a feeling of security.

With a little more care, the courtyard could be an attractive and safe place. A mews flat above the garage provides overlooking of the courtyard, and landscape has been thoughtfully located on the view into the courtyard.

At Ingress Park in Kent, a variety of on-street parking has been carefully designed into the scheme: from parallel parking on street (right) to shared-surface home zones, courtyards and mews.

On-Street Parking

Whilst a key principle of designing car parking is to reduce the visual impact of cars, some on-street parking can be positive as it:

- brings activity to the street;
- can act as traffic calming, slowing down vehicles; and
- is also useful for visitors, as it is usually conveniently located near front doors.

On-street parking should be designed into the layout at the outset. There are broadly two approaches:

- designing parking bays into a street, as shown below; or
- designing streets as 'home zones'.

Home Zones are residential streets in which the road space is shared between drivers of motor vehicles and other road users, with the wider needs of residents in mind. This is achieved by adopting approaches to street design, landscape and highway design that control how vehicles move without restricting the number of vehicular movements. Home Zones are more than just a way of reducing traffic speeds. The Public Realm Design Guide includes more detail on Home Zones.

'Home Zones: A Planning and Design Handbook' (2002) produced by the Joseph Rowntree Foundation provides comprehensive guidance on the design of home zones, based on principles including:

- design for maximum vehicle speeds of 10mph;
- ensure there is a clear entrance to the home zone;
- use shared surfacing;
- keep the character of the street unified; and
- integrate on-street parking.

4.5 Green spaces and biodiversity

Green spaces

There are policy requirements for minimum areas of open space within new residential development (see H/6 in Rochdale's UDP, and RI in Oldham's UDP). However, this guide's aim is not to repeat these requirements but instead to focus on the quality of open space that should be provided.

High quality open space brings many benefits to residential environments. Good spaces:

- function well with their intended use, which may include play, exercise and/or relaxation;
- provide an area with a sense of identity and community; and
- are usually located at the heart of the development, rather than being a left over space on the edge.

The principles that help to create successful open spaces are:

- design open space into the development at the earliest stage. Space Left Over After Planning (SLOAP) must be avoided;
- ensure that fronts of buildings overlook the space;
- provide safe, accessible pedestrian and cycle links to and across them; and
- design the space to reflect the character of the development – formal spaces for more urban environments; and softer spaces for more informal environments.

A formal linear open space at Greenhithe, Kent provides an attractive setting for both existing and new buildings, and an important pedestrian link to the waterfront (far left).

A more informal space providing a link at Cambourne, Cambridgeshire (left).

Greenscape needs to be positively designed in to residential development. This 'left over' space has very little value (far left).

A positive shared greenspace designed as an integral part of the development at Greenwich Millennium Village (left).

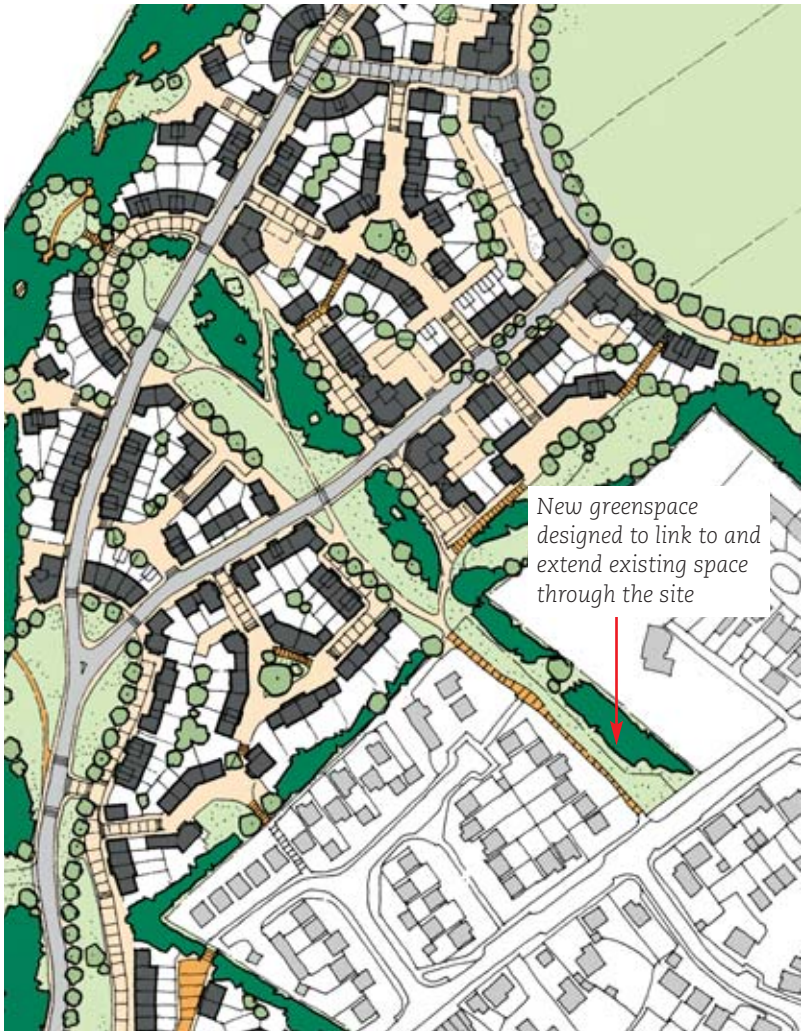
Biodiversity

In designing green spaces into residential development, the opportunity should be taken to maintain and enhance the ecological value and biodiversity of the area by employing the following principles:

- retaining existing vegetation where possible;
- using native plants and trees;
- designing new open space to link with existing open spaces, so providing continuous green corridors;
- creating new habitats for wildlife;
- integrating features such as sustainable urban drainage ponds and swales into open spaces; and
- designing to reduce maintenance requirements, and ensuring that a robust management plan has been developed.

