SWINDON RESIDENTIAL DESIGN GUIDE

Supplementary Planning Document
June 2016

Swindon
BOROUGH COUNCIL

FOREWORD

Securing design quality is a core planning principle of the National Planning Policy Framework and essential to the delivery of sustainable development. It is also a strategic objective of the Swindon Borough Local Plan (2026).

New development needs to positively contribute to Swindon's natural and built environment and support its communities over the long term. As recognised in the NPPF good design has social, environmental and economic value and is the collective responsibility of all those involved from planning through implementation and for the life of the development.

Investing in high quality development can deliver benefits for health, community inclusion and identity, economic prosperity and improvements to biodiversity and place value. It can positively contribute towards Swindon's proud historical legacy and the rich landscape across the Borough and build on this for future generations to inherit, enjoy and be proud of.

Our standards of design can be so much higher. We are a nation renowned worldwide for creative excellence, yet, at home, confidence in development itself has been eroded by the too frequent experience of mediocrity.

NPPF Ministerial Foreword

CONTENTS

Montage of residential areas across Swindon. Fig 1

Residential conversion, Chain Test House, Swindon. Fig 2

Introduction

1.1. This document aims to assist all those involved in the development of existing and new residential areas of Swindon Borough, to ensure the ambitions of achieving high quality development are understood and realised.

1.2. As a supplementary planning document (SPD) it sits below the adopted Swindon Borough Local Plan (SBLP 2026) and further amplifies policy DE1. It provides a clear set of principles and guidelines to enable high quality design and shape new development in line with the National Planning Policy Framework (NPPF, 2012).

1.3. New development projects are essential to economic growth, and the quality and sustainability of these future developments is a priority of this guidance. Good design is a ke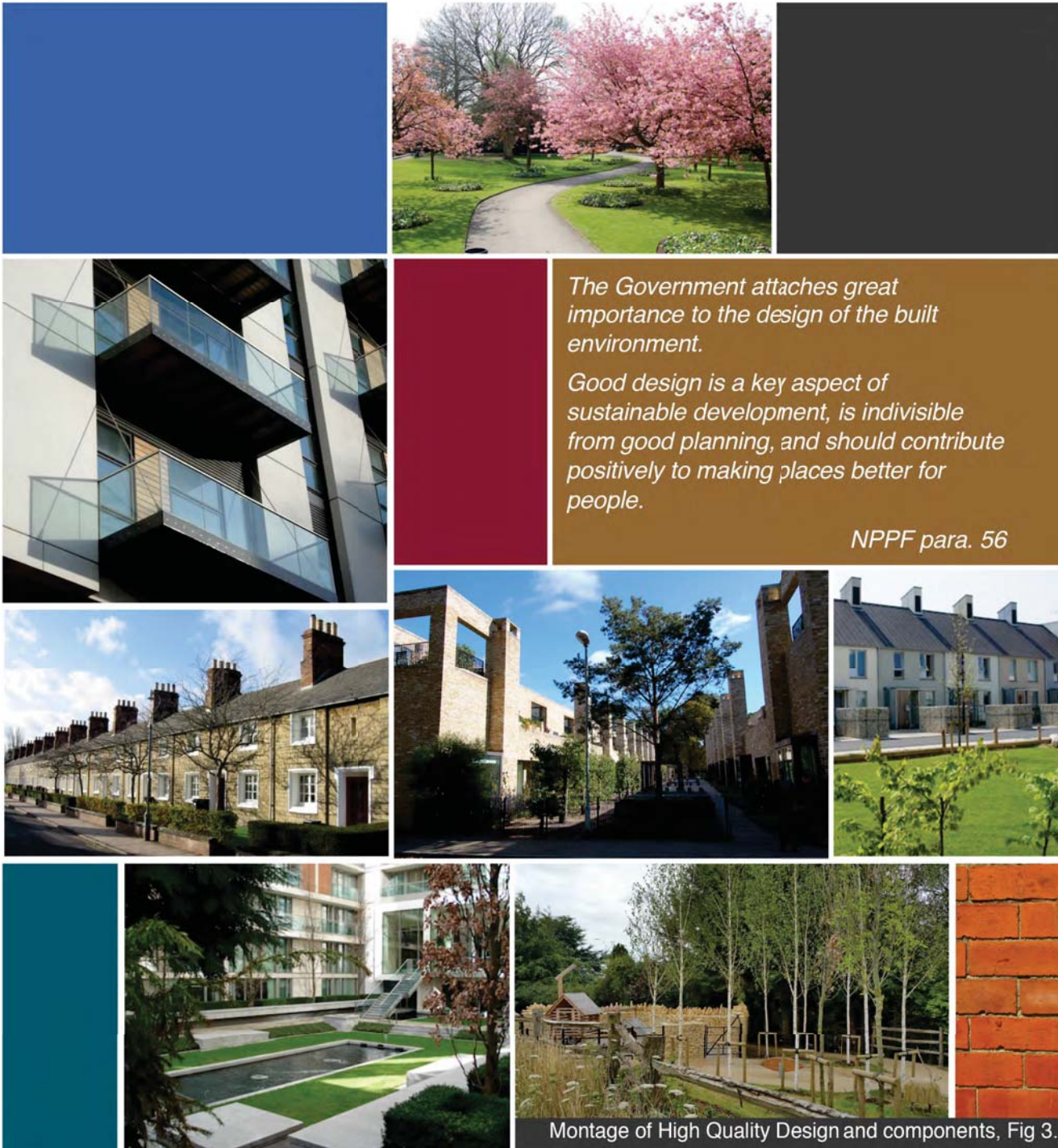y consideration for all future developments and this guidance directly supports the local plan policies with this objective.

1.4. The purpose of this document is therefore:

- To achieve sustainable development through high standards of design
- To enable successful applications and expedite those that satisfy policy DE1
- To provide timely and objective design advice

1.5. This (SPD) was adopted on 14th June 2016 by Planning Committee and is a material planning consideration. This document aims to assist all those involved in the development of existing and new residential areas of Swindon Borough, to ensure the ambitions of achieving high quality development are understood and realised.

