

Appendix 1 Southwell Design Codes

Table DH1: Identifies all the Design Codes to be applied in the Neighbourhood Area. To enable simple application and referencing, a prefix has been created for each code and the third and fourth columns show which codes are relevant within the Countryside and Settlement Focus Areas respectively.

Focus Areas	Design Code Name	Design Code Abbreviation	Design Code applied to Countryside Focus Areas	Design Code applied to Settlement Focus Areas
Heritage Assets	Heritage Assets	HA	A,B,C	1,2,3
Built Forms Materials and Detailing	Layout General	LG	A.B.C	1,2,3,4
	Context	C	A,B,C	1,2,3,4
	Formal Building Lines	FBL	/	5
	Informal Building Lines	IBL	A.B.C	1,2,3,4
	Linked Buildings	LB	/	1,2,3
	Uniform Roofline	UR	/	1,2,3,4
	Varied Roofline	VR	A,B,C	1,2,3,4
	Flats and Apartments	FA	/	1,5
	Terraced Properties	TP	/	1,3,4
	Semi-detached Properties	SDP	A,B,C	1,2,3,4
	Detached Properties	DP	A,B,C	1,2,3,4
	Material Colours	MC	A,B,C	1,2,3,4,5
	Types of Materials	TM	A,B,C	1,2,3,4,5
	Historic/Heritage Detailing	HHD	A,B,C	1,2,3,4,5
	Facades	F	A,B,C	1,2,3,4,5
	Windows and Doors	WD	A,B,C	1,2,3,4,5
	Roofscapes	CR	A,B,C	1,2,3,4,5
	Dormers and Rooflights	DR	1,2,3,4	1,2,3,4,5
Movement and Accessibility	Primary Street	PS	/	1,3,4
	Town Street	TS	/	1,2,3,4,5
	High Streets	HS	/	1,3
	Rural Lane	RL	A,B,C	/
	Non-vehicular Movement	NVM	A,B,C	1,2,3,4,5

Focus Areas	Design Code Name	Design Code Abbreviation	Design Code applied to Countryside Focus Areas	Design Code applied to Settlement Focus Areas
Natural Environment Features	Biodiversity and Natural Features	BNF	A,B,C	1,2,3,4,5
				1,2,3,4,5
	Recording	R	A,B,C	1,2,3,4,5
	Protection	P	A,B,C	1,2,3,4,5
	Buffer Strips	BS	A,B,C	1,2,3,4,5
	Woodland,	W	A,B,C	1,2,3,4,5
	Trees, and Hedgerow	TH	A,B,C	1,2,3,4,5
	Constraints	CON	A,B,C	1,2,3,4,5
	New Planting	NP	A,B,C	1,2,3,4,5
	Treatment of Non-woody Herbaceous Plant Species	TNWHPS	A,B,C	1,2,3,4,5
Flood Resilience	Water and Drainage	WD	A,B,C	1,2,3,4,5
Sustainable Design	Energy Saving	ES	A,B,C	1,2,3,4,5
Utilities and External Storage Spaces	Cycle Storage	CS	A,B,C	1,2,3,4,5
	Utilities	U	A,B,C	1,2,3,4,5
	Refuse storage	RS	A,B,C	1,2,3,4,5

Settlement Focus Areas (SFA)

The Neighbourhood area's settlements consist of several characterful communities made up from a variety of housing types and architectural styles. With the settlements being the primary focus of future development, each will be analysed. This will provide insight into the unique identities that future development should respond to in a respectful

Countryside Focus Areas (CFA)

In much of the Neighbourhood area, the surrounding countryside provides a strong visual character; a combination of the impressive landscape, buildings of architectural and historical significance and areas of ecological importance.

SFA 1: Southwell Town Centre

The core of the town where the original centre of Southwell; home for a large number of listed buildings.

SFA 2: Historic Houses

Most privileged area of the town; elegant detached properties hidden behind large gardens.

SFA 3: Western Historic Street

An extension of the historic core; presenting a lower density and large detached dwellings.

SFA 4: Modern residential communities

The modern growth of the town, mainly during 20th century from 30s to 90s.

