June 2006

Quality Design - West Berkshire

Supplementary Planning Document Series

Part 1

Achieving Design Quality

Local Development Framework

West Berkshire Council

PART 1

Contents

1 Background

1.1 Introduction

1.1.1 This document comprises the first of several publications which form the West Berkshire Council (WBC) design guide series "Quality Design - West Berkshire". Together the series forms a Supplementary Planning Document (SPD) which supports the policies in the West Berkshire District Local Plan 1991-2006 and the Berkshire Structure Plan 2001–2016. **As such, it is a material consideration in determining planning applications and if not followed, may lead to the refusal of planning permission.** It is intended that in the future this SPD series will also support relevant policies in West Berkshire Council's Development Plan Documents. It also complements other existing Supplementary Planning Guidance (SPGs) and SPDs, including any site specific development briefs which may be produced in the future.

The guidance seeks to promote and secure good design within new housing development...

....and within new commercial development in West Berkshire

1.1.2 This section "Achieving Design Quality" sets out the aims and objectives of the guide, how to use it, general urban design principles relevant to all new development and a design and sustainability checklist which should be used by developers when designing new developments. The Checklist and Route Map can be used to highlight the elements of this SPD series most relevant to a particular development proposal. ***(TO FOLLOW)***

1.2 Aims and scope of the design guide series

1.2.1 The overall objectives of this design guide series are;

- To improve the design quality and sustainability of development schemes in West Berkshire;
- To set out a check list of design and sustainability matters which should be taken into account by developers in preparing their proposals.

This SPD complements other design guides including;

SPG 03/1 Shop Fronts and Signs

SPG 04/2 House Extensions

Town and Village Design Statements

1.2.2 The series has been produced to help developers to create places of high quality design which are sustainable, secure and accessible to all. The series places particular emphasis on understanding context, as a full appreciation of the overall site and surrounding area is essential as a starting point for creating a sense of place – i.e. creating a successful and enjoyable living, working or leisure environment.

Guidance from CABE and DCLG seeks to promote high quality urban design and architecture

Guidance on sustainable building techniques is provided within Part 4 of this SPD

The Council requires a commitment to high standards of design for all new development, influenced by the best practice set out out in this SPD

1.2.3 This SPD series applies to all developments, including both residential and commercial, across the whole District. However, there is a particular focus on how new residential development can be incorporated into existing areas - Part 2 Residential Development focuses on this issue.

1.3 The Value of Good Design

1.3.1 The quality of the built environment affects us all. Whether it's the residential neighbourhoods in which we live or the commercial and leisure areas in which we work and take our leisure, we are affected by urban design on a daily basis. The Council is committed to improving the quality of design within the District and this series has been prepared to protect and enhance its towns and villages by managing new development in a positive and proactive manner.

1.3.2 Good design adds value to development in terms of environmental performance, community and social well being and commercial viability. It also contributes to a sense of pride in an area and creates a more legible or understandable built environment with good accessibility and ease of movement. Good design should reinforce local patterns of development, respect the grain of urban and rural landscapes and complement the surrounding area in terms of scale, quality and materials. At the same time, unless conservation interests are overriding, innovative and contemporary design, complementary to context should be considered.

1.4 The Design Process

1.4.1 The most successful developments are those that have been designed through collaboration and consultation between all parties. The Council encourages developers, designers and householders to undertake early discussion of proposals and planning applications, to ensure that new development is consistent with the advice in this document, any planning and design briefs and other SPGs and SPDs. It also encourages engagement with the local community by developers, particularly on larger scale development proposals.

1.4.2 Further information on dealing with large proposals can be found within the Major Applications Developers Pack at **www.westberks.gov.uk**

1.5 Policy Background

1.5.1 The approaches set out in this SPD support local development plan policy and respond to the strong national policy framework which looks for high quality design and the creation of sustainable communities.

National Policy

1.5.2 The Government has placed design quality at the forefront of its agenda for planning. Planning Policy Statement 1 (PPS1) – Delivering Sustainable Development, 2005 clearly demonstrates the importance with which good design is regarded;
"Planning authorities should 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. Good design should contribute positively to making places better for people. Design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions, should not be accepted".

1.5.3 Responding to the need for locally distinctive development, the PPS states;
"It is…proper to seek to promote or reinforce local distinctiveness particularly where this is supported by clear plan policies or supplementary planning documents on design".

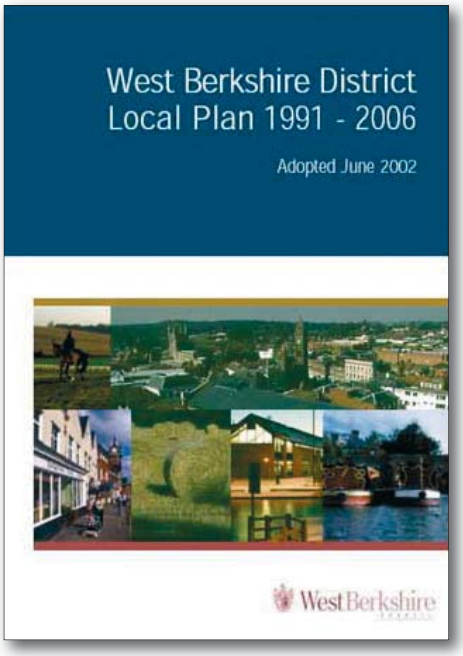
1.5.4 Planning Policy Guidance Note 3 (PPG3) Housing, March 2000 seeks to ensure that developers make more efficient use of land by ensuring that most new housing is developed at a minimum average density of 30 dwellings per hectare. PPG3 also makes it clear that local authorities are advised to reject poor design where their decisions are supported by clear policies and adopted SPDs.

1.5.5 Consultation Draft Planning Policy Statement 3 (PPS3) Housing was published in December 2005. The consultation document seeks a minimum density of 30 dwellings per hectare and promotes the need for sustainable and environmentally friendly design.

1.5.6 Also of significance at national level, is design guidance produced by the Office of the Deputy Prime Minister (ODPM), which is now the Department for Communities and Local Government (DCLG), and the Commission for Architecture and the Built Environment (CABE).

Accessibility to public transport and promotion of walking and cycling should be a key part of development proposal

Guidance on residential parking provision and design layouts is included in Part 2 of this SPD



The guidance takes its cue from the policies set out in the Adopted West Berkshire District Local Plan, June 2002 and the Berkshire Structure Plan 2001-2016

Of key importance are;

- By Design, 2000;
- Safer Places, 2004: The planning system and crime prevention;
- Better Places to Live: A companion guide to PPG3, 2001;
- Green Spaces, Better Place, 2001; The interim report of the Urban Green Spaces Taskforce;
- Creating Excellent Buildings: A Guide to Clients, 2003, CABE.

1.5.7 CABE is responsible for the publication of many design related documents throughout the last few years, providing good practice advice on many aspects of design and development. Useful texts include "Better Neighbourhoods: Making Higher Densities Work", 2005; "Design Review", 2005 and the "Design Reviewed series", also 2005.

1.5.8 The ODPM's Sustainable Communities Plan, 2003 is also a key reference text; setting out the Government's long-term programme of action for delivering sustainable communities in both urban and rural areas.

Regional and County Policy

1.5.9 Regional policy contained within RPG9 for the South East, 2001 and County policy contained within the Berkshire Structure Plan, 2001 – 2016, deal mainly with general issues on sustainability, quality of life, the environment, housing, transport and environmental enhancement and provide a context for more specific local policies.

Local Policy

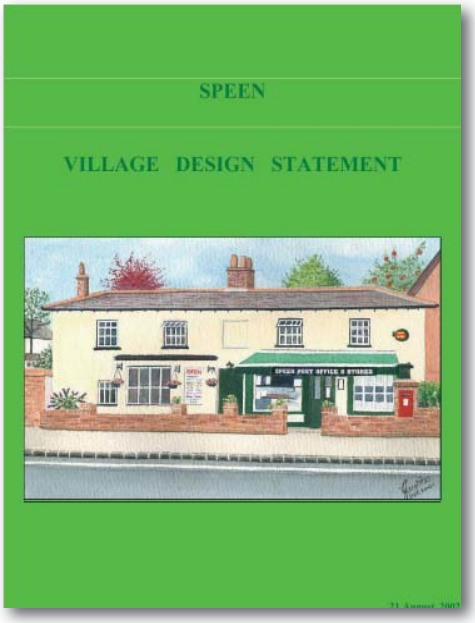
1.5.10 At a local level, the importance of good design is reflected within the WBC Local Plan, 2002, in Policy OVS2; stating that all development proposals should show a "high standard of design". This is complemented by Policy DP5 of the Structure Plan which also requires good design.

1.5.11 This SPD supports several Local Plan and Structure Plan policies. In particular it supports those which aim to secure well designed and sustainable development;

Local Plan policies:

OVS1	**The Overall Strategy**
OVS2	**Core Policy**
OVS11	**Planning to reduce the opportunity for crime**
ENV5	**Setting of Settlements**
ENV10	**River Flood Plain Areas**
ENV11	**Surface Water Runoff**
ENV11a	**Waste Water Management**
ENV11b	**Surface Water Disposal**
ENV12	**Ground Water and Surface Water Protection**
ENV21	**Infilling and Ribbon Development in Existing areas of Dispersed Settlements**
ENV30	**Protecting and Improving the Urban Environment**
ENV33	**Development in Conservation Areas**
ENV34	**Burgage Plots in Hungerford**
HSG 7	**Planning Benefits relating to New Housing Developments**
TRANS1	**Meeting the Needs of New Development**
TRANS2	**Enhancement of Transport Facilities and Network**
TRANS4	**Cycling**
TRANS5	**Pedestrians**

Town and Village Design Statements



Town and Village Design Statements are available to view on the Council's web site www.westberks.gov.uk

Town and Village Design Statements should be referred to when proposing new development in each of these villages, alongside this SPD. They are important guides to local character, building types, materials, building design, landscape and features of local interest and complement this SPD series.

1.5.12 Important design guidance at the local level is also provided in the Town and Village Design Statements (TDS and VDS), produced by local communities and adopted as material planning considerations by WBC.

The relationship between built form and the surrounding landscape are essential elements of local character

The built environment surrounding the site can often be of historic importance

Knowing what traditional building materials are used within an area can help inform design proposals

To gain an initial understanding of the character of the area, refer to Part 3 of this series: Residential Character Framework. This provides the starting point for designers in these areas.

Town and Village Design Statements help to describe the character of many localities throughout West Berkshire.

2 Achieving Quality Design – Key Principles

2.1 Key Urban Design Principles

2.1.1 Good design comes from a thorough understanding of **local character, place and context.** One of the keys to a successful project is to achieve an understanding of the physical context. This can be achieved through an urban design analysis which should go beyond the view from the site boundary, to include the neighbourhood, town or village.

2.1.2 CABE's publication 'By Design' contains useful information on urban design issues in general, and on how to analyse and respond to local context. It suggests the following objectives for urban design; to be considered in relation to people and their activities as much as to built form.

- Character (including sense of place);
- Continuity and Enclosure;
- Quality of the Public Realm;
- Ease of Movement;
- Legibility;
- Adaptability;
- Diversity.

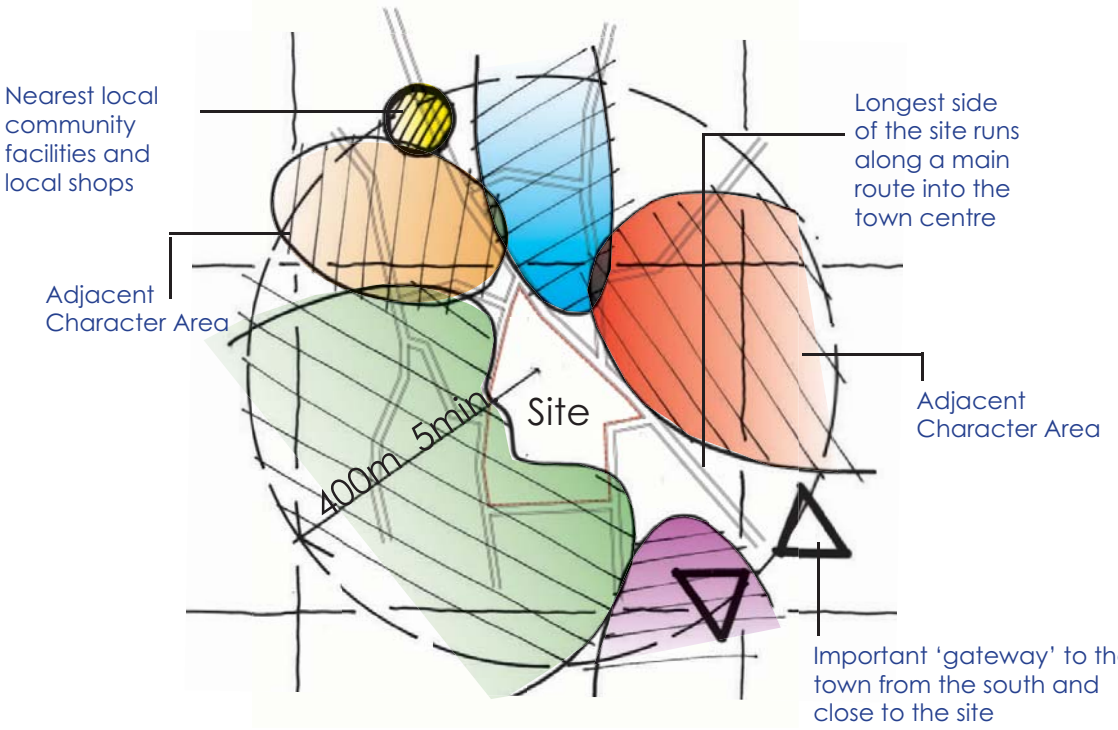
2.1.3 **Character** – New development should begin with an understanding of the area's existing character and context and its design should evolve from West Berkshire's rich landscape and built heritage. Development should seek to complement and enhance existing areas, using architectural distinctiveness (through construction materials and techniques) and high quality urban design, to reinforce local identity and to create a sense of place; one that is successful and enjoyed. A sense of place can be created through a full understanding of how new development contributes to the character of an area and adapting design techniques to create places that feel safe and secure; places that people enjoy using, can identify with and can take pride in or responsibility for their upkeep.

The Bigger Picture

On the following pages, we consider a typical infill site situated within a residential area of a small market town. The example is of a residential development but the approach to understanding the context and working through to detailed site planning can equally be applied to commercial or mixed developments

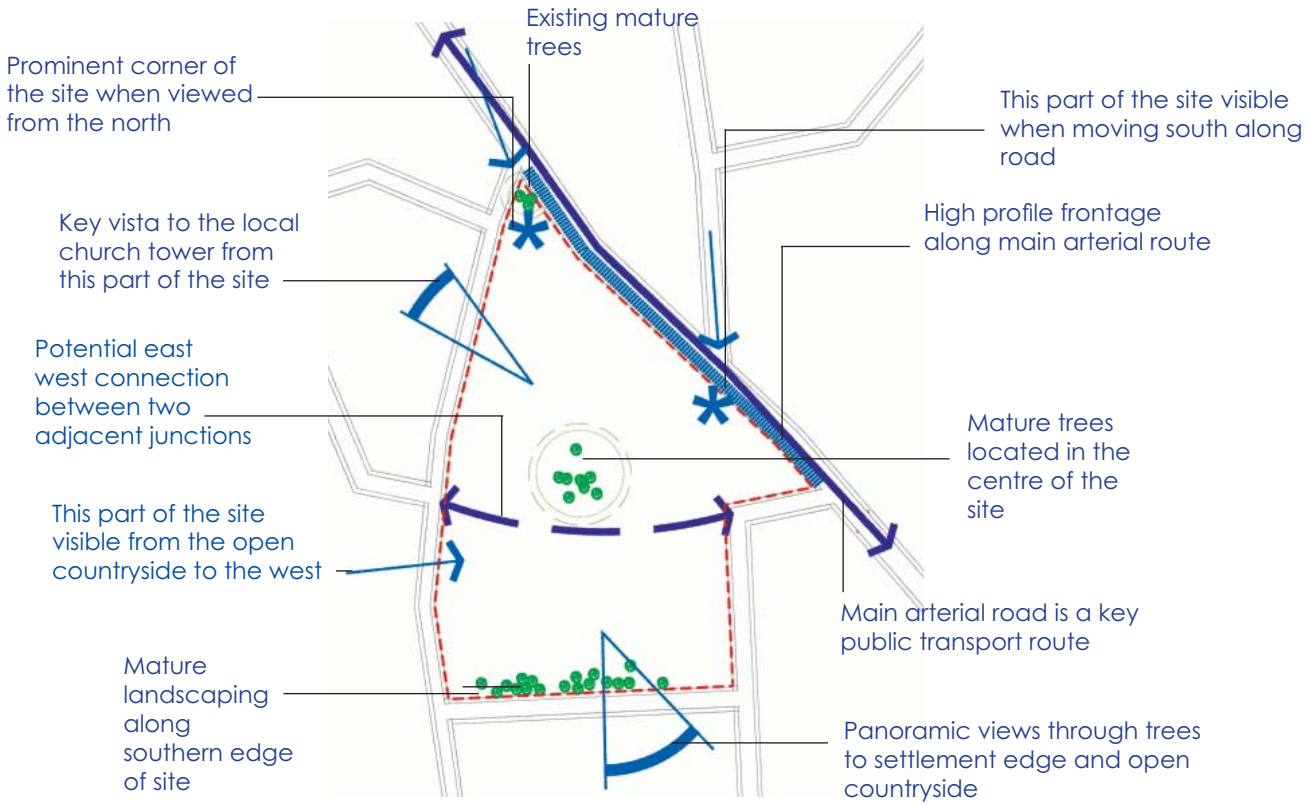
Neighbouring Character Areas and Local Facilities

The site is surrounded by a number of different character areas and other key features. This simple urban design analysis shows that the site is within walking distance of local shops, is surrounded by a number of different character areas and is located close to a key gateway into the town along a main road.



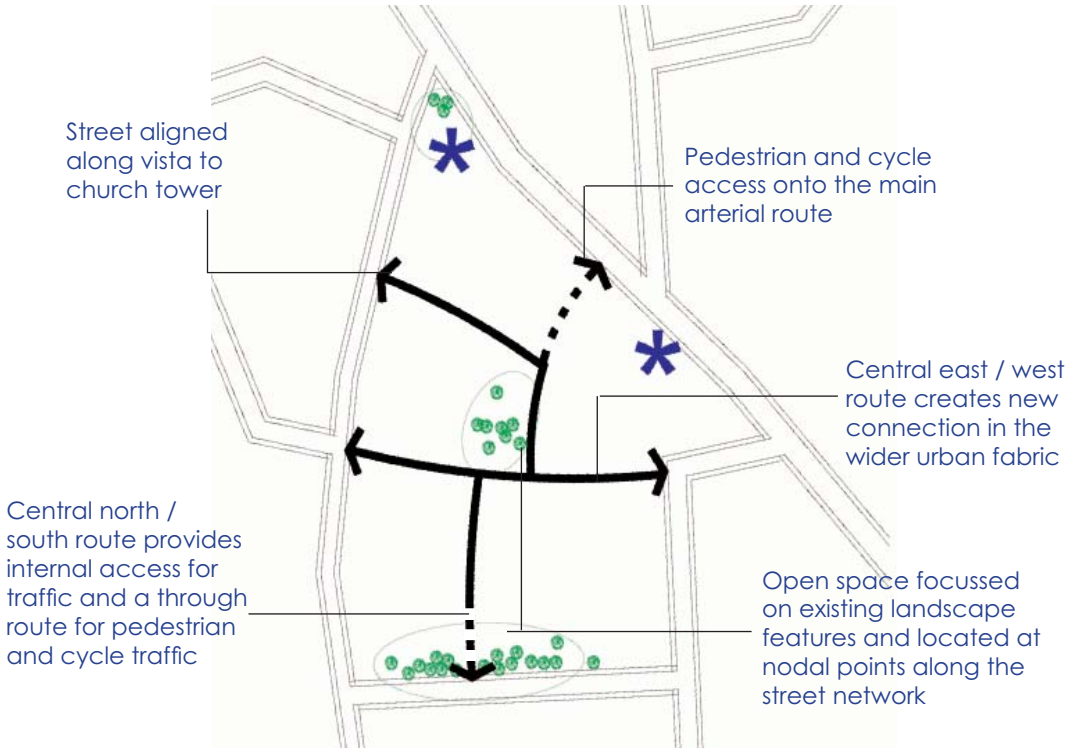
Appraising the Site

At a more detailed scale, key features within the site can provide the starting point for a responsive design proposal



Creating a Permeable Layout

The development of a street and block structure is a key stage in the design process



2.1.4 West Berkshire has locally distinctive towns and villages which have been shaped by their landscape setting within the Kennet Valley, the Thames Valley and the Berkshire Downs, with the settlements moulded to the topography of the countryside. The historic town and village cores were developed using local materials and even in larger settlements, such as Newbury, views to the surrounding open countryside from the urban area define the character of many parts of the town.

New housing encloses a small open space with frontage development

2.1.5 **Continuity and Enclosure** – New development needs to ensure that public and private spaces are clearly distinguished. Successful public spaces are usually well defined by buildings, structures and hard or soft landscaping. These tend to be spaces which are edged by active frontages (E.g. front doors, shop fronts, large windows); spaces which are overlooked or benefit from natural surveillance, enabling people to keep an eye on the public realm and therefore make it feel safer and free from crime and vandalism. Successful private spaces tend to be enclosed by buildings and only overlooked by the user's home or property. In general, it is best that access is only gained from the property itself. Where this cannot be achieved and in exceptional circumstances, secure gates, preferably not backing onto public realm, footpaths or alleyways may be an option, however the developer will be required to justify the need for gates and that all other options have been investigated.

Quality public realm should have an identified use and be created through a combination of good planning, urban design and landscape design

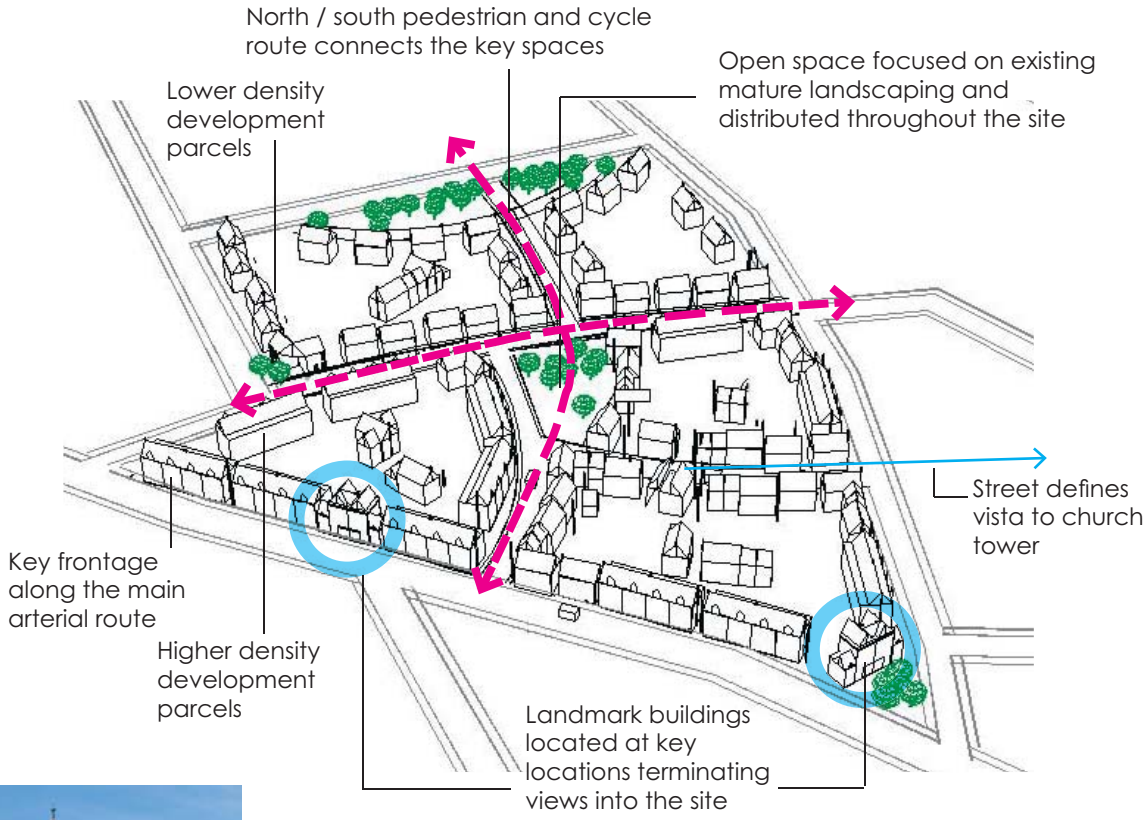
2.1.6 **Quality of the public realm** – Opportunities for interaction with public space should be maximised in new development and a high quality public realm can encourage a sense of community ownership and respect. To ensure its attractiveness and success, all public spaces should have an identified use and take full advantage of outward facing buildings, active edges and perimeter blocks which assist with natural surveillance. Hard and soft landscaping should also be incorporated and can provide a key opportunity for a sensitive and innovative design proposal. The structure of pedestrian and vehicle movement will help frame a landscape strategy; functional elements such as footpaths, car parks, cycleways and bin storage are all elements that need to be considered as well as the soft planting scheme itself. Early consideration of landscaping will also allow relationships to be developed between internal and external spaces and can influence the design of the buildings.

Public open space should encourage activity and social interaction

New development should facilitate easy movement for pedestrians and enhance the walking experience

Creating a Legible Urban Form

Development proposals should create a clearly defined series of perimeter blocks connected by a series of streets and squares. Different parts of the site respond to the adjacent character areas



Traditional urban form used landmark buildings and features to enhance legibility

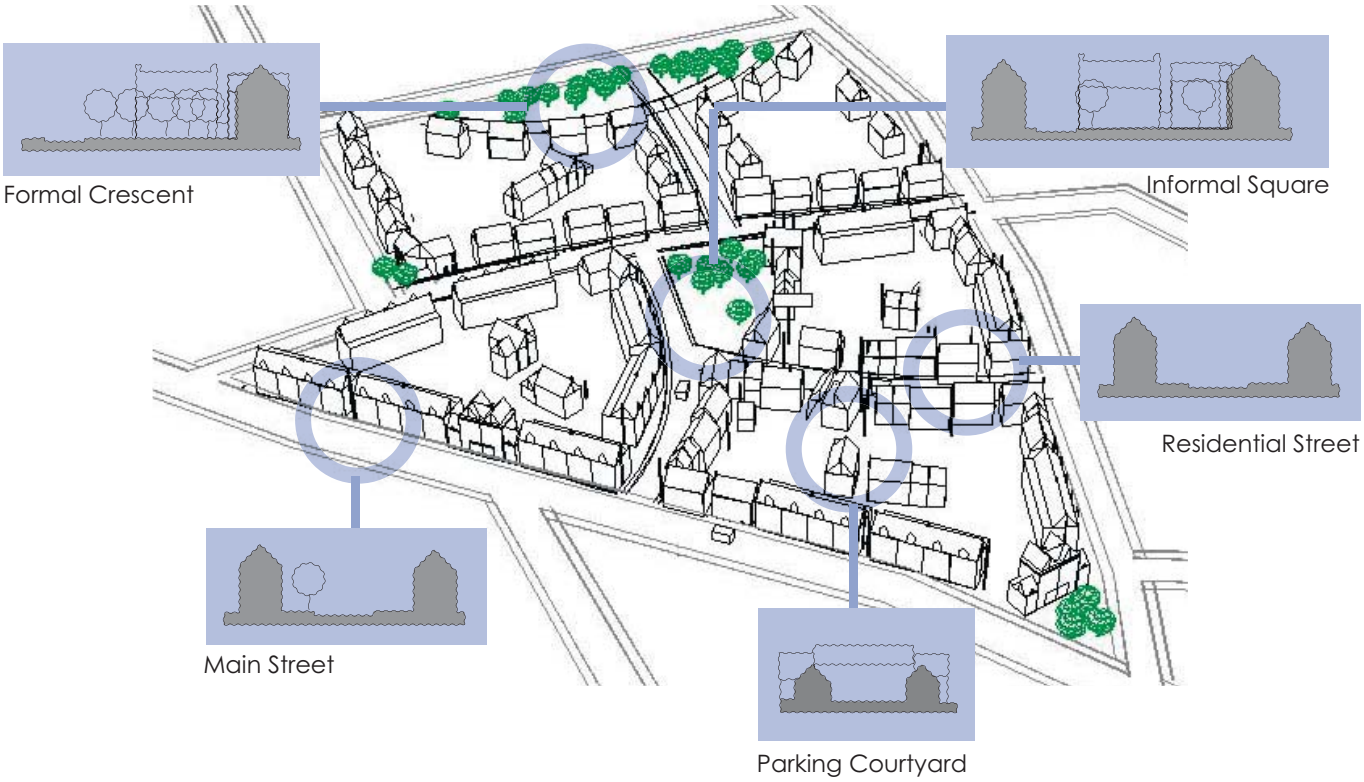
Energy efficiency is an increasingly important consideration when designing buildings

2.1.7 **Ease of movement** – New development should be readily permeable with connected layouts allowing safe, direct routes for pedestrians and cyclists. This will maximise opportunities for interaction and minimise personal risk and isolation. A movement strategy should be considered for any new development, prioritising the needs of pedestrians and cyclists, ensuring direct and convenient access to the main movement network and providing cycle storage appropriately located in a well used overlooked location. Parking provision should also be well planned and convenient to use for pedestrians as well as drivers. Servicing will also need to be considered, ensuring that movements by large vehicles such as refuse removals and emergency vehicles do not conflict with the normal movement flows.

2.1.8 **Legibility** – New development needs to be designed so that users can understand and identify key routes, access points, differences between public and private realm and feel safe and secure at all times. Landmark buildings, marker buildings, active frontages, a clear hierarchy of routes, defined and appropriately lit footpaths and cyclepaths and a mix of uses (providing active uses within a site at different times of the day) can all increase the legibility of development.

Hierarchy of Spaces

The highways network within the development should seek to conform with West Berkshire's highways requirements. However the road hierarchy should also relate to a hierarchy of streets and spaces which will create variety, enhance legibility and contribute to creating a sense of place. The character of each street and space will be determined by the level of enclosure - this can be on a small or large scale, formal or informal.



2.1.9 **Adaptability** – New development needs to be flexible enough to respond to future changes in use, lifestyle and demography. This means designing for energy and resource efficiency; creating flexibility in the use of property, public spaces and service infrastructure and introducing new approaches to transportation, traffic management and parking.

A mixed use development should be located at the heart of larger developments

2.1.10 **Diversity** – New development should provide opportunities for variety and choice within the local context. Proposals should incorporate the principles of mixed use development including the provision of conveniently located community infrastructure, active ground floor uses or frontages and activities that ensure that a place feels safe and secure at all times. Even in predominantly residential areas, it is important to provide for a mix of tenures, housing types and associated facilities, to ensure a mixed, sustainable community at all times of the week, day and evening.

2.1.11 This series takes these objectives as a starting point and provides a thorough analysis of residential character throughout West Berkshire. The Residential Character Framework (Part 3) gives designers an advanced starting point for urban design analysis, detailing its coverage, role and guidance on its application.

2.2 Planning the Site

2.2.1 Aside from the key urban design objectives, there are a number of other considerations when planning new residential and commercial development for a site. These are listed below. For more specific guidance on residential development, this section should be read alongside Part 2 of this series.