- *Policy Context*
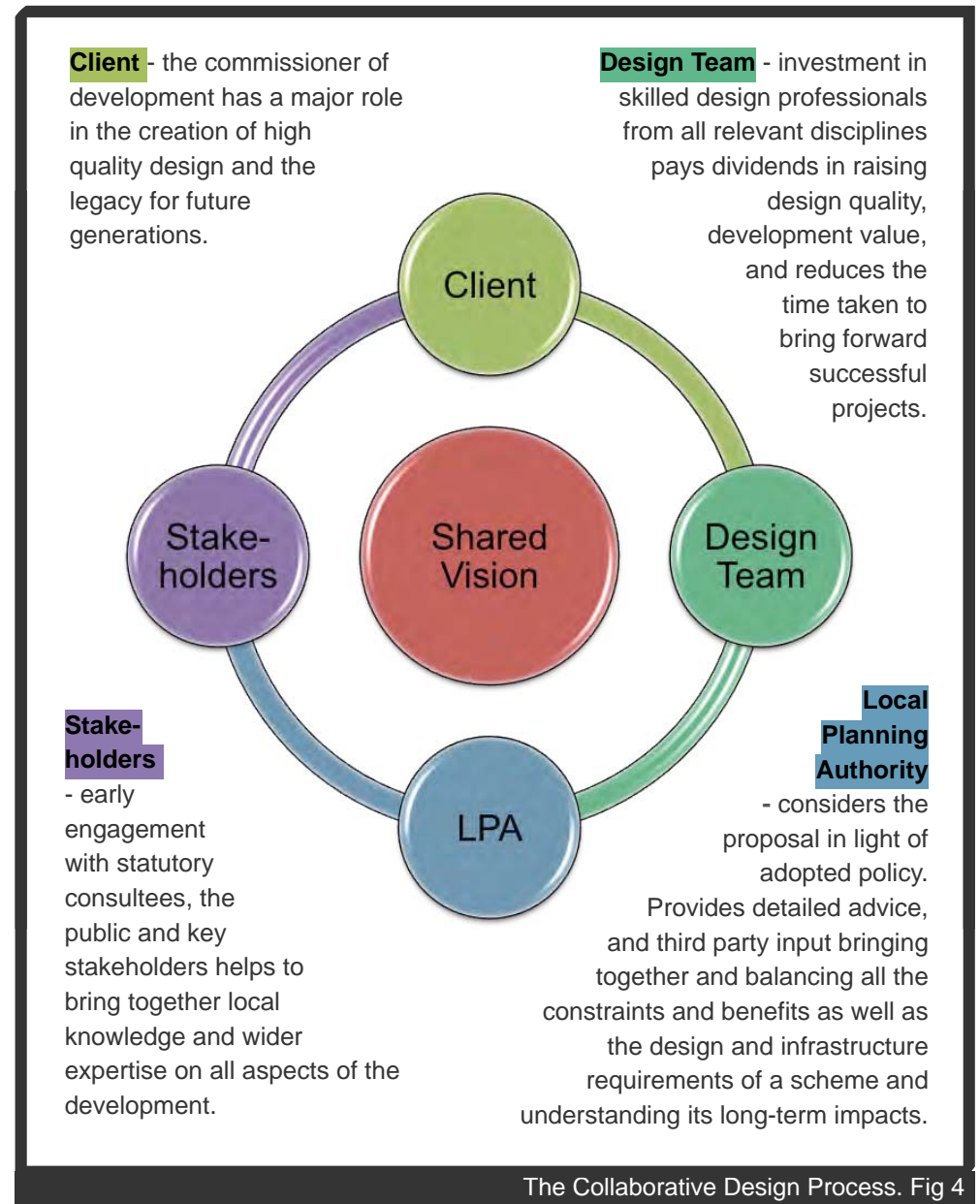- *Design Process*
- *Design Review*

Policy Context

> The Government attaches great importance to the design of the built environment.
>
> Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people.
>
> *NPPF para. 56*

1.6. The National Planning Policy Framework (NPPF) reinforces the importance of good design, recognising it as a key aspect of sustainable development (para 56) and a Core Planning Principle.

1.7. This document expands on policy DE1 of the SBLP 2026 and replaces the Backland and Infill SPD. It is structured through chapters that address each principle of the policy in turn using definitions, criteria and illustrations.

1.8. Throughout the document cross references are provided to relevant paragraphs of the NPPF as quotes (shown opposite) and also in this way: **NPPF ##**

1.9. In addition key requirements are summarised within coloured text boxes at the end of each section ● **in this way:**

1.10. Designing new residential developments should be an integrated process and other policies within SBLP 2026 should also be considered when preparing and assessing proposals.

1.11. A Diversity Impact Assessment (DIA) has been undertaken for this SPD. Copies can be viewed at the Council Offices or on the website:

www.swindon.gov.uk

Montage of High Quality Design and components, Fig 3.

Design Process

1.12. The process of design is fundamental to the creation of high quality development. A well-considered and collaborative approach is required involving early integration of a range of disciplines and stakeholders to avoid delays in the project later on. The success or failure of schemes in design terms comes down to the aspirations, cooperation and skills of all these roles:

1.13. **Shared Vision** - agreeing a shared vision at the concept stage for each project helps deliver coordinated development proposals and a more certain outcome in the planning process.

1.14. The choices made early on to appoint a professional team, and develop a vision has a marked impact on design quality. Good designers are custodians of their schemes and lead projects in a collaborative and integrated way. Retention of such professionals through the technical and construction stages is highly preferable to realise the vision in full.

1.15. Applicants will be expected to work closely with those directly impacted by their proposals to ensure designs evolve to take account of the views of the community. Proposals that demonstrate this through their design may be looked on more favourably by such consultees in the formal application process. **NPPF 66**

1.16. The quality of submissions is also a key factor in ensuring a scheme is fully understood. The use of tools such as 3D software and the inclusion of quality elevations, street scenes and 3D massing can assist in interpretation and in understanding the likely impact of a development.

1.17. Swindon Borough Council offers a pre-application service to give more detailed and tailored advice prior to a formal planning application submission. For further information contact the Local Planning Authority or visit: www.swindon.gov.uk.

Client - the commissioner of development has a major role in the creation of high quality design and the legacy for future generations.

Design Team - investment in skilled design professionals from all relevant disciplines pays dividends in raising design quality, development value, and reduces the time taken to bring forward successful projects.

Stake-holders - early engagement with statutory consultees, the public and key stakeholders helps to bring together local knowledge and wider expertise on all aspects of the development.

Local Planning Authority - considers the proposal in light of adopted policy. Provides detailed advice, and third party input bringing together and balancing all the constraints and benefits as well as the design and infrastructure requirements of a scheme and understanding its long-term impacts.

The Collaborative Design Process. Fig 4

Design Review

1.18. Design Review is an impartial evaluation process in which the design of a proposal is assessed. The process is designed to improve the quality of buildings and places for the public.

1.19. A Design Review Panel is an independent panel of built environment experts recognised for their talents and wide range of experience. The Panel is organised under an appointed chair and sits independently to the Local Planning Authority. The NPPF encourages the use of Design Review Panels recognising them as a proven way of driving up standards of design. In recent **NPPF 62** years, Swindon Borough Council in partnership with developers have used both national and regional design review with great success on a number of schemes.

1.20. The LPA will encourage most major development proposals over the next plan period to undertake design review at pre-application, outline or reserved matters stage(s) as appropriate. Not all schemes will be referred to the Design Review Panel but scale alone is not the defining reason for a referral; any scheme could be referred. The absence of a design code, brief or overarching master plan or framework plan may also necessitate the need for Design Review as well as those schemes that potentially impact upon Historic assets.

1.21. Design review provides a succinct, swift and focussed service to advise applicants and the LPA on aspects that need improving to the overall design of a scheme and through this process can add significant value to each project.

1.22. There are different types of review relative to the site, local significance, size and complexity of each proposal. The Council's Urban Design Officer will remain the key consultee for all aspects of urban design within Swindon Borough but the LPA will have regard to the resulting advice from the Panel as required by the NPPF and that advice will be afforded significant weight.

The Swindon Design Review Panel launch event at STEAM Fig 5

Local planning authorities should have local design review arrangements in place to provide assessment and support to ensure high standards of design. ... In assessing applications, local planning authorities should have regard to the recommendations from the design review panel.

NPPF para. 62

Context & Character

2

the range of elements and features that make up the natural and built environment and the resulting 'sense of place'.

2.1. Context refers to the range of elements and features that make up the natural and built environment of a place; while Character generally refers to the overall feel or atmosphere of that place - also known as 'sense of place'.

2.2. Policy DE1 requires development to be in context with the existing natural, built and historic environment, and to respond positively to enhance or create distinctive character and identity. The first part of the justification text relates to understanding the site, and the second is about creating new or enhancing existing character.