SFA 5: Commercial and Social Facilities

Two small areas of employment area to the east corner of the town, and two education facilities to the south, located within countryside.

CFA A: Functional countryside

A countryside area consists of golf courses, solar farms, fish lakes and other sports or commercial uses.

CFA B: Historic Open Spaces

This area acts as part of the Southwell Conservation Area, present the richness of the history of the town.

CFA C: General Agricultural Land

Open countryside surrounds the town; most areas are for agricultural land uses.

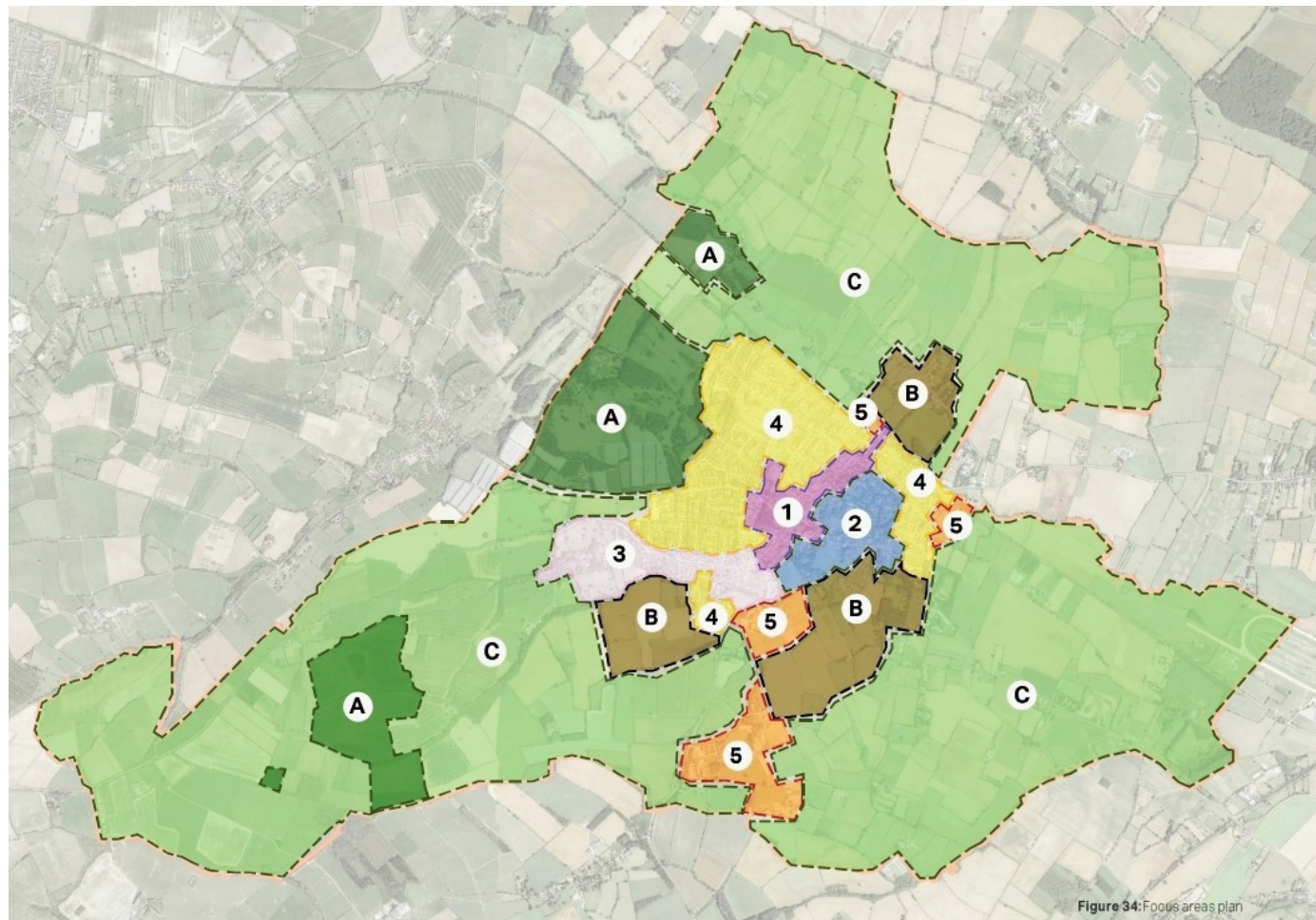


Figure 34: Focus areas plan

Design Codes

The Design Codes set out in this Schedule have been significantly influenced by local precedents and also wider best practice. They cover seven core design topics:

- Heritage
- Built Forms
- Nature Environment Features
- Flood Resilience
- Sustainable Design
- Utilities and External Storage Spaces.