New development should promote access to public transport

Pedestrian connections between neighbourhoods should be created by new development proposals

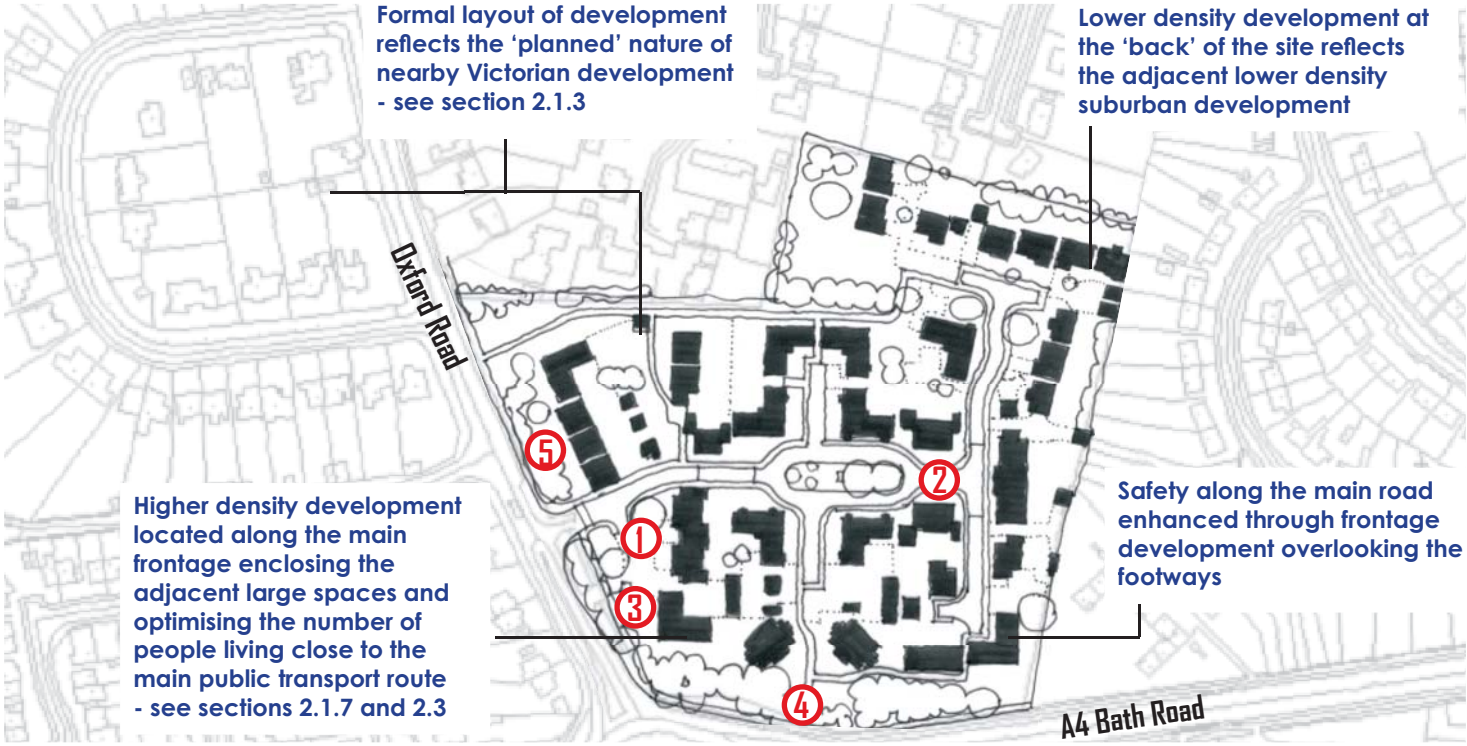
2.3 Promoting Walking, Cycling and Public Transport and Proximity to Local Services

2.3.1 Providing easy walking access to local services and public transport from new development reduces the need to use the car and helps to ease congestion and pollution problems. Such proximity to public transport also helps to make new homes and facilities accessible to those who do not have a car. Positioning developments close to local amenities may reduce the number of short journeys by car.

2.3.2 Cycling reduces air and noise pollution and congestion and also improves health and fitness. New development should attempt to link up to the existing cycle network and provide measures which make cycling an easy and safe option. For example, people need somewhere convenient and safe to store bicycles at home.

Recent Residential Development - Design Appraisal

Sensitively designed scheme at College Mews, Newbury (David Wilson Homes), accommodating a variety of flats and house types on a site in the heart of Newbury



Retained mature tree with three storey town houses creates a strong gateway to the development and addresses the main road

Central 'formal square' creates a public open space at the heart of the development - see section 2.8

Boundary between informal open space surrounding the flats and the parking area is defined by iron work fencing - see section 2.9

Footpath and cycle network is clear and provides convenient routes into the scheme - see section 2.4

Main road fronted by town houses set back behind existing mature tree groups - see section 2.5

A permeable Victorian street and block layout at West Fields, Newbury

2.4 Movement and Connections

2.4.1 The structure of a site and its relationship to surrounding areas are fundamental to the layout and design of all new development. This is particularly true for large and medium scale development sites, but also applies to infill development. The objective should be to ensure that the structure is well integrated with surrounding streets, in order to provide for the optimum variety of journeys, to promote more sustainable forms of movement and to ensure maximum safety and security of users.

Less permeable 1980's distributor road and cul de sac layout at Calcot

2.4.2 The quality of a route will also often determine people's choice of transport mode and people are more likely to walk or cycle if the street is safe, visually interesting and lively. Increased pedestrian activity also leads to the 'self policing' of an area and neighbourhoods can be enhanced through increased opportunities for social engagement and face to face contact and recognition. This does not mean that all development must be fully permeable. A balance needs to be struck between the advantages of creating private or semi-private space and the benefits of connections and connectivity.

2.4.3 A permeable layout is one that has frequent points of access into and through it, provides convenient walking and cycling routes that connect up to major routes, provides opportunities for the provision of, or connection to bus routes and has clear views, aiding orientation and understanding. Differences can clearly be seen between the connected streets and squares of Victorian and Edwardian development and the distributor roads and cul de sac layouts of the 1970's and 1980's; the latter facilitating easy access for the car but forcing pedestrians and cyclists to follow circuitous routes for short 'as the crow flies' distances.

Historic key frontages defining the edge of open space

2.5 Key Frontages

2.5.1 Key frontages define prominent edges to important streets and spaces and enhance legibility within a neighbourhood. Particular attention will need to be paid to the treatment of the buildings lining open spaces and squares to ensure that these prominent areas have a building frontage which helps create distinctive quality, character and overall three dimensional form.

2.6 Landmark Buildings

2.6.1 A landmark building is an individual building or group which contributes substantially and positively to the street scene. A building does not have to be a Listed building to be considered important in this way. Landmark features and identifiable features are also important such as prominent trees and war memorials.

2.6.2 At prominent locations within development proposals, landmark buildings should be proposed to create local identity, contribute to townscape quality and provide points of reference. On major developments, developers need to consider the architectural quality of prominent landmark buildings.

Landmark buildings defining the gateway to a key street

2.6.3 Landmark buildings provide the opportunity to make an architectural statement e.g. providing a focus, articulation, legibility, vertical emphasis to the townscape. The treatment of these buildings should be in keeping with their townscape role in terms of scale, materials, style and detailing;

- Landmark buildings should be carefully positioned to ensure they are key elements of important views and vistas;
- Within medium / high density development, landmark buildings should be of a height, scale and design appropriate to make distinguishable from adjacent buildings;
- Within lower density development, landmark buildings should be clearly distinguishable from adjacent development.

2.6.4 Existing landmark buildings and features should be retained where redevelopment occurs and should be incorporated into the new development. Reference should be made to town and village design statements which may identify landmark buildings and features.

Public art can enhance local distinctiveness and help create memorable places

2.7 Public Art

2.7.1 To enhance legibility throughout new development and to enhance local distinctiveness, proposals should include works of public art where possible. Work should be sited in key locations such as main access roads, open spaces and squares and their design and siting could involve the local community; a tool which is often successful in enabling the community to incite pride and sometimes responsibility for management and upkeep of an area. Where possible public art should be incorporated into the detail of development such as railings, paving, signage and bus shelters as well as more traditional ways such as statues and water features.

2.8 Open Space

2.8.1 Designers and developers should create a positive relationship between formal parks, local open spaces and new development. Open space has the potential to perform a number of functions at various scales, including formal parks and gardens, green corridors (including river and canal banks), outdoor sports facilities, amenity green space, provision for children and teenagers and civic spaces.

Examples of open space

2.8.2 All open space has the potential to benefit wildlife and biodiversity. Small areas of open space provide an important local amenity and for opportunities for recreation and play; larger areas also provide a community resource and can be used for formal and informal events. In addition to its recreation role, open space can act as focal points within the development and as green 'lungs' providing a break in the urban fabric. Some buildings within a development should front on to the spaces to provide security and surveillance. Boundary treatments along development edges will require careful consideration and will need to reflect the prominence of the edge, activities within the spaces and the design approach of the particular character area.

2.9 Safety and Security

2.9.1 The West Berkshire District Local Plan requires that all development schemes within West Berkshire should be designed so as to reduce the potential for criminal activity and anti-social behaviour. Approaches to achieving this are set out in this section. Failure to reduce the potential for crime could result in a planning application being refused.

Activity along the edge of an open space enhances safety

2.9.2 The ODPM's guidance on safety and security in the built environment; "Safer Places" April 2004, sets out attributes of sustainable community design that are particularly relevant to crime prevention and should be considered throughout all new development;

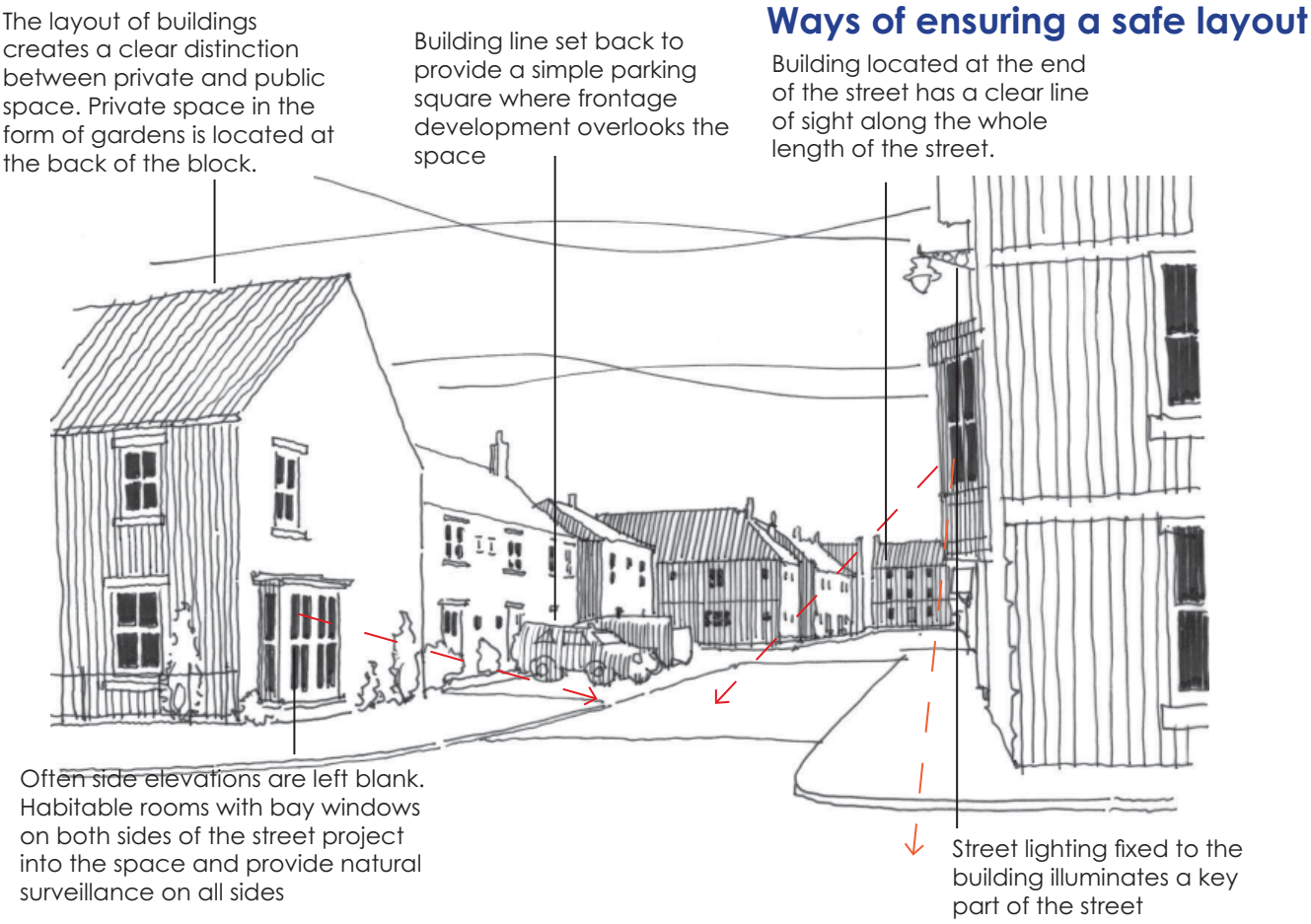
- **Access and Movement:** Well defined routes, spaces and entrances that provide for convenient movement without compromising security;
- **Structure:** Places structured so that different uses do not cause conflict;
- **Surveillance:** All publicly accessible spaces are overlooked; with informal security afforded by busy and public places, providing an inherently safer and more appealing environment. Mixing uses and providing a greater variety of activities can encourage natural surveillance;
- **Ownership:** Promoting a sense of ownership, respect, territorial responsibility and community feeling through the well managed safety and security of land and buildings. Where ownership of space is unclear anti-social behaviour tends to take hold and creates safety and security problems. By establishing a street and block structure a clear delineation is made between private and public space;
- **Physical Protection:** Necessary, well-designed security features; as promoted by Thames Valley Police through the Secured by Design Initiative, found at **www.securedbydesign.com**;

A mix of dwelling types and sizes overlooking adjacent public realm

Pedestrian walkway with dwelling carefully sited to look onto the space

Inter-war housing layout in Newbury - there is a clear division between the private and public realm

Ways of ensuring a safe layout



The Council seeks the advice of the Thames Valley Police when considering whether development has been designed to minimise opportunities for crime and maximise safety and the perception of security.

Further information and advice can be obtained from the Thames Valley Police Crime Prevention Design Adviser.

See also the Secured by Design initiative and Safer Places guidance by the ODPM.

A Residents Co-operative or Management Trust could be established to manage parts of the public realm such as street furniture, surfacing and landscaping, over the life of the development

- **Activity:** Human activity, particularly walking, reduces risk of crime and can promote a sense of safety. Criminals and those engaged in anti-social behaviour tend to avoid active public spaces or those that are overlooked. There are advantages in creating places that contain a mix of uses, that encourage activity at all times of the day (as outlined in section 2.1.10 – diversity), thereby avoiding concentrations of particular groups or creating opportunities for crime. Care should, however, be taken to ensure that mixed uses in a locality are compatible, for example, concentrations of bars and clubs should usually be sited away from residential areas;
- **Management and Maintenance:** Design with management and maintenance in mind, to discourage crime. Developers and designers need to consider how the development will function over time and what the maintenance implications are likely to be, such as for landscaping, play areas and public spaces. Developers will be expected to demonstrate that proposals have a long term maintenance strategy.

2.10 Accessibility

2.10.1 All new development, particularly public buildings and their immediate surrounding area should be designed to provide access to all, including the disabled. Advice about designs that can accommodate people with disabilities can be obtained from the design guidance "Designing for Accessibility in Berkshire, 2003" which is available on the Council's website. If the guidance in this document is followed, the requirements of planning policies which aim to secure accessible development should be satisfied.

Disabled access to buildings should be considered at the design stage

2.11 Servicing Requirements

2.11.1 The ideal way of delivery should be from the street directly to the building in the traditional way. Where a delivery / storage yard is required it should be placed within the rear of a development block. This will ensure that unattractive delivery yards are hidden from public view. In urban situations and where the density allows basements, servicing should be possible. Time management regimes can reduce the impact of servicing on neighbouring residential development and where satisfactory design solutions are not possible.

Ramps into public buildings

2.12 Utilities

2.12.1 All vent pipes and associated plumbing should be enclosed within or at the rear of the building, where this is not visible from the street. This is especially important on sensitive buildings such as barn conversions or in areas where the townscape is particularly sensitive or attractive. Meter boxes should be located in a way which does not disrupt the main façade and should be appropriately coloured. On homes, such boxes should be placed where they enable meter reading without the need to access the dwelling.

Servicing should be considered at the design stage

Well designed bin storage located at the back of the block

2.13 Bin Storage

2.13.1 Purpose built accommodation shall be provided for wheeled refuse bins and recycling points, to ensure these do not undermine the visual quality of the development. Within commercial development, these areas will generally be located at the side or rear of the building, to avoid visual intrusion but to allow for vehicle access for disposal.

2.13.2 In new residential development, the location of these areas will generally depend upon the layout of buildings, parking and frontages on the site. If located at the front of buildings, designated paved and / or open gated areas should be provided, which are easily accessible for disposal.

2.13.3 In West Berkshire, new residential development should include storage provision to accommodate current recycling requirements and waste needs. New initiatives and future recycling requirements may increase the amount of space required.

2.13.4 Commercial developments should also be designed with the needs of recycling in mind.

Ground floor mix of uses, with residential or office floorspace above add diversity to streets, enabling them to feel safe and secure

2.14 Mixed Use Development

2.14.1 The principles in this SPD are applicable to all forms of built development including commercial, leisure and community facilities. Where they are consistent with Development Plan objectives and policies, mixed use development may be particularly appropriate in achieving the overall design principles set out in **Part 4** - Sustainable Design Techniques - West Berkshire. Mixed use schemes can successfully integrate a range of complementary land uses and contribute to a vital and sustainable environment.

2.15 Application Details

2.15.1 To help speed up the planning decision making process and to ensure that the planning authority has sufficient information to determine planning applications at the beginning of the process, all applications should be supported by a statement, or series of statements for major developments, as detailed below where appropriate. It is in the applicants interest to supply this information for a speedier and smoother decision making process.

Reference should be made to the Checklist / Route Map which will follow as a separate document

2.15.2 Planning applications for major developments (Residential developments of 10 or more units, or within a site of 0.5 hectares or more; Commercial development of over 1000 sq.m, or a site of 1 hectare or more) will be expected to include the following assessments and statements where appropriate;

Transport Impact Assessment;

An ecological assessment as appropriate;

A **design statement** setting out how the proposal will respond to its context and the guidance in this SPD;

An **energy and resource impact statement** showing how the development will contribute to renewable energy and resources

2.15.3 **It may also be necessary to include** a flood risk assessment, tree surveys, Secured by Design assessment, elevations showing the development in context with its surroundings and other appropriate material.

2.15.4 **For smaller proposals,** aspects of the above should be addressed in the statement submitted with the application.

2.15.5 Where it is necessary for the proper determination of a planning application, the Council may require any of the above, or other additional information, to be submitted with a planning application.

2.15.6 Further information on dealing with large proposals can be found within the Major Applications Developers Pack at **www.westberks.gov.uk**

Local Development Framework

West Berkshire Council

Halcrow

Prepared by Halcrow on behalf of West Berkshire Council

June 2006

Quality Design - West Berkshire
Supplementary Planning Document

Part 2
Residential Development

Local Development Framework

West Berkshire Council

PART 2

Contents

1.1 Introduction

1.1.1 This document comprises the second of several publications which form the West Berkshire Council design guide series "Quality Design - West Berkshire". Together the series forms a Supplementary Planning Document (SPD) which supports the policies in the West Berkshire District Local Plan 1991 - 2006 and the Berkshire Structure Plan 2001 – 2016. **As such, it is a material consideration in determining planning applications and if not followed, may lead to the refusal of planning permission.** It is intended that in the future this SPD series will also support relevant policies in West Berkshire Council's Development Plan Documents. It also complements other existing Supplementary Planning Guidance (SPGs) and SPDs, including any site specific development briefs which may be produced in the future.

1.1.2 This section **"Residential Development"** sets out the urban design principles relevant to all new residential development. It should be used in conjunction with Part 3 of this series, which identifies the key character types within West Berkshire's residential areas.

New residential development at higher densities creates interesting townscape in this example

Frontage development addressing a main road

New residential development encloses a local open space

A comprehensive solution to infill development can make more efficient use of land, add to the development value of a scheme and enhance the quality of the urban environment.

Compared to the scheme on the left, the development on the right has achieved a generally better use of land through its comprehensive and coordinated approach

If proposals fail to respond to this guidance by neglecting to maximise site opportunities and through poor co-ordination with the surroundings, planning permission may be refused. Such schemes are likely to be considered to exhibit poor design and failure to result in efficient use of land

1.2 Coordinating Infill Development

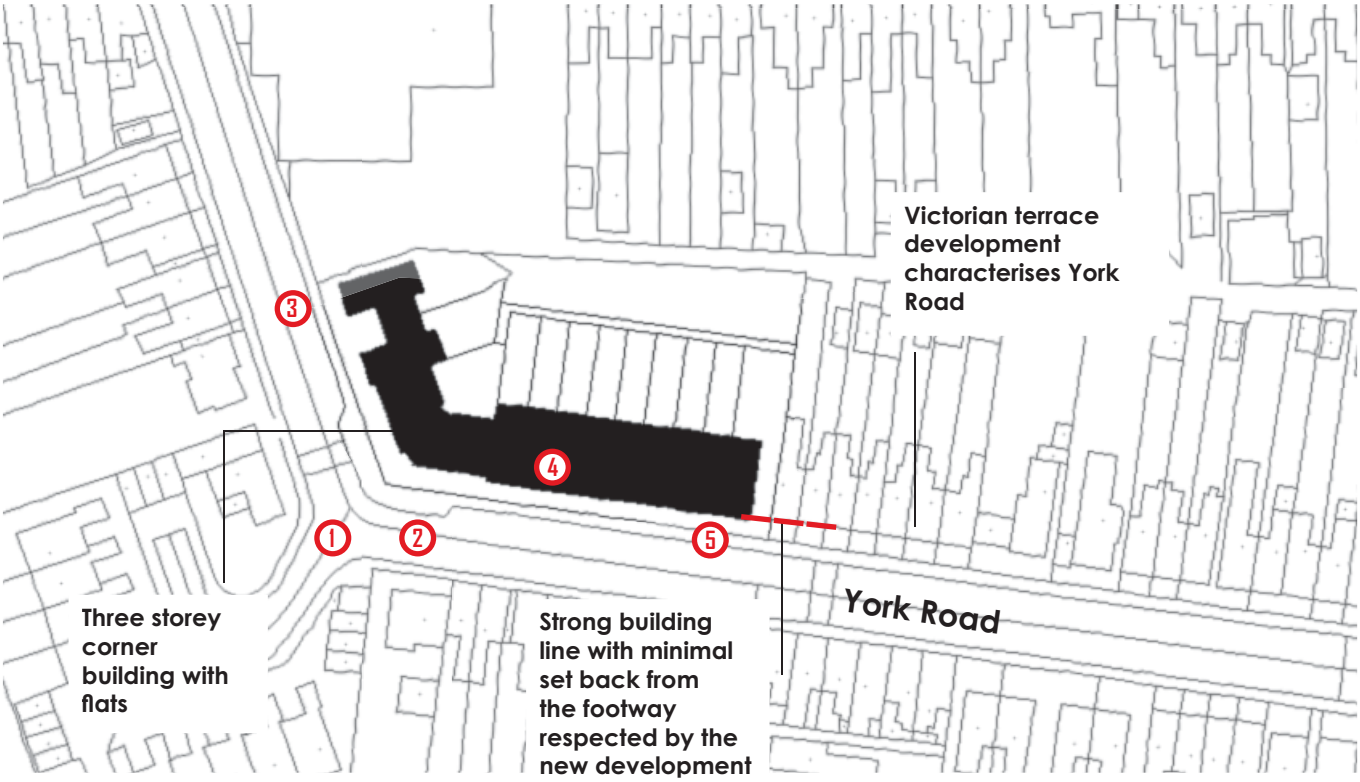
1.2.1 For a number of reasons, developers and designers often fail to consider possible opportunities for a more comprehensive approach to infill development. The Council is concerned about the cumulative impact of uncoordinated infill developments. Uncoordinated infill development is starting to fragment the existing coherent and legible urban fabric of the District's towns. It is of concern that uncoordinated development is creating inefficiencies in the use of previously developed land and a failure to deliver coordinated improvements to local facilities, infrastructure and amenities.

1.2.2 A more comprehensive approach to development proposals could result in positive additions to the urban structure of the town and a balanced, more coordinated approach to the provision of local facilities and infrastructure. A useful test may be: if the same pattern of development were applied to adjoining or nearby sites, would this be an acceptable way of developing a neighbourhood?

1.2.3 Set out below are a series of issues pertaining to the coordination of infill developments that developers are expected to consider.

Recent infill development - Design Appraisal

Infill development within a Victorian terraced area (York Road, Newbury)



Flats on the corner site create a landmark building and increase density

Rooms in the roof pitch provide more floorspace than a traditional Victorian terrace

Victorian terraced character maintained along the York Road frontage

The new development blends seamlessly into the existing urban form

Varied building line on this side of the development reflects the adjacent urban form

The Council will expect to see a comprehensive approach taken to infill development

The Council will expect to see consideration of local infrastructure

New housing developed at approximately 35 dwellings per hectare

New housing developed at approximately 35 dwellings per hectare

Adjacent Sites

1.2.4 New development should consider future development opportunities nearby leaving options open for later development to be implemented in a sensitive and complementary way. Development should occupy the site in a way which makes sense in relation to neighbouring sites.

1.2.5 **Where a development proposal could currently, or in the foreseeable future, form part of a potentially larger scheme, the Council will apply its relevant policies as if it is considering the larger scheme.** This particularly applies to the policies for the provision of affordable housing and other developer contributions. (See SPG4/04 Delivering Investment from Sustainable Development).

Local Infrastructure

1.2.6 The impact of a development on the local infrastructure and existing services of the neighbourhood should be considered. The Council's approach to developer contributions will assist in this matter by ensuring these are sought from **most developments** and that delivery is coordinated.

1.3 Making Best Use of Land – Residential Densities

1.3.1 The Government's strategy of securing higher density development within existing residential areas can, in some cases, cause concerns about erosion of character, increased traffic congestion, impact upon services and facilities and loss of biodiversity. It is therefore important to ensure higher densities are only secured by using the right designs in the right locations, in a manner which respects and enhances the valued character of areas.

1.3.2 Government guidance indicates that local planning authorities should;

- **Avoid developments which make inefficient use of land (those of less than 30 dwellings per hectare net);**
- **Encourage housing development which makes more efficient use of land (between 30 and 50 dwellings per hectare net);**
- **Seek greater intensity of development at places with good public transport accessibility such as city, town, district and local centres or around major nodes along good quality public transport corridors;**
- **Seek protection of the environment and to create greener residential environments.**
  (Planning Policy Guidance Note 3 (PPG3) Housing, March 2000)

Consultation Draft Planning Policy Statement 3 (PPS3) Housing was published in December 2005. Development proposals will need to comply with PPS3 when this is published, and any future amendments and other related documents.

1.3.3 The suitability of different densities appropriate for different locations is only indicative and it is essential that design, character and **context** are primary considerations. Mixing the housing type in a scheme can also result in efficient densities whilst providing a range and choice of dwelling types, including smaller homes. In all cases, early advice should be sought from the Council's planning service. The following paragraphs in this section give guidance as to how the Council interprets at the local level the national and county level planning policies on density.

Smaller villages

1.3.4 The move towards higher densities does not mean that all development, even at 30dph, is appropriate. West Berkshire's villages are particularly sensitive to the impact of intensification and redevelopment because of the extremely sensitive nature of the surrounding countryside and the relative lack of sustainability due to remoteness from public transport within the rural areas.

New housing developed at approximately 40-50 dwellings per hectare

New housing developed at approximately 50 dwellings per hectare

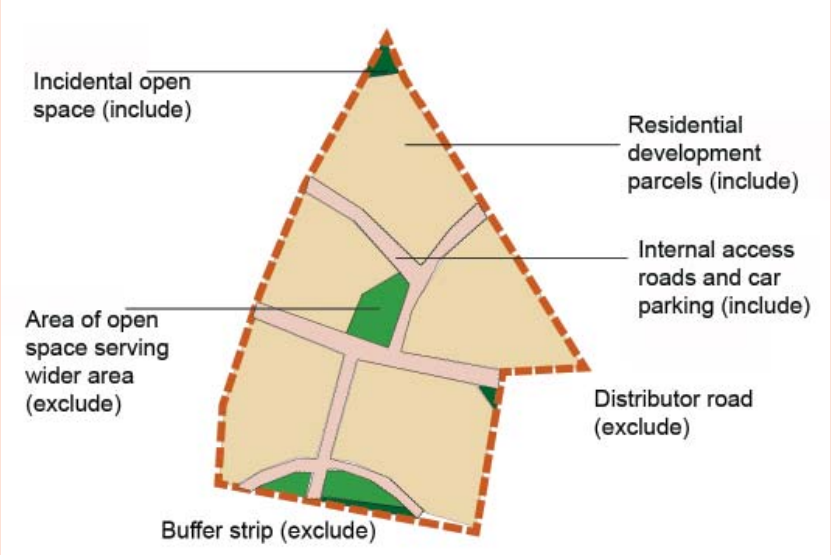
Calculating Density

The density of a site can be calculated using advice provided within Annex C of PPG3. In general, it is appropriate to calculate the net density; to include those areas that will be developed directly for housing and associated uses, such as;

- **Access roads;**
- **Private gardens;**
- **Car parking areas and garage courts;**
- **Incidental open space and landscaped areas;**
- **Children's play areas.**

Excluded from the calculations will be;

- **Major distributor roads;**
- **Public open space serving a wider area;**
- **Significant landscaped areas or buffer strips;**
- **Schools.**



Whatever the proposed density, the first question must always be whether the development is acceptable in principle, having regard to other planning issues.

1.3.5 In very sensitive village locations where some development is acceptable but, where a higher density would result in significant detriment to the character of the area, development below 30dph may be the only appropriate option.