2.3. Whilst it is possible to define each term, Context and Character are not mutually exclusive concepts and the elements within the context work to support the overall character of a place. These together are the essence of place-making.

2.4. This chapter seeks to ensure a deeper understanding of those existing aspects which make up a site's inherent character:

- *Natural and Historic Features*
- *Built Characteristics*
- *Site Conditions*
- *Social Context*

Context Appraisal

2.5. Identifying all the constraints and opportunities for a site is essential to inform the design process. It ensures a collaborative approach to understanding the site, what makes it special, what opportunities exist and the constraints to be considered.

2.6. The constraints should be appraised beyond the red line of the application boundary as the impact of development on the site may reach beyond the developable area. Where features of natural and historic significance exist, they should be fully considered and opportunities realised to achieve net biodiversity gains. Understanding and embracing the issues and factors set out on the following page will help to provide an immediate sense of place and secure opportunities for community integration, mitigation and proper resilience for historic assets and ecosystems.

© Crown copyright and Database Rights 100024296 2016

Context: figure grounds materials landscape & historic context. Fig 6

Acknowledged Features - Natural & Historic

landscape character	archaeology
trees, hedgerows	historic landscape character
protected species & habitats	conservation areas
designated sites	listed buildings
river corridors	registered parks & gardens
water courses	buildings of local significance

Existing Built Characteristics

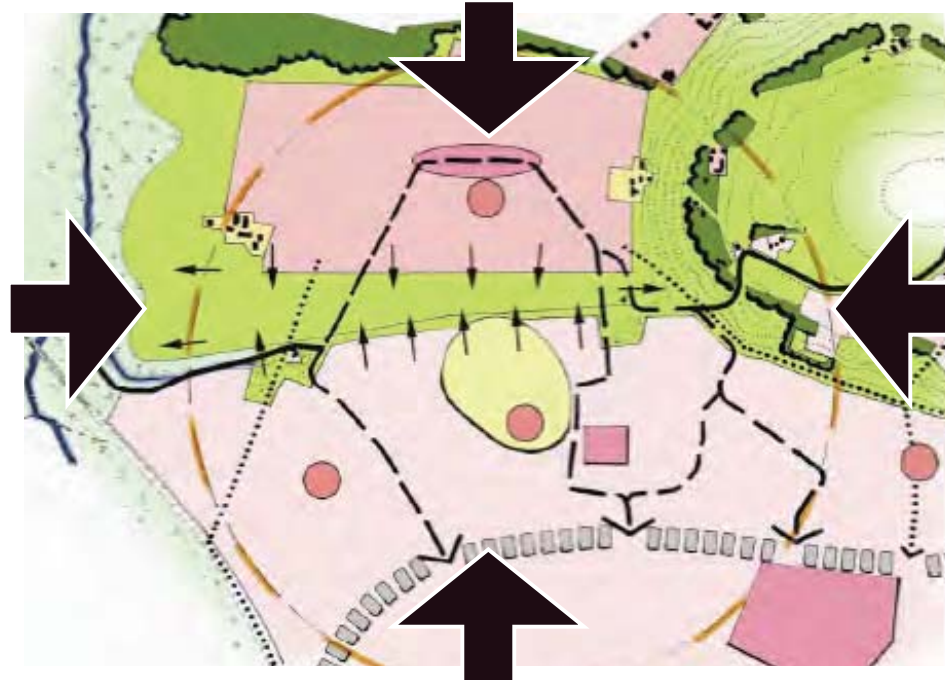- buildings & structures
- service easements
- density, scale, form
- street pattern
- points of access
- rights of way
- views & vistas

Existing Site Conditions

- soils, topography
- ground levels, contours, landforms
- prevailing winds & sun path
- contamination
- nuisance: noise, vibration, smell
- water courses and flood zones
- existing surface water drainage

Social Context

cultural & community factors	health & access to open space
security & perception	demographics & housing

A wide range of considerations are taken into account at the outset of the design process.

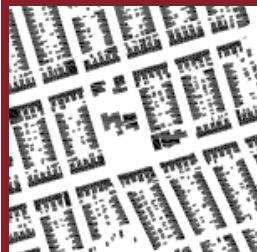Context & character considerations. Fig 7

Character Response

2.7. Residential schemes proposed within existing areas, should be designed to harmonise with the character of their surroundings. Developments that fail to complement the characteristics of the local area or compromise its quality and the way it works, will be resisted. **NPPF 64**

2.8. In order to make a positive contribution to the local area, an understanding of the area's character is essential.

2.9. Swindon's urban expansion from Brunel's time through most of the 20th century follows a principle of the creation of distinctive streets and grouping of strong housing typologies. While the places vary quite significantly in both character and quality, there is a consistency in plot configurations, block layout structure and grouping of typologies in order to create identity and sense of place.

2.10. In rural areas a different approach should be considered to ensure the design relates to context and character as required by DE1. To accord with policy DE1 and the NPPF development must respond to and respect existing context and character without proposing a poor copy of an existing architectural style.

* **du/ha** denotes: dwelling units per hectare.

** BRE rule: to be read in conjunction with Chap 6 Amenity (6.12 - 6.16)

	Compact Mixed Use Core	Urban	Sub-Urban	Urban Fringe
Type	*Compact Mixed Use Core*	*Urban*	*Sub- Urban*	*Urban Fringe*
Density (du/ha)	50 +	45 - 55	30 - 45	25 - 40
Typology	Mixed Uses, Apartments, Terraces, Mews	Apartments, Terraces, Mews, Semi-detached	Detached, Semi-detached, Terraces, some Mews	Varied
Separation Distance	BRE Rule**	18m min back-to-back	21m min back-to-back	21m min back-to-back
Height	3+ storey	2-4 storey	2-3 storey	2 - 2.5 storey
Street Types	Boulevards, Avenues, Urban Streets, some Shared Surfaces	Avenues, Urban Streets, some Shared Surfaces	Avenues, Suburban Streets, some Shared Surfaces & Lanes	Suburban Streets, Shared Surfaces, Lanes
Form & Structure	Compact & varied built form, rectilinear street grid pattern	Compact & regular built form, rectilinear street grid pattern	Less compact & regular built form, looser gridded street structure	Loose & irregular built form, soft landscaped edges
Continuity of form	Strong continuous form	Strong continuous form, few breaks	Regular, frequent breaks	Large and frequent breaks
Frontage set back	Mixed	2m or less	1m minimum	2m minimum
Parking	Car parks & on street	On street, some on-plot	Mostly on-plot	Mostly on-plot
Urban Grain Figure Ground				

Village/Small Town Core	Village Envelope	Village Fringe	Scattered Dwellings	
				Type
30 - 45	25 - 40	20 - 35	not applicable	Density
Apartments, Mixed uses, Terraces, Semi-detached, Mews.	Terraces, Semi-detached & Detached	Semi-detached and Detached	Mostly detached	Typology
18m min back-to-back	**21m** min back-to-back	**21m** min back-to-back	**21m** min back-to-back	Separation Distance
2-3 storey	**2-2.5 storey**	**2-2.5 storey**	**1-2 storeys**	Height
Avenues, Urban Streets, Shared Surfaces	Urban & Suburban Streets, Mews	Suburban Streets, Mews, Lanes	Lanes	Street Types
Compact & irregular built form, tight-knit street pattern	Less compact & regular built form, looser street pattern	Less compact & irregular built form, loose street pattern	Isolated rural forms in landscape	Form & Structure
Strong continuous form, few breaks	Continuous form, regular breaks	Irregular form, large, frequent breaks	Not applicable	Continuity of Form
Mixed	**2m minimum**	**Large set back**	**Large set back**	Frontage
Car parks, on-street and courtyard	On-street, on-plot & courtyard	Mostly on-plot	On-plot	Parking
				Village Grain Figure Ground

Swindon's Urban and Rural Form Matrix - Illustrating the range of predominant characteristics for each area category. Fig 8

General Character Checklist

◯ Establish the existing natural, built and historic features and demonstrate how they have informed the design

◯ Development in existing areas must respond and respect the inherent scale, density, massing, height, landscape, layout, materials and access. NPPF 59

2.11. This matrix (Fig 8) gives a general flavour of the type of areas found across the Borough. It is not a definitive summary of the development (in terms of density, house types and characteristics) that would always be appropriate in each area. Rather it is a starting point upon which local identity and character influences should build. There will be situations where the appropriate response to an individual site conflicts with the matrix. Provided development is design-led and as a result of local context, it will not be considered as conflicting with Policy DE1.

