

CHARVIL

Design Guidance and Codes

Final Report
March 2024

Delivering a better world

Quality information

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INTRODUCTION

01

1. INTRODUCTION

1.1 PURPOSE AND PROCESS

The design guidelines and codes set out in this report will provide a detailed framework that should be followed by any future design proposals that come forward within the village to ensure it meets a consistent, high quality standard of design and positively contributes to the unique character of Charvil.

It is intended that this report becomes an integral part of the Neighbourhood Plan by informing policies that will influence the design of new development and have weight in the planning process.

The following steps were agreed with the Neighbourhood Plan Steering Group to produce this report, which draws upon policy development and engagement work undertaken by the Group.



Figure 01: Diagram illustrating the process to preparing this design guide

1.2 PLANNING POLICY AND GUIDANCE

This section outlines the national and local planning policy and guidance documents that have influenced, and should be read in conjunction with, this design guide.

1.2.1 NATIONAL POLICY AND GUIDANCE

National Planning Policy Framework Department of Levelling Up, Housing and Communities | 2023

Relevant national planning policy is contained within the NPPF. The NPPF was updated in 2023 to include reference to the National Design Guide and National Model Design Code and the use of area, neighbourhood and site-specific design guides. Paragraph 131 states that: "The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities".

National Model Design Code Department of Levelling Up, Housing and Communities | 2021

The National Model Design Code 2021 provides detailed guidance on the production of design codes, guides and policies to promote successful design. It expands on 10 characteristics of good design set out in the National Design Guide. This guide should be used as reference for new development.

National Design Guide Department of Levelling Up, Housing and Communities | 2019

The National Design Guide 2019 illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

Building for a Healthy Life Homes England | 2020

Building for a Healthy Life (BHL) is the Government-endorsed industry standard for well-designed homes and neighbourhoods. The BHL toolkit sets out principles to help guide discussions on planning applications and to help local planning authorities to assess the quality of proposed (and completed) developments, but can also provide useful prompts and questions for planning applicants to consider during the different stages of the design process.

BHL is supported by Streets for a Healthy Life, which demonstrates what can be achieved in creating streets as places for people.

Manual for Streets Department for Transport | 2007

Development is expected to respond positively to the Manual for Streets 2007 and subsequent updates, the Government's guidance on how to design, construct, adopt and maintain new and existing residential streets. It promotes streets and wider development that avoid car dominated layouts but that do place the needs of pedestrians and cyclists first.

Technical Housing Standards Department for Communities and Local Government | 2015

The nationally described space standard deals with internal space within new dwellings and is suitable for application across all tenures. It sets out requirements for the Gross Internal (floor) Area of new dwellings at a defined level of occupancy as well as floor areas and dimensions for key parts of the home, notably bedrooms, storage and floor to ceiling height.

1.2.2 LOCAL POLICY AND GUIDANCE

Wokingham Local Development Framework Adopted Core Strategy

Wokingham Borough Council | 2010

The Core Strategy sets out the vision for how and where the Borough will develop in the period to 2026. Charvil is identified as an area lacking access to good quality public transport services and having a limited range of facilities and it is therefore not considered that significant development is appropriate in the settlement.

Wokingham Borough Development Plan

Wokingham Borough Council | 2014

The Managing Development Delivery (MDD) document is a segment of the Local Plan sets out to identify commercial and residential development sites and boundaries. The MDD identifies various policy objectives and goals regarding affordable housing, preservation of local character and landscape.

Wokingham Borough Design Guide Supplementary Planning Document

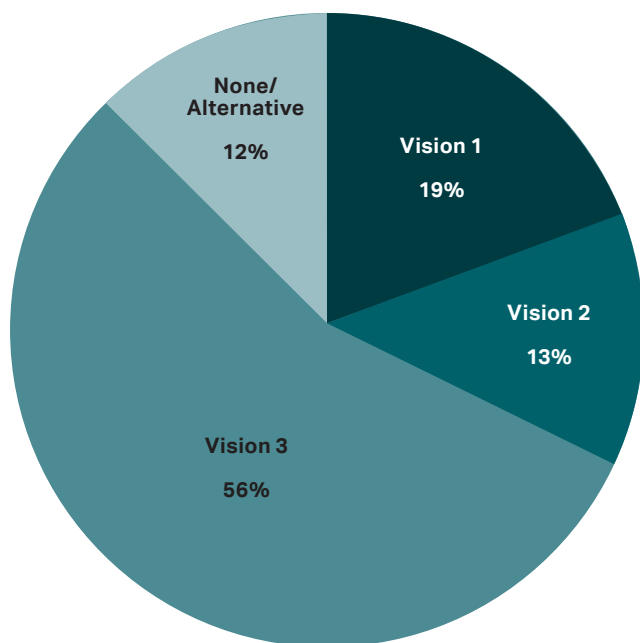
Wokingham Borough Council | 2012

The Borough Design Guide SPD provides an exhaustive set of principles and policies regarding a number of topics including residential, streets and spaces, car parking and non-residential development issues. The SPD places great weight on maintaining and enhancing the built heritage and character of settlements within the Borough. The Borough Design Guide also stresses the importance of walkable and cycleable streets, free from clutter. There is also a number of relevant policies on on-plot and car parking solutions to minimise clutter.

