

## 5 Design Guidance: General Aspects of Design

5.1 This section provides general design guidance and amplifies some aspects which require particular emphasis within Elmbridge, relating to:

- Sustainability
- Layout
- Roles in the streetscape
- Massing and scale
- Landscape design
- Privacy
- Storage
- Materials
- Boundaries

5.2 The concept of 'placemaking' is also introduced here, which is the use of established urban design principles to develop places that are attractive, safe, neighbourly and legible. Questions are provided in text boxes throughout this section to help you consider initial placemaking principles following your appraisal of the site and its context.

### Sustainability

What opportunities are there to meet **sustainability** objectives within the development?

5.3 The use of land and resources is one of the central components of the English Spatial Planning System. The aim, and direction of travel, of both national and local planning policy is that sustainable development is fundamental to the principles of good planning<sup>(8)</sup>.

5.4 The purpose of this section is to encourage you to carefully consider matters relating to sustainability at the outset. It should be read with all other elements of this SPD.

5.5 Elmbridge has one of the highest qualities of life in the UK, however it also has one of the highest carbon footprints. As such, careful consideration needs to be given to the impact of new development on carbon emissions, climate change and the sensible use of finite resources.

5.6 Current legislation, as set out within the Climate Change Act 2008, sets legally binding targets for the nation to meet for the reduction of carbon emissions. One of the primary tools to achieve this relates to the construction of the built environment. Indeed it is the Government's view that all new residential dwellings will be zero emission development from 2016.

5.7 Sustainable development can be defined in a number of ways, but in terms of this document it should be considered in terms of minimising the impact of the development upon the natural and local environments, be this through design, minimising energy and water consumption, reducing the need for private transport etc. In the first instance, consider your development's environmental impact, resource efficiency, mitigation and adaptation potential.

5.8 The following Core Strategy policies are most relevant in securing sustainable design:

- CS14 – Green Infrastructure
- CS15 – Biodiversity
- CS26 – Flooding
- CS27 – Sustainable Buildings

5.9 Currently there are also a number of industry-leading assessments that should be considered at an early stage of the design process in determining the sustainability of schemes, including:

- Code for Sustainable Homes
- Building for Life
- BREEAM 2008
- Lifetime Homes

8 The Elmbridge Core Strategy includes policies relating to the sustainable location of development; Local character, Density and Design; Green Infrastructure and Biodiversity; Travel and Accessibility; Flooding; and Sustainable Buildings. All these policies should be referred to when you are considering the overall sustainability of a development

**5.10** The BREEAM assessment offers a large number of assessment types depending on the type and use of a particular development. This list is not exhaustive and will no doubt change over the lifetime of this SPD.

### **Initial design strategies**

**5.11** Many aspects of design can contribute towards appropriate forms of sustainable development; from location and layout, materials and recycling facilities to water use and energy. Whilst sustainability principles permeate this SPD, this section highlights key sustainable design considerations.

**5.12** Within a wider context, you should consider the appropriateness of the type of development proposed. For example, schemes for higher densities can help to reduce the use of greenfield sites for new development and can contribute to the viability of local services, and are generally situated in more accessible urban locations. However, densities for specific sites should be appropriate and respond positively to the character of the area.

**5.13** Larger residential environments are more likely to become sustainable neighbourhoods if essential supporting facilities and infrastructure are conveniently located within easy walking distance of the home (approximately 400 metres). Thus a focal point of development as a whole, be it residential, commercial or mixed use, should be its relationship with uses such as community facilities, shops and workplaces, which can add vitality to an area and should be considered at the outset.

**5.14** Development should be laid out in a manner to facilitate walking or cycling to the nearest town and/or village centre and to the nearest bus stops, train station or cycle path. Routes to these should be as direct, safe and attractive as possible.

**5.15** There are a large number of factors to consider when planning and designing a new development. The elements below should be carefully considered at the earliest stage:

- Water (internal, external use and surface water run off)
- Energy
- Materials
- Waste and Pollution
- Ecology
- Who will be using the development and how?

**5.16** Developments should seek to minimise their impact on the environment, be this by using passive heating and ventilation, consideration of flooding impacts, or other relevant matters which would impact on a development's sustainability.

### **Development layout, orientation, design and form**

**5.17** The layout and orientation of a development can help maximise the use of renewable energy and improve sustainability. Consider thermal efficiency, solar gain or the potential for the use of renewable or low carbon technologies at the outset.

**5.18** Developments should also provide sufficient space for cycle parking or storage and, for residential schemes, should consider opportunities for home working.

**5.19** Natural light and ventilation can significantly minimise the need for daytime artificial lighting and mechanical ventilation as well as creating better environments to live and work in. Natural convection currents, which can be supplemented by heat exchangers, can optimise comfort conditions for occupants. Pitched roofs in various configurations, with heat exchange and vent stacks, can often provide skyline interest.

**5.20** Building 'envelopes', material and form of design can also make a significant contribution to energy efficiency. Give thought to walls that contain a high thermal mass, and the origin and insulating properties of materials. Glazing will be affected by a number of factors depending on orientation, such as whether external sun shading is adequate, and whether development would be overcome by heating and shading. The design properties of glazing i.e. its reflective

nature and how this responds to its environment and the occupants of the proposed building, is also important.

**5.21** Building materials and structures that have a long life and are adaptable result in more sustainable developments. Buildings that have potential for future conversion and extension will contribute to the sustainability of a development.

How can **orientation** be used to maximise the sustainability potential of the development?

**5.22** Carefully consider building orientation within the development. Although southerly ( $30^\circ$  either side of south) orientation ensures maximum passive heat gain, it can result in overheating and glare for occupants. Elevational devices such as sunscreens or 'brise soleil' may therefore be considered when designing the layout of your development. A southerly orientation also means that the opposite side of the building will be in permanent shadow. A scheme which consists solely of south facing buildings can lead to a development which is of repetitive character and may not be of high quality design, conflicting with the grain and built form of adjacent buildings, contrary to placemaking principles. The indicative diagrammatic layouts (Figures 5.1 and 5.2) summarise the issue.

**5.23** **Figure 5.1** shows a layout aligned strictly due south. This results in a strongly linear and geometric layout which is at odds with the more organic grain of the area. Moreover, the geometric plot and building layout produces oddly shaped 'space left over' at the interface with the street frontage, making poor utilisation of space (often overshadowed) with significant maintenance implications.



**Figure 5.1** Layout - south

**5.24** **Figure 5.2** makes full use of the '30° option' for orientation as well as ensuring that at least 25% of the houses face due south.



**Figure 5.2** Layout - 30° option



## Energy

**5.25** All developments use energy. Heating, lighting, cooking, cleaning, transport, etc. will all have an impact on energy use, which in turn will impact on a building's efficiency and emissions. Consideration at an early stage can both reduce emissions as well as reduce the future running costs of the development.

**5.26** Address key factors at the initial stages of development, including reducing the need for energy, using and supplying energy efficiently, and the use of renewable or low carbon options.

**5.27** These can come in a number of guises, from wind turbines to ground source heat pumps. Currently there are some allowances for these to be implemented under permitted development, however these should be considered as an integral part of development. Further details are set out within the General Permitted Development Order.