"...securing high quality and inclusive design goes beyond aesthetic considerations. Therefore, planning policies and decisions should address the connections between people and places and the integration of new development into the natural, built and historic environment." *NPPF para. 61*

Infill Development

new building(s) in a gap between existing buildings or within an existing area.

2.12. This section provides guidance particular to infill development. All the guidance in this document also applies.

2.13. Not every perceived gap is appropriate for development. Some gaps allow for an attractive view, vista or large trees that should be retained; while other gaps may comprise a visual separation between dwellings as an inherent characteristic of the area (Fig 11).

2.14. Within the Borough's Conservation Areas, important spaces such as these have been identified within the Conservation Area Appraisals and should be protected as such. **NPPF 17**

2.15. Spaces across the Borough, may form part of local identity and also require protection. There is no presumption that such development is sustainable or acceptable. **NPPF 58**

2.16. Where infill development is acceptable in principle, it must respect the existing character of the surroundings and the amenity of neighbours. Where a rhythm of visual separation is an existing characteristic, the LPA will expect this to be maintained and repeated within a new proposal. **NPPF 17**

2.17. Infill development should enhance its surroundings by positively responding to the **scale**, **density**, **massing**, **landscape**, **layout**, **materials** and **access** of its

neighbouring properties. This is important to reinforce local context and ensure the character of the street is not adversely affected. Where development is proposed within the setting of a heritage asset, the impact of the proposal on the significance of the heritage asset must be positive. **NPPF 59**

2.18. Proposed infill plot subdivisions should be of similar scale and order to that prevailing in the street (Fig 10). The relationship between proposed plot subdivisions and resulting built form must be designed in order to respect and enhance the character of the street through the proposal's **siting, orientation, scale** and **massing** as required by policy DE1.
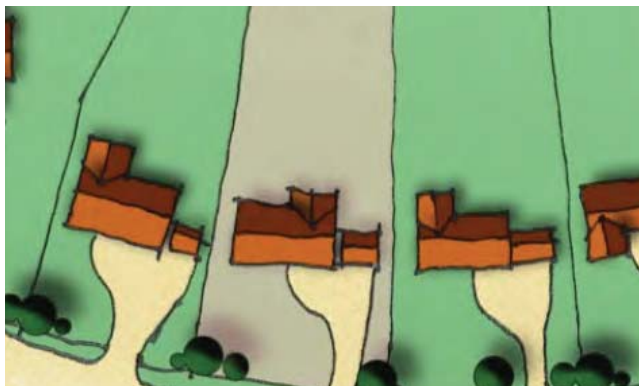

Successful infill responding to existing character. Fig 9

2.19. It may be appropriate for larger scale plots to function as several separate units. Such a scheme should be designed to appear as a single building to reflect the existing built form. This will ensure the physical development respects the scale, and massing regardless of the internal arrangement.

NPPF 60

2.20. Proposals should also respect established features: building line(s), roofscape, scale, massing, height, materials, elevational details, visual separation and enclosures.
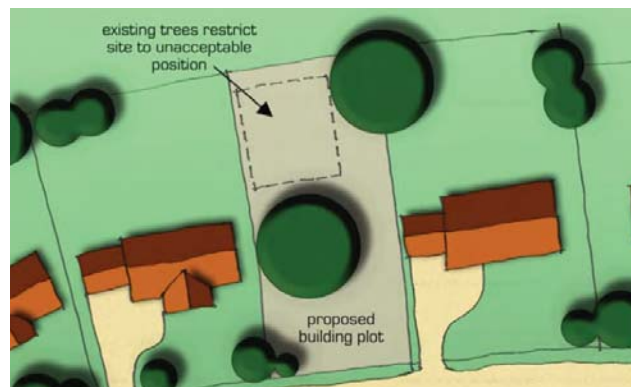
2.21. Innovation is encouraged by the LPA but this must not be to the detriment of the local character, identity, or history of an area. Outstanding, innovative and contemporary design proposals may be acceptable. In such cases the LPA will refer them for consideration by the Design Review Panel.

NPPF 62

2.22. **Parking** - where new access arrangements are proposed, the design should not detract from the established layout and character of the street. The inherent parking arrangements in an area should be observed in new infill proposals. Achieving the Borough's parking requirements must not be to the detriment of the character or quality of the street and unacceptable arrangements will be resisted.

2.23. **Materials** - infill proposals should also make a positive contribution to the character of the area and local distinctiveness through the choice of high quality materials (Fig 12) In most cases it is best practice to use durable and complementary materials where colours and textures match those prevalent in the immediate area.

Infill Checklist

- New development must retain   d visual separation if they are components of the character

- There is no presumption that all gaps are appropriate for infill

- New development must reflect inherent plot size, building lines, boundary treatments, roofscape, built form, scale, massing, landscaping and details

- Outstanding, innovative and contemporary designs that challenge the established character will be referred to the Design Review Panel

- Parking provision must support and contribute to the quality and character of the street

New plot size is consistent with the character. Fig 10

existing trees restrict site to unacceptable position

proposed building plot

Existing constraints preclude development. Fig 11

Sympathetic infill using natural materials Fig 12

Backland Development

2.24. Backland development is development of gardens or open spaces. By its nature, backland development may be hidden from immediate public view but this does not excuse poor quality design. Only schemes designed to accord with all the principles of Policy DE1 will be acceptable.

2.25. Some comprehensive backland development may be acceptable (Fig 13), but proposals of individual backland sites can conflict with the established surrounding character and context. Blocking off access between adjoining land can constitute piecemeal development and inhibit a more comprehensive development of a larger backland site.

2.26. Sites that are poorly assembled or have complex arrangements that prejudice the potential for larger, more inclusive and sustainable developments, will be resisted. Similarly, incremental or piecemeal development that fails to provide connectivity and leaves an isolated piece of land at the boundary is not acceptable. These ransom strips potentially stifle more comprehensive development and will be resisted in accord with Policy SD3.

2.27. Particular attention should be paid to the impact of the proposed development on the living conditions of neighbouring residents, such as privacy, outlook vehicle noise, car parking and over-shadowing - Chapter 6 Amenity additionally addresses such considerations. **NPPF 17**

2.28. The LPA considers gardens as an essential part of the amenities of residents and garden size may be an important part of the character of an area (Fig 16). All dwellings suitable for families should provide a sunlit area of private garden, of a size and shape capable to support household recreational use. This must be secured for new backland developments but also protected for existing residents.