Sustainable Design and Construction Supplementary Planning Document

Wokingham Borough Council | 2010

The Sustainable Design and Construction SPD promotes the use of sustainable techniques (including renewable energy technologies) and materials in the construction of buildings and structures. The SPD provides guidance to help improve the sustainability performance of buildings and spaces through their design and subsequent use.



- VISION 1. Charvil will maintain its semi-rural character and identity whilst providing housing, schooling and services to meet the demands of a growing population;
- VISION 2. Strive to value, protect and promote the unique parish of Charvil through the sustainable development of services, housing and facilities that continue to make it a great place to live, work and play; and
- VISION 3. Charvil will be a place where residents enjoy an excellent quality of life, people feel valued and connected, heritage assets are protected, countryside and views are safeguarded and (where) homes, businesses and facilities meet the needs of a vibrant inclusive community.

Figure 03: Wordcloud Output: What is the worst thing to you about living in Charvil?

1.4 AREA OF STUDY

The Neighbourhood Area (NA) of Charvil is a civil parish within Berkshire, located in South East England and covers an area of approximately 356 hectares. Charvil is located 4.6 miles east of Reading.

The A4 and A3032 are the principal routes running east-west through the parish, linking to Sonning and Reading in the west and Twyford in the east. The Great Western Railway (GWR) and Elizabeth line runs through the parish with the nearest stations at Reading and Twyford. The well-served village of Twyford is only a 5 minute drive from Charvil. The close proximity allows residents of Charvil to travel to Twyford for local shopping and services.

The Neighbourhood Area sits alongside the River Thames which forms its northern boundary. The Thames Path provides access to open space and views of the river.

The Charvil Country Park, Charvil Meadows and Loddon Reserve are key spaces which offer a close relation to the countryside. The River Loddon runs just outside the parish boundary in a north-south alignment, and provides effective separation from Twyford.

Charvil is a community reliant on key services located outside of the village but does offer amenities such as a village hall, a primary school, two pubs, a pavilion and a convenience store.