Developers will be expected to demonstrate that:

- they have carried out an assessment of the site's existing landscape and ecological value to an appropriate level of detail;
- the proposed development accommodates existing features of biodiversity value where possible; and
- the landscape and open space strategy for the site aims to enhance the biodiversity of the site.



This layout is a good example of creating connections to the surrounding area and extending existing spaces through the site.

Developers should carry out an assessment of the site's existing landscape and ecological value, and include this in the analysis of the site's constraints and opportunities.

5 Building design

Buildings should be designed to create apositive character by responding to context, introducing appropriate variety and creating interesting building forms.

5.1 Introduction

This sections gives more detailed guidance on the design of dwellings, and sets out the following objectives:

- creating a positive character;
- getting the internal layout right;
- avoiding the detail compromising quality; and
- integrating sustainable design.

5.2 Creating a positive character

This section asks why do many recent residential developments lack character? How can developments with a positive and distinctive character be created? It deals principally with larger scale housing developments, and includes some more detailed principles relating to smaller scale infill development.

The principles that help to create buildings with a positive character are:

- responding positively to context;
- introducing appropriate variety; and
- creating interesting building form.

Responding positively to context

Good design responds positively to nearby buildings and spaces, helping to reinforce the character of already attractive places and improve the qualities of less attractive places. Developers should refer to Section 9 of the overall Urban Design Guide, which sets out a number of principles for ensuring that new development responds positively to its context. These principles include:

- development should contribute positively to the prevailing street scene and improve it;
- the scale of new development should be appropriate and sensitive to its context;
- normally, new buildings should be of a scale that reflects the predominant scale already existing in the locality. Major changes in scale between new and existing buildings should generally be avoided; and
- building proportions should take cues from neighbouring buildings and the wider area. These proportions may relate to the large scale (e.g. the vertical subdivision of terraced housing) to the small scale (the size and shape of windows).

The density of development is an important consideration in responding positively to the context. There are two questions to ask:

- Does the density of new development have regard to Government policy?
- Is the density of new development appropriate in terms of maintaining the best qualities and character of the surrounding area?

Government policy set out in Planning Policy Statement 3 (PPS3) – published in November 2006 – requires Local Planning Authorities to

develop housing density policies. This moves away from the government's previous blanket requirement that housing should be developed at between 30 and 50 dwellings per hectare (dph). However, PPS3 makes it clear that 30 dph should be the national minimum until local density policies are in place.

In some cases densities higher than the surrounding density may be appropriate and help meet housing needs and regeneration objectives. In other cases, lower densities may help to create space and meet a particular local need.

Determination of an appropriate density for new development will depend on the circumstances of the site and the character of the surrounding area. This will be the case whether or not the proposal is within the Government guidelines. However, in all cases it will be necessary to show that development will not compromise the best qualities and character of the surrounding area, that it maintains a good living environment for residents both in and around the new development and accords with the design principles set out in this Guide and the overall Urban Design Guide.

For example, where the character of an area suggests a density of 30 dwellings per hectare, developments over that density will need to be justified in terms of how it maintains or enhances the character of the area in accordance with the criteria in the guidance document. Also, where the character of an area suggests a density of around 50 dwellings per hectare, developments below that density will need to be similarly justified.

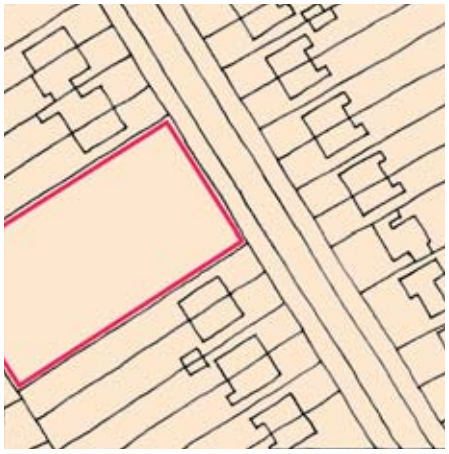
Developments of a density higher than 50 dwellings per hectare will need to be justified in terms of its accessibility (e.g. within or adjacent to town centres or around transport nodes) and its contribution to the local area. Densities lower than 30 dwellings per hectare will only be justified where they are vital to maintain the special character of the surrounding area or for other special reasons, e.g. accessibility constraints.

The diagrams below show how density is one of the considerations in designing to respond positively to the site's context. However, density alone does not determine how well a design responds to its context. The successful example (below, far right) could incorporate flats (higher density) or houses (lower density). Both could be acceptable so long as the buildings are well designed, and meet all of the design principles set out in this Guide and the overall Urban Design Guide.

Infill development has the potential to 'mend' gaps in the street scene such as this. In developing a design approach to the new development, designers should analyse the qualities of the neighbouring buildings. For example, although the buildings vary in their height, roof form, and arrangement of windows, they share some common characteristics:

- the width of the plots is similar;
- the majority of buildings have a strong, unbroken eaves line that is parallel to the street; and
- windows are rectangular, with the short side at the top and bottom giving them a vertical (as opposed to a horizontal) emphasis.

Design that responds sympathetically to its context will reflect such characteristics no matter what the style of the architecture. The diagrams overleaf show three responses to this infill site.