2.29. Backland schemes, when acceptable, must take opportunities to improve the safety and security of the area by creating a well-connected, well lit and overlooked public realm (Figs 13 and 14). Owing to the nature of backland sites, it is highly advisable that the views of the Crime Prevention Design Adviser (CPDA) are taken into account at the earliest opportunity through the LPA's pre-application service.

Comprehensive backland site & public realm Fig 13

Urban backland development & public realm. Fig 14

Successful spacious backland development. Fig 15

2.30. As with all development proposals context and character is a key consideration and all those matters covered earlier in this Chapter (ecology, landscape, historic environment, etc.) may preclude backland proposals. This may be particularly the case with regards to existing trees.
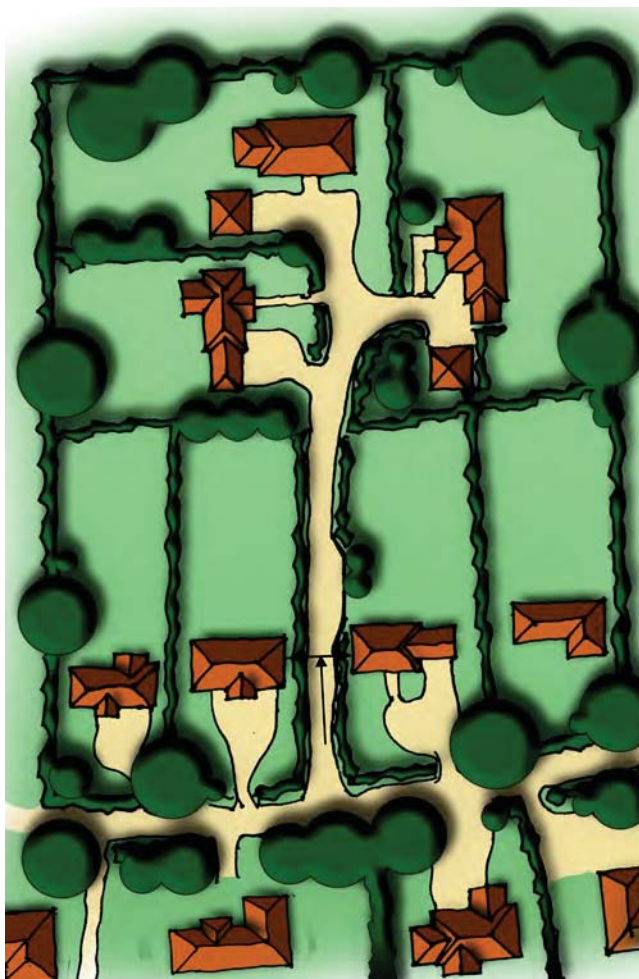
Retaining rear garden space is important. Fig 16

2.31. Generally backland schemes should be served from a single access (Fig 16). This should not be shared with an existing dwelling and not formed from a series of entrances punctuating the existing street frontage.

2.32. Tandem developments - where a new dwelling is placed immediately behind an existing dwelling, are rarely able to satisfy the principles of DE1 (Fig 17). Proposed developments on small plots or on sites that share the same access will normally be rejected. Such schemes often incur problems of overlooking, loss of amenity, overdevelopment and impact adversely on the character of the area.

2.33. As a general guide, to be successful, tandem development proposals should be on sites of at least 0.4ha (1 acre) and demonstrate that there is no opportunity at this time for a more comprehensive scheme. Such proposals must ensure that the amenity and separation distances of existing residents with the host dwelling are not compromised (Fig 17). Such schemes must also provide a positive response to existing context & character.

Backland Checklist

- Developments must protect amenity and ensure separation distances are safeguarded. Poor or compromised design to address loss of amenity will not be acceptable

- Developments must feel safe and secure and create high quality places regardless of visibility from public view

- Small, piecemeal schemes and sites assembled in a manner that compromises or prejudices the potential for larger, inclusive and comprehensive development, will not be acceptable

- Developments should not share the same access as the existing dwelling(s) and should not comprise a series of separate entrances

Tandem development compromising amenity. Fig 17

New Character

2.34. In new major development, it is important that the streets and public realm are laid out to constitute a place with identity. Such local character is not limited to the architectural treatment or materials, more fundamentally it relates to the structure of local streets, how the landscaping along them is arranged; the choice and design of house types and elements such as enclosures. **NPPF 58**

2.35. When a development layout is conceived primarily as a numbers game, the result can be a failure to provide a place with quality and meaning. Poor differentiation between streets within a layout with house typologies randomly scattered across a site with no purposeful composition, all results in a lack of quality design contrary to DE1.

2.36. Distinctive character results from a holistic approach to designing streets and the public realm as attractive, safe places people want to be in. This approach requires consistent and collaborative working to achieve a strong shared vision for the site. **NPPF 69**

2.37. Different housing typologies have particular spatial and configurational requirements that set them apart from each other.

2.38. These varying spatial relationships impact the environment of the street differently. In large-scale development it is often both more efficient and desirable to group similar housing typologies together in order to establish a sense of order and identity in creating a positive sense of place (Fig 18).

2.39. The composition of houses across a street is important from both the considerations of layout and the resulting visual form. The design of each house and its overall spatial quality must relate to the street public realm.

2.40. It is therefore important that the sum of the individual parts that make up a street work in harmony together to create a clear character and positive sense of place of which residents can be proud (Fig 19).

Order & identity using strong building frontages. Fig 18

New Character Checklist

○ Developments must use street and house typologies to create a clear hierarchy and contribute to the character of the area.

○ Street landscaping and enclosures must support the intended character

Contemporary character reflected in landscaping Fig 19

Layout

the structuring of development; the way buildings, routes and open spaces interrelate.

3

3.1. The nine principles of layout covered in this Chapter are taken directly from policy DE1. Each principle is interrelated, equally important and relevant to good urban design in any context, so each should be clearly addressed in all new residential development.

3.2. Each principle should be individually discussed in a Design and Access Statement and they should be self evident from the resulting layout which should be a synthesis of the site constraints and the principles set out here. The LPA will consider applications against these nine principles using the following sections which explore each one - providing a definition, an explanation and examples to aid clarity and interpretation of policy DE1.

- *Accessibility*
- *Connectivity*
- *Permeability*
- *Legibility*
- *Inclusivity*
- *Safety & Security*
- *Layout Efficiency*
- *Energy Efficiency*
- *Adaptability*

Accessibility

the ability to enter and exit with ease and reach essential facilities.

3.3. Sustainable communities are enabled through layouts that integrate the location of housing and community facilities within walkable distances (Fig 20). **NPPF 70**

3.4. High accessibility and comfortable walking distances for residents are important sustainable development considerations to
- encourage healthier communities[1] (in line with SBCLP policy CM2);
- ensure proximity to essential facilities; reduce the need to travel by car (SBCLP policy TR1); and
- promote social cohesion.

3.5. The accessibility criteria[2] set out (right) provide a useful guide for maximum recommended distances between new housing and public facilities. Development proposals should aim to achieve these guidelines. **NPPF 69**

3.6. In new developments and settlements, it is reasonable to expect most facilities to be located within walkable distances. The concentration of development (density) and clustering of facilities can also provide the patronage required for different modes of transport. **NPPF 35**

3.7. Accessibility is also about clear, logical, recognisable points of access (Fig 21). Main entrances to sites should be design-led and must not adversely impact on the layout and block structure of the scheme.

3.8. The development form of schemes must positively address and respond to the entrance. This will ensure the principles of legibility, safety and security are also enhanced and enable the site's character to be established. Poorly conceived points of access that result in compromised layouts and blocks will not be acceptable.