Consideration must be given to the Codes for all topics, as they relate to the Focus Area in which the site is located, when development is being designed.

Code HA - Heritage Assets

1. All new developments must be respectful of the scale and massing of the historic built form.
2. Low-quality designs that do not successfully assimilate with the historic built form will not be permitted.
3. Development must not impede key long-distance views of the countryside at town fringe areas. Removal of green spaces and verges within the study area and mature foliage and trees within conservation areas should be avoided.
4. New developments must seek to incorporate elements of the local vernacular.
5. Better management of exterior advertisement and signage is required to increase visual harmony within the historic and redeveloped high street and town centre.

Code LG – Layout General

1. All new buildings must be designed to avoid long blank walls fronting onto the street, creating a strong building line and a sense of place with an animated street scene, as well as ensuring a secure environment with a measure of passive, natural surveillance. Streets must be designed as a whole to avoid 'gappy' silhouettes, and to ensure that a strong building line is created and, where appropriate, reinforced.
2. New developments must be designed so as to offer a sense of enclosure and create a clear differentiation between spaces and their purposes - for example parking and amenity spaces.
3. Houses must be grouped or staggered and not built in regimented rows, in order to offer variation in the street scene and reinforce strong enclosure of the street and a frontage which interacts well with the wider context.

4. Corner buildings as well as structures located in other prominent gateway locations should be designed so as to emphasise, and appropriately turn, the corner (possibly through a chamfered edge).
5. Blank and exposed gable ends are to be avoided due to their lack of interaction within the surrounding street scene.

Code C - Context

- 1) All new development must respond to the unique characteristics of the site and its context. Proposals must take the lead from the local vernacular of existing buildings when considering orientation, form (density, mass, height, layout, building line) and function (use) of existing development at the boundaries of the development site. Moreover, consideration should be given to how the siting of the new development reinforces the building line and streetscape.
- 2) Proposals for development must demonstrate their compliance with the existing characteristics of the area, such as building shapes, form, layout, styles, colours and materials from which the proposed development can take inspiration. It is recommended that applications for new development are supported by a vernacular study detailing how proposals integrate with existing character.
- 3) Development that, in its design, is inappropriate or uncharacteristic within the context of Southwell must be avoided. Standardised development solutions will be deemed unacceptable and will not be supported.
- 4) All new development must seek to create a place with a locally inspired or distinctive identity. Variations in density, height and style can help create areas with different character.
- 5) Too many identical or similar house types (where there is no benefit to the overall architectural integrity of the scheme from repetition) must be avoided.
- 6) Planning applications relating to sites within the view cones of the NSDC Protected Views policy (SoPV) and the Southwell Conservation Area, where the development will affect the local intimate views, setting or sense of place surrounding historic artefacts, must include an objective assessment of the effects the development will have on these matters. This can be in the form of an artist's scaled drawings or photography from critical viewpoints or techniques such as axonometric modelling. In the case of trees this should comply with the recommendations of BS 5837, the National House Building Council Standards Chapter 4.2 Building near Trees and the ultimate crown size of species based on Arboriculture Research note 84/90/ARB.

Code FBL – Formal Building Lines

- 1) Formal building lines can be applied within the medium-higher density development in Southwell or the area where the housing typology is generally uniform.
- 2) This type of building line can be applied where the development sits adjacent to/ within the residential area with urban settings.
- 3) The layout of developments shall be permeable in order to provide legible connections through the area and beyond.
- 4) Linked buildings can be found in Southwell town central area.

- 5) Lines of linked building generally have a higher density and the length can reach up to 60m.