**5.28** Developments should aim to minimise the overall emissions of the building through the fabric efficiency of the building, i.e. appropriate levels of insulation.

**5.29** Air conditioning can significantly increase energy consumption and also emissions. Appropriate design can mitigate the need for such systems. Furthermore this will also allow for consideration of drying space to reduce the need for energy consuming white goods.

**5.30** It is important to note that these technologies, and the use of renewable energy generation, may have a significant influence on the appearance of buildings. However, they should not dictate the design of buildings to such an extent that they have an adverse effect on scale and appearance.



**Solar panels on traditional roofslope**

**5.31** Whilst it is acknowledged that some developments may incorporate elements such as passive ventilation chimneys, these can be an integral part of the design, rather than being a late addition that detracts from an intended design. Energy options could include a large number of solutions, either singularly or in combinations, of which some are set out below:

- **Combined heat and power generation:** Viable on medium to larger, relatively compact developments.
- **Biomass boiler systems:** Particularly effective where biomass fuel pellets can be sourced on site (e.g. coppiced woodland) or within the local area.
- **Ground source heat:** Either via relatively extensive areas of grass, for a sub surface system, or deep bore holes. Both options have limited visual impact. Water source or air source could also be considered)
- **Wind generators:** The relatively sheltered character of Elmbridge and the effect of turbulence caused by nearby trees and building can limit the opportunities for wind generation.
- **Solar water heating panels:** Optimal performance when integrated into a southerly oriented pitched roof.
- **Photovoltaic panels:** Large arrays can be very effective, especially when incorporated into roof, atrium or canopy design. Orientation is important although

near horizontal configurations can receive significant light.

- **Heat and energy recovery systems:** These can be appropriate for commercial developments where excess energy can be re-used within the development.

### **Water (internal, external use and surface water run off)**

**5.32** Water consumption for both internal and external use can be significantly reduced through the proper planning of new development. The use of grey water (re-use of potable water) can therefore reduce the amount of water used within a development. For example, low flush and restricted pressure fixtures will reduce the amount of water required.

**5.33** In respect of exterior areas, the use and storage of water such as rainwater harvesting systems, water butts or centralised rainwater harvesting systems should form an integral part of the design as appropriate.

**5.34** Surface water run off and rainwater discharge can also be a major issue for development. Currently for residential developments, sites should demonstrate that systems are in place to ensure that there is no run off. This can be achieved through a number of methods, mainly SuDS (Sustainable urban Drainage Systems). In order to minimise run off, especially following periods of intensive rain, surfaces should be as porous as possible. Incorporating green roofs, soft landscaped areas, trees, porous paved surfaces, the use of balancing ponds, and other appropriate methods should be integrated into the design at an early stage.

**5.35** The capture, treatment and re-use of water can be attained through a large number of methods such as green roofs or swales. Implementation can also reduce the risk of flooding for the development site. The installations of such systems should also be considered in conjunction with flood risk and drainage assessments where appropriate. It

is also important for you to check that your development site is not within an area at risk of flooding<sup>(9)</sup>

### **Ecology**

**5.36** The protection and use of ecology in developments can be a key part of maintaining the character of the Borough as well as increasing and preserving its biodiversity. Elmbridge consists of large numbers of natural habitats of international, national and local significance including large and mixed population of trees and ancient woodland, waterways and heathland<sup>(10)</sup>. Many of these sites lie within the urban area as well as the more rural parts of the Borough. In addition, waterways, hedgerows, woodlands, trees and verges form important wildlife corridors providing essential links between habitats and the wider Green Infrastructure network.

**5.37** Retention and protection of these features can not only reduce the impact of development but will also allow development to adapt more suitably to its surroundings and preserve and enhance the Borough's biodiversity, Green Infrastructure and distinctive character as well as improving its resilience to climate change.

**5.38** Development should take account of the ecological value of a site and enhance and protect it where appropriate. As the largest living element within the environment, trees should not be seen as a constraint to development but can provide their own biodiversity and ecology as well as amenity and character to the wider area. They can screen unsightly views, improve aesthetics by softening buildings and have an important cooling effect in the urban environment. Suitable design should include existing features and encompass them within development. The provision for planting and retention of trees offers significant opportunities to increase sustainability including the influence on rainfall, essential wildlife habitat, creation of shade and shelter, reduction of soil erosion and an ability to

recycle organic matter. The Council has produced guidance relating to trees and development in Elmbridge <sup>(11)</sup>.

**5.39** For schemes with landscaped areas, you should also consider their resilience and adaptability to climate change and extreme weather events. There are a number of design considerations such as 'green or brown roofs' and 'green walls' among others that could be considered, which would enhance biodiversity. In turn, the preservation and promotion of Green Infrastructure contributes to the health and wellbeing of Borough residents.

**5.40** The creation and retention of trees and hedgerows to establish an environment sheltered from strong winds should be demonstrated in design schemes.

**5.41** Give careful consideration to the presence of any protected species or flora and fauna on site. Given the Borough's building stock, landscape and environment, there are also a large number of species within the Borough, such as bats, which are protected, both under National and European Legislation. Further information relating to development and protected species is available from Natural England <sup>(12)</sup>.

### **Building materials**

**5.42** First consider if existing buildings and structures on site have potential for re-use. If this is not feasible, materials should be retained, re-used or recycled.

**5.43** One of the main sustainable elements of a building is the materials it uses. Consider the appropriateness of materials, the embodied energy within them, and if any existing building materials can be re-used or recycled.

**5.44** The materials used for the buildings and paved surfaces should be considered within the context of their durability, thermal efficiency (where relevant), insulation

properties, maintenance regimes and their source. For example, where possible, materials should be from a responsible source e.g. timber should be FSC (Forest Stewardship Council) certified.

**5.45** Wherever possible, you should utilise locally produced materials, e.g. bricks, timber components or straw bale walling, especially if the energy consumption is low in their manufacture and transportation the energy consumption is low. Such considerations could make a building considerably more sustainable, reduce its overall impact on the environment, and often more in keeping with a local vernacular.

### **Waste and pollution**

**5.46** You should ensure that waste and pollution generated during and post development does not unduly impact on its locality, increase waste to land fill and should allow for recycling where appropriate.

**5.47** During development, you are encouraged to sign up to one of the Government's recognised schemes such as 'considerate constructors'. This would require waste and pollution to be addressed during development. Surrey County Council has a plan for waste management, which should be taken into account during the design of any scheme. <sup>(13)</sup>

**5.48** Consider if the development is suitably insulated to reduce emissions and increase thermal efficiency. Potential emissions from heating of space and water, for example nitrogen oxide emissions, should be addressed through suitable efficient heating systems.

**5.49** Material for recycling, whether solid or compostable, can require a variety of measures that need to be taken account of, including convenient storage and accessibility for collection.

11 Trees and Development in Elmbridge - A Guide to incorporating Trees in Proposals for Development - [www.elmbridge.gov.uk/planning/trees](http://www.elmbridge.gov.uk/planning/trees)

12 Natural England - [www.naturalengland.org.uk](http://www.naturalengland.org.uk)

13 Surrey Waste Partnership, A Plan for Waste Management: Joint Municipal Waste Management Strategy, 2010 available to view at [www.surreycc.gov.uk/environment-housing-and-planning/waste-and-recycling](http://www.surreycc.gov.uk/environment-housing-and-planning/waste-and-recycling)

## Who will using the development and how?

**5.50** The early consideration of the 'end user' can significantly increase the sustainability of a development the overall health and well being of its occupants.