Access to play areas, Angel Ridge, Swindon. Fig 20

Entrances to site - clear logical and design-led Fig 21

Accessibility Checklist

- Developments should promote walkable neighbourhoods. Proposals that perform poorly against the accessibility criteria to facilities will be resisted

- Facilities should be located at Nodes - the points of greatest accessibility

- Developments must provide design-led, and recognisable entrances with the public realm that do not compromise the block structure

Accessibility Criteria

≤ 250m   to a LEAP and LLAP

≤ 500m   to a NEAP

≤ 600m   to a bus stop

≤ 800m   to a primary school, open space,

≤ 1000m to a health centre

≤ 1500m to a secondary school local centre or supermarket

≤ 2000m to a district centre

- a social role...by creating a high quality built environment, with accessible local services that reflect the community's needs and supports its health, social and cultural well-being.　　　　　*NPPF para 7*

[1] The Marmot Review - p126
[2] Shaping Neighbourhoods - p121-122

Connectivity

planning policies and decision should address the connections between people and places and the integration of new development into the natural, built and historic environment. NPPF para 61

3.9. Strong linkages and integration **NPPF 70** between the site and the surroundings are key structuring elements for residential layouts. Development that fails to establish positive connections with the adjoining area, facilities, open space and GI corridors leads to insular development and an over dependance on vehicular movement. Layouts that do not directly integrate with the neighbouring environment or include blocked, indirect or closed routes will not be acceptable.

3.10. The use of movement and space analysis tools (Fig 22) are encouraged to test scenarios and model connectivity with the existing network.
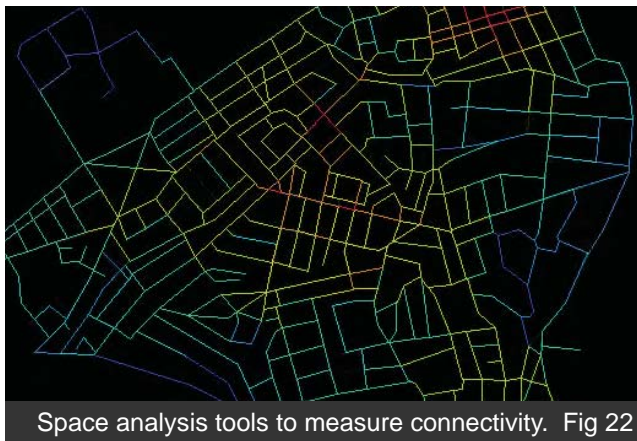
3.11. Good connectivity can build on and enrich existing communities and improve sustainability in the long term. Such linkages must be designed to be **direct**, **safe** (overlooked) and **attractive** to ensure their use is optimised (Figs 23 & 24). Strong connections also ensures a robust urban structure and positively promotes healthy lifestyles by encouraging people to walk, run and cycle within, through and beyond the site. Development layouts must provide clear, safe and direct connections to adjoining areas (Figs 23 & 24)

3.12. Connectivity should build on the information sourced in the Site Context and Character Appraisal such as Rights of Way, routes, linkages and desire lines.

Connectivity Checklist

- Developments should integrate with adjacent environments via safe, clear, direct and attractive routes

- Closed development and blocked, inconvenient or poorly surveyed routes will not be acceptable

- All existing ROW must be connected within a new development

Space analysis tools to measure connectivity. Fig 22

Direct, safe and attractive connection. Fig 23

Connections between a site and existing routes Fig 24

Permeability

the measure of how easy (or difficult) it is to move through all parts of a development.

3.13. As connectivity is concerned with external linkages, so permeability considers internal movement and connection within the site. Good permeability allows for ease of movement between all parts of the layout in the most direct way possible.

3.14. Like the previous two principles, good permeability directly supports community cohesion and the aims of SBLP policy CM2 to improve health, by encouraging greater potential for access, pedestrian movement and social interaction.

3.15. Poor permeability can result from lengthy, winding, unbroken, complex and closed road patterns that create a disconnect within an area (Fig 26). This often results in isolated, underused areas with dead ends. Conversely, **simple**, **direct** and **inter-connected** road and route patterns generate high levels of permeability and greater potential use for all user groups.

3.16. Permeability is highly influenced by block structure. The use of oversized, unbroken blocks particularly in terms of street length, should be avoided as these can create a high degree of impermeability and reduce pedestrian movement across a development.

3.17. Smaller blocks with adequate back to back distances, can create more frontage opportunities and are generally easier to move through and between (Fig 28). Smaller blocks also provide better environments for people with mental illnesses (such as dementia) to navigate and use [3].
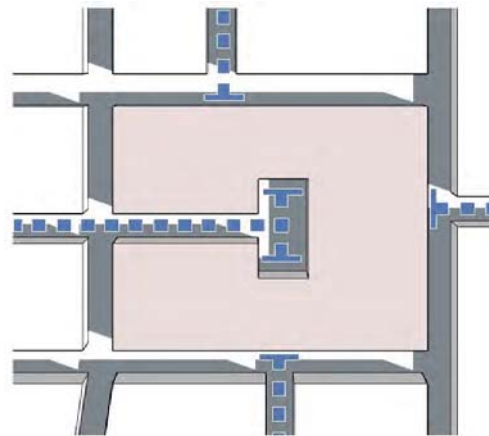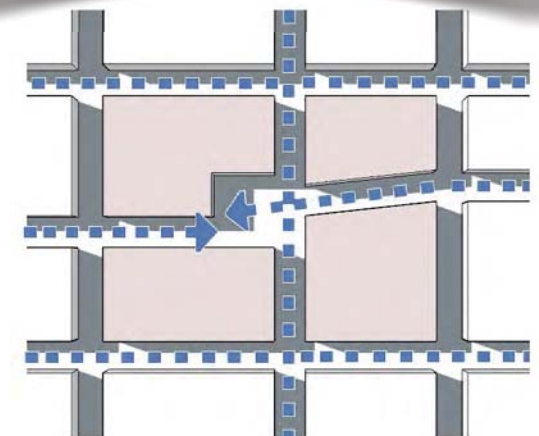
Closed block structure. Fig 25

Closed, indirect permeability. Fig 26

Permeability Checklist

- Developments should achieve good permeability of movement between all parts of the site in the most direct way possible

- Uninterrupted, protracted block lengths that compromise permeability will be resisted

Permeable block structure. Fig 27

Clear, direct, safe, attractive. Fig 28

[3] Housing Learning & Improvement Network Principle 1.

Legibility

the extent to which a place is recognisable and coherently organised.

3.18. Legibility in a layout contributes to identity improves distinctiveness, and enables clear, memorable images of a place. This in turn promotes use, aids navigation and helps vitality, choice and activity. **NPPF 69**

3.19. The nine principles in this Chapter are not mutually exclusive. A permeable, legible scheme with connectivity, and a clear entrance makes it easy for people to know where they are; to see where they want to get to and how to get there.

3.20. Movement **routes** through a development connect and integrate places, and the way routes are laid out across a site defines the structure of that place. A clear and logical structure is fundamental to legibility. This should be achieved through well-ordered, defined streets and strong relationships between uses, buildings, routes and spaces.

3.21. **Vista terminations, views, key buildings** and **landmark features** can all help secure legibility. **Routes** must have purpose and enable people to permeate, remember and experience a place. They must be clear, direct and well defined by the built form, and include framed **views** and **vistas** in and out of the development.