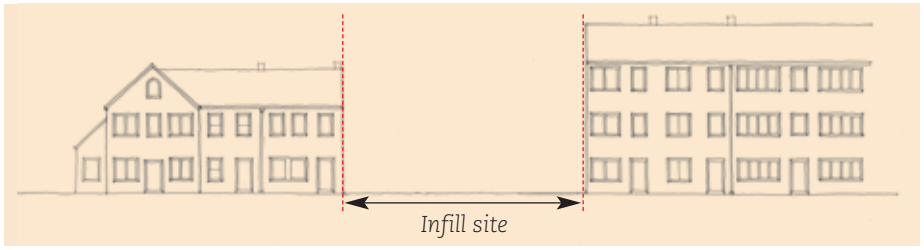


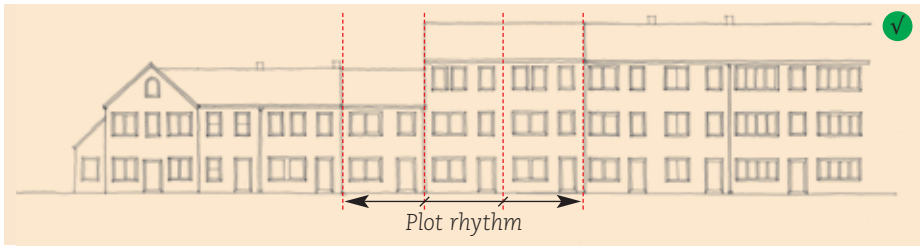
A typical infill development site in a street with a consistent character of semi-detached houses at a consistent density (far left).

This development does not relate positively to its context: it breaks the consistent building line and does not reflect the rhythm of building frontages and spaces onto the street (left).

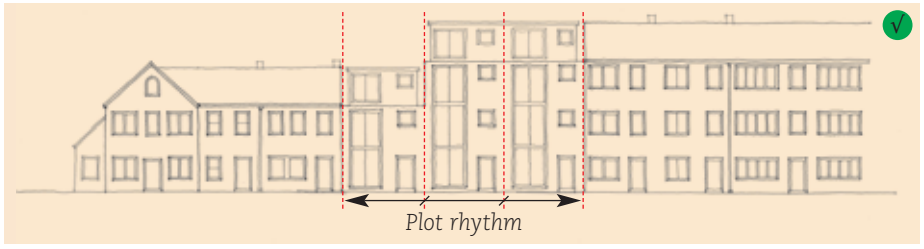
This development also does not relate positively to its context: it fails to respect the consistent building line and introduces an alien ratio of open space to building (far left).

This development responds much more positively to its context by maintaining the existing building line and respecting the rhythm of building frontages to street (left).

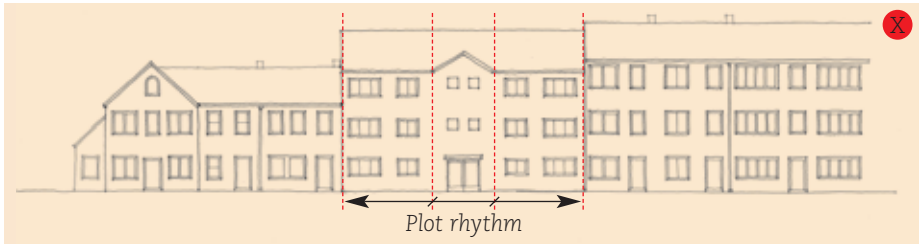




A low-key, traditional approach that closely reflects the design of the existing buildings.



A more contemporary approach, that reflects plot widths, eaves lines and window openings. Thus – despite the differences in architectural style – this design responds positively to its context.



An approach at odds with its context: plot is too wide, the eaves line does not relate to the existing and is broken by a gable, windows have horizontal proportions.

Introducing appropriate variety

Although housebuilders use different house types within developments, there is often a sense of uniformity because:

- they are often the same house types seen throughout the country, and so do not have a sense of 'belonging' to the local area; and
- although the house types vary, they are not so very different from one another so as to produce variety. Often, the overall forms of the building are almost identical and it is only details such as materials, bay windows and porches that are changed.

Creating a positive character requires an appropriate level of variety. Too much variety, and any sense of overall identity is lost. Too little variety, and a place becomes monotonous. Existing places can provide good examples of the right balance of variety and continuity. For example, Dobcross' building forms vary but are nearly all constructed of the same material.

Looking at a more contemporary place such as Beswick, in Manchester, a strong, coherent identity is achieved by:

- limiting the range of materials to red brick and light render;
- avoiding random use of materials, and instead relating them to the three dimensional form of the building – e.g. an entire bay is rendered, rather than a patch of render added to part of an elevation; and
- the overall three dimensional forms of the building is the primary approach to creating interest, with smaller elements such as bay windows playing a supporting role.

Mixing dwelling types is a useful way of achieving urban design variety, as it gives opportunities for combining different forms to create an interesting townscape. For example, apartments can be a useful way of turning the corners of blocks. However, a mix of types and tenures also has other advantages:

- it is a good way of creating socially sustainable neighbourhoods that can offer a range of accommodation to suit people with different needs at different stages in their lives; and
- it can help safety and security, as different dwelling types can have different patterns of use – so that people are around at different times throughout the day and night.

In Littleborough these house types are very similar and any variety comes only from details such as dormer windows and changes in materials (far left).

The consistent use of materials gives Dobcross a strong identity even though building forms vary (left).

Beswick achieves a strong, coherent identity.

A mix of different dwelling types at Poundbury helps to create an interesting and varied place (far left).

At Coalbrookdale in Shropshire, a mix of building types creates a varied streetscene (left).

Where one housing type dominates, there is a lack of variety (far left).

Lack of variety is not just a recent phenomena (left).

Mixing different dwelling types in Bury helps to create character (far left).

Flats are used to turn the corner of this street of townhouses in Didsbury, resulting in a strong character and a variety of dwelling types (left).