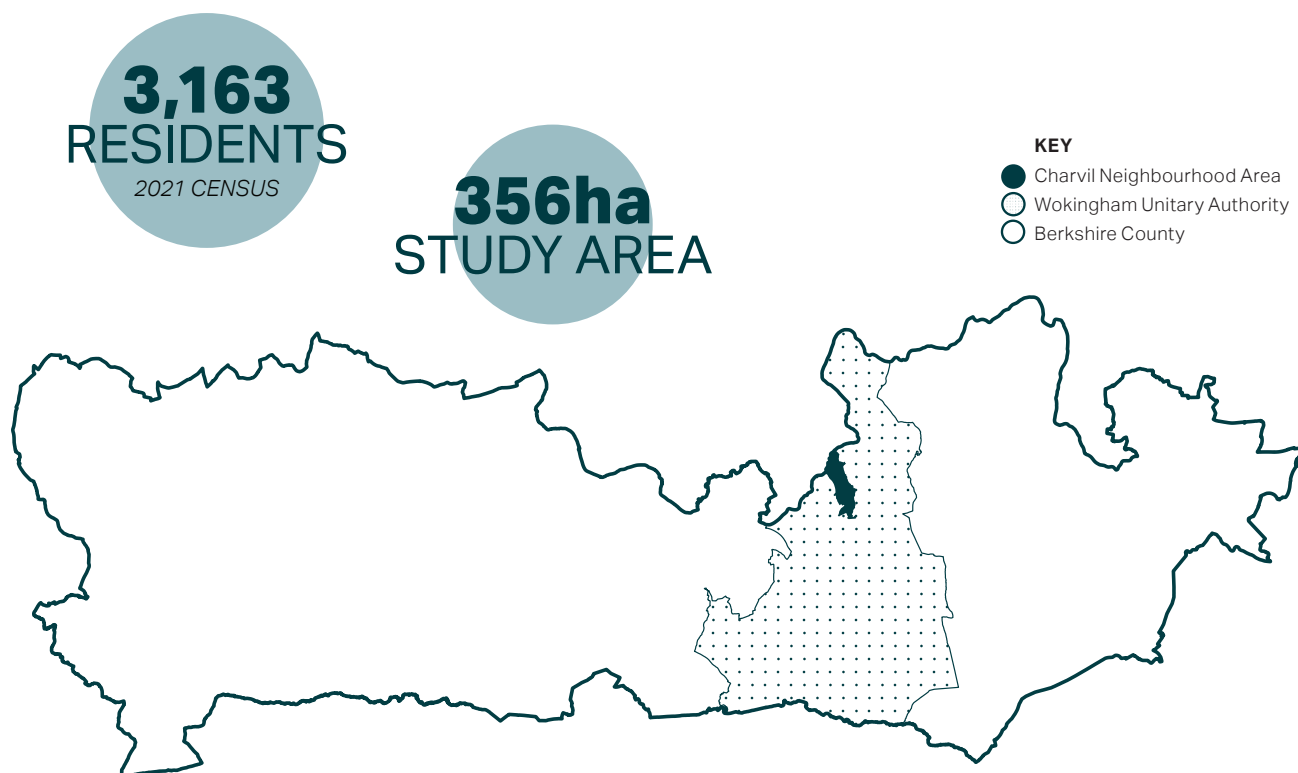


Figure 07: Neighbourhood Area within context of Berkshire county

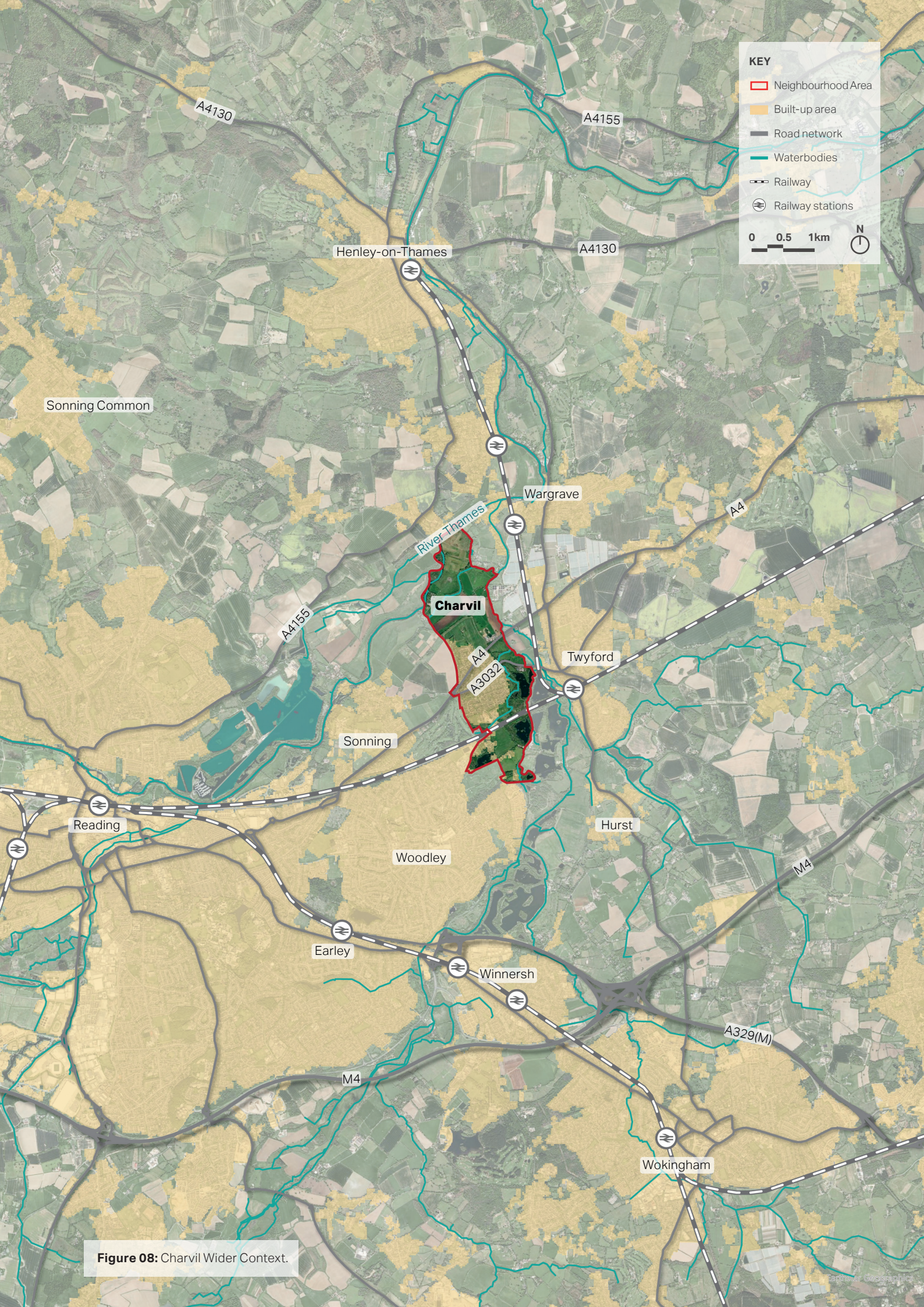


Figure 08: Charvil Wider Context.