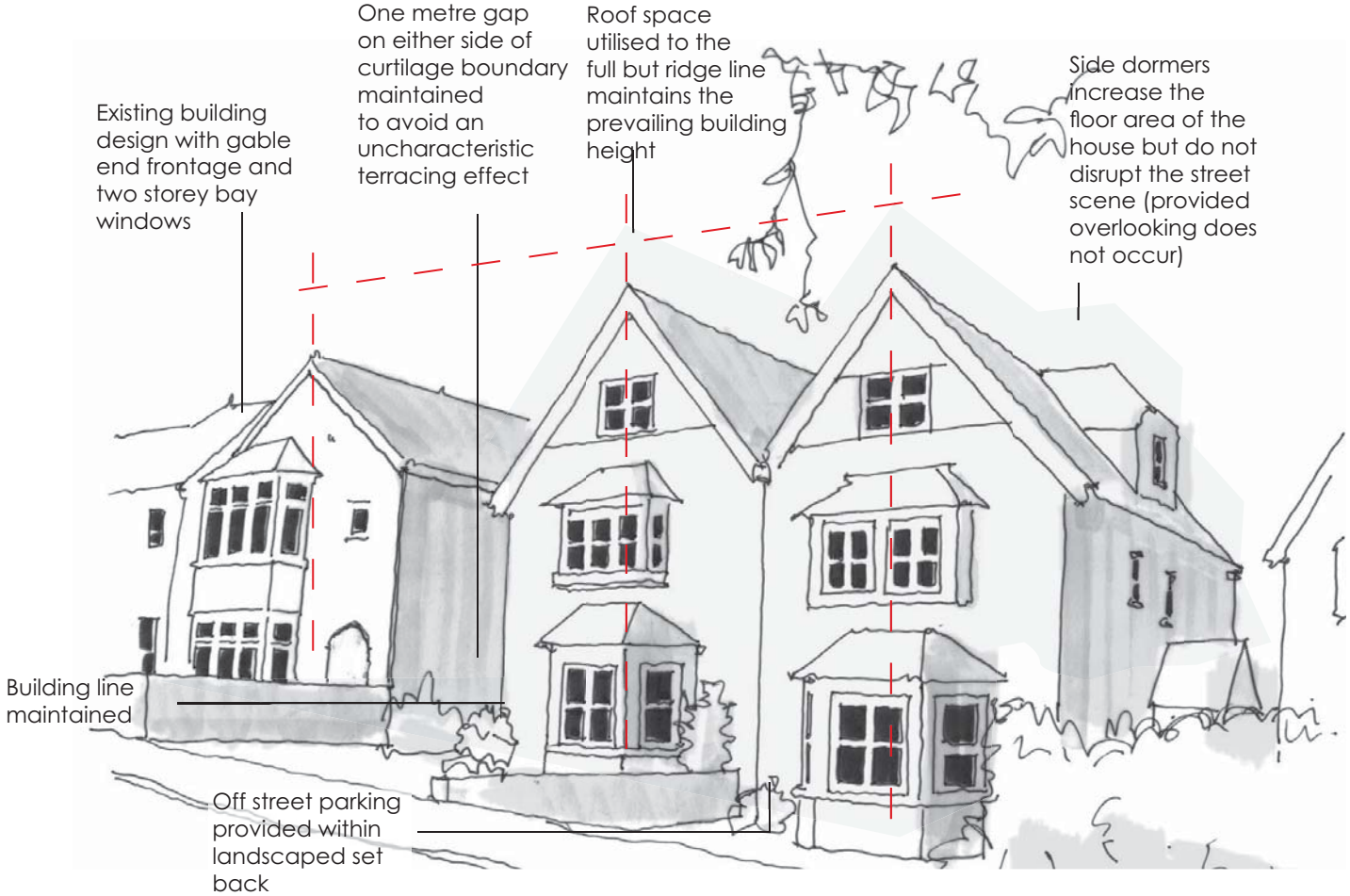
Towns and larger villages

1.3.6 Densities of around 30 to 50 dph will generally be achievable within towns and larger villages, where development reflects existing character. Again, whatever the proposed density, the first question must always be whether the development is acceptable in all respects. Not all sites are suitable for development even if they meet national policies on density, as other issues may be critical.

New housing developed at approximately 60 dwellings per hectare, using a contemporary design. Similar results can be achieved using more traditional forms

Infill Development - Interwar character area

This example shows how density can be increased whilst the suburban character of the area is protected. The example shown could be semis or a small apartment development. More homes are created but the overall appearance of the area is not disrupted.



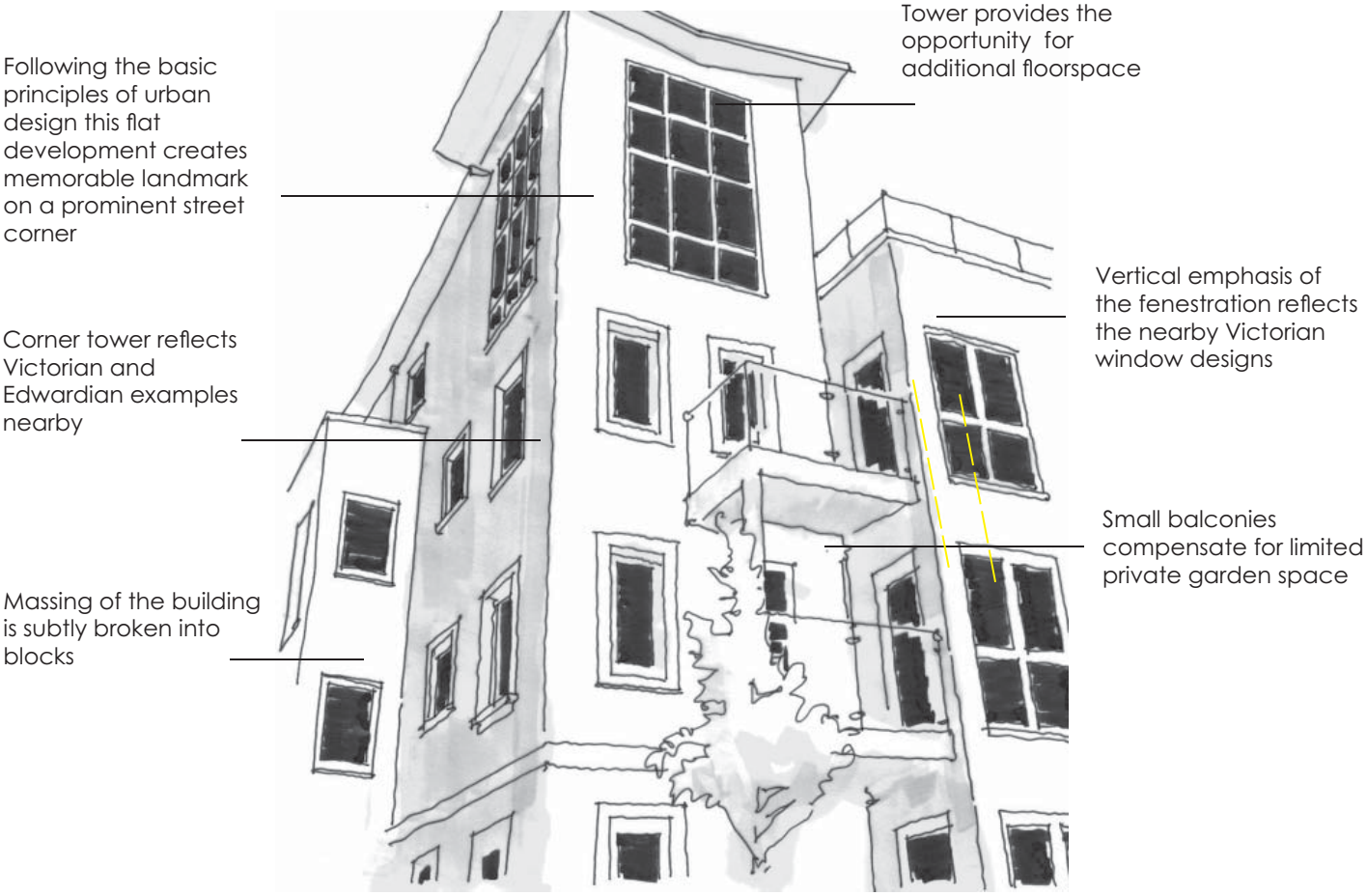
1.3.7 Higher densities can be achieved, in appropriate locations, without having to build at high rise. Town houses and terraces provide an attractive option for higher density living (40 – 60 dph) and can be built at two or three storeys, as well as providing a garden and parking near to the house.

1.3.8 A design technique to achieve higher densities in areas which are constrained by character or context is to build at a higher level on the corner of the building, where the design makes a statement and also achieves a higher density. Use of roof spaces for living areas can also achieve such results though care must be taken to minimise overlooking and loss of privacy.

Contemporary design reflects nearby Victorian Villas with corner tower features

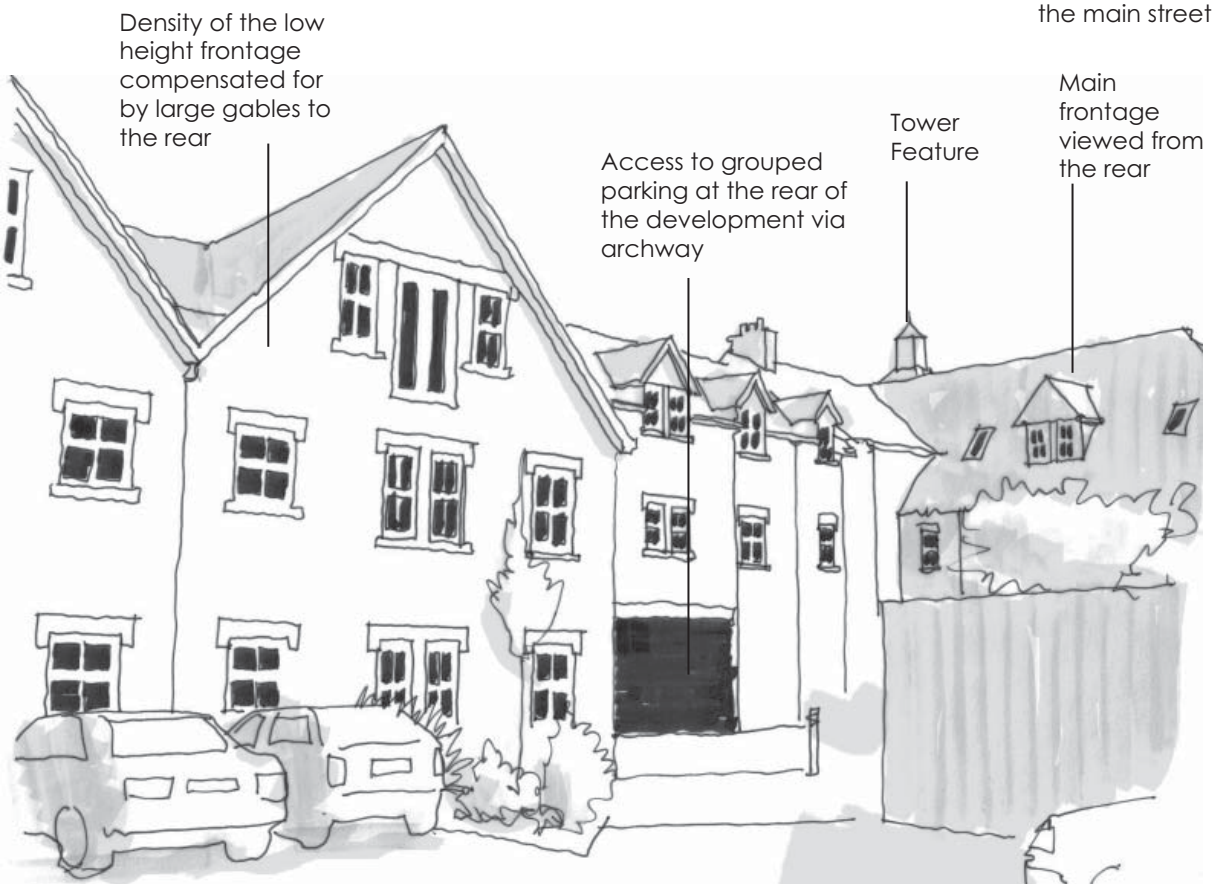
Infill Development - Contemporary Landmark Building

High quality contemporary infill building can enhance the urban fabric of an existing residential area, where appropriate similar results can be achieved using more traditional architectural styles



Infill Development - New flats within Victorian terrace area

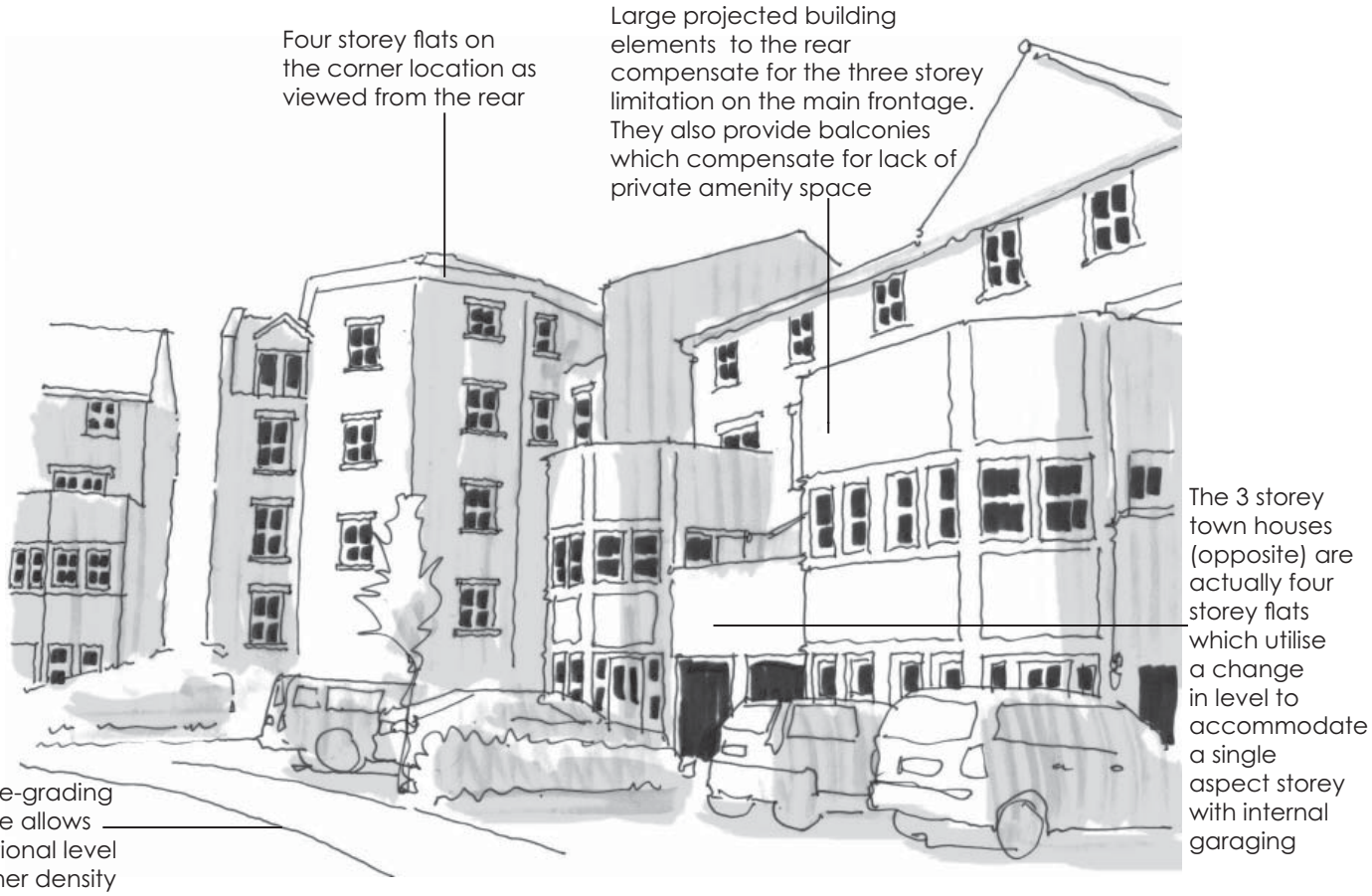
Sensitively designed higher density flats enhance legibility and protect character within close proximity to two storey Victorian terraces.



Infill Development - New flats within an established residential area adjoining a main road

Sensitively designed higher density flats enhance legibility and protect character within close proximity to older properties

Infill Development - New flats constructed in town house style



Town centres, transport routes and nodes

1.3.9 Densities above 50 dph will mainly be achievable in town centres, along main transport routes and close to transport nodes where the existing scale of buildings is greatest and a range of public transport options exist. In some cases in West Berkshire, densities of 100 dph plus have been successfully achieved, mainly located in town centres and along public transport routes.

Reference should also be made to

www.cabe.gov.uk

for further information on density and design

1.4 Relationship to the Open Countryside and Landscape Setting

1.4.1 Settlement edges in West Berkshire tend to provide glimpsed views of development between mature landscaping with long distance views of key landmarks such as church towers or spires. **New development on sites close to the edge of a settlement will need to demonstrate how the inter-relationship between open countryside and development form is respected.** Particular care and attention should be taken to protect and enhance the North Wessex Downs Area of Outstanding Natural Beauty (AONB) and other protected areas such as Areas of Special Landscape Importance (ASLI), Sites of Special Scientific Interest (SSSI), Historic Parks and Gardens, and Gaps between settlements.

West Berkshire has an attractive and distinctive landscape character

New development located on the edge of settlements must include appropriate landscaping

Roofscape of new development glimpsed through retained structural landscaping

1.4.2 In general, development should be outward facing with a reduction in density on the outer edge of development. The development pattern should visually recede and soften at the edge and provide a harmonious transition using strong structural landscaping. 'Hard' edges must be avoided. Such structural landscaping should be the starting point of a development from which the rest of the design flows.

1.4.3 New development should seek to set individual dwellings and clusters of buildings within the dominant landscape setting. Where development is proposed at a settlement edge, an attractive interface and controlled views of individual dwellings or building groups should be created which are carefully designed to fit in with the setting.

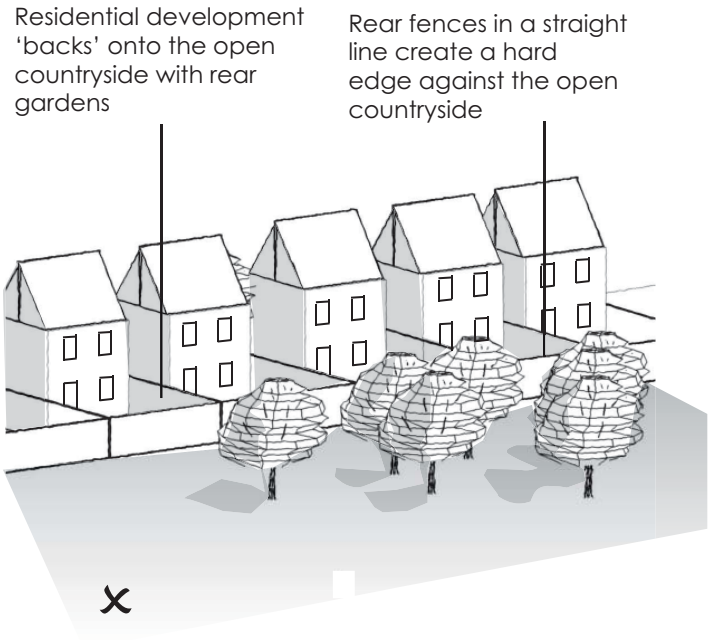
1.4.4 To create a traditional development edge and sensitive interface with the adjoining countryside the following guidelines should be used;

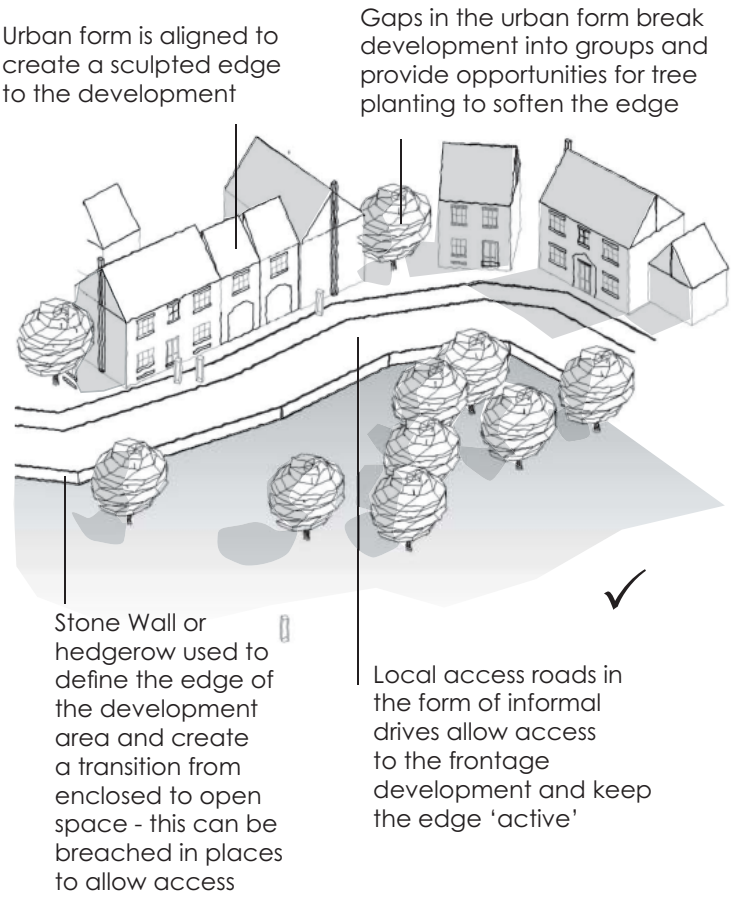
- Building materials should be in tune with the locally distinctive palette identified in paragraph 1.13.1 and 1.13.2 of this document;
- Roof forms and building heights should be varied;
- Substantial planting on edges and within development adjacent to the countryside, aiming to soften views and subdivide the urban form into groups of buildings. The use of native species of local provenance is encouraged.;
- Development boundaries broken up by planting and open space. Further guidance on landscaping, planting and biodiversity can be found in **Part 4** of this SPD series, and **Part 1** for advice on open space.

1.4.5 According to the Countryside Agency's Countryside Character Volume 7 (1999) survey, West Berkshire is covered by five countryside character areas;

- **Thames Basin Heaths;**
- **Thames Valley;**
- **Berkshire and Marlborough Downs**
- **Hampshire Downs**
- **Chilterns**

1.4.6 These character areas, the Berkshire Landscape Character Assessment (2003), the North Wessex Downs AONB Landscape Character Assessment (2002) and the Council's District-wide Landscape Assessment (1993) should be referred to when designing development close to the settlement edge.





Post war street structure in Hungerford

Organic street structures in Lambourn

1.5 Street Structure

1.5.1 The street structure relates to the pattern of streets and development blocks within the neighbourhood. This could be an informal network of organically formed historic streets with gentle curves, narrowings and widenings at various places or a rigid 'grid' of Victorian development. **A key feature of character will be the ratio of street width to building height. For infill development this proportion should be respected.** Medium sized development proposals should ensure that the proposed street structure is integrated with existing layout and articulated in the same manner.

1.5.2 **Gated developments,** where several dwellings are cut off from the wider urban form, are not inclusive places and **should be avoided.** This is particularly important where gates would sever pedestrian desire lines or public rights of way, reducing permeability and accessibility during the day. **Part 1** of this series provides detail on the advantages of permeable development. Where gates are proposed the developer will be required to justify the need.

1.5.3 Physical barriers should be used sparingly and not be visually prominent. Instead of physical barriers, it is better to use more subtle design cues, such as landscaping, different paving types and textures can be used to signify transition to private residential spaces.

Frontage composition of interwar housing

Frontage composition of Victorian housing

Traditional on-street parking with planters providing landscaping

Parking courtyard located at the back of a new housing block

Make reference to www.cabe.gov.uk for further information on parking design

1.5.4 Controlled access may, however, be used sensitively to provide secure areas in higher density schemes in town centres, where other uses and passers by will need to be restricted from 'wandering into' private residential spaces. (E.g. apartment blocks with a number of access points may require gated access onto the street frontage). It may also be necessary to limit and control access into communal residential car parking areas, particularly undercroft parking where visibility and overlooking will be limited.

1.6 Frontage Composition

1.6.1 Frontage composition is the pattern of fenestration, wall material patterns, projecting features such as bay windows and the broad rhythm, proportion and scale of frontages along a street. New development should seek to encompass the pattern of these elements.

1.7 Parking

1.7.1 Parking provision should reflect national parking standards and the Council's parking strategy. The appropriate level of parking will vary from place to place and according to the type of development proposed.

1.7.2 The manner in which car parking is arranged can have a fundamental effect on the quality of the place. In the case of limited infill development, (1 or 2 dwellings), in areas where parking provision is provided on-street (e.g. Victorian residential areas), street parking may be acceptable. Parking can also be successfully contained within secure parking courtyards, ideally at the back of development blocks. In these scenarios, consideration should be given to providing dwellings which over look the courtyards to provide natural surveillance over the space making it safe for pedestrians accessing their vehicles. Vehicles should not be allowed to dominate the space or to inconvenience pedestrians or cyclists.

1.7.3 On higher density developments, underground or undercroft parking should be considered. This could be a particularly appropriate approach for developments where it is necessary to preserve or create substantial gardens or landscaped areas.

1.8 Building Line and Boundary Treatment

1.8.1 The position of the front of the building in relation to the street is commonly referred to as the **'building line'**. The building line is either set back from the street or located directly onto the pavement – it may be very distinct, for example as in terrace development, or more informal, as seen in some village locations. Where buildings are set back, a separate boundary is also provided, often in the form of a low wall, railings or shrub planting. The line of buildings and associated features contribute to the character of a street or neighbourhood and should be respected unless there are sound design reasons for varying the pattern.

Set back from the footway provides room for a small garden and respects the prevailing building line

1.8.2 **Boundary treatments** play an important role in shaping the character of an area and contributing to the street scene. They should respect and reflect their surroundings, having regard to the existing prevailing forms of boundary treatment. Particular care is needed in choosing any boundary treatments that are required in rural settings and historic environments. Where boundary treatment is required, every effort should be made to use quality materials and designs for walls, fences and railings. Hedgerows will need to be planted up with suitable shrubs if these are also required. Fast growing and non-native species should be avoided to ensure that hedgerows do not become over-dominant and to ensure that natural surveillance onto the street is not interrupted. Native species of local provenance are preferred.

Set back from the footway provides room for a small garden and parking area

1.8.3 Building lines and boundary treatments have a significant role to play in clearly defining public and private spaces. Where this is left ambiguous there is a tendency to generate spaces which are poorly maintained and in turn generate anti-social behaviour and security problems. In higher density developments where buildings are located close to the street, a small set back (up to 1 metre) may be required for functional use such as the location of bins. These 'threshold' areas should be separately surfaced with appropriate materials to delineate the semi-private nature of the space.

Front and rear gardens can contribute significantly to residential character

Mature shared garden at the back of a development block

1.9 Contributing to Character with Landscape Features and Gardens

1.9.1 Planning Policy Statement 3 confirms that whilst gardens are considered to be brownfield land this does not necessarily mean that they are suitable for development. Many established residential areas within West Berkshire are defined by the mature landscapes within both front and rear gardens. Gardens, open spaces and landscaping can significantly add to the character of a place. They can also be important for nature conservation, including the role they sometimes have in providing feeding areas for bats.

1.9.2 Proposals which would result in the loss of garden land, either through infilling or through wholesale redevelopment of residential properties, should be carefully considered. This does not mean development of gardens is ruled out but it will be necessary to consider how existing garden land contributes to the character of an area. It will also be necessary to consider the cumulative effect of proposals on this aspect of an area's character.

1.9.3 Designers and developers need to fully assess the landscape constraints and opportunities of a site and work with mature landscape features such as trees, hedgerows, local open spaces, water courses and ponds by making them key features of design proposals.

1.9.4 Within areas defined by mature landscaping, developers will need to consider the scale and design of front and rear gardens to ensure that they are in keeping with the character of the street. There may be opportunities for more intensive development in locations characterised by large plots which would minimise any loss of important garden land. For example, a development of apartments in a single block – possibly with underground parking – which retained much of the existing garden land may be acceptable. An alternative of infilling with multiple individual houses may be unacceptable because of the loss of garden land and the overall disruption to the character of the area and the prevailing pattern of development. (See **Part 1** of this series regarding landmark buildings.)

1.9.5 In places where there are no front gardens, development proposals should not include such spaces as they are likely to look incongruous in the street scene. Infill development should respond to context in terms of garden size.

1.10 Building Type and Height

1.10.1 Respecting the physical massing of an existing residential area is a critical part of protecting residential character. The physical bulk of the building should be considered in terms of its footprint, length, width and height. Designers will also be expected to consider the relationship of the building to the boundary of the curtilage and street.

1.10.2 Respecting Height – The prevailing height of neighbouring buildings should be respected. If these parameters seem to restrict development options, habitable rooms could be located in the roof space. The use of dormers may be acceptable as long as the positioning of windows is not out of place with the prevailing pattern of fenestration.

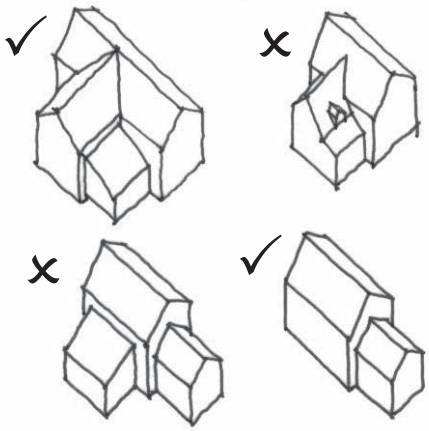
1.10.3 Introducing Corner Buildings – Buildings on corner plots can, where appropriate, be increased in height to enhance legibility within a neighbourhood. Legibility can be further enhanced by creating strong architectural styles on corner buildings and emphasising detailing elements. Higher corner buildings should gradually rise up by stepping up from the height of adjacent properties.

A new building creates an increase in height at a corner location

Roof Form

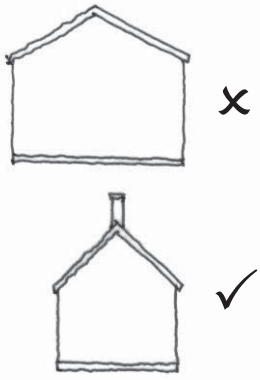
In this example we demonstrate how simple building forms can be versatile, allowing for larger floor areas whilst maintaining a human scale.

To maintain a human scale, the footprint of a building should not be enlarged too much as it upsets the balance of the design and lowers the roof pitch.



The most appropriate way to increase the size of a dwelling is to use a combination of smaller units. These can be assembled in a variety of ways that retain the traditional housing style.

Roof pitches of between 40 degrees and 50 degrees for tiles and between 20 degrees and 35 degrees for slate are sensible parameters to work within.



Traditional roof designs can often account for as much as half of the building height. However, pitches should reflect those of surrounding buildings. Gabled and hipped roofs should not usually be mixed on one building. Consistent roof design can help to create an attractive coherence in a development. This can contrast strongly with a mix of shapes that will often contribute to a jumbled appearance.

The combination of red and blue brick is a distinctive feature of the area

Thatch is locally distinctive to West Berkshire

Locally distinctive roof line and detailing

Town and Village Design Statements provide guidance on prevailing roof types, materials and locally distinctive detailing

1.11 Roof Form

1.11.1 A combination of roof form, building height, topography and the predominance of chimneys combine to create **roofscape**. Roofscapes often unconsciously shape our perceptions of a place - when a roof is out of character with neighbouring properties, it is often incongruous. In West Berkshire, roof form is particularly important because of the areas' topography of hills and valleys.

1.11.2 Traditional roof forms tend to have steeper pitches (in excess of 30 degrees) than more recent suburban development forms. A traditional approach in respect of roof form and pitch should be applied to new development unless there are overriding reasons to create alternative forms. Contemporary roof designs may work well in the context of innovative design proposals.

1.11.3 Roofing materials should reflect and respect those adjacent to the proposed development. Further details of locally distinctive materials are provided within **Part 3** of this series.

1.11.4 The use of photovoltaics (solar panels) within the roof should be considered (see **Part 4** of this series), particularly where a south facing roof pitch exists. However in some cases their installation may be visually sensitive and inappropriate to the street scene.

1.12 Locally Distinctive Detailing

1.12.1 New development is expected to respond to locally distinctive features where appropriate. Examples include chequer board brick work, distinctive soldier coursing and the use of locally quarried flint. The Residential Character Analysis contained within **Part 3** of this series provides further details of locally distinctive architectural detailing and should be read alongside this section. **Town and Village Design Statements** also provide similar local guidance.