Creating interesting building forms

Modern houses often lack the three dimensional qualities of traditional buildings – windows are flush with external walls, eaves barely overhang the walls, porches, balconies and bay windows appear to be 'stuck on' to a simple box rather than being an integral part of the design, changes in materials and brick colour are used instead of richer detailing that casts shadows and creates interest. The result is buildings that are rather 'flat'. Quality design (whatever the architectural style) tends to have a much richer approach to materials and detailed design, for example by:

- designing buildings as a three dimensional whole, so that elements such as bay windows are designed in from the start rather than being 'bolted-on' at the end;

- designing windows and doors so that they are set back from the external facade of the building, which introduces some depth and modelling to the facade;
- incorporating three-dimensional detailing (from traditional brick corbelling to more contemporary approaches), that again give 'depth' to a building; and
- ensuring that changes in materials are related to the design of the building, rather than being an arbitrary way of creating interest. When things are meaningful, they look more convincing and have a more genuine character.

These are important principles that should inform the design of all residential development.

Balconies designed as an overall part of the building at Didsbury, giving 'depth' and interest to the building (far left).

The same development but a less successful outcome: balconies 'stuck on' to the facade add little character to the building (left).

Detailing does not have to be complicated to create richness. (far left) the projecting bay is solidly supported by the steelwork and defines where the ground floor windows and doorway should go. (left): in contrast this is a 'flat' facade where the location and relationship of doors and windows is less well considered.

5.3 Getting the internal layout right

The way in which the internal layout of dwellings is designed has a major impact on how successful the scheme is at meeting some of the broader objectives of safety and security, character, adaptability and sustainability.

Safety and security

The internal layout of dwellings should be designed so that:

- dwellings that front onto streets have their main entrances on to them;
- habitable rooms (such as living rooms) overlook public places to provide 'eyes on the street';
- entrances to buildings can be seen by passers by (i.e. are not hidden from view) and are well lit;

- blank facades onto streets are kept to a minimum, particularly at corners where buildings must be designed to respond specifically to their corner location; and
- rooms such as bathrooms and hallways are not used as the main means of overlooking the street.

Flexibility

Some residential buildings have stood the test of time better than others. For example, traditional terraced houses have been adapted and extended over the years to accommodate changes in the way we live. However, other housing types have been more of a challenge to adapt and change – Radburn housing being one of the most difficult. If new residential development is to have longevity, it must be designed to be adaptable. 'Lifetime Homes' gives practical advice on how to design flexible buildings, and developers will be expected to consider adaptability and demonstrate how it has been considered within the Design and Access Statement.

Measures to promote adaptability may include:

- adequate circulation space for wheelchairs within dwellings;
- car parking that is capable of being enlarged and is an appropriate distance from the dwelling;
- the incorporation of information and communication technology into dwellings; and
- designing dwellings so that a home office can easily be provided.

Liveability

By 'liveability' we mean that the dwelling provides an attractive, comfortable, safe place to live. It is often referred to as a 'residential amenity'. Developers must demonstrate that:

- a good standard of visual and acoustic privacy is provided for each home;
- each home has a reasonably pleasant outlook;
- there is reasonable daylight and sunlight provided to the interior of dwellings;
- dwellings have access to good quality outdoor amenity space, and there is a good level of sunshine to the space for at least part of the day; and
- apartments are provided with adequate good quality outside space.

Traditional rear gardens can be difficult to provide at higher densities. Developers are encouraged to consider other types of open space such as roof gardens, communal gardens, balconies and courtyards.

The impact of internal layout on the street scene.

Blank facade has a deadening effect (far left).

Getting it right – overlooking of the street continues around the corner (centre, left) .

5.4 Avoiding detail compromising quality

Good schemes can be let down by what we have termed the 'forgotten' elements – that is, those things that are forgotten about until the last moment and then shoe-horned into a design. These typically include:

- bin stores and recycling facilities;
- meter boxes;
- bicycle storage;
- walls, fences and gates;
- lighting;
- flues and ventilation ducts; and
- gutters and pipes.

To achieve good quality design, these elements must be considered early in the design process and integrated into the overall scheme. As noted in 'By Design' if they are barely noticeable, then the design is usually successful:

- bin stores and recycling facilities should be designed to screen bins from public view, whilst providing residents with easy access to them;
- meter boxes need not be standard white units: consider a bespoke approach that fits in with the materials used for the remainder of the building. Consider the location of the boxes: can an unobtrusive position be found?
- it is important to ensure that bicycle storage facilities are secure and also conveniently located for the use of residents;
- the materials used for walls and fences should relate to the materials used for the remainder of the building. Walls to public areas, such as streets, should be made of robust materials such as brick, avoiding the use of less obtrusive materials such as timber;
- light fittings should relate to the overall design approach for the building: avoid 'heritage' designs on a contemporary building and vice versa;
- carefully consider the location of flues and ventilation ducts, ensuring they are as unobtrusive as possible. Use good quality grilles that fit in with the approach to materials for the building as a while; and
- ensure that the materials and colour of gutters and pipes fits with the overall approach to the building and aim to minimise their visual impact.

Bin stores positively designed in as part of the boundary treatment to townhouses at Coin Street, London.

Bin stores carefully integrated into the ground floor of mews flats in New Hall, Harlow (far left).

Designing the meter box to match windows and doors at Coalbrookdale, Telford helps to reduce its visual impact (left).

Boundary wall constructed of similar materials to building, creating unified street scene (left).

5.5 Integrating sustainable design

All new dwellings should meet Level 3 within the Code for Sustainable Homes (www.communities.gov.uk/index.asp?id=1506120). There are a number of ways of achieving this standard, but the basic principles are to:

- reduce demand for energy;
- reduce demand for water;
- provide energy in sustainable ways;
- make reducing / recycling waste easy;
- make means of transport other than the private car easy to use; and
- use sustainable materials.

Reducing demand for energy should be the starting point, and this should be done by:

- reducing demand for space heating by making the most of passive solar gain;
- reducing heat loss through ventilation by sealing it and managing the ventilation system carefully;

- insulating buildings to a high standard;
- conversely, reducing the need for mechanical cooling by allowing the building to be opened up on hot days to provide good cross-ventilation;
- reducing demand for artificial light through good daylighting; and
- installing energy efficient appliances.