NEIGHBOURHOOD AREA
ANALYSIS

02

2. NEIGHBOURHOOD AREA ANALYSIS

This section presents a snapshot of the Neighbourhood Area to inform the design objectives of the Design Guidance and Codes. It provides an overview of Charvil's movement network, history and landscape setting.

2.1 MOVEMENT NETWORK ROADS

Charvil is well-connected, the New Bath Road (A4) and Old Bath Road (A3032) run centrally through the settlement giving access to M4 via the A404(M) slip road. Secondary roads form connections within the built-up area of Charvil, as well as the main vehicular routes serving the residential areas.

Both New Bath Road and Old Bath Road geographically create a north-south divide within the village. The key route into the north of the settlement is through Park View Drive North and South, while the Southern part of Charvil is serviced by Park Lane.

PUBLIC TRANSPORT

The Great Western Railway (GWR) and Elizabeth line runs through the parish with the nearest stations at Reading and Twyford, providing links into London. The direct GWR service from Twyford to London Paddington takes approximately 35 minutes, while the Elizabeth line service from Twyford to London Paddington takes approximately 50 minutes.



Figure 10: Roundabout at the intersection of The Hawthorns, Park Lane and East Park Farm Drive.



Figure 09: Milestone Avenue, country road with views into the countryside.

WALKING AND ACTIVE TRAVEL

The Neighbourhood Area benefits from a number of Public Rights of Way (PRoW) that connect the main village settlement and surrounding countryside. There is also a good network of footpaths within the built-up area which provide permeability through the residential quarters.

The picturesque Thames Path lies to the north of the Neighbourhood Area, just outside the boundary. The Thames Path stretches 185 miles (298 km) from the source of the Thames in the Cotswolds to Woolwich in London.¹ As the Thames Footpath is situated on north side of river, there is no public access from the south. However, there is a access to a public footpath on the south side which leads to the neighbouring village of Sonning.

National Cycle Network Route 4, a long-distance cycling route from London to Fishguard in west Wales, runs alongside New Bath Road. The cycle route passes through Charvil along the north side of the A4.

¹ https://www.nationaltrail.co.uk/en_GB/trails/thames-path/



Figure 11: Footpaths within the residential areas offers connections and permeability within the village.



Figure 12: The Charvil country park provides many walking routes into the park and beyond into the open countryside.