Code IBL – Informal Building Lines

- 1) Informal building lines can be applied within lower density developments.
- 2) Developments with informal building lines are usually characterised by larger plots, generously sized gardens, or with greater provision of open space.
- 3) The alignment of new building lines must respond to the context of surrounding landscape.
- 4) Properties should provide gardens in the front and rear, or a small buffer as a minimum.
- 5) The layout of developments shall be permeable in order to provide legible connections through the area and beyond.
- 6) This type of building line can be suitably applied where the development faces the open countryside, or open space or the edge of development.

Code LB – Linked Buildings

- 1) Linked buildings can be found in several central Southwell character areas.
- 2) Lines of linked building generally have a higher density and the length can reach up to 60m.
- 3) The layout of developments shall be permeable in order to provide legible connections through the area.

Code LR – Uniform Roofline

- 1) Uniform rooflines can be applied in the areas where urban settings/ higher density can be encouraged.
- 2) Uniform roofline can be applied in areas when the development rhythmically uses several uniform housing typologies.
- 3) 3 or 4 buildings with the same roof height can form the uniform roofline.
- 4) Roofing materials, eaves, pitch, verge details, chimney stacks, or other features visible above the ridge line must be carefully considered to create uniform roofline that reflects the surrounding context of the site.

Code VR – Varied Roofline

- 1) Buildings of various heights can be found in Southwell's Historic Core and other areas that are heavily influenced by the slope and view of the open countryside. Such variety positively contributes to the character of Southwell.
- 2) This roofline must be applied in the area where the development meets the countryside's edge to retain its rural character.
- 3) Roofing materials, eaves, pitch, verge details, chimney stacks, or other features visible above the ridge line must be carefully considered. These features may be diverse to create a varied roofline, while still respecting local character.

Code FA – Flats and Apartments

- 1) When delivering new flats and apartments, or converting existing buildings to flats and apartments, care must be taken to ensure that, wherever practicable, the creation of single aspect dwellings is avoided. Where this is not possible, such as with the conversion of some existing historic buildings, then applications must clearly demonstrate this through their submissions.
- 2) When developing larger schemes of this type, they must be disaggregated into smaller elements, to ensure that the development does not appear as a single mass or block.
- 3) Access points must be arranged and spaced to ensure that there is a regular active frontage that addresses the public highway and reinforces the rhythm of the street. Designs should avoid introducing large blank façades to the street, or present only kitchen and bathroom windows to publicly accessible areas.

Code TP – Terraced Properties

- 1) Mainly 2 Storeys, with 3 storeys for prominent or identified key buildings. Street scale needs to be considered. Wider primary routes should have larger-scale buildings.
- 2) Typically, simple pitched roof volumes. Projecting elements must be considered on key buildings to help demarcate corners.
- 3) Consistent setbacks to be provided to achieve well-defined street compositions.

Code SDP – Semi-detached Properties

- 1) Mainly 2 Storeys, with 3 storeys for key building locations.
- 2) Typically, simple traditional forms with the occasional projecting elements. Projecting elements must be considered on key buildings to help provide corner articulation.
- 3) Setbacks should be consistent, with only a small variation between buildings to provide a more formal street composition.
- 4) Buildings must strongly relate to the street, although a varied frontage is acceptable. Adjoining semi-detached properties should match unless on a corner.

Code DP – Detached Properties

- 1) Mainly 2 Storeys, with 3 storeys for key building locations and 1 story for bungalows.
- 2) Variable frontages should be provided through more informal building placements between plots.
- 3) Building massing should be varied with greater use of mixed roof styles and projecting gables to create varied streetscapes.
- 4) Building orientation is not required to conform to any joint relationship with adjacent properties, however frontages should positively address the street.
- 5) Variation permitted to the ridge and roof lines. Individual buildings must accommodate any topographical changes between units.

Code MC– Materials: Colours

- 1) All new development must consider the variety and textures of local materials that can be used to inspire the design and form of the proposals. It is recommended that a vernacular study be undertaken detailing how local materials have been considered in the design approach, as well as the rationale for the choice of materials that are to feature in the development.
- 2) All new development must ensure that there is consistency with existing material colours. Colour should be considered as part of the recommended vernacular study.
- 3) The dominant construction material in the Southwell Parish area is local brick and therefore shades of orange/red/ terracotta are the dominate colour. Stone constructed properties do exist (built from the local natural stone), but these are uncommon.
- 4) Visual intrusion from agricultural, industrial and other non-residential buildings must be minimised by avoiding bright colours. Subtle colours that reflect the context of the site and the Parish are preferable.