**5.51** A number of matters set out below should be considered:

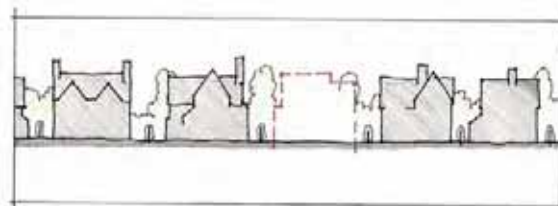
- The convenient location of storage for bicycles
- Opportunities for Car Clubs or car sharing
- Are routes to and within the site appropriately lit?
- Is there sufficient amenity space for future occupants?
- Is there suitable space and infrastructure for a home office?
- Is there suitable daylight and sound insulation for future occupants, thereby reducing the need for electric lighting within buildings?
- Does the design of the building offer flexibility for conversion to another use in the future?

**5.52** This is by no means exhaustive and other relevant elements should be considered where appropriate.

## Layout

Will the development respond to the **rhythm** of the streetscape?

**5.53** In designing a scheme, carefully consider issues such as the grain, building line and plot coverage. Take care to respect established spacing patterns in the streetscape and to relate to the character of the area (Figure 5.3). The siting should avoid creating or increasing a terracing effect by effectively closing gaps between buildings with development.



**Figure 5.3** Infill development respecting the rhythm of the streetscape

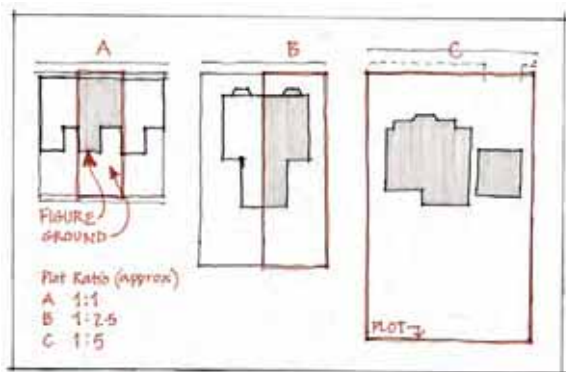
**5.54** Maintaining a well defined building line can be key to ensuring new development responds to the character of the area. See also 'Continuity' in the 'Roles within the Streetscape' section paragraph 5.65.

**5.55** The grain of the existing area will influence the siting of new development and you should consider the pattern of buildings within the streetscape and the character area but also where density could be increased in suitable locations. It might be useful to produce a figure ground diagram (Figures 5.4 and 5.5) within the context of the site whereby proposals can be tested for appropriateness to the site context.



**Figure 5.4** Figure ground diagram





**Figure 5.5 Plot ratios for differing patterns of development**

How will **garden space** be provided to meet the needs of future residents?

**5.56** Where gardens are included within residential development, they should be of an appropriate size to provide amenity space for occupiers. The size of the garden may also be key to enhancing the setting of a building, particularly larger flatted developments. In some instances, a minimum garden depth of 11 metres should be provided, which is a dimension that Elmbridge has often required. However, this will depend on the character of the area and the type of development proposed.

**5.57** Issues to consider include whether a home is likely to be occupied by a family, the size of the building and if the amount of usable space is constrained, perhaps by its topography or the presence of large trees, for example. Higher density urban locations may benefit from individual design solutions to the provision of amenity space, such as providing balconies, courtyards or communal space, rather than a private garden of specified depth. Such an approach could be taken especially when overlooking is avoided through design (see Privacy section at paragraph 5.84), rather than requiring a degree of separation often associated with the provision of traditional rear gardens. However, more spacious gardens will be appropriate in other settings where the character of the area warrants a greater depth, usually in excess of 15 metres.

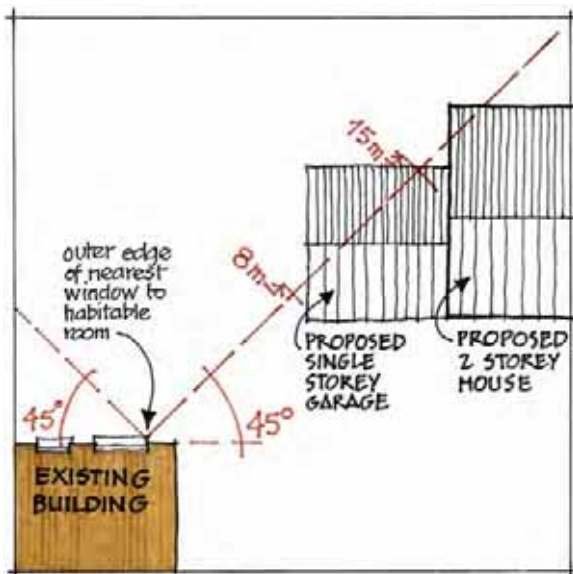
**5.58** The case studies (at section 7) provide useful guidance on how amenity space can be provided within particular contexts and demonstrate how suitable garden sizes can be achieved.

How will **amenity** issues influence the design and siting of buildings on the site?

**5.59** It is important that you consider the relationship of new development to other buildings, both within the site and to existing dwellings outside the site. Take care to ensure the development is neighbourly and does not have a negative effect on light and outlook from windows and amenity spaces. The character of the area and the context of the site will influence the siting of buildings. For example, spacious settings should be respected in lower density areas whilst a dense grain may be appropriate in more urban locations. The orientation of buildings will also affect the impact of new development on daylight and sunlight to neighbouring dwellings.

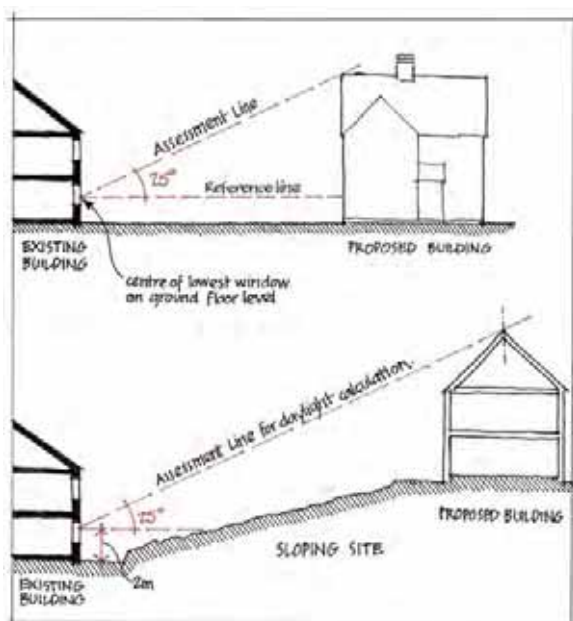
**5.60** A useful tool to assess the effect of new development on neighbours' amenity and to influence the siting of new buildings is to apply the '45 degree rule' as depicted below (Figure 5.6). This illustrates an acceptable relationship between buildings, with new single storey development positioned further than 8 metres from the existing dwelling and the two storey element further than 15 metres when located within a 90 degree arc from the edges of main windows to habitable rooms.