1.13 West Berkshire's Traditional Building Form, Details and Materials

1.13.1 Consistent with the variety of local landscape characters and geologies, buildings in West Berkshire vary as much in design as in materials with a variety of styles rather than a single local style. A summary of the locally distinctive building materials, primarily associated with the visual identity of Vernacular, Georgian, Regency, Victorian and Edwardian eras is summarised below;

Bricks – if there is a dominant facing material in West Berkshire it is a red mottled brick with blue brick detailing. Initially produced locally but with the advent of canal and rail, the bricks were imported and a wider colour range appeared;
Coloured Brickwork – The use of a coloured wash and later paint appears in limited locations, often in the middle of a terrace contrasting with the adjacent red brick;
Render / Plaster finishing – render was originally used in panels between timber framing, rendering was used on larger Regency, Victorian and Edwardian villas;
Flint – The local geology provided flint as a distinctive material to add interest and variety to traditional housing elevations;
Tile Hanging – tile hanging is found on traditional and Victorian buildings in Hungerford and the western half of the district in particular. Often used on side elevations and at first floor level;
Weather boarding is seen in a number of locations;
Roof tiles and slate – a mix of small plain clay red / brown tiles and imported Welsh slates;
Thatch is an important roofing material in many West Berkshire villages.

Red brick used to highlight key elements of the frontage composition

Flint is used to render elevations and walls

1.13.2 The type of materials used reflects the architectural detailing of traditional buildings, such as ornate detailing used on landmark buildings to emphasise importance. A summary of the locally distinctive architectural details are set out below;

Brickwork – on the smaller terraced housing brickwork is generally plain with arched or flat brick heads to windows and doors. Stone lintels are also used but on larger houses. Brick detailing in the form of corbelled eaves or contrasting brick patterning is also used to give interest to the elevation;
Window openings – the scale of openings in relation to the elevations and their proportion is historically related to the window type. Sash windows have a vertical emphasis;
Roofs – generally buildings have pitched roofs spanning the narrowest dimension with gabled ends. Hipped roofs are more frequently found on detached houses;
Gables and eaves – gables have tiled verges with or without a brick on edge detail. Timber barge boards are simple in design. Eaves project from the main face with either boxed or exposed rafter feet. Corbelled brickwork or dentil course is more often found on larger houses;
Dormer Windows – are typically small in size with narrow cheeks and a pitched gabled roof in tiles or slate to match the main roof;
Chimneys - are a traditional feature of both terraced and detached houses, the latter being more ornate;
Porches and canopies – are there to provide shelter and a lobby to the house. They take various forms but are in proportion to the rest of the house.

Eaves and gables form a strong roof line

An effective mix of traditional and contemporary materials in modern residential design

An effective mix of traditional and contemporary materials in modern residential design

Parking courtyards can be accommodated in the back of blocks and increase privacy distances

Front to front distances can be reduced to 9m as long as each dwelling is carefully designed

1.13.3 Reference should also be made to the **Town and Village Design Statements**, providing detailed local guidance on materials and design details.

Living Conditions

1.14 Privacy

1.14.1 **Privacy** in residential development needs to be taken into account and created, as it is a fundamental feature of creating attractive, sustainable communities for existing and new residents. The **perception of privacy** at the front of a dwelling varies depending on location; therefore distances between building frontages will vary and in selected locations can be as close as 9 metres. However, where the distance between frontages is less than 21 metres, the design of the buildings will need to be carefully considered in terms of window design, location and internal arrangements to minimise overlooking and create privacy.

1.14.2 At the rear of a dwelling the expectation of the resident will be that they should experience a high level of privacy and that overlooking windows, whether in neighbouring workplaces or other homes, should be avoided or be some distance away. There is a long established good practice guideline of 21 metres as a privacy distance between houses backing onto each other and this has determined the length of rear gardens being at least 10.5 metres long. However, where the character of the area is of large houses with large mature gardens, areas of long gardens, or in rural fringe locations, **where established expectations of privacy are higher, the development will normally be expected to achieve greater levels of privacy.**

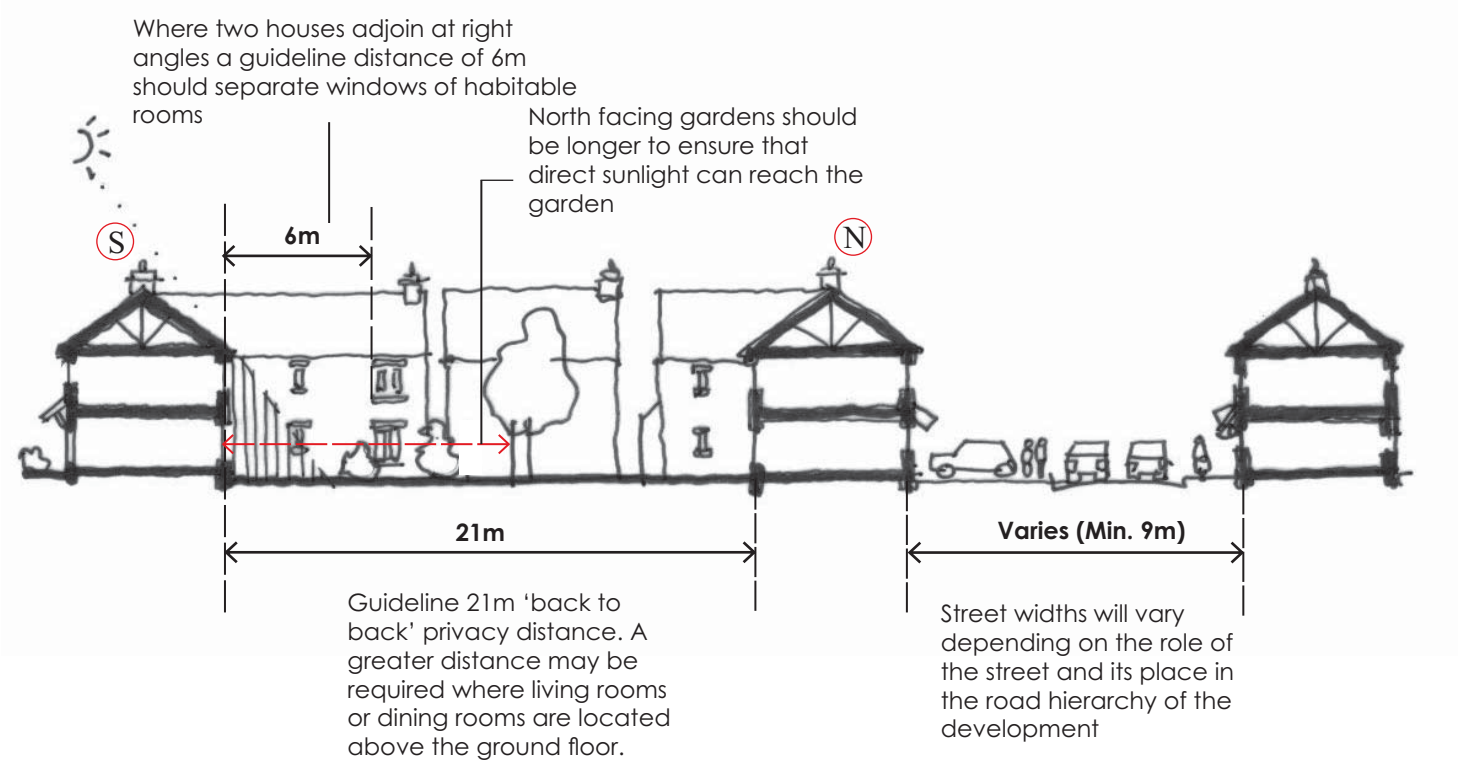
1.14.3 It is not just overlooking of windows and interior space which needs to be considered. A reasonable level of privacy needs to be created for gardens and balconies, especially in the areas immediately outside the building.

1.15 Daylight and Outlook

1.15.1 New developments should ensure that the living conditions of both future residents of new development and of neighbouring residential properties are not compromised by lack of daylight or unduly restricted outlook. The Council's SPG 04/2 House Extensions provides useful guidance on protecting daylight and outlook which can be applied to new residential development.

Block Widths - Maintaining Privacy and Daylight

The means of securing privacy for both new and existing dwellings will be dependent on the individual circumstances of the site. The following distance guides should ensure a reasonable level of privacy in most cases.



Long inter war front gardens

Shared gardens separate rear elevations of flats

1.16 Outdoor / Private Amenity Space

1.16.1 Some flexibility in traditional garden standards is now needed to accommodate PPG3 densities. To ensure that land is used more efficiently, garden sizes in new development will on average be smaller than much of the post war development. However, **the Council considers that it is still essential for the living conditions of future residents that suitable outdoor amenity space is provided in most new residential developments.**

1.16.2 Where appropriate, gardens and other outdoor private spaces (patios, decked areas, balconies, roof gardens) can be provided without compromising on density. Roof gardens are a good way of providing green private space within apartment blocks, leaving ground floor areas for small gardens or parking, though care must be given to minimising any adverse impact of overlooking and loss of privacy to neighbouring properties and amenity areas.

Simple Victorian rear gardens

Long gardens of detached properties on settlement edges

Small front gardens incorporating driveways within new development

1.16.3 Depending on the size of the dwelling, a garden should be large enough to accommodate such features as garden shed, washing lines and other domestic features and should allow for opportunities for sitting outside in comfort and reasonable privacy and, in family dwellings, for children's play.

1.16.4 It is the quality of outdoor space, as detailed above, that matters most but as a general guide the following garden sizes are suggested for houses;

- 1 and 2 bedroom houses and bungalows, from 70 sq.m;
- 3 or more bedroom houses and bungalows from 100 sq.m

1.16.5 For flats, a reasonable provision of communal outdoor space is suggested. However, it is noted that there are a variety of approaches to providing outdoor amenity space for flats which will vary according to the location and character of the proposed development;

- 1 and 2 bedroom flats; from 25 sq.m communal open space per unit
- 3 or more bedroom flats; from 40 sq.m communal open space per unit.

1.16.6 The above guideline figures relate to the garden's functional role. As explained in earlier sections, it may be important to the overall character of an area for new or retained gardens to be larger.

Local Development Framework

West Berkshire Council

Halcrow

Prepared by Halcrow on behalf of West Berkshire Council

June 2006

Quality Design - West Berkshire
Supplementary Planning Document

Part 3

Residential Character Framework

Local Development Framework

West Berkshire Council

PART 3

Contents

1 Background

1.1 Introduction

1.1.1 This document comprises the third of several publications which form the West Berkshire Council (WBC) design guide series "Quality Design - West Berkshire". Together the series forms a Supplementary Planning Document (SPD) which supports the policies in the West Berkshire District Local Plan 1991 - 2006 and the Berkshire Structure Plan 2001 – 2016. **As such, it is a material consideration in determining planning applications and if not followed, may lead to the refusal of planning permission.** It is intended that in the future this SPD series will also support relevant policies in West Berkshire Council's Development Plan Documents. It also complements other existing Supplementary Planning Guidance (SPGs) and SPDs, including any site specific development briefs which may be produced in the future.

West Berkshire has a distinctive landscape character

1.1.2 Each section should be read as part of the whole series. This section "Residential Character Framework" sets out specific guidance required to assess character in context of new residential development. It should in particular be read in conjunction with Section 2 of Part 1 of this series and with Part 2 which focuses on residential development.

1.1.3 The Residential Character Framework is supported by various Area Design Focus Statements which give detailed guidance for particular key areas. It should also be read in conjunction with any Town or Village Design Statement for the area.

Victorian villas in Newbury

1.2 Working with the Residential Character Framework

1.2.1 To ensure that this SPD will have a perceptible impact on improving the quality of development proposals across the District a robust residential character analysis has been prepared. This analysis responds to the advice set out in the Government's 'By Design – Better Places to Live'.

1.2.2 The themes and principles identified by the analysis should be the starting point for designers preparing development proposals in West Berkshire. The purpose is to provide designers and developers with a more thorough understanding of the **context** within which they are working and provide a set of design principles within which to work and create innovative design solutions.

Boundary features and landscaping affect character

Early Victorian terraces

Housing, old and new

Traditional West Berkshire residential design

1.2.3 In addition, designers and developers should undertake a more detailed analysis of the immediate context to the site, to confirm and add more local relevance to the overall character area classification. Any such supporting information should accompany planning applications in the form of a design statement.

1.2.4 The analysis focuses on urban form, identifying the distinctive elements that define the character of that area but does not seek to prescribe architectural style. The aim is to understand the structural elements of the prevailing character as the basis for design proposals. Unless there are overriding conservation considerations, the Council will encourage innovative solutions to new design which respect the prevailing urban form and enhance local distinctiveness.

1.3 Residential Character Framework Context

1.3.1 West Berkshire has examples of virtually every architectural style from the mediaeval period through to the 21st Century. Typical examples are as follows;

1.3.2 Traditional Vernacular – There are a still a large number of vernacular, timber framed buildings surviving within the District today. Most of these are located at the heart of villages and the historic town centres. The better quality houses used a box –framed technique suitable for two storey construction. The upper floor sometimes oversailed the ground floor in a form of construction known as a 'jetty'.

1.3.3 The Georgian and Regency Periods – the Georgian period saw considerable growth and merchants and tradesmen required houses in the new classical style. Town houses were faced in red/brown, and particularly in West Berkshire, blue brick. Local distinctiveness was generated by decorative cornices, string courses and window surrounds. Tall and narrow sash windows were incorporated often with timber surrounds. The doorways had hoods supported by timber brackets and eaves had heavy wooden cornices with dentil decoration. The attractive iron work associated with the balconies and porches of the Regency period is also in evidence in Newbury and Hungerford.

1.3.4 Victorian Period – Victorian building in West Berkshire reflects the commercial prosperity and urban development which occurred during this period. It also reflects the industrial production of building materials and their cheap transport by railway and by canal. This lead to a degree of mass production in both materials and design, especially in worker housing. The use of local materials started to be diluted by the impact of materials such as slate.

1.3.5 Twentieth Century - The Edwardian period took the principles of Victorian design and added more ornate detailing and in many cases provided more generous floor areas and a larger curtilage to properties. Reacting to the overcrowded slums of the major cities, the interwar years saw a move away from terracing to semi detached and detached properties and the emergence of suburbia. Significant areas of municipal interwar and private interwar housing can be found in Newbury, Hungerford and Thatcham. In the latter half of the century, mass produced volume house building contributed to much of the District's residential building stock. Throughout this period average residential densities have decreased to achieve the suburban house type.




Knowing what traditional building materials are used within an area can help inform design proposals

1.4 Settlement Descriptions

1.4.1 The Framework covers the residential areas of the larger settlements within the settlement boundaries set out in the West Berkshire District Local Plan. They exclude major employment areas and Town Centres, which are characterised by mainly mixed or non residential forms for development. Residential Character Areas Frameworks have been prepared for;

- **Newbury**
- **Purley on Thames, Tilehurst and Calcot**
- **Thatcham**
- **Burghfield Common**
- **Hungerford**
- **Lambourn**
- **Mortimer**
- **Pangbourne**
- **Theale**
- **Kintbury**

1.5 Introduction to the Residential Character Framework

1.5.1 The framework (see 1.6 – 1.7) identifies the wide variety of residential character types within the District's towns and larger villages. Using Ordnance Survey mapping, the framework shows the geographic distribution of the character areas throughout the District's main settlements of Newbury, Hungerford, Thatcham, Purley on Thames / Tilehurst / Calcot, Burghfield Common, Theale, Kintbury, Lambourn, Pangbourne and Mortimer. From extensive site survey work and analysis of historic mapping a series of broad character areas have been identified. Each character area is then described in detail through analysing the elements of each area.

Interwar infill development within a Victorian terrace character area

Frontage development in Hungerford

Distinctive historic boundary treatment

Post 2000 infill development, Purley

1.5.2 The character areas reflect the historic development of the District's settlements and the wide variety of layouts, densities, building heights and materials that exist within West Berkshire. The purpose of the framework is not to date and detail every property in the District but to identify the prevailing residential character of the District's neighbourhoods. To achieve this we have sought to identify an appropriate range of residential 'typologies' that reflect housing development in West Berkshire.

1.5.3 The character areas are;

1. **Historic – Vernacular/Georgian/Regency**
2. **Victorian and Edwardian Terraces and Semi Detached**
3. **Victorian and Edwardian Villas**
4. **Inter War Suburban Style**
5. **Semi-Rural (very low density)**
6. **Post War Suburban Style**
7. **Late 20th Century Suburban**
8. **Post 2000**

1.5.4 To fully understand the component parts of each character area, the framework details the residential typology by describing the following elements;

1. **Period and Predominance**
2. **Building Type and Height**
3. **Frontage Composition**
4. **Street Structure**
5. **Building Line and Boundary Treatment**
6. **Gardens and Landscape Features**
7. **Parking**
8. **Materials**
9. **Roof Form**
10. **Detailing/Distinctiveness**
11. **Relationship to Open Countryside**

1.5.5 The character area written descriptions are then set out on two pages with accompanying photographs and urban form diagrams. The diagrams are representative of the relevant character areas with annotated notes and where relevant dimensions of key features.

1.6 Character Area Descriptions

1.6.1 The Character Area descriptions are set out on the following pages.

Late 20th Century urban extensions

Post war local authority housing, Burghfield Common

Historic Regency period villa

Historic - Vernacular, Georgian & Regency

1. **Period and Predominance**
Mainly historic Vernacular - traditional domestic architecture reflecting market town history. Limited examples of Georgian (1714–1810) and Regency (1811–1837); mainly villas with few terraces.

2. **Building Type and Height**
Mostly Terrace, some semi detached, 2 storey or 2.5 with dormer. Detached Villas tend to be of similar height and scale.

3. **Frontage Composition**
Groups of terraces with variations in frontage design. A natural organic rhythm unified by materials and architectural styles.

4. **Street Structure**
A limited network of connected streets often based on the layout of traditional Burgage Plots or frontage onto traditional 'village green'. Kerb alignment and carriageway tends to vary creating an interesting, more organic street scene. The proportion of streets tends to be relatively tightly enclosed with mature vegetation 'plugging' any gaps between buildings.

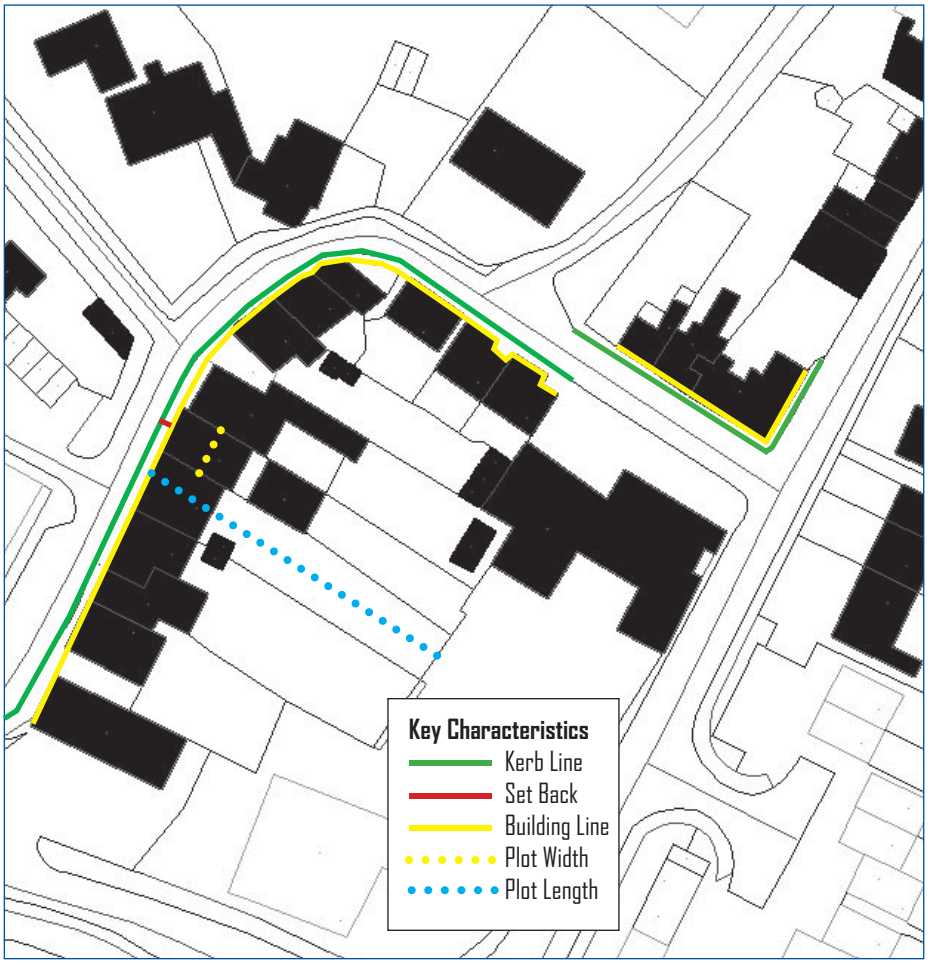
5. **Building Line and Boundary Treatment**
Varying traditional vernacular building line tends to be directly onto the footway with no set back or boundary treatment. Grander Georgian and Regency examples (particularly Villas) have significant set backs with walls terminated by piers and sometimes ornate ironwork fencing.

6. **Gardens and Landscape Features**
Burgage plots tend to dictate long narrow rear gardens which have subsequently been subdivided for backland development. Mature landscaping is a key feature of this character type mainly located at the back of the block in rear gardens. Limited examples of small trees located in front set backs. Glimpsed views from the street over roofs or through alleyways and driveways or mature vegetation is a defining feature of this historic development.

7. **Parking**
Mostly located on street, but some narrow driveways to former out houses now converted to garages.

8. **Materials**
Key feature in Hungerford and parts of Newbury are the burnished 'blue' brick headers complemented by red brick dressings for lintels and corner details. The geology of the area is sometimes reflected in the use of flint galleting/corbelling used to dress boundary walls and occasionally on the building elevations. Some examples of hung tiles at first floor level.

9. **Roof Form**
Majority traditional pitched roof (typically 40-50 degrees) Some ridge detailing. Some examples, particularly in Hungerford and Eddington of thatch.



Historic Urban Form - The Laurels, Eddington, Hungerford

10. **Detailing/Distinctiveness**
A wide variety of details particularly on the grander properties. Use of flint dressing adds significantly to local distinctiveness.

11. **Relationship to Open Countryside**
Where located on the settlement edge (for example Parsonage Lane, Hungerford and Eddington), the development forms a harmonious relationship allowing the mature vegetation on larger plots to blend into the open countryside. However most of this historic building stock is at the heart of the settlements and is now surrounded by more recent development.

Summary of Key Locations
Mostly located close to the town centres of Newbury and Hungerford and the village centre of Thatcham.

Hungerford

Bridge Street and Charnham Street - representing the northern portion of the historic core of the town. Closely integrated with commercial uses. Building predominantly at the back of pavement, enclosing adjacent spaces and creating unique townscape qualities.

Parsonage Lane - Close to St. Lawrence church and the C17th Vicarage. Despite significant recent infill, this area has a village like feel and is focused on a central green surrounded by detached properties. Mature landscape features define the character.

Eddington - The historic core of the village focused on The Laurels and Eddington Hill. Close knit collection of terraced properties with the building line at the back of pavement. Integrated with large detached historic and contemporary infill properties.

Newbury

Shaw Road - Historic 'set piece' Regency terrace built in 1823 and key 'gateway' feature when viewed from Western Avenue. Also historic character created by mill buildings at the crossroads of Shaw Road, Church Road and Kiln Road.

The City - An area of historic core just to the south of the Town Centre focused on a series of Almshouses including Raymonds Buildings (1796). Derby Road, Hampton Road and Argyle Road are defined by the remainder of a number of closely knit historic terraces which define an interesting townscape.

Victorian and Edwardian Terraces & Semi-Detached

1. **Period and Predominance**
Mainly examples of Victorian (1837–1901) and Edwardian (1901–1910) but extended to include the First World War and beyond to developments built up to 1919.

2. **Building Type and Height**
Mostly Terrace, some semi detached, 2 storey or 2.5 with dormer.

3. **Frontage Composition**
Long terraces of similar or identical designs.

4. **Street Structure**
Strong network of straight, connected streets. Infill examples respond to more existing streets.

5. **Building Line and Boundary Treatment**
Building line varies from no set back to limited threshold set backs of up to 2.5m. Edwardian examples tend to be set back further with boundary walls.

6. **Gardens and Landscape Features**
Plot widths are relatively tight at 4-5m creating narrow gardens. Sometimes the plots are long. Mature landscaping reflects the age of the properties. However this vegetation is shielded from the street by the dwellings. Limited landscape elements on the street.

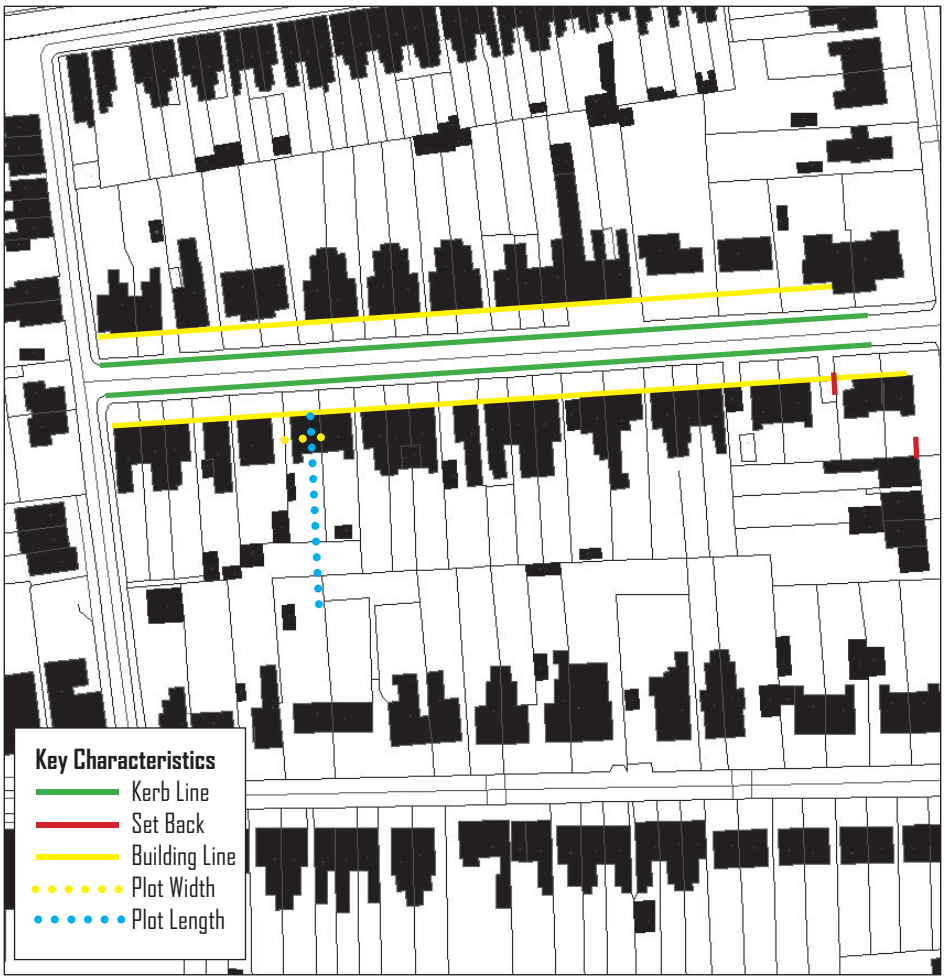
7. **Parking**
Mostly located on street. Some front gardens have hard standing.

8. **Materials**
Mostly smooth red brick, occasionally with stone dressing on more decorated examples.

9. **Roof Form**
Majority traditional slate pitched roof (typically 40-50 degrees) Some ridge detailing. Chimneys.

10. **Detailing/Distinctiveness**
Significant growth reflected the functional nature and speed of construction. However some Victorian and Edwardian examples have variations in brick detailing through the use of black and yellow bricks used for separate soldier coursing or lintel design contrasting with the predominant red brick. Prominent side wall elevations sometimes have a diamond or chequered pattern. In some cases gothic styles were used in the detailing of windows, eaves and terracotta finials. Many examples of gothic style Victorian on estate cottages and Victorian infill development in Newbury.

11. **Relationship to Open Countryside**
For the most part this era of the development is now surrounded by more recent examples. In some cases however this residential type is located on key approaches, for example Oxford Road, Newbury.



East Fields, Newbury - note the strong street pattern and clear delineation between public and private space

Summary of Key Locations
Pockets of Victorian and Edwardian Terraces are located in all of the District's main towns. However the most significant areas are within Newbury. Most are located within 10 minutes walking distance of the town centre and are developed at relatively high densities, for example East Fields and West Fields both average approximately 40 dwellings per hectare.

Newbury

East Fields - An attractive area of predominantly Victorian terraced development probably built to accommodate the growth in population associated with the railway and canal. Typical housing is two storey terrace or semi-detached, built of red brick with two horizontal lines of grey brick. The building line varies with most properties set back to provide small front gardens. However some houses on York Road are directly onto the back of pavement. Recent housing on the northern side of York Road is a good example of infill development which respects the prevailing character of the area.

West Fields - Newbury's other area of significant Victorian growth. The area has an attractive 'townscape' softened in places by mature landscaping, particularly at corner locations. The majority of the area is comprised of terraces and tightly developed semi-detached buildings. As with most Victorian development in West Berkshire, red brick is a key feature of the street scene.

Hambridge Road/Mill Lane
- There are significant pockets of Victorian terraced development accessed from Hambridge Road and Mill Lane. Much of this is fragmented and surrounded by areas of light industrial development. However it should be recognised that these areas represent an important part of the town's historic building stock. Most of the areas are within walking distance of the town centre making them some of the most sustainable residential areas in the town.

Victorian & Edwardian Villas

1. **Period and Predominance**
Mainly examples of Victorian (1837–1901) and Edwardian (1901–1910) but extended to include the First World War and beyond to developments built up to 1919.

2. **Building Type and Height**
Detached and semi detached, 2 – 4 Storeys.

3. **Frontage Composition**
Individual plots at regular intervals with individual and varying architectural styles.

4. **Street Structure**
Groups of dwellings within separate and discrete 'estates' often laid out as speculative developments. Either located on key arterial routes or just off main roads as Crescents (e.g. Donnington Square, Newbury) or Cul de Sacs.

5. **Building Line and Boundary Treatment**
Significant set backs from footways with boundaries defined by walls and hedgerows. Driveways and hardstandings also within set back.

6. **Gardens and Landscape Features**
Generous gardens both front and back. Mature landscaping reflects the age of the properties. Vegetation can shield buildings only allowing glimpsed or partial views from the street. Landscape features give a valuable 'Arcadian' feel to the adjacent public realm.

7. **Parking**
Mostly off street within hard standing and garage buildings.

8. **Materials**
A variety. Brick tends to predominate but the up market nature of properties means that painted render and stucco dressings were also used.

9. **Roof Form**
Majority traditional slate pitched roof (typically 40-50 degrees). Many examples of dormers on top of two and three storey buildings. Some ridge detailing. Significantly sized chimneys adding to the interest of the roofscape.

10. **Detailing/Distinctiveness**
Many examples have variations in brick detailing through the use of black and yellow bricks used for separate soldier coursing or lintel design contrasting with the predominant red brick. Prominent side wall elevations sometimes have a diamond or chequered pattern. In some cases gothic styles were used in the detailing of windows, eaves and terracotta finials. Many examples of gothic style Victorian on Victorian infill development in Newbury.