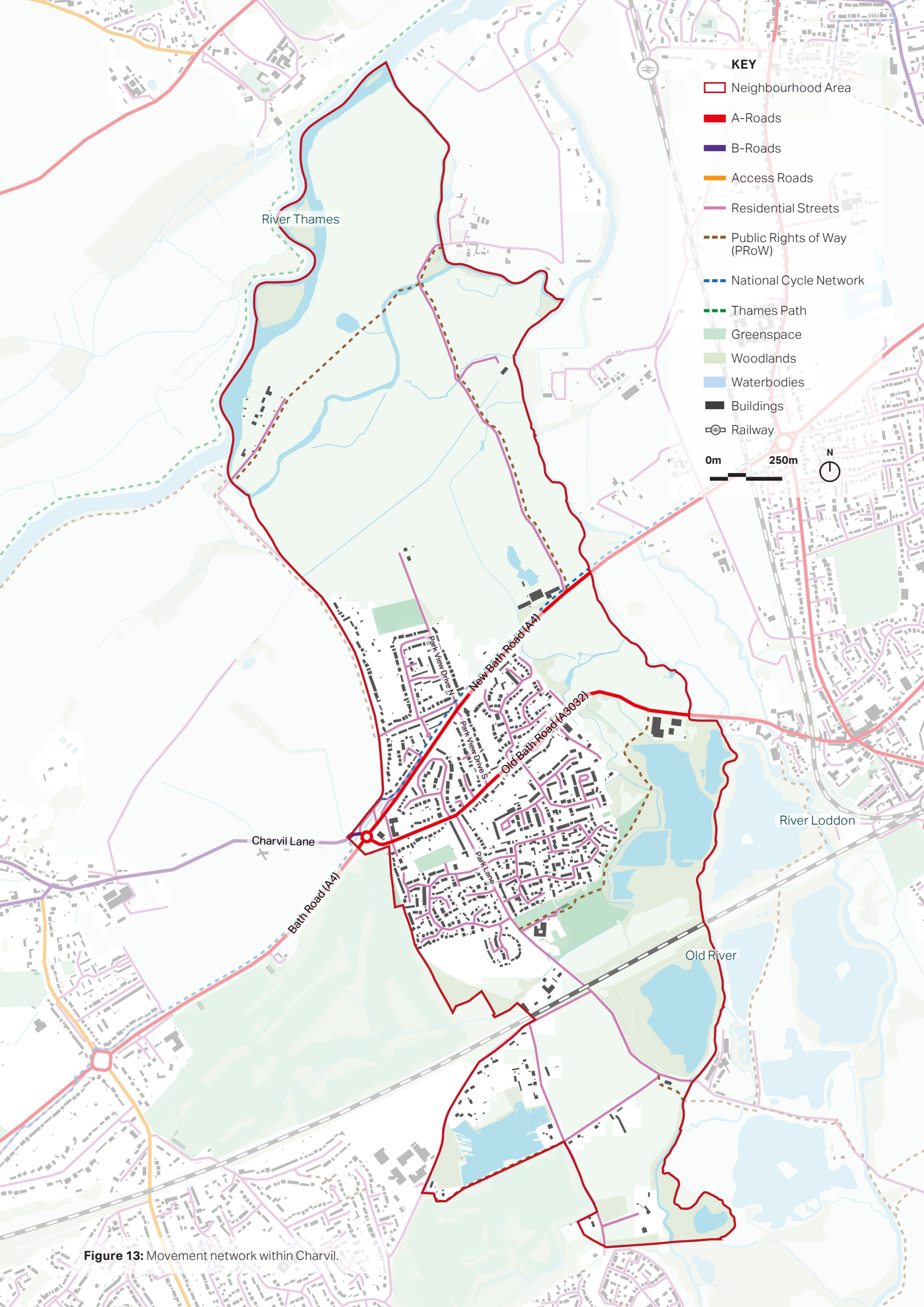


Figure 13: Movement network within Charvil.

2.2 GREEN AND BLUE INFRASTRUCTURE

Charvil's close relationship with the countryside and access to open space underpins the Neighbourhood Area's semi-rural character.

ANCIENT AND DECIDUOUS WOODLAND

'Norris's Copse' is an area of ancient and semi-natural woodland, protected in the National Planning Policy Framework (NPPF, 186c). Ancient woodlands are a valuable natural asset for wildlife, soils, carbon storage, and various other ecological benefits. There are also areas of deciduous woodland throughout the Neighbourhood Area, with a higher concentration around Charvil Country Park.

CHARVIL WILDLIFE RESERVE

The Charvil Wildlife Reserve covers 175 acres and lies within the flood plain of the

River Loddon which passes through the site. There are three areas: the northern Charvil Meadows, central Charvil Country Park and southern lake area created from former gravel pits in the 1970s.

FLOOD RISK

Much of the Neighbourhood Area lies in the floodplain because of its proximity to several rivers (River Thames, River Loddon) and old gravel pits. Many of the north and eastern sections of the Charvil NA fall within Flood Zone 2 and 3, as defined below.¹

- Flood Zone 2: "annual probability of river flooding between 1.0% and 0.1% and annual probability of sea flooding between 0.5% and 0.1%."
- Flood Zone 3: "1% or greater annual probability of river flooding or a 0.5% or greater annual probability of sea flooding."

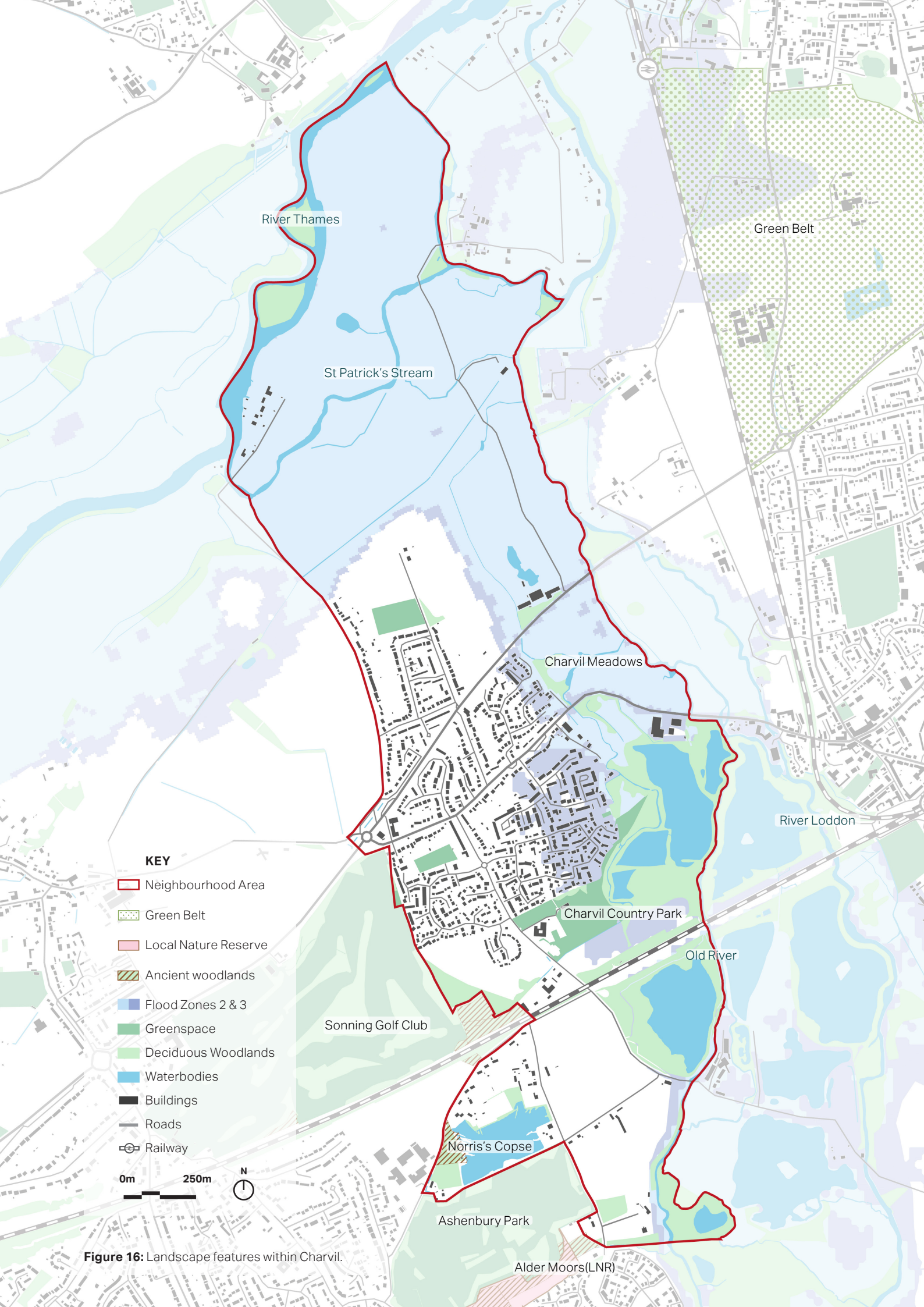
¹ <https://geosmartinfo.co.uk/2016/03/flood-zones-explained/>