**Figure 5.6 The 45 degree rule**

**5.61** An additional tool for considering the relationship between buildings is the '25 degree rule of thumb'. This Building Research Establishment (BRE) guidance advises that daylight and sunlight levels may be adversely affected by the presence of buildings near to windows serving habitable rooms (Figure 5.7).



**Figure 5.7 The 25 degree rule**

Is **parking and vehicular access** achieved in an appropriate and discreet manner?

**5.62** The character of an area should inform the means of access and the manner in which parking can be accommodated in the site where necessary. Developments should not be dominated by hardstanding and it may be appropriate to intersperse parking spaces throughout the site. Landscaping can be used to mitigate the impacts on residential amenity and to integrate parking and driveways, as well as cycle and refuse storage, into the development in a neighbourly manner. The sections on Landscape Design (paragraphs 5.78-5.83) and Storage (paragraphs 5.87 & 5.88) provide further guidance on this issue and the case studies demonstrate how this can be achieved in practice. Some types of development, particularly to the rear of existing buildings, and some character areas may be particularly sensitive and require thoughtful design solutions to the provision of parking and access. For further advice on the layout of this aspect of development see *Manual for Streets*<sup>(14)</sup>

**5.63** Give consideration to designing places with the appropriate level and type of access, both vehicular and pedestrian, in order to reduce potential for crime. For larger schemes, this may include ensuring well defined routes, spaces and entrances that provide for convenient movement without compromising security in addition to avoiding secluded footpaths and maximising surveillance over driveways, parking areas and cycle stores. Advice can be given to you at the pre-application stage in conjunction with the police's architectural liaison officers.

## Roles within the Streetscape

What **role** should the development play within the streetscape?

**5.64** The character of a development site will to some extent be defined by its location within the streetscape. The following six examples of typical locations illustrate the key 'roles' they represent. These roles and locations are similar whether the context is village, suburb or town. The design response to the role will however vary in each case in terms of massing, scale height etc. depending on context. There will be situations where the site may perform more than one of these roles.

### Continuity

**5.65** The existing building line, frontage alignment, plot width, spacing (or lack of it) is highly defined, consistent and considered as a component contributing to the character of the area (Figure 5.8). In this case, the design proposals should generally defer to these characteristics.

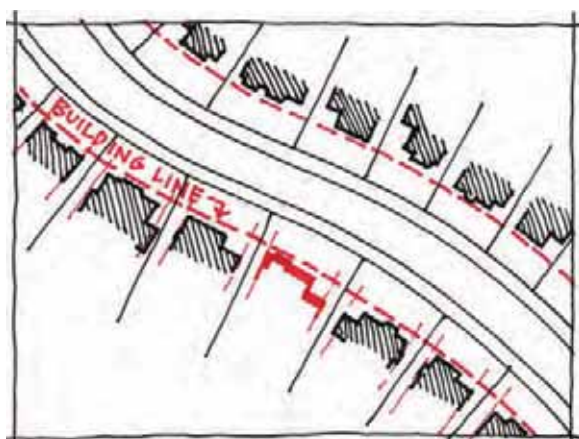


Figure 5.8 Continuity

### Termination of Vista

**5.66** The site and any proposed building would be visible at the end of a street/road (Figure 5.9). It has the function of 'closing' the view. Any building would be viewed in elevation (rather than obliquely as usual) and at some distance. Because of these

considerations, the elevational design should be coherent at a distance, regarding its roof line, scale of openings, formality etc.

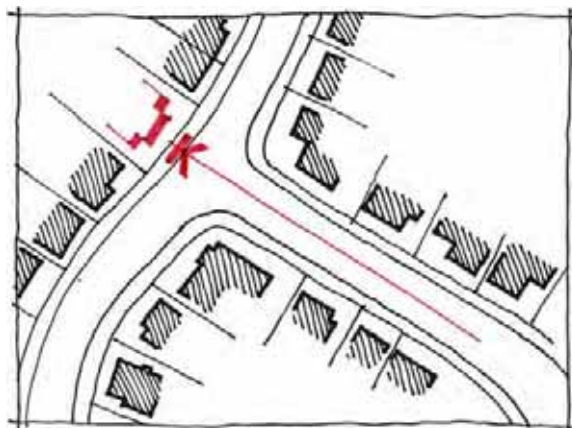


Figure 5.9 Termination of Vista

### Key Corner

**5.67** There are particular corner sites which play a 'pivotal' part in the streetscape, where the character changes from one street to another and where traditionally the corner or prow of the site is 'celebrated' in the massing of the building, including its roof line (Figure 5.10). The corner building is perceived in three dimensions rather than the usual two, where only the main elevations are seen.

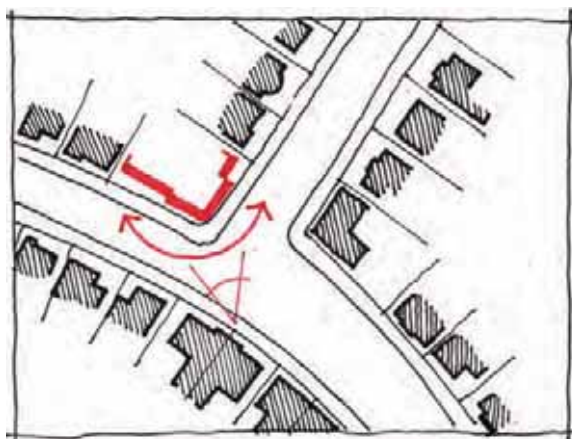


Figure 5.10 Key Corner

### Key Group

**5.68** Some larger sites may be the focus of a number of views and the frontage may consist of a number of plots (Figure 5.11). Typically a key group may need to form the background to a green space. Key groups

may be required at focal points in some larger developments or at the **gateway** to a development or settlement. The design response should ensure that each unit (e.g. house) should contribute to the total scene, at the appropriate scale.

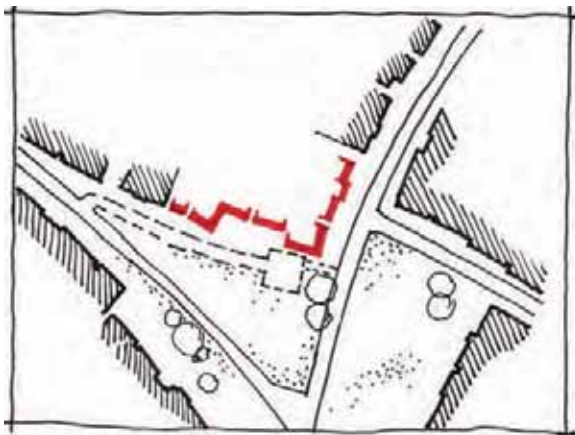


Figure 5.11 Key Group

### Landmark

5.69 The site may be the focus of a number of direct or indirect views and/or be at a critical junction or location in the street network (Figure 5.12). The nature or volume of the building or the site's previous significance may also contribute to the landmark status of the building. It will be a matter of judgement whether a major or minor landmark would be appropriate and to what extent the development should contrast with its surroundings.

