building design

It is important that building form, architectural style, detailing and materials contribute to the character of an area. This should contribute towards distinctiveness and avoid development that could be found anywhere. Particular attention should be given to local landscape and building traditions, boundary treatments, mix of materials, scale and proportion. New buildings should fit in and make a positive contribution to their surroundings. Where no overriding context exists, efforts should be made to create a positive and distinctive character for the locality with roots in the local character of the District. The basis for any development should be to combine concerns for both sustainability and local distinctiveness.
5.1 Built form

5.1.1 Building forms should be simple and draw inspiration from local building traditions

Traditional domestic building form is remarkably consistent across South Oxfordshire, with visual differences coming more from the use of local materials and details. Simple traditional forms are the most effective in making sure buildings fit in with their neighbours and create a balanced streetscape.

Design Principles:

• Consider neighbouring properties when designing new developments. Pay attention to their position, height, mass and proportions.

• Emphasis should be placed on contemporary interpretation of local traditions to suit today’s needs.

• Base the plan form of domestic buildings, including multiple occupancy buildings on rectangular forms, with a simple double-pitched roof spanning the narrower dimensions.

• Deep plan forms with uncharacteristically wide gable ends or pyramid-shaped roofs should be avoided.

• Non-domestic buildings should use similar means to avoid overly simple, monotonous and visually intrusive forms.

• Single storey lean-to structures are a simple and traditional way of providing additional ground floor area.

• Narrow fronted detached houses, which create a discordant, gappy silhouette or building line should be avoided.

• House plans should generally be flat fronted, apart from porches, avoiding the use of unnecessary elements and projections on the façade.

• Avoid using fake design features such as ‘sash’ casements, small paneled Georgian style bow windows, self-adhesive lead lattice and gothic headed casements.

• Ensure that details taken from traditional buildings are combined with the design of buildings and in keeping with the scale of the original feature.

• Avoid using inappropriate historic details and mixing of architectural styles.

See also

• Section 2.1 • Section 2.4.1 • Section 2.4.2
• Section 3.1.3 • Section 6.2.3

5.1: A limited palette of forms grouped together helps buildings relate to their neighbours. Domestic buildings in South Oxfordshire are generally based on these forms.
5.1 Built form

5.1.2 Provide adequate storage on each plot

Sufficient storage space for cycles, bins and other equipment should be an integral part of any new building or development design. If you do not provide for such items, the streetscape and character of an area may suffer and become cluttered and unkempt.

Design Principles:

• Adequate cycle storage provision should be provided, ideally incorporated within each dwelling. Large separate bicycle storage buildings that do not benefit from good natural surveillance should be avoided.

• Bin storage provision should be in accordance with council requirements for general waste, composting and recycling.

• Storage should be accessible via the front, side or rear of plots. Residents should not have to access them through a building.

• Convenient cycle storage should be provided in workplaces, outside community facilities, shops, schools, colleges and stations. See Appendix D.

See also

• Appendix D

---

5.2: Adequate storage conveniently placed reduces street clutter. This must be balanced with protecting the character of the street scene.
5.2.1 Organise non-residential and multi-occupancy buildings into smaller elements

The external form of multi-occupancy and non-residential buildings is often generated by internal arrangement. In some cases the result is big, bulky and intrusive. Care should therefore be taken to think about the effects of the internal arrangement and ensure that the resulting external form has a rhythm and proportions that suits its surroundings and contributes to an active frontage with entrances.

**Design Principles:**

- To avoid long blank façades and single aspect dwellings, multi-occupancy and non-residential buildings should be organised with several vertical circulation and service cores rather than one large single core.
- Buildings with larger floor areas should be organised into a series of smaller modules.
- Arrangements that include ground floor units with a dedicated front entrance and a separate entrance for the upper floors are encouraged.
- Entrances to both the ground and upper floors should be regularly spaced and repeated to achieve an active frontage to the street.
- Licencing, food safety and health and safety issues may have an impact on building design.

5.2.2 Design adequately sized rooms

Domestic buildings should stand the test of time and have the potential to be adapted to the changing needs of their occupiers. Rooms and circulation spaces should therefore be designed so that you can be flexible in their use over time.

**Design Principles:**

- Where possible, designs should follow principles described in; ‘Meeting Part M and designing Lifetime Homes’, Joseph Rowntree Foundation; ‘Standards and quality in development – A good practice guide’, National Housing Federation.