Figure 14: Charvil Meadows, a grassland site bordering the River Loddon.



Figure 15: Charvil Lake (Source: <https://www.charvil.com/>).



KEY

Neighbourhood Area

Green Belt

Local Nature Reserve

Ancient woodlands

Flood Zones 2 & 3

Greenspace

Deciduous Woodlands

Waterbodies

Buildings

Roads

Railway

0m 250m



Figure 16: Landscape features within Charvil.



Figure 17: Thirty six green and blue space locations identified within the Green Space Audit (January 2024):

- | | | |
|------------------------------------|--|------------------------------------|
| 1. Greenspace A4 Charvil Lane | 15. Charvil Meadows | 26. The Lynch |
| 2. Wooded Area A4 Roundabout 2 | 16. Charvil Country Park | 27. Hallsmead Ait |
| 3. Wooded Area A4 Milestone 1 | 17. Charvil Village Hall and Hawthorns Park | 28. Phillimore Island |
| 4. Wooded Area A4 Milestone 3 | 18. Village Hall Hawthorns Park | 29. Haupt Lake |
| 5. Ditch-Hedgerow Milestone Avenue | 19. Charvil Pavillion Play Area and Woodland | 30. Orrell Lake |
| 6. Fairway Drive Greenspace | 20. East Park Farm Recreation Area | 31. Canberra Lake |
| 7. Woodland Area (TPO 46) | 21. Lands End Lane Field | 32. Canberra Lake Drive Greenspace |
| 8. St Patricks Recreation Ground | 22. Vale View Playground | 33. Tippings Lake |
| 9. Reading University Farmland | 23. East Park Farm Landscaped Green Space | 34. Old River |
| 10. Green Roundabout PVDN | 24. Mendip Close Greenspace | 35. St Patrick Stream |
| 11. Green Roundabout St Pats Ave | 25. Chiltern Drive Greenspace | 36. Ford at Old River (Loddon) |
| 12. Wenlock Edge Allotments | | 37. Wenlock Edge Green Space |
| 13. Paddicks Patch | | 38. The Heronry |
| 14. Newlands Farm | | |



Figure 18: Thirty eight green and blue space locations identified within the Green Space Audit (January 2024)

2.3 HISTORY AND HERITAGE

There has been a long recorded history of human settlement in Charvil, there are several known prehistoric religious, funerary and settlement monuments around the village. Charvil was first occupied by a primitive farming community who used the land mainly for agriculture, which held true until the early twentieth century. The historic map from 1900 shows the prominent presence of Charvil Farmhouse, alongside a few plots along Old Bath Road. Later development has seen periodic housing development of varying size and style added to the village.

LISTED FEATURES

The Neighbourhood Area contains four listed features: the Farmhouse, the Land's End House, pump and milestone; all of which are Grade II Listed.¹

- Charvil Farmhouse (Ref. 1118144);
- Land's End House (Ref. 1319129);
- Pump at the corner of Park Lane and the Old Bath Road (Ref. 1118145); and
- Milestone on grass verge (Ref. 1135884).

