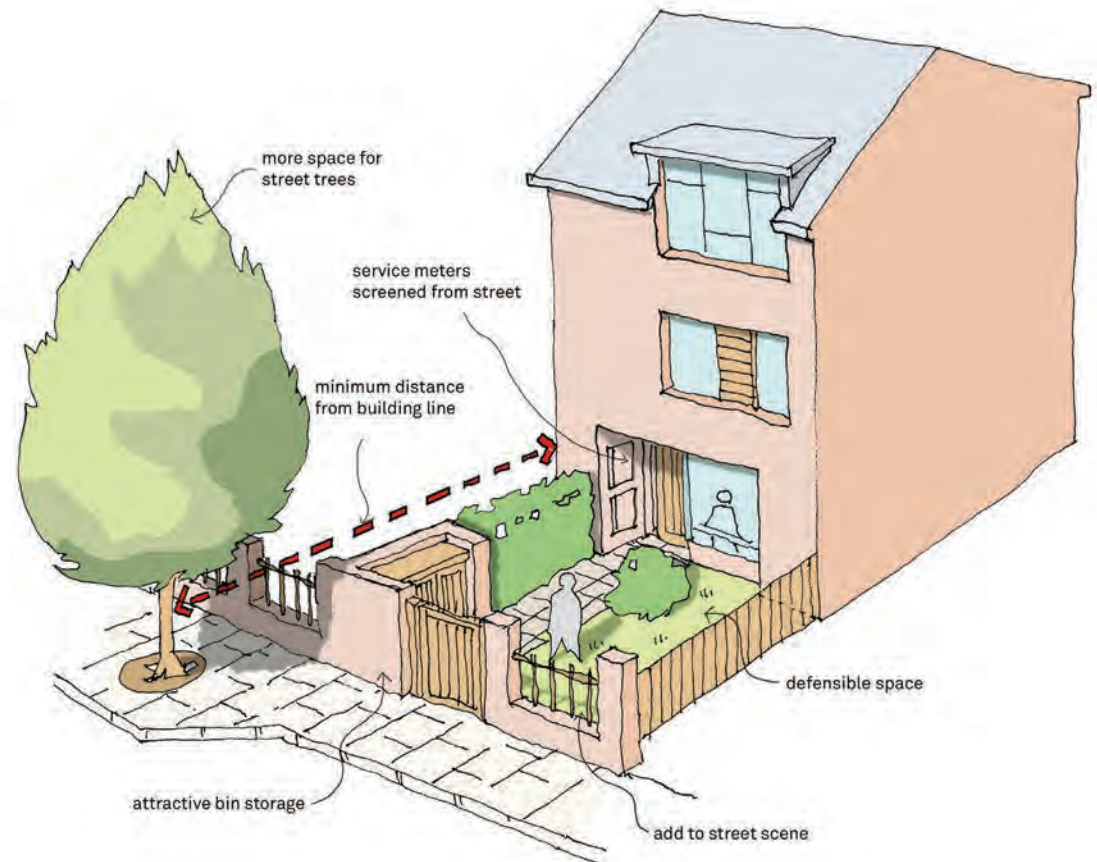


Quality Places

Supplementary Planning Document



ADOPTED
NOVEMBER 2011

Preface

Title of Document:

Quality Places Supplementary Document

Purpose of the Document

This document provides detailed guidance in support of the Local Plan Policy 59.BE which relates to the design of development buildings and spaces in Eastleigh Borough.

The PUSH Quality Places Charter

Eastleigh Borough Council is committed to creating good quality places. As part of its commitment in October 2010 the Leader of the Council, along with the Leaders of all the other authorities in the Partnership for Urban South Hampshire (PUSH), signed the PUSH Quality Places Charter.

A quality place has a number of essential components which are identified in the PUSH Quality Places Charter diagram fig1.

Fig 1: Extract from PUSH Quality Places Charter



This Supplementary Planning Document provides guidance for all those involved in creating new buildings and spaces in the Borough of Eastleigh. Good urban design is an essential part of our plans for delivering high quality sustainable development. New development should respect, enhance and create places which are attractive and of real quality. New places should connect to local facilities by effective sustainable transport.

New development should be designed to meet the practical, everyday needs of residents, visitors and employees. Layouts and spaces which provide safe streets and pedestrian routes, convenient and well-integrated parking and carefully sited refuse facilities raise the quality of life for everyone.

Attractive homes and places of work or leisure that are a pleasure to live in, visit or work in with beautiful streets, gardens and open spaces should be created. New homes should be built to last, have enough space to meet the requirements of modern living and be adaptable as people's needs change through life.

This document clearly outlines the criteria by which all development proposals will be assessed, from one house to the largest estate or commercial project. A variety of examples show how design problems may be solved, applying best practice in urban design to deliver the sustainable, attractive and safe places we need. By following the guidance and working closely with our design and planning officers everyone involved in delivering new development will find the process of achieving planning permission a positive and rewarding experience.

Keith House

Leader of Eastleigh Borough Council



A Commitment from PUSH signed by all PUSH authorities (from the PUSH Quality Places Charter, October 2010)

"The PUSH authorities are committed to the creation of quality places. We recognise the different components that combine to create quality places and will ensure implementation of place making principles and the processes for their delivery. We acknowledge that we must collaborate and cooperate with the many other organisations and bodies responsible for the management and development of the public realm to achieve high quality places. We call upon those organisations and bodies to commit to delivering the place making components identified in this charter."

Delivering high quality places and buildings cannot be achieved through a statement of intent alone. PUSH recognises that it is equally important that appropriate delivery mechanisms and processes are in place. Each local authority in South Hampshire, as a signatory to the charter, is committed to delivering the following:

- Leadership and management structures to ensure that creating quality places is a high priority
- A design-led multi-disciplinary culture which plans, designs and manages new and existing places in an integrated way to achieve high quality
- Place making and quality design policies which underpin Development Plan Documents, including detailed guidance on creating high quality development where necessary
- Decision making which uses the wider value of creating quality places as a prime consideration rather than cost alone
- Opportunities to improve the quality and management of existing places
- Appropriate place awareness and design training for leaders, councillors and officers
- Community involvement in the planning, design and management of places

"We call upon those organisations and bodies to commit to delivering the placemaking components identified in this charter."



Councillor I Carr, Test Valley

Councillor R Smith, Southampton

Councillor B Rickman, New Forest

Councillor K House, Eastleigh

Councillor S D T Woodward, Fareham

Councillor K Learney, Winchester

Councillor M Hook, Gosport

Councillor G Vernon-Jackson, Portsmouth

Councillor A Briggs, Havant

Councillor P Burridge, East Hants

Councillor Dr R Ellis, Hampshire

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Introduction

This Document

This document is designed to provide guidance on the Council's expectations for the design of new development (both residential and non-residential) in the borough. It is the Council's interpretation of the relevant policies in the Council Local Plan, the forthcoming Local Development Framework and in Government Guidance.

It will be used as a 'material consideration' by the Council's Development Control unit.

It should be referred to by developers even before a planning application is made i.e. at the 'pre-application' stage.

It can also be used by Members when considering the design aspects of planning applications.

The guidance is divided into design themes which contain related design issues. In each design issue section the guidance is followed by a grey box detailing what information is required (preferably in the Design and Access Statement) although this could be provided elsewhere as part of the planning application to enable a proper assessment of the proposals. A reference to the appropriate Building for Life assessment questions for that design appears in the coloured bar at the

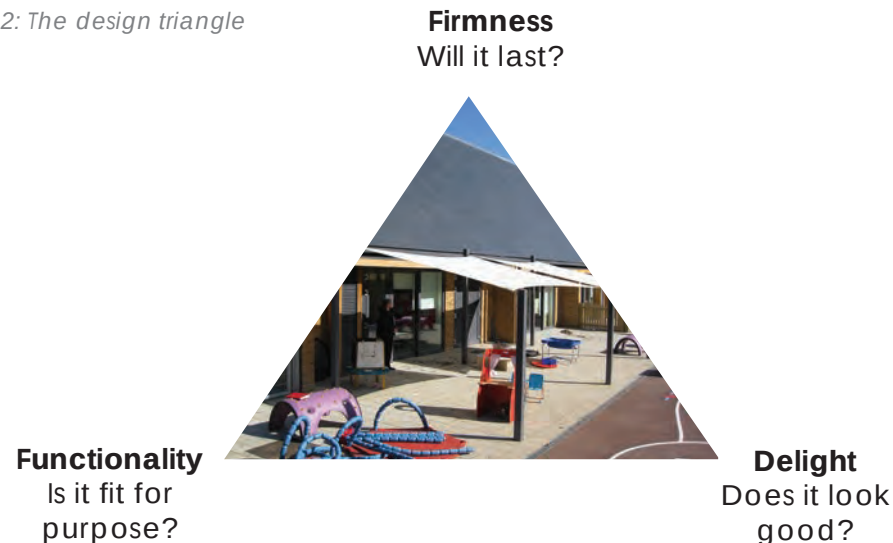
bottom of the page. To finish, some design issues, or two or more closely related design issues, are distilled into 'key design principles' which appear in the coloured boxes. These key design principles are listed overleaf and are used in an assessment checklist in Appendix A.

Throughout the document, key words appear in the glossary near the end of the document.

This document was produced by the Design Team in the Regeneration and Planning Policy Unit.

All hand drawn illustrations were produced by Re-Format
<http://re-format.co.uk/>

Fig 2: The design triangle



Design

Good design is not simply a matter of creating attractive buildings and places. The elements of the development must also be sufficiently robust to carry out their function without deteriorating too quickly. The third critical factor is that buildings and spaces must be designed to function well for the purpose they were designed for. Successful design of new development has been shown to create a premium for property values and a significant increase in the health and wellbeing of the occupants and users of those buildings and spaces created. The design and interaction of buildings and spaces on a street scale is often termed 'urban design'.

Definition of Urban Design

"the art of shaping the interaction between, people and places, environment and urban form, and nature and built fabric, and influencing the processes which lead to successful villages, towns and cities." (Kevin Campbell and Robert Cowan in Planning 12 February 1999)

Or, more succinctly, how buildings fit together to make quality spaces. To do this, a range of professionals and skills need to be involved, including the landscape architect, the architect, the planner, the engineer and the urban designer. All these professionals are needed to produce high quality, sustainable developments.

From 2009 all local authorities have been required to submit 'Building for Life' assessments of completed residential schemes of at least 10 dwellings. This checklist is also a useful tool for evaluating the urban design quality of a potential development.

See the Design Council website:
www.designcouncil.org.uk/our-work/cabe/cabe-publications/delivering-great-places-to-live/

Key Design Principles

The design guidance in this document can be distilled into the following 'key design principles' (KDPs). Ideally all development should meet all of these principles. A successful response to all of them is likely to lead to a well-designed development.

Appendix A: (Key Design Principles Checklist) breaks down each KDP into a series of sub questions that need to be asked by the developer or the Council to ascertain whether the design principles have been met or not. Each KDP is also referenced to the appropriate parts of the guidance. This checklist is designed for use as an everyday assessment tool for development schemes from the pre-application stage onwards.

1. Access to Local Facilities and Public Transport	New development should provide for safe and convenient access, particularly on foot and by cycle, to local facilities and frequent public transport.
2. Integrating with Movement Networks	New development must integrate well with cycle, pedestrian and vehicular movement networks.
3. Analysis of Context	Developers should analyse the character of the site and its context to identify positive and negative elements which will influence and inform the overall design and orientation of buildings and spaces.
4. Residential Density:	Density should be appropriate to the context and level of accessibility; make efficient use of land and address the needs of residents
5. Legibility	Development should have its own identity and variety so that it is easy for people to find their way around.
6. External Space	The design and future management of all external space, including highways, must be an integral part of the development and should be considered at the earliest stage.
7. Boundary Structures	Boundary treatments must be appropriate to the context, well-detailed and robust.
8. Underground Services	Where possible new services should be located underground and main service corridors plotted on plans at the earliest stage to avoid design conflicts with tree planting.
9. Public Open Space	All public open space should be safe; accessible; designed for a range of functions and users; and should balance good natural surveillance with residential amenity.
10. Public Art	Public art should contribute positively and reinforce a sense of place and identity.
11. Residential Amenity	New development should be designed to respect the residential amenity of existing and new occupiers and all dwellings should have adequate private amenity space.
12. Access within the Site	Access within the site should be overlooked, safe and convenient to use, but must not be highway dominated.
13. Parking	Surface car parking and cycle parking should be safe, convenient to use and have natural surveillance. Car parking should not visually dominate the public realm. Other vehicle parking should be safe, secure and separated from the public realm.

14. Waste, Recycling and Cycle Storage	Waste and recycling and cycle storage should be safe, accessible and convenient for the intended users and properly integrated into the built design. Cycle storage should also be secure.
15. Design of Buildings and Materials	The scale, form and design of elevations and external materials should respond positively to the defining and distinctive characteristics of the area. Where this is absent, design and materials should help create a new positive and distinctive character.
16. Continuity and Enclosure of Space	Buildings should be designed to enclose space and have active frontages onto the public realm with particular attention being paid to entrances and corners.
17. Flexible Internal Space	Buildings and spaces should be designed so they can be adapted over time to changing needs. New homes must have sufficient internal space for residents to use comfortably and to support a practical quality of home life for the intended number of residents.

Site Accessibility

Local Facilities and Public Transport

Local Facilities:

New development is better integrated when local facilities are within a safe and convenient walking distance. The development's residents, employees, customers and visitors can more easily avoid using vehicular transport to access a range of services.

Mixed use development which integrates residential with a range of inclusive compatible commercial and public sector uses is an inherently sustainable approach. Where opportunities to improve the accessibility of the site exist these should be taken. Similarly opportunities to co-locate services and facilities should also be taken, e.g. locating shops or a play area near a school.

Public Transport:

Providing realistic alternatives to the use of the private car requires safe and convenient access to frequent, reliable and cost effective public transport services connecting to local centres and to the larger urban areas. This usually means bus routes, but some train services can also provide this role.

Larger developments may also:

- Improve public transport service through new bus routes or increased frequency;
- Promote sustainable inter-modal travel plans by providing safe and sheltered cycle storage within or near homes or non-residential buildings and public transport links;
- Promote sustainable travel plans including the use of car pools, car clubs or other proposals,

For more guidance see:

www.hants.gov.uk/hampshire-ltp-2011-part-a-1-4.pdf

Levels of Accessibility:

Facilities within 400m are ideally located.

Facilities within 800m are still only about 12 minutes walk for most people or 5 minutes by bicycle. The measurement of route distances must reflect the reality on the ground (using streets and other adopted surfaced pedestrian or cycle routes) taking into account any obstacles such as busy roads or large blocks.

When pedestrian or cycle routes cross a busy vehicular road or a road with a speed limit of at least 40mph the distance measured should be via the nearest safe crossing point (these are any nationally recognised pedestrian crossings e.g. pelican/ zebra crossings, footbridges or underpasses etc.).

Large new developments should provide some new facilities on site depending on the need for local provision.

The mapped contours of these realistic pedestrian distances from the site are called 'pedsheds'.

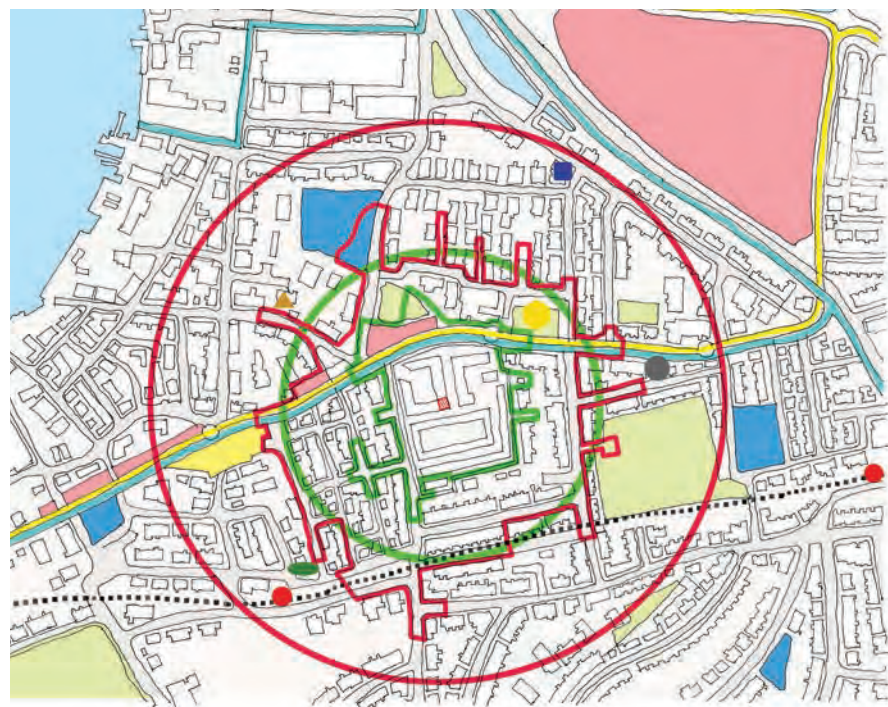
Quality of Access:

The existence of a pedestrian route is not enough to make it a real alternative to private car travel if the quality of that route makes it unattractive to potential users. Disabled access from the site to facilities also needs to be considered.

Above all, the routes must feel safe, both in terms of personal security and protection from vehicular traffic. All new development or transport investment should strive to achieve the five 'C's':

- Connected
- Convenient
- Comfortable
- Convivial
- Conspicuous
(See Appendix B: Quality of Routes).

Fig 3: 400m and 800m 'pedsheds' and distances 'as the crow flies' from a site



KEY

- | | |
|-----------------------------|----------------|
| Public Space | Railway |
| Retail | Train stations |
| Health care site | Food Shop |
| Other public facilities | Bank |
| 5 min direct walk boundary | Post Office |
| 400m (5 min) walk radi | Primary School |
| 10 min direct walk boundary | Pub |
| 800m (10 min) walk radi | |
| Cycle ways | |
| Bus routes | |

A Design & Access Statement should show:

the realistic pedshed for 400m and 800m from the centre of the site; and show located within the pedshed boundaries:

the following facilities:

postal facility, food shop, bank/ cash point, primary school, medical centre, leisure centre, community centre, place of worship, public house, children's play area, public open space, café, restaurant, crèche.

and

the bus stops and train stations and specify all proposed access improvements to public transport nodes and improvements to public transport services

Key Design Principle 1: Access to Local Facilities and Public Transport:

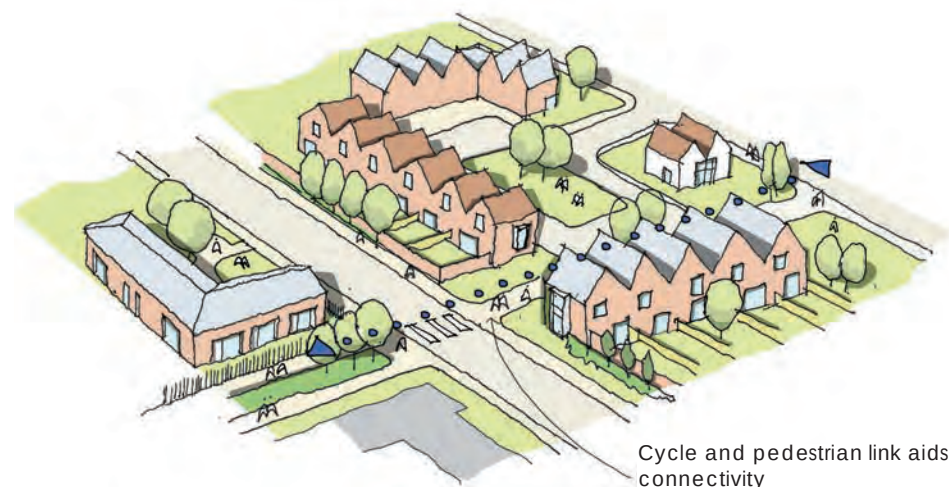
New development should provide for safe and convenient access, particularly on foot and by cycle, to local facilities and frequent public transport.

Integrating with Movement Networks

Where possible new development should aim to complement the existing movement networks, should not act as an obstacle to natural desire lines across the site and help to provide a continuous walking and cycling environment.

- A balance must be struck between facilitating good permeability for legitimate users and creating opportunities for criminal behaviour. Where design solutions can be found for reducing the potential crime prevention problems of providing good connections out of the site, these should be pursued (e.g. coded entry restricted to residents/workers where public access through the site would be problematic).
- Access across the site should be as direct as possible and should conform to the 5 'Cs' quality standards (see Appendix B).

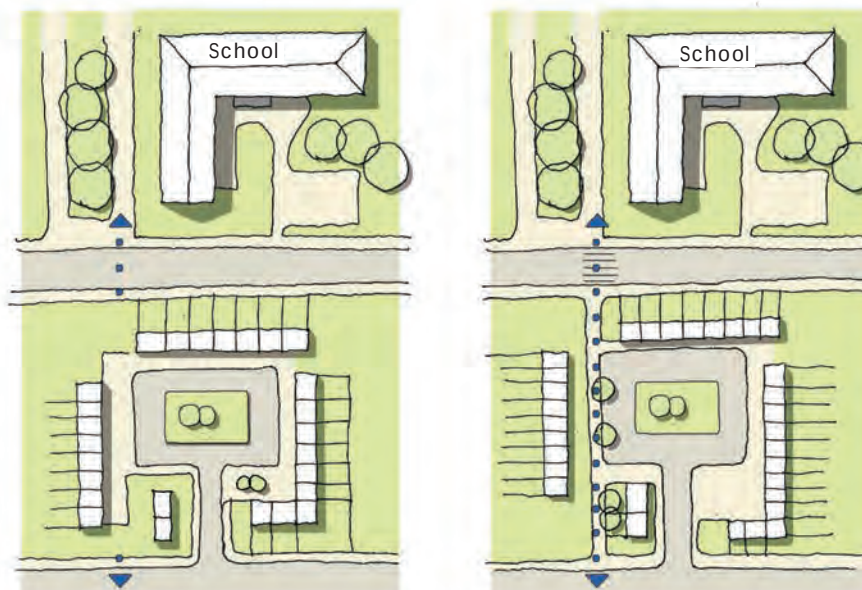
Fig 4: Alternative pedestrian and cycle accesses should be retained or created where possible, to increase accessibility to important facilities.



Pedestrian connection closed off



Pedestrian/Cycle connection encouraged



A Design & Access Statement should plot and describe:

all the existing roads, footpaths, cycle routes and bridleways that cross the site; about the site or are within 100m of the site.

all proposed changes to access across and around the development site - These changes should include the proposed removal or re-routing of routes, proposed new routes and proposed improvements to existing routes and connections to routes surrounding the site and explain why connections are needed.

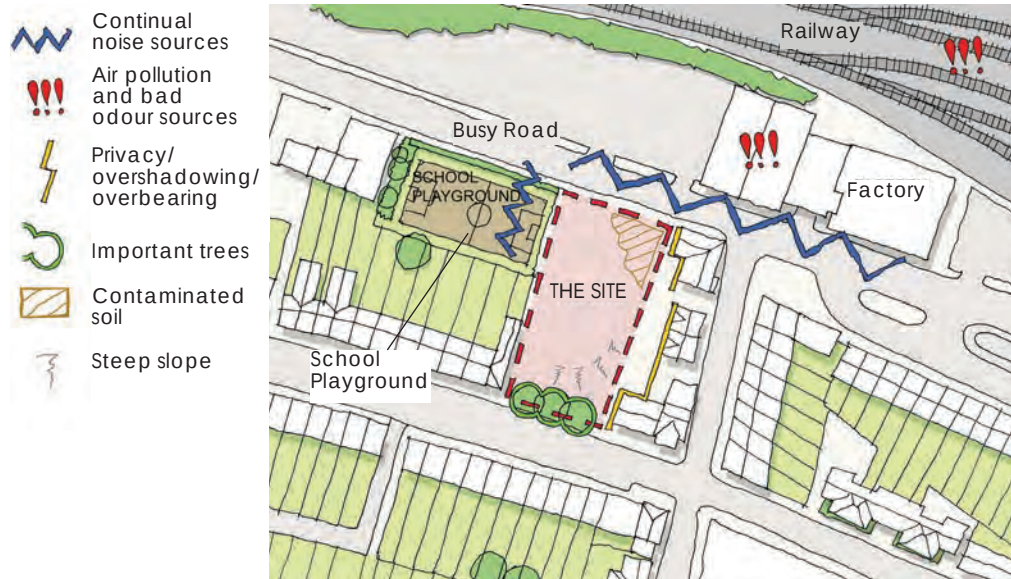
Key Design Principle 2 Integrating with Movement Networks:

New development must integrate well with cycle, pedestrian and vehicular movement networks

Site Context

Prior to work beginning on the design of a new development, a full assessment of the site and its surroundings should be undertaken to identify all potential constraints and assets.

Fig 5: An example of a constraints plan



Site Constraints

Site constraints can be physical, visual or social in nature. Many of the environmental constraints may need detailed survey reports, (e.g. noise, air and soil contamination, biodiversity). Constraints may lead to a reduction in the developable area of the site, special design solutions, specific construction techniques, or mitigation measures to overcome or minimise them.

Site constraints can include:

i. Neighbouring Development: Typically these concern the prevention of:

- Unacceptable impacts on privacy and amenity (of residential properties);
- Overshadowing (of gardens, windows or solar collection);
- 'Overbearing' massing relationship of new building with existing.

ii. Topography:

- May create extra privacy or overshadowing constraints
- Major changes in level may make a part of a site undevelopable.

iii. Trees:

- Retained trees will need to be protected during construction;
- Trees will need to have their roots protected (which may often extend beyond the crown spread);
- Trees need space in which to grow;
- Large trees may cast significant shade. This can make smaller private gardens or living rooms unacceptably dark which in turn will lead to significant pressure to reduce or remove the trees;
- Some trees will have designated protected status because they are within a conservation area or when they are subject to a tree preservation order. The unauthorised damage of such trees may result in prosecution.

iv. Protected Habitats and Species:

- Designated nature conservation areas (Special Area of Conservation, Sites of Special Scientific Interest, Special Protection Areas, Ramsars, Sites of Interest for Nature Conservation);
- Locally important sites (local nature reserves and Sites of Importance to Nature Conservation); species specific protection (e.g. badgers, bats, slow worms); the unauthorised damage of such species or

applicant to submit sufficient scheme design details incorporating noise protection measures to enable the LPA to reach a decision on the acceptability of development in an area subject to external noise sources.

- In residential schemes, applicants are advised to adopt housing layouts which have a public front facing the main noise source, allowing the buildings to reduce the impact of noise on the private rear space.

vi. Air Pollution and Bad Odour Sources:

Mitigation may take the form of restricting different forms of development to certain parts of the site; preventing openable windows nearest the pollution source.

vii. Visual Impacts:

- Large or unattractive buildings adjacent to the site;
 - Unsightly neighbouring land use.
- Mitigation may take the form of restricting different forms of development to certain parts of the site; landscape screening.

viii. High Flood Risk:

- Risk from neighbouring storm runoff;
- Groundwater flooding;
- Designated EA flood risk zones 2 and 3 (see the Eastleigh Borough Strategic Flood Risk Assessment: www.eastleigh.gov.uk/planning-building-control/planning-policy-and-design/planning-policy-documents.aspx)

- Coastal storm flood risk and coastal erosion.

Mitigation may take the form of restricting different forms of development to certain parts of the site; certain flood adaption design measures; storm water attenuation measures (sustainable drainage systems).

ix. Land/Soil Contamination Risk:

- To existing property;
- From existing property.

Mitigation may take the form of restricting different forms of development to certain parts of the site; removing the contaminated material; capping the contaminated material.

x. Conservation areas and listed buildings:

Conservation areas have a character and appearance which proposed development is required to maintain or enhance. It is likely the Council's Conservation Officer will need to be involved in discussions. Their input will be required for development affecting listed buildings or their setting and listed building consent will be required for most proposed works.

xi. Services and Utilities

These can include:

- Electricity pylons
- Telecoms masts
- Telegraph poles and overhead telecom wires
- Underground cables (electricity, telecom, cable TV)
- Foul and surface water sewers

- Gas and oil pipelines
- Wind turbines.

Easement corridors with development restrictions may be several metres wide in some cases.

xii. Health and Safety Executive Zones
e.g. Hamble BP Safety Zone

xiii. Archaeology

Areas and sites which are of archaeological significance have been identified by the County Council.

xiv. Microclimate

- Dense shade
- Wind exposure
- Summer glare or overheating

xv. Water Courses

- Springs
- Culverts
- Streams and rivers

xvi. Southampton Airport Flight Path
Height Restriction Zone

A Design & Access Statement should indicate on a plan:

all the site constraints.

Positive Site Features

The most successful developments utilise the positive attributes of the site in their design. This can provide greater distinctiveness, a historical connection with the area's past and an enhanced acceptance by local people. Typical site assets include:

- Existing buildings: These may have architectural and/or social value. A development which finds a new use and enables the refurbishment of existing attractive buildings provides the best sustainable solution.
- Mature trees and hedgerows: Large trees and hedgerows provide a development with instant maturity and help to integrate new development with its immediate context. They are a positive asset as visual features, providers of habitat, agents of summer cooling, and act as natural cleaners of harmful airborne particulates.
- Green space: Green space retained or created on site or directly adjacent should be exploited for its visual amenity and practical recreational value. Buildings should front onto it where possible, taking advantage of the views and the light it affords as well as providing passive surveillance over it. Larger developments should ensure that attractive direct routes connect the development's

inhabitants to the green space.