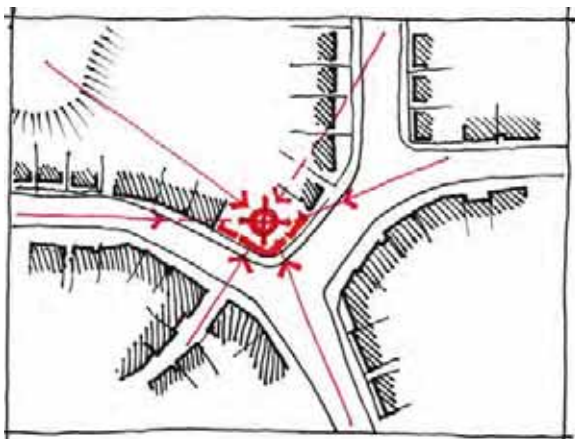


Figure 5.12 Landmark

### Enclosed Backland

5.70 The site is only partially visible from the main street frontages and is located behind street frontage properties (Figure 5.13). It may have a secluded garden context, or be in a yard-type context behind commercial properties. In most cases its main characteristics will be intimate, inward-looking and constrained by the requirements of privacy and overshadowing of its neighbours. The development should be designed to positively terminate the view into the site from the entrance, to convey a positive sense of place.

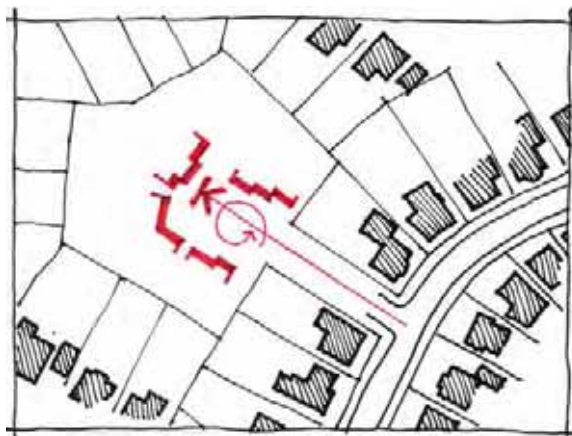


Figure 5.13 Enclosed Backland

### Edge

5.71 These sites directly address the boundary of a settlement or the interface between a built-up area and countryside, busy road, waterside or contrasting land use (Figure 5.14). In these situations it is usually critical that a positive **active frontage** faces these areas, rather than 'accidental' nondescript or dead (blank) frontage design.



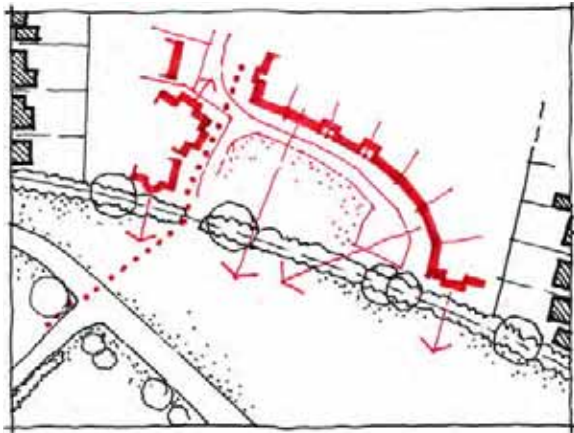


Figure 5.14 Edge

### Massing and Scale

What approach will be taken regarding the **massing** and **scale** of the development?

5.72 A key design response, both to the role of the proposed development in the street and to its site, is to consider the massing of the scheme. The massing will play a large part in determining the character of the building and its appropriateness.

5.73 For any given volume of accommodation there is a range of options to the way it can be given form or massing. These options can range from simple, flush, cubic shapes (see Figure 5.15 below), to a more modelled approach (see Figure 5.16), where various elements of the building are recessed, projected or subtly turned (to follow a street frontage etc), or perhaps to give prominence to entrances or corners. Massing can be used both to manipulate the plan shape or footprint, and heights, to give skyline interest and break down the bulk of a building.

5.74 The handling of massing can reflect the character of a scheme: whether it is formal or repetitive, or whether it is informal, as appropriate.

5.75 The orientation of the building should also be taken into account in its massing. Deep recesses on plan or elevation can provide interesting modelling on sunlit

southerly aspects, but will emphasise the lack of light on northern or north easterly elevations.

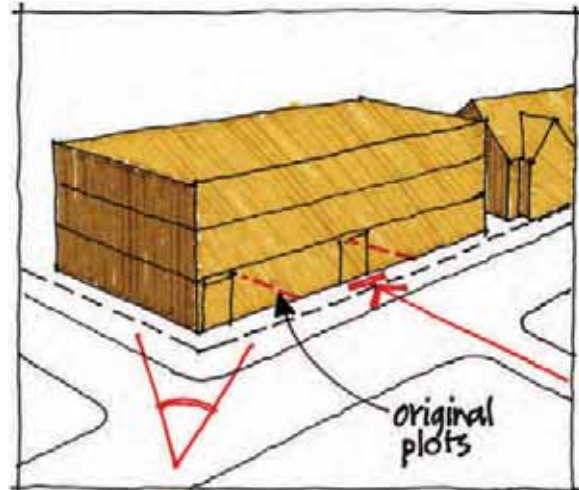


Figure 5.15 Cubic volume

5.76 Figure 5.15 shows the notional volume of the proposed building expressed as a plain cubic form, with little differentiation of its elements, nor acknowledgement of its roles in the streetscape. Its strong horizontal scale is at odds with its neighbours. The extensive flat roof emphasises this contrast. The grain of the original plots, is a key element of the scale of the street, but is ignored in the design of the elevations. There may however, be limited contexts where flush cubic forms could be appropriate.

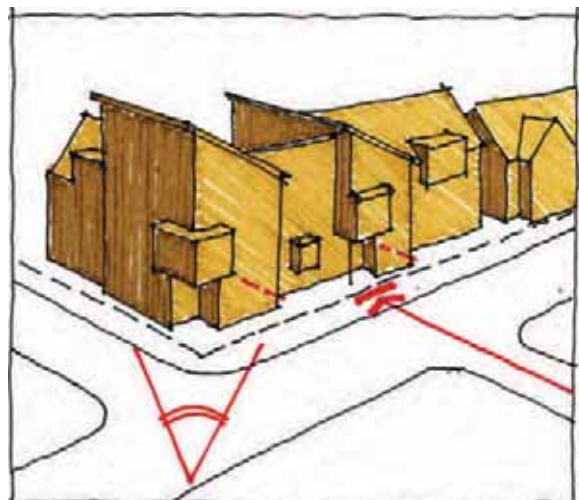


Figure 5.16 Modelled volume



**5.77** Figure 5.16 shows the same volume as in Figure 5.15 but it is expressed as a hierarchy of elements, some given prominence – at entrances, at the pivotal corner of the building and at the termination of the vista from the side street. The elements are slightly projecting or recessed – enough to cast shadows, allowing some modelling of the elevations. This helps to reflect the ‘grain’ of the original building plots. Overall, verticals and horizontals are balanced. Pitched roofs can aid the subdivision of the building and enhance its coherence.

## Landscape Design

Why is **landscape** important in considering new development and how can it reinforce sustainability and placemaking principles?