3.22. The way views are terminated is key to legibility. Layouts that include views ending in blank walls, parking courtyards, or ill-conceived elevations, indicate a negative 'dead-end', confuse navigation and are generally hotspots for crime. These will be resisted. Strong public realm, coherent street patterns and **key buildings** all provide indicators to aid legibility Fig 30).

3.23. To signal and celebrate a development entrance it is often important to include a "**gateway**". Gateways should involve bespoke design, distinct built form, and feature landscaping.

3.24. **Public art** can play a key role in securing and enhancing legibility and placemaking (Fig 29). This is considered again in Chapter 7.

Public Art is a powerful tool in legibility. Fig 29

Legibility Checklist

- Layouts must have a clear identity, logical structure and navigable street hierarchy

- Vista terminations should include aligned and articulated frontages

- Views out from a development should be framed

- Gateways should combine distinctive built form with landscaping to celebrate the entrance to a development

- Principal frontages should face the public realm and be orientated to support the street hierarchy. Frontages must be articulated and entrances clearly defined

Inclusivity

It is important to plan positively for the achievement of high quality and inclusive design for all development, including individual buildings, public and private spaces and wider area development schemes. NPPF para 57

3.25. Inclusive design should be an integral part of residential layouts. Designing places that provide choice and are fit for purpose for everybody helps reduce vulnerability, achieving social equality and improving opportunities for healthier lifestyles.

3.26. The Inclusive Design Access for All SPD provides guidance on principles for achieving inclusive design and relevant requirements are reflected in this SPD.

3.27. Social inclusion is important in designing for sustainable mixed communities as advocated by the Government and the needs of an ageing population are becoming widely recognised.

3.28. The location of all housing in relation to facilities and open spaces must ensure good access for all user groups (see Accessibility). The inclusion of benches and provision of shade are considerations that can make a difference to people's enjoyment and use of place (Fig 31).

3.29. The provision of affordable housing should be designed to be indistinguishable from market housing, whatever the tenure (Fig 32). Clustering non-market housing into large groups, or segregating it into isolated pockets, will not be acceptable.

3.30. The LPA prefers groups of less than 10-15 affordable units in a row (Fig 33) or clustered or across both sides of a street. Further guidance on affordable housing and the type and tenure of housing required is provided in Swindon Borough Council's Housing Strategy.

Inclusivity Checklist

- Levels across the layout must ensure accessibility for all users

- Buildings must include level threshold entrances and accessible approaches

- Access arrangements must provide functionality and safety for all users without compromising the quality of the public realm

- Incorporate inclusive design considerations and accessible standards to benefit a wide range of user requirements in the long term

- Affordable housing must be indistinguishable from market housing and not segregated

Opportunity to pause and rest. Fig 31

Mixed housing indistinguishable & integrated. Fig 32

High quality social housing in a small group. Fig 33

Adaptability

the ability to adjust to changing circumstances and uses over time.

3.31. The shift to home working for many sectors puts an additional requirement for space and or adaptability on the family home (Fig 35). An increase in life expectancy means we are likely to be living in our homes for longer and the desire to remain independent means adaptability of the home is essential to achieve this.

3.32. Extensions and alterations to houses are the most common applications dealt with by the LPA. By their nature, and where appropriate, extensions to houses in the form of rear and side additions and the conversion of roof space into habitable accommodation can enable people to stay in their properties for longer and absorb changing circumstances. This in turn helps build community cohesion by

3.33. **Inclusive design considerations** such as level access and wider openings (Fig 34) enable buildings to be fully functional for residents during all phases of their lives. This in turn reduces the reliance on institutional care models.

3.34. Consideration should also be paid to future owners who may wish to alter or extend the property. Garden sizes that are less than the footprint of the proposed house, have limited or no potential for adaptation and extension. These may be identified during the planning process and permitted development rights removed.

3.35. Successful urban developments consist of robust plot and block configurations that provide flexible solutions over the long term. To be truly sustainable, residential layout design should enable change and adaptation. Simple, rectilinear plot

Adaptability Checklist

- Layout structure should generally consist of simple robust plot and block configurations

- Proposed housing plots and/or house design should accommodate the necessary space for a dwelling to be adaptable

- Permitted development rights for house extensions may be removed where proposals cannot demonstrate that the proposed house would be extendable

configurations arranged in an ordered structure are usually the most efficient and adaptable urban form that allows for changes of use over time (Fig 36). Conversely sinuous, meandering sub-urban streets do not allow for easy adaption to change.

Gentle ramped level threshold. Fig 34

Space for home working or study. Fig 35

© Crown copyright & Database Rights 100024296

Simple ordered rectilinear block structure. Fig 36

Safety & Security

3.36. Through the Crime & Disorder Act (1998) Swindon Borough Council has a duty to ensure consideration, prevention and minimisation of the potential for crime. This may be best achieved through the application of Secured by Design principles see www.securedbydesign.com. Those applicable to planning have been incorporated throughout this document.
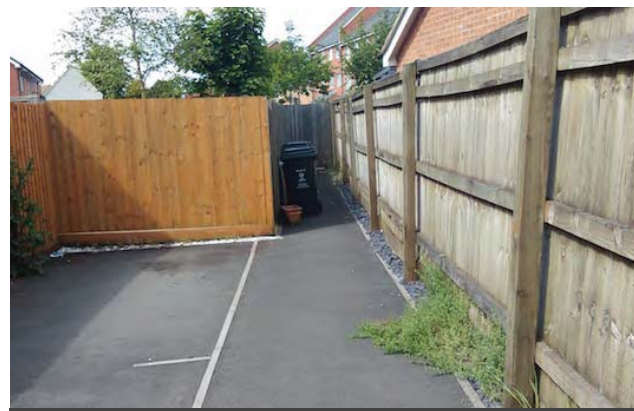
3.37. **Active frontages** and **natural surveillance** are essential for the perception of security and the success of the public realm. Described as 'eyes on the street' the use of carefully-located windows and doors, can create a naturally surveyed, well-lit area, which provides greater security (Fig 37)

3.38. Natural surveillance is a subtle but effective tool that creates a sense of safety. Conversely, hidden and concealed entrances and recesses in the built form including parking courts, can result in dark areas and a sense of threat. The built form and elevation should work together to animate and activate the street.

3.39. Fronts and backs of buildings perform different roles and it is important that the formal, more animated front should always face the public realm and contribute to it. Blank or inactive side and rear elevations, walls and other means of enclosure are prone to graffiti and contribute little to the public realm. They should therefore not form the main public frontage or be in direct public view.

3.40. The rear of properties are the most vulnerable to crime and unsecured, narrow, rear shared pathways to back gardens (Fig 38) create a host of problems. Research[4] has shown that up to 85% of break-in entries to terraced homes occurred at the back of houses with open rear access footpaths. The LPA will not accept such arrangements.

3.41. **Rear pathways** to back gardens should be as simple and directly-related to the front of the plot as possible. The use of private, poorly surveyed and unsecured rear pathways will not be acceptable. In terraces, ginnels (Fig 39) can offer a very safe and attractive solution where adjoining properties share a common accessway. **NPPF 69**

Bay window provides good street surveillance. Fig 37

Unsecured, unattractive rear access pathway. Fig 38

Ginnels provide secure & attractive access. Fig 39

[4New Homes 2014, Secured By Design, p21].

3.42. A clear and positive relationship between public and private space is important for ease of maintenance, sense of ownership, and local identity and pride.