**See also**

- Section 3.2.2 • Section 3.2.3 • Section 3.2.6
- Section 3.2.4 • Section 3.2.8 • Section 5.2.1
- Planning and Noise - A Developer’s Guide

5.3: Spacing entrances at regular intervals creates active street frontages
5.3 Roofs

5.3.1 Keep roofs simple

Individual roof shapes should be kept simple and uncomplicated and the combination of roofs in larger developments should create a varied roofscape.

**Design Principles:**
- The predominant roof form in the District is a simple double pitch with gable ends.
- Hipped or half-hipped roofs are also found in certain localities and should be an exception; contemporary roof configurations may also be considered.
- Pitched roofs should cover simple spans with the pitch mostly running parallel to the street; fussy rooflines should be avoided.
- The roof should express the building form rather than obscure it.
- The roofscape in larger developments can be varied through sensitive grouping of buildings with different roof pitches and/or eaves levels; very long monotonous runs of buildings with the same roofline should be avoided.
- The roofs of large non-domestic buildings should be broken up into smaller spans or modules to reduce the visual bulk of the buildings.
- The position of downpipes should be integrated with the design of the roof and façade to minimise the visual impact of the pipes.

See also
- Section 5.3.2 • Section 5.3.3 • Section 5.3.4 • Section 7.3.1

5.4 Roofs should be kept simple and reflect the predominant forms found in South Oxfordshire
5.3.2 Use an appropriate pitch for the type of roof

**Design Principles:**

- The roof pitch should suit the material. In most cases tile roofs should be between 40 and 50 degrees; thatch and clay tile roofs are normally more steeply pitched and slate roofs have a shallower pitch.

- Unequal main pitches, flat, shallow or very steeply pitched roofs should be avoided unless there is specific, significant justification on grounds of sustainability.

- Subtle changes of pitch between adjacent buildings can be used to create a more varied roofscape.

- Very wide roof spans which result in over-large roofs or over-shallow pitches should be avoided. Parallel pitched or lean-to roofs can accommodate a deeper plan.

- In exceptional circumstances, you can use roof pitches between 35 and 40 degrees for a deeper plan house or lean-to.

**See also**

- Section 5.3.1 • Section 5.3.3 • Section 5.3.4 • Section 7.3.1
5.3 Roofs

5.3.3 Use the appropriate roofing material to suit the local area

**Design Principles:**

- The most common local natural roofing materials, which include thatch, clay tiles, stone slates and natural slate should be used wherever possible to maintain local identity.

- Plain red clay tiles or natural slate roofs (often with clay ridge tiles) are the predominant roofing materials in most locations.

- Thatched roofs are particularly suited to fit in with groupings of other thatched properties. The traditional thatch in South Oxfordshire is long straw with flush ridge treatments.

- Concrete tiles, fibre-cement and pantiles should be avoided.

- Alternatives with a specific, significant justification on grounds of sustainability may be considered but must be balanced with maintaining local identity.

**See also**

- Section 5.3.1 • Section 5.3.2 • Section 5.3.4 • Section 7.3.1
5.3.4 Keep the design of eaves and verges simple

Design Principles:

- Verge and eaves details should suit the form and style of the building as well as its location.
- Simple, trim detailing should be used for eaves and verge with the aim of producing simple, uninterrupted eaves lines.
- The use of standard, modern boxed eaves with projecting fascia, flat soffit and projecting bargeboards should be avoided.
- Over-elaborate decorative detailing of eaves and verges should be avoided.

See also

- Section 5.3.1 • Section 5.3.2 • Section 5.3.3 • Section 7.3.1
5.4 Dormers, rooflights and solar panelling

5.4.1 Incorporate dormer windows, rooflights and solar panels with care

Design Principles:

- Pitched roofed gabled dormers and ‘cat slide’ dormers are the most typical of the District and are usually set at eaves level.
- Dormers should be incorporated to provide light into the roof space and not to add head-room. They should not be used as regular repeating features within the rooftopscape.
- Dormers should be positioned so that they line up with openings on the main façade.
- Dormers should not be larger than the windows in the wall below. Avoid large flat-roofed, boxy dormers.
- There should be sufficient space around dormers so they are not too close to verges, hips or ridges.
- Rooflights can be an acceptable alternative to dormers but should be used sparingly. Position them on rear elevations and set flush with the roof.
- Rooflights with a vertical emphasis tend to be most appropriate and like dormers should be aligned with windows in the main façade.
- Rooflights should be integrated into the roof structure. Ideally flush mounted and incorporating a vertical bar and thin external surround.
- Sunpipes may be installed in roofs to channel daylight through roof spaces to supplement areas with limited or no natural light provision. Designs should be selected that are appropriate to the location.
- We now have the technology to convert solar energy into usable heat or power. Examples of this include, solar panels and photovoltaic cells. Solar panels collect heat by passing water through matt black pipes. They usually provide heat for domestic hot water systems and swimming pools. Photovoltaic cells generate electrical current, which is stimulated directly when they are exposed to solar radiation.
- Solar heating systems are now available that can be incorporated within the construction of a roof. They can be flashed and flush mounted, or mounted directly on to its surface with minimal visual impact. Particular care will be needed on sensitive sites.

See also
- Section 6.4.3 • www.uk-ises.org
- www.solartradeassociation.org.uk

5.9: Pitched roofed gabled dormers, shown above, and ‘cat-slide’ dormers are the most prominent dormer windows in South Oxfordshire
5.5.1 Include chimneys

Include chimneys on new buildings where possible and especially in selected prominent locations

**Design Principles:**

- The most common position for chimneys in the District is centred on the ridgeline with an internal breast. They are usually made of stone, render or brick with a terracotta pot and corbelled weathering courses.

- An integral chimney or internal breast helps to reduce heat loss. If an external chimney-stack is used it should be wide enough to be proportionate to its height.

- Gas flues and vent outlets should be combined into a service core with a chimney or chimney-like structure for dwellings without fireplaces; chimney-like features might also be incorporated for natural ventilation.

See also

- Section 5.3
5.6 Façades and elevations

5.6.1 Ensure buildings turn the corner

Design Principles:
- Buildings on corners and other prominent locations should be specially designed to turn the corner with windows or doors on both front elevations.
- Avoid exposed, blank gable ends with no openings.

5.6.2 Balance areas of openings and solid wall

The proportion of wall (solid) to openings (void) on any building façade should both maintain local distinctiveness and achieve good thermal performance. Maintaining local distinctiveness and meeting the targets of building regulations for higher levels of insulation can be achieved by using traditional proportions of window to wall.

Design Principles:
- Traditional buildings in the District usually have a ratio of about 2:1, solid to void (one third glazed) often with relatively few and small openings helping to reduce heat loss.
- Depending on the orientation of the wall and the overall heating strategy, the total area of windows and door openings should not exceed this ratio; variations from this should be based on specific grounds of sustainability and thermal performance.
- Only use openings at the corners of buildings in exceptional circumstances such as special corner buildings.

See also
- Section 3.2.1
- Section 5.6.3

5.11: Ensuring buildings turn the corner and do not present a blank gable end improves the streetscape and encourages natural surveillance
5.12: On traditional building limit the number and size of the openings to help reduce heat loss
5.6 Facades and elevations

5.6.3 Keep façade design simple

The arrangement of façades most characteristic of the District is to keep windows and doors aligned both vertically and horizontally. This results in a simpler, more visually settled appearance.

Design Principles:

- Most buildings in the district keep to the principle of aligning windows and doors vertically and horizontally.
- Avoid crowded façades and arrangements that are almost, but not quite, aligned.
- Keep the design of narrow façades as simple as possible. Use single openings instead of pairs side-by-side.

See also

- Section 5.6.2

5.13: Vertical and horizontal alignment of openings, top left, is visually more settled while the lack of vertical alignment, top right, is more visually disruptive
5.7 Walls

5.7.1 Use materials and details that are typical of the local area

Good quality design relies on the choice and combination of materials. You can achieve a richness of design through careful detailing. Using local materials, which vary across the district, reinforces the character and identity of locality whilst reducing the need for transport. Depending on context, contemporary materials can be used to produce innovative and unique buildings.

Design Principles:

- For larger developments, ensure that there is consistency with local colours. Carry out a colour study of an area to establish the mineral setting and chroma.
- Consider the variety and texture of local materials that can be used to influence construction details and architectural form.
- Consider the life-cycle environmental cost of construction; the cost of extracting raw materials, their renewable nature, energy cost in the manufacturing process, transportation to site and ease of reuse or recycling.
- Minimise visual intrusion from agricultural and industrial buildings by avoiding bright intense colours. Choose subtle colours that reflect the context of the site and make roofs darker than walls.