- **Attractive Views:** These might be of buildings or landscape. New development should, where possible, make best use of these assets by fronting onto them.
- **Topography:** Changes in level often make a development more interesting and attractive. The design needs to make best use

of this asset. This can be done by stepping buildings and structures (such as walls or railings) down rather than running parallel with the slope. An attractive rhythm can be created in the development's roof line as it adjusts to the topography. Where a landmark building is desirable it can be placed in an elevated position in relation to the surrounding buildings.

- **Facilities and services:** Shops, public transport routes and other services either on site or directly adjacent, should be well-linked to the rest of the development and to the wider area.
- **Microclimate:** This is often a function of orientation and might include both areas of cool summer shade and areas of passive solar gain in winter. Sun

traps are also worth exploiting when locating outdoor passive recreation (e.g. sitting) spaces.

- **Water features:** Rivers, lakes, ponds and the sea are usually positive visual elements which also add water and associated wildlife sound interest, reflective qualities and often a positive psychological benefit.

Fig 6: Illustration of site assets exploited for a new development.



A Design & Access Statement should indicate on a plan:

all the site assets.

Fig.7: The Radian HA Offices, Bishopstoke Road. A distinctive new building where a strong existing local character is absent



Character

An essential ingredient in making an attractive and successful place is the retention and enhancement or the creation of character. In areas where there is already a well-established and recognised settlement pattern, styles of architecture, scale and landscape, such as typically exist in a conservation area or in a 'special policy area', new development should pay special attention to them (without slavishly trying to copy existing buildings).

- More stringent restrictions on the type and nature of development occur in Conservation Areas and are usually set out in Conservation

Area Appraisals prepared by the Council.

- The Council has Special Policy Areas that are set out in Character Area Appraisals for the different areas of the borough.
- Some locally specific guidance such as town or village design statements may be available and should be used to inform design in those areas *

For all such Council documents see the planning policy and design advice document web page www.eastleigh.gov.uk/planning--building-control/planning-policy-and-design/planning-policy-documents.aspx

Fig.8: Building scale, materials and roof form of this new development respects the local character



In other areas, such as in retail parks or residential areas where there is very little existing character, the emphasis will be on development producing new high quality and distinctive places. **The overuse of standard house types will not be acceptable.**

Where a distinctive style has prevailed, this may have been identified in the relevant character area appraisal, or a town or village design statement produced by the Council. New development may be encouraged to continue elements of these local styles where integration with the surrounding built form is deemed important.

A Design & Access Statement should:

show an understanding of local character and how this is reflected in the design of new buildings (referring to the character appraisal if applicable) or:

demonstrate how distinctive design will create an attractive style unique to the site.

Fig.9: Figure ground plans showing different development patterns.

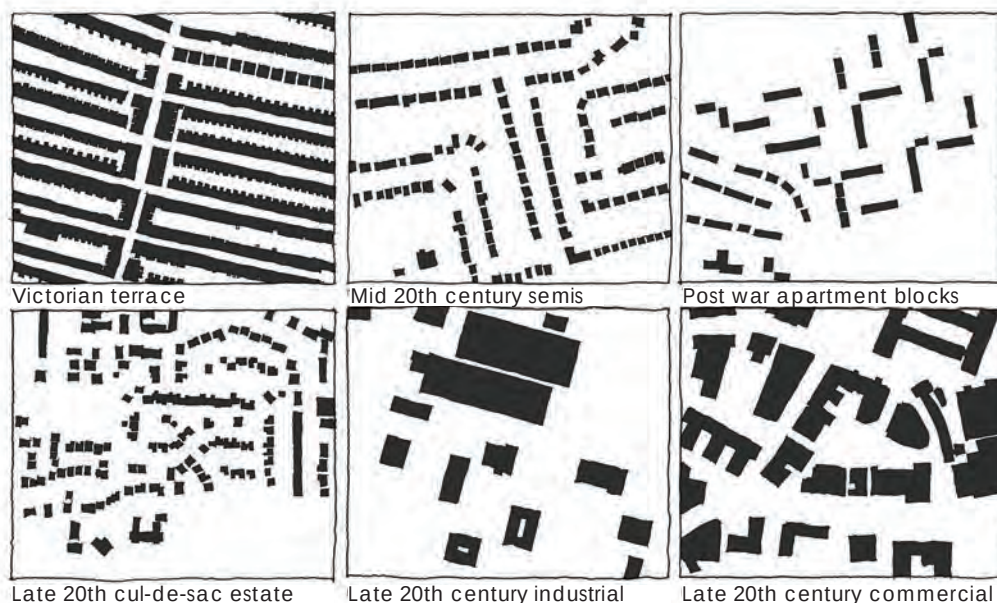


Fig.10: Existing building lines should be the starting point for continuing the urban grain with the new development.



Scale (Grain and Massing)

Grain:

The grain of an area is an expression of the pattern of development. This is best illustrated by 'figure ground' plans.

For a new development to integrate

well with its context it needs to take account of the grain that surrounds it, without necessarily trying to replicate it. It should integrate with existing movement networks and create attractive and continuous streetscapes, knitting in visually and functionally with existing development.

Fig.11: Where the existing grain consists of an inefficient suburban series of cul-de-sacs, opportunities to improve it with new connections should be sought.



Massing and its impact on neighbours:

The massing of a building relates to its scale, size and height. (refer to Planning Portal outline planning requirements for massing). The impact of a new building, on its neighbours will often be exacerbated by issues of overlooking and shadowing. Orientation, topography, context and the character of the surrounding area are all matters which must be thoroughly addressed and considered together with scale and massing to achieve a positive outcome,

The size of new buildings need to respect the setting in which they are built. If the area is covered by a character area appraisal it will detail the local context and include key elements such as predominant storey heights. A common criticism is that new buildings are perceived to be 'overbearing'.

Fig.12: New development should generally not be more than 1 storey higher where it directly adjoins or is close to existing residential development.



Fig.13: Inappropriate building mass can render under-proportioned open space and gardens uncomfortable for users



A Design & Access Statement should indicate either on a figure ground or a map-based 1:2500 plan:

- the proposed grain of the new development (with the site boundary shown in red);
- the existing grain of surrounding development.

and should indicate in plans, elevations, sections and in three dimensions:

- the proposed massing of the new development;
- the massing of surrounding development (buildings and mature trees);
- existing and proposed changes in level.

Fig.14: Significant changes in level can make massing relationships with existing development worse

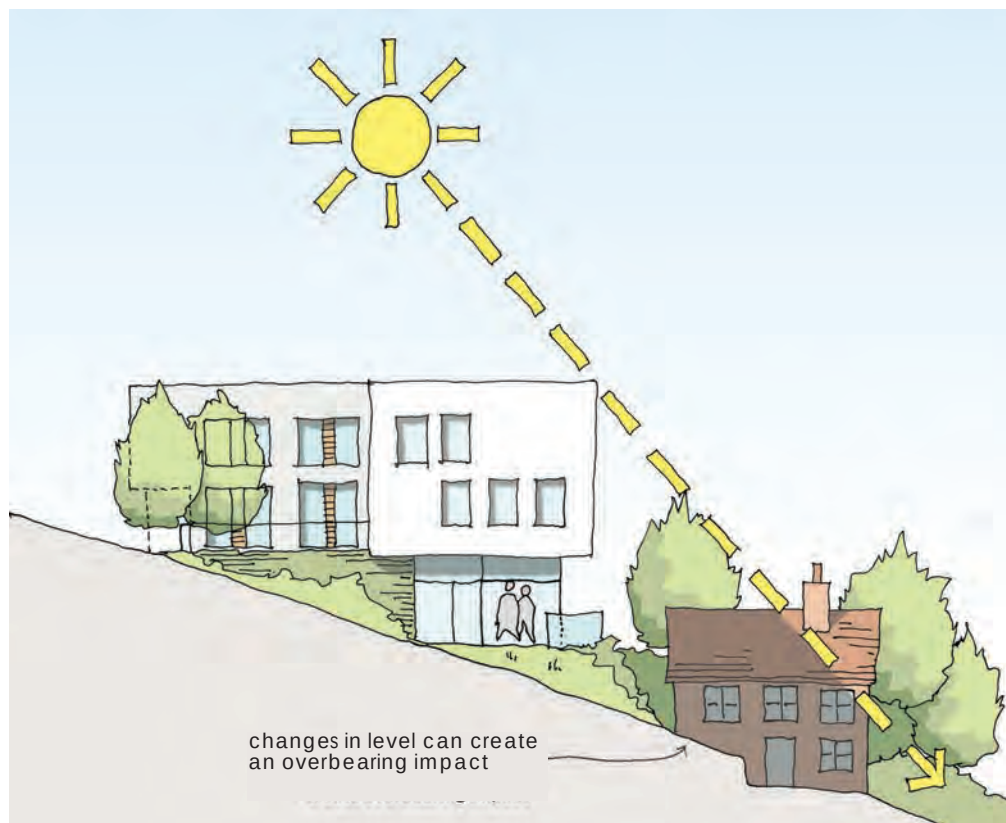
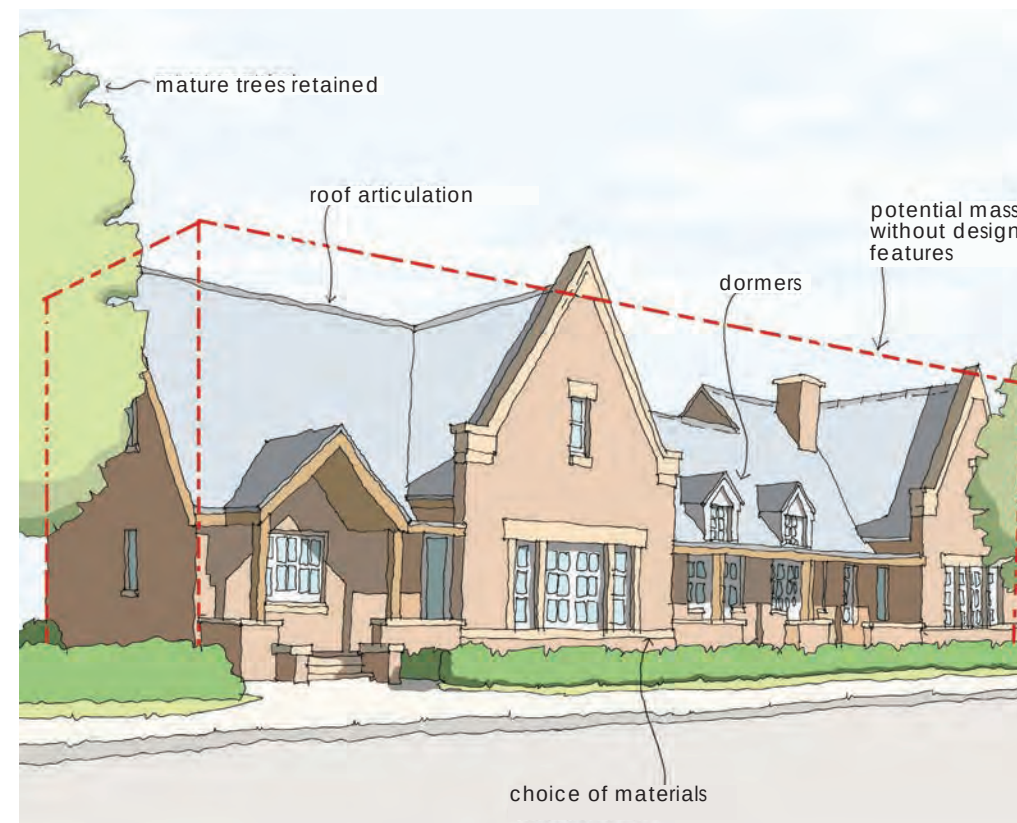


Fig.15: The perceived mass of a building can be reduced by a variety of design measures



Orientation

The orientation of buildings should be decided following the analysis of the site assets and constraints.

Passive Solar Gain:

One constant asset or constraint is the trajectory of the sun in the sky and its position relative to buildings. To make best use of free heat energy from the sun, buildings should maximise the entry of the low winter sun (for passive solar heating) by orienting facades with generous fenestration within 30 degrees of due south. This works best when the building has a high thermal mass. The orientation of outdoor spaces to maximise sun and shelter must also be considered.

There is a requirement to maximise passive solar gain in the Council's Environmentally Sustainable Development SPD (ESD5). See www.eastleigh.gov.uk/pdf/ppdensusspd.pdf

Fig.16: Orientation for passive solar gain

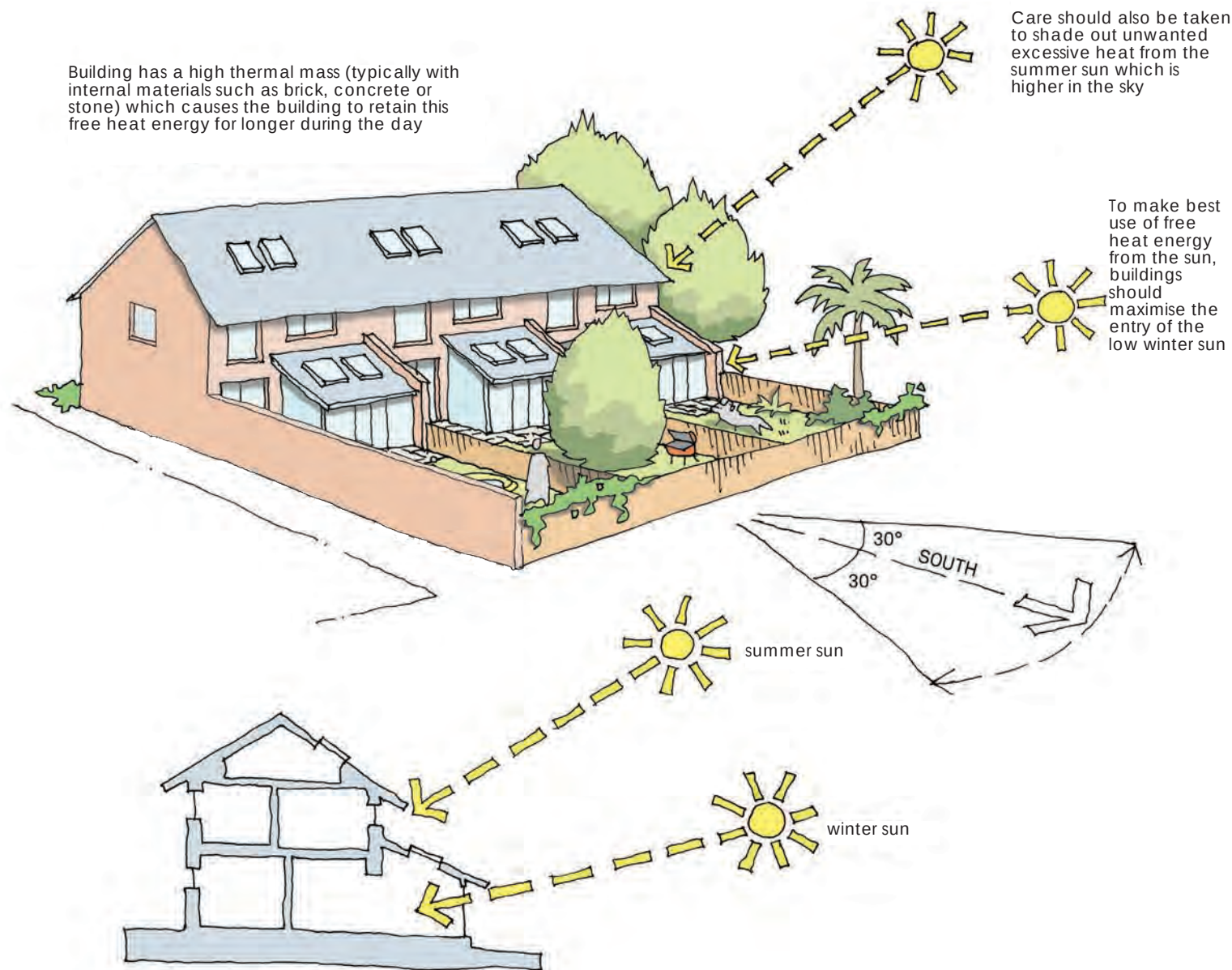
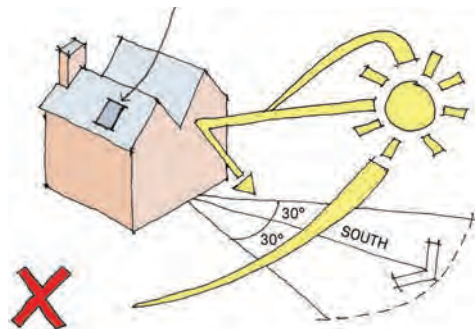
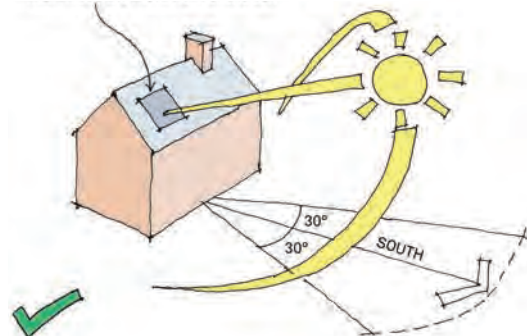


Fig.17: The potential for solar collection should influence roof orientation

PV/solar water panel does not maximise movement of the sun throughout the day



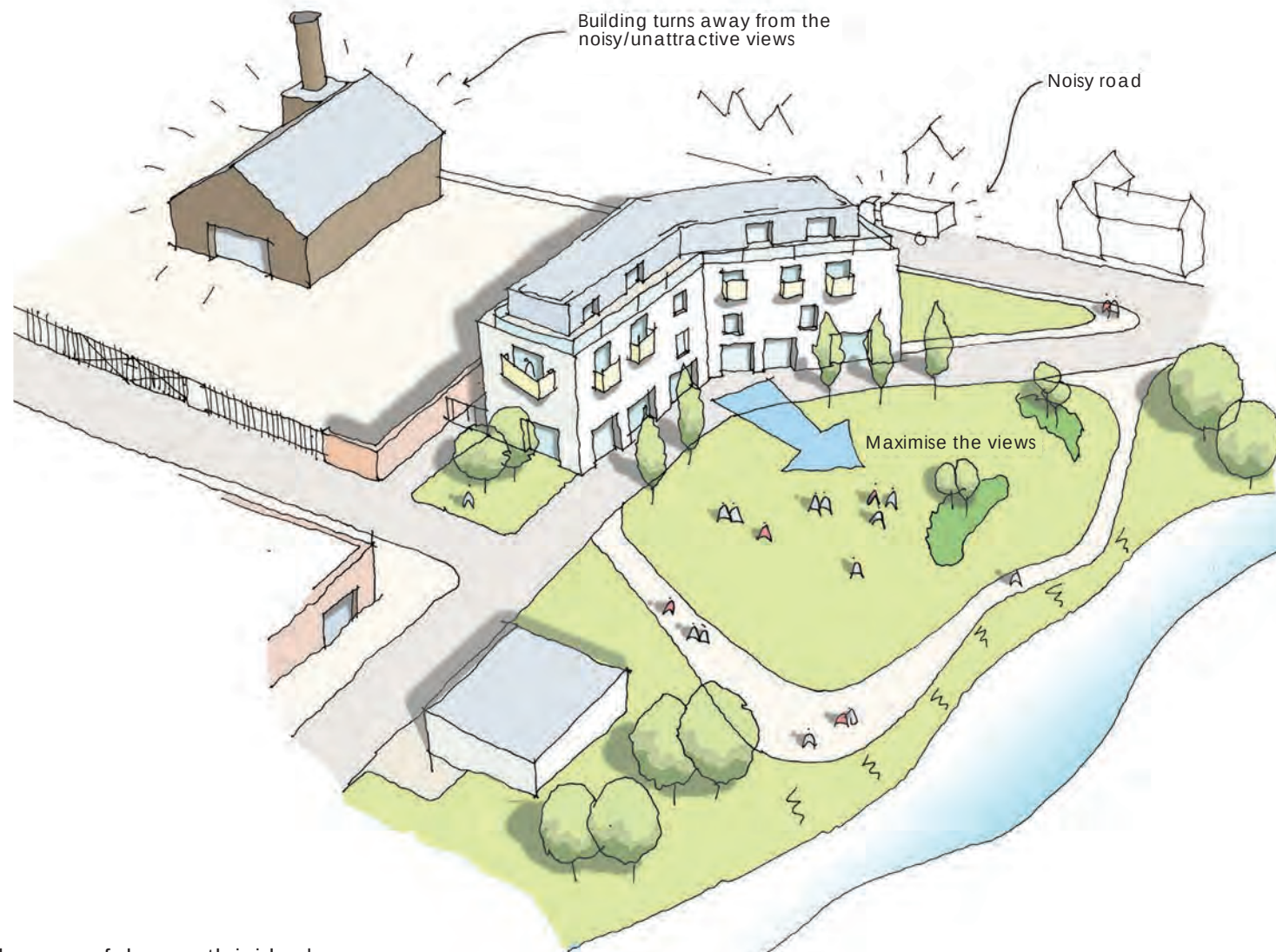
PV/solar water panel facing 30 degrees of south maximises movement of the sun



Active Solar Gain:

Building facades and roofs will increasingly be used to collect solar energy for conversion into electricity or to heat water for the building's occupants. An aspect within 30

Fig.18: Development should be designed to maximise positive and minimise negative views



degrees of due south is ideal.

Views:

Where development adjoins a park, lake or other attractive feature, buildings should, where possible front onto it and maximise views with more floors, larger windows, bay windows, balconies and roof terraces.

Streets:

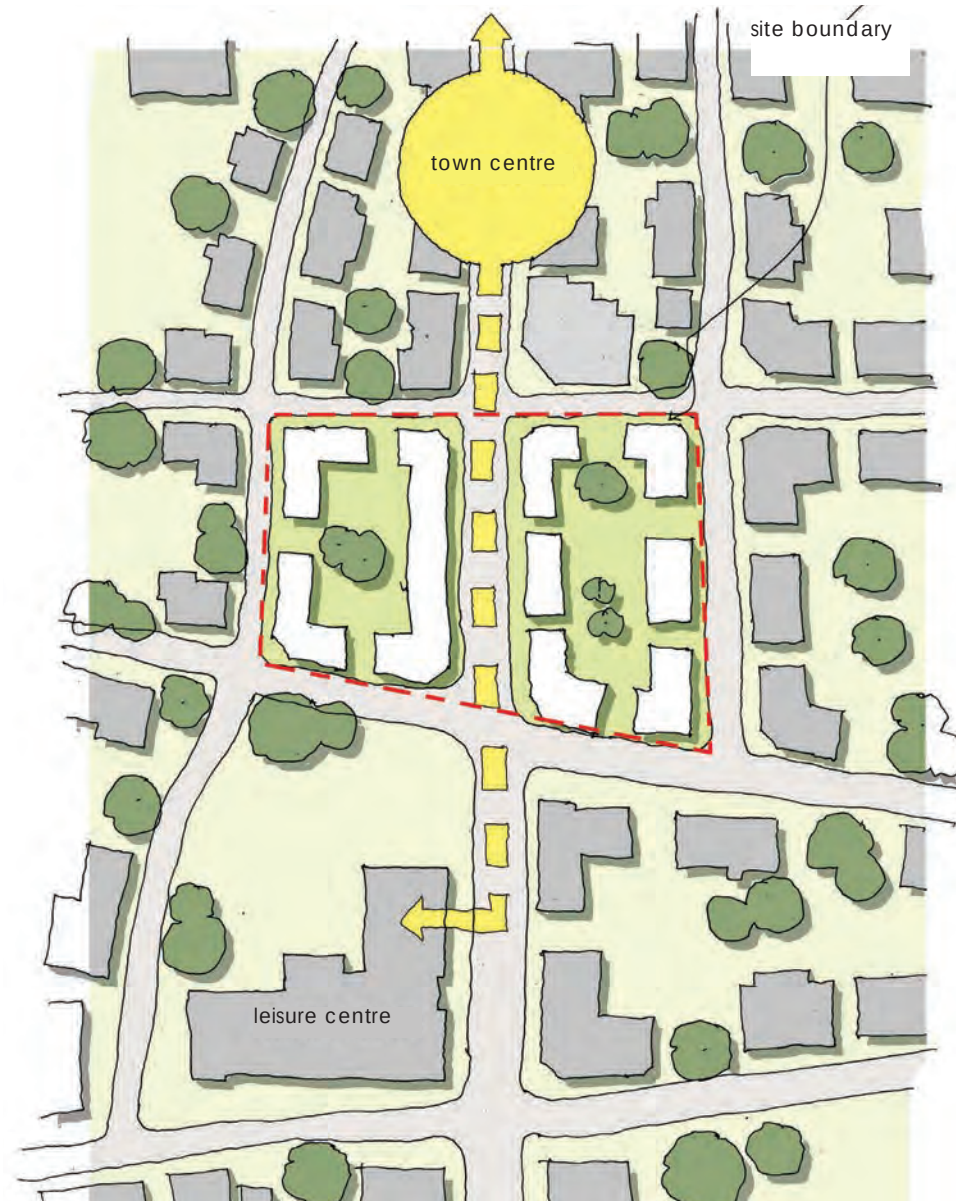
Buildings should front the street with active rooms, balconies and bay windows maximising liveliness and natural surveillance. The orientation of the street pattern will also be influenced by pedestrian desire lines and the need to connect the site with its immediate surroundings.

Character:

When developing within a strong context, such as conservation areas, a particular orientation may be required.

Ultimately the final orientation will be a compromise between the above considerations.

Fig.19: Development orientation should reinforce existing successful street patterns and cater for strong desire lines.



A Design & Access Statement should indicate on a plan and in the text:

How orientation has influenced the design for active and passive solar gain, addressing streets and other public spaces, maximising views and responding to other site assets and constraints.

Key Design Principle 3 (Analysis of Context):

Developers should analyse the character of the site and its context to identify positive and negative elements which will influence and inform the overall design and orientation of buildings and spaces.

Layout

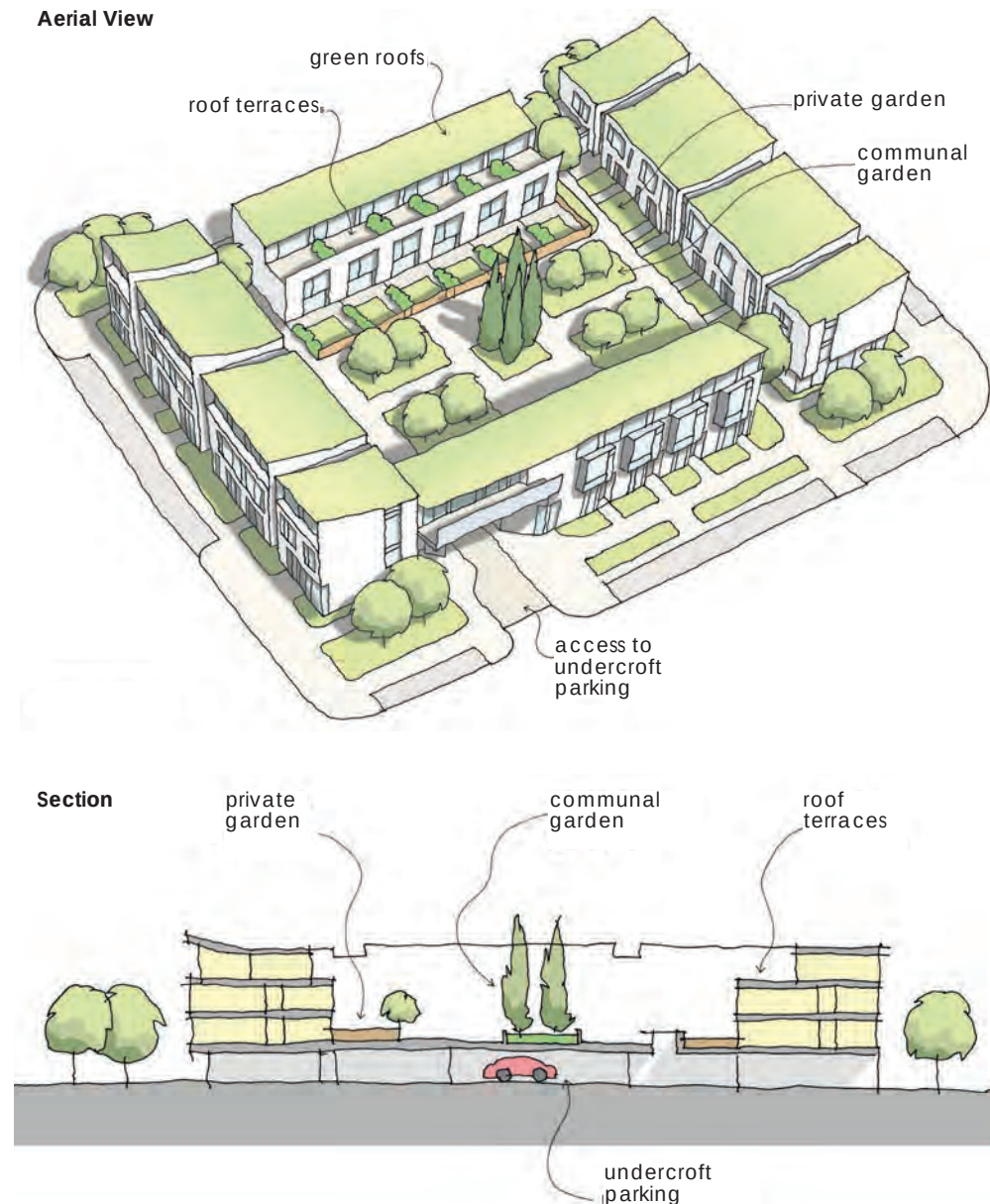
Residential Density

Density can be defined in various ways but for the purposes of this document residential density is taken to mean net density as defined by PPS3.(See Glossary)

While development should make efficient use of land, the overriding objective should be to create an attractive development that functions well, irrespective of the numerical density. All development should take account of the existing local character.