Code TM – Types of Materials

- 1) Local bricks or bricks of an appropriate colour for the area (usually shades of orange/red/terracotta) must be the predominant construction material. The texture of bricks must also match those typical of the area. Bricks ideally should be handmade or appropriately machine textured. Concrete, artificially rusticated and smooth faced engineering bricks must be avoided.
- 2) Artificial or reconstituted stone must only be used if it is sufficiently similar in colour, texture, and unit size to that of the local natural stone. Stonework must be laid and pointed in the traditional manner. Sawn stone facing must be avoided.
- 3) Finishes other than brick and stone do exist within the Parish area and can be used when appropriate. Render is characteristic of the town, typically coloured with natural pigments (ranging from off-white to ochre) using lime render. Modern materials can be used to achieve the aims of thermally efficient and sustainable building but should be used with care so as to protect the local character and identity of the area. Applied or mock timber framing should be avoided as it is uncharacteristic of the Parish.
- 4) New development must clearly demonstrate consistency with wall and roof materials. A wide range of materials per dwelling must be avoided. A simple and neat approach to detailing is recommended.
- 5) Boundary treatment must reflect that found within the local vernacular. Brick walling is most appropriate in the town centre, whereas at the peripheral parts of the settlement enclosure of the street within the development must be achieved through use of hedges no more than 1m in height where adjacent to the highway.

Code HHD – Historic/Heritage Detailing

- 1) Emphasis must be placed on contemporary interpretation of traditional built form; nevertheless, details taken from traditional buildings must maintain and /or be in keeping with the scale and appearance of the original feature. The use of mock heritage design features such as sash or Gothic headed casements, small paned Georgian style bow windows or self-adhesive lead lattice must be avoided. It is important that new

developments do not simply copy the existing built form but instead seek to provide their own subtle detailing to help reinforce the character of the area as well as of the development itself.

- 2) The inappropriate mixing of historic details and architectural styles must be avoided.

Code F – Facades

- 1) Façade arrangements (window and door positions) must be in keeping with the surrounding townscape. Doors should front onto the street; crowded and unaligned façade arrangements should be avoided. Façades within the Parish are typically aligned both vertically and horizontally (including dormers and rooflights). A careful acknowledgement of this design feature will ensure continuity in local character. Non-domestic buildings should use similar means to avoid overly simple, monotonous, and visually intrusive forms.
- 2) Housing design must avoid the use of unnecessary elements and projections from the façade which do not complement the local vernacular, apart from sensitively designed porches. Porches must be designed to make an appropriate and positive contribution to the appearance and design of buildings, matching the architectural properties of the main building in terms of materials and style.
- 3) The position of downpipes must be integrated with the design of the roof and façade to minimise visual impact of the pipes.
- 4) Meter boxes must be sited conveniently for external access but be located so as not to have a detrimental visual impact on principal building façades and be coloured to blend with surrounding materials. Satellite dishes or other infrastructure- related protrusions are to be located away from principal building frontages.

Code WD – Windows and Doors

- 1) New development must incorporate window sizes which are in keeping with the proportions and scale of existing windows in the area. Nonetheless, larger areas of glazing can be acceptable so long as these are divided into sub-units which are in proportion with windows typical of the area. Large areas of undivided glazing must be avoided, particularly on domestic buildings, unless it is part of a contemporary, high-quality design and appropriate for its location and context.
- 2) Door furniture must be simple and in keeping with the style of the building and the surrounding area. Mock historic styles must be avoided. Hardwood and softwood doors with a paint finish are characteristic of doors and windows in the area.
- 3) Aluminium, UPVC and tropical hardwood windows and doors must be avoided.
- 4) Doors with large glass panels on residential units must be avoided. Nevertheless, such doors may be appropriate for other types of uses such as Flats or Sheltered Housing schemes. All windows and doors should be recessed by at least 50mm so as to provide relief to the elevation.