SCHEDULED MONUMENTS

There are two scheduled monuments:

- Cropmark enclosure and pits NE of St Patrick's Avenue (Ref. 1006966); and
- Ring ditch cropmark E of St Patrick's Avenue (Ref. 1006965).

¹ <https://historicengland.org.uk/>

1900
1934
2024

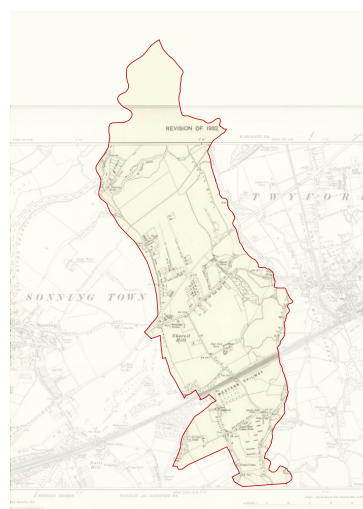
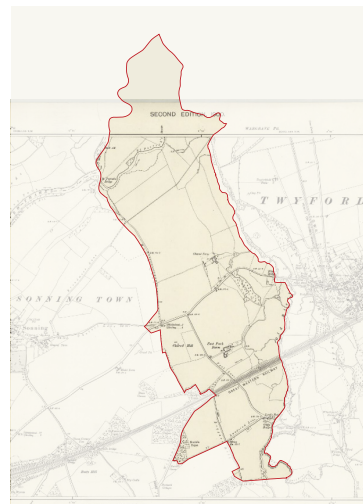


Figure 19: Historic map timeline of Charvil from 1900, 1934, to 2024
© 2024 National Library of Scotland.



Figure 20: Historic features within Charvil.

2.4 ARCHITECTURAL STYLES AND ERAS

A variety of architectural styles are present in Charvil, which each relate to different periods of development. As the village has expanded, characteristics from each period of development can be seen used by the residential units around the periphery, with more modern styles and material palettes used in recent builds.

The historic quarter of the village contains many older buildings that predate World War II, whereas later redevelopment and infills can be seen within areas along Old Bath Road, Milestone Avenue, Park View Drive North and South, and some areas of Park Lane. These areas typically contain detached houses and exhibit a mixture of architectural styles. Most commonly, the building materials consists of various brick types with rendered facades. There are occasional instances of hangtiles with either slate or clay pantile roofs, whilst some examples of thatched roofs are also present.

The village then expanded away from these older original areas to the north and south with subsequent phases of development of small estates in the 1960-80s, such as Chiltern Drive Estate, with mostly uniform architecture styles from the post-war era. Later, in the 1990s, Hawthorns and East Park Farm Estates were developed. The most recent development has been Canberra Way, which commenced in 2016.



Circa 1780-1799



Post-war development



20th / 21st Century

2.5 SENSE OF COMMUNITY

Charvil has a strong community spirit and a well established residential population. The village offers various but limited amenities including, the village hall, primary school, pavilion, convenience store and two pubs, which are well-used and enjoyed by the local residents.

The Charvil Village Hall is the heart of the community, where regular social and recreational events are hosted. The hall is also regularly used by over 30 clubs and groups. There is also ample car parking facilities at the village hall, which is well-used by local groups.

In addition to the village hall, the Margaret Gimblett Pavilion is another facility which offers space for daytime groups and hosts the village fête. It is conveniently located next to the East Park Farm Playing fields and is also used as changing facilities for footballers, cricketers and tennis players.

The residents enjoy Charvil's rural setting and surrounding open countryside. The village's network of public rights of way connects its country parks, meadows, woodland, and green spaces, as well as the walking route to the south of the River Thames.



Figure 21: The Charvil Village Hall is a key community space.