Reducing demand for water through basic measures such as:

- installing water efficient products such as spray taps and dual flush toilets; and
- providing a water butt in the garden for watering plants.

Where appropriate, use more sophisticated methods of reducing demand for treated water by installing:

- rainwater harvesting systems that use rainwater to flush toilets; and
- greywater recycling systems that clean and re-use water from sinks and washing machines.

Providing energy in sustainable ways:

Where feasible and appropriate 10% of the total predicted energy requirements of new developments should be provided on site from renewable resources. These measures should not have an adverse impact on amenity or townscape character and could include:

- solar panels to pre-heat water;
- photovoltaics;
- wind; and
- micro CHP (combined heat and power).

These developments reduce demand for space heating by making the most of solar gain. They also provide energy in sustainable ways, including by photovoltaic (PV) cells.

Recycling waste:

- design-in storage for doorstep recycling;
- for larger developments, provide on-site recycling points in a convenient location; and
- provide houses with gardens with composting bins.

Make alternative means of transport easy to use:

- design safe and convenient storage for bicycles into the building;
- provide facilities for visitors to securely lock their bikes – e.g. hoops within a well overlooked public space; and
- provide garages with powerpoints so that electric vehicles can be re-charged.

Use sustainable materials:

Selection of materials is complex, and must be carefully considered in the context of each individual development. For example:

- the cement used in concrete creates carbon dioxide emissions. However, concrete has a thermal capacity that is valuable in designing passive solar buildings; and
- using long-life materials may discourage later replacement with a more advanced feature, despite the benefits of longevity.

A sustainable approach to design must therefore be based on a clear strategy that is developed and agreed by all the members of the design and client team.

The key principles are:

- specifying local materials where possible, as this can reduce transport costs and also ensure that the character of the development relates to the locality;
- specifying materials with a low embodied energy. 'Embodied energy' is that consumed in the extraction, manufacture, transport and assembly on site of building materials;
- specifying materials from renewable sources (e.g. sustainably sourced timber);
- specifying recycled materials (e.g. recycled aluminium has an embodied energy content that is about 75% of 'new' aluminium); and
- using materials with a long life expectancy, and with the potential for recycling after use.

Materials and construction methods must be based on a clear strategy for sustainable design as there are often difficult choices to be made.

Convenient cycle parking encourages bike use.

6 Bringing it all together

Good design is more than ticking off a list of principles: good design brings together and balances the constraints and opportunities presented by each site

6 Bringing it all together

This Design Guide alone cannot create high quality residential development. This relies on the skill of the designer in interpreting the principles in this Guide for specific sites. The principles are not a 'tick list' that can be worked through in sequence – instead, they must be brought together and carefully balanced with the constraints and opportunities presented by each site. In this section, we provide an indication of how the principles may be applied to the illustrative site.

Section 2, Response to Site and Context, discussed some of the issues that need to be understood about the site and its surrounding area. This section now moves on to show how this understanding (together with the guidance in this document) can be used to develop a sketch scheme for a site.

The Design Concept diagram is opposite, is an important first step in design as it provides a means of clearly setting out development aspirations for the site on which designs will be based.

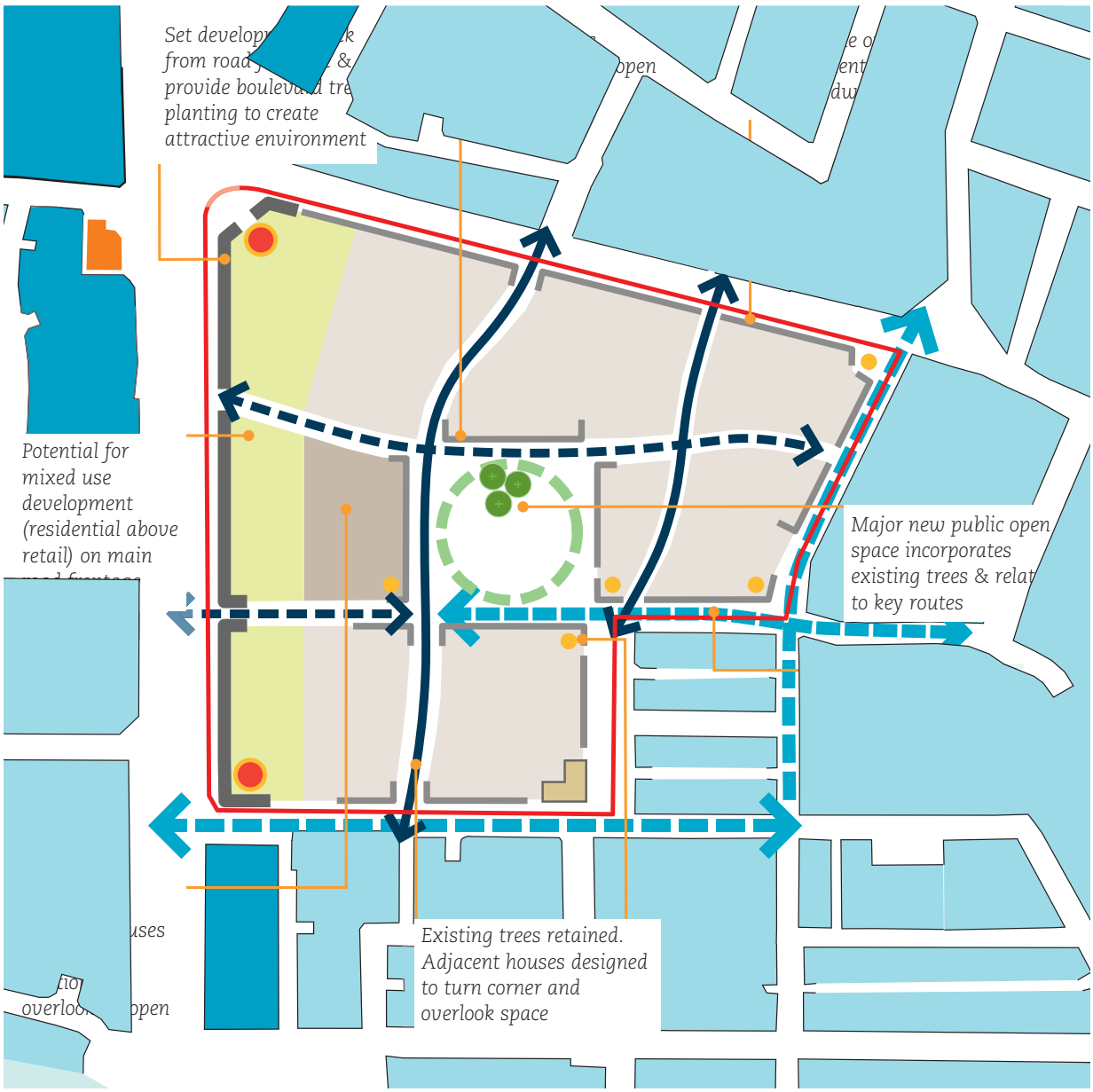
The sketch scheme shown brings together the Design Concept with the design principles set out in this document to create an initial sketch scheme for the site. This would need to be subject to detailed technical testing (for example, access and highways; services; landscape and ecology; ground conditions) as part of working it up to a full design.