**5.78** Elmbridge is characterised by significant green areas including woodland, ancient woodland, common land, greens, farmland, rivers, reservoirs, playing fields, golf courses and parkland. Development in these green areas, on the edge of towns and villages and in sensitive and/or significant locations will affect the landscape character of the area.

**5.79** The landscape of the Borough and its local areas has been identified as a significant attraction for local residents and businesses and the Council places great importance on its protection and enhancement.

### Landscape Design: Considerations

- Landscape design should respond to the existing character so that it contributes to a 'sense of place' and integrates new development.

- Landscape plans provide the opportunity to develop visual interest and distinctiveness.
- They should also help increase biodiversity, create linkages to other Green Infrastructure areas wherever possible; and
- Develop sustainability such as SuDS through permeable landscaping and swales.

**5.80** Professional advice is usually required at an early stage to demonstrate an understanding of the existing site and surroundings and provide proposals to integrate and enhance the development as well as advising on existing trees and their protection<sup>(15)</sup>. Master Plans are a useful tool to develop and deliver a landscape design for larger sites.

**5.81** Give careful consideration to the character of the area and site based on the character areas identified in this SPD as well as:

- The design and siting of the new development in relation to existing topography, trees, other buildings, external views into and out of the site and internal views within the site.
- Site features such as hedges, ponds, terraces, paths and boundary walls.
- The presence of individual trees and groups, their condition and age and how the development could successfully integrate them to give scale and maturity.
- Potential open spaces and new areas for planting and integration of car parking and access within the development to avoid dominating the residential and landscape environment.
- The choice of hard materials (walls, surfaces) and soft materials (planting types, extent and species) which should be appropriate to the area, the scale of

15 For further information regarding trees and development, please refer to the Trees and Development Supplementary Planning Guidance which can be downloaded from the trees and planning applications web pages at [www.elmbridge.gov.uk/planning/trees](http://www.elmbridge.gov.uk/planning/trees)

development and future maintenance requirements.

**5.82** Boundary treatments should reflect those in the vicinity and security fences and gates should not be allowed to dominate the street scene. Designs should not rely on screening with fast growing conifers such as *leylandii* since these are intrusive features requiring regular maintenance and which often create shade problems for adjacent properties. The impact and effect of lighting in the landscape, particularly in large non-residential development should also be considered.

**5.83** Public realm is any part of the site that everyone can use and enjoy including streets, squares and parks. Residents and users of these spaces should feel a sense of ownership and responsibility, aided by clarity over where public space ends and where communal, semi-private or private space begins, and thoughtful use of hard and soft landscaping. The design of legible, interesting, integrated, inclusive and safe spaces is crucial to their success and should follow best practice from the design guidance produced by national organisations which are referred to in section 8. More information will also be available in the future Greenspace Strategy.

## Privacy

Can reasonable **privacy** be achieved, both within the site and with adjacent properties, either through conventional separation or through design?

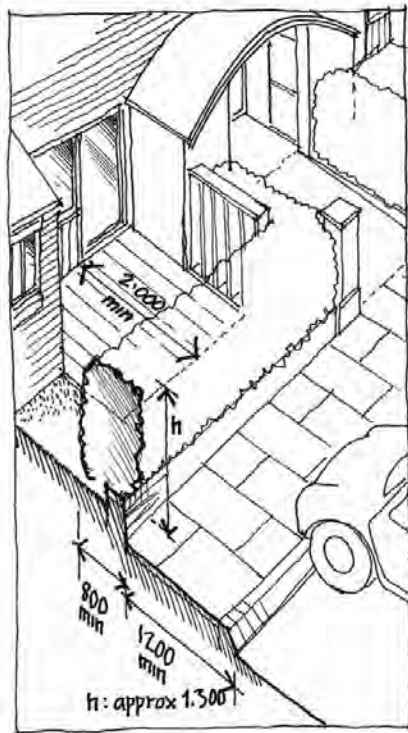
**5.84** In many cases a notional degree of visual privacy is achieved through the conventional requirement to ensure about 22 metres between rear elevations facing each other. This is generally applicable in suburban contexts. However, it may be appropriate to increase this distance in some contexts. In more compact contexts, in the centre of towns or even in some village sites, especially in infill situations, it may not be possible or appropriate to achieve the conventional distances.

**5.85** Schemes should demonstrate that visual privacy can be achieved between nearby habitable rooms and private amenity spaces, through the layout, massing and design of buildings. For instance, the juxtaposition of one room related to another, the projection or recession of different elements of the building, the use of above eye level boundaries, and the use of planting can be effective, as can the choice of window sizes and their location in an elevation. The following figures illustrate different ways of achieving privacy.



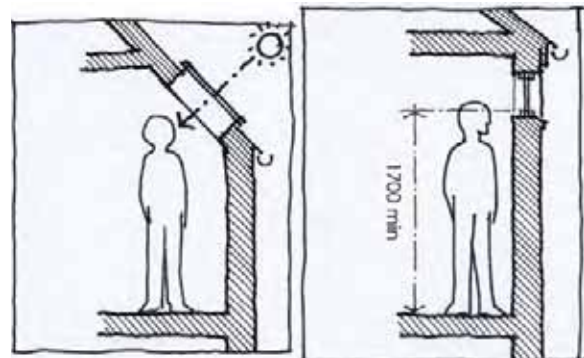
**Figure 5.17 Privacy - Terraced housing**

- Terraced housing incorporating modest ground floor projections, creating a private patio and screening of full height living room windows (Figure 5.17).
- High cill windows restricting overlooking.
- Full height slit window adjacent to a partition wall allow glimpses of the garden yet little opportunity for lateral vision.
- Fences and associate planting contribute to privacy in an attractive manner.



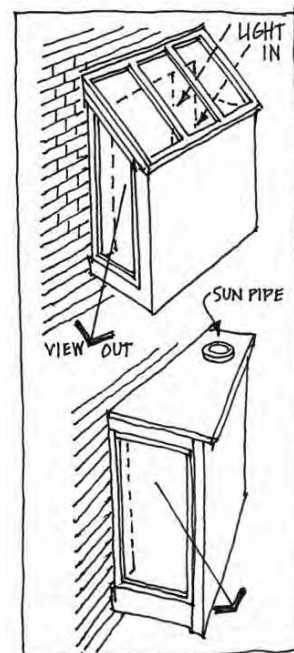
**Figure 5.18 Ground floor apartments**

- Ground floor apartments with adjacent parking bays (Figure 5.18) can often cause disturbance and a lack of privacy.
- The minimum distance between a parked car and living room window should be approximately 4 metres, with a deep 'defensive' hedge.
- Preferably a difference of level between the car hardstanding and the living room of at least 300mm should be provided, to reduce a sense of being overlooked.
- A semi private sitting out space of a least 2 metres depth should be provided outside the living room.