Code R – Roofscapes

- 1) The predominant roof form in the Parish is a simple double pitch with gable ends. Hipped or halfhipped roofs are found to a lesser extent, roofs of this type must be used sparingly.
- 2) Local and natural roofing materials, which include red clay pantiles and natural slate roofs (often with clay ridge tiles) must be used whenever possible to maintain local character and identity.
- 3) Roof pitch must match the chosen material – clay tile roofs are typically more steeply pitched than slate roofs. Verge and eaves details must suit the form and style of the building as well as its location and avoid overly elaborate decorative rooflines.
- 4) A variation in roofscape is encouraged. Roofscape can be varied through the sensitive grouping of buildings of different heights and/or eaves and ridge levels. A limited range of designs must be used which relate to examples found in the traditional vernacular. Monotonous continuation of the roofscape should be avoided. However, very steep or very shallow pitches should also be avoided. The above should apply to all development, both residential and non- residential.

Code DR – Dormers and Rooflights

- 1) Pitched roofed gabled dormers and cat slide dormers do feature within the Parish area, however, dormers must be used sparingly as they are not a typical feature in the area.
- 2) When used, dormers must be incorporated so as to provide light into the roof space of the dwelling and not function as a means of extending floor space. Dormers must not be larger than the windows in the property and large flat-roofed, boxy dormers must be avoided. Sufficient space must be left around dormers, so they do not crowd verges, hips, or ridges.
- 3) Rooflights can be an acceptable alternative to dormers but must be used sparingly.
- 4) Rooflights must be set flush so that they are integrated within the roof structure. Rooflights with a vertical emphasis tend to be most appropriate and, like dormers, should be aligned with windows in the main façade.
- 5) Sun-pipes may be installed in roofs to channel daylight through roof spaces and supplement areas with limited or no natural light provision. Designs must be selected that are appropriate to the location, scale, and mass of the structure. Solar heating systems that are incorporated within the construction of a roof, either flashed and flush mounted, or mounted directly on to its surface, with minimal visual impact will be supported.

Code BNF – Biodiversity and Natural Features

- 1) Development must not result in any net loss of biodiversity and should seek to provide net gains. Where there is unavoidable loss or damage to habitats, sites or features because of exceptional overriding circumstances, mitigation and compensation within the Southwell Civil Parish will be required. The Baseline for comparison shall be when the site is first allocated for development.
- 2) Development shall contribute towards the provision of green infrastructure and support biodiversity through integration of new wildlife habitats.

- 3) In addition to giving a net gain in biodiversity development must ensure that existing landscape and historic vegetation features are retained, and new provisions made wherever possible.
- 4) Requirement for dark skies - street lighting no upward lights, maximum light levels 150 lux including reflection at 3m above datum. Also, noise pollution - all development proposals to minimise the potential adverse noise impact on and between dwellings through housing layout, design and materials.

Code R – Recording

- 1) The recording of existing Trees, Woody Species and hedges as part of planning applications must accord with BS 5837 with particular attention to:
 - Trees and groups of trees which are of 75mm in diameter at 1.5m height.
 - Trees and woody species which are part of a valuable habitat or of landscape importance.
 - Hedges which are of historic, ecological or landscape importance.
 - The species present their relative level of contribution to the composition in any hedge row or landscape feature.
- 2) The aim should be to provide a description of the feature which can be used, where necessary, to ensure it remains in at least a similar condition as at the time of the survey, for the life of the development. This should include photographic evidence with indication of the size(s), or the features surveyed.
- 3) An assessment of the quality of the trees and woody species must be made, based on BS 5837 to determine which are suitable for protection and retention.
- 4) Trees of high quality and value as defined by BS 5837 must be retained. Trees of moderate quality and value as defined by BS 5837 should usually be retained.
- 5) Trees of low-quality value as defined by BS 5837 will be considered on the basis of their contribution to local amenity and biodiversity. Where approval is given for removal of trees identified as being of a high or moderate quality, there will normally be a requirement for replacement planting on the site or elsewhere in Southwell parish.