3.43. Layouts should plan properly for the successful design of public open space by creating **attractive, overlooked and usable environments** that are easy to maintain (Fig 40)

3.44. The design of **car parking** and the overall street configuration is a major contributor to placemaking. Inefficiently and poorly planned car parking can weaken the quality of the whole area or street and lead to inefficient layouts. One such example is the use of rear courtyard parking which is rarely successful and can result in a lack of surveillance and poor use (Fig 41) that puts more pressure on the street.

3.45. Paradoxically, efficient, well planned and laid out parking that is designed for the most part 'on-plot' requires less land for manoeuvres and for private pedestrian pathways. It is also the favoured layout of residents and contributes to independent living.

3.46. Character and context should help inform the most appropriate car parking arrangements particularly in established and historic areas. Further detail on parking can be found in Chapter 5 Function.

Safety & Security Checklist

- Routes, public realm and shared private space must be well lit with active, animated elevations to provide surveillance

- Entrances and recesses must not be hidden or concealed from view

- Blank, inactive elevations and means of enclosure, must not form the main public frontage

- Poorly surveyed, protracted or unsecured side and rear pathways will not be acceptable

- Over-reliance on rear courtyard parking, or parking that is inconvenient and poorly associated with the host dwelling will be resisted.

Safety secured through a line of frontages. Fig 40

Inhospitable, unattractive, courtyard. Fig 41
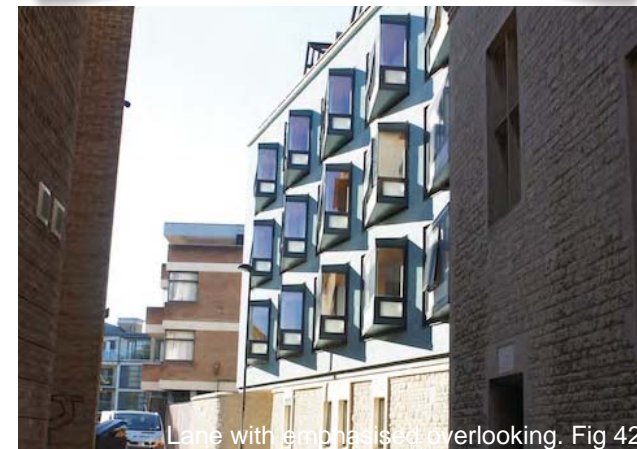
Lane with emphasised overlooking. Fig 42

Layout Efficiency

the best use of land through the optimum organisation of a development.

3.47. Land is a scarce resource and should be treated as such. Good design is efficient in the social, environmental and **NPPF 7** economic aspects of sustainable development. Wasteful, poorly designed proposals that take a short-term view can result in visually lacking, functionally weak and often maintenance-hungry developments. Such ill-conceived layouts are often less land efficient and result in lower end value.

3.48. The arrangement of house types along a street should achieve efficiency of land and avoid left over spaces. The grouping of similar typologies together can provide for greater land efficiency as the 'kit of parts' for each dwelling (front boundary treatments, front gardens, cars, bins, recycling boxes, landscaping etc.) can be more simply arranged. In residential layout terms, these smaller elements when poorly considered in relation to the overall design of a streetscene can be the most damaging to the quality of a place.

3.49. This approach to setting out new housing is not new and is engrained in most historical housing patterns such as the Victorian and Georgian periods.

3.50. In Chapter 8, design-led, quality-driven layouts are contrasted against poor quality, uninspiring layouts. In addition Case Studies provide further analysis of other areas in light of the principles of policy DE1, including the efficiency of layout design as measured by site coverage.

3.51. These examples illustrate that good design achieves better quality places without losing efficiency in layout terms. The Case Studies demonstrate that a reconsidered design on the same site in light of the principles of policy DE1 can have a marked improvement in the overall social, environmental and economic quality and value of place. **NPPF 7**

3.52. Leftover space that is awkward to maintain, small and compromised (such as in between differently-aligned parking bays) must be designed-out.

Open space overlooked by housing on all sides. Fig 43

Layout Efficiency Checklist

- Developments should ensure land efficiency through strong ordered street hierarchy and the arrangement of house types

- Layouts that are highway dominated and deficient in quality public realm will be resisted

- Unusable or poorly accessed leftover areas of land must be avoided and will not be counted toward public open space

3.53. Housing that fronts attractive open space (including water bodies) is often the most desirable (Figs 43 & 44). The more attractive that open space is, the greater the potential place value. Put simply, layout efficiency *is* good urban design.

Attractive public realm and quality housing. Fig 44

Energy Efficiency

local planning authorities should expect new development to take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption. NPPF para 96

3.54. Adopting passive solar design principles can make a considerable improvement to a dwelling's energy efficiency. The LPA expects all development to demonstrate passive solar benefits to increase energy efficiency of development.   **NPPF 95**

3.55. Technical guidance on energy efficiency is provided by BREEAM but for the purposes of this SPD energy efficiency through passive solar design is considered in terms of Orientation. **Chapter 6 Amenity** also discusses issues relating to sunlight, daylight, overshadowing and separation distances.

Orientation of streets

3.56. East-west street alignments ensure houses have a natural southerly aspect to the front or rear of the dwelling. This concept should be considered in the design of layouts to take advantage of passive solar gain balanced against other constraints and design-led placemaking objectives.

Orientation of dwellings

3.57. Ideally the main glazed elevation of a property should face within 30º of south (Fig 45). Dwellings with the main glazed elevation towards south east will benefit more from morning sun, while those facing south west will gain the late afternoon sun, delaying the need for artificial heating.

Orientation of rooms

3.58. The most frequently-used rooms of a home (lounges, bedrooms and kitchens) should face towards the southern sky. Only the least-used rooms (halls, bathrooms, utility, etc.) should face north, as light and heat is less important to their use. Maximising use of the warmer and lighter southern sky is particularly important for more vulnerable residents that may be unable or restricted in their ability to venture outside.

© Crown copyright & Database Rights 100024296

East-West street alignments for solar gain. Fig 45

Energy Efficiency Checklist

- Development should demonstrate passive solar design

- Main glazed elevations and habitable rooms should be placed towards the south of buildings

- Complete overshadowing of southern elevations will not be acceptable and separation distances must be secured (see Chapter 6 - Amenity)

3.59. The LPA will resist scenarios where proposed buildings or structures would create a complete shadow over southern elevations of other dwellings. Such overshadowing impacts on energy efficiency and amenity. Further detail on amenity is provided in Chapter 6.

Glazing to south maximise light and solar gain.   Fig 46
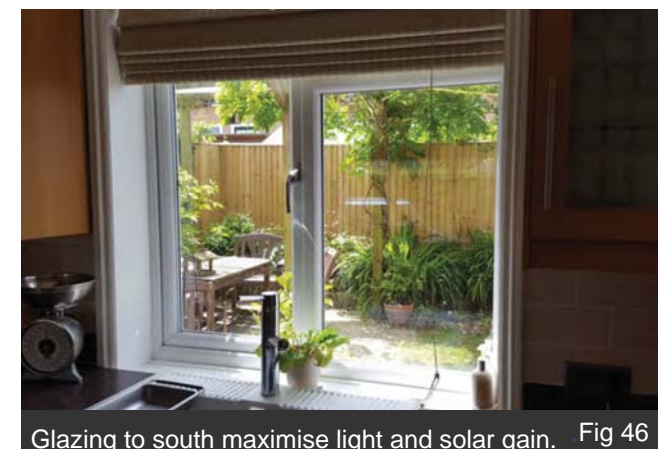
Building forms and roofscapes, across Swindon Fig 47