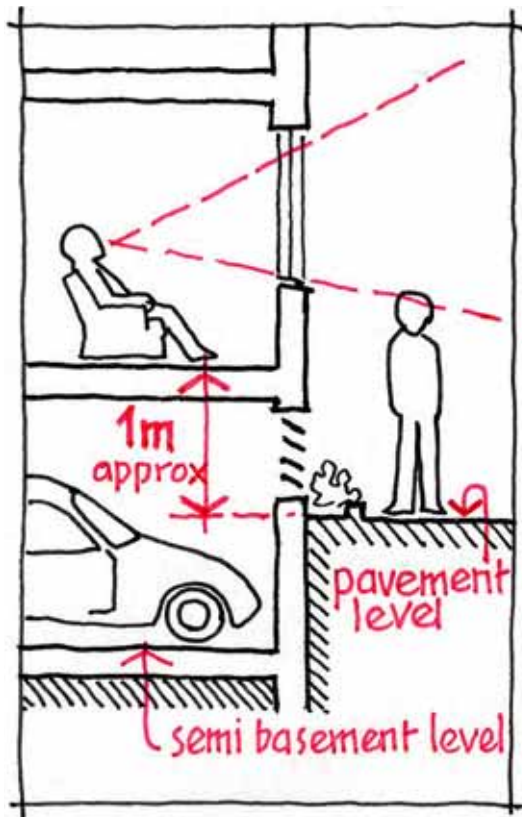
**Figure 5.19 Rooflights and high level windows**

- The use of roof lights and high level windows is effective in achieving privacy and high levels of daylighting, without recourse to obscured glazing (Figure 5.19).



**Figure 5.20 Oblique views**

- These windows (Figure 5.20) are designed to give oblique views and good sources of daylight, especially for use on flank walls adjacent to sensitive boundaries.



**Figure 5.21 Garages**

- Garaging in a semi basement should not project any more than 1 metre from ground level to habitable room level (Figure 5.21). This arrangement can afford excellent visual privacy as the cill height is at a pedestrian's eye level, whilst minimising the visual impact of parked cars.

**5.86** When positioning windows to maximise privacy, also give consideration to ensuring natural surveillance over publicly accessible spaces such as communal parking areas by avoiding blank walls and exploiting opportunities for overlooking these types of area to aid crime prevention.

## Storage (recycling, bikes and garage)

Is **storage** for cars, bikes and bins achieved in a discreet and appropriate manner?

**5.87** The need for storage space is often underestimated in the design of housing. Additionally the requirements to accommodate 'wheelie' bins and food containers for recycling and the encouragement to use bicycles for short journeys, all imply considerable space allocations.

**5.88** You should demonstrate on your plans how specific key items identified above, and others as appropriate, can be accommodated and directly retrieved.

- Figure 5.22 indicates how the storage of bicycles and recycling can be accommodated.
- Dimensions are those recommended.
- Schemes should show how basic storage is accommodated if alternative provision is proposed.
- At least two bicycles should be accommodated and accessed directly without having to move a car.
- Garage width should allow for this and have sufficient space to fully open the driver's door of most cars.
- A 3.3 metre width would also allow for wheelchair access to a car.
- The principles of Secured by Design should be incorporated to reduce the potential for crime.

For further advice and specific dimensions of bin provisions, please see the Council's 'Guidance on the storage and collection of household waste'.<sup>(16)</sup>



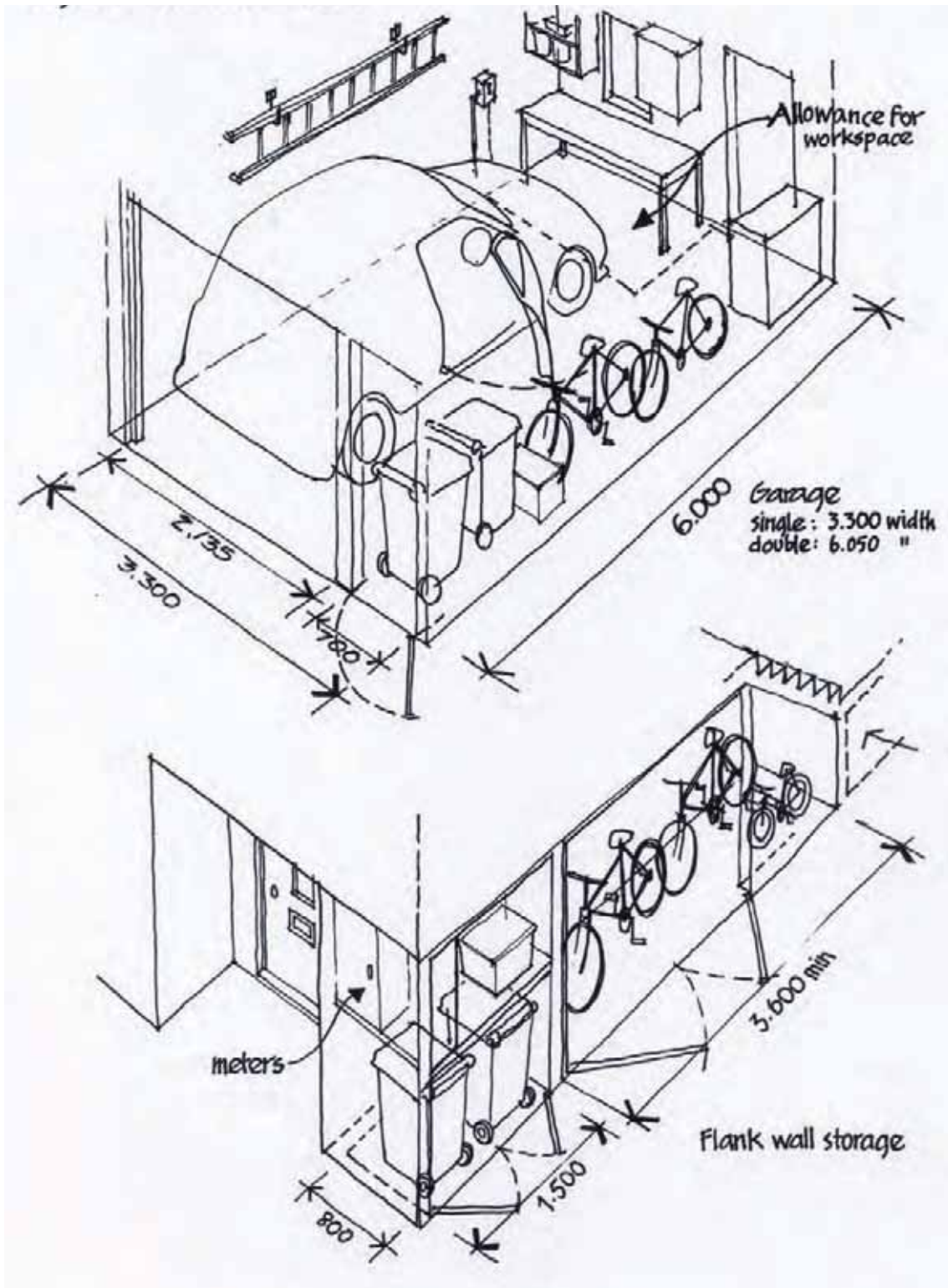


Figure 5.22 Storage - Residential

## Materials

What approach will be taken when choosing the most appropriate and sustainable **materials** for the development?

**5.89** There is now an almost limitless choice of materials, and therefore more judgement is required as to the appropriateness of the selected materials.

**5.90** Design and Access Statements should discuss your reasons for using particular materials. You will usually need to submit samples of the materials to be used on the external faces and roof of new development to the Borough Council for written approval.