Code P – Protection

- 1) A Protection Plan for Trees, Other Woody Species and Hedges must be made to ensure that these are not damaged during construction.
- 2) A follow-up Protection and Maintenance Plan must be made and agreed with the LPA to ensure that the features are conserved in a defined state, allowing trees to reach maturity without major surgery, for the life of the development.

Code BS – Buffer Strips

- 1) Wherever possible, buffer strips, landscape screening, amenity, ecologically and historically valuable vegetation (including hedges and trees) must be retained on and development.

- 2) Any planted strip must be carefully designed so as to ensure that it serves a dual role of preserving amenity and enhancing biodiversity. Priority should be given to the use of native species. This will be particularly important where large sites abut existing residential properties and where the planted strip links with existing Blue and Green infrastructure features. The landscape boundary should seek to retain existing hedgerows, trees and other established landscape features including Blue infrastructure as part of this design.
- 3) Unless it can be shown to be unreasonable, the width of a buffer/ standoff must be a minimum of 8 metres and sufficient to allow for machine maintenance, be effective as a wildlife corridor and permit trees along it to reach full maturity without becoming a problem to adjacent properties, in accordance with the Specifications for the Treatment of Trees, Woody Species and Hedges on development sites.
- 4) Where a new boundary is required on a development site fronting the public highway, a Public Right of Way or interacting with the existing movement network, landscape schemes must demonstrate how the buffer will be integrated into the existing surroundings and maintain passive surveillance from new and existing properties.

Code WTH – Woodland, Trees and Hedgerow

- 1) Developments must be designed to retain trees, particularly those of landscape and biodiversity importance, with a view to increasing tree cover.
- 2) According to the Hedgerow Regulation 1997, any good quality hedgerows classified as important must be protected and enhanced where necessary. This is known as the 'Important Hedgerow'.
- 3) The spacing of development must reflect the rural character and allow for long distance views of the countryside from the public realm. Trees and landscaping must be incorporated in the design.
- 4) Species choice must be predominantly native but not completely; a 2:1 ratio would be appropriate to help build a tree population that supports UK wildlife but is also capable of responding to new diseases and climate threats.

Code CON – Constraints

- 1) A Constraints Plan for Trees, Other Woody Species and Hedges must be made to illustrate the impact the constraints retained, or new plantings of these elements, will have on the design process. The Constraints Plan must identify Root Protection Areas (RPAs) for the trees, woody species and hedges identified as suitable for retention, in accordance with BS 5837 to ensure trees are allowed to reach maturity.
- 2) Areas where trees, woody species and hedges may constrain use of the land on the site must be identified. This must be established with regard, for example, to the characteristics of this vegetation in terms of ultimate size, density of foliage in accordance with BS 5837, the National House Building Standards, Chapter 4.2 of Building near Trees and the Arboriculture Research Note 84/90/ARB.
- 3) Account must also be taken of any special features such as aspect, topography, exceptional size of tree etc.

- 4) Identification of these zones will allow trees, woody species and hedges to grow to maturity naturally without causing nuisance to buildings or gardens on or adjoining the site through, for example, root growth, shading, etc.

Code NP – New Planting

- 1) Tree, other woody species and hedge planting schemes must be planned and implemented in accordance with BS 8545.
- 2) The species mix of new plantings must be appropriate to their intended function, of native local origin and as the National Vegetation Classification (NVC).
- 3) New plantings will be subject to the same treatment as above for existing trees, woody species and hedges.
- 4) Specifications for the Treatment of Trees, Woody Species and Hedges on development sites will normally be subject to planning conditions or other legal arrangement by the LPA.

Code TNWHPS – Treatment of Non-Woody Herbaceous Plant Species

- 1) Non woody herbaceous species to be retained or established as part of the design for a development must be appropriate to the geological soil on the site and in the National Vegetation Classification (NVC)
- 2) The management of non woody herbaceous species must be agreed with the LPA to ensure they are retained for the life of the development.