In summary, the design of successful, high quality developments requires:

- a positive response to the site and context;
- a layout that connects to the wider area, providing attractive, legible and safe streets and spaces for everyone;
- an easily maintained, high quality public realm that prioritises the needs of pedestrians and cyclists; and
- sustainable buildings that bring a distinctive character to a place.

To do this, developers must appoint multi-disciplinary design teams that are capable of bringing together and balancing the often conflicting constraints and opportunities that affect residential development.

The Design Concept diagram



Key

- Predominantly 2 storey buildings
- Predominantly 3 & 4 storey buildings
- Potential mixed use development
- Potential community use
- New residential development
- Strong frontage onto main road
- Key building frontages
- Opportunity for distinctive building designed to respond to key position on main road
- Buildings designed to respond to prominent corner locations
- Opens space as new neighbourhood focus
- Existing trees retained
- Existing routes integrated into development
- New routes link across site
- New north-south routes link into the wider area
- Existing public house retained

Illustrative sketch scheme

7 Appendices

7.1 Appendix A: Planning Policy Sources: Oldham and Rochdale Unitary Development Plans

2 *Response to Site and Context*

Understanding the context (page 8)

Oldham UDP Review 2001–2016

- Design of New Development: Policy D1, para 3.12 (Introduction)
- General Design Criteria: Policy D1.1, point a
- Development Within or Affecting the Setting of Conservation Areas: Policy C1.1
- Development Affecting the Setting of a Listed Building: Policy C1.9

Rochdale UDP Review 2001–2016 (page 15)

- Design Quality: Policy G/BE/1
- Design Criteria for New Development: Policy BE/2 points a, b
- Conservation of the Built Heritage: Policy G/BE/9
- New Development Affecting the Setting of a Listed Building: Policy BE/15
- New Development Affecting Conservation Areas: Policy BE/17

Understanding the site (page 15)

Oldham UDP Review 2001–2016

- Design of New Development: para 3.5, point e (Introduction)
- General Design Criteria: Policy D1.1, point b
- Protection of trees on development sites: Policy D1.5
- Development Affecting the Setting of a Listed Building: Policy C1.9
- General Design Criteria: Policy D1.1, point a
- Retention of Distinctive Local Features or Structures in Conservation Areas: Policy C1.3
- The Protection of Parks and Gardens of Special Historic Interest: Policy C1.13

Rochdale UDP Review 2001–2016

- Design Quality: Policy G/BE/1
- Design Criteria for New Development: Policy BE/2 points c, f
- Biodiversity and Development: Policy NE/3
- Landscape and Woodlands: Policy G/NE/5
- Landscape Protection and Enhancement: Policy NE/6
- Development Affecting Trees, Woodlands and Hedgerow: Policy NE/8

3 Layout

Making Connections (page 23)

Oldham UDP Review 2001–2016

- Design of New Development: para 3.5, point d (Introduction)
- General Design Criteria: Policy D1.1, point d
- General Design Criteria: Policy D1.1, point f
- General Design Criteria: Policy D1.1, point k
- Access to Developments: Policy T3.1

Rochdale UDP Review 2001–2016

- Accessibility: Policy G/A/1
- Design Criteria for New Development: Policy BE/2 point g
- New Development – Access for Pedestrians and Disabled People: Policy A/3

Creating a safe and secure place (page 24)

Oldham UDP Review 2001–2016

- Design of New Development: para 3.5, point a
- Designing for safety and security: Policy D1.7

Rochdale UDP Review 2001–2016

- Design Quality: Policy G/BE/1
- Design Criteria for New Development: Policy BE/2 points g, h
- New Development – Access for Pedestrians and Disabled People: Policy A/3

Creating a clear structure (page 26)

Oldham UDP Review 2001–2016

- General Design Criteria: Policy D1.1, point d

Rochdale UDP Review 2001–2016

- Design Criteria for New Development: Policy BE/2 point g
- New Development – Access for Pedestrians and Disabled People: Policy A/3 para 18.17

Integrating sustainability (page 27)

Oldham UDP Review 2001–2016

- Design of New Development: para 3.6
- General Design Criteria: Policy D1.1, point g
- Designing for energy efficiency D1.2
- Habitat and wildlife on development sites D1.4