**5.91** Additionally, the Planning Authority will consider the following:

- Whether the material has been sourced as locally as possible.
- The degree to which the material incorporates recycled material.
- The length of life of the material and whether it can be safely recycled.

**5.92** In sensitive contexts, the following considerations will be important:

- The effects of weathering of the material (liability to stain, lose colour or erode) and conversely whether the effects of weathering actually enhance the appearance of the material.
- The texture or absence of texture of the material related to existing materials on adjacent buildings.
- The colour of the material and its reflectance, related to nearby buildings and landscape.
- The unit size and proportions of the material, e.g. storey height prefabricated panels or large horizontal glazing units will determine the scale of a building in relation to its neighbours.

- Whether the material has been selected on the basis that it is popular or fashionable, but is likely to appear dated in a relatively short period.
- General appropriateness: e.g. timber cladding is attractive in rural and suburban contexts, but can look out of place in urban or town centre settings, or tokenistic when used in small panels.

**5.93** Consult the settlement area character assessment in the relevant companion guide regarding the predominant pattern of colours, textures and materials in a locality. Where it is not feasible to replicate these, give careful consideration to complementary materials in terms of colour, texture and unit size.

**5.94** The 'Sustainability' section at paragraphs 5.42-5.45 also provides information on building materials.

## Boundaries

How does the development relate to established **boundaries** in the street?

**5.95** The front boundary to a property is a critical interface between private property and public space. The character of the cumulative effect of boundaries in a street largely creates the character of the street, road or lane. It is therefore essential that the design of the boundary must be given the same contextual consideration as for the design of the development project as a whole.

**5.96** You should appraise the predominant pattern of boundary designs within a street as part of the initial stages of the design process. Where boundaries make a consistent and positive contribution to the character of the street, this design should be adhered to. This is equally true of conservation areas <sup>(17)</sup>, areas where village design statements have identified these features <sup>(18)</sup>, or in the sub-areas defined in the relevant companion guide where boundaries form an important aspect of local character.

17 [www.elmbridge.gov.uk/planning/heritage](http://www.elmbridge.gov.uk/planning/heritage)

18 [www.claygate.info/villagedesign](http://www.claygate.info/villagedesign)

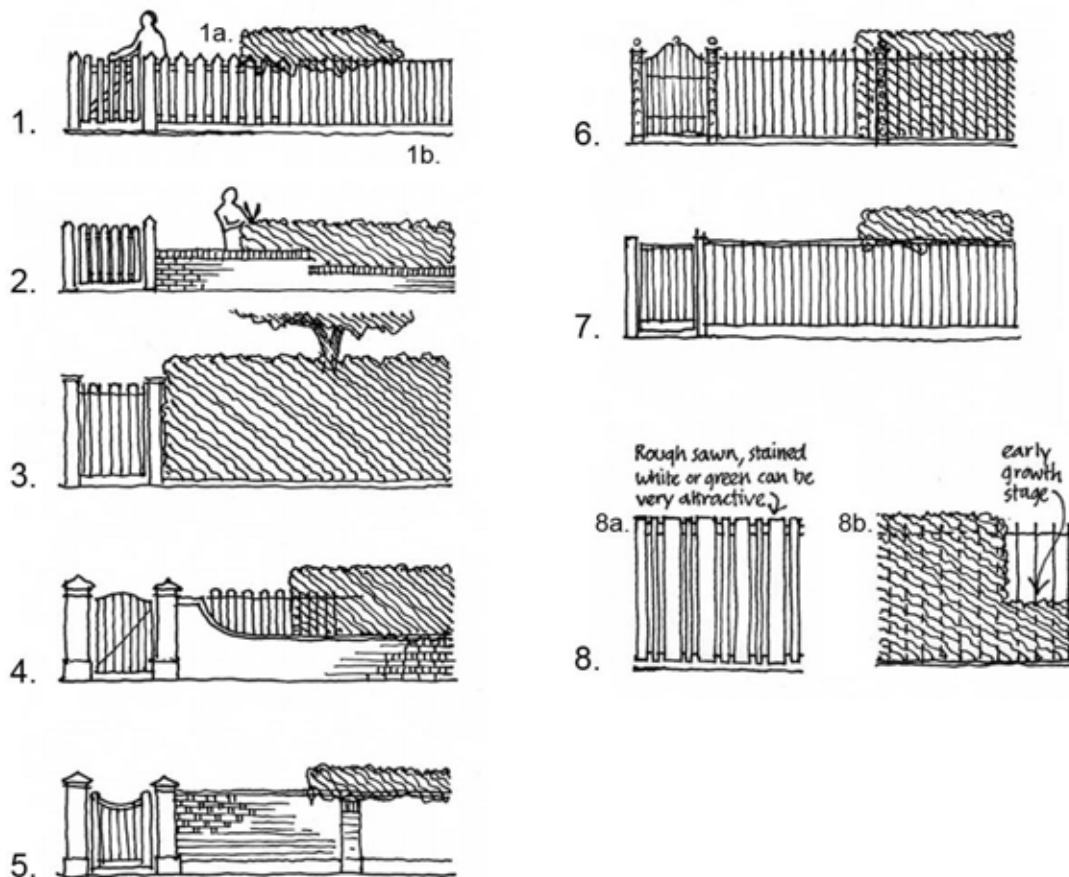



Figure 5.23 Boundary Treatments

1. **Picket fence (a):** usually in village settings or **close boarded fence (b):** usually in village or suburban contexts. Matching timber gate in both cases/types
2. **Low wall with hedge:** usually in suburban contexts
3. **Full height hedge:** usually in well established suburban settings. Often associated with extensive tree planting, creating a predominately 'arcadian' streetscape. Timber or railing gates
4. **Wall with railings and/or hedge:** usually with substantial gate piers and the wall 'swept' to full height at the piers. Mainly in towns or well established suburbs although sometimes at a large house in a village.
5. **Full height wall:** usually with substantial gate piers and intermediate piers. Brick (English garden wall bond is appropriate) with copings. Mainly in towns or well established suburbs.
6. **Full height railings:** A 'formal' boundary usually appropriate in town contexts.
7. **Full height close boarded fence:** Normally more appropriate as side or rear boundary. This can present a 'dead' frontage to a streetscape.
8. **Some other design solutions: (a)** Thick and thin alternate open boarded fence. Visually more attractive and less wind resistant than close boarded full height fencing and less formal than railings. **(b)** Railings set behind hedge planting give a softer appearance.



**5.97** In many parts of the Borough, boundaries consist of hedges and mature trees, often dominating the view down the street so that no buildings are visible. In other cases hedges are no more than about a metre high, perhaps associated with picket fences or low brick walls. In some town locations higher walls can predominate, often associated with boldly expressed brick piers. Sometimes railings are apparent, either on their own or topping a brick wall. Some developments, designed in the 1960s-70s have 'open plan' frontages as an integral part of their design concept and should be retained.

**5.98** Where strong boundary treatments are broken, ill considered contrasting design or materials can have a sharply discordant effect on the streetscape and erode its quality. Avoid long, unbroken stretches of high, blank walls or fences, as this can have a deadening effect on the street, making it feel less attractive and safe. Many of these boundary treatments are erected for security reasons, however high fences and gates can prevent active frontages, obscure natural surveillance and isolate communities.