Developments that propose relatively high density (over 50 dwellings per hectare (dph)) will need to demonstrate that the increased spatial requirements for associated car parking as well as for bin storage and cycle parking do not reduce the quantity to an unacceptable degree and degrade the quality of the remaining ground level landscape and open space. In addition, surface water runoff from roof space and ground level hard surfacing will become more intense, often with fewer opportunities for ground level sustainable drainage systems.

Fig.20: High density developments may need special design measures to achieve high quality environments



A Design & Access Statement should indicate on a plan and in the text:

The proposed net residential density and the variation in density across the site if appropriate

The location of the site relative to the current EBC Accessibility Zones and the local facilities.

Key Design Principle 4 (Residential Density):

Density should be appropriate to the context and level of accessibility; make efficient use of land and address the needs of residents

Permeability, Legibility and Street Hierarchy

Permeability:

Permeability describes how well connected a site is. New development needs to allow for good connections both within the site and with the surrounding area. This needs to be balanced with the need for security and crime prevention.

Vehicular permeability is important to prevent cul-de-sacs which are inherently inefficient, causing longer driving distances and the need for wasteful turning areas for cars and service vehicles. It should allow for fairly direct routes to avoid unnecessarily tortuous journeys.

Pedestrian and cycle permeability is even more important and routes may need to be more direct than the vehicular routes. Where possible, people should be given the opportunity to use direct and attractive routes on foot or by bicycle as an alternative to using the car for journeys below 2 km.

Permeability must take account of the need for quality routes and natural surveillance (see Appendix B).

A Design & Access Statement should indicate on a plan:

An analysis of how routes for vehicles, cycles and pedestrians will work through the site and as part of the wider connection network around the site and how priority for pedestrians and cycles has been designed.

Legibility:

Legibility describes the ease with which visitors can orientate themselves and find their way around an area.

Legibility is promoted by:

- A clear hierarchy of routes;
- A strong and logical building layout (such as the perimeter block) and massing;
- The appropriate and consistent choice of materials for buildings

Fig.21: Poorly connected (a) and well connected (b) new street layouts

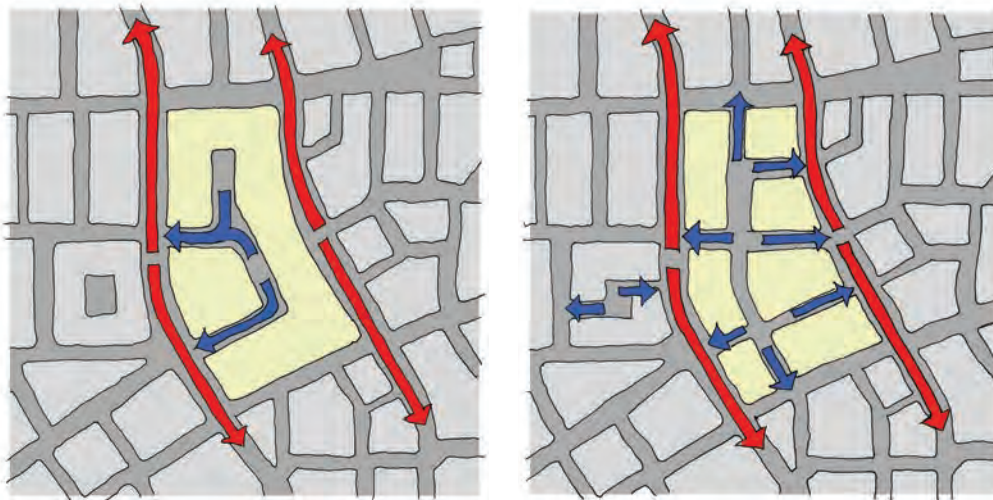
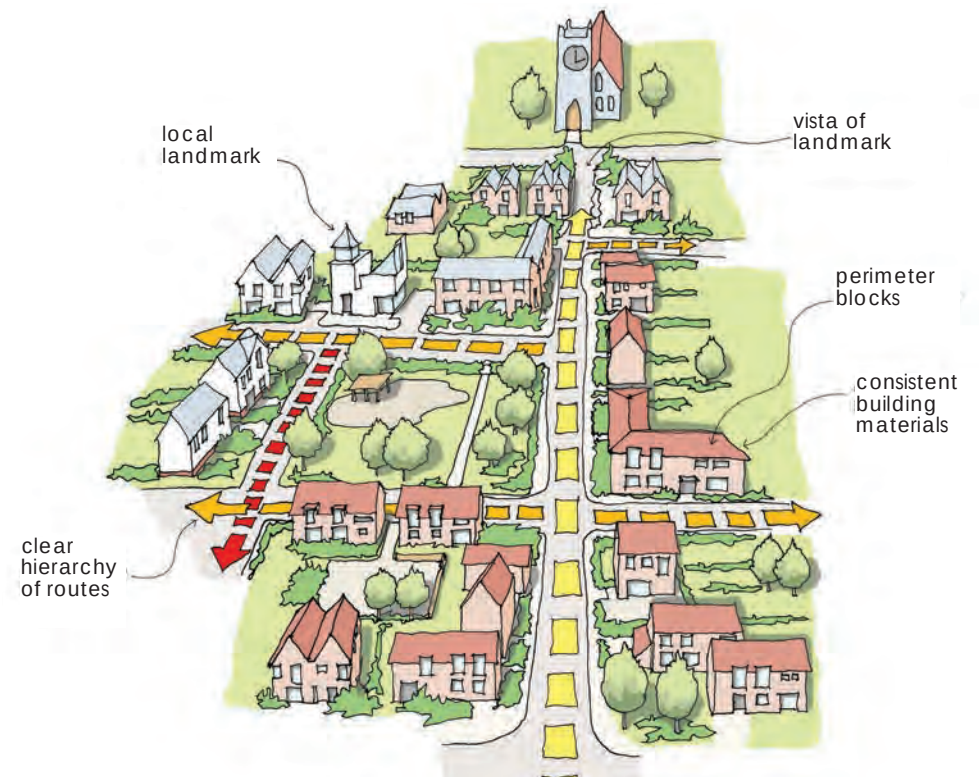


Fig.22: The elements of a legible development showing a route hierarchy



and for designing the streets or routes;

- The use of views and focused vistas of local landmarks (buildings and landscape features) in and around the site.
- Only as a last resort should signage be employed to help provide directions to specific destinations.

Route Hierarchy:

In order to create a legible development, it is necessary to make it clear what routes are major ones and which are more secondary down to the most informal pedestrian routes. This needs to be clear from the dimensions of the street and the corresponding scale of buildings (and trees) which front it.

Primary Routes:

On the largest of sites, (over 500 dwellings), some form of 'main street' may typically form the spine of the development. This would not be designed as a low speed environment and vehicular flow will be important but should still accord with The Manual for Streets principles, www.communities.gov.uk/publications/planningandbuilding/manual-forstreets

Primary routes typically will have: wider streets, taller buildings, space for larger trees, landmark buildings, segregated cycle routes and footways and limited on-street car parking.

Secondary Routes:

Many residential streets would fall into this category. They should all be designed to 'Manual for Streets' principles and typically will have: modest street widths, smaller buildings, mostly smaller street trees and designed space for larger street trees, local landmark buildings, cycle routes and footways sometimes not segregated, and on street car parking.

Fig.23: A good primary route: Leigh Road, Eastleigh



Minor Routes:

The lowest in the hierarchy of streets, which serve only a very small number of vehicle movements typically.

Wholly pedestrian or cycle routes should distinguish themselves from vehicular routes by their reduced width (maximum 3m for a shared pedestrian/cycle route) and contrasting surface materials.

Fig.24: A good secondary route: Brownhill Road, Chandlers Ford



Fig.25: A good minor route: Bodmin Road, Bishopstoke



Smaller developments are likely to have streets that do not offer the opportunity to create a suitable hierarchy. These developments should provide the most appropriate level of routing at the highest possible standard.

Fig.26: A typical suburban perimeter block layout in Chandler's Ford (a) and a generic mixed used urban perimeter block layout (b)



Fig.27 Good eg of mixed use urban perimeter block layout in Eastleigh town



Perimeter blocks:

The most successful layout for promoting good permeability and legibility is the perimeter block.

Residential perimeter blocks make a clear distinction between private gardens behind the buildings (promoting good security) with public streets in front. The strong building lines provide good passive surveillance and activity on the street side.

Other examples of perimeter blocks

are concentric blocks such as in Poundbury, Dorchester. In more rural locations an irregular block layout may provide a more appropriate 'organic' character.

Non-residential building in perimeter blocks should also have their public side with the main entrance(s) on the street side with servicing to the rear.

A Design & Access Statement should indicate on a plan or in 3 dimensions and in the text:

An analysis of how routes for vehicles, cycles and pedestrians will work through the site and as part of the wider connection network around the site and how priority for pedestrians and cycles has been designed;

An analysis of what new or existing landmarks, views and vistas should be incorporated into the development and other measures will be employed to promote legibility around the site;

The hierarchy of routes throughout larger developments

Key Design Principle 5 (Legibility):

Development should have its own identity and variety so that it is easy for people to find their way around.

External Space

Design of External Space

The design of the external space (predominantly landscape, public spaces and streetscape in the public realm, but also private and semi-private garden space) involving trees and other vegetation, sustainable drainage systems and hard materials, is an essential component of achieving a successful development.

Considering the treatment of the external space at a very late stage of the development's design must be avoided. At the concept stage the external space design principles or landscape strategy should be integral to the design of the whole development. The Hampshire Landscape Checklist provides guidance as to the necessary information that should be provided to the LPA when considering a planning application (www.hiow.gov.uk/offnet/hlg/47340%20Oce%20Checklist.pdf). This information should be used to develop a good quality landscape design.

Opportunities to integrate sustainable drainage systems within the landscape design of the development should be taken and need to be identified at the concept stage. Adaptation to predicted climate change should also influence the detailed design of the landscape.

Fig.28: A landscape strategy plan extract (for a large new development - Fabrik Landscapes)



A Design & Access Statement should indicate using text, plans and sections:

The landscape strategy for the design of external space in the development.

Management of Landscape

The landscape scheme will need to include information on the maintenance of planting during the rest of the site construction if a larger development. This must be carried out in order for trees and plants to become established. Where plants die, re-planting will be required. The establishment period has the most intensive care requirement, with the need for watering and weeding. Once the landscape is established, general management will be needed. A management agreement must reflect these separate requirements.

There are different options for maintenance. It may be desirable to use a private management company for the maintenance of an area of green spaces (in the context of residential development) or it may be handed over to the Council. The Council has a policy only to adopt open space which consists of a continuous area of at least 0.2ha. Alternatively, the development may be designed so that the majority of landscape is within private ownership.

Sustainable Drainage Systems (SuDs) that manage rain water runoff from hard surfaces and collect, clean, store and release water slowly to the environment in as natural a way as possible should be treated as part of the landscape. For larger sites therefore, details of SuDS maintenance should be included in the management plan, specification and

schedule of works which is produced as part of the landscape maintenance strategy. This includes the long-term management, particularly for private housing developments.

The Council will expect landscape proposals to be signed off before the maintenance of landscaping is handed over. It may be necessary for a survey to be done before handover, with all landscape being brought up to standard and maintained at that standard for a period of time before handover.

Proper provision for access for maintenance of landscape areas must be designed in.

A Design and Access Statement will need to:

demonstrate that the future management of the scheme during and post construction has been adequately addressed.

Key Design Principle 6 (External Space):

The design and future management of all external space must be an integral part of the development and should be considered at the earliest stage.

Green Infrastructure

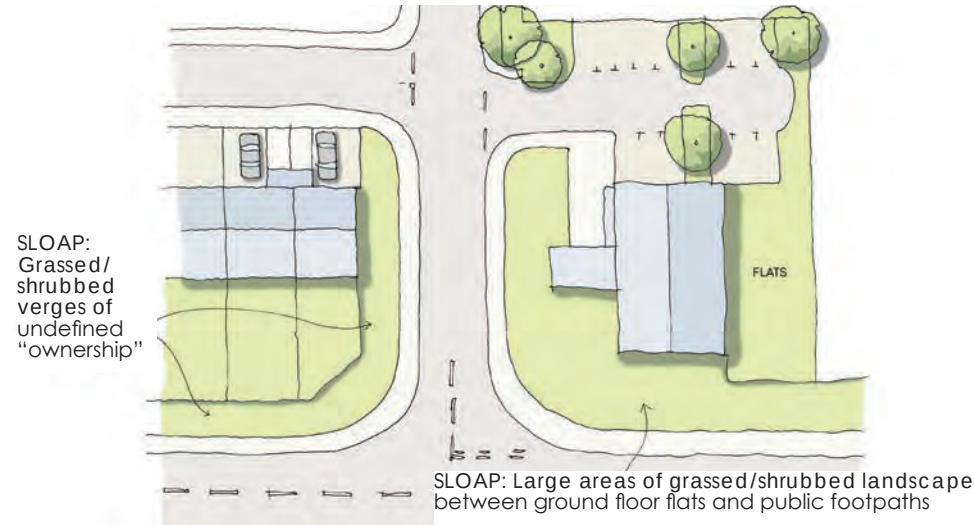
Green Infrastructure (GI) is a strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities. Green Infrastructure includes parks, open spaces, playing fields, woodlands, allotments and can include private, gardens and green roofs and walls. Linear networks such as hedgerows, streams, and public rights of way are also part of GI.

The PUSH GI Strategy (www.push.gov.uk/push_gi_strategy_adopted_june_10-2.pdf), and the forthcoming Eastleigh Borough GI Strategy (expected adoption in 2011) should be referred to when planning for future development, to ensure that existing and new green space is contributing to the multiple objectives of the strategies.

Space Function (The Avoidance of SLOAP)

'Space left over after planning' (SLOAP) are areas of land that do not have a clear function. They tend to be awkward shapes which may be on the periphery of the site. They are often 'landscaped' with turf or shrub planting. They have no clear sense of ownership and so they may become quickly neglected, are often

Fig.29: Two examples of SLOAP in residential development



A Design & Access Statement should show on a layout plan:

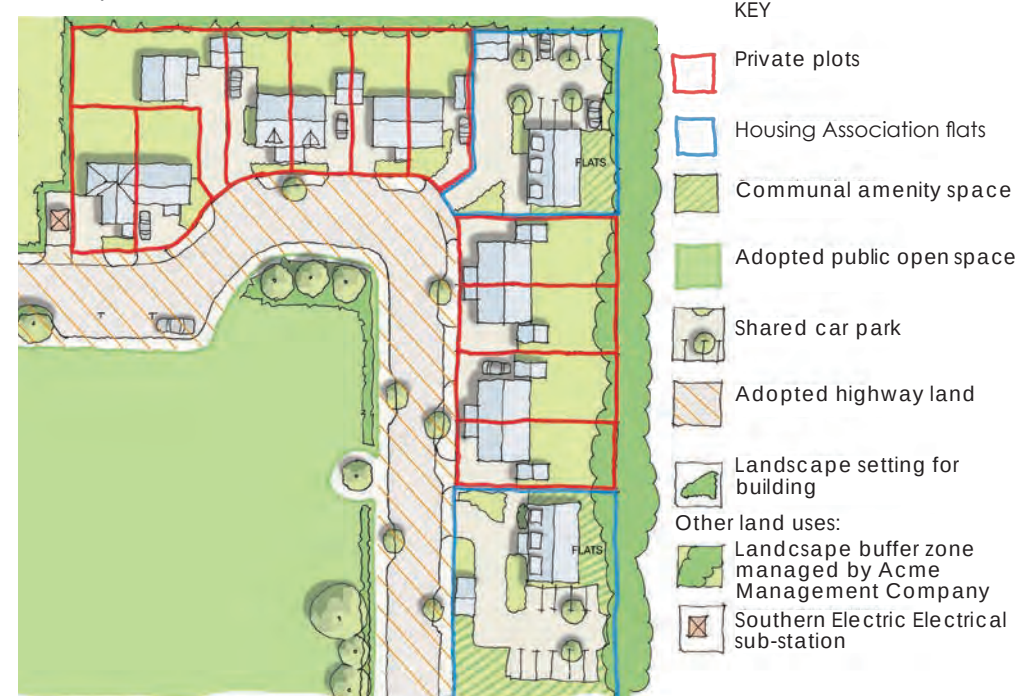
how all land within a site is to be allocated, clearly demarcated into areas of private, communal (management company or housing association), public highway and other public ownership.

poorly maintained and can be used for fly tipping. The result is not only an unsustainable waste of land but often an eyesore. These areas may be on residential or non residential sites.

The ground floor flat dweller can suffer from a potential invasion of privacy but does not have sufficient sense of ownership (nor the legal right of maintenance) over adjacent SLOAP to be able to use the area comfortably. Private amenity space should not be located in the public realm. (See fig 48)

Every square metre of a site should have at least one clear function (for which it is fit for) and the owner responsible for its maintenance should be identified.

Fig.30: A plan showing the proposed functions and ownership of all land in a development



Boundary Structures

Rear garden boundary structures abutting onto public or semi-public spaces should consist of well detailed brick walls (unless they need to accommodate existing mature trees).

Front garden boundaries for larger developments should consist of robust railings or brick walls and gates. For infill development, cues should be taken from local circum-

stances. In rural locations, timber picket fences and/or hedges may be suitable. Hedge plants without railings or any other inappropriate material are liable to suffer easy damage or decay. Boundary structures on a gradient should always step down to accommodate the slope rather than run parallel to it. For existing properties, the boundary treatment should be reflective of the general character of an area. Should the boundary treatments of

Fig.31: Appropriate boundary structures for rear private gardens



Fig.32: Appropriate boundary structures for front private gardens



the majority of properties in an area consist of low fencing or walling and dense planting, a 1.8m high brick wall will not be acceptable.

However, in general terms, it is advisable for boundaries that abut a public footway to be as robust as possible. Should planting be the preferred option, then prickly hedge species may offer a good choice for crime prevention reasons. This planting should be reinforced with temporary fencing (eg. wooden or post and wire) to support it until established.



Fig 33. Attractive and robust front boundary structures screening wheelie bins at Bodmin Road, Bishopstoke

Railings or perforated brickwork both provide enclosure and allow natural surveillance of the public realm.

Fig.34: An example of how non-residential secure boundaries should enhance the public realm Leigh Road, Eastleigh
Before



After



A Design & Access Statement should show on a layout plan and with elevations and sections:

where all the proposed different boundary structures will be located around the development and the design of each type.

Key Design Principle 7 (Boundary Structures):

Boundary treatments must be appropriate to the context, well-detailed and robust.

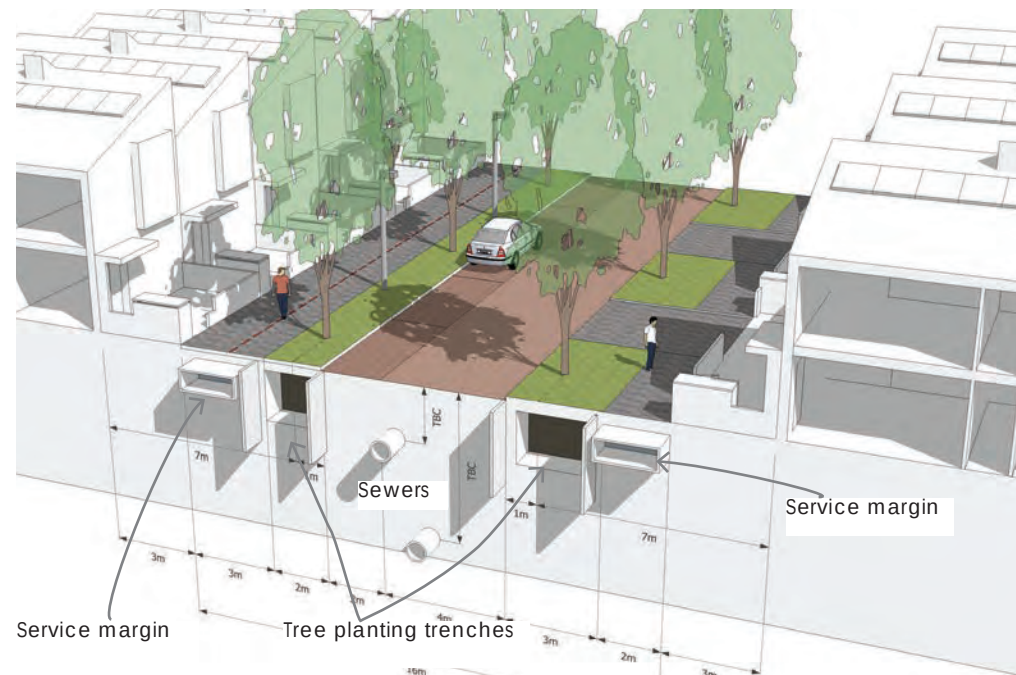
Underground Services

Manual for Streets (section 11.5) provides guidance for locating underground services in streets, www.dft.gov.uk/pgr/sustainable/manforstreets.

Detailed design advice can be found in NJUG Guidance www.njug.org.uk.

The main principle is that wherever possible, underground services should be restricted to specific margins, often under the footway, or in shared surfaces in a defined linear strip (ideally of 2 metre width). This frees up more of the street for potential street tree planting elsewhere.

Fig.35: Service margins and trees designed together in a new street (Architecture plb) (Proposed scheme Eastleigh)



Key Design Principle 8 (Underground Services):

Where possible new services should be located underground and main service corridors plotted on plans at the earliest stage to avoid design conflicts with tree planting.

A Design & Access Statement should show on a site layout plan

- the width and location of all service margins and any other underground service routes
- the proposed street tree planting shown on the same plan

Play Areas

If it is the intention that the Council will adopt the play area and the developer wishes to construct the play area themselves, the location,

design, specification and construction will need to be agreed with the Council. It is often the Council's preference, however, to accept the required contribution to the play area and make arrangements for the ap-

propriate equipment following the occupation of the development and consultation with residents.

A Design & Access Statement should show on a plan and in the text:

the location of all proposed play areas, their distance from the nearest residential buildings and their future management arrangements.

Fig.36: The main elements of a well-located play area



Public Open Space

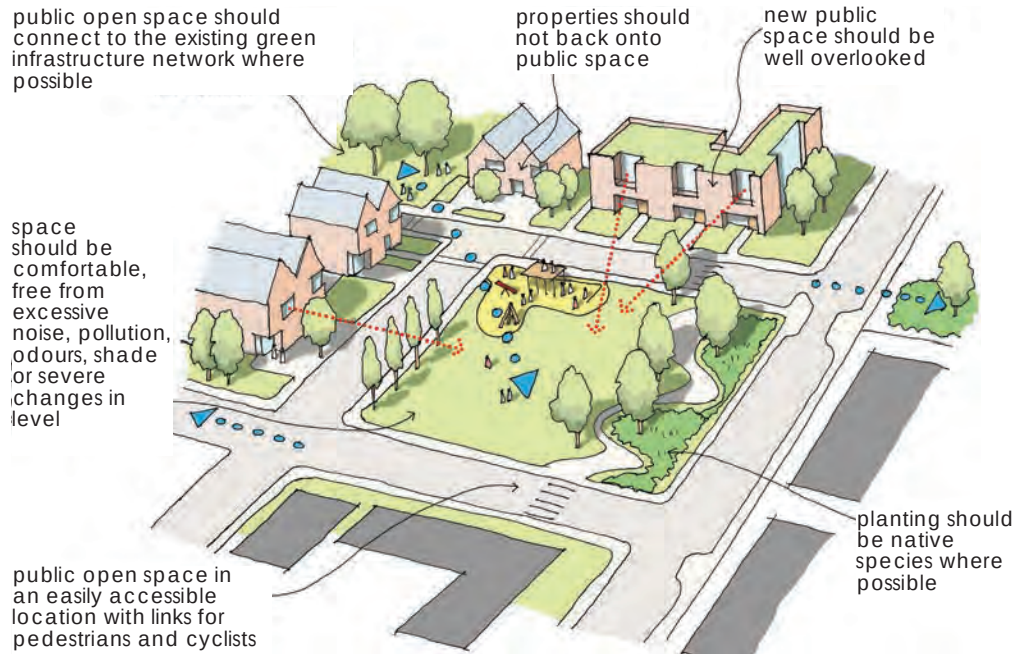
Public open space provides a wide range of recreational and social functions as well as giving urban dwellers their nearest opportunity for interacting with the natural environment beyond their own gardens.

- The amount of new public open required by a development is set out in the Council's Planning Obligations SPD www.eastleigh.gov.uk/planning--building-control/planning-policy-and-design/planning-policy-documents.aspx
- The best new public open spaces will be designed by a landscape

architect following the advice set out in the Hampshire Landscape Checklist (www.hiow.gov.uk/offnet/hlg/47340%20Oce%20Checklist.pdf)

- The design should reflect identified user groups based on local requirements;
- The public open space should be in an easily accessible location with high quality priority links for pedestrians and cyclists.
- If it is proposed that the space is to be adopted by the Council, it will need to consist of a contiguous area of at least 0.2ha in a usable shape (i.e. not too narrow).

Fig.37: Some important design requirements for good public open space



- The Council would encourage developers to provide public open space of a standard eligible for green flag awards.
- Opportunities to enhance biodiversity should be taken where appropriate.

A Design & Access Statement should show on a layout plan and with elevations and sections:

- the location and size in hectares of all proposed new areas of open space;
- the proposed users of each area of open space;
- the broad landscape design approach;
- how they connect with the pedestrian and green infrastructure networks;
- the extent of overlooking by active residential or non-residential rooms and balconies.
- where and how it promotes biodiversity
- how and by whom the space will be managed

Key Design Principle 9 (Public Open Space):

All public open space should be safe; accessible; designed for a range of functions and users; and should balance good natural surveillance with residential amenity.

Public Art

Public art has the potential to enhance an area and community on both a physical and social level. The best public art is produced through a thorough assessment of the site context and comprehensive engagement of the community.

Public art must be constructed with robust materials which should anticipate some attempted vandalism in the most public locations and should design out potential safety concerns for passers-by. The ease of maintenance should also be a design consideration. The illumination of public art should be considered to extend and transform its experience into the night. Developers are encouraged to contact the Council's public art officer at the earliest possible stage.

A Design & Access

Statement should:

provide a public art statement detailing the approach proposed to provide appropriate art in the public realm.

Key Development Principle 10 (Public Art):

Public art should contribute positively and reinforce a sense of place and identity.

Extensive Green Roofs

- In contrast to intensive green roofs, extensive green roofs are not designed for general access but they are to be encouraged in most circumstances for the range of environmental benefits they can provide. These benefits will vary according to the detail of their design.

Extensive green roofs are normally lighter and therefore require less support in the roof below than intensive roofs. Extensive roof vegetation, such as wildflower meadow grassland or sedum, require minimal maintenance (typically one meadow

cut per year or none for sedum) and may not even need irrigation. For all these reasons, extensive green roofs are considerably cheaper to install and maintain than intensive green roofs.

Roof Terraces and Intensive

A Design & Access Statement should show on the layout plan and in the text:

The location of all proposed extensive green roofs and their future management arrangements.