Rochdale UDP Review 2001–2016

- Accessibility: Policy G/A/1
- New Development – Access for Pedestrians and Disabled People: Policy A/3

- New Development – Access for Cyclists: Policy A/4
- New Development – Access for Bus Services: Policy A/5
- Energy Efficiency and New Development: Policy EM/13

4 *Public Realm Design*

Creating pedestrian friendly streets and spaces (page 30)

Oldham UDP Review 2001–2016

- Design of New Development: para 3.9
- General Design Criteria: Policy D1.1, point f
- General Design Criteria: Policy D1.1, point k
- Inclusive Access: Policy D1.3

Rochdale UDP Review 2001–2016

- Accessibility Hierarchy A/2
- New Development – Access for Pedestrians and Disabled People: Policy A/3
- New Development – Access for General Traffic: Policy A/9

Creating a public realm with a distinctive character (page 34)

Oldham UDP Review 2001–2016

- General Design Criteria: Policy D1.1, point a
- General Design Criteria: Policy D1.1, point c
- General Design Criteria: Policy D1.1, point e

Rochdale UDP Review 2001–2016

- Design Quality: Policy G/BE/1
- Design Criteria for New Development: Policy BE/2 point e
- Street Furniture and the Public Realm: Policy BE/7

Sensitively integrating car parking (page 40)

Oldham UDP Review 2001–2016

- General Design Criteria: Policy D1.1, point e
- General Design Criteria: Policy D1.1, point g
- General Design Criteria: Policy D1.1, point k

Rochdale UDP Review 2001–2016

- Design Criteria for New Development: Policy BE/2 points e, g, h
- Landscaping in New Development BE/8 point c

Incorporating successful greenspaces that promote biodiversity (page 45)

Oldham UDP Review 2001–2016

- Design of New Development: para 3.5, point b
- Habitat and wildlife on development sites D1.4
- Landscape design and tree planting D1.6

Rochdale UDP Review 2001–2016

- Landscaping in New Development BE/8
- Biodiversity and Development NE/3

5 *Building Design*

Creating a positive character (page 50)

Oldham UDP Review 2001–2016

- Design of New Development: Policy D1
- General Design Criteria: Policy D1.1 point a
- General Design Criteria: Policy D1.1 point c

Rochdale UDP Review 2001–2016

- Design Quality: Policy G/BE/1
- Design Criteria for New Development: Policy BE/2

Getting the internal layout right (page 55)

Oldham UDP Review 2001–2016

- Design of New Development: Policy D1
- General Design Criteria: Policy D1.1 point c

Rochdale UDP Review 2001–2016

- Design Criteria for New Development: Policy BE/2 point h

Avoiding detail compromising quality (page 57)

Oldham UDP Review 2001–2016

- Design of New Development: Policy D1

Rochdale UDP Review 2001–2016

- Design Criteria for New Development: Policy BE/2 point a

Integrating sustainable design (page 58)

Oldham UDP Review 2001–2016

- Design of New Development: Policy D1
- Design of New Development: para 3.5, point h (Introduction)
- Designing for Energy Efficiency: Policy D1.2
- Renewable Energy in Major New Developments: Policy NR3.3

Rochdale UDP Review 2001–2016

- Energy Efficiency and New Development: Policy EM/13
- Sustainable Energy Sources: Policy EM16

7.2 Appendix B: Glossary

Active frontages
Active frontages are building elevations that have frequent doors and windows, with few blank walls, internal uses visible from the outside, or spilling onto the street.

Adaptability
The capacity of a building or space to be changed so as to respond to changing social, technological and economic conditions.(By Design).

Building line
The line formed by the frontages of buildings along a street. The building line can be shown on a plan or section. (By Design).

Bulk
The combined effect of the arrangement, volume and shape of a building or group of buildings. Also called massing. (By Design).

Context
The area surrounding a development site. This may be the immediate local area (the site context), or a much wider town-wide context (the strategic context).

Cul-de-sac
A street that does not connect to others; a dead-end.

Curtilage
The private area belonging to a building. Typically, the garden areas and driveway for a house.

Definition of streets
Enclosing the edges of streets with buildings and, sometimes, landscape so that they are clearly defined spaces.

Desire Lines
An imaginary line linking facilities or places, which would form a convenient and direct route for pedestrians and cyclists.

Diversity
The range of different activities, uses and building types in an area.

Embodied energy
The energy consumed in the extraction, manufacture, transport and assembly on site of building materials.

Footfall
A way of describing the number of pedestrians using a route. For example, busy shopping streets will have a high footfall, whereas a residential cul-de-sac will have a low footfall.

Habitable rooms
Rooms that are used for day-to-day living (such as living rooms and bedrooms) rather than for intermittent use (e.g. bathrooms).

Home Zones
Residential streets in which the road space is shared between drivers of motor vehicles and other road users, designed with the wider needs of the residents in mind.

Human Scale
The use within development of elements which relate well in size to an individual human being, and their assembly in a way that makes people feel comfortable rather than overwhelmed. (By Design).

In-curtilage parking
Parking within a building's site boundary, rather than on a public street or space. (By Design).

Landmark
A building or structure that stands out from its background by virtue of height, size or some other aspect of design. (By Design).

Large floor-plate
A building type which covers a very large ground floor area. A supermarket is a typical example.

Legibility
The degree to which a place can be easily understood.

Local distinctiveness
The positive features of a place and its communities which contribute to its special character and distinguish it from other places.

Massing
The combined effect of the arrangement, volume and shape of a building or group of buildings. Also called bulk. (By Design).

Mechanical cooling
The use of fans or air conditioning to cool buildings.

Micro-climate
The specific climatic characteristics of a site, which may differ from other places in the locality by virtue of, for example, a position exposed to prevailing winds; landscape that shades it from the sun.