11. **Relationship to Open Countryside**
For the most part this era of the development is now surrounded by more recent examples.

Edwardian Terraces off Newtown Road, Newbury

Summary of Key Locations
Pockets of Victorian and Edwardian Villas are located in all of the District's main towns. However the most significant areas are within Newbury. Most are located within 10 minutes walking distance of the town centre.

Newbury

Porchester Road Area - An attractive area of predominantly Victorian villa development. The area is characterised by mature landscaping within set backs behind the kerb lines. Boundaries are predominantly low brick walls. There is a mix of semi detached and detached properties with larger 4 storey properties located along the Newtown Road.

Donnington Square - Located just off Oxford Road, Donnington Square has a number of attractive villas including a number of four storey buildings with corner tower features. The area is characterised by mature landscaping and bounding walls with strong hedgerows which curve to create a crescent.

Battery End/Charles Street - An attractive area of predominantly Victorian villa development. The area is characterised by mature landscaping within set backs behind the kerb lines. Boundaries are predominantly low brick walls. There is a mix of semi detached and detached properties.

Interwar Suburban

1. **Period and Predominance**
Mainly houses built between the World Wars (1930s), although some 1950s development of similar character.

2. **Building Type and Height**
Mainly 2 storey semi detached, often interspersed with terraces of 4 units of similar size to semis. Nearly always 2 storeys.

3. **Frontage Composition**
Individual plots with adjacent symmetrical frontages. Often clusters of frontage patterns repeated over several streets.

4. **Street Structure**
Mainly block structured streets with clusters of plot patterns repeated over several streets. Often constructed facing a central green space.

5. **Building Line and Boundary Treatment**
Mainly set back from footways, within a small garden or behind a wide grassed verge. Often without individual driveways.

6. **Gardens and Landscape Features**
Generally small front gardens, open to the road, with minimal landscape on boundaries. Front gardens are generally symmetrical to adjacent units. Rear gardens tend to be larger than average. Mature trees and landscaping often scarce.

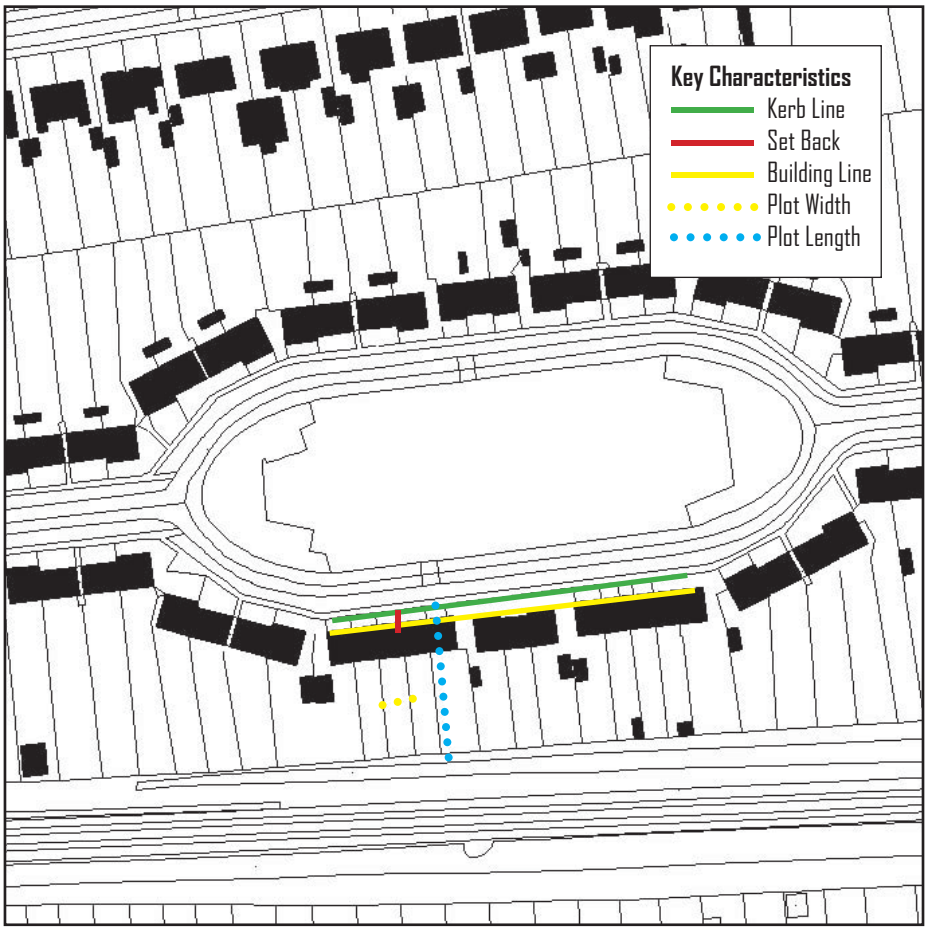
7. **Parking**
Mainly on street parking or parking and garages at rear. Interwar units rarely with individual driveways, although 1950s units begin to incorporate driveways.

8. **Materials**
Often dark red brick, white or cream paint or stucco, mainly with tiled roofs. Generally wooden window frames, although many UPVC replacements in individual styles.

9. **Roof Form**
Mainly brown tiles on high pitched roofs, often with central chimney stack shared between semis.

10. **Detailing/Distinctiveness**
Mainly plain, brick building design, with little detailing. However, where units have been altered, window details, porches and exterior materials and colours are added.

11. **Relationship to Open Countryside**
In general, this type of housing estate has been surrounded by later housing and there are few examples where this type of development abuts the open countryside. Where this does take place, large rear gardens with boundary landscaping are prevalent.



Inter war local authority development at St. George's Avenue, Newbury

Summary of Key Locations
Inter war local authority housing area are located throughout district.

Newbury

St. George's Avenue
To the south of Craven Road lies this very individual development built after the First World War. Here the former Newbury Borough Council developed an excellent and spacious estate of "homes fit for heroes"! Houses of pleasing design are built around a large oval central green providing pleasant views out. Today, replacement windows, extensions and other one-off additions have begun to break up the symmetry of the development. (1)

Hungerford

Church Way (northern end)
This group of houses marks the transition between the historic core and the more recent development in Hungerford.

Thatcham

East of Henwick Lane
Areas of interwar housing to the East of Henwick Lane comprise both private sector and public sector developments. They include two storey semi-detached dwellings as well as bungalows. The overall average density is low and buildings are set back from the road.

(1) From Newbury Town Design Statement

Semi-Rural

1. **Period and Predominance**
Examples located throughout the District's towns.

2. **Building Type and Height**
Detached and semi detached, 2 – 3 Storeys.

3. **Frontage Composition**
Individual plots at irregular intervals with individual and varying architectural styles.

4. **Street Structure**
Groups of dwellings within separate and discrete 'estates' often laid out as speculative developments. Either located on key arterial routes or just off main roads.

5. **Building Line and Boundary Treatment**
Significant set backs from footways with boundaries defined by walls and hedgerows. Driveways and hardstandings also within set back.

6. **Gardens and Landscape Features**
Generous gardens both front and back. Mature landscaping reflects the age of the properties. Vegetation can shield buildings only allowing glimpsed or partial views from the street. Landscape features give a valuable 'Arcadian' feel to the adjacent public realm.

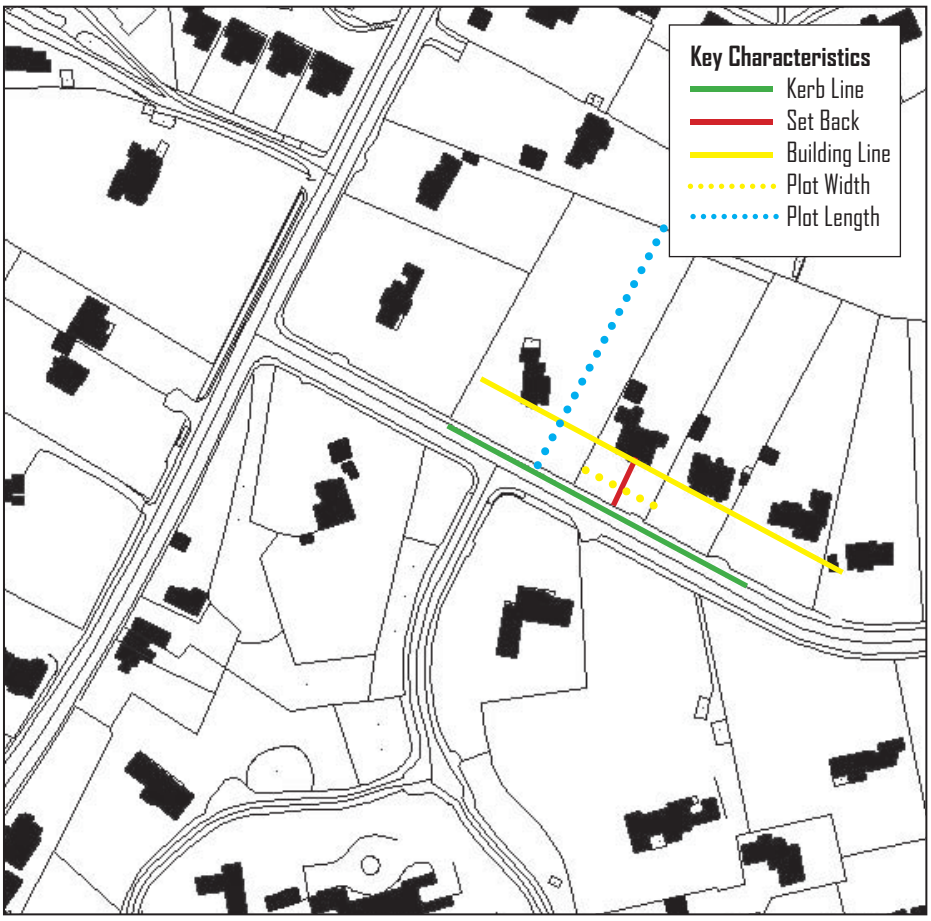
7. **Parking**
Mostly off street within hard standing and garage buildings

8. **Materials**
A variety. Brick tends to predominate but the up market nature of properties means that painted render and stucco dressings were also used.

9. **Roof Form**
Majority traditional slate pitched roof (typically 40-50 degrees). Many examples of dormers on top of two and three storey buildings. Some ridge detailing. Significantly sized chimneys adding to the interest of the roofscape.

10. **Detailing/Distinctiveness**
Many examples have variations in brick detailing through the use of black and yellow bricks used for separate soldier coursing or lintel design contrasting with the predominant red brick. Prominent side wall elevations sometimes have a diamond or chequered pattern. In some cases gothic styles were used in the detailing of windows, eaves and terracotta finials.

11. **Relationship to Open Countryside**
These areas are often located on the outskirts of the settlements and provide a subtle transition from urban to rural.



Low density semi-rural residential development off Andover Road, Newbury

Summary of Key Locations
Pockets of semi-rural development are located throughout the district but are particularly notable in Newbury and Burghfield Common.

Newbury
Andover Road area
The South Area encompasses the 'garden suburbs' of that part of the Andover Road between the St. John's and Falkland Roundabout, where large detached properties set in very spacious gardens were built in the 1930s. The road and most pavements are wide, and there are many mature trees. Set well back from the road, the houses are of individual, high quality design, giving the Andover Road a great deal of style and charm. Coupled with the steep rise up to Wash Common, the road presents a well wooded and prosperous image, appropriate for a main route into the Town.
The residential side roads which 'feed' into Andover Road include Woodridge and Tydehams, with similarly large properties. There has been some more modern infilling – for instance, the back gardens of some of the houses in Tydehams were developed into Heather Gardens, off Monks Lane, the southern perimeter of the Area. The houses at Tydehams were built in the 1920s by local businessmen for their own residences - typically large detached houses standing in their own extensive wooded grounds. There is a range of styles with several surviving examples of period 'Art Deco' architecture rarely seen elsewhere in Newbury.

Further up, on the opposite side of the Andover Road is Woodridge, a unique locality of character properties of individual design reached by a private road running between mature Wellingtonia of impressive size.
This is also surprisingly secluded and spacious considering its closeness to the town. Recent infilling is evident – new detached houses built on relatively smaller plots reduce the spaciousness of the original layout. (1)

Burghfield Common

Bunces Lane
This area is located on the southern side of Burghfield Common and comprises individual dwelling set within large plots. These plots are characterised by mature landscaping within both the front and rear gardens. Many of the dwellings are accessed from private access drives.

(1) From Newbury Town Design Statement

Post War Suburban

1. **Period and Predominance**
Mainly small houses built between 1960 and 1979. These are a combination of private developments and local authority planned residential growth.

2. **Building Type and Height**
Mainly 2 storey semi detached, although some terraces.

3. **Frontage Composition**
Mainly small plots with uniform frontages. Mainly uniform building design.

4. **Street Structure**
Mainly small cul-de-sacs or looped roads.

5. **Building Line and Boundary Treatment**
Mainly small, uniform front gardens, set back from footways, defined by grass lawns and shrubs.

6. **Gardens and Landscape Features**
Generally small front gardens, open to the road, with minimal landscape.

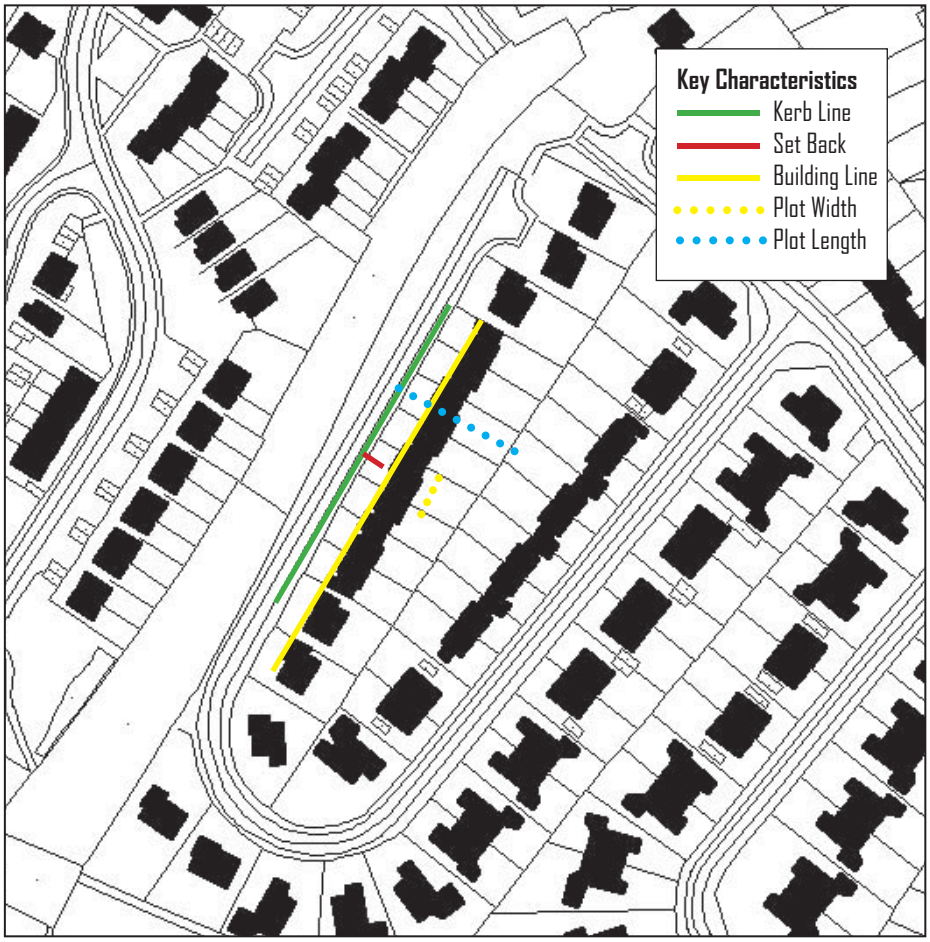
7. **Parking**
Semi-detached and terraced houses mainly with parking and garage courts at rear. On street parking prevalent.

8. **Materials**
Mainly brick, some houses with slatted wood detail. Red brick with grey brick detail prevalent.

9. **Roof Form**
Mainly grey slate on low pitched roofs. Some dormer examples on single storey houses. In general, plain roofs, often with no chimneys or detail.

10. **Detailing/Distinctiveness**
Mainly plain building design, although a small selection of innovative clusters in places.

11. **Relationship to Open Countryside**
In general, this type of housing estate has been surrounded by later period housing. However where there are examples close to the urban fringe the transition from urban to rural situation can be stark, often with rear garden fences backing onto the open countryside.



Post war suburban housing along Homefield Way in Hungerford

Summary of Key Locations
Post war suburban housing created a significant growth in the building stock of the towns throughout the District.

Newbury
In Newbury there are significant areas of post war suburban growth within both the southern and northern halves of the town, significant public sector growth took place between the A4 and Grove Road. In the south the areas include areas on either side of Greenham Road and the public and privately planned growth along Valley Road in the south west.

Hungerford
Post War private housing growth took place to the south west of the town centre along Homefield Way. Public sector post war local authority housing is also to be found off Priory Road in the south east.

Thatcham
Thatcham grew dramatically in the post war years and therefore a significant proportion of the building stock falls into the post war suburban category. Much of this housing was developed privately however there are significant local authority developments as well.

Burghfield Common
Significant areas of post war growth are located throughout Burghfield Common. The majority of this was developed as local authority housing and is located on either side of Clay Hill Road.

Tilehurst
Privately developed post war housing growth characterises much of the Tilehurst area.

Late 20th Century Suburban

1. **Period and Predominance**
Mainly houses and flats built or designed between 1980 and 1999.

2. **Building Type and Height**
Mainly 2 storey detached, although often interspersed with areas of 2 storey semi detached and terraces. Pockets of 3 and 4 storey flats.

3. **Frontage Composition**
Individual plots, often set at angles to one another. Mainly each house is set within its own plot, maximising privacy and overlooking at the front.

4. **Street Structure**
Mainly curvilinear cul-de-sacs accessed off a single distributor road. Often a single access point into an "estate". Often 5 or 6 key building styles which are repeated throughout the street.

5. **Building Line and Boundary Treatment**
Mainly undefined building line, with fronts and sides of buildings fronting the road.

6. **Gardens and Landscape Features**
Mainly individual front gardens with personalised landscaping, often spilling out onto the footway, rather than defined by walls or fencing.

7. **Parking**
Mainly individual front drives leading to single garages. Little on street parking. Garages are often detached from the property.

8. **Materials**
Often highly detailed, using a mix of materials such as coloured bricks, white wood trim and decorative features such as porches and bay windows.

9. **Roof Form**
A variety of roof lines, although mainly pitched, often with detailing. Some with false chimneys.

10. **Detailing/Distinctiveness**
Some attempt made to distinguish between building types within the same estate. Key building styles are often used, which are repeated at intervals throughout the estate. Each key style has its own distinguishing features.

11. **Relationship to Open Countryside**
Generally a strong relationship to the open countryside, as most of the development has taken place around the outer edge of the settlement boundaries. This relationship is not always positive as development often backs onto the open countryside.

Late 20th Century housing at Valley Road, Burghfield Common

Summary of Key Locations

All towns saw growth in the latter half of the 20th Century. Significant growth took place in Thatcham and Calcot.

Newbury

Late 20th Century growth in Newbury was primarily restricted to pockets along the outer edge of the settlement.

Hungerford

Hungerford saw limited late 20th Century growth in pockets mainly within the outer edges of the developed area.

Thatcham

Thatcham grew dramatically in the late 20th Century and therefore a significant proportion of the building stock falls into this category.

Burghfield Common

Significant areas of 20th Century growth are located in the north west along Hawksworth Road and to the west of Reading Road.

Calcot, Tilehurst and Purley

Late 20th Century housing characterises much of Calcot and the west of Tilehurst

Post 2000

1. **Period and Predominance**
Mainly houses and flats designed since the year 2000 and the introduction of Planning Policy Guidance Note 3 - Housing (PPG3) requiring higher densities.

2. **Building Type and Height**
Mainly 2 and 3 storey semi-detached and terraced, although often interspersed with pockets of 3 and 4 storey flats.

3. **Frontage Composition**
Terraced groups. Mainly each house is set within its own plot, maximising privacy and overlooking at the front.

4. **Street Structure**
Return to traditional street and block layout in a grid pattern.

5. **Building Line and Boundary Treatment**
Development of the blocks and variations in alignment of the edges creates squares contrasting spaces and varied townscape. The streets are linear with a well defined building line.

6. **Gardens and Landscape Features**
Either no front gardens or small set back with limited landscaping - urban feel.

7. **Parking**
Mainly individual front drives leading to single garages. Little on street parking. Garages are often detached from the property.

8. **Materials**
Often highly detailed, using a mix of materials such as coloured bricks, white wood trim and decorative features such as porches and bay windows.

9. **Roof Form**
A variety of roof lines, although mainly pitched, often with detailing. Chimneys.

10. **Detailing/Distinctiveness**
Some attempt made to distinguish between building types within the same estate. Key building styles are often used, which are repeated at intervals throughout the estate. Each key style has its own distinguishing features.

11. **Relationship to Open Countryside**
Generally a strong relationship to the open countryside, where the development has taken place around the outer edge of the settlement boundaries. When designed well, development fronts onto the countryside.

Post 2000 housing development in Thatcham

Summary of Key Locations

Pockets of recent development throughout the District.

Newbury

Key developments include College Mews on the Oxford Road. A formal layout based around a central greenspace.

Thatcham

Kennet Heath is a major development on the south east fringe of the settlement and creates a traditional street and block layout.

1.7 Character Area Frameworks

1.7.1 The plans on the following pages set out the character area frameworks for the following towns;

- **Newbury (see also Newbury Town Design Statement)**
- **Tilehurst (North) and Purley / Tilehurst (South) and Calcot**
- **Thatcham**
- **Burghfield Common**
- **Hungerford**
- **Lambourn**
- **Mortimer**
- **Pangbourne**
- **Theale**
- **Kintbury**

Character Area Frameworks have only been prepared for the larger built up areas. For information on the character of West Berkshire's villages, see the Town and Village Design Statements (TDS and VDS):

Town and Village Design Statements as Supplementary Planning Guidance (SPGs) under the old planning system:

Basildon - Adopted 13 March 2001
Beenham - Adopted 8 July 2003
Bucklebury - Adopted 16 April 2002
Chieveley - Adopted 2 April 2002
Cold Ash and Ashmore Green - Adopted 1 May 2002
Hermitage - Adopted 14 July 2004
Inkpen - Adopted 31 August 2004
Speen - Adopted 1 October 2002

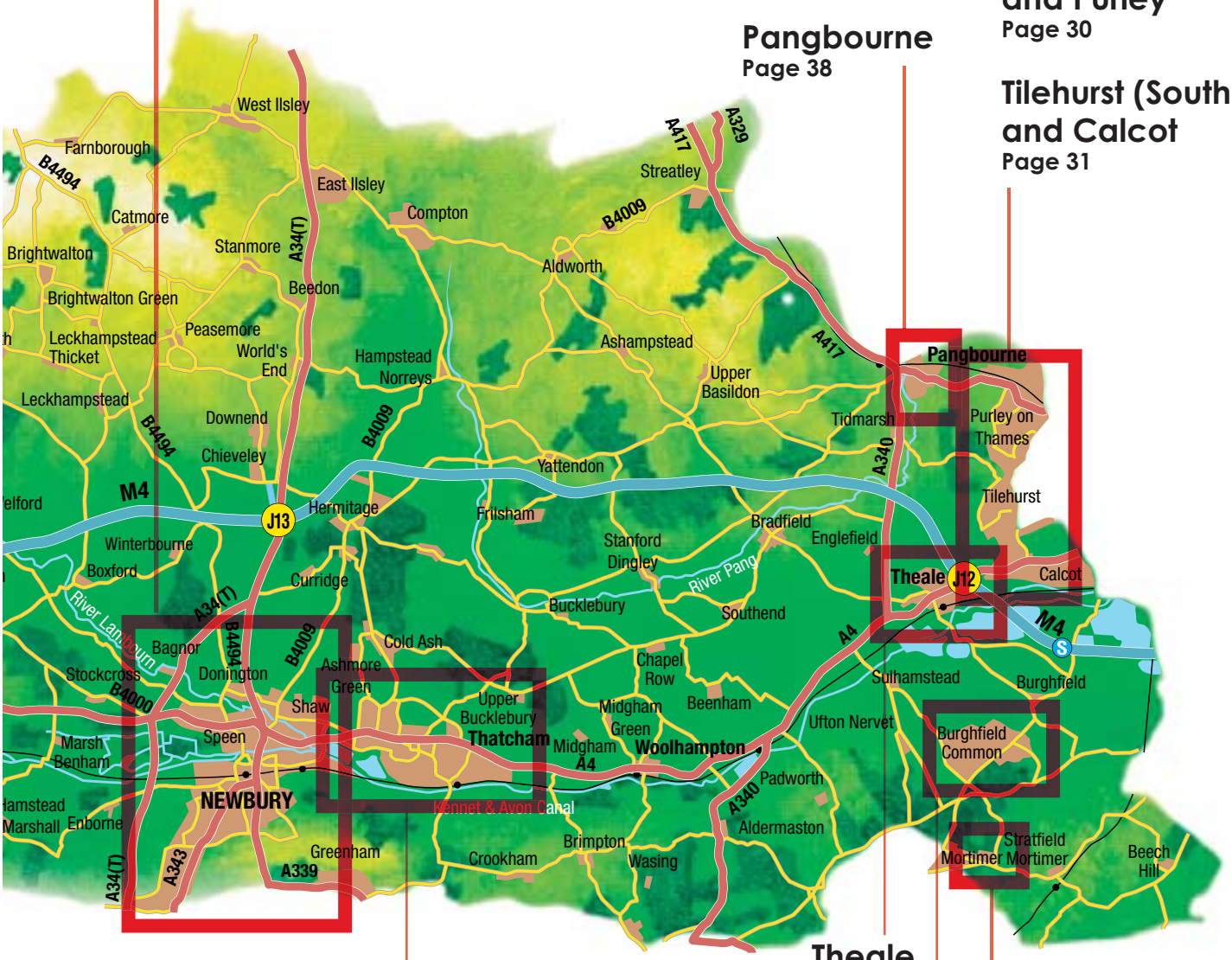
Town and Village Design Statements accepted by WBC as providing a consensus view of the local community and adopted as a material consideration in planning decisions:

Newbury TDS - Adopted 19 April 2005
Compton - Adopted 11 October 2005
Pangbourne - Adopted 16 November 2005

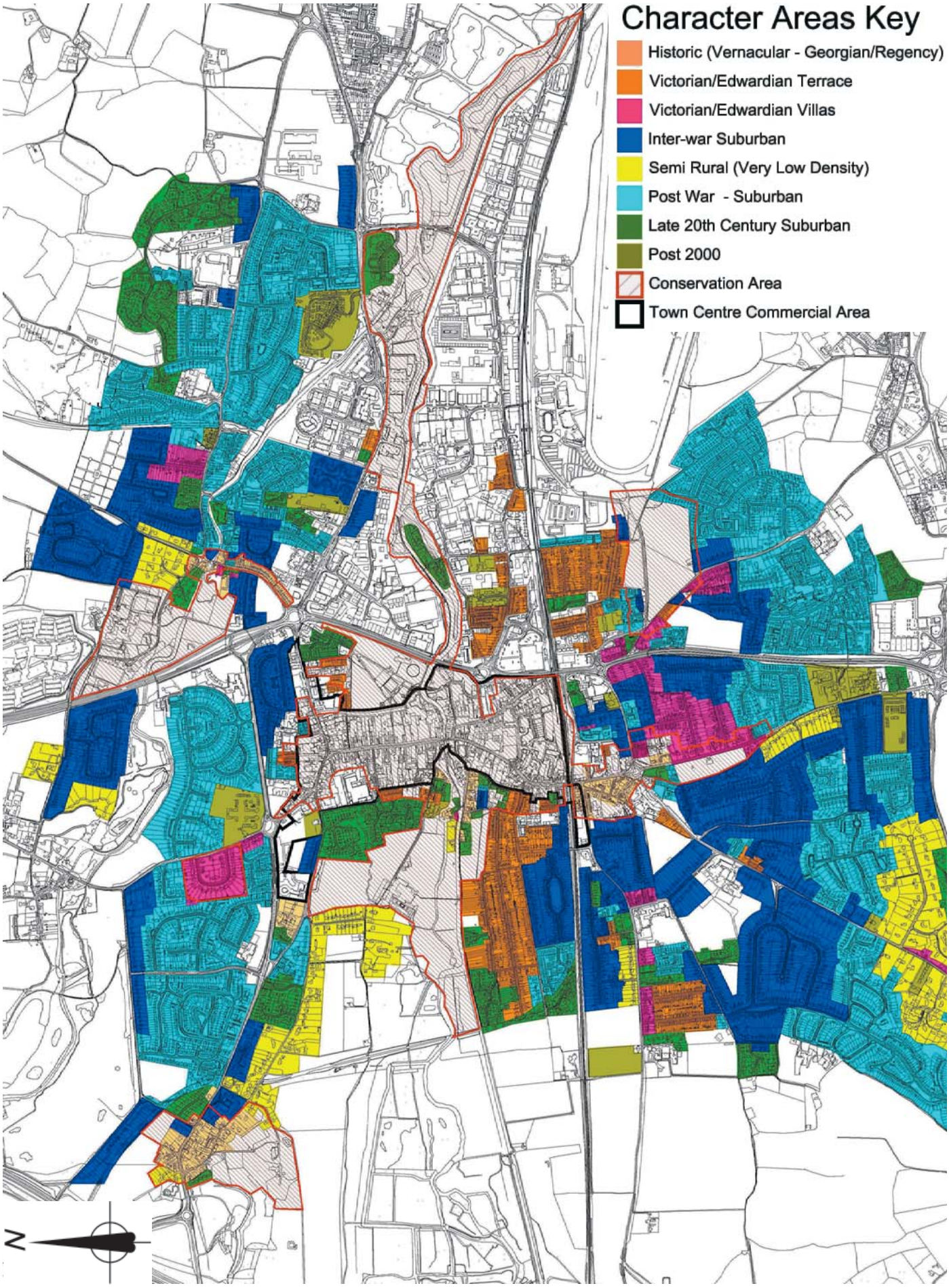
Other local communities are working on developing their own TDS and VDS. For further information, please refer to the WBC web site:

www.westberks.gov.uk

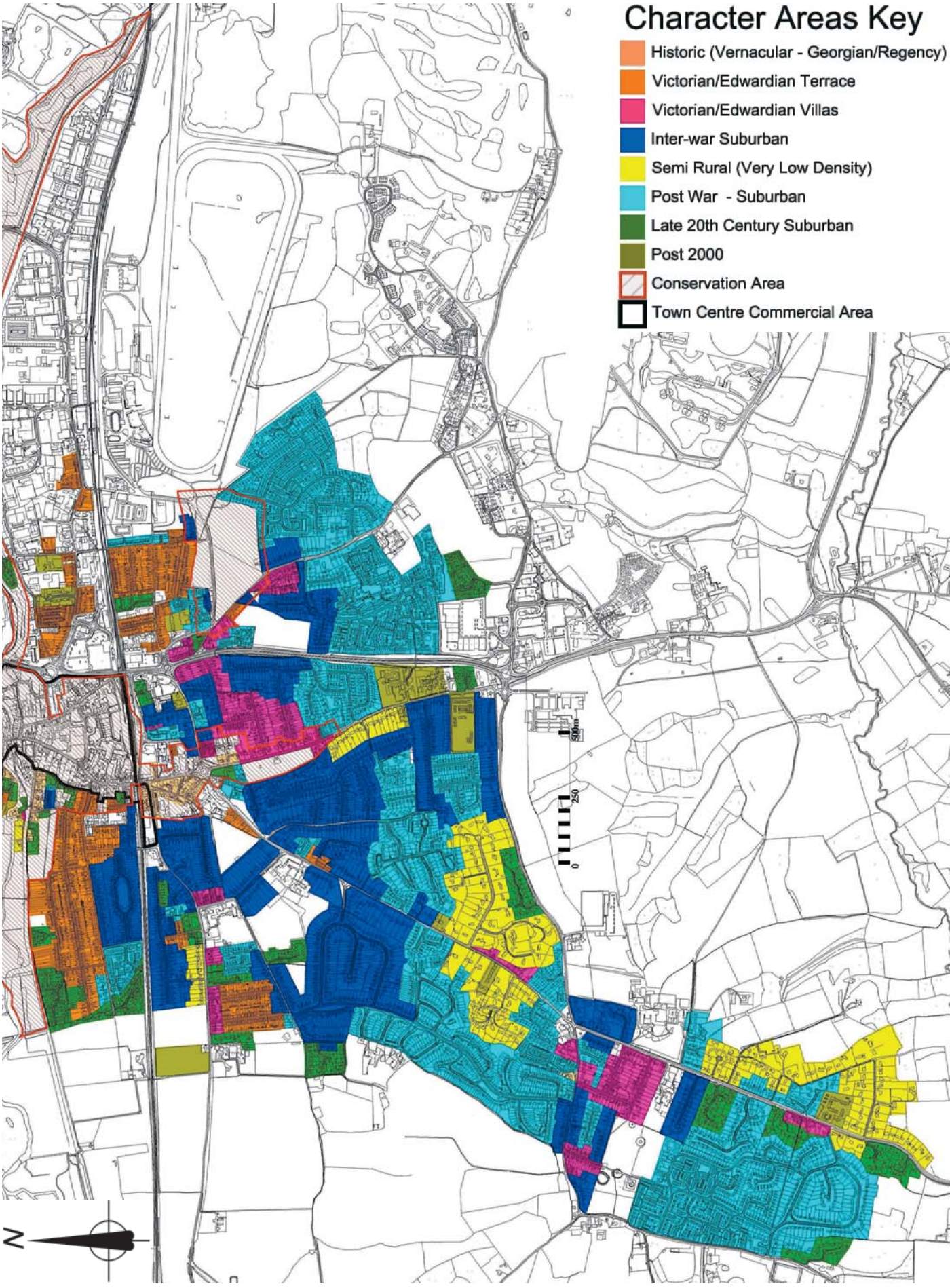
West Berkshire District - Key Map



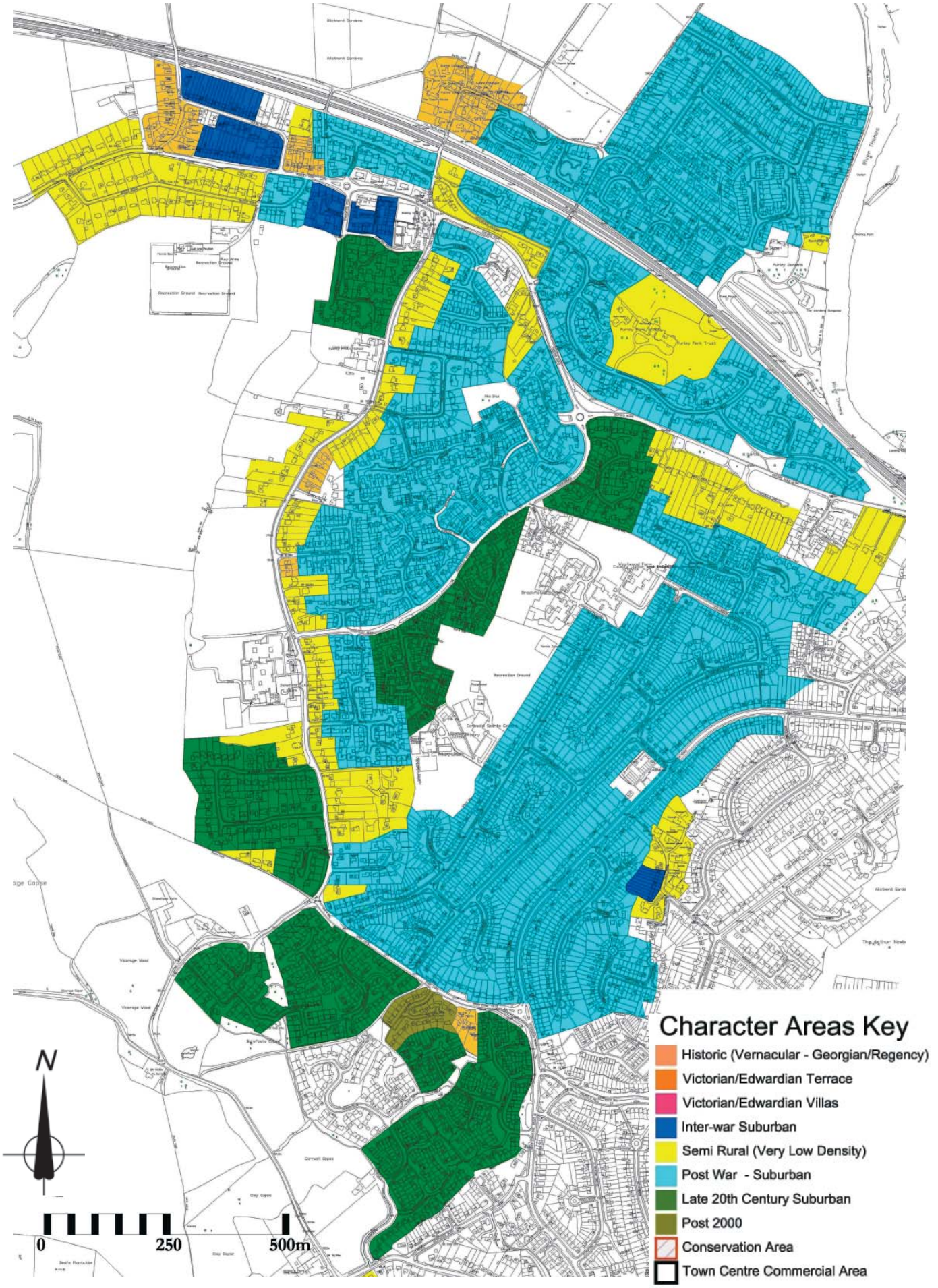
Newbury


Character Areas Key
Historic (Vernacular - Georgian/Regency)
Victorian/Edwardian Terrace
Victorian/Edwardian Villas
Inter-war Suburban
Semi Rural (Very Low Density)
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
N

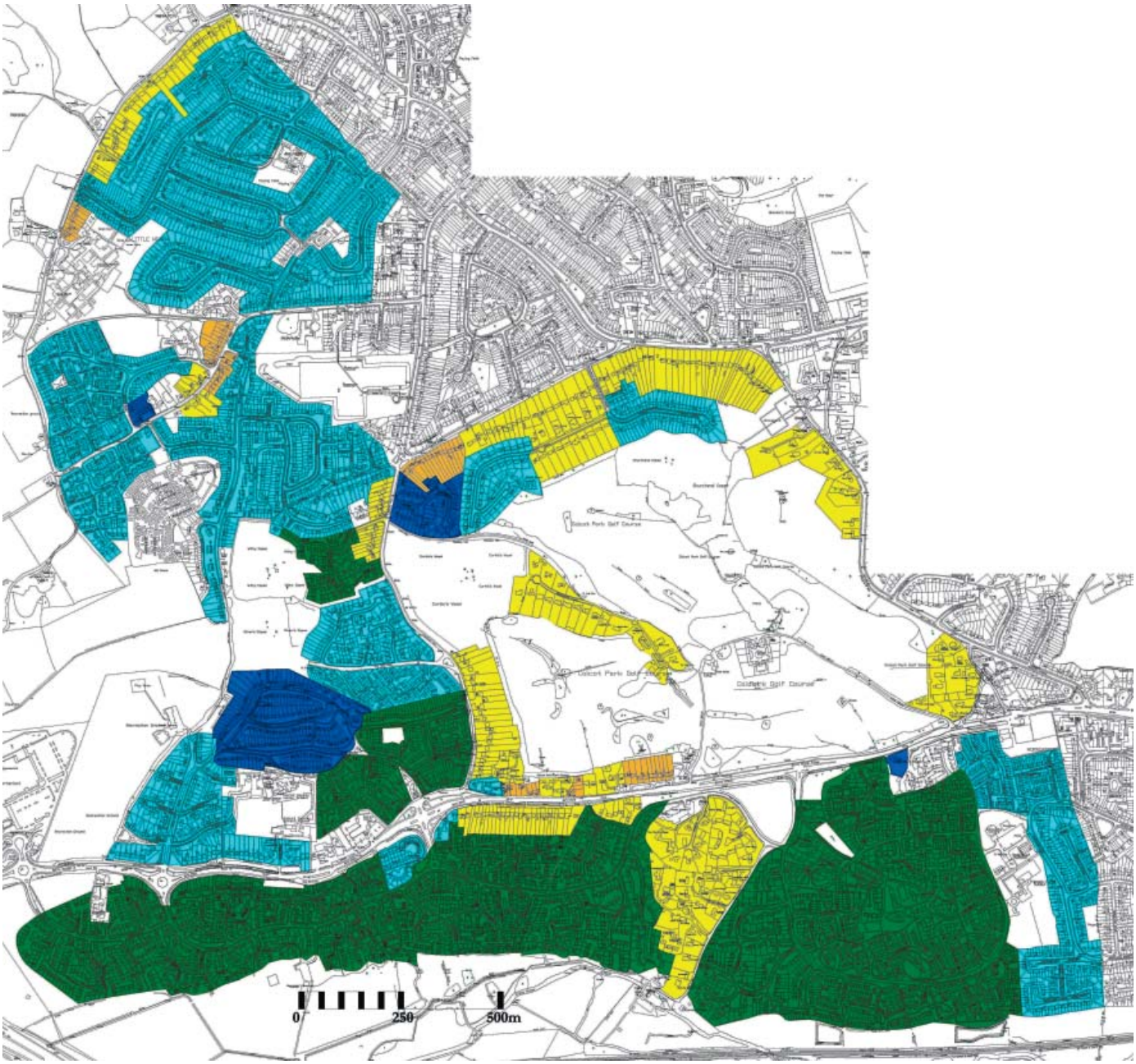
Newbury


Character Areas Key
Historic (Vernacular - Georgian/Regency)
Victorian/Edwardian Terrace
Victorian/Edwardian Villas
Inter-war Suburban
Semi Rural (Very Low Density)
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
500m
250
0
N

Tilehurst (North) and Purley



Tilehurst (South) and Calcot

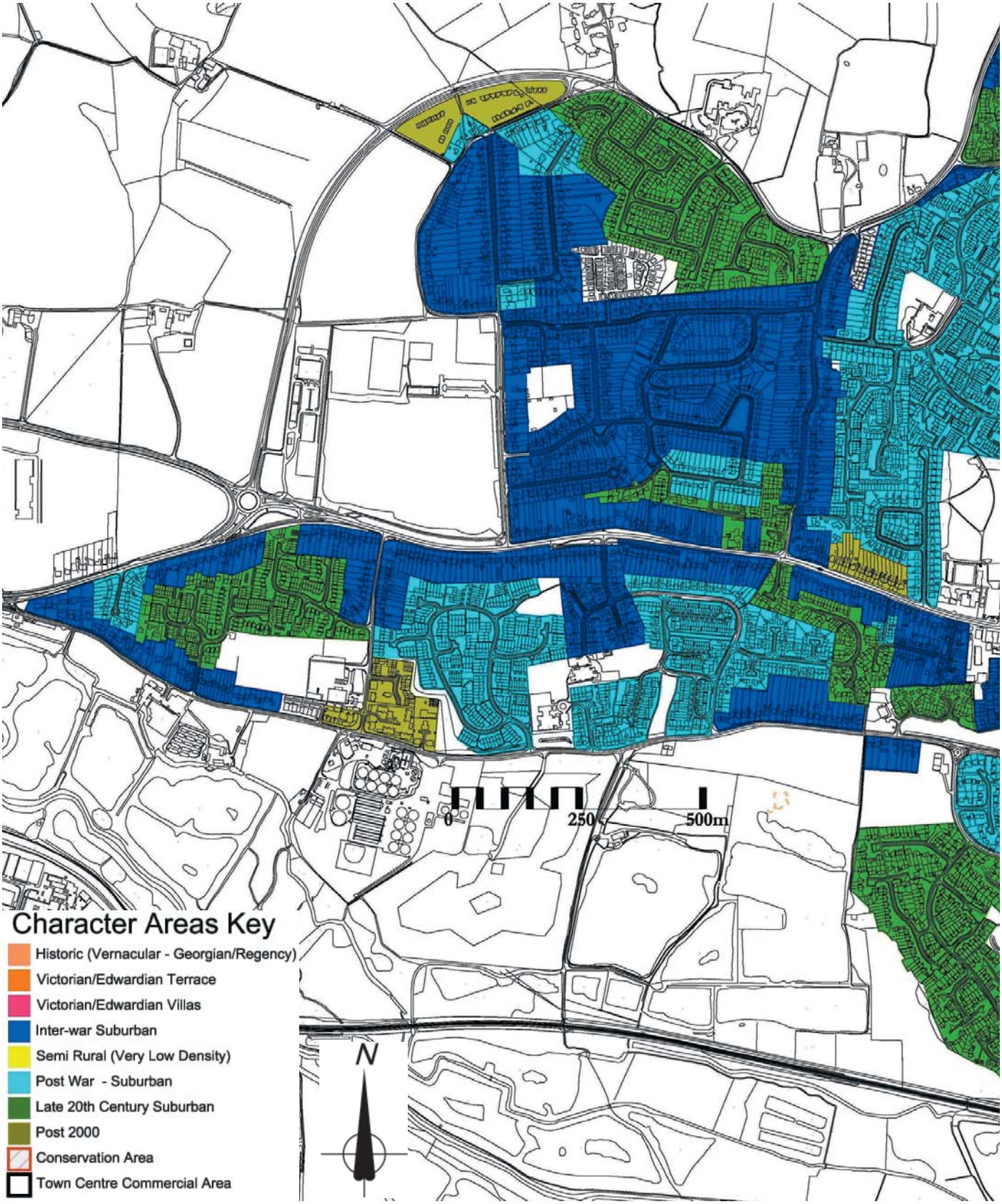


Character Areas Key

- Historic (Vernacular - Georgian/Regency)
- Victorian/Edwardian Terrace
- Victorian/Edwardian Villas
- Inter-war Suburban
- Semi Rural (Very Low Density)
- Post War - Suburban
- Late 20th Century Suburban
- Post 2000
- Conservation Area
- Town Centre Commercial Area

N

Thatcham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250
500m
Character Areas Key
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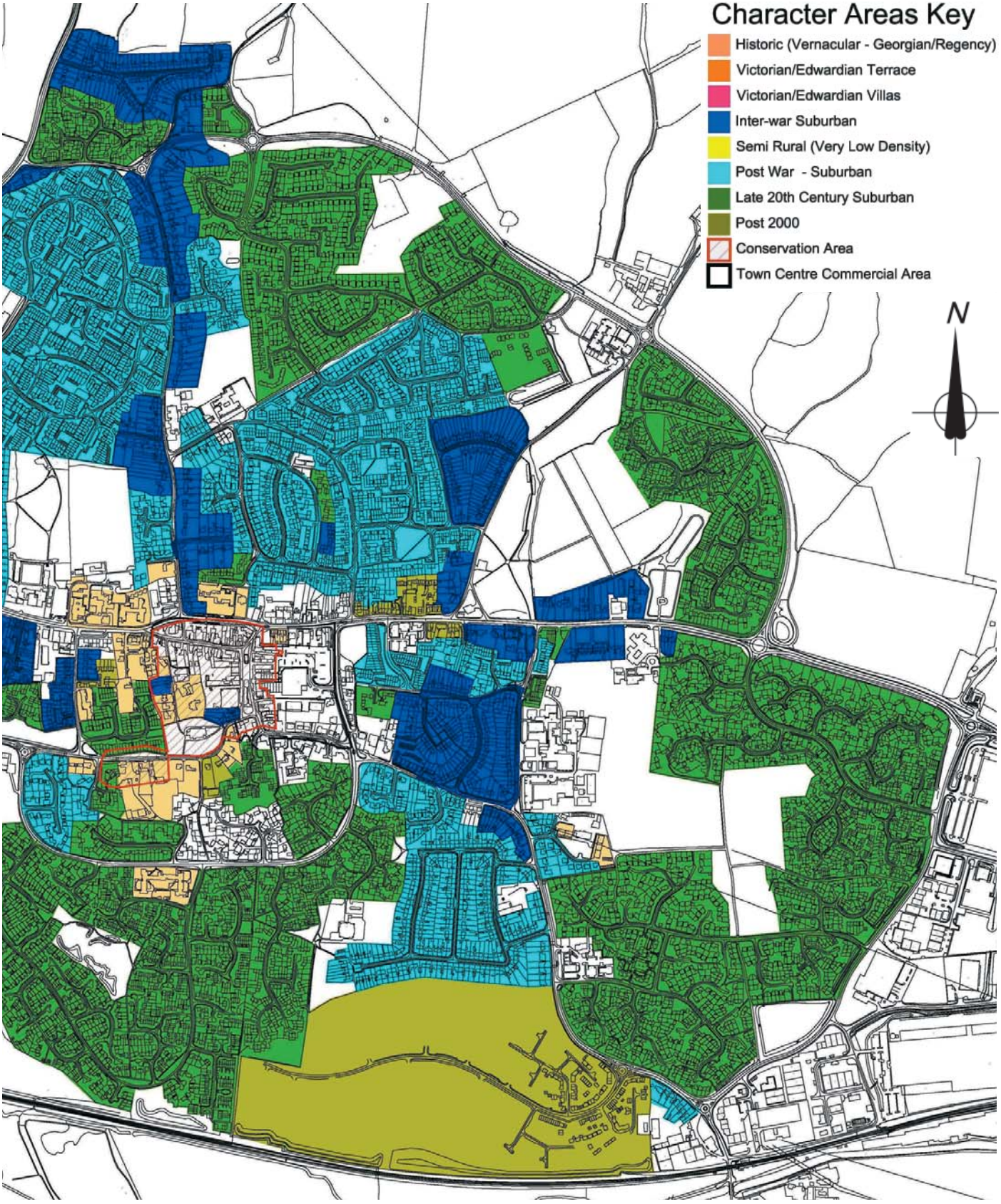
Victorian/Edwardian Terrace
Victorian/Edwardian Villas
Inter-war Suburban
Semi Rural (Very Low Density)
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
N

Thatcham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Post 2000
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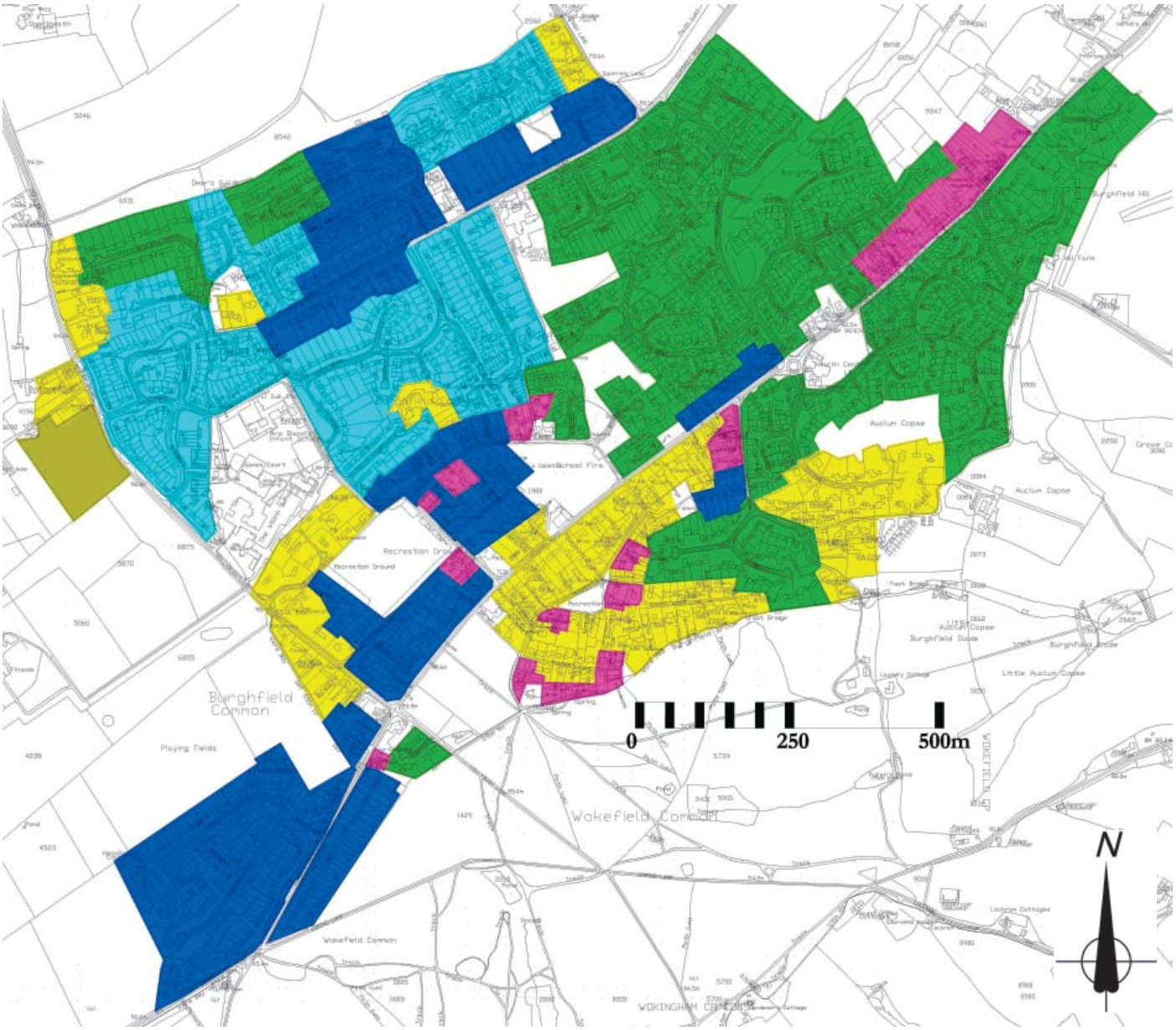
N

Burghfield Common



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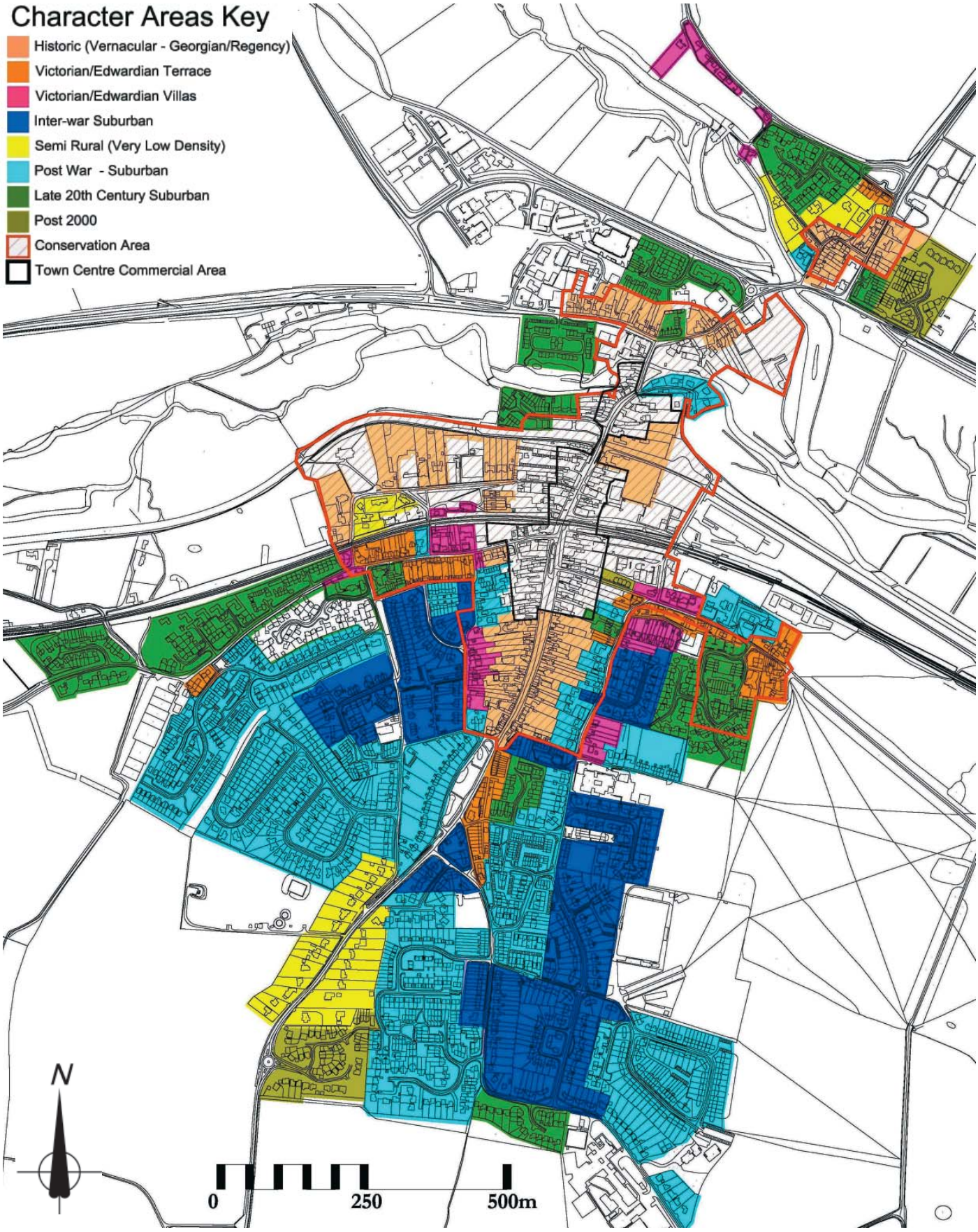
- Conservation Area
- Town Centre Commercial Area

Hungerford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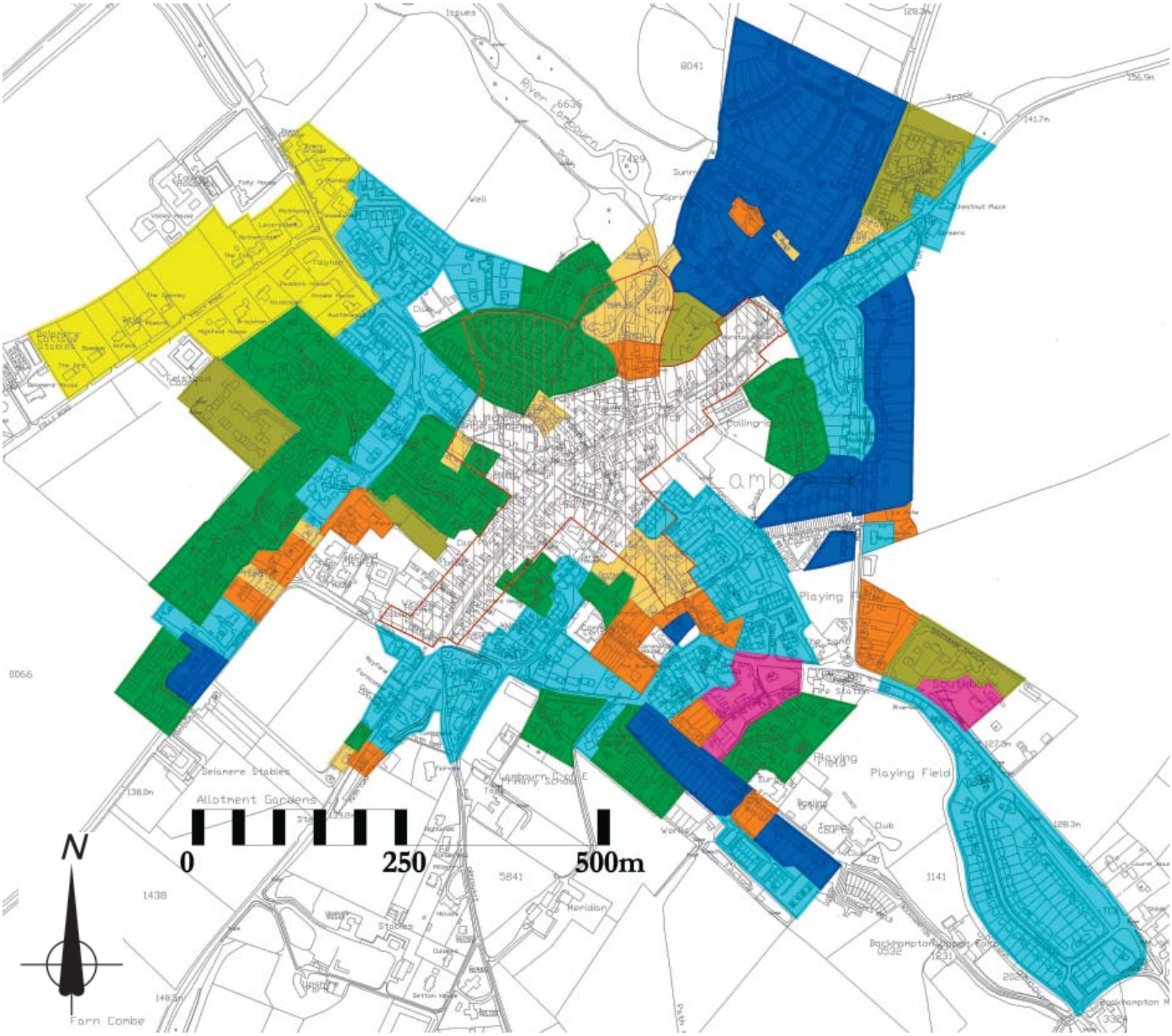
Victorian/Edwardian Terrace
Victorian/Edwardian Villas
Inter-war Suburban
Semi Rural (Very Low Density)
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
N
0
250
500m