Fig.38: Some important benefits of green roofs

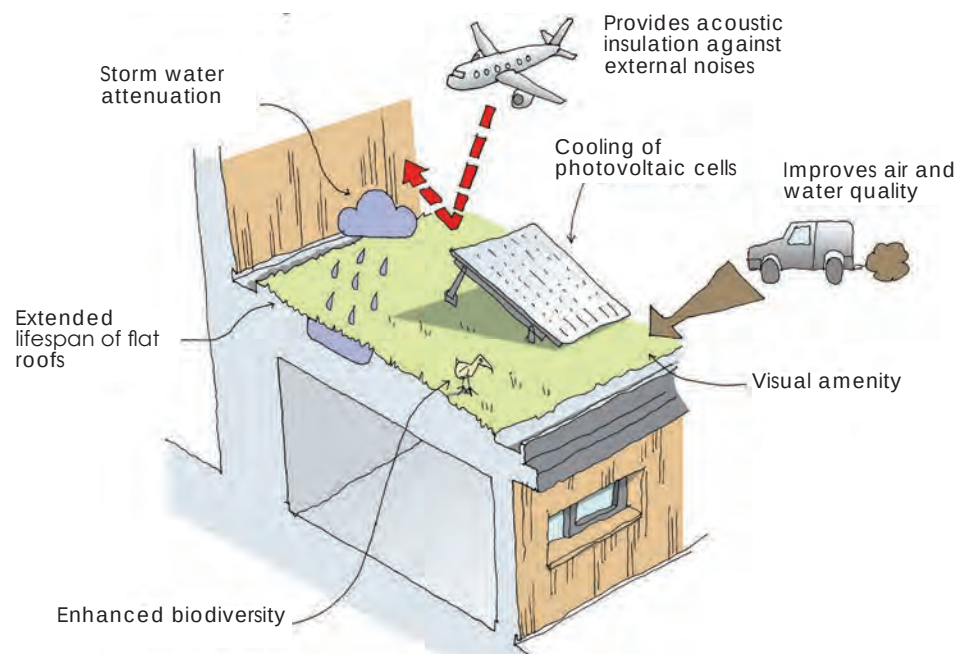
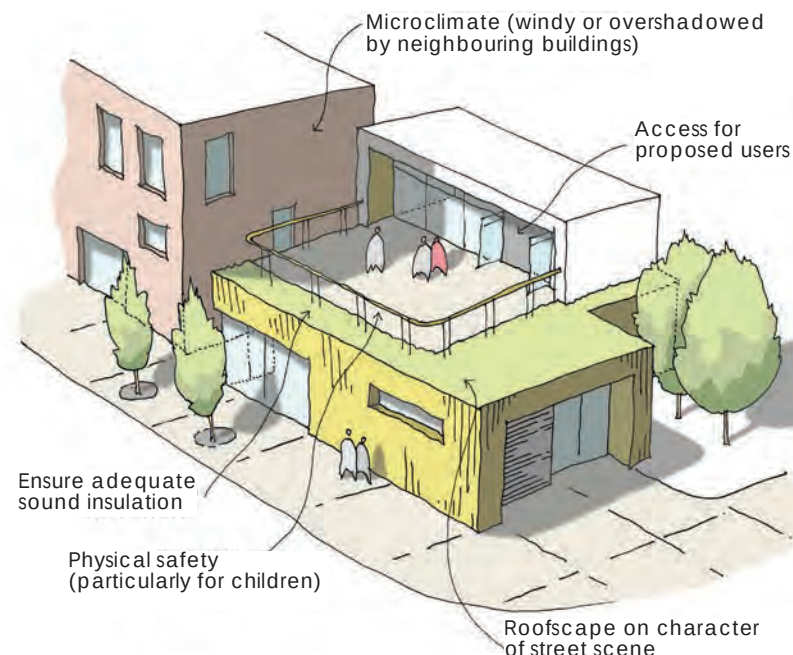


Fig.38: Some important design considerations for roof terraces



Green Roofs:

In the interests of making best use of urban land, maximising opportunities for private residential, non-residential and communal open space, roof terraces will be encouraged if there are no overriding design or privacy concerns. Intensive green roofs, which are planted roofs designed for passive or active recreation, can serve a similar function to roof terraces.

The intensive green roof/terrace design must also properly consider the function of the space and provision for facilities such as electricity and water.

A Design & Access Statement* should show on a layout plan, street scene elevations, in 3 dimensions and in building floor plans:

- the location of all proposed roof terraces or intensive green roofs or intensive green roofs;
- the general design approach
- access arrangements.

Trees

Trees provide us with many benefits in settlements:

Health and Wellbeing

- Air quality
- Psychological
- Aesthetic
- Community identity

Energy/CO2

- Urban cooling
- Solar shading

Biodiversity

- Habitat value
- Green infrastructure

Water

- Storm water attenuation
- Native trees will usually have the greatest biodiversity benefit. The larger the tree the greater the benefit although tree varieties need to be selected to suit their location. They need adequate underground rooting space (unencumbered by service cables and pipes) and space in which to grow above ground.
- There needs to be adequate provision for maintenance, particularly during the tree's establishment (the first 3 years) and for long term management.
- Medium sized street trees should be at least 7m from main buildings and large trees at least

10m away. Small tree varieties in street locations are of only limited benefit.

- All new streets and car parks will be expected to accommodate some medium sized trees and gardens trees appropriate to the size of garden, as per the Council's Environmentally Sustainable Development SPD ESD 8

www.eastleigh.gov.uk/pdf/ppdenvsuspd.pdf

- In addition it is expected that large developments (at least 30 residential units or 1000 sqm of non-residential floor space) should accommodate at least one large tree (oak, ash, beech etc) per 30 dwellings or 1000 sqm in adequate planting pits (10 cubic metres).
- Further details of tree selection and planting specification should be agreed with the Council's landscape architect or arboricultural team.

Fig 40: Medium-sized trees with adequate space in a proposed development in Eastleigh town (Architecture plb)



Residential Amenity

Private Residential Amenity

External private amenity spaces need to be sunny and well connected to interior spaces to encourage use and to allow for supervision of young children.

Minimum provision:

- An important component of good quality residential design is the provision of useable outside private space where residents can take advantage of fresh air and direct access to the natural environment. This is different from semi-private communal space (which is shared by residents).
- External private space can be provided by back or side gardens, roof terraces, or balconies. In the case of ground floor rented flats this can consist of a portion of the communal space screened off by suitable hedge planting (see communal gardens sub section below).
- The private outdoor space must be easily and directly physically accessible for all physical abilities but accessible to only those residents for which it is designed to be used.
- To qualify as usable private space it will need to allow for
 - at least 2 people to sit out in comfort

- a certain measure of privacy (e.g. not directly overlooked by neighbouring outdoor sitting areas or living rooms).

- For flats, private amenity space of *3 square metres per unit or *2 square metres per bedroom (whichever is the greater) will be required. This figure may be subtracted from the minimum amount of communal space provided for these dwellings. (*at least)
- For houses, the absolute minimum for private amenity space of at

least 60% of the floor space will be required. This minimum may be reduced in urban areas when the dwelling is within 100m (by safe and convenient route) of a public open space.

The size will need to increase where:

- the local context requires it (i.e. in more suburban, 'leafy' areas)
- excessive shading renders significant areas of the garden unusable due to neighbouring buildings or other structures, trees

and orientation

- mature trees are to be retained within the garden space.

Private residential amenity space may sometimes not be appropriate where constraints exist which, even when mitigated would result in unsafe or uncomfortable environments.

For other design reasons (e.g. privacy requirements or the need to take account of the local context) minimum back garden sizes may need to be significantly larger.

Fig.41: The benefits of front gardens

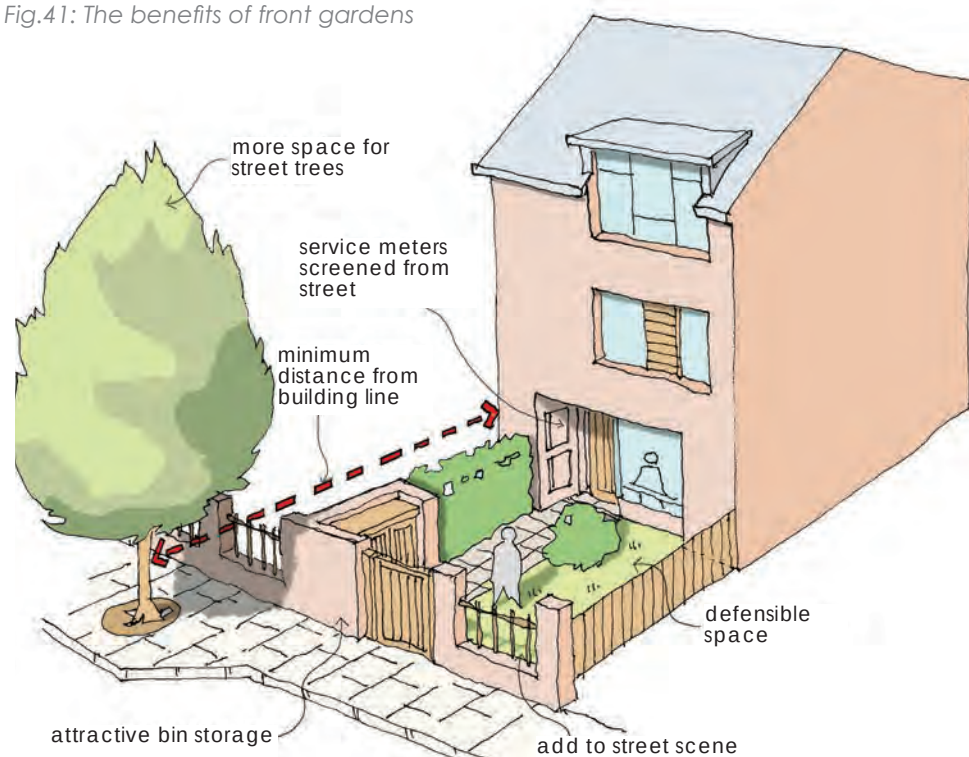


Fig.42 Defensible space where front garden not provided.

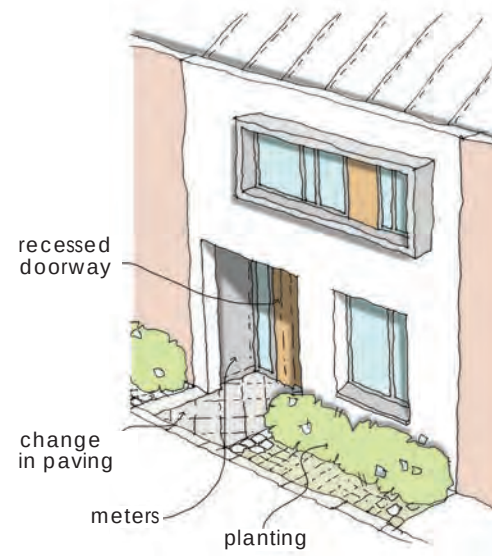
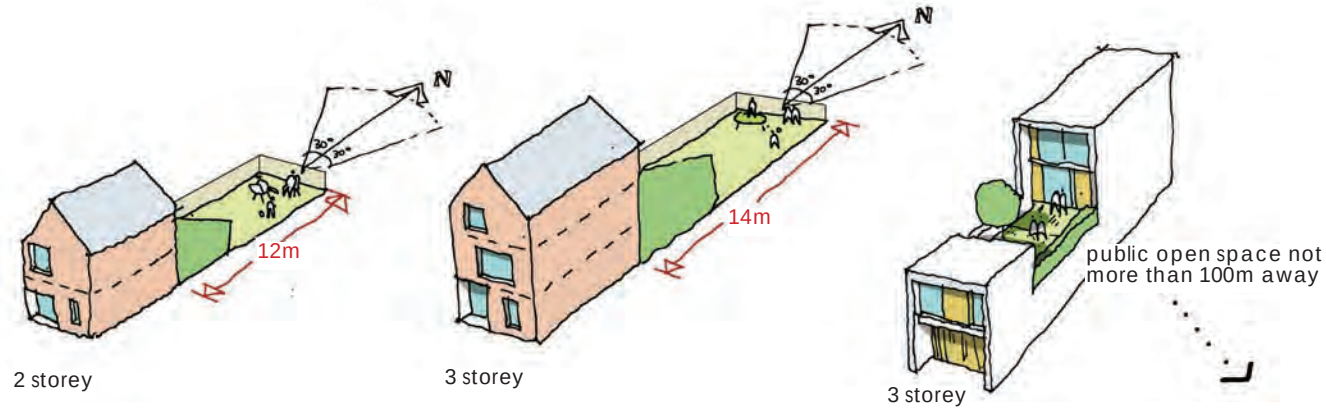


Fig.43: Minimum north-facing garden length and interior gardens near public open space

**Residential Front Gardens:**

Front gardens are an important contributor to the landscape design of the street as well as providing opportunities for social interaction. (See fig.40)

In some situations front gardens are not provided (where there is a local tradition of houses fronting directly onto the pavement or in a 'homezone' or mews street) and 'defensible space' must be provided through other means. (See fig 41)

Residential Rear (or Side) Gardens:

- Back gardens facing within 30 degrees of north should be a minimum length when measured from the house of 12m for 2 storey house and 14m for 3 storey houses to compensate for excessive shade from the house.
- Where there is easy access to local public recreation space

(within 100 m), useable gardens integrated within the fabric of individual houses may be an acceptable alternative to the provision of conventional private rear gardens.

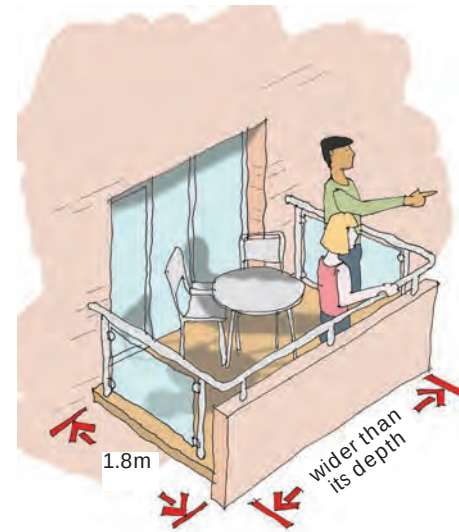
Balconies:

The provision of balconies on new buildings can make a positive contribution, in providing outdoor sitting space, where views out will not adversely impact on the privacy of existing buildings and private space.

- New balconies would be inappropriate for most existing dwellings in the borough due to an unacceptable loss of privacy to adjoining properties.
- Where flats front onto open space, balconies will be encouraged.

Balconies should be integrated within the design of the building and therefore should be considered early in the design process.

Fig.44: Appropriate balcony dimensions



A Design & Access Statement should show on a layout plan, street scene elevations, or in 3 dimensional street scenes and in building floor plans:

- the area of private amenity space for each residential unit ensuring that at least minimum standards are met
- where the proposed front gardens or other defensible space will be located and what the typical design approach will be for them.
- the location of all proposed roof terraces, interior patios and balconies
- the general design approach, including the provision of privacy;
- access arrangements.

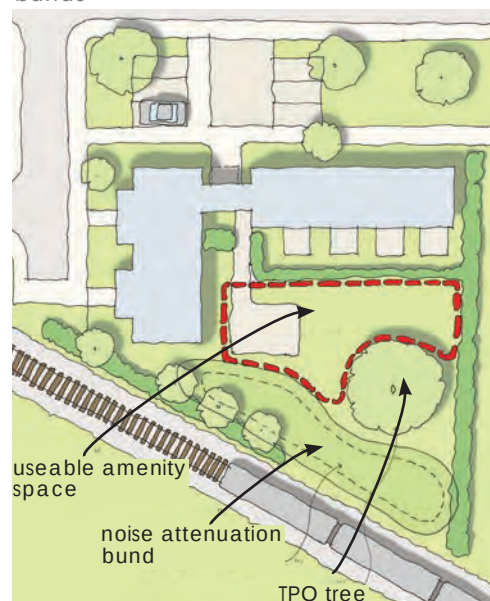
Residential Communal Garden Space

For flats and accommodation for older people, the provision of individual private gardens may not be possible, so private communal space will be required to provide an appropriate area of semi-private space. This can also provide an attractive setting for the building within the local context.

- The amount of communal space provided with flats and accommodation for older people should be determined by the local context,

but as a guide, a minimum of 25 sqm of amenity space per dwelling should be provided. If the flatted development is directly adjacent to a useable recreation space or within an area of very good local facilities, such as a town centre, in which case this requirement may be waived. The minimum amount of communal external space for older people's accommodation cannot be waived due to the different needs and lower mobility of these residents. The area separately provided for private amenity space (balconies, roof terraces, ground floor flat gardens etc.) can be counted as part of this provision.

Fig.45: Useable amenity space excludes narrow strips of land, areas subject to excessive shade and noise attenuation bunds



- Communal space for flats should be provided with enclosure and some privacy, while including some overlooking by residents, and should have robust boundary design.
- Communal open space should be allocated in proportion to the building, to make this space comfortable and not over-dominated by the mass of the building (see fig.12)
- The amenity space provided should be suitable for normal domestic activities, including sitting out and drying clothes and should not merely act as a grassed setting for the building.

Public/Private Distinction

Private space for houses should be located at the rear, where possible,

A Design & Access Statement should show on a layout plan and in the text:

- the location of all proposed new areas of communal garden space;
- the means of access to this space for the intended users;
- the broad landscape design approach including any privacy protection for ground floor residents;
- future management arrangements.

and ideally should back on to similar private garden space with no public access. This arrangement is best for property security and allows for relatively tranquil and sheltered spaces.

- The street elevation should have windows to habitable rooms and doors, allowing for natural surveillance.

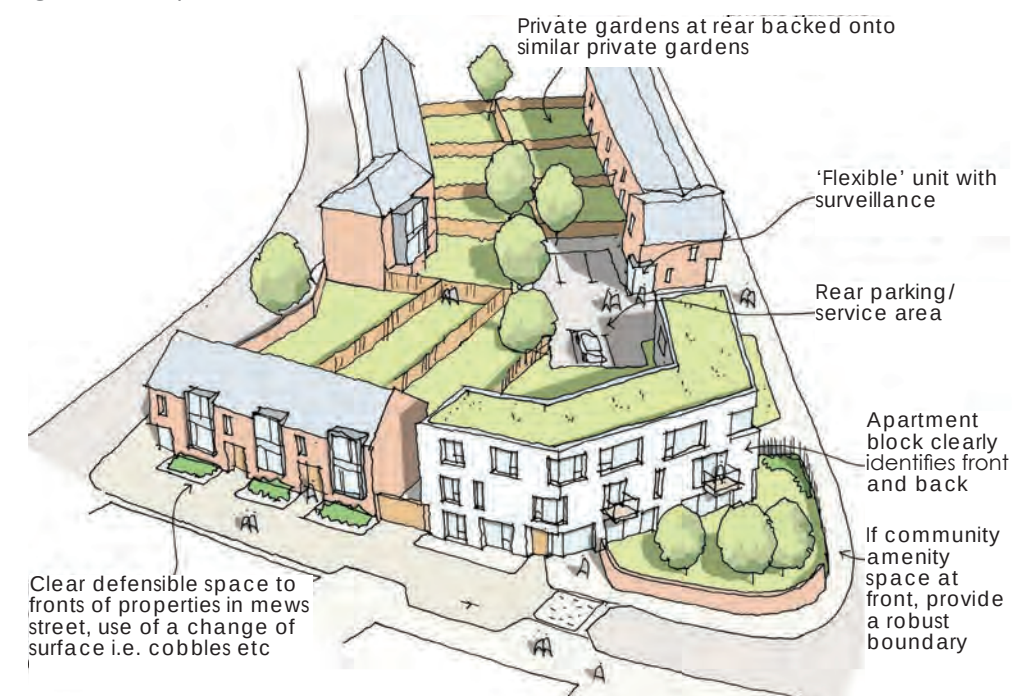
Apartment blocks and non-residential buildings also need to clearly identify their fronts and backs. These buildings need to concentrate the main entrance or entrances on the street frontage and sides. The more private or service areas should be hidden

from the street or its visual impact (of car and cycle parking or a delivery zone, bin storage, etc) mitigated by good design.

A Design & Access Statement should indicate on a plan:

a development concept showing in broad terms where the private areas and public areas of the development will be located through the site in the context of surrounding existing development.

Fig.46: Public/private distinction



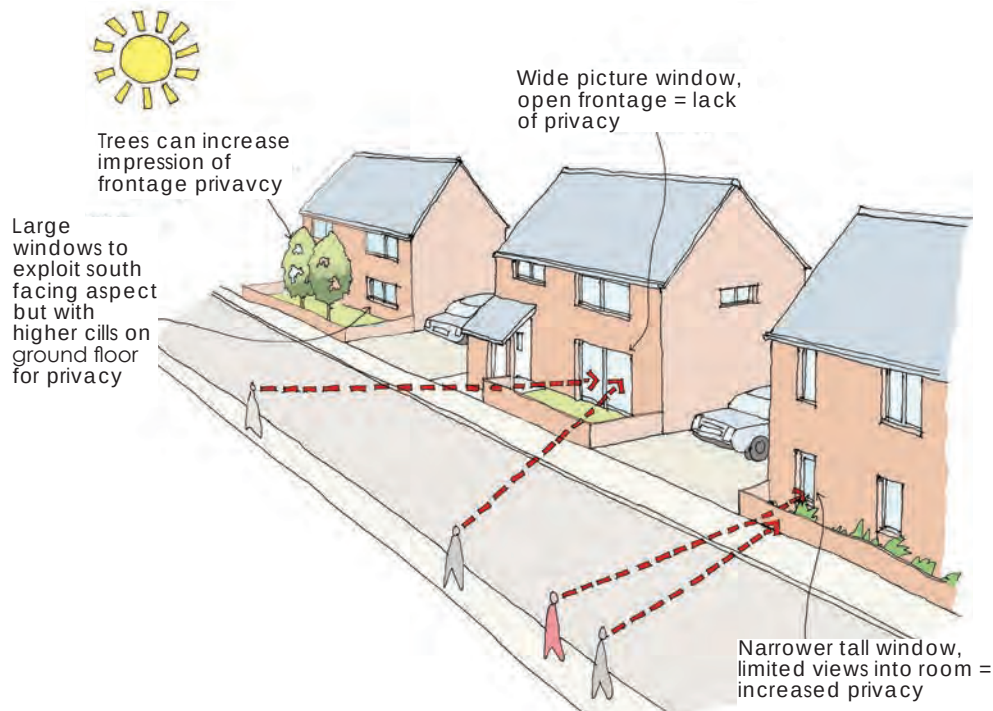
Residential Privacy

Front Privacy:

The 'public' front of residential properties should achieve a balance between natural surveillance of the street from inside the property and reasonable privacy from passers by.

- Developers of ground floor flats are encouraged to provide private outdoor sitting space wherever possible. Where direct access to communal space is provided from ground floor flats, some defensible space should be provided which may include

Fig.47: Privacy for street elevations

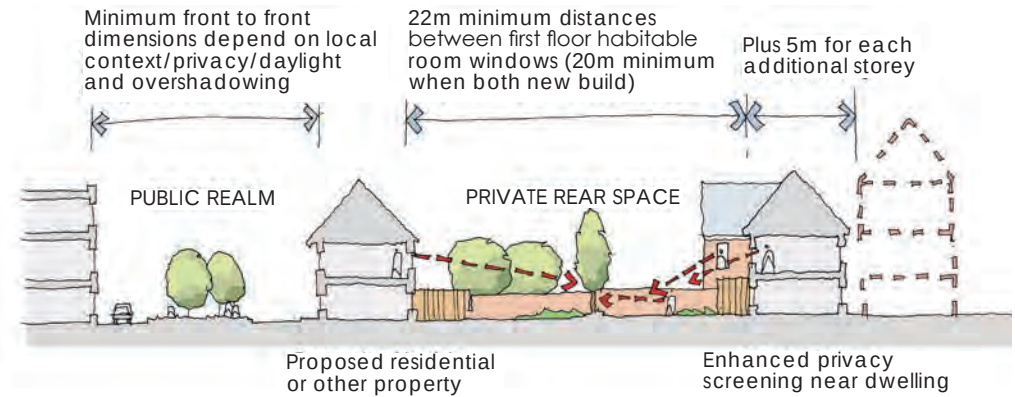


planting, to safeguard the privacy of residents from other users of the communal space(see fig 49).

Rear Privacy:

On the non-public side, (normally the rear of the building), a high standard of privacy is required for the windows of living rooms and outdoor private garden space (particularly near the house). Some overlooking of gardens from the upper storeys of adjoining dwellings will be unavoidable in most urban and suburban housing layouts. Rear privacy can best be assured by arranging garden boundaries back to back, and not adjoining a public space.

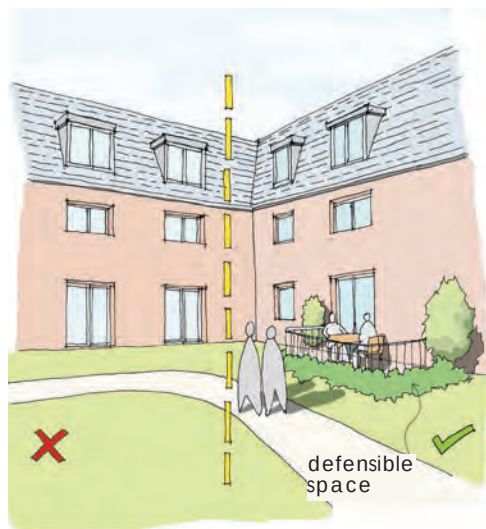
Fig.48: Rear residential privacy



Where private gardens must adjoin a public space they should be enclosed with brick walls of an appropriate height (rather than timber fences).

- Proposals for housing significantly higher than existing dwellings are unlikely to be approved where habitable rooms directly overlook the back of existing properties.
- Apartments looking onto other apartments, separated exclusively by public or communal space, should be a minimum distance apart between windows of habitable rooms to ensure satisfactory standards of privacy and day light considerations and to prevent unacceptable levels of overshadowing(see fig 44).
- Beyond a distance of about 35m, reasonable privacy is achieved by remoteness.
- For conventional houses with private rear gardens, the front of one house should not face the rear windows of another, for reasons of privacy and informal surveillance. Exceptions to this rule will require a combination of increased separation distance (above the accepted back to back minimum) and privacy screening.
- These principles should also be applied to rear extensions, where consideration should be given to the potential impact of side windows above ground floor level on adjoining properties.
- Overlooking can also be a particular problem on sloping sites. Changes in orientation, the arrangement of rooms and the presence of established vegetation may be used to help mitigate rear overlooking problems.

Fig.49: Defensible space is required for ground floor flats adjacent to communal areas



A Design & Access Statement should demonstrate on a layout plan or in 3D:

that the design of the development has considered and protected the residential privacy of new and existing properties

Daylight and Sunlight

Daylighting:

- The relative heights and separation of buildings should be adjusted to ensure that the windows of neighbouring properties enjoy reasonable day lighting.
- Where this is likely to be an issue, the applicant should provide drawings to demonstrate that anticipated problems can be overcome.
- It is recommended that new dwellings should meet the daylighting standards set out in BS8206 part II (which also accords with the Code for Sustainable Homes Standard).
- For houses and flats, the impact of adjoining structures on the level of daylight available is particularly important in living rooms, dining rooms and kitchens
- Daylighting in bedrooms may also be considered, but is generally considered less important except where this is the main private accommodation such as in residential homes.
- Detailed proposals should also take account of local circumstances like level difference between properties and orientation.

Guidance and tables are provided in the BRE report *Site Layout Planning*

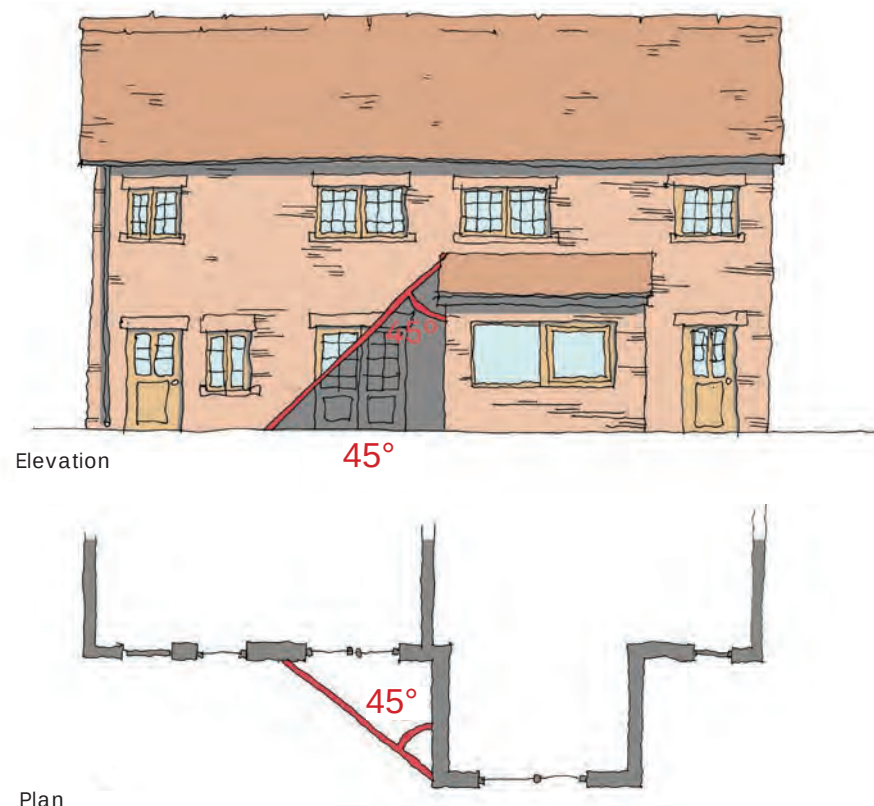
for *Daylight and Sunlight – a Guide to Good Practice* published in 2002. This guidance should be used if there is doubt about the acceptability of proposals with regard to daylighting and sunlight after the tests described have been carried out.

Day light checking for extensions:

- On the window wall elevation an angle is drawn diagonally down at 45 degrees from the near top corner of the proposed extension.

- An angle of 45 degrees is then drawn back from the end of the extension toward the window wall.
- If the centre of the main window of the adjoining property lies on the extension of both these lines, then the extension will probably cause a noticeable reduction in skylight received by the window.