Mixed uses
A mix of different uses (for example, retail and residential) within a building, on a site or within a particular area.

Natural ventilation
Ventilation provided by non-mechanical means, such as openeable windows.

Passive solar gain
Solar heat that passes through material and is captured naturally, not by mechanical means. For example, heat from the sun may pass through glazing and be absorbed by the internal brick wall of the building.

Perimeter Block
An arrangement of buildings where public fronts look outwards onto the street and private backs look inwards onto other private space, so that the buildings themselves act as a barrier between public and private space.

Permeability
The characteristic of a well-connected network of streets, spaces and other routes.

Public Realm
Those parts of towns and villages that are available for use by everyone free of charge, and include streets, squares, lanes and open spaces.

Range of tenures
A mix of different types of residential property, including (but not restricted to) privately owned, affordable housing, and shared ownership.

Renewable sources
Renewable sources of materials can be replenished naturally in a short period of time. Renewable energy sources capture their energy from on-going natural processes such as sunshine, wind and flowing water.

Scale
The impression of a building when seen in relation to its surroundings, or the size of parts of a building or its details, particularly as experienced in relation to the size of a person. Sometimes it is the total dimensions of a building which give it its sense of scale; at other times it is the size of the individual building elements and the way in which they are combined. The concept is a difficult and ambiguous one: often the word is simply used as a synonym for 'size'. (By Design).

Street furniture
Structure in a street or space. For example, bus shelters, light columns, signs, seating and litter bins.

Supplementary Planning Document (SPD)
Supplementary Planning Documents provide additional detail to Local Development Framework Policies, providing guidance to developers and their designers on what is expected of them. If applications for planning do not conform with the SPD they may be refused.

Sustainable Development
Development that simultaneously meets environmental, economic and community needs without comprising the needs of future generations.

Sustainable Urban Drainage
Surface water drainage methods that take account of quantity, quality and amenity issues are collectively referred to as Sustainable Urban Drainage Systems (SUDS).

Traffic calming
Traffic management measures designed to reduce the speed of vehicles along routes, particularly in residential areas.

UDP
A Unitary Development Plan (UDP) must be produced by every local authority in England and Wales. It provides the statutory planning framework for the local authority, setting out objectives, policies and proposals for the use of land and buildings in the area for the next 10 years.

Urban Design
The art of making places. Urban design involves the design of buildings, groups of buildings, spaces and landscapes, in villages, towns and cities, and the establishment of frameworks and processes which facilitate successful development. (By Design).

Urban grain
The pattern of buildings and their plots and how they combine to form blocks within a settlement. Urban grain may be 'fine', comprising small blocks and frequent street junctions, or it may be 'coarse', comprising large blocks and infrequent street junctions.

7.3 Appendix C: References

National Publications

CABE & DETR (2000)
By Design – Urban Design in the Planning System:
Towards Better Practice
Thomas Telford Publishing

CABE & DTLR (2001)
Better Places to Live By Design
Thomas Telford Publishing

Department of the Environment Department of Transport (1992)
Design Bulletin 32: Residential Roads andFootpaths – Layout Considerations HMSO

DETR (1998)
Places, Streets and Movement: A Companion Guide To Design
Bulletin 32
Residential Roads and Footpaths
Department of the Environment, Transport and the Regions

Llewelyn-Davies (2000)
Urban Design Compendium
English Partnerships

ODPM (2005)
Planning for Town Centres: Guidance on Design and
Implementation Tools
ODPM

Urban Task Force (1999)
Towards an Urban Renaissance
DETR / E&FN Spon

National Planning Policy Guidance

ODPM (2005)
Planning Policy Statement 1: Delivering sustainable development
ODPM

DETR (2000)
Planning Policy Guidance Note 3: Housing
DETR

ODPM (2005)
Planning Policy Statement 6: Planning for Town Centres
ODPM

DETR (2001)
Planning Policy Guidance Note 13: Transport
DETR

DOE (1994)
Planning Policy Guidance Note 15: Planning and the
Historic Environment
DOE

DETR (2002)
Planning Policy Guidance Note 17: Planning for Open Space
DETR

Local Planning Policy

Oldham Metropolitan Borough Council Local Development Scheme 2005 – 2008 March 2005

Oldham Metropolitan Borough Unitary Development Plan Adopted 2006 Local Development Scheme for Rochdale Borough August 2006

Rochdale Borough Unitary Development Plan Adopted 2006

Other Local Documents

Urbed et al (2004)
Oldham Beyond: A Vision for the Borough of Oldham
Oldham Local Strategic Partnership & Northwest
Development Agency

Urbed et al (2004)
The Heart of Oldham: A Masterplan for Oldham Town Centre
Oldham Local Strategic Partnership & Northwest
Development Agency

Urbed et al (2004)
Werneth Freehold: A Masterplan For Housing Market Renewal
Oldham Local Strategic Partnership & Northwest
Development Agency

Urbed et al (2004)
The Oldham Net: ideas for Transformation Oldham Local Strategic Partnership & Northwest
Development Agency

Oldham MBC (2004)
The Oldham Planning Application Submission Checklist
Oldham Metropolitan Borough Council

Oldham MBC (2005)
An Urban Design Checklist for New Residential
Development Oldham Metropolitan Borough Council

Rochdale MBC (2005)
Rochdale Borough Renaissance Masterplan
The Rochdale Local Strategic Partnership

Rochdale MBC (2005)
Sustainable Buildings: A Design Guide
Rochdale Metropolitan Borough Council

North West Regional Assembly (2006)
North West Best Practice Design Guide

If you would like to receive this information in another format, such as large print, Braille, audio or alternative languages, please call Oldham Metropolitan Borough Council on 0161 770 4151, 1672 or 1670, or Rochdale Metropolitan Borough Council on 01706 924369.

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