Lambourn



Character Areas Key

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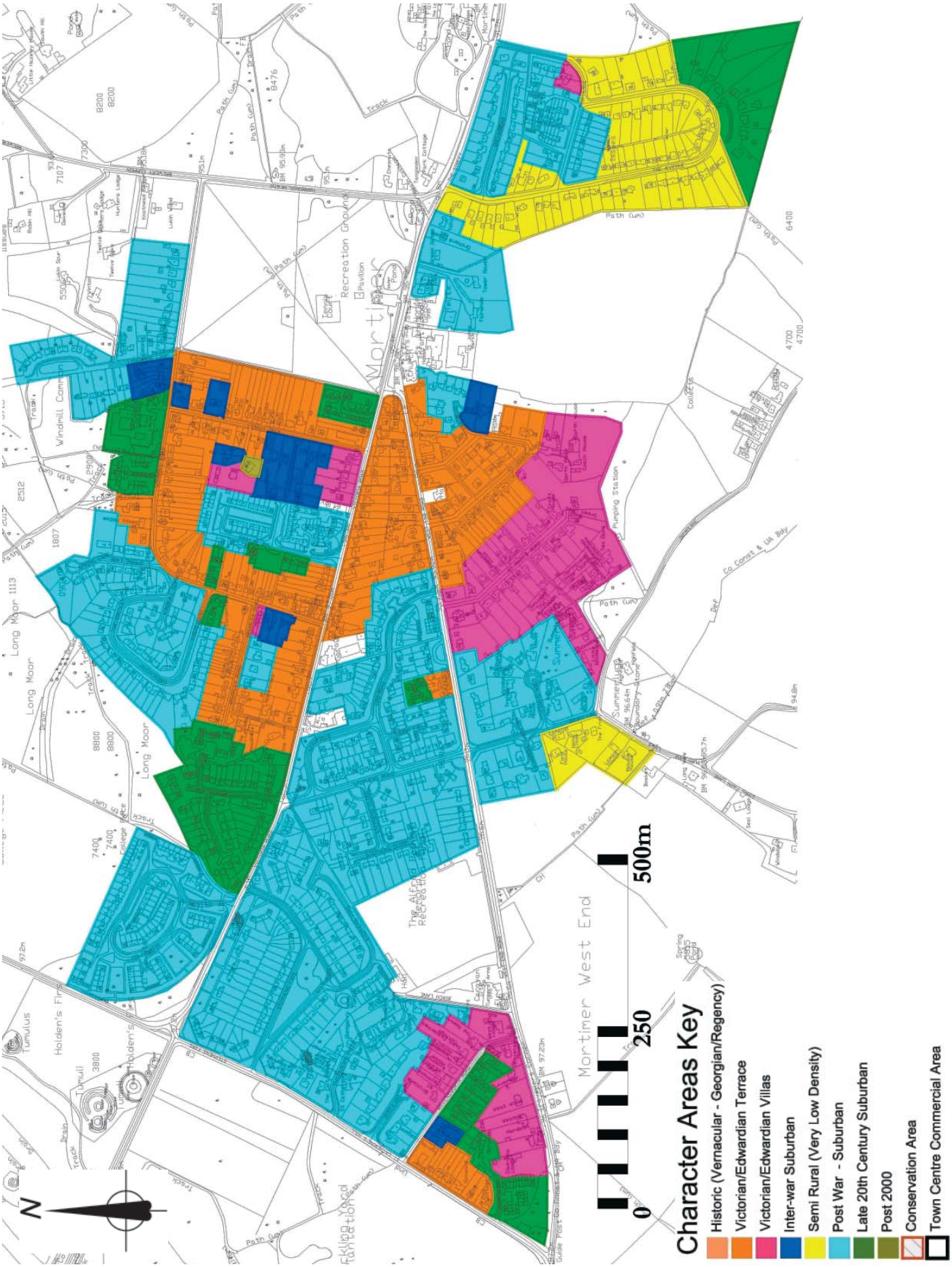
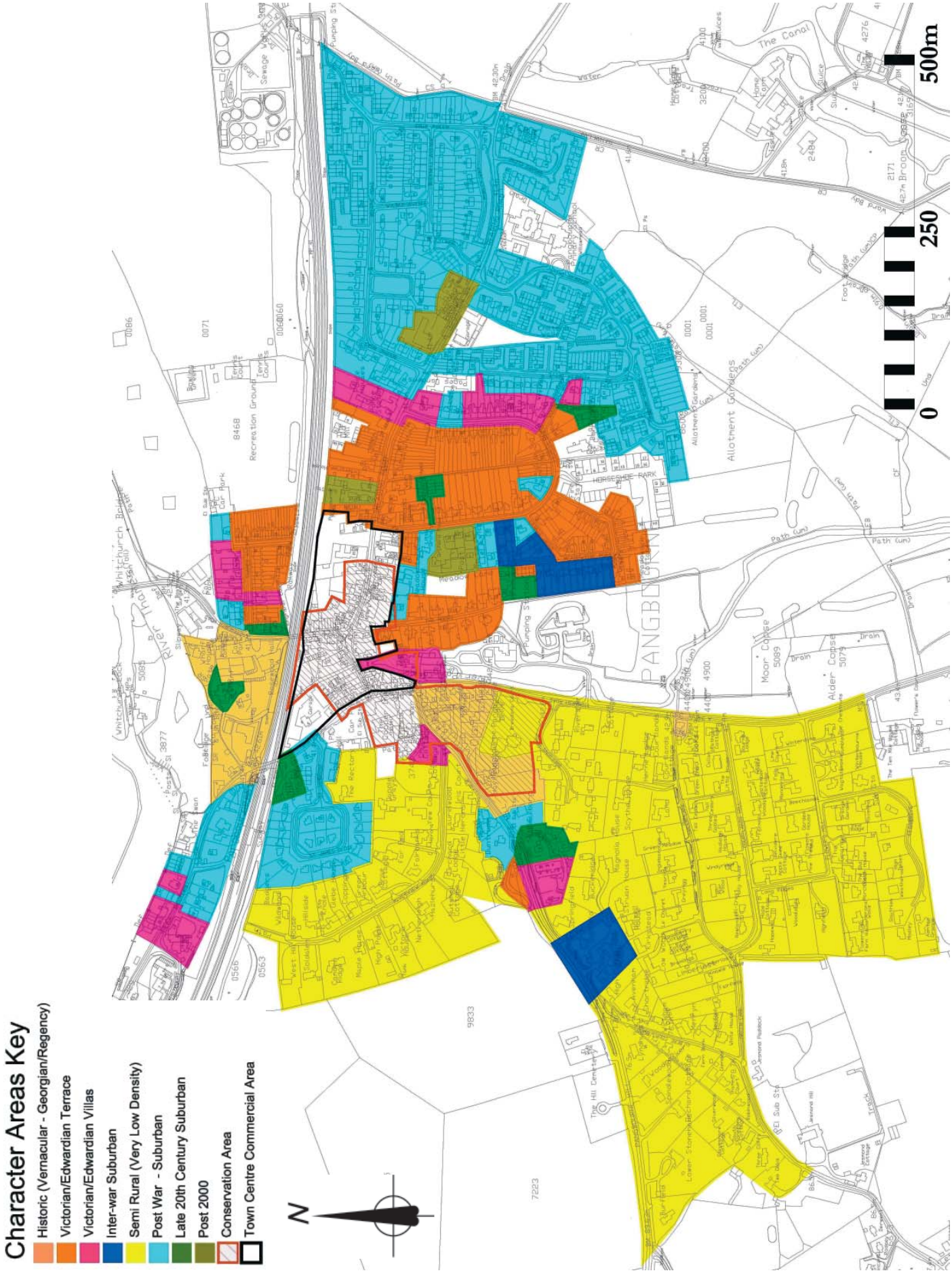
Mortimer


Mortimer
Mortimer West End
Recreation Ground
Pavilion
Temple Court
Windmill Common
Long Moor
Pumping Station
Summerlands
Path (um)
Track
Tumulus
Holden's Firs
Holden's Farm
Allotments
The Alfred Palmer Memorial Recreation Ground
Spring Meadows Road
Guide Post
Co Const & UA Bdy
Def
Boundary Stone
Character Areas Key
Historic (Vernacular - Georgian/Regency)
Victorian/Edwardian Terrace
Victorian/Edwardian Villas
Inter-war Suburban
Semi Rural (Very Low Density)
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
0
250
500m
N

Pangbourne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Victorian/Edwardian Villas
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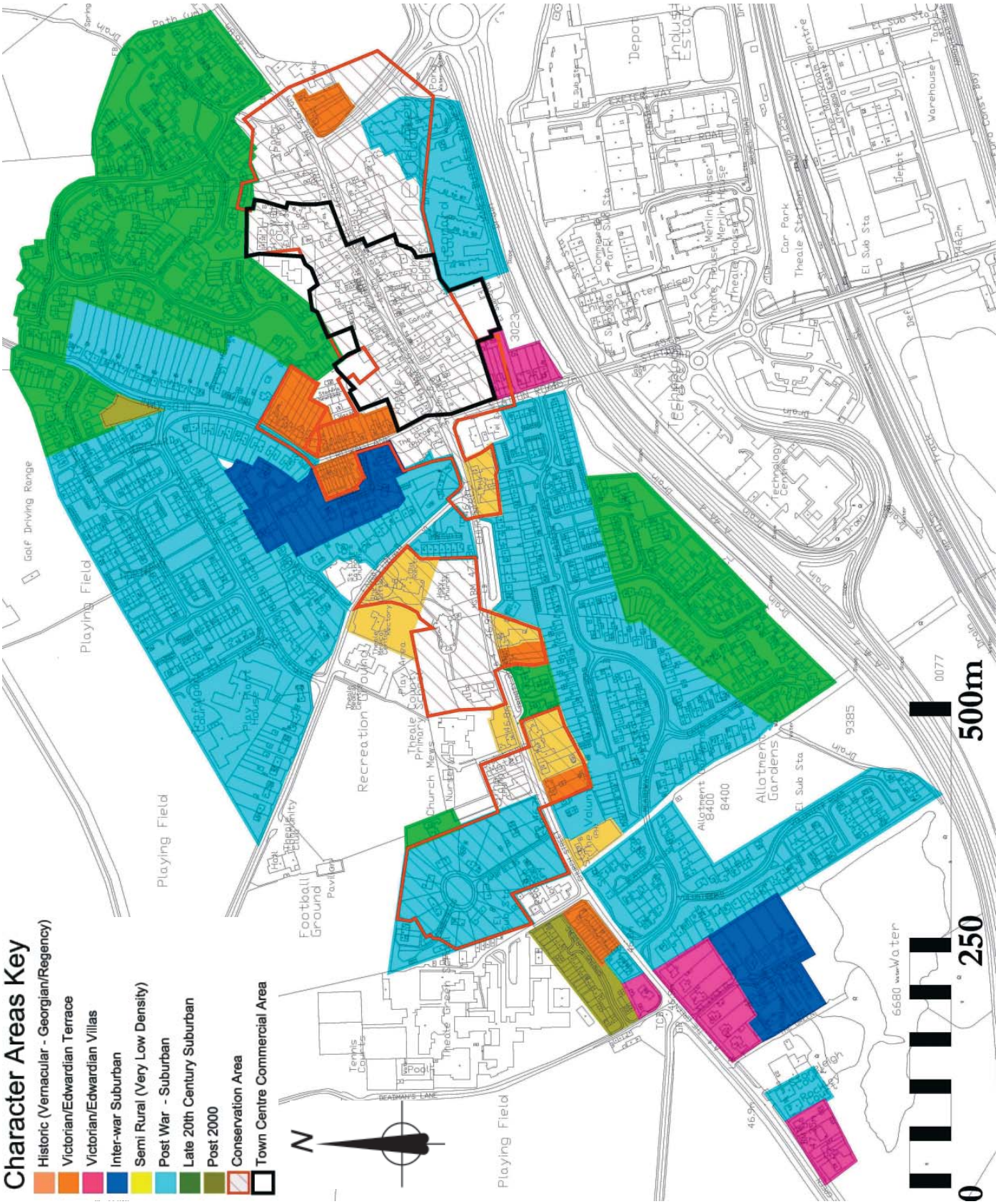
Semi Rural (Very Low Density)
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
N
0
250
500m
The Canal
River Thames
PANGBOURNE
Allotment Gardens
Recreation Ground
Tennis Courts
Bowling
Moor Copse
Alder Copse
HORSESHOE PARK
Meadow
Path (um)
Drain

Theale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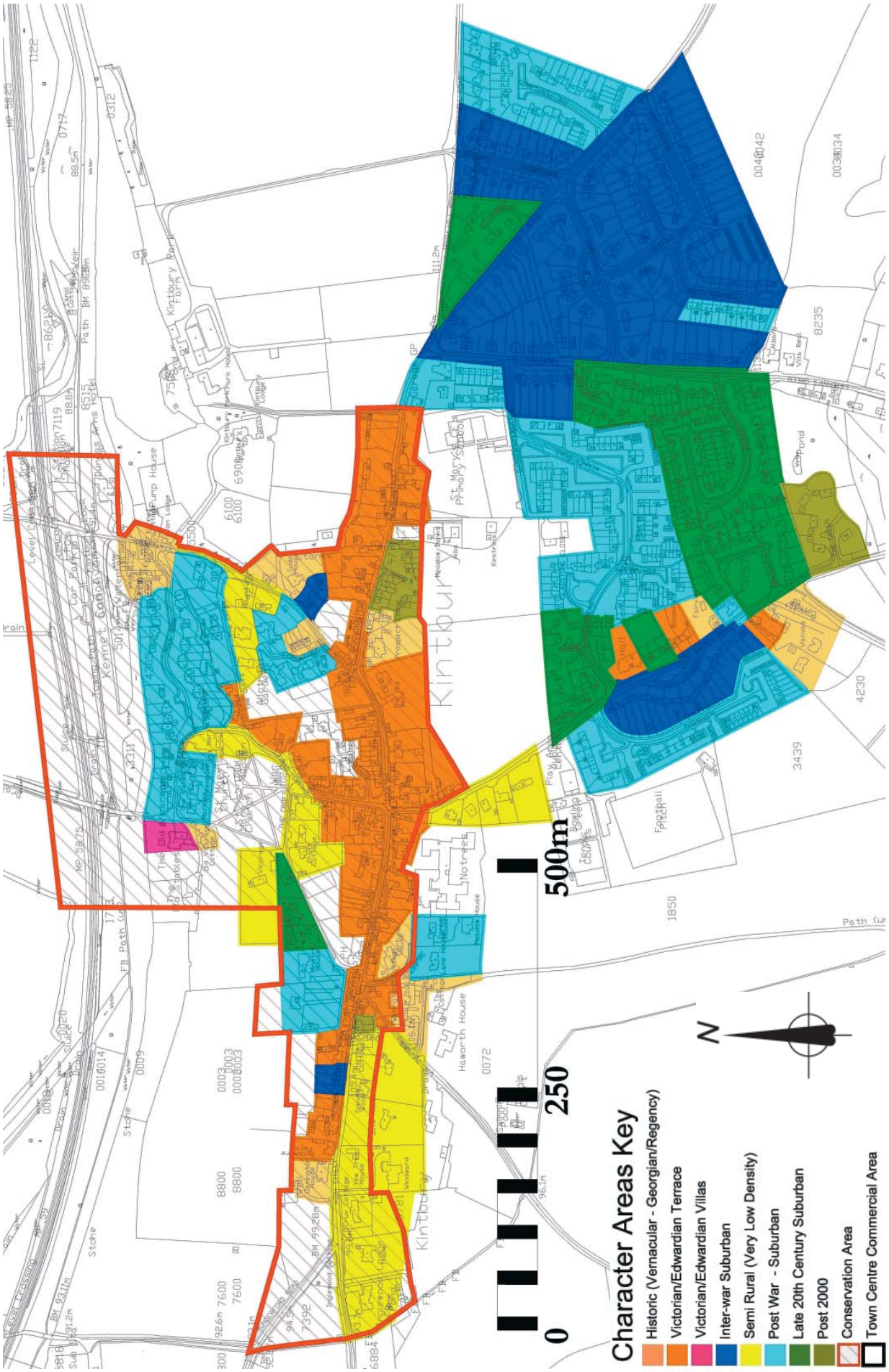
Post War - Suburban
Late 20th Century Suburban
Post 2000
Conservation Area
Town Centre Commercial Area
N
0
250
500m
Playing Field
Recreation Ground
Football Ground
Allotment Gardens
Theale Primary School
Church Mews
Nursery
Tennis Courts
Theale Green
BEARMAN'S LANE
Golf Driving Range
Water
Depot
Car Park
Theale Station
Technology Centre
Warehouse

Kintbury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Conservation Area
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0
250
500m
N

Local Development Framework

West Berkshire Council

Halcrow

Prepared by Halcrow on behalf of West Berkshire Council

June 2006

Quality Design - West Berkshire
Supplementary Planning Document

Part 4
Sustainable Design Techniques

Local Development Framework

West Berkshire Council

PART 4

Contents

Sustainable Design Techniques

1.1 Introduction

1.1.1 This document comprises the fourth of several publications which form the West Berkshire Council (WBC) design guide series "Quality Design - West Berkshire". Together the series forms a Supplementary Planning Document (SPD) which supports policies in the Berkshire Structure Plan 2001 – 2016 and West Berkshire District Local Plan 1991 - 2006. **As such, it is a 'material consideration' in determining planning applications and if not followed, may lead to the refusal of planning permission.** It is intended that in the future this SPD series will also support relevant policies in WBC's Development Plan Documents. It also complements other existing Supplementary Planning Guidance (SPGs) and SPDs, including any site specific development briefs which may be produced in the future.

1.1.2 This section "Sustainable Design Techniques" provides a range of methods, techniques and technologies as examples of solutions to sustainable building design for all developments which should be incorporated into new build. Its purpose is to assist in maximising the opportunity for developments to be energy and resource efficient.

1.2 Renewable Energy and Energy Conservation Overview

1.2.1 The continual production of greenhouse gases, in particular carbon dioxide, is recognised to contribute to the increasing rate of climate change. Under the Kyoto Protocol, the UK has committed to a 12.5% reduction in greenhouse gas emissions below 1990 levels by 2012. At the national level the Energy White Paper sets a target of generating 20% of UK energy by renewable technologies by 2020.

1.2.2 PPS22: Renewable Energy, 2004 sets out the Government's national policies for the use of renewable energy within development proposals. Local planning authorities and developers should consider the opportunity for incorporating renewable energy into all new developments and the emerging South East Plan, the Structure Plan policy EN8 and Local Plan policies OVS.9 and 10 promote these principles.

The guidance seeks to promote sustainable design within new development

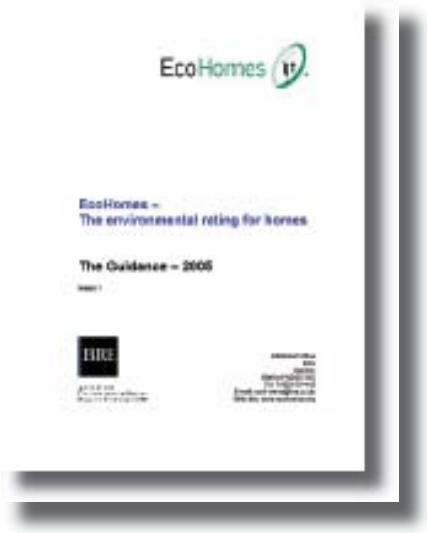
Energy efficiency is at the forefront of Government policy and many flagship developments incorporate sustainable design principles...

The challenge now, is to incorporate these principles into every day building design

Courtyard development, incorporating landscaping can assist energy efficiency

Design features such as large windows contribute to solar gain

Holistic energy efficient construction, Primary School, Millennium Community



BREEAM's EcoHomes Guidance 2005

1.2.3 PPS22 states that "Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass". To successfully introduce renewable technologies, PPS22 recognises that this will involve the "installation of different kinds of schemes in different contexts, from rural areas to densely populated areas, market towns and suburban streets".

1.2.4 The Draft South East Plan encourages the use of SPD's to promote development design for energy efficiency and renewable energy. Policy EN1 encourages the provision of at least 10% of the development's energy demand from renewable sources, and for all new developments, where appropriate, to achieve high energy efficiency ratings through the use of best practice schemes such as BREEAM.

1.2.5 Structure Plan policy EN8 promotes energy efficiency and conservation in the design, layout and orientation of new development. Energy generation from renewable resources, such as electricity and heat, should be considered and implemented where feasible, providing that adverse impacts on landscape, biodiversity and local amenity are avoided.

1.2.6 Policy EN8 states that "1. All forms of development will maximise the opportunity to incorporate current best practice in energy efficiency and energy conservation into their design, layout and orientation. 2. Generation of energy from renewable resources should be considered, and implemented wherever feasible, in all development proposals, provided that adverse impacts on the landscape, biodiversity and local amenity are avoided. 3. Development proposals for the generation of electricity and heat from renewable sources will be encouraged, provided that adverse impacts on landscape, biodiversity and local amenity are avoided."

1.2.7 All proposals should satisfy Structure Plan policy EN8, which this SPD and the West Berkshire Planning Strategy support, and failure to do so may lead to the refusal of planning permission.

1.2.8 Local Plan policy OVS9 permits proposals for renewable energy schemes, as long as landscaping, open countryside and sites of nature conservation interest are protected, there is no environmental nuisance or pollution, and that access, road safety, public footpaths / rights of way and residential amenity are respected.

1.2.9 Local Plan policy OVS10 seeks for new development to maximise solar (or natural) heating, lighting and ventilation through siting, form, orientation and layout; use soft landscaping to increase shading and reduce heat loss in winter; and use energy efficient technology for heating, power and lighting.

Sedum roof on house in Harlow

1.2.10 In order to comply with the requirements of the above policies, developers will be expected to demonstrate how the development has regard for energy and resource efficiency with reference to the guidance set out below. Any new major development should be accompanied by an Energy and Resource Impact Statement, explaining these principles. For smaller proposals aspects of this statement should be addressed in the supporting statement submitted with the planning application.

Green Roof on house at BedZed

1.2.11 The form, location and density of homes, businesses and communities play a major role in determining the energy demand of the development and their uses. It is important to consider these aspects of development at the design stage in relation to energy demand. Both large and small scale projects can provide valuable contribution to overall outputs of renewable energy and to meet energy needs both locally and nationally. Technology such as solar panels, biomass heating, small scale wind turbines, photovoltaic cells and combined heat and power should be incorporated into developments.

BREEAM/EcoHomes rating (or equivalent) of at least **"Excellent"** should be achieved on all sites (1).

1.3 Sustainable Urban Drainage Systems (SUDS)

1.3.1 New development should consider SUDS as an element of drainage infrastructure as well as for leisure, visual amenity and wildlife benefits, to manage surface water runoff. There are numerous benefits to the development and environment from the inclusion of SUDS and proposals will be expected to incorporate these. SUDS should be used to mimic the natural pattern of drainage and can be designed into most urban and rural settings, ranging from hard-surfaced areas to soft landscaped features. They are used in conjunction with good management of the site, to prevent flooding and pollution. The management of drainage water incorporates a hierarchy of techniques which should be used in SUDS selection, these are:

Landscaped verges incorporating SUDS

(1) In some locations an "excellent" rating may not be achievable due to remoteness from services. Developments involving extensions and conversions will not, at this time, be required to adhere to this standard

SUDS incorporated into new housing development

- **Source control** – to attenuate and remove pollutants from runoff close to the source. Simple measures which can be used in high density sites include directing roof, driveway and footpath runoff over grassed areas, or promoting sheet flow through grassed areas. Gravelled or porous car parking areas, roadside swales, filter strips, bio-retention devices and filter drains.

- **Site controls** – these are runoff and treatment controls that serve areas of approximately 2 to 5 hectares. The most common forms are swales, extended detention basins (some can take the form of sports pitches) which all have relatively low land take.

- **Regional control** – these serve multi-hectare drainage areas greater than 5 hectares and can be incorporated into public open space. These include extended basins, retention ponds and storm water wetlands. When source and site controls are used upstream, the size of the regional controls can be reduced, freeing additional land for other purposes.

1.3.2 A range of SUDS techniques is available:

- **Filter strips and swales** – these are landscape features that are vegetated with smooth surfaces and a gentle slope downhill so that water can drain off impermeable surfaces

- **Permeable surfaces and filter drains** – these are permeable surfaces which allow run-off and rainwater to infiltrate down into permeable material below ground which stores the water prior to discharge.

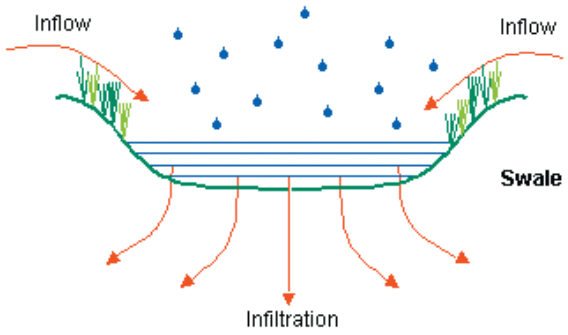
- **Infiltration devices** – these are surface structures of below-ground structures which drain water directly into the ground.

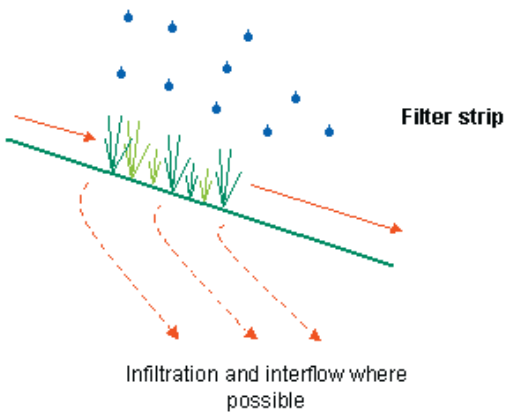
- **Basins and ponds** – these are structures which are designed to hold water when it rains. Ponds always contain water and have added capacity for rainwater. Basins are water free during dry weather. The design of basins and ponds should maximise the potential habitat creation for wildlife and to create an attractive landscape feature.

1.3.3 For housing developments examples of SUDS include specifying porous paving for all hard surfaces or the adoption of soakaways or other systems (including green roofs – which broadly speaking is a roof with plants growing on its surface) that reduce peak run-off loads. Porous paving should be installed as this will allow water to soak through the paving into natural water tables rather than direct collected rainwater into public sewers and watercourses. Care needs to be taken to ensure that the local conditions will permit these measures.

1.3.4 Run-off from roofs should be collected as part of a rainwater harvesting system into a local soakaway or other holding facility such as tanks, ponds, swales etc. Green roofs can also assist in this process. Rainwater run-off should also be stored for re-use as irrigation water or grey-water recycling (such as toilet flushing) – see section 1.5 for further information.
(Ref: www.ciria.org.uk/suds) (Ref: BRE EcoHomes – The environmental rating for homes, 2005; Pol 3 Reduction of Surface Runoff. Available to view at www.ecohomes.org)

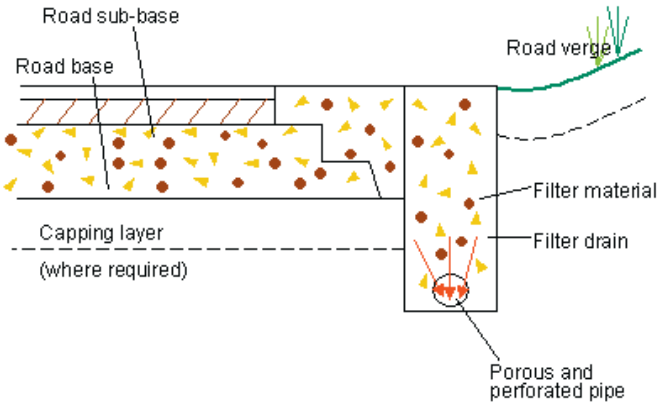
1.3.5 The Council recommends that the advice of the Environment Agency is sought on SUDS. Further information is available from their website: www.environment-agency.gov.uk. Information on the current Indicative Floodplain Map for West Berkshire can also be viewed here.



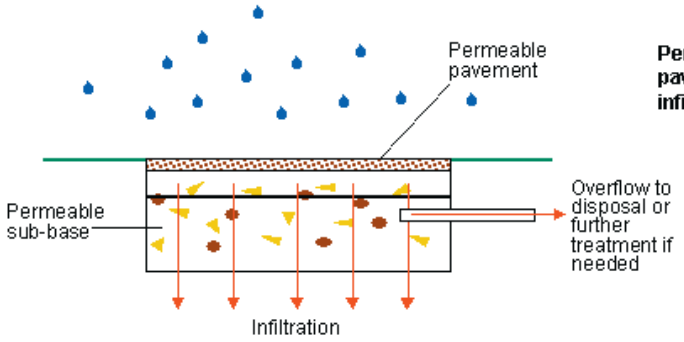


Filter strips and swales are vegetated surface features that drain water evenly off impermeable areas. Swales are long shallow channels whilst filter strips are gently sloping areas of ground

Source:
www.ciria.org.uk/suds/suds_techniques.htm



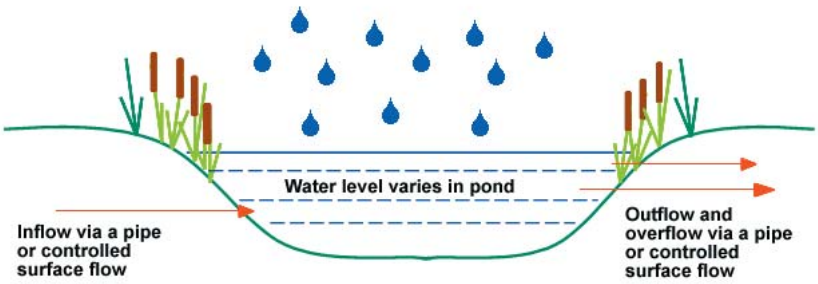
Cross-section through a filter drain



Permeable pavement used for infiltration

Filter drains and permeable surfaces are devices that have a volume of permeable material below ground to store surface water. Runoff flows to this storage area via a permeable surface. This can include:

Grass (if the area will not be trafficked)
Reinforced grass
Gravelled areas
Solid paving blocks with large vertical holes filled with soil or gravel
Solid paving blocks with gaps between the individual units
Porous paving blocks with a system of voids within the unit
Continuous surfaces with an inherent system of voids



Basins are areas for storage of surface runoff that are free from water under dry weather flow conditions. These structures include:

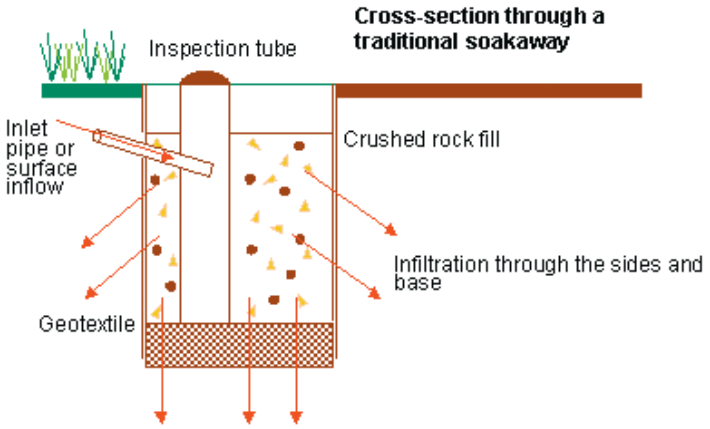
Flood plains
Detention basins
Extended detention basins

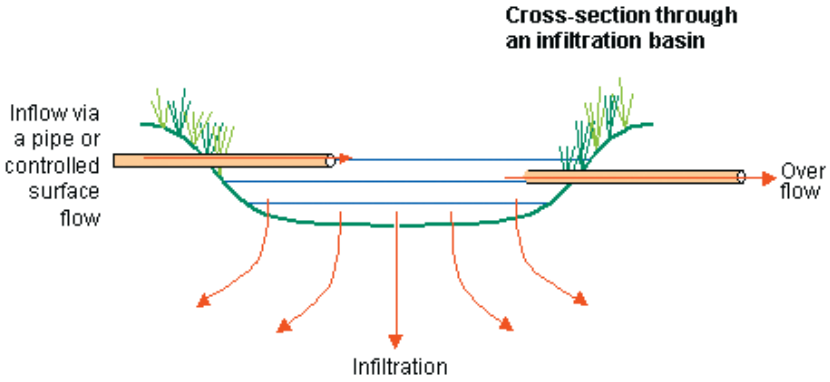
Ponds contain water in dry weather, and are designed to hold more when it rains. They include:

Balancing and attenuation ponds
Flood storage reservoirs
Lagoons
Retention ponds
Wetlands

The structures can even be mixed, including both a permanently wet area for wildlife or treatment of the runoff and an area that is usually dry to cater for flood attenuation. Basins and ponds tend to be found towards the end of the surface water management train, so are used if source control cannot be fully implemented, if extended treatment of the runoff is required or if they are required for wildlife or landscape reasons.