Fig.50: Daylight checking for rear extensions



Daylight checking on a proposed or existing building:

- Reference points are drawn 2m above ground level (taking into account any slope corresponding to the top part of ground floor windows);
- A section in a plane is drawn perpendicular to the face of the building;
- If none of the obstructing building subtends an angle to the horizontal > 25 degrees, then there will be potential for good daylighting in the building.

- If an obstructing building exceeds this relative height, then further analysis can be carried out to quantify the amount of skylight falling on a vertical window known as the 'vertical sky component'. This is described in detail in the BRE report referred to above.

Sunlighting:

The extensive obstruction of sunlight to an existing property or its garden by the construction of a new building or extension is likely to be resented by existing occupiers.

Designs for new buildings or extensions

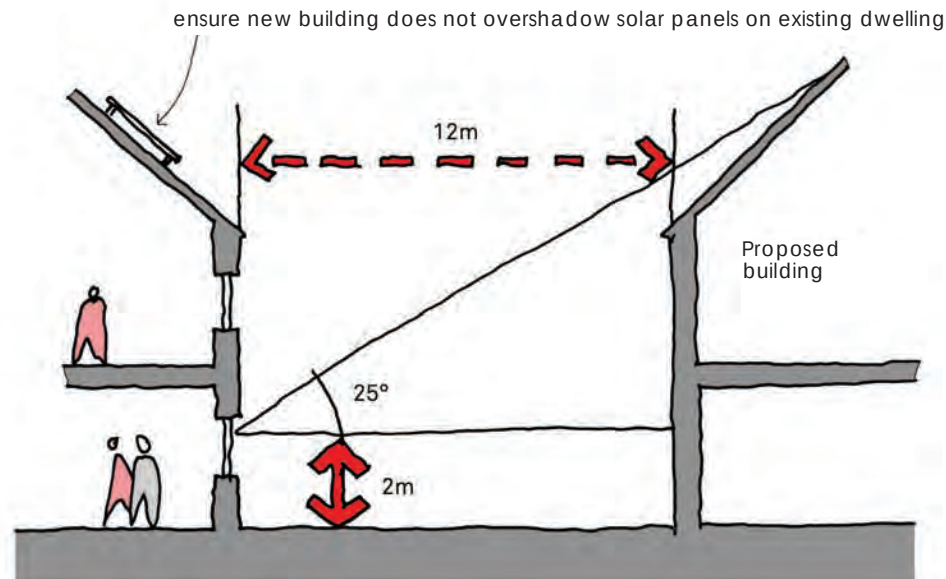
must take account of the effect of shading on existing solar panels.

Further information and tables for calculating sunlight availability at different times of the year are available in the BRE guide.

Key Design Principle 11 (Residential Amenity):

New development should be designed to respect the residential amenity of existing and new occupiers and all dwellings should have adequate private amenity space.

Fig.51: Daylight checking for new buildings adjacent to existing homes



Daylighting reference to line drawn perpendicular to building face 2m above ground level

Access, Parking and Services

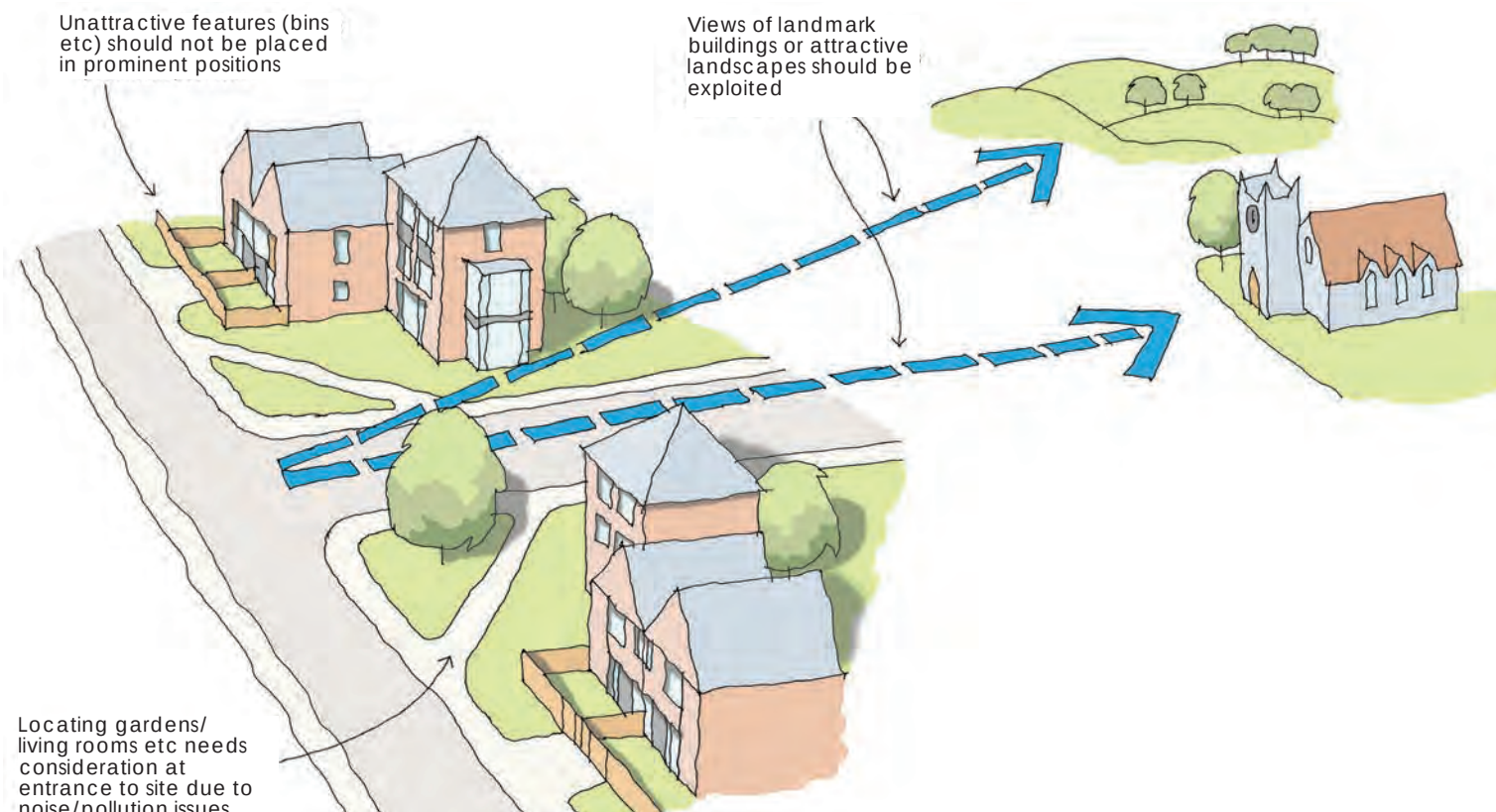
Principles of access, parking and the arrangement of services in the street are addressed in detail in the Department of Transport 'Manual for Streets' (2007) www.dft.gov.uk/pgr/sustainable/manforstreets and Hampshire County Council's Companion Document to Manual for Streets www.hants.gov.uk/hampshire-manual-for-streets.htm

Access Into the Site

(See also 'integrating with existing movement networks' in Site Accessibility)

- In residential developments, where possible, vehicular, pedestrian and cycle access into the site should not be from a single point, but should allow the possibility of entering and exiting the site from several different locations. This is to prevent the inefficiencies experienced with typical cul-de-sac developments and excessive vehicle movements experienced by residents living on a single route in and out.
- The design of the access will depend very much on the nature and size of the development and the size and traffic speed of the road or route that it links into.
- Developers are encouraged to

Fig.52: A main access into a residential site



contact the Transport team in the Council's Engineering Unit for the approval of access design.

With a main access to the site:

- There is the opportunity for an architectural statement/landmark/public art installation depending on context.
- Attractive views should be maximised and unattractive elements minimised.
- The layout must allow for safe and appropriate construction vehicle access during the construction period minimising the impact on neighbouring properties and the general public.

Care should be taken to minimise vehicular noise/disruption to bedrooms/living rooms of adjacent properties.

A Design & Access Statement should show on a site context plan and site layout plan:

the location of all vehicular, pedestrian and cycle accesses into the site (with one way restrictions if applicable);

the design strategy for access into the site.

Access Around the Site

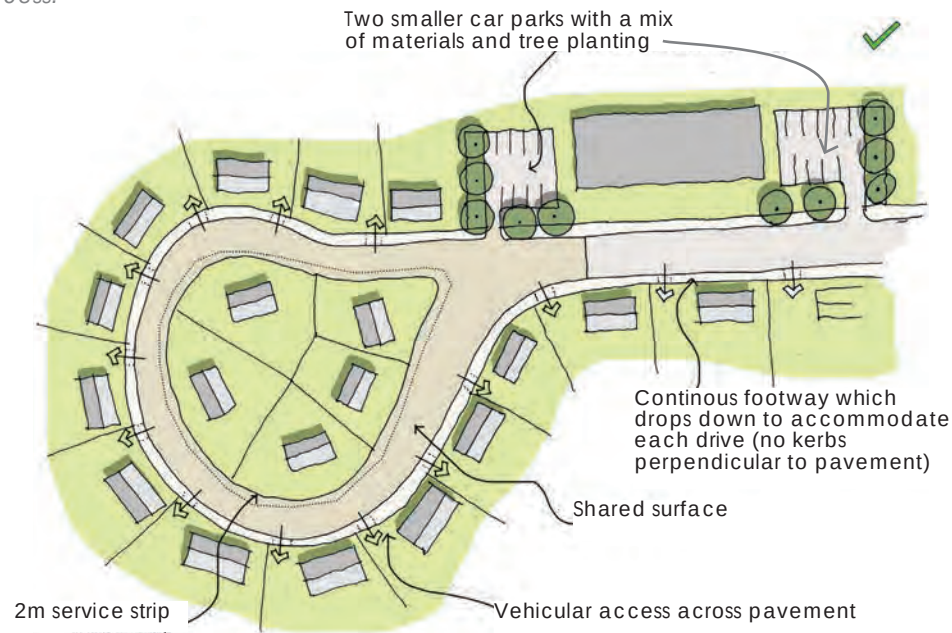
Access around the site should follow a logical hierarchy of routes (see hierarchy of routes on p.19). It should be easy to find your way around the site (see legibility on p.18) and should be attractive (see Appendix B: Quality of Routes).

- The development design should ensure that the access routes around the site are well overlooked are well lit at night and are attractive
- The ease of access for people with pushchairs, wheelchairs and disabilities should also be considered.
- The layout must allow for safe and appropriate construction vehicle access during the construction period minimising the impact on early occupants of the site, particularly in residential developments.

Fig.53a: Cul-de-sacs, hammerheads and excessive areas of tarmac, turning circles and excessive sight lines, and kerbs perpendicular to pavement direction should be minimised.



Fig.53b: A more efficient, less highway-dominated layout with better disabled/buggy access.



A Design & Access Statement should show on a site layout plan:

the location of all vehicular, pedestrian and cycle routes around the site (with one way restrictions if applicable);

the design strategy and route hierarchy for access routes;

the location of important views, vistas and landmarks associated with access routes.

Pavements:

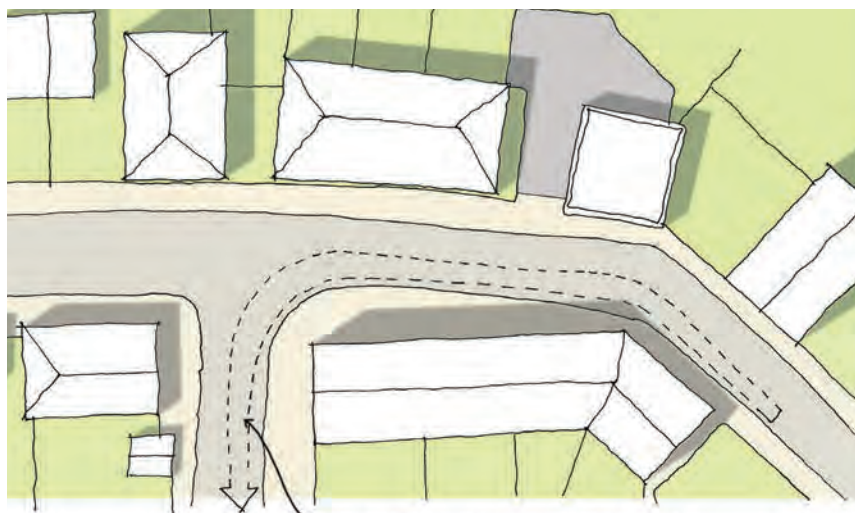
If separate pavements with full height kerbs are provided as part of a residential development they should ideally be 2.0m but must be a useable minimum width of not less than 1.5m. Shared cycle/footways should be 3.0m in width. Where space is limited, carefully designed shared space provides a better solution. Substandard pavement widths will not be acceptable.

Plot Access

Care should be taken to ensure that access to individual plots and buildings can be used by all residents, employees and visitors. Both primary and secondary means of access should be able to be used by people of all physical abilities. Inclusive access to a plot needs to reflect:

- The location of the building on the plot,
- The gradient of the plot;
- The relationship of adjoining buildings.
- Car parking within 20m of the plot without significant steps in level or severe gradients

Fig.54: Tracking for large vehicles



Sufficient carriageway width and turning radii for refuse vehicles etc demonstrated through a tracking exercise

Public buildings will all have to meet the statutory requirements for plot access set out in the Disability Discrimination Act 1995 (as amended 2005)

Many of the issues relating to inclusive access to buildings and associated car parking are covered by Lifetime Homes (see Internal Spaces chapter).

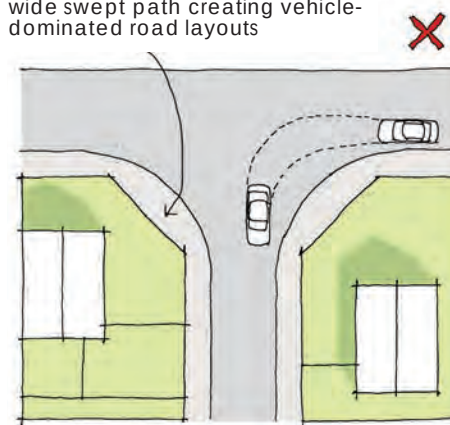
Emergency and Services Access

- Current building regulations for emergency access will need to be met.
- The design principles in the 'Manual for Streets' should also be followed (sections 6.7 and 6.8 and para 7.2.6).

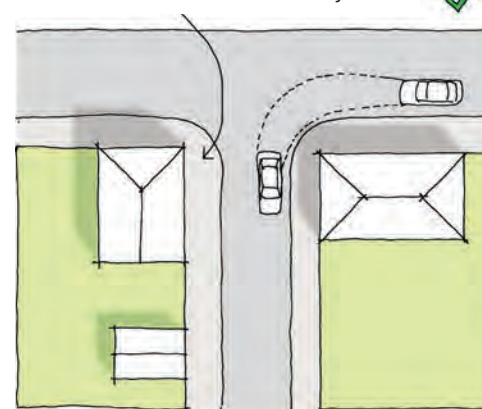
- While refuse lorries and fire engines will require a minimum turning radius of 10 m, footways and buildings at such junctions do not need to follow the same wide swept path, maximising sight lines, as this will create a vehicle-oriented layout.

Fig.55: Vehicle-dominated junction layouts should be avoided

Footpaths and building follow wide swept path creating vehicle-dominated road layouts



Tighter buildings and footpaths create less vehicle-dominated road layouts



A Design & Access Statement should show on a site layout plan:

the location of waste and recycling collection points and if possible, the tracking for waste and recycling vehicles in accordance with Manual for Streets

Key Design Principle 12 (Access around the Site):

Access within the site should be overlooked, safe and convenient to use, but must not be highway dominated

Highway Maintenance

Highways, that is, roads and foot and cycle ways, should reach adoptable standards and are normally adopted by Hampshire County Council as Highway Authority.

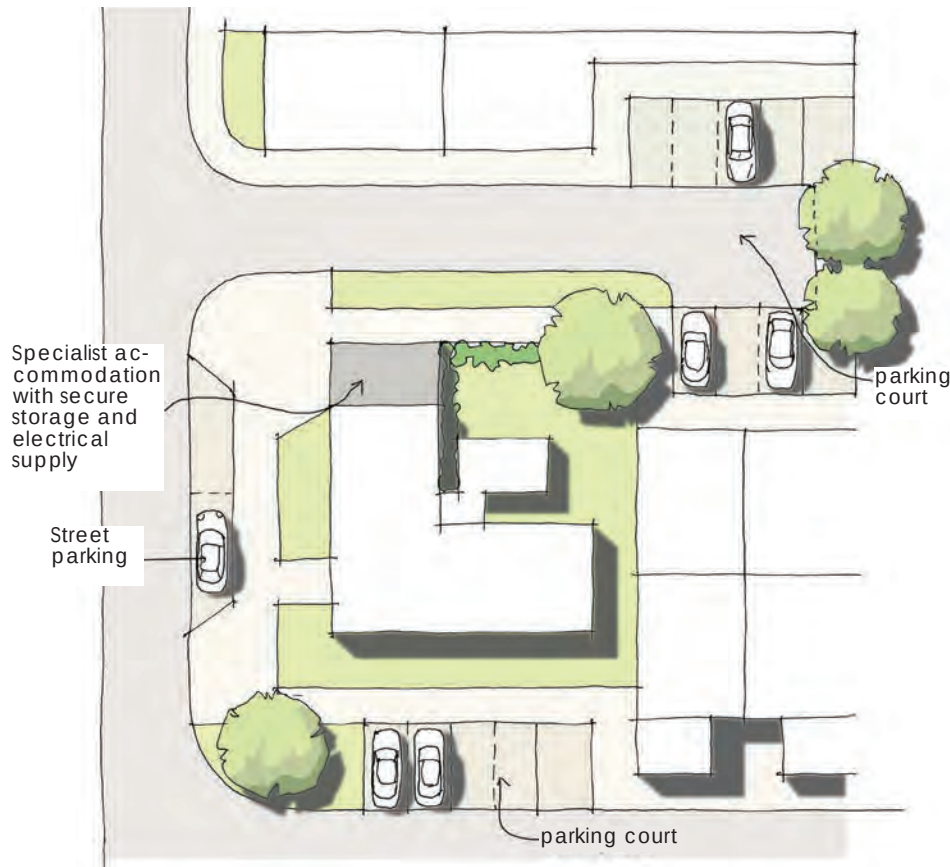
The design of these highways will need to reach a certain standard and a section 38 agreement signed. Following a period of maintenance, the management of the highways will then be taken over by Hampshire Highways.

Roads and foot/cycle ways that do not reach the necessary standards,

for whatever reason, can be designed to be unadopted. Under these circumstances, management and maintenance usually falls to the owners of properties along the highway.

Early engagement with engineers at Hampshire County Council Highways regarding the adoption process is strongly encouraged.

Fig.56: On larger schemes a mix of car parking methods is usually considered the best approach.



Parking Mix

There are several different methods of accommodating cars within a new development, all of which have positive and negative aspects.

- How cars are parked in the context of development has a direct bearing on the amenity, appearance and size of the space

between buildings.

- For specialist accommodation for older people and for people with disabilities, secure storage space is required under cover, with an electricity supply for powered wheelchairs or mobility scooters.
- All car parking should be within 20m of the plot it serves without significant steps in level or severe gradients.
- All unallocated car parking spaces should be suitable for adoption and cannot be subsequently allocated or conveyed to individual properties.

On Street Parking:

The most traditional car parking method is to provide unallocated spaces on the street. This enables every space to be used by anyone and to its greatest efficiency. It often allows residents to see their car from the front of their house and contributes to an active street and traffic calming, while keeping most vehicular activity on the public side of buildings.

- Angled parking bays are more efficient, but increase the width of the road; are potentially more dangerous, and can have a negative impact on the ground floor windows of habitable rooms, with lights shining in at night.
- Continuous areas of communal

street parking are also visually intrusive and need to be broken up or their quantity in one place restricted.

- The proportion of on-street parking appropriate for a particular scheme will be considered on its own merits, within the local context with regard to the parking standards set and the environmental impact of the proposals.
- Street layouts should be designed to discourage on-pavement parking near the fronts of houses, elsewhere or on areas of green space.

Parking Squares :

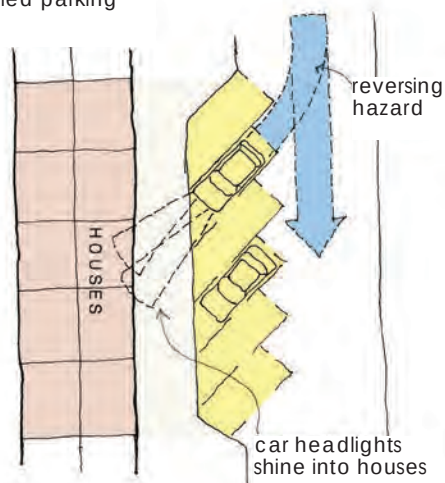
Parking squares can provide more car spaces in a wide street than parallel kerbside parking.

- They need to be designed with robust materials and as attractive public spaces which also accommodate parked cars. This can be achieved with generous and appropriate street trees, surfaces other than tarmac and appropriate street furniture.
- Small squares can add interest and provide parking in a traffic calmed environment

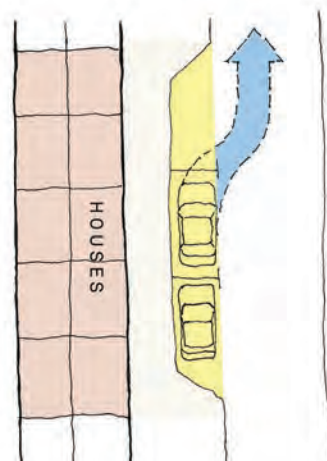
Homezones and shared space:

Homezones and shared space can provide a pedestrian and vehicle environment with built-in traffic calming and parking. Environmental enhancements, space defined by

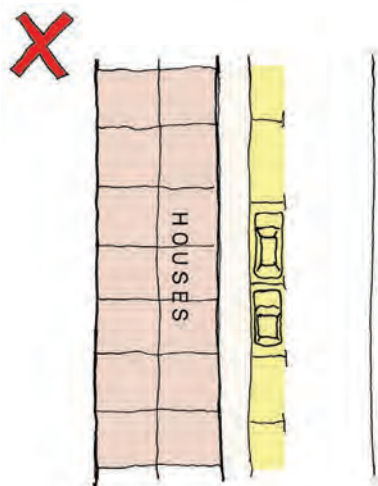
Fig.57: On street car parking
angled parking



parallel parking



bad example



good example

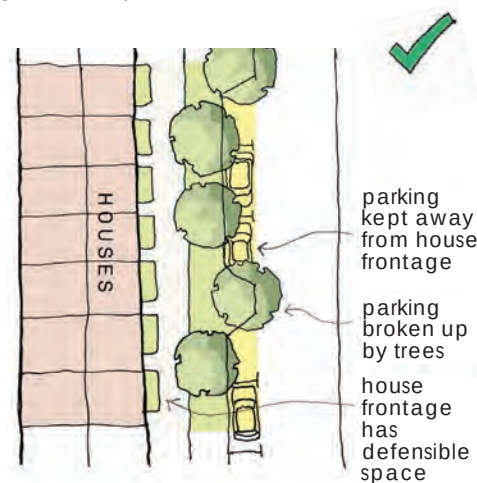


Fig.58: Parking squares



frontages and the use of high quality surface materials are requirements of a successful scheme.

In curtilage parking:

Many modern residential developments provide in curtilage parking spaces, usually in front of the house. This may provide the car-owner with greater security and ease of access but it is a less efficient use of space than unallocated parking and prevents parking in the street across the access to the property.

- Particularly when plot widths are narrow (below 5.5m) the parked car will usually visually dominate

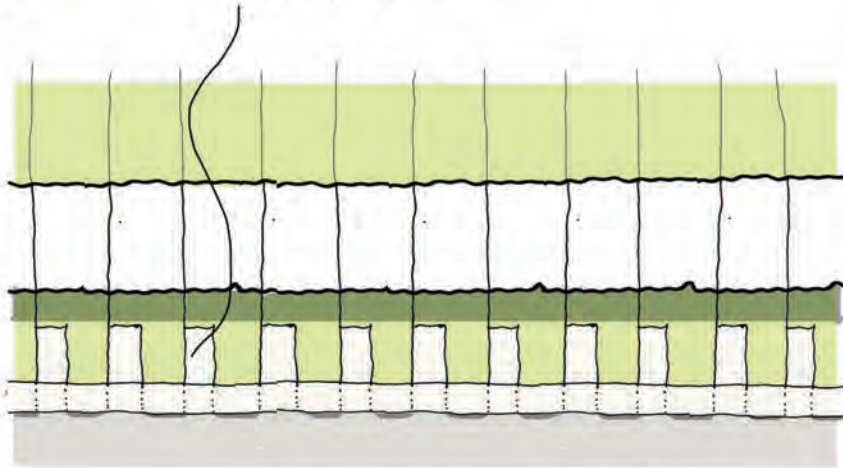
the front of the house. This effect will be magnified if this method is repeated at regular intervals in a street.

- As a rule, in-curtilage parking in front of the property should be avoided if better alternatives are available and in any event no more than 3 adjoining narrow-fronted properties utilizing this approach should be grouped together to reduce the visual impact of parked vehicles on the street.
- Drive widths should be at least 3.2m where serving also as the

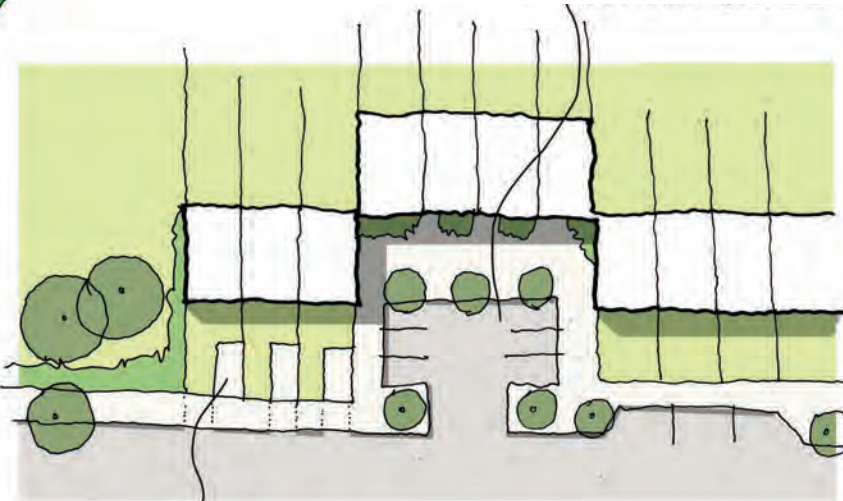
Fig.59: In-curtilage car parking



parked car visually dominates front of the house



better alternatives (planted parking courts for example)



no more than 3 adjoining in curtilage parking bays grouped together to reduce the visual impact of parked vehicles on the street

main pathway to the property.

- Private car spaces and drives visible from the street should be surfaced in small unit permeable pavers, or other materials which will allow sustainable drainage and contrast with standard tarmac, raising the environmental quality of the area.
- Where in-curtilage parking for individual houses is appropriate, designers will be encouraged to provide parking or garaging to the side of the house behind the building line.

In curtilage garages:

The provision of in-curtilage parking in garages provides the most secure form of private car accommodation.

There are several design considerations:

- Integral garages are best accommodated in wide fronted buildings (incorporating ground floor front windows) at least 6m in width and at least 2 storeys in height to limit car dominance and encourage informal surveillance of the street.