As a result of its varied geology, South Oxfordshire has a mix of traditional walling materials, including limestone, brick, flint and chalk (clunch). Where possible use local materials and design details in order to reinforce local identity and maintain the character of different parts of the district.

Limestone

- For buildings within the Oxford Heights, use local limestone or natural limestone with a similar colour, texture, internal structure and unit size.
- Artificial or reconstituted stone should only be used if it is sufficiently similar in colour, texture, and unit size to local natural stone.
- In larger developments, try to be consistent with wall and roof materials. Use simple and neat detailing avoiding too wide a range of materials.
- Lay and point stonework in the traditional manner. Avoid ‘ribboned’ or struck mortar which stands proud of the stonework.
- Use lime mortar as far as possible rather than hard cement mortar.
- Avoid sawn stone facing.
- Exposed stonework and render can be used on the same façade but each should be applied to distinct elements or compositional units of the building. Avoid inappropriately small or token areas of materials.
5.7 Walls

Brick and flint

• Outside of the Oxford Heights brick is a common and appropriate building material.

• Use bricks of an appropriate colour for the area, usually shades of orange/red and terracotta with limited use of grey for contrast.

• Only use colours such as yellow, buff, blue, burgundy, brown or salmon pink if they reflect the local character.

• The texture of bricks should match those typical of the area. Ideally they should be handmade or appropriately machine textured.

• Avoid concrete, artificially rusticated or smooth faced engineering bricks.

• The use of flint together with brick is generally only appropriate in the Chilterns and North Wessex Downs areas.

• Flint should be knapped, usually presenting the internal surface. The size of flints should be relatively small and consistent and pointing should be kept to a minimum.

• The patterns typical of the area such as chequer Flemish Bond, stripes/bands, diaper and diamond panels should be used, avoiding preformed flint panels, token detailing and excessive use of stretcher bond.

• Flint panels should be big enough so they do not look like token features. Combined with brick, the flint should dominate with the brick used for quoins, surrounds and eaves.

• As far as possible use lime mortar rather than hard cement mortar.

• Pointing should be slightly recessed rather than flush or ‘struck’ unless this reflects local circumstances.
5.7 Walls

Timber

- Horizontal timber weatherboarding is particularly characteristic of barns and some buildings in the Chilterns and North Wessex Downs.
- Traditional structural timber framing is encouraged. Care should be taken with the extension of existing timber frame buildings to maintain their structural integrity.
- Applied or mock timber framing should be avoided.

Other finishes

- Render is characteristic of some parts of the district, typically coloured with natural pigments ranging from off-white to ochre using lime render.
- Natural materials such as rammed earth and wattle and daub can be used in the appropriate areas. Ensure that the material is allowed to breathe in both the new and existing building.
- Modern materials should be used with care to maintain local character and achieve the aims of thermally efficient and sustainable building.
- Brick is used in a variety of patterns across the district. Attention should be paid to the details and brick colours which are typical of the area. Raised pointing is more common in Sussex and Norfolk and is not appropriate in South Oxfordshire.

See also

- Section 2.1 • Section 2.4.2 • Section 3.6.6
- Section 4.3.4 • Section 6.3.9 • Section 7.2.2

5.17: The use of timber weather boarding is most appropriate to a rural or agricultural setting.
5.8.1 Design windows to enhance the character and appearance of buildings

The design of windows is one of the most important factors influencing both the character and appearance of buildings and their thermal performance. Certain styles suit certain types of building and traditional window designs will not be appropriate everywhere. The aim should be to maintain local distinctiveness and achieve high standards of thermal efficiency. In trying to strike that balance a key principle is to use and adapt the proportions and details characteristic of traditional styles.

**Design Principles:**

- The windows typical of the district are subdivided into rectangular panes of the same shape and size with a vertical orientation. They are usually horizontally and vertically symmetrical.
- The use of a single horizontal glazing bar is a regular feature of windows of domestic buildings in South Oxfordshire, as is white painted glazing bars and a black sub-frame.
- Buildings in a traditional style should use windows appropriate to the style; fake traditional styles of window should not be used.
- Divide larger areas of glazing into vertically oriented sub-units with proportions similar to windows typical of the area; large undivided areas of glazing should be avoided, particularly on domestic buildings.
- The subdivision of the window should, in general, be symmetrical about the horizontal and vertical axis, with a regular arrangement of areas of glass. Avoid over large and fake glazing bars.
- Where possible use a regular size of pane for all windows to help unify openings of different sizes.
- Shutters should not be added unless they are functional. They should be in keeping with the style of the property and local area, and are simple, hinged timber panels.
- Recess windows by at least 50 millimetres into the wall, particularly on masonry buildings and cases where there are few other details to provide relief to the elevation.
- Windows with a vertical emphasis, which are symmetrical about the horizontal and vertical axes, and which have a regular arrangement of areas of glass and thin glazing bars are preferable.
- Segmental arch or flat arch brick lintels are preferable to soldier courses.
- Windows with a horizontal emphasis, with night vents or an irregular arrangement of glass and glazing bars, should be avoided.