Source:
www.ciria.org.uk/suds/suds_techniques.htm





Source:
www.ciria.org.uk/suds/suds_techniques.htm

Infiltration devices drain water directly into the ground. They may be used at source or the runoff can be conveyed in a pipe or swale to the infiltration area. They include soakaways, infiltration trenches and infiltration basins as well as swales, filter drains and ponds. Infiltration devices can be integrated into and form part of the landscaped areas.

Soakaways and infiltration trenches are completely below ground, and water should not appear on the surface. Infiltration basins and swales for infiltration store water on the ground surface, but are dry except in periods of heavy rainfall.

Gardens can be designed to include opportunities for water recycling, rain water collection etc

Water can be a valuable resource for biodiversity, as well as recreation

Opportunities for biodiversity planned into urban development

Dual footpath / cycleway can assist in the movement of wildlife and act as green corridors

1.4 Biodiversity, Landscaping and Planting

1.4.1 The reuse of existing sites will help to slow down or stop the destruction of natural habitats and the wildlife they support, as well as preventing loss of greenfield land. However brownfield land can also have an important ecological value to the environment. New developments will be expected to demonstrate minimal damage to existing local ecology and where possible, to enhance it. Measures include;

- Ensuring that water courses are retained and enhanced;
- Minimise the loss of trees, hedgerows and landscaping. If removal is necessary then ensure that these features are replaced elsewhere. The use of native species encourages wildlife and can lead to cost savings through reduced maintenance;
- Ensuring that green corridors are retained, and where possible enhanced, or created;
- Ensuring that wildlife is encouraged (e.g. provision of trees or places for bird and bat boxes);
- Retention and creation of "wild" areas;
- Creating green roofs;
- The incorporation of Sustainable Urban Drainage Systems (see section 1.3) can create a good opportunity to increase biodiversity with habitat creation.
  (Ref: BRE EcoHomes – The environmental rating for homes, 2005; Eco 1 Ecological Value of Site and Eco 3 Protection of Ecological Features)

1.4.2 West Berkshire Council aims to encourage developers to make decisions on their developments which can be positive towards improving the local environment. A useful information booklet titled "Development Control – Biodiversity Planning Advice" has been produced to assist planning applicants on how the issues of biodiversity can be addressed in their planning application. (Available from the Council offices and on www.westberks.gov.uk)

1.4.3 Planting is a good way of increasing the year round usability of outdoor spaces such as gardens and terraces by providing wind breaks. However, care should be taken to ensure that planting does not obscure sunlight and shade potential solar collection areas.

1.4.4 The use of dual footpaths and cycleways passing through green spaces should be considered, linking wildlife corridors to hedgerows and waterways.

1.4.5 An ecological assessment will be expected for all major development proposals. Smaller proposals should address ecology in the statement submitted with the application. See part 1 for further information.

1.5 Greywater Re-use, Water Collection and Storage

1.5.1 Approximately 20% of domestic water is used for drinking and the preparation of food, with a third of water used for toilet flushing. Water use in the garden has been on the increase and this is likely to continue. Water is becoming an increasingly scarce resource as demand continues to increase dramatically and it is essential that groundwater quality and levels are protected when proposing new development. Developments should therefore demonstrate the inclusion of water conservation within the proposal. By integrating water conservation measures, rainwater harvesting and greywater re-use, a significant reduction in mains water consumption can be made.

Low flush toilets are one measure that can easily be incorporated into new housing development

1.5.2 **Water conservation measures** - There are many actions that can be taken to minimise water consumption and all should be considered when installing WCs, showers, taps, baths and white goods within new developments;

- Dual-flush and low-water-use WCs, water-saver showers, spray taps, low volume baths and low-water-use appliances;
- Wastewater recycling and rainwater harvesting for toilet flushing, washing machines, garden watering etc. (e.g. the installation of water butts is a simple and cheap rainwater harvesting measure);
- Avoidance of large water-using features (e.g. pools, hot tubs, etc), fed by mains water;
- Rainwater collector systems for watering gardens and landscaped areas. Rainwater downpipes should be located to enable the installation and use of water butts.

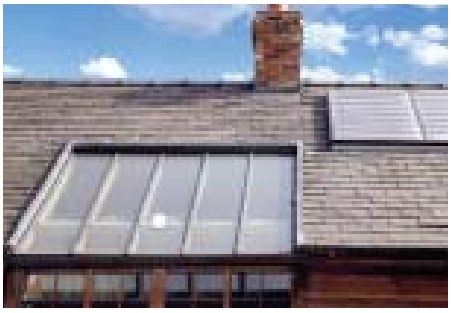
(Ref: BRE EcoHomes – The environmental rating for homes, 2005; Wat 1 Internal Water Use and Wat 2 – External Water Use)

Water recycling within commercial development

1.5.3 **Rainwater harvesting** – the simplest form of rainwater harvesting is the collection of rainwater in a water butt to be re-used for outdoor use. More advanced systems can provide water for several uses within the building such as toilet flushing and for the washing machine. Rainwater re-used for personal washing would require purification. The facilities for collection and re-use of rainwater can be incorporated into a new building relatively easily. Space for a storage tank would be required in the roof space or underground with appropriately located downpipes. Back-up from the mains supply should be provided.

Water conservation should be made easy around homes - integral water butt

Gardens can be designed to include opportunities for water recycling, rain water collection etc



Use of glass, courtyards and atria can assist PSD

Southerly facing windows and balconies promote solar gain

1.5.4 **Greywater re-use** – Greywater is the waste water from baths, showers and hand basins. Systems collect, clean and re-use greywater and can be incorporated within a single dwelling up to the scale of a whole development. The water is filtered, and with simple cleaning is usually clean enough for toilet flushing.

1.6 Passive Solar Design (PSD)

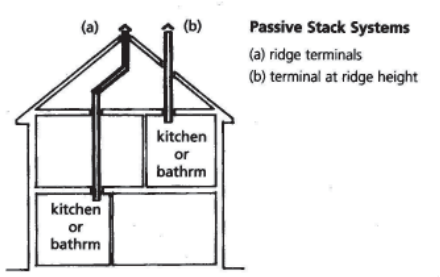
1.6.1 Natural climatic and environmental conditions should be considered holistically when planning new development. The main climatic influences on comfort are solar heat and air flow, which can influence the ability to maximise natural ventilation, lighting and heating. PPS22 includes "passive solar" as a renewable energy technology. Passive solar design uses the sun's heat to reduce the need for heating and sunlight to reduce the need for artificial lighting within a building. Large energy savings can therefore be made through the orientation, location of entrances, windows (and opening designs), use of open spaces, landscaping, height, depth, size and aspect of rooms. PSD is an opportunity to save energy for the whole lifetime of a building and can only really be considered at the design stage, generally at no extra cost. The primary objective for housing is to encapsulate the light and heat from the sun, whilst for commercial buildings where light is similarly important, the main purpose for PSD is to remove excess heat from periods of high solar gain to avoid the use of air conditioning.

1.6.2 There are many advantages for maximising natural daylight and sunlight into a building. Both make interiors look more attractive and interesting, provide light and are beneficial to health. Access to them also helps to make a building energy efficient through solar gain, reduces the need for electricity and can assist with heating systems. Passive solar gain is the maximising of heat generated by the sun into a building. The incorporation of passive solar design can result in an innovative building design. New development will be expected to consider the following;

- Living and working areas with larger windows facing south (or within 30 degrees of south), where the solar gain is greatest and rooms with increased width rather than depth to maximise solar gain. Locating rooms such as bathrooms, storage and stairs to the north side of a building;
- Locating taller buildings to the north of a site to maximise solar access and minimise overshadowing;
- Living areas with unobstructed lines of sunlight and daylight (e.g. ensuring that garages / fencing / trees / other buildings do not obstruct windows);
- Deciduous trees to block the high summer sun and reduce the chance of overheating, whilst in the winter the low sun will be able to provide solar gain through the branches;
- Maximising the use of double glazed glass as a building material (e.g. conservatories, atriums, glass porches, skylights, light wells, glass brick walls);
- Construction of a suitably pitched roof facing south for incorporation of solar panels or sky lights;
- Designing with nature such as shelter belts, shaded outdoor areas, high reflectivity external surfaces and maximising absorptive surfaces.
  (Ref: BRE EcoHomes – The environmental rating for homes, 2005; Hea 1 Daylighting)

Energy saving through building orientation

1.6.3 Outdoor space should also be considered in the orientation of buildings. Private outdoor space can be attractive, with benefits for health and well being, allowing occupants to sit outside, dry clothes and store garden equipment and should be located where an element of privacy is achieved. For houses and flats, outdoor space should be accessible only by occupants of designated units. Balconies and roof gardens / terraces should be considered where garden space is limited, although they should provide privacy and not restrict daylight into the building.
(Ref: BRE EcoHomes – The environmental rating for homes, 2005; Hea 3 Private Space)



Source: Environment Agency

Private gardens or secure, communal areas within apartment blocks allow for drying

Solar panelling on house roofs in Berkshire

1.7 Natural Ventilation

1.7.1 Ensuring that maximum use is made of natural ventilation can complement PSD and can be preferable to mechanical ventilation and air conditioning systems. Natural ventilation allows cool air to be drawn in at low levels, encouraging air to move upwards through the building and be ejected at a high level. Techniques include the installation of solar siphons, opening windows, roof or wall vents. Shaded balconies can also complement natural ventilation and provide access to the outside. The features can be used as positive architectural features.
(Ref: Sustainable Design and Construction: The London Plan (Spatial Development Strategy for Greater London) Supplementary Planning Guidance May 2006 – www.london.gov.uk)

1.7.2 Adequate space for drying should also be provided, either in a garden, balcony, or in an adequately ventilated room (such as a utility room), which can either be communal or private, within the development. If within the building, it should not be supplied with additional heating solely for the purposes of drying clothes.
(Ref: BRE EcoHomes – The environmental rating for homes, 2005; ENE 3 Drying Space)

1.8 Solar Electric (photovoltaics)

1.8.1 Photovoltaics (PV's) convert the sun's heat directly into electricity using a semi-conductor device. They are silent and can be mounted on the roof or in a free-standing modular form, or integrated into the roof or facades of buildings. Large buildings and public buildings are well suited to PV arrays as the buildings are occupied to capacity during sunlight hours where the energy output is greatest, and similarly with buildings that require air conditioning.

1.8.2 Whilst PV cells (and solar water heating cells) do not require direct sunlight for energy output, care must be taken to avoid overshadowing of the cells as this will reduce the amount of energy produced. The orientation and angle of the array affects the energy output, with the optimum output being achieved when the angle of the array matches the angle of the sun. For a fixed position array this would be south orientation with an angle of 20-40 degrees (depending on the altitude). Care needs to be given to visual impact and in built up areas the potential for nearby buildings to overshadow for large parts of the day. Consideration must be given to the potential impact of proposals on the character or appearance of the area, particularly those involving a listed building, conservation area or in the AONB. Consideration will also need to be given to the load capacity of the roof or structure of the building that the array is proposed to be mounted upon.

Photovoltaics

1.9 Solar Water Heating (solar thermal)

1.9.1 Solar water heating technology works in a similar way to photovoltaics, the difference being that PV produces electricity whereas solar water heating produces hot water. Solar water heating uses the sun's heat to heat water that can be used for either space heating or more commonly for hot water heating. Such systems are most commonly employed for domestic use, light industrial and agricultural use and for the heating of swimming pools. A good system should provide 50-60% of annual domestic hot water requirements, with most energy generated between May and September.

1.9.2 There are two main types of solar collectors. These are flat plate collectors and evacuated tube collectors. Both technologies work by an absorber collecting the radiation from the sun, which is then transferred as heat to a fluid. This fluid would either be water or a special liquid that boils when heated and condenses to transfer heat energy to water.

1.9.3 For guidance on siting, orientation and considerations please refer to section 1.8.

Biomass production

1.10 Biomass and Combined Heat and Power (CHP)

1.10.1 **Biomass** is the use of organic matter to produce energy. The fuels can be categorised as either wet or dry, in the form of crop residue, coppiced wood or animal waste and are virtually carbon-neutral. Such fuels are currently being produced from a range of plant types such as short rotation coppice willow, clean wood waste from industry (e.g. pallets), produce from forestry operations (e.g. branches, lop and top), as well as from used cooking oil.

1.10.2 Biomass fuels can be used for space heating, for hot water and in Combined Heat and Power (CHP) units. Consideration needs to be given to the space required for storage and delivery of the fuel. Improved insulation to the building can reduce the amount of energy needed for heating and therefore the amount of space needed for storage of the fuel.

1.10.3 **Combined Heat and Power (CHP)** is the production of electricity and useful heat from a single plant. A CHP system generates electricity in the same way as conventional electricity but the by-product of heat which is generated by this process is retained and used for heating, hot water and cooling.

1.10.4 CHP units can be used on a variety of scales, from plants for large settlements (community heating) to schools, to individual buildings (micro-CHP). CHP can typically reduce carbon dioxide emissions by 60%. This increases when combined with thermal storage and absorption cooling.

1.11 Wind

1.11.1 Wind turbines use the wind to generate mechanical power for electricity generation. There are essentially two types of turbine – vertical axis machines with rotors that rotate about a vertical axis, and horizontal axis (the most common) with the rotating shaft aligned horizontally. Turbines can range in size from small domestic turbines to large offshore turbines. The wind is not a constant source of power, therefore a back up system would be needed which would usually be the National electricity grid.

1.11.2 Wind velocity is a major factor in the location of wind turbines. Consideration will need to be given to wind speed and turbulence, and especially for larger turbines constraints such as radar stations, landscape designations and proximity to special wildlife areas or bird migration corridors. Proposals for wind turbines within the North Wessex Downs Area of Outstanding Natural Beauty should be informed by the study of 'Landscape Sensitivities and Constraints to Wind Turbine Development' (2005) (available from www.northwessexdowns.org.uk).

1.11.3 Opportunities should be investigated to incorporate micro-turbines which can be integrated within both urban and rural areas and are suited for dwellings, commercial premises, community facilities and schools. A range of micro-wind turbines exist; one example being the 'Wind Save' domestic, three bladed micro-wind turbine, which can generate 700 watts from a rooftop location (www.windsave.com). Other suppliers include Proven Energy (www.provenenergy.com), Renewable Devices (www.renewabledevices.com) and Eclectic Energy (www.eclectic-energy.co.uk).

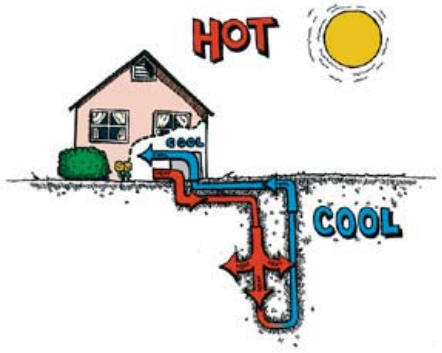
Wind energy turbines

1.11.4 For all proposed turbine development care should be taken to selecting the turbine type and location to take advantage of available wind, but also to avoid or minimise visual impact, particularly if the proposed turbine is to be located near a listed building or conservation area or other sensitive location. The views of the local community and planning authority should be sought at an early stage in the design process.

1.12 Ground Source Heat Pumps (GSHP)

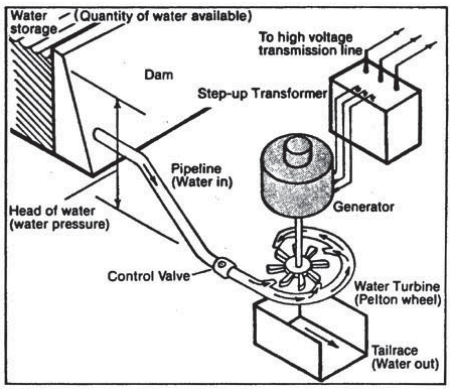
1.12.1 Ground source heat pumps harness the energy from the ground. Whilst air temperatures vary throughout the year, the temperature of the ground remains relatively stable. The technology can therefore be used for heating during the winter (the most efficient use being under floor heating) and cooling during the summer.

1.12.2 The system works in a similar way to a fridge. A heat exchanger (also known as 'ground loop' or 'ground coil') is laid in the ground, water passes around this system and 'absorbs' the heat from the ground, a heat pump then relays this heat into the building. The heat exchanger can either be a series of pipes driven deep into the ground, or pipes laid in a series of trenches at shallower depths. The heat pump converts the heat generated from the ground into a usable higher temperature for the building. Trench systems require a large area of ground, whilst borehole systems require access for drilling along with a geological survey and contact should be made with the Environment Agency to see whether a permit is required.



Ground source heat pump
Source: www.igshpa.okstate.edu

1.13 Micro/Small-scale Hydro



Micro hydro scheme
Source: Environment Agency

1.13.1 Hydroelectric technology captures the energy from flowing water. It works by using the flow of the water to turn a turbine which generates electricity. Small-scale hydro schemes commonly involve the construction of a dam and a reservoir, the controlled flow of the released water from the reservoir then turns the turbine. Micro-hydro harnesses the power from flowing water such as streams. Efficiencies are greatly reduced at head heights of less than three metres.

1.13.2 Consideration must be given to any adverse impact on wildlife, visual impacts and any land that could be flooded. Early discussions with the planning authority, the Environment Agency and other statutory consultees such as English Nature are essential.

1.14 Noise

1.14.1 The mitigation of noise, particularly in residential development needs to be carefully designed into new development. Soft landscaping has limited effect. However the appropriate use of measures such as noise insulation techniques, bunds and noise barriers can mitigate disturbance from noise. This will be particularly relevant where new development is located near to busy roads, railway lines or other noise generating infrastructure.

1.15 Materials Selection and Sustainable Construction Methods

1.15.1 Opportunities to construct new development using renewable and low impact resources should be taken. This should include the use of locally sourced materials and labour where possible. The reuse of excavated soils and construction waste within new development (e.g. for landscaped areas) should be considered and developers may be required to submit a Site Waste Management Plan alongside planning applications for larger proposals.

1.15.2 There are several sustainable building methods that can be used in new development, for instance;

- High levels of insulation to reduce winter heat loss and therefore energy demand and to help keep buildings cool in the summer;
- Specifying insulating materials, that avoid the use of ozone depleting substances and have a global warming potential (GWP) of less than 5, for roofs,

Sustainably sourced materials
Copyright Forestry Stewardship Council (www.fsc.org)

Locally resourced timber

walls, floors, hot water cylinders, pipe insulation and other thermal storage. (Ref: BRE EcoHomes – The environmental rating for homes, 2005; Pol 1 Insulant ODP and GWP);

- Renewable energy technologies such as solar photovoltaics, active solar thermals, wind turbines, micro-hydro, biomass heating, ground source heat pumps (provided they run on electricity generated from a renewable source), thermal moderation by ground or water sources, heat and /or electricity from a local community heating / CHP network (Ref: BRE EcoHomes – The environmental rating for homes, 2005; Pol 4 Zero Emission Energy Source);
- Encouraging timber products coming from responsibly managed forests, for timber frames, floor joists, roofs, walls, windows, doors etc (Ref: BRE EcoHomes – The environmental rating for homes, 2005; Mat 1 Timber: Basic Building Elements and Mat 2 Timber: Finishing Elements);
- The use of recycled building materials such as the crushing and re-use of concrete, use of clay or slate roof tiles, bricks and wooden structural beams. Materials from demolished buildings on the site that cannot be re-used should as far as possible be disposed of to a second hand building materials supplier for use elsewhere.

Sustainable construction

Use of natural materials

1.16 Working from Home

1.16.1 The number of self-employed people is increasing, as is the number of people who work from home. The benefits of working from home include reductions in transport movements, increased time available for the home worker and greater opportunity to participate within community activities. Working from home for most people requires either an office or a flexible space within living areas that can be used as an office. Usually a telephone line and connection to the internet is necessary. In order to encourage working at home, spaces for home offices should include;

- Windows or adequate ventilation;
- Space to allow for desk, filing cabinet, bookshelf, with space to move around and open the door

1.16.2 For dwellings with two or more bedrooms, the space should be in a room other than the kitchen, living room, master bedroom or bathroom.
(Ref: BRE EcoHomes – The environmental rating for homes, 2005; TRA4 Home Office)

Recycling collection basket

1.17 Recycling

1.17.1 Developments should provide dedicated space for internal and / or external storage bins (external storage areas to be accessible by Local Authority collection lorries if necessary). Gardens should also provide accessible spaces for home composting.
(Ref: BRE EcoHomes – The environmental rating for homes, 2005; Mat 3 Recycling Facilities and Mat 4 Environmental Impact of Materials)

Safe and secure bicycle storage

1.18 Promoting Cycling

1.18.1 To promote and increase cycling and to ensure that it is an easy and safe option for travel, developments will be expected to;

- Provide a secure place within the development, where appropriate, (whether residential or commercial) for residents, workers and visitors bicycles (communal storage will require individual locks);
- Provide garages with enough space to store both bicycles and cars;
(Ref: BRE EcoHomes – The environmental rating for homes, 2005; TRA2 Cycle Storage)

As stated in section 1.2, this SPD requires all new development to achieve BREEAM/EcoHomes rating (or equivalent) of at least **"Excellent"** (1).

References to BRE advice appear throughout this document.

This document, Part 4, provides a range of methods that can be used to help achieve this standard and is a real resource for improving the environmental footprint of developments.

For further information and guidance on the BRE requirement, please see the Development Control guidance note which is available to view on the Planning Advice page under the Development Control section of the Council's web site at www.westberks.gov.uk

(1) In some locations an "excellent" rating may not be achievable due to remoteness from services. Developments involving extensions and conversions will not, at this time, be required to adhere to this standard

Local Development Framework

West Berkshire Council

Halcrow

Prepared by Halcrow on behalf of West Berkshire Council

June 2006

Quality Design - West Berkshire
Supplementary Planning Document

Part 5
External Lighting

Local Development Framework

West Berkshire Council

PART 5

Contents

Lighting is required to ensure safety and security...

The Clean Neighbourhoods and Environment Act 2005 deals with many of the problems affecting the quality of our local environment.

Section 102 of the Act came into force on 6th April 2006 and makes light pollution a statutory nuisance.

This means that Local Authorities are able to tackle lighting issues, which had previously been impossible for them to control.

The Department for Environment Food and Rural Affairs (Defra) has produced guidance for Local Authorities and other agencies on Section 102 of the Clean Neighbourhoods and Environment Act 2005. http://www.defra.gov.uk/

1.1 Introduction

1.1.1 This Supplementary Planning Document (SPD) will support policies in the Berkshire Structure Plan 2001–2016 and West Berkshire District Local Plan 1991–2006 while complementing other existing Supplementary Planning Guidance (SPGs) and SPDs. **As such, it is a 'material consideration' in determining planning applications and if not followed, may lead to the refusal of planning permission.**

1.1.2 It has been prepared by the Council to provide guidance to those proposing external lighting schemes either as part of a development proposal or as a planning application in their own right. It is based on information provided by organisations actively engaged in lighting matters.

1.1.3 This guidance will explain the Council's intentions, identify the current planning policy context, explain the role of lighting, identify its adverse forms and effects, identify techniques to reduce those impacts and state what should be provided with applications.

1.2 Background

1.2.1 Through lighting people can enjoy public amenities, feel secure in their own homes and feel safe on transport routes. However, light pollution can have harmful effects upon all areas, particularly rural areas where artificial lighting has traditionally been limited.

1.2.2 Therefore it is necessary to try to find a balance between the need for lighting and the negative implications associated with it. Lighting in itself may not need planning permission but the Council will use planning powers where appropriate to manage the effects of lighting to achieve the objective of this part of the SPD which is to reduce excessive, intrusive and unnecessary lighting in both rural and urban areas.

1.3 Planning Policy

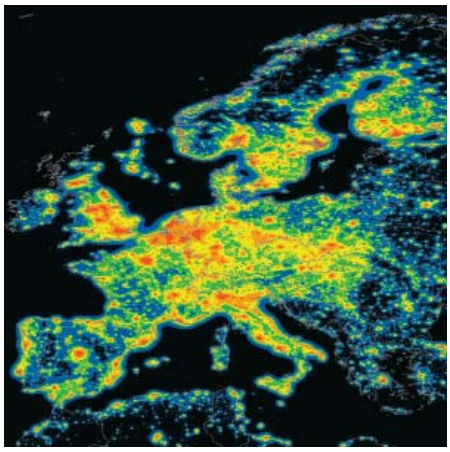
1.3.1 PPS 23 identifies lighting as both a consideration in the preparation of any development plan documents and as a material consideration in deciding if planning applications are given planning permission or not. A third Annex on 'planning and light pollution' will be produced in due course.

1.3.2 Policies within the West Berkshire District Local Plan 1991-2006 aim to minimise the harmful impacts of pollution, including the effects of light. Policy OVS.2 aims to preserve areas of character while OVS.5 aims to reduce pollution. West Berkshire SPG 03/1 'Shop fronts and Signs', states that illumination should be used sparingly and floodlighting must be very carefully considered.

1.3.3 Policy EN5 of the Berkshire Structure Plan 2001-2016 states that new developments should avoid unacceptable levels of light pollution. Policies DP3, DP4 and DP8 encourage LPAs to resist intrusive development, preserve dark night skies and retain the quality of views to and from the AONB, which could be harmed by lighting structures. The North Wessex Downs Management Plan (2004) identifies dark night skies as major attributes.

1.3.4 Extensively used guidance notes to assess the suitability of lighting proposals include the 'Reduction of Light Pollution' (ROLP - 2003) produced by the Institute of Lighting Engineers (ILE - www.ile.org.uk).

Example of light pollution



Light pollution

Night lighting

1.4 Is Lighting Necessary?

1.4.1 Lighting can enhance architectural qualities of buildings but it can also appear out of place and add to street clutter. Providing floodlighting for community facilities such as sports pitches in the evenings can allow them to be accessed by working people accordingly increasing their use.

1.4.2 Street and security lighting can also help lower the amount of road accidents and in most cases reduce fear and occurrence of crime however sometimes it can aid those committing offences. Illumination is also sometimes used for advertising. However, rural communities often prefer the absence of street lighting and other lighting forms which can be seen to be out of character with such areas.

1.5 Adverse Forms and Effects of External Lighting

1.5.1 The three main forms of light pollution are sky glow, glare and light trespass;

- **Sky glow** - is the orange light regularly visible above towns which blurs the subtle white dimness of moonlight. It is caused by illumination from low-pressure sodium (LPS) lamps being refracted by water droplets or particles. It can reduce the visibility of stars especially those just above the horizon;

- **Glare** - prevents people from observing illuminated areas and their surroundings properly. It can cause temporary blindness so it is particularly harmful to drivers moving quickly from dark to bright areas; and;

- **Light trespass** - is illumination that glows from one location into another where it is unwanted.

Lighting to enhance architectural quality

1.5.2 Ecological effects of lighting vary depending on the species involved. For instance some species of bats will feed on insects such as moths which are attracted to lights; alternatively a line of streetlights can be a barrier to other bat species. Due to excessive lighting some short–day plants might not flower while others might flower prematurely. All electrical lighting requires use of natural resources that further contribute to atmospheric pollution. Illumination proposals should therefore be designed to reduce these effects.

Lighting up signage on a building

1.6 Techniques to reduce the adverse impacts of lighting

1.6.1 The Institute of Lighting Engineers guidance note ROLP (2003) provides useful technical specifications. It also includes advice on suitable lighting levels for the following broad environmental zones:

- Intrinsically dark areas - such as rural areas including the AONB;
- Low district brightness areas - such as small villages or rural settlements;
- Medium district brightness areas - such as small town centres; and
- High district brightness areas - such as large town centres or metropolitan regions.

Street lighting

1.6.2 Applicants are advised to have regard to the type of location in designing lighting proposals and devising techniques for limiting light pollution. In intrinsically dark or low district brightness areas lighting should be omitted, or if fulfilling an essential requirement should be carefully designed and controlled to minimise its impacts.

1.6.3 Design of lighting needs careful consideration. Light should be directed downwards and at the target wherever possible. If there is no substitute to up-wards lighting, guards should be used or it must be shielded by buildings or planting. The colour, height and spacing between lighting structures should be in harmony with its setting. Furthermore by conforming to published standards it should be sufficient to illuminate the target and not over light it.

1.6.4 If the lighting proposal is for a site rather than just an object, it should ideally follow a hierarchy with minimum illumination around the perimeter. Lighting on roofs should generally be avoided. In streets of intimate scale, lighting should be fixed to new buildings but away from windows. Security lighting activated by sensors can be an effective compromise in buildings that are only partially used but it should be situated so that users of public paths and roads do not activate them.

Lighting on buildings in sensitive areas

1.6.5 An appraisal of the need for lighting must be undertaken to find out if the benefits offset the costs, if the proposal could proceed without lighting and what alternative measures might exist (such as CCTV or improved site layout). This will ensure that only lighting proposals which are necessary to the general use of developments are allowed.

CCTV

1.6.6 Different lighting types and shapes can assist in minimising pollution:

- In most cases shallow bowl luminaries that can reduce pollution by up to 20% and high pressure sodium (HPS) lighting, which have smaller luminaries will be favoured over globe and LPS lighting;
- Full cut–off lighting should be used on highways, close to light sensitive uses or in rural areas; and;
- Energy efficient lighting including solar cell storage will be encouraged.

Town centre lighting

1.6.7 Conditions may be attached to approved lighting schemes. These might include the following:

- Specify the colour and height of lighting columns/brackets – to ensure harmony with its setting;
- Limit the use of lighting schemes to identified users and specify the type of screening vegetation – to ensure minimal impact on neighbouring amenities;
- Specify the lighting position and angle of illumination – to reduce glare;
- Specify the type of lighting – to reduce sky glow and guarantee harmony with its setting;
- Limit hours of operation and lighting levels - to manage both energy consumption, light trespass and the duration of lighting impacts and associated activities;
- Review the impacts after installation – to ensure that both the human and ecological impacts are minimal;
- Review future maintenance and post-installation checks – to ensure that all lighting corresponds to the original design and approval.

Street bollard lighting

Lighting within residential areas

Public realm lighting

1.7 Details that should be provided with applications

1.7.1 Evidence that a lighting appraisal has been carried out should also be provided along with the lighting types and shapes to be used. It would also be beneficial if the Council is advised of the nature of the use of the lighting proposed. This includes the purpose and use, the likely users, the proposed frequency of use, and for new non-residential development the hours of function in both summer and winter.

1.7.2 For each light provide the upward waste light ratio and beam angle, which would normally be expected to be kept below 70 degrees. Higher than average columns will allow for lower angles. For each lighting column/bracket it would be beneficial to identify its colour and show its height.

1.7.3 The location of lighting should also be shown on a site plan as this will reveal the area to be lit relative to the surrounding area.

1.8 Technical lighting standards

1.8.1 The following bodies have published a number of guides containing standards relevant to lighting:

- The British Standards Institution (BSI) www.bsi-global.com;
- The Chartered Institution of Building Services Engineers (CIBSE) www.cibse.org;
- The International Commission on Illumination (CIE) www.cie.co.at;
- The Department for Transport (DFT) www.dft.gov.uk;
- The European Committee for Standardisation www.cenorm.be; and;
- The Institute of Lighting Engineers (ILE) www.ile.org.uk

Local Development Framework

West Berkshire Council

Halcrow

Prepared by Halcrow on behalf of West Berkshire Council