Fig.60: In-curtilage garage

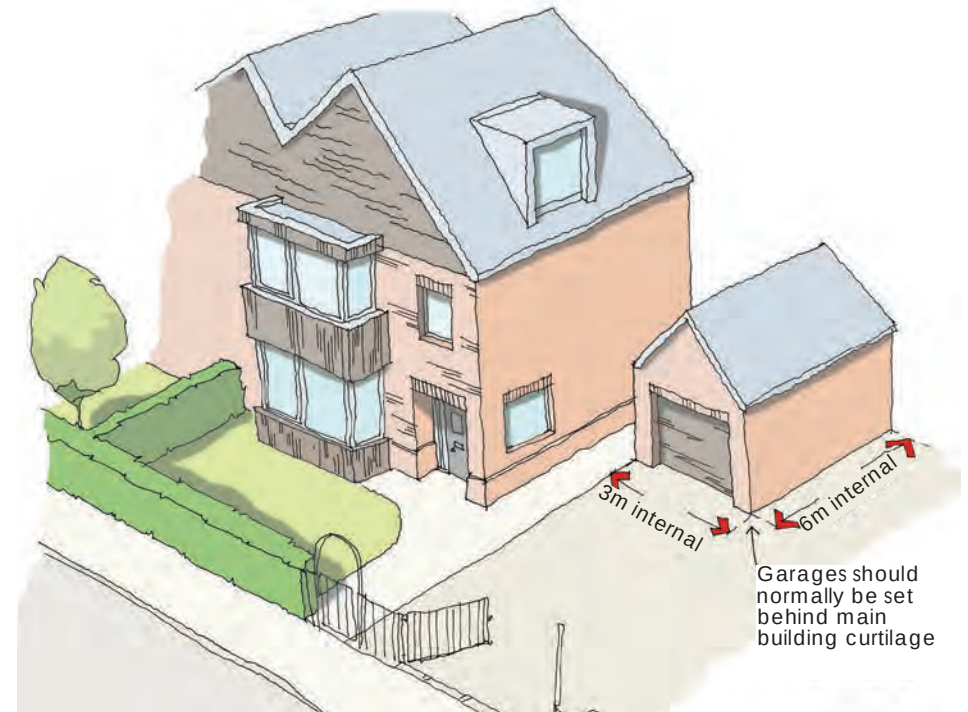


Fig.61: A well-integrated garage at Cherrywood Gardens, Fair Oak



- The position of external garages should take account of local context. Garages built in the front of sites will only be permitted in exceptional circumstances

Rear garage courts:

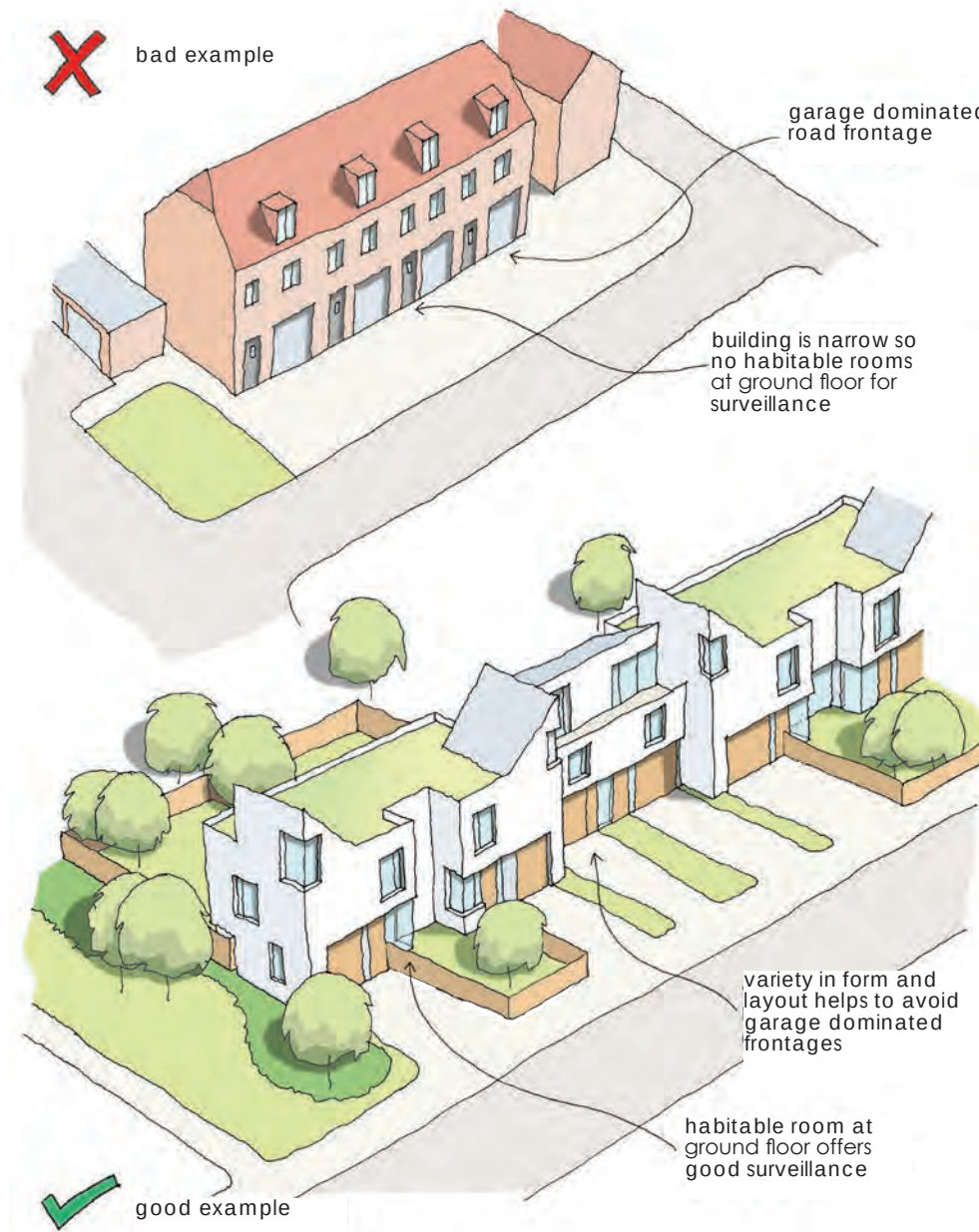
Rear garage courts on a modest scale (no more than 6 garages) are acceptable as long as they are safe (well overlooked), convenient and accessible.

Communal courtyard parking:

Communal courtyard parking can offer an alternative to in-curtilage or frontage arrangements and help prevent the street from being dominated by car parking. Courtyards may also be needed as a supplement to other forms of parking when adequate parking provision cannot be made by other means alone.

- Apartments will often need to accommodate some parking

Fig.62: Good and bad ways to provide in-curtilage garages



in private courts, depending on the building orientation and the location of amenity space.

- There must be clear responsibility for the regular maintenance and care of the space.
- Courtyards can be arranged with through routes only if buildings have been placed to overlook and front onto part of the space.
- Entrances to private rear court car parks need to be designed to provide a private feel with the use of close buildings or archways. Coach house units should be used only very sparingly due to their poor amenity provision.

Underground and undercroft parking:

The design of undercroft car parking and the access to underground car parking must strive to reduce the potential negative effects on street level elevations.

Reducing the impact of parking:

- Parking should not cause adverse impact to windows at ground floor level, particularly at night.
- Any block of more than 10 parking spaces should be broken up and

Fig 63: Well integrated underground/undercroft car park in Eastleigh town
a) rear access



b) street frontage



sub-divided with appropriate paving and tree planting to reduce the visual impact. Appropriate trees should be planted at an average of at least 1 tree per 6 car spaces, breaking up rows of cars.

Fig.64: Rear court car parking

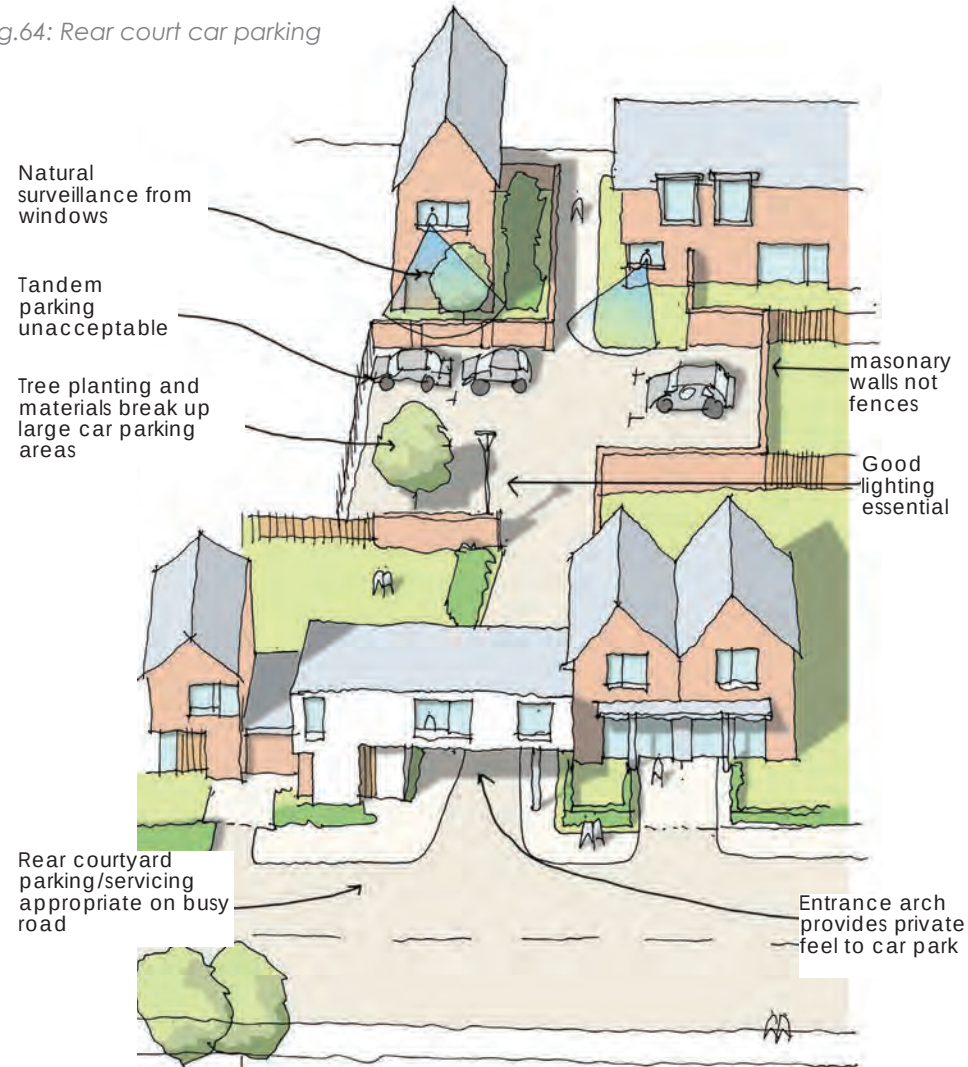
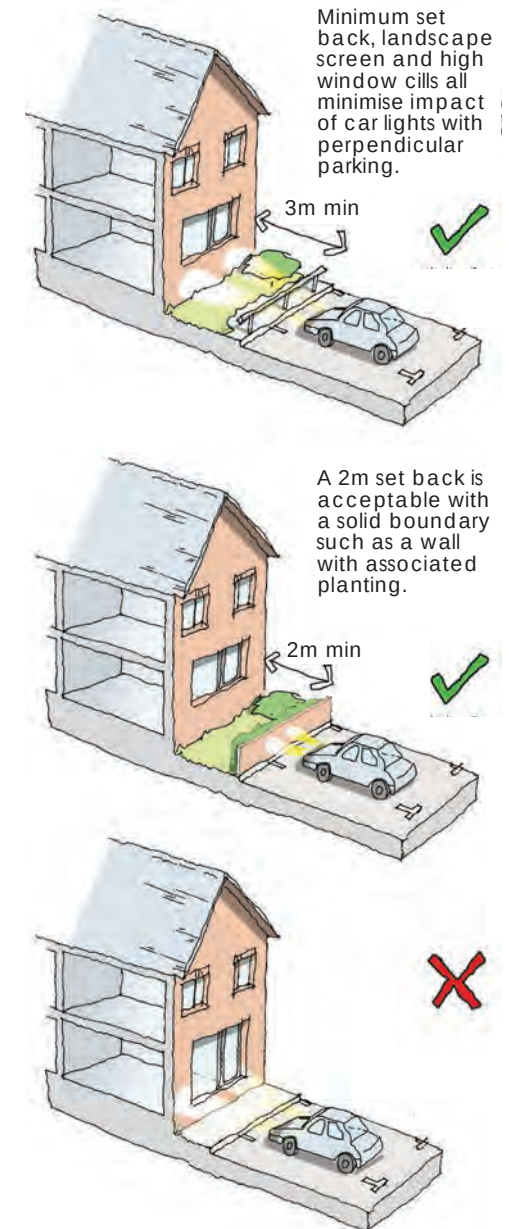


Fig.65: Reducing the impact of car parking on ground floor flats



Parking for Existing Development:

Ideally, small-scale new development should not result in additional on-street parking, therefore in-curtilage parking will normally be required. There should be room to park a vehicle in front of a garage without overhanging the pavement. A distance of 6m between the garage doors and the back edge of the footway is required. If this is not possible, the distance can be reduced to a minimum of 5.25m, provided doors are used which open within the confines of the garage (e.g. folding shutter doors or flush opening doors).

Fig.66: Good example of car park broken up with generous levels of tree planting (Hedge End Sainsbury's).



b) bad example (EBC car park, Eastleigh town)

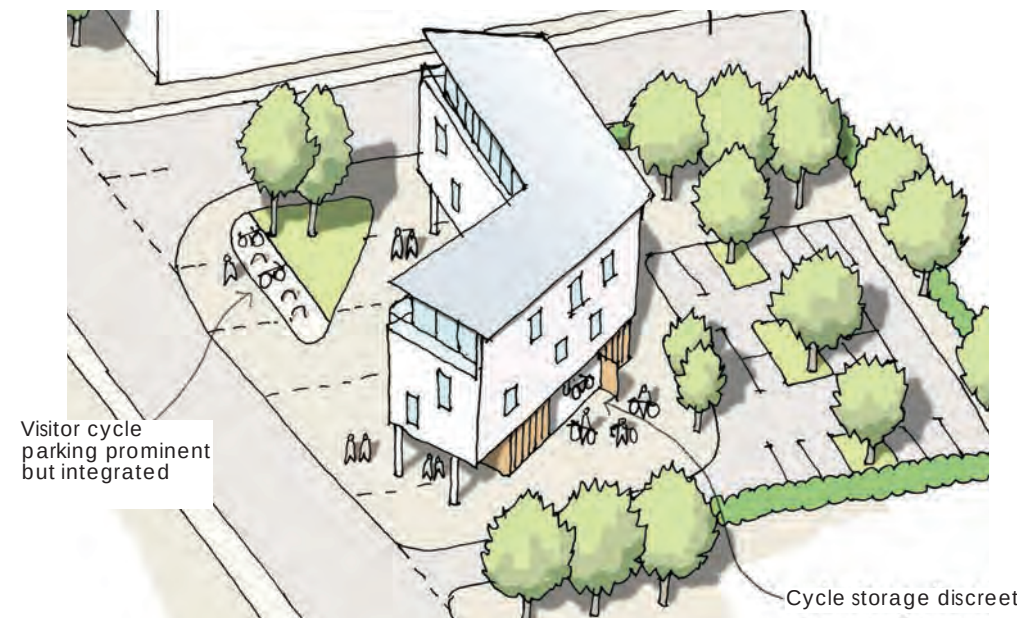


Any extension should allow a driver emerging from a garage to be able to see onto the street without causing an obstruction or risk to other road users, including pedestrians.

A Design & Access Statement should show on a site layout plan and in sections/elevations and text:

- a statement of car parking allocation for each plot.
- all unallocated and allocated car parking distinguished.
- the location, surface materials and dimensions of all parking spaces
- the location of all visitor car spaces
- the location of all associated street trees and shrub planting
- the location and dimensions of all garages
- how car parking spaces are overlooked by existing or proposed windows from habitable rooms

Fig.67: Cycle parking and storage for flats or offices



Cycle Parking and Storage

Secure and convenient cycle storage should be available for all residents. The Council's Residential Parking SPD sets out the minimum standards for residential cycle storage. www.eastleigh.gov.uk/pdf/ppdadopted-parkingstandards0109downsize.pdf

Key Design Principle 13 (Parking):

Surface car parking and cycle parking should be safe, convenient to use and have natural surveillance. Car parking should not visually dominate the public realm. Other vehicle parking should be safe, secure and separated from the public realm.

A Design & Access Statement should show on a site layout plan and in sections/elevations:

- the location, capacity and dimensions of all cycle storage
- the design, and construction materials of stand alone cycle storage.

Refuse and Recycling

The Council has a strong policy on recycling and would encourage developers to ensure adequate facilities are provided to enable residents to increase their recycling rate (see Appendix C: Waste and Recycling Storage Requirements for Residential Accommodation).

The Code for Sustainable Homes Technical Guide provides guidance (under issue Was 1) on non-recyclable and recyclable storage facilities which the Council will expect compliance with in residential development.

www.communities.gov.uk/planningandbuilding/buildingregulations/legislation/codesustainable/

During construction of a larger development site, it is often necessary for refuse collection operatives to service new dwellings whilst the road surface is still unmade. This often presents problems for the movement of waste bins due to the increased distance from the made-surface of the path and the unmade road. Provision should be made to allow easy access during this period (possibly through the addition of temporary ramps from footpaths in appropriate locations). Additionally, the issue of collection vehicles meeting construction vehicles onsite should be avoided through the provision of a site traffic management plan that is adhered to. This information will be provided to

the Council's Direct Services Unit to assist them in their task.

The provision of composting bins for residential properties will be encouraged and will earn a credit under the Code for Sustainable Homes.

Commercial sites should ensure that there is enough storage space to accommodate the waste anticipated by their business in an accessible yet discreet location.

A Design & Access Statement should show on a site layout plan and in sections/elevations:

the location, capacity and dimensions of all waste and recycling storage;

the design, and construction materials of stand-alone waste and recycling storage, including the gradient of the surrounding ground and any ramps;

the wording and location of appropriate signage for communal bin stores in accordance with the Council template.

a construction management plan including details of temporary road measures to allow safe collection of refuse and movement of site traffic.

management and maintenance arrangements for communal bin stores should be described.

Key Design Principle 14 (Waste, Recycling and Cycle Storage):

Waste and recycling and cycle storage should be safe, accessible and convenient for the intended users and properly integrated into the built design. Cycle storage should also be secure.

Architectural Detail

Architectural detailing can make the difference between a scheme being good or excellent. The attention to detail and the quality of workmanship and finish affects the perception people have of a place, and the durability of a building. The Council encourages developers to pay close attention to these issues and strive for the highest possible quality.

Proportions

The proportions of a building consist of the position and relative size of the different elements of the building when viewed from outside. When proportions are right, none of the elements appear out of synch with the others. This may involve the creation of symmetry.

However, a building does not exist in isolation and so the proportions of the structure should also consider those of site and setting (site context). This may be the natural setting, eg. topography, mature trees, etc. It may also be the surrounding built environment, and the relationship to buildings on and off site.

This subject is complex and one that architects are trained to deal with. It is one of many considerations that are best dealt with in the hands of a professional.

A Design & Access Statement should demonstrate in plans, elevations or in three dimensions and in text that:

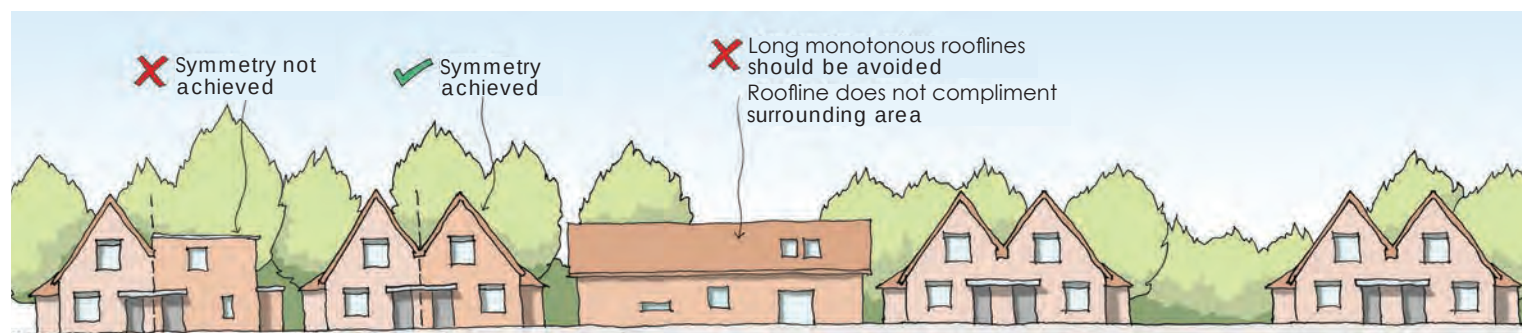
development has taken account of the setting;

the proportions of the buildings are balanced.

Rooflines

Although rooflines are not always visible as a whole, they form an important element of the street and can have a considerable harmful effect if not carefully designed and constructed. Where there are level changes in and around site, the way in which roofs are seen can change. The way in which they will be viewed should form part of the design considerations. Roof design

Fig.68: Rooflines in a street



and detailing is particularly relevant for prominent buildings, such as corner buildings, listed buildings and structures within a conservation area.

- Rooflines should complement surrounding development.
- Symmetry should be achieved for semi-detached pairs and each end of a terrace.
- Tiles should be of a material, style, proportion and size suitable for the building.
- The detailing on roofs is important for longevity and maintenance – valley gutters, eaves, fascia, weatherboarding – all should be of a high standard and properly finished.
- It should be possible for a chimney to be used, and not simply be a design feature.
- Where an area of flat roof is required to lower the height of a pitched roof, a ridge tile or similar should be used along the joint of the flat roof with the slope to give the impression of a ridge line.
- If flat roof dormer windows are included in the design, they should complement the building in terms of proportion, size, position and detailing. They should be kept well away from the ridge and edges of the roof in order to provide a visual frame.
- The proliferation of aerals and satellite dishes can make roofs look cluttered. In flattened developments it may be possible for shared satellite dishes to be erected to reduce to need for additional dishes.
- The use of green roofs or roof terraces can have numerous benefits (see roof terraces and intensive green roofs and extensive green roofs in external spaces chapter). These will require specific design and construction techniques.

The roofs of low structures such sheds, garages, and bin and bicycle stores can have a more immediate impact

at street level. The same principles apply to these structures as to the primary roofs.

A Design & Access Statement should accurately show on elevation drawings and sections (or in three dimensions):

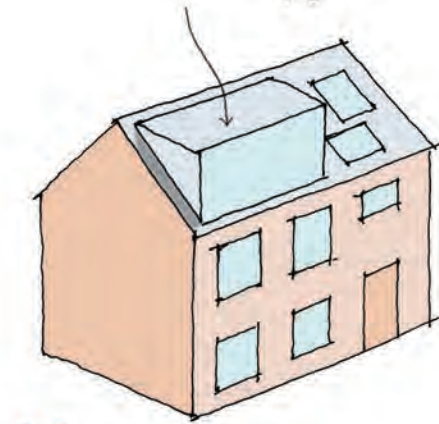
the shape, height, and slope of the roof.

Roof Extensions to Existing Buildings, (Including Dormers)

Changes to the shape of a roof need to be carefully considered. In the case of semi-detached properties or streets with very uniform roof design, significant alterations to the roof are generally unacceptable. Dormer windows can be difficult to incorporate into a roof without adversely affecting the appearance of the dwelling and the street, and might not always be appropriate. A dormer should not dominate the roof, but should complement the existing features of the house in terms of proportion, size, position and detailing. They should line up with the existing windows, and be kept well away from the ridge and edges of the roof in order to provide a visual frame. A number of small dormers

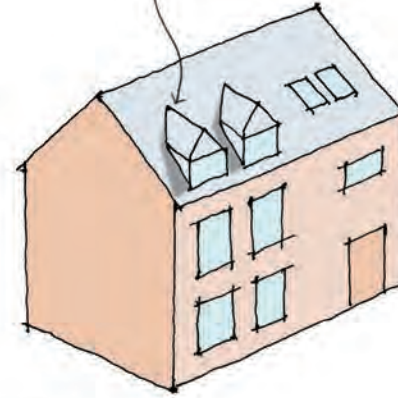
Fig.69: Appropriate scale of dormers and skylights

Dormers and skylights dominate



X Bad example

Dormers line up



✓ Good example

may be preferable to a single larger one.

Where extra headroom is not required, roof lights offer a simple, economic method of lighting the roof space. They should not protrude significantly from the roof profile and should be evenly spaced. They are best kept as small as possible so as not to dominate the roof.

Materials

The materials chosen for a scheme should take account of the context of the site. They should respect and complement the character, scale, texture and colour of existing materials used in the local area,

if they are recognised as worth respecting.

- If a range of materials are to be used they should complement each other.
- Hard landscape materials should complement building materials.
- In large developments, different materials can be used to create distinctive street identities that aid legibility.
- Materials should be robust, sustainable, and easy to maintain. (for guidance on the relative sustainability of building materials refer to the BRE Green Building Guide: www.bre.co.uk/greenguide)

- The Council supports the principle of the re-use and recycling of construction materials and the use of locally-sourced materials for reasons of good sustainability. The use of FSC or similarly certified sustainably sourced timber is also encouraged.
- Prefabricated elements which lead to substantial waste savings, quicker construction and better building performance, Modern Methods of Construction (MMC), will be supported as long as they are robust and the visual quality is not compromised, particularly where buildings address the street.
- In conservation areas and for prominent or listed buildings, the type and colour of mortar can have a significant impact on the perception of development and should be considered when choosing materials.

Existing buildings:

When considering extensions to existing buildings, the materials used in an extension should match or complement the existing dwelling in terms of type, colour and texture. Changes in appearance as a result of weathering should be taken into account when selecting bricks and tiles. It may be worth considering re-using tiles from the rear of the property for the front of extensions.

A Design & Access Statement should indicate on both plans and elevations (or annotated elevation where necessary):

the schedule and palette of materials used for each building and for each street with an explanation for these choices with particular reference to the local context.

Windows

Not only do windows allow natural light to enter a building, provide ventilation, and offer opportunities for natural surveillance, windows often form the most prominent elements in the elevations of the building. If a property has been designed to take account of the surrounding buildings, the windows should also reflect this, in form and material. Wholesale application of plastic windows in a conservation area should be avoided, particularly on the public elevations. Plastic windows will not be accepted for listed buildings. Windows should be able to be opened, where appropriate as noise and air quality issues may need to be addressed.

Architectural Features

Existing buildings or local areas may have distinctive architectural features which contribute to their special character. These should be used where existing buildings are to be retained or the design of new buildings is to complement existing development. Where possible, existing external decorative features such as door architraves, decorative lintels, sill and eaves details, should be incorporated into the new design.

Service Details

The siting of equipment for services (such as utility meter boxes and rainwater details) are necessary but when done badly can let a

A Design & Access Statement should accurately show on elevation drawings and sections:

location, size and detailing of windows and surroundings.

high quality scheme down. If they can't be hidden, or are to serve as a design feature, they must be of a high quality material and finish.

Front, Side and Rear Extensions to Existing Residential Buildings

The design and appearance of the

fronts of houses, and the distance between the buildings and the street are important aspects in defining the character of residential areas. Generally, only modest front extensions, which are in keeping with the character of the existing house, will be allowed, e.g. garage and porch extensions.

- Single or two storey side or rear extensions should be in scale and balance with the whole of the house.
- All extensions must comply with the 25 and 45 degree code guidelines to avoid harming a neighbour's outlook or daylighting (see pages 32 and 33).
- Setting the extension back from the front wall of the house will often help the original building to maintain its dominance, and avoid a mismatch of materials.

Extensions up to the side boundary line could restrict access into the rear garden which may be inconvenient and impractical and may cause maintenance issues. In addition, foundations and roofs might encroach into the adjoining property.

Semi-detached houses are normally designed as a matching pair. To preserve the balance of the buildings, any side extension should be set back from the front of the building. The depth of any set back

Fig.70: Appropriate window layout and proportion

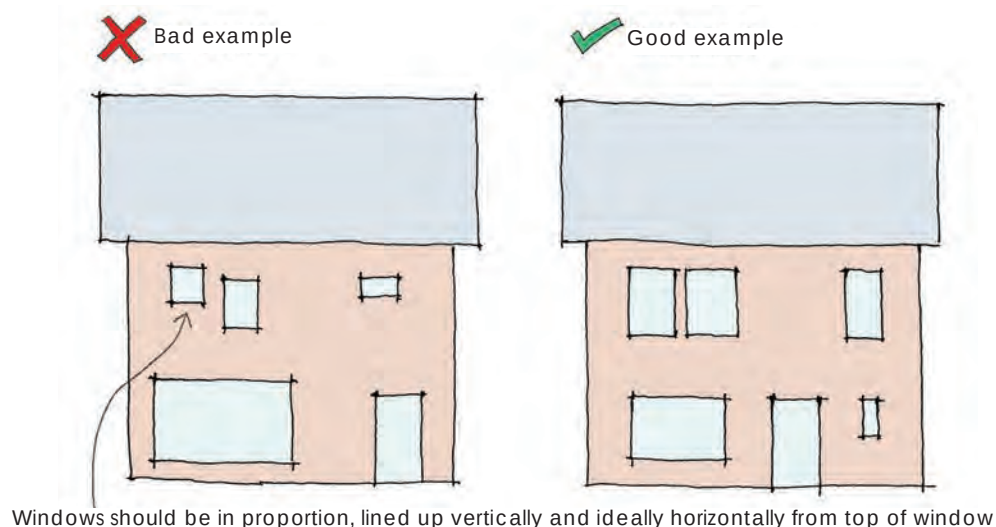


Fig.71: Residential services



Rainwater goods (gutters and drain pipes) should coordinate with each other and with other materials on the elevation.

Ideally, services should be discreetly hidden, or sited on a return, if available, rather than on the main street elevation, whilst allowing external access

and width of the extension will vary according to the design of the house and merits of each proposal. Side extensions should take account of the spaces between houses and whether this is an important feature through the street.

Two storey extensions to corner properties will need to take into account the visual impact upon all related roads and the relationship with other buildings.