**See also**

- Section 5.6.3 • Section 6.3.8

---

5 18: Windows with a vertical emphasis, a regular arrangement of areas of glass, thin glazing bars and symmetry about the horizontal and vertical axis enhance the character and appearance of a property and reflect the predominant designs found in South Oxfordshire
5.8 Windows and doors

5.8.2 Keep doors simple with styles that suit the character of the building

Design Principles:

- The most characteristic door for smaller cottages in rural areas of the district is a timber ledged, braced and boarded door. In urban areas, or for larger properties, timber four or six panelled doors are most characteristic, and contemporary alternatives may also be suitable.

- Use simple, well-proportioned door designs, avoiding ornamental or mock historical styles such as fan-light doors.

- Avoid using doors with large glass panels on domestic buildings. However they may be appropriate for other types and uses such as shared entrances to flats or sheltered housing schemes.

- Replacement doors on historic buildings should match the age and character of the property and fit into existing openings without changing the frame.

- Only use glass sliding doors on the rear of buildings as part of a passive heating and ventilation strategy. Ideally they should be sub-divided into vertically oriented sub-units with proportions similar to doors typical of the area.

- Keep door furniture simple and in keeping with the style of the building. Avoid using mock historical styles.

- Recess doors by at least 50 millimetres into the wall, particularly on masonry buildings and cases where there are few other details to provide relief to the elevation.

See also
• Section 6.3.8

5.19: Simple boarded doors, top left and lower right, are characteristic of cottages and rural areas. Front and six panel doors are more typical of towns and urban areas.
5.8.3 Use traditional materials and finishes for doors and windows

Design Principles:
- Hardwood and softwood with a painted finish are the most characteristic materials for doors and windows. If properly maintained, painted timber windows last longer and cost less (including maintenance) than alternatives.
- Use timber from sustainable sources.
- Avoid aluminium, UPVC, and tropical hardwood windows and doors, especially as replacements in older buildings.
- Ask for the Council’s Conservation and Design Team’s advice when replacing windows in older properties.

See also
- Section 5.7.1 • Section 4.3.4
5.9.1 Ensure porches make an appropriate and positive contribution to the appearance and design of buildings

Design Principles:

- The porch should match the proportions, architectural style and materials of the main building. It should not look as if it has been added as an afterthought or for purely decorative effect.
- Open porches, canopies and hoods are more easily integrated with the building.
- Avoid large, flat-topped or over-large porches.
- Whether as part of a new design or an addition, porches should be as small as possible but still provide shelter from the weather.
- On porches with a pitched roof, the pitch should be as close to that of the main roof as possible.

See also

- Section 5.8
5.10 Details and decoration

5.10.1 Minimise the impact of installations

Satellite dishes and other installations that need to be externally mounted can have a significant harmful effect on both an individual building’s appearance and the character of the area as a whole. The location, size, colour etc. of these elements should therefore be considered carefully.

Design Principles:

- Meter boxes should be sited conveniently for external access but be located so as not to have a detrimental visual impact on principal building façades.
- Choose boxes that are in keeping with the materials used in the buildings.
- Position dishes away from principal building façades.
- Install alternative television systems, such as cable, in developments wherever possible.

See also

- Section 7.3.2

5.22: Minimise the impact of installations by positioning dishes and meter boxes away from principal building façades
5.11 The potential to extend and change

5.11.1 Design houses so that future generations can extend or change them

Design Principles:
- Ensure the structural shell of the building allows for modification and extension.
- Design the form and internal layout of smaller houses (two-bedroom and smaller) so that they can be changed in the future.
- Deep, square plan buildings and narrow-fronted houses (less than 6 metres) are more difficult to extend.
- See section six for more guidance on house extensions.

See also
- Section 3.2.7 • Section 3.2.8

5.23: Flexible plot and building layouts ensure that dwellings may be adapted or extended to suit changing needs