Code WD – Water and Drainage

- 1) SuDS must be integrated into developments to help address surface water run-off. These must be designed in accordance with The SuDS Manual, CIRIA.
- 2) Drainage must be considered early in the development planning and design process, along with other key considerations.
- 3) Existing watercourses, existing surface water flow routes across the site, and existing drainage systems, must be taken into consideration and the drainage strategy must mimic natural drainage patterns as closely as possible.
- 4) Adoption of permeable paving solutions instead of tarmac is required. Gardens and soft landscaping must be maximised to reduce the overall area of impermeable hard surfacing that might increase surface water volumes and increase local flood risk. Further, green space can be used for natural flood protection e.g., permeable landscaping, swales etc. Notwithstanding the NPPF, block paving becomes impermeable after a very few years unless it incorporates special design features to ensure it remains as such.
- 5) Boundary treatments within the flood zone are required to be designed with high water resistance materials and/ or effective seals to minimise water penetration, provided these treatments are in keeping with the local character.
- 6) Proposals must take a proactive approach to incorporating flood resilience into building design through internal layout. Where appropriate the Flood Resilient Construction of New Buildings Guidance must be adopted.

- 7) New housing must demonstrate how rainwater and greywater will be stored and reused to reduce demand for mains supplies. Rainwater harvesting helps to capture and store rainwater for irrigation and cleaning. Efforts must be made to conceal the units, or install them with attractive materials, cladding and finishings. Greywater recycling reduces pressure on local utilities by enabling the occupier to re-use water from showers and washing machines in WCs.
- 8) The installation of water butts within new residential developments is required to collect rainwater from roofs and reduce the overall rainwater runoff impact of any development.
- 9) Buildings must incorporate domestic water saving measures such as aerated taps, thermostatic mixer valves, low- flow showers, dual flush WCs and water- efficient white goods. The expected water consumption (in litres per person per day) must be identified in a Design Statement.
- 10) Wastewater heat recovery solutions must be considered in the domestic units as well as any commercial buildings e.g., hotels, leisure centres, school changing areas etc.

Code ES – Energy Saving

- 1) The design of buildings for energy efficiency must be consistent with the Government's current zero carbon buildings policy as outlined in the NPPF, the UK Green Building Council's New Homes Policy Playbook and as expected to be detailed in the Future Homes Standard (due 2025). The aim being to achieve the highest viable level of energy conservation.
- 2) Account must be taken of the EU Eco-design and energy labelling directive, or equivalent, in the selection of energy efficient and low light pollution products, including those for lighting in houses, offices and street lighting.
- 3) The measures taken towards a zero-carbon development must be identified in a Design Statement.
- 4) Where an energy performance certificate is required for a building the target SAP rating aimed for in the design must be shown in a Design Statement along with the targeted energy use intensity (reported on a kWh/m²/year gross internal area basis).

Code CS – Cycle Storage

- 1) All proposals for development must provide storage solutions for cycling in the case of housing developments, in accordance with NSDC Residential Cycle and Car parking Standards SPD.
- 2) All forms of cycle storage must be designed so that they are easily accessible, convenient and secure.
- 3) External cycle storage units or sheds must be designed so that they benefit from passive surveillance; solutions which fail to adequately demonstrate appropriate natural surveillance must be avoided. Convenient cycle storage should be provided in workplaces, outside community facilities, shops, schools and colleges.

Code U P – Utilities

- 1) Where relevant, applicants must consider within their Design and Access Statements how they have considered the design implications of the following:
 - a) Bin stores and recycling facilities (location, design and collection)
 - b) Cycle stores (location, type and number);
 - c) Meter boxes (location, typology, colour / materials).
 - d) Street furniture and lighting (typologies and integration into the street scene).
 - e) Flues, ventilation ducts, gutters and pipes (location, type and materials);
 - f) Access to service routes and long-term maintenance.
 - g) Introducing dedicated service ducting within the street is required.
 - h) All new buildings must have fibre optic cables installed to feed them and taken back to a suitable point for future connection to the national system.
 - i) Services to include installation of fibre optic connections to each building into street.
 - j) All street furniture to be painted in the STC dark green on installation.

Code RS – Refuse Storage

- 1) Proposed developments must include information within their application detailing where bins and crates can be stored.
- 2) All developments must provide convenient, dedicated bin and recycling storage which is out of sight so as to minimise the adverse effects on the streetscape.
- 3) All bin storage must be easily accessible, minimising the distance between storage areas and collection points and avoiding access through the property.