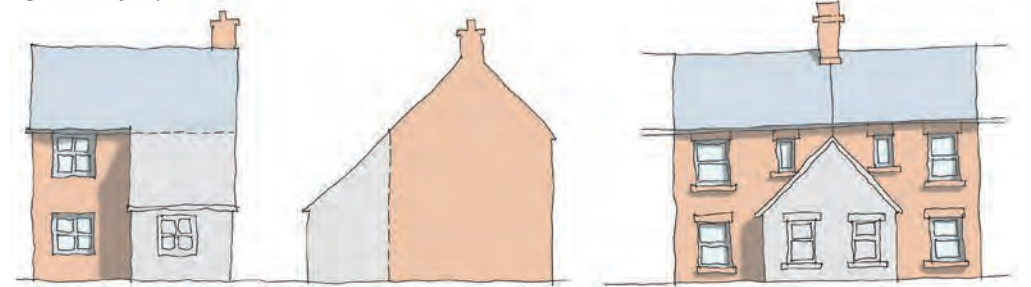
Extensions to the rear of a property are the least likely to have a major impact on the house, the neighbours and the surroundings. When extending a semi-detached

or terraced property it is important to follow any established pattern of extension. For example, in terraced houses the rear outshot is a very traditional form which, when paired with a similar extension on a neighbouring house can appear to be part of their original design. This type of extension can also increase the privacy to rear gardens.

Ancillary buildings

Ancillary buildings may include bin and bike stores, general storage and garages. For new development, these have been covered elsewhere. For existing properties, as with any other extension, garages should be

Fig.72: A sympathetic rear extension



Sympathetic rear elevation

Traditional paired outshot extension to rear of terraced house

sympathetically related to the main dwelling, whether they are adjoined or free-standing. Pitched or lean-to roofs are normally preferable to flat roofs as they are more likely to complement the existing house and locality. In normal circumstances, garages should be in line with or be behind the front of the house.

Fig.73: Porches and canopies should reflect the character of the original house.

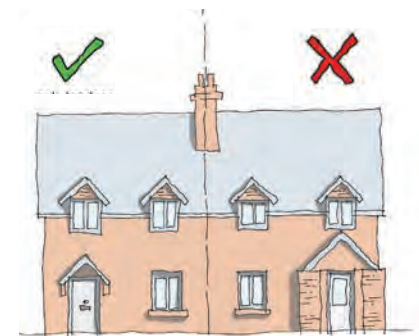
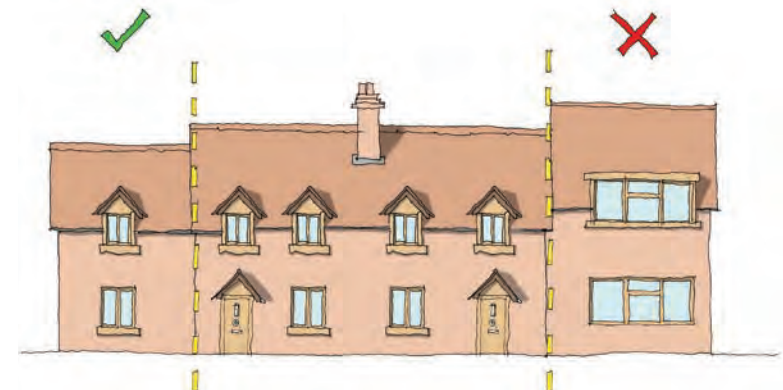


Fig.74: Keeping the ridge and eaves of an extension lower than the main building and maintaining the same roof pitch will help the original house maintain its dominance.



Key Design Principle 15: (Design of Buildings and Materials)

The scale, form and design of elevations and external materials should respond positively to the defining and distinctive characteristics of the area. Where this is absent, design and materials should help create a new positive and distinctive character.

Corner Buildings and Blank Walls

Corner buildings, because of their location, need to be designed to address all aspects facing the street.

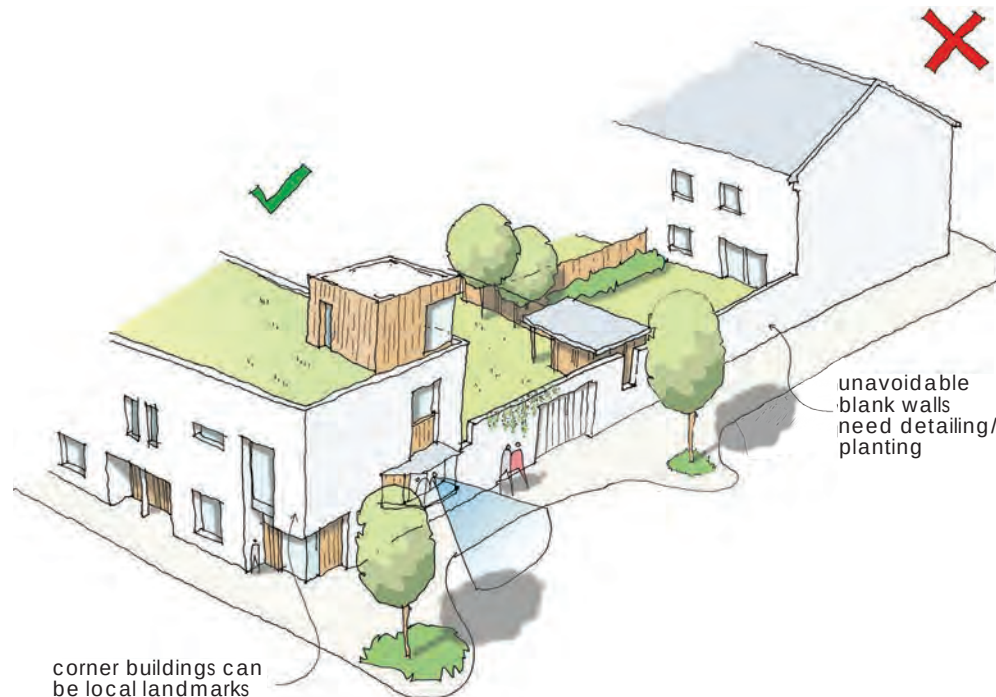
- All street elevations should be attractive and contain windows from habitable rooms for passive surveillance.
- The use of a standard house type is very unlikely to be appropriate in corner locations.
- Plot layout should also consider the relationship between all streets in terms of the siting of the building, entrances and exits to the site, location of bin/cycle stores, landscaping, etc.

Blank walls in the public realm should be avoided as they are visually unappealing, with their large, bland elevations. They can cause problems

with the lack of passive surveillance, and can become the focus of anti-social behaviour. All walls facing onto a public or semi public area (such as a car parking area) should have windows from active rooms (not bathrooms, halls, stairwells or store-rooms)

In exceptional circumstances where blank walls cannot be avoided in the public realm, their impact must be mitigated. This could be through the use of planting, eg. non-destructive climbers or green walls, or through detailing such as weatherboarding, tile hanging, brick detailing or through public art.

Fig.75: Blank flank ends to development should be avoided in the public realm

**A Design & Access Statement should show in elevation drawings and plans (or in 3 dimensions) and in text that:**

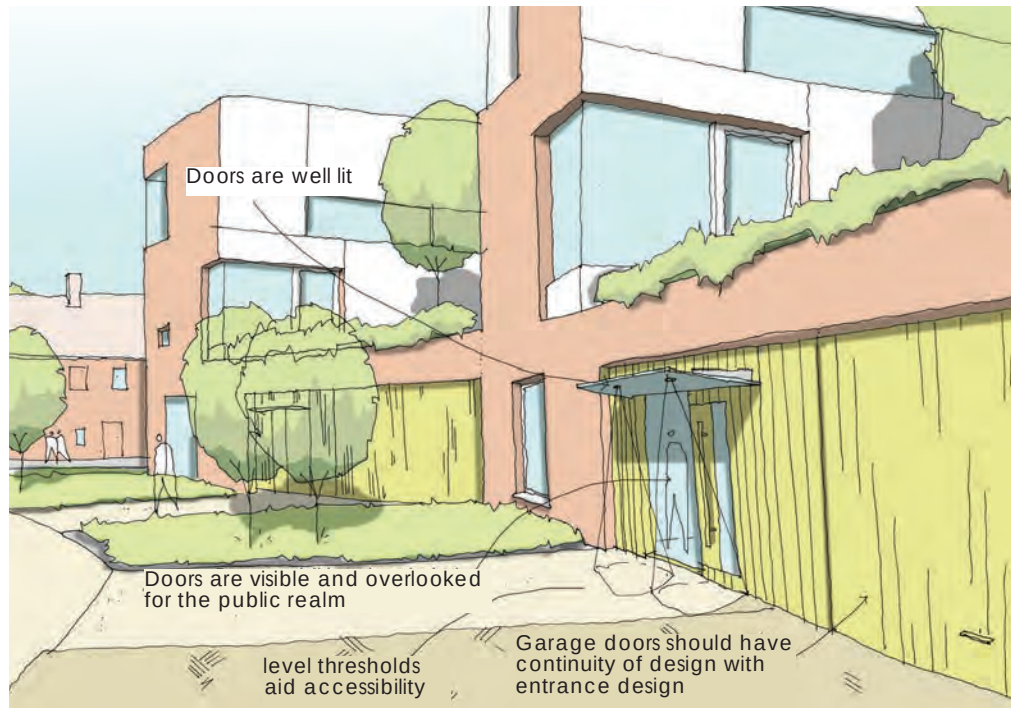
corner buildings and plot layout have been designed to address both street aspects;

any proposed blank walls visible from the public realm are identified and justified and demonstrate how their impact will be mitigated.

Doors and Entrances

The entrance to a building, together with the boundary to the plot, is a transition zone from public to private space. It is therefore important that this be well designed as it affects people's sense of security and ownership as well as being the visual focus for the building.

- Front doors should be easy to find and be visible from the public realm. The design of non-residential entrances need to signify to visitors that this is the main access to the building.
- They should be designed with level thresholds to assist accessibility.
- Doors should be robust, good quality and properly fitted and finished.
- A slight recess for garage doors is advisable.
- Doors and access gates should preferably be solid hardwood (from sustainable sources) as this is more durable and lower maintenance than softwood.
- Rear gates that can be seen through are likely to be modified by residents to gain more privacy to gardens and so should be avoided.

Fig.76: Doors and entrances.

A Design & Access Statement should accurately show on elevation drawings and sections and text (and for non-residential buildings in 3 dimensions):

location, size, materials and detailing of front doors, garage doors and access gates;

the relationship between doors, depth of the reveal and site levels;

the design treatment of main entrances for non-residential buildings.

**Key Design Principle 16:
(Continuity and Enclosure of Space)**

Buildings should be designed to enclose space and have active frontages onto the public realm with particular attention being paid to entrances and corners.

Internal Spaces

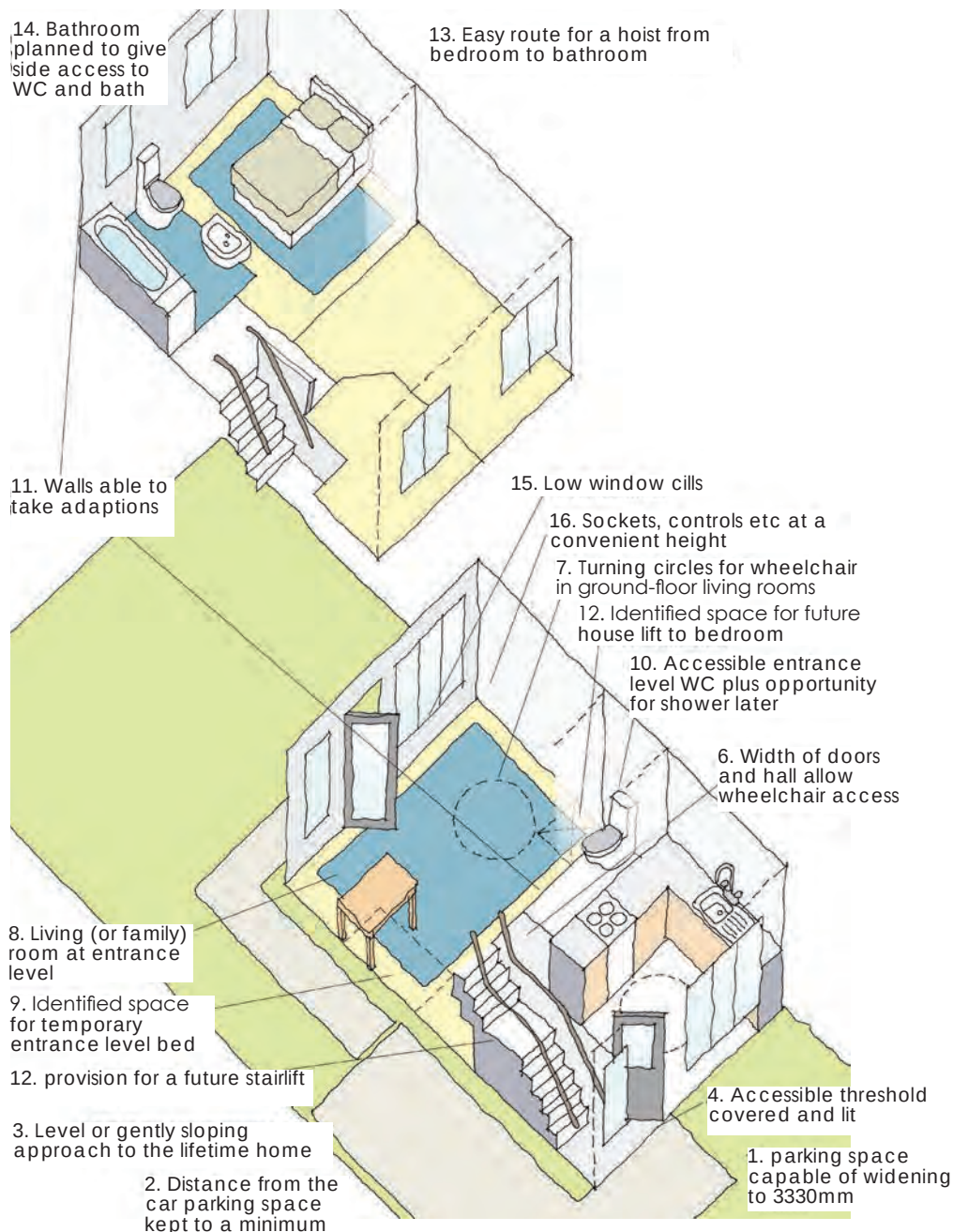
Lifetime Homes

As people's circumstances change their needs and abilities in a home can change too. Often people feel they must move house when their current home cannot be adapted to their changing needs (e.g. disability, sickness, old age).

The Lifetime Homes Standard comprises sixteen criteria that are aimed at providing housing that can respond to the needs of its residents throughout their lifetime, and in particular for modifications that may be required for individuals with mobility difficulties. These are set out in detail on the Lifetime Homes website, www.lifetimehomes.org.uk, or in the current issue of the Code for Sustainable Homes Technical Guide.

The Homes and Communities Agency requires all the housing it funds to comply with its Design and Quality Standards document which recommends Lifetime Homes compliance (where practicable). It is also a requirement of the Code for Sustainable Homes at level 6. Lifetime Home designs should be considered at the earliest stages of the design process. Layout plans may be required to show the position of furniture and turning circles to demonstrate that the room is of an adequate size.

Fig.77: The 16 Lifetime Homes criteria.



A Design & Access Statement should show in plan form or text:

full application - The location and number of all proposed Lifetime Homes compliant houses or flats;

outline application – the numbers of lifetime homes to be provided.

Internal Living Space

CABE's research 'What Home Buyers Want' (2005) reports that people would prefer more living space with fewer, but larger bedrooms; kitchens that are large enough for a table for meals as a family; and multi-functional rooms. At present, it would appear new dwellings are not addressing the needs of residents now, or in the future. This was confirmed in a RIBA study in 2011:

www.architecture.com/HomeWise/RIBAresearch/RIBAresearch.aspx

Ideally, homes should provide:

- Space for appropriate furniture and equipment;
- Space to access/use furniture/equipment/doors/windows;
- Circulation space;

- Space to undertake normal living activities that do not just use furniture, eg. washing, dressing, cooking, eating, playing;
- Space for clean storage, eg. linens, vacuum cleaner, etc;
- Sufficient separation of rooms to allow required level of privacy, (this need can change over time, however designs that succeed when the rooms are separate, will succeed if the dwelling is converted to open plan. The converse will not necessarily be true).
- Circulation space should allow for space near to the accesses to keep outdoor items such as coats, boots, prams, etc, preferably without having to pass through habitable rooms.
- Shared circulation space for flats should be designed for minimum maintenance and provide easy access to flats and associated facilities such as amenity space and bin stores and bicycle parking.

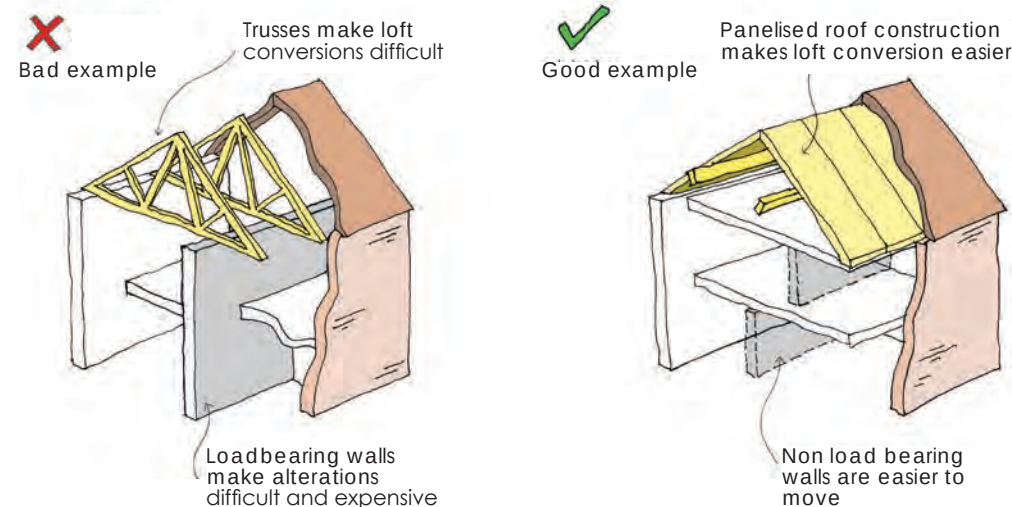
Flexibility and Adaptability

Flexibility is the potential to use rooms in a house for different purposes, eg. use of a bedroom for a study as well as guest room. This depends on the space within a dwelling, the room layout and the number of rooms. Home working, in particular, is likely to become more prevalent,

and will require space for a desk and internet access. Open plan designs for living and circulation space do not allow much flexibility when the home is in use. Again, compliance with minimum space standards and Lifetime Homes will benefit flexibility.

Adaptability is the potential to modify the spaces of a home by altering the fabric of the building. Where possible, dwellings should be designed to allow further development such as extensions and conversions, to allow the home to grow and change with the residents.

Fig.78: Two building elements which allow greater adaptability.



A Design & Access Statement should demonstrate that:

the building has been designed to be flexible and enables future modifications.

Key Design Principle 17 (Flexible Internal Space):

Buildings and spaces should be designed so they can be adapted over time to changing needs. New homes must have enough internal space for residents to use comfortably

Natural Daylight

Good quality natural light helps to make the interior of a dwelling or a work place a more pleasant and enjoyable place to spend time. It also reduces the need to use electric lighting.

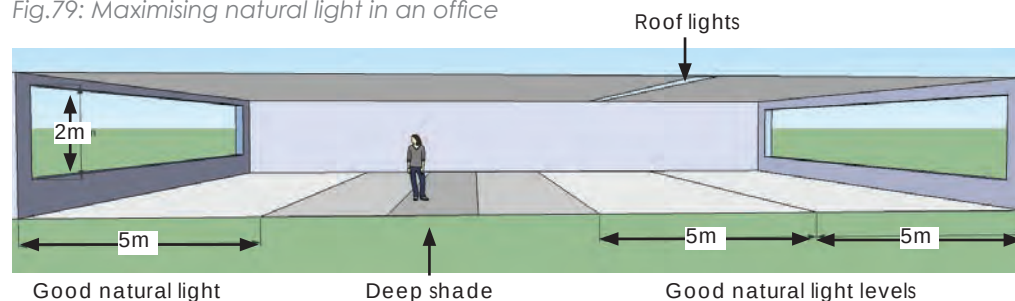
The amount and quality of natural light depends on the

- size and position of windows,
- the shape of rooms,
- the colour of internal surfaces
- and the structures that surround the building.

A daylight factor (DLF) for inside buildings is expressed as a percentage of the daylight experienced outside on an overcast day. In offices a DLF of between 2 and 5 is desirable at desk height. With a DLF of 2 or below, the room appears dim, and electric lighting will be used. Electric light circuit design should be zoned to take account of fenestration so that only the darker areas of the office receive electric lighting when necessary. A rule-of-thumb is that the depth of daylight penetration is about two and a half times the distance between the top of a window and the sill. (See fig.79)

In all habitable rooms including kitchens, the Council requires windows. Roof mounted 'light tubes'

Fig.79: Maximising natural light in an office



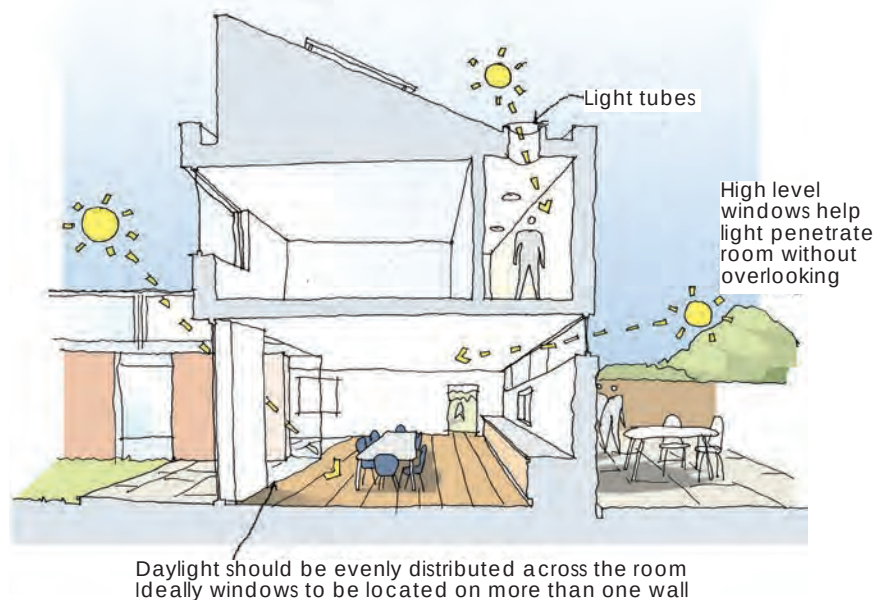
can bring natural light into corridors, landings and other rooms

The size of windows to provide good day lighting must be balanced with privacy requirements within the home. It is important that the orientation, location and use of the room are all taken into account

when considering the size and location of windows.

The Code for Sustainable Homes and BREEAM assessments include credits for minimum standards for natural daylight levels for homes and non-residential buildings respectively.

Fig.80: Natural daylight in a home.



A Design & Access Statement should show in floor plans and in text that:

windows have been provided for all habitable rooms, including kitchens;

the orientation of buildings and the location of windows have considered the site context.

Passive/Natural Surveillance

Passive or natural surveillance is the informal, close observation of people in public areas (such as the street or open space) or semi public space (such as a shared car park). It is achieved when there is a good level of overlooking by neighbours of that space. It acts as a deterrent to people wishing to commit anti-social behaviour which reduces both fear of crime and the level of crime itself. In order for passive surveillance to function effectively, it is important that the size, shape and position of the windows of habitable rooms allow an unobstructed view of the space.

Fig.81: Corner rooms should have windows in walls addressing both sides of the street to allow complete surveillance and avoid the problem of blank flank walls.

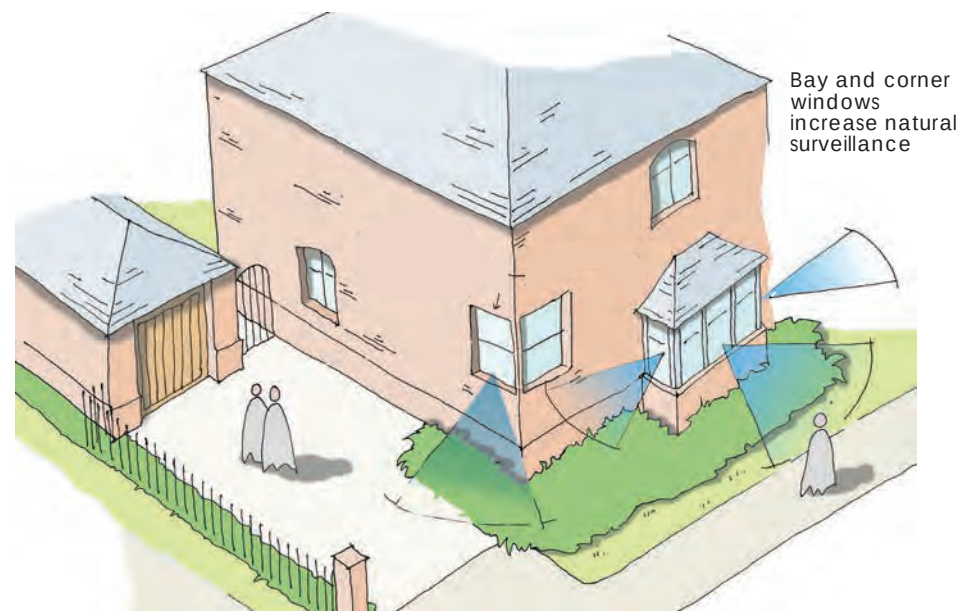


Fig.82: Properties with integral garages require windows to habitable rooms at ground level to maximise the opportunities for surveillance.



Fig.83: Routes and public spaces that are primarily used during the day benefit from passive surveillance from non-residential buildings such as offices.



Flats and non-residential buildings with well-proportioned balconies and roof terraces looking onto public space can provide better levels of passive surveillance.

Balanced with the need for surveillance, is the desire of residents for privacy in their own homes. Where this issue is not adequately addressed at ground level, blinds and curtains tend to be closed throughout the day and night, negating any passive surveillance benefit. Footways at a slightly lower level than windows, or setting the property back from the edge of the footway with carefully chosen planting that doesn't obscure views are two options that could be used.

A Design & Access Statement should demonstrate in text, layout and floor plans (and in 3 dimensions) that:

opportunities for good passive surveillance have been achieved.

Noise

Noise disturbance, both from inside and outside the home, is a particular issue for residents, causing stress, affecting sleep and causing

problems between neighbours. Potential noise sources will need to be identified as part of the site constraints.

Thought should be given to the location of parking, roads and footways, public open spaces and play areas, in relation to dwellings and in particular bedrooms. The relationship with neighbouring properties should also be carefully considered, as noise such as music or conversation from the adjacent house can be particularly disturbing for residents.

The internal layout of a home should consider the relationship between different rooms and their uses. Ideally, noisy rooms such as kitchen, dining and living rooms should not be positioned close to bedrooms where peace and quiet are needed for study and sleeping.

A Design and Access Statement will need to demonstrate that:

noise from external sources has been mitigated against.

Policy Background

Planning and Compulsory Purchase Act 2004 (The Act):

- Statutory requirement for local authorities to undertake their function with a view to contributing to the achievement of sustainable development:

‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’.

- Therefore need to consider long term social, environmental, economic and resource impacts of development.
- Requirement that all relevant applications be accompanied by a statement about the design and access principles that have informed the development.

National:

PPS1: Delivering Sustainable Development

- Identifies four aims of sustainable development:
 - Social progress which recognises the needs of everyone;
 - Effective protection of the environment,

- The prudent use of natural resources,
- The maintenance of high and stable levels of economic growth and employment.

- Paragraph 4 states *‘these aims should be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well being, in ways that protect and enhance the physical environment and optimise resource and energy use.’*

- Paragraph 13 requires planning policies to *‘promote high-quality inclusive design in the layout of new developments and individual buildings in terms of function and impact, not just for the short term but over the lifetime of the development. Design which fails to take the opportunities available for improving the character and quality of an area should not be accepted.’*

- Paragraph 26 further encourages planning authorities to take account of longer term impacts and the needs of communities in the future.
- Paragraph 33 recognises that *‘good design ensures attractive, usable, durable and adaptable*

places and is a key element in achieving sustainable development. Good design is indivisible from good planning.’

PPS3: Housing

- Goal to ensure everyone has the opportunity of living in a decent home, which they can afford, in a community where they want to live.
- Paragraph 10 requires the planning system to deliver ‘High quality housing that is well-designed and built to a high standard’.
- Paragraph 13 states that *‘good design should contribute positively to making places better for people. Design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions, should not be accepted.’*
- Paragraph 14 states that planning authorities should develop design policies aimed at *‘creating places, attractive, safe, accessible, functional, inclusive, have their own distinctive identity and main and improve local character.’*
- Paragraph 69 states that *‘in deciding planning applications,*

Local Planning Authorities should have regard to: achieving high quality housing; ensuring developments achieve a good mix of housing reflecting the accommodation requirements of specific groups, in particular, families and older people; the suitability of a site for housing, including its environmental sustainability; using land effectively and efficiently.’

PPS 5: Planning and the Historic Environment:

- Paragraph 7.5 states that *‘Local planning authorities should take into account the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials and use’.*
- PPS6: Planning for Town Centres:
- Paragraph 2.19 states *‘It is essential that town centres provide a high-quality and safe environment if they are to remain attractive and competitive. Well-designed public spaces and buildings, which are fit for purpose, comfortable, safe, attractive, accessible and durable, are key elements which can improve the health, vitality and economic potential of a town centre. Policies for the design of development for main*

town centre uses, regardless of location, and for development in town centres, should promote high quality and inclusive design, in order to improve the character and quality of the area in which such development is located and the way it functions.'

PPS13: Transport:

- Paragraph 6 states that '*LPAs should... consider how best to reduce crime and the fear of crime, and seek by the design and layout of developments and areas, to secure community safety and road safety.*'

Local:

Statement of Community Involvement Adopted July 2006
Eastleigh Borough Local Development Framework - Local Development Scheme - Adopted June 2007

References

Relevant Council Documents:

Planning Policy Documents in www.eastleigh.gov.uk/planning--building-control/planning-policy-and-design/planning-policy-documents.aspx including:

- Eastleigh Borough Local Plan Review (2001-2011)
- Accommodation for Elderly People and those in Need of Care SPD
- Character Area Appraisals SPDs
- Environmentally Sustainable Development SPD
- Conservation Area Appraisals SPDs
- Planning Obligations SPD
- Residential Parking Standards SPD

Supporting Documents and Organisations

Building for Life: www.buildingforlife.org

CABE (the Commission of Architecture and the Built Environment):
www.cabe.org.uk

Green Flag Awards: www.keepbritaintidy.org/GreenFlag/

RIBA (Royal Institute of British Architects): www.architecture.com

Lifetime Homes: www.lifetimehomes.org.uk

Code for Sustainable Homes: www.breeam.org/page.jsp?id=86

Planning Portal: www.planningportal.gov.uk

Glossary

A

Accessibility – the ease with which people of all abilities are able to get to destinations and into buildings and spaces.

Active frontage – the front of a property that allows people inside and outside of that property to interact, eg. floor to ceiling windows at street level; pavement dining for a restaurant.

Active room – also known as habitable room, this room is used for day functions such as cooking, eating, playing.

Active solar gain – involves the use of solar collectors to generate electricity or to heat water.

Active street – a street that encourages pedestrian traffic by providing access to useful facilities or acting as a direct route to other facilities, and creating a pleasant pedestrian environment.

Adaptability – the ability of a structure to be altered, often structurally, to fit changed circumstances.

Adoptable standards – the level of quality required for the care and maintenance of certain works to be taken on by a local authority or government organisation.

Air pollution – The introduction of chemicals, particulates, or biological materials that cause harm or discomfort to humans or other living organisms, or that damages the natural environment, into the atmosphere

Airborne particulates – tiny pieces of solid or liquid material such as dust, smoke, fumes, found in air or emissions.

Amenity – something that adds to a person's comfort or convenience; eg. privacy; lack of noise; attractive views.

Amenity space – an area of land, generally green space and planting, which softens the urban environment, allows for informal leisure and provides a setting for buildings.

Architectural detailing – the designed detail on a building or structure, eg. decorative lintels, sill and eaves details.

B

Biodiversity – the variation of lifeforms, plant and animal, in a given area or ecosystem.

Boundary – the border or limit of a property or space. This may be indicated visually, through the use of a fence or wall; may be identified on a land ownership plan or similar; or may be historic and undefined.

Building for Life (BfL) – the national standard for well-designed homes and neighbourhoods, incorporating many of the principles of good urban design created by CABI, (Commission for Architecture and the Built Environment) and the HBF, (Home Builders Federation). Its criteria consist of a series of twenty questions which are used to evaluate the quality of new housing developments.

Building line – a designated line beyond which buildings are not erected.

Built form – how a building looks, eg. size, shape, height, location in plot, etc.

C

Car pool – a car hire service generally charged at an hourly rate.

Character – the combination of features and structures that distinguish one place/structure from another.

Character area appraisal – an assessment which identifies the defining features of an area, usually prepared by or on behalf of a local authority.

Circulation space – free space that allows movement from one area to another.

Connection network – the streets/paths/spaces that are interlinked, allowing people to move between them.

Conservation area – an area of land designated by a local authority under the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990 as possessing special architectural or historic interest. The Council will seek to protect or enhance the character and appearance of this area.

Conservation area appraisal – a published assessment identifying the architectural features or historic interest that warranted the areas conservation area designation.

Construction management plan – a written document that covers all aspects of the construction process, from site clearance, deliveries, construction traffic routing, through to completion of the development and moving off-site. May be required by a local authority to ensure the amenity of nearby residents to protected as much as possible and disruption to an area is minimised.

Contamination – the presence of particles, chemicals or other

undesirable elements in a particular environment.

Context – the setting of a site or area. A context (or site or area) appraisal is a detailed analysis of the features of a site or area, including land uses, built and natural environment, and social and physical characteristics, which serves as a basis for the design of development in that site or area.

Culvert – a covered channel, pipe or drain that is below ground level or that carries a watercourse below structures/land.

Curtilage – the site area; the area of land immediately surrounding a house or other building; the area of land that is reasonably associated with the enjoyment of the house. This is usually the garden area.

D

Defensible space – an area of land with physical characteristics that allows residents to take responsibility for their own security.

Density – the mass or floorspace of a building or buildings in relation to an area of land; see ‘net residential density’.

Desire lines – a route that people or animals instinctively wish to travel, often the shortest or straightest line between two points.

Development concept – the original thought-process and idea behind the design of a new development.

E

Easement corridor – the area of land to which legal permission is granted to allow someone or something to move across land not in their ownership, eg. sewer easement.

Elevation – a side-view drawing of the outside of a building.

Enclosure – the creation of a sense of defined space by means of surrounding buildings/structures/planting.

Encroachment – development on land that was formerly part of a street/public land/land in someone else’s ownership.

Extensive green roof – a low-maintenance type of living roof cover, (which comprises of plants and soil or a growth medium), which is usually only accessed for maintenance purposes.

F

Façade – the main face of a building.

Fenestration – the design and placement of windows in a building.

Figure ground – the use of differentiation (usually black and white) to clearly show the position of buildings in relation to space on a plan.

Fit for purpose – development that meets the needs and requirements of the occupier.

Flexibility – the ability of spaces within a building to be easily changed in response to changing needs of the residents; usually non-structural, eg. the ability to use a bedroom as a study.

Floor plan – a line drawing showing the layout of rooms as if seen from above, normally to scale.

Form – the layout, density, scale, appearance and landscape of a development.

Fronts – a structure that ‘looks out’ onto something; the main elevation of a building is located to look out over something that provides good amenity value, eg. a park or lake, or something that benefits from active surveillance, eg. a street or footpath.

Frontage – the area of land in front of a building up to the street or water; the front or face of a building.

G

Gradient – the slope along a road or area of land.

Grain – the general arrangement or pattern of development of an area.

Green Infrastructure – connected and substantial networks of multi-functional green space.

Groundwater – water beneath the ground.

H

Habitable rooms – a room for living purposes, excluding bathroom, toilets, corridors, and halls. Depending on the local authority, kitchens may also be excluded.

Homezone – a road in residential area that has been designed to allow it to be used for a range of activities and to encourage very slow vehicle

speeds

Health and safety executive zone

– a safety zone legally imposed by the Health and Safety Executive to protect people working/living near to major hazard sites or pipelines or protect the hazard itself.

I

Inclusive – a structure/place that does not exclude anyone; allows access to people of all abilities. Informal surveillance – see passive/natural surveillance.

Intensive green roof – labour-intensive planted roof, requiring irrigation, feeding and additional maintenance. Usually designed to provide easy access and to be used like a garden or recreational space. Inter-modal travel – the use of different types of transportation to get from one place to another.

L

Landmark building – a prominent identifying structure in a landscape.

Landscape – the visible features of an area of land (including physical elements such as landform, living elements such as plants and animals, elements such as lighting and weather, and human elements such as buildings and human activity). Soft landscape features include planting; hard landscape features include walls, patios, walkways, made up of hard materials.

Legibility - the ease with which visitors can orientate themselves and find their way around an area.

Light tube – also known as light pipe or sun tube, used to transport or distribute natural or artificial light.

Listed building – a building included on the 'statutory list of buildings of special architectural or historic interest' held by English Heritage.

Listed building consent – permission from a local authority to demolish or alter a building designated as a listed building.

Local Accessibility Contours map – a geographical representation of the different degrees of public transport accessibility throughout an area.

Local character – see character.

Local nature reserve – an area of land that is protected and managed in order to preserve a particular type of habitat, plants or animals

M

Mass/Massing – the physical volume or bulk of a structure or building.

Material consideration – a factor (such as central government policy) that must be taken into consideration when a decision is being made as part of the planning process.

Mechanical ventilation - mechanical ventilation systems circulate fresh

air using ducts and fans, rather than relying on airflow through small holes or cracks in a home's walls, roof, or windows.

Microclimate – the climate of a small, specific place in a particular area, as contrasted with climate of the whole area.

Mitigation – methods to reduce, remove or compensate for adverse environmental impacts.

Mixed use development – the integration of more than one type of use within a building or set of buildings.

Modern methods of construction - collective term to describe a variety of building construction methods including off-site construction. Movement network – the movement of people and vehicles going to and passing through buildings, places and spaces.

N

Natural Surveillance – (also known as Passive Surveillance) – informal, close observation of people in public areas, often from nearby buildings or spaces.

Nature conservation site - an area of land that is protected and managed for its value to the environment, wildlife or plant life and natural resources.

Net residential density – “net dwelling density is calculated by including

only those site areas which will be developed for housing and directly associated uses, including access roads within the site, private garden space, car parking areas, incidental open space and landscaping and children's play areas, where these are provided,” (PPS3, Nov 2006) **Noise attenuation bund** – a large mound of earth designed to reduce noise level of a particular source.

Noise protection measures – measures that are put in place to reduce exposure to adjacent noise sources.

O

Open plan – generic term for the design of a floor plan that creates large, open spaces and minimises the number of dividing structures such as walls or partitions.

Orientation – the direction a building or structure is facing.

Overbearing – “a term used to describe the impact of a development or building on its surroundings, particularly a neighbouring property, in terms of its scale, massing and general dominating effect, “ (Planning Portal)

P

Passive solar design – a building designed and orientated to make the most of the sun's warmth. Passive Solar Gain - systems that absorb, store and distribute the sun's

energy without relying on mechanical devices like pumps and fans, which require additional energy.

Passive solar heating – a system of features built into a building that take advantage of the sun's warmth within relying on mechanical devices.

Passive surveillance – (also known as Natural Surveillance) - informal, close observation of people in public areas, often from nearby buildings or spaces.

Pedshed – the area encompassed by the walking distance from a development, usually a five or ten-minute walk, covering the actual distance walked.

Perimeter Block - a street block each of whose frontages face a public space (usually a street).

Permeability – the extent to which the buildings, structures and highways affect the ability of people or vehicles to move in different directions.

Planning Obligations – a legal instrument through which the planning system can address and mitigate the impact of development. Planning obligations can be used to secure improvements to development proposals, or to secure contributions towards services and infrastructure needed as a result of new developments.

Protected habitats – areas of land, protected under law, that provide a certain environment required for certain species of plant or wildlife to survive and thrive.

Protected species – certain species of plant or wildlife that are protected under law.

Public open space – space set aside for formal or informal recreational purposes with access for the general public.

Public realm – all areas to which the public has open access, eg. Streets, parks, public buildings.

R

Ramsar – an area of land protected under the Ramsar Convention. The Ramsar Convention is an international treaty for the conservation and sustainable use of wetlands, to prevent the loss of wetlands in the future.

Roofscape – the view of roofs of a particular street/area/town/city.

S

Scale – the size of a building in relation to its surroundings; the size of parts of a building or its details, in particular relation to the size of a person. **Section** – a drawing, usually to scale, of the internal cross-section of a building or structure, to provide information about internal arrangement and construction.

Sense of place – a feeling of appre-

ciation for the distinct character of an area.

Service corridor – an underground pathway for pipes/drains/etc for utility services such as electrics and water to run.

Service margin – an area of land either side of a service corridor or easement that has restricted development to protect the associated services.

Setting – the context or environment in which something sits.

Settlement pattern – the distinctive way in which the roads, fields, paths and buildings are laid out in a particular place.

Shared space – an urban design concept aimed at integrating uses of a public space.

Site asset – a feature of a site that have a positive value and can be used to enhance development.

Site constraint – a feature of a site that may have a detrimental value and will need mitigation measures to be incorporated into the design.

Site line – unobstructed line of vision for, amongst others, a driver at a junction.

Special Area of Conservation – an area of strictly protected land designated under the European Habitats Directive because of its important

contribution for the conservation of specific habitats or species.

Sites of Interest for Nature Conservation – a non-statutory designation of sites at county/boundary level. Generally assessed by a local authority or county wildlife trust and adopted in local development framework documents.

Sites of Special Scientific Interest – a statutory protected site for nature conservation in the United Kingdom, identified by English Nature.

Special Protection Areas – are European designated sites identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds.

Solar collection – the absorption of sunlight with the intent of using the energy generated.

Solar energy – energy from the sun that is used to provide thermal (heat) or electrical energy.

Storm runoff – also known as storm water runoff or surface water runoff. Water that falls during rain events that is not absorbed into the ground and passes instead into storm water drainage system.

Storm water attenuation – the control of water that falls on impermeable surfaces in order to manage the rate of discharge into the ground or

waterways.

Streetscape – the visual appearance of the street as a whole, including road, verges, gardens, buildings, trees, etc.

Street scene – the roadways, pavements, street furniture, trees, signage, building elevations and other elements that comprise the street environment.

Street pattern – the layout of streets in an area.

Space left over after planning – areas of land within a development, often small and misshaped, that have no specific purpose.

Spatial – the space in which something is situated.

Special policy areas – an area of land that has local protection through a specific policy in the local development framework.

Special Protection Areas – a European designation for the protection of habitats for certain species of bird.

Surface car parking – open parking areas for cars at the ground level.

Surface water runoff – the drainage of water from rain or flooding, etc that has remained on the ground.

Sustainable – the ability to maintain balance in a certain process or state

in a system. The most commonly quoted definition for sustainable development is the Brundtland Commission definition of “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

Sustainable drainage system – an environmentally-friendly way of dealing with surface water runoff to avoid problems associated with conventional drainage practice. These problems include exacerbating flooding. This approach may also be termed “SUDS” (or sustainable urban drainage systems), but applies equally to rural and urban sites.

T

Thermal mass – the capacity of a structure/material to store heat.

Topography – the surface features of a place.

Town design statement – a published document that provides information as to what development would be acceptable in a particular town.

Tracking – the monitoring of a vehicle to provide information as to the movement around roadways. This is used to design highways that can accommodate certain vehicle types.

Traffic calming - a set of measures used to slow down or reduce vehicular traffic.

Transport nodes – a stop on a transportation system.

Tree preservation order – a direction made by the local planning authority that makes it an offense to carry out work to a tree without the local authority’s permission.

U

Undercroft car parking - parking at ground floor level which occupies the footprint of the building.

V

Village design statement – a published document that provides information as to what development would be acceptable in a particular village.

Vista – a view or outlook.

Visual amenity – a pleasant or attractive element of the environment that can be seen

Appendix A

Key Design Principle Checklist

Title	Key Design Principle	Sub Questions
1. Access to Local Facilities and Public Transport	New development should provide for safe and convenient access, particularly on foot and by cycle, to local facilities and frequent public transport. <i>see: Site Accessibility: Local facilities and public transport</i>	• How far are key facilities from the site ? • (e.g. food shops, post office, primary school, children's play area, public open space, pub, place of worship, doctor's surgery, pharmacy, crèche, café, community centre etc.) • Are the routes to facilities safe and convenient for pedestrians and cyclists? • How far is the site from frequent public transport stops? • Are the routes to bus stops or train stations safe and convenient for pedestrians and cyclists?
2. Integrating with Movement Networks	New development must integrate well with cycle, pedestrian and vehicular movement networks <i>see: Site Accessibility: Integrating with movement networks</i>	• Do new routes from the site serve desire lines to nearby facilities? • Do new routes from the site improve connectivity by linking to neighbouring movement networks (roads, footpaths and cycle routes)?
3. Analysis of Context	Developers should analyse the character of the site and its context to identify positive and negative elements which will influence and inform the overall design and orientation of buildings and spaces. <i>see: Site Context: all sections</i>	• Do new routes from the site serve desire lines to nearby facilities? • Do new routes from the site improve connectivity by linking to neighbouring movement networks (roads, footpaths and cycle routes)? • Has the character of the site been analysed (both positive and negative aspects)? • Does the design maximise the existing site assets? • Does the design respond well to the site constraints? •
4. Residential Density:	Density should be appropriate to the context and level of accessibility; make efficient use of land and address the needs of residents <i>see: Layout: Residential Density</i>	• Is the density appropriate to the site context, taking account of spaciousness, footprint ratio or dwellings per hectare? • Is the density appropriate to the level of accessibility of the site? • Is land used efficiently? • Does the density and the design allow for all the needs of residents (such as car parking, private amenity space, street tree planting etc) to be addressed?

5. Legibility	Development should have its own identity and variety so that it is easy for people to find their way around. <i>see: Layout: Permeability, Legibility and Street hierarchy</i>	• Is the development easy for visitors to find their way around? • Is it obvious where entrances to buildings are? • Is the distinction between public and private areas obvious? • Does the layout and design (rather than explicit signage) make the development legible?
6. External Space	The design and future management of all external space, including highways, must be an integral part of the development design and should be considered at the earliest stage. <i>see: External Space: all sections</i>	• Is the design of private, shared and public external space well considered and undertaken at the earliest stage? • Are landscape plans consistent with service, engineering and building layout plans? • Have appropriate management arrangements been made for all external space? • Is the landscape design appropriate to the level of maintenance expected?
7. Boundary	Boundary treatments must be appropriate to the context, well-detailed and robust. <i>see: External Space: Boundary Structures</i>	• Is the design and layout of the fences, walls, railings, hedges etc appropriate for each situation? • Are the materials and specifications for each boundary structure likely to be sufficiently robust for each situation?
8. Underground Services	Where possible new services should be located underground and main service corridors plotted on plans at the earliest stage to avoid design conflicts with tree planting. <i>see: External Space: underground services</i>	• Are new services (foul and surface water sewers, telecoms, electricity, gas, cable tv, broadband etc.) located underground wherever possible? • Are service corridors located in the most appropriate locations? • Are proposed tree planting positions compatible with proposed or existing underground services?
9. Public Open Space	All public open space should be safe; accessible; designed for a range of functions and users; and should balance good natural surveillance with residential amenity. <i>see: External Space: Public Open Space</i>	• Is the design of all public open space and the access to it safe and well overlooked? • Is all the public open well located and easy to access by its intended users? • Is the p.o.s. designed for a range of users? • Is the p.o.s. designed to avoid conflict with adjoining residents?

10. Public Art	Public art should contribute positively and reinforce a sense of place and identity. <i>see: External Space: Public Art</i>	• Will the proposed public art project add something positive to the public realm? • Does the public art take full account of the context of the site, including the character and appearance of the area, demonstrate appropriateness in mass, scale, materials, design and siting in relation to adjoining buildings, spaces, views and natural features? • Will the public art be sufficiently robust for its location? • Will the public art be appropriate for the level of maintenance expected?
11. Residential Amenity	New development should be designed to respect the residential amenity of existing and new occupiers and all dwellings should have adequate private amenity space. <i>see: Residential Amenity: all sections</i>	• Does the development respect the residential amenity of occupiers in existing development? • Does the development respect the residential amenity of occupiers in proposed development? • Do all new dwellings have adequate amount and quality of private amenity space? • Does the communal space for flats provide an appropriately designed space for sitting and social interaction?
12. Access within the Site	Access within the site should be overlooked, safe and convenient to use, but must not be highway dominated <i>see: Access, Parking and Services: Access around the Site</i>	• Is all access around the site overlooked by building occupants? • Is all access around the site safe and convenient to use? • Does the design and layout of the streets manage to avoid highway domination? (avoiding, excessive amounts of black top, hammerheads and excessive turning circles and sight lines) • Is the vehicular highway geometry designed for slow speeds?
13. Parking	Surface car parking and cycle parking should be safe, convenient to use and have natural surveillance. Car parking should not visually dominate the public realm. Other vehicle parking should be safe, secure and separated from the public realm. <i>see: Access, Parking and Services: Parking Mix Cycle Parking and Storage</i>	• Is all car parking safe, convenient and overlooked by active rooms in neighbouring buildings? • Is all cycle parking safe, convenient and overlooked by active rooms in neighbouring buildings? • Is all other vehicle parking (such as lorry parking) safe, secure and separated from the public realm? • Is the potential negative impact of large amounts (6 or more spaces) of car, van, bus or lorry parking mitigated by design? (e.g. tree planting, surface materials, smaller groups of spaces)?

14. Waste, Recycling and Cycle Storage	Waste and recycling and cycle storage should be safe, accessible and convenient for the intended users and properly integrated into the built design Cycle storage should also be secure. <i>see: Access, Parking and Services: Cycle Parking and Storage Refuse and Recycling</i>	• Is all waste and recycling storage in new development safe (away from traffic flows, well overlooked, well lit)? • Is all cycle storage in new development safe (away from traffic flows, well overlooked, well lit)? • Is all waste and recycling storage in new development convenient (a minimum distance from expected users)? • Is all cycle storage in new development convenient (a minimum distance from expected users and appropriately dimensioned space for ease of access)? • Has the local character been identified (both positive and negative aspects)?
15. Design of Buildings and Materials	The scale, form and design of elevations and external materials should respond positively to the defining and distinctive characteristics of the area. Where this is absent, design and materials should help create a new positive and distinctive character. <i>see: Site Context: Character Architectural Detail: all sections</i>	• Has the local character been identified (both positive and negative aspects)? • Does the design (and choice of materials) respond well to the positive local character or (if absent) does it create a strong positive character of its own?
16. Continuity and Enclosure of Space	Buildings should be designed to enclose space and have active frontages onto the public realm with particular attention being paid to entrances and corners. <i>see: Layout: Permeability, Legibility and Street Hierarchy Public/private Distinction Massing</i>	• Does the building layout create good levels of enclosure and/or create strong building lines along the street? • Do all street side (and other public realm) elevations create active frontages? (with windows from active rooms and (where appropriate) balconies, roof terraces, etc) • Are entrances concentrated on the public sides of development? • Are corner plots designed to address both sides of the public realm or street? • In low density schemes does the landscape design help to create enclosure and continuity?

17 Flexible Internal Space	Buildings and spaces should be designed so they can be adapted over time to changing needs. New homes must have sufficient internal space for residents to use comfortably and to support a practical quality of home life for the intended number of residents <i>see: Internal Space: all sections</i>	• Do the internal divisions of the buildings allow for easy and cost effective future changes to room configuration (i.e. non-load bearing walls)? • Does the residential roof design allow for easy and cost effective future habitable use? • Are residential buildings Lifetime Homes compliant? • Are spaces able to be adapted to changing needs? (e.g. wheelchair accessible) • Do buildings and spaces use materials that can be re-used or recycled? • Are internal residential space standards generous enough for comfortable living requirements for the number of inhabitants intended (including sufficient storage)?
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Appendix B

Quality of Routes

New or existing routes and networks of routes should aim to achieve the following standards of quality (from “Shaping Neighbourhoods” by Barton et al, 2003):

Connected

- The network should be comprehensive, serving all significant desire lines.
- It should provide good permeability, i.e. a choice of routes filtering through an area allowing pedestrians to go which way they want.
- Easy, direct access to public transport facilities is vital
- Green spaces should be linked into the network and allow for round walks, and where possible ‘green routes’ to major centres of activity.

Convenient

- Pedestrian routes should be as direct as possible in order to reduce distance to be walked and increase the pedestrian catchment of facilities.
- They should avoid steep hills, unnecessary barriers, steps or kerbs that might inhibit less agile people and those with pushchairs or wheelchairs.
- Where new routes are planned they should follow the contours,

even where this does result in some route deflection. Direct routes can also be provided for the energetic/more able bodied. Choice is important.

- Routes should be linked by safe and convenient crossings, with minimum diversion.

Comfortable

- Footways should be wide enough to allow easy passing and overtaking, without being pushed out into traffic – especially on heavily used roads where long vehicles on bends may be intimidating.
- Routes should be overlooked by nearby properties, giving a sense of surveillance and safety.
- Resting places (benches on long routes, stages/benches on steep routes)
- The route should be well lit and feel safe, without dark corners or featureless, unconnected sections which can be intimidating.

Convivial

- Minimum width of footway (for two abreast)
- Routes should be places where people can meet casually and talk in comfort, free from excessive noise or fumes.
- They should be designed for aesthetic enjoyment, giving pleasure by the variety of prospects, spaces and landscapes.

Conspicuous

- Main routes should be easy to ‘read’, distinctive, and clearly signposted. Landmark features (e.g. mature trees, public art) can help give a sense of place (from ‘Shaping Neighbourhoods’ by Barton et al, 2003).

Appendix C

Waste and Recycling Storage Requirements for Residential Accommodation

At present the Council collects domestic waste once a week – alternating between general waste from a grey bin and dry recyclable waste from a green bin. Food waste is collected weekly at the same time, and glass is collected once a month.

The Council's storage arrangements for domestic waste allow for bins with a capacity of *180 litres for residual waste and 240 litres for recyclables for households of 3 or more people. Smaller 140 litre bins are available for smaller households, however the Council recommends provision is made to accommodate the larger bins.

The storage requirements are:

- *Terraced/detached/semi-detached houses – 1x 180 litre wheeled bins, and 1x 240 wheeled bin;
- Flats – normally provided with 2x 1280 litre Eurobins for every 6 units, but may have individual wheeled bins for each dwelling;
- *40 litre box for glass collection for houses, 1x 240 litre wheeled glass bins for every 6 flatted units;
- 25 litre food waste bin for outside and a 5 litre caddy for indoors for each house. 1x 240 litre wheeled bin for food waste for every 6 units. All bins to be manufactured

to EN 840 Standard. Eurobins to be supplied with metal bodies and flat plastic lids. Green lidded Eurobins to be supplied with a lockable lid and a paper flap opening.

Wheeled bin dimensions are:

Capacity	240 litres	1280 litres
Height	1070mm	1430mm
Depth	740mm	985mm
Width	590mm	1265mm.

Bin stores must display signage reminding residents what to place in the Green Recycling bin. This signage will be provided by Direct Services at the developer's expense.

The Council requires developers to meet the costs of providing new general and dry recyclable waste bins for the development.

The majority of these bins and signage will normally be stored externally, in stand-alone buildings or in a bin store incorporated into the fabric of the building. Where stand-alone bin stores are to be constructed, they must be robust and durable, preferably built from brick. They must be enclosed by a roof to avoid unauthorised dumping and not have any open space at the bottom of doors as this can provide access for rodents. Doors must be well-fitted, with strong frames, and must be lockable. This lock can be a key or combination padlock or a combination door lock. Appropriate

lighting will need to be provided and ideally access to water and a hose and the provision of a drain to allow for ease of cleaning.

If bin stores are incorporated into the main building itself, access should be provided for residents inside the building and for waste collection operatives from outside. The store should be located to avoid odour and noise nuisances, particularly for residents on the ground floor nearby.

Where bin storage is located at the front of houses or flats it needs to be integrated well with the fronts of these buildings and/or with front garden boundary structures. They should, where possible, be located in a shaded position.

For examples of good and bad design of bin stores and layouts please refer to www.eastleigh.gov.uk/binstores

In order for bin stores to be accessible for residents they should be located on level ground and reasonably close to homes. This should be balanced with the need to protect residents from nuisance odour and noise. Bin storage areas should also be located to provide easy access to the roadside for houses, as residents are required to put their bins out within arms-reach of the highway for collection. If bin collection points be provided for householders, these should have dropped kerbs. Waste collection operatives will move Eurobins from their permanent storage

space for collection provided this storage area is located within 10 metres from a point accessible by the collection vehicle. These bin stores must be served by paths that are a minimum of 1.8 metres, preferably level (slopes must not exceed 1:12) and have dropped kerbs. Also wheeled bins must not have to be pulled up steps to access collection by Refuse vehicle.

Space should also be provide internally, often within kitchens, to be able to separate waste into different bins– recyclable, non-recyclable, food waste and glass.

Provision should be made for people with disabilities to easily and safely access bin storage facilities and the bins themselves.

The Council does not consider the use of waste disposal chutes to be an acceptable alternative to the use of wheeled bins as they do not sufficiently allow for the separation of recyclable materials.

If a collection vehicle is expected to access a site off the public highway, the access drive (including personnel covers) must be capable of safely accommodating a vehicle 8.8m in length weighing up to 26 tonnes. Preferably the vehicle will be able to enter and leave the site without being required to reverse. Where it is necessary to reverse (to a maximum of 10 metres), the site layout should allow for appropriate turning manoeuvres.

Eastleigh Borough Council,
Civic Offices, Leigh Road, Eastleigh,
Hampshire, SO50 9YN
T: 023 8068 8280

W: www.eastleigh.gov.uk
E: direct@eastleigh.gov.uk

This information can be provided in alternative formats
including large print, audio tape, Braille and other languages
by calling 023 8068 8000, emailing direct@eastleigh.gov.uk
or texting 07797 877001