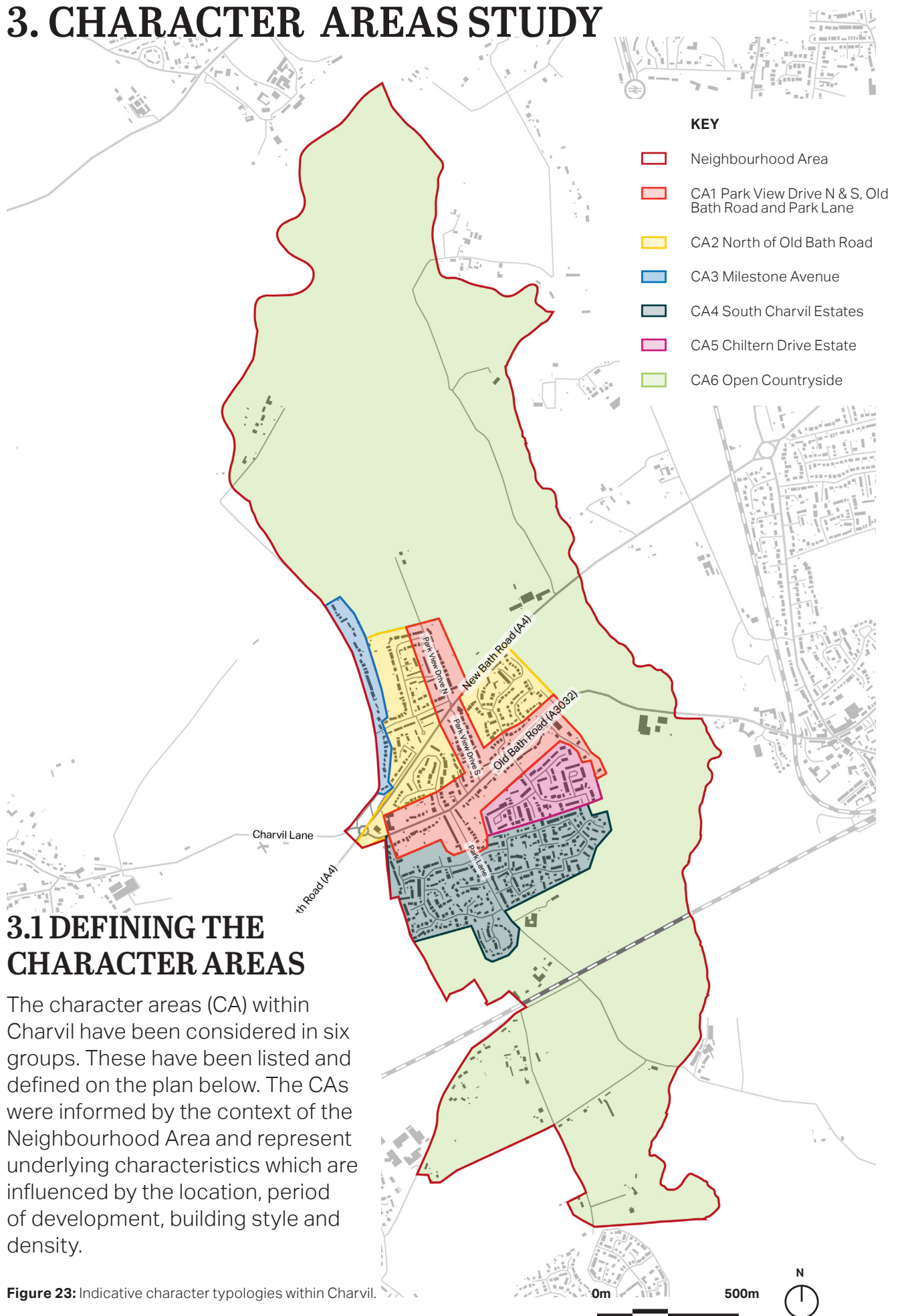


Figure 22: Wee Waif is one of two public houses in the village.

CHARACTER AREAS
STUDY

03

3. CHARACTER AREAS STUDY



CA1



CA1 Park View Drive North & South, Old Bath Road and Park Lane

The Park View Drive North & South, Old Bath Road and Park Lane character area comprises Charvil's core area. Old Bath Road is the Neighbourhood Area's historic thoroughfare. The area consists mainly of development which started in the 1920s set within ribbon developments along its main routes. The area is primarily residential with no public realm and a small convenience store serving as its only commercial use. Accord the Lloyds Bank Staff Union headquarters is also housed on Old Bath road.



Figure 24: Images from the character area.

Land use	The character area consists almost exclusively of residential development and is made up of low-density housing and a small convenience store at the corner of New Bath Road and Park View Drive South.
Pattern of development	The area features an axis of regimented linear development along Old Bath Road running east-west through the centre of the village and along Park View Drive North and South, and along Park Lane. The area features Charvil's early residential expansion, made up of predominantly early twentieth century detached housing. There is also a small narrow lane to the far west of the area with a large apartment building at the corner of Old Bath Road. Further along this route are large, secluded detached houses.
Building line/plot arrangement	Building lines are consistent and regimented. There is only some small variation in set back to accommodate slight bends on Old Bath Road or small access routes. Plot boundaries for these properties are relatively consistent. These include setbacks with gardens and drives of between 8 and 10 metres. Back gardens are long, often between 25 and 50 meters in depth. Spacing between buildings has a consistent rhythm, contributing to formal arrangements of ribbon development. North of Old Bath Road, there are more varied housing typologies with greater differentiation of spacing between houses and smaller back gardens.
Boundary treatment	There are numerous boundary treatments, the most common of which are soft measures. This includes hedges and low level shrubbery, as well as more open interventions such as lawns and flowerbeds. These are frequently utilised alongside some hard interventions such low brick walls and wooden fences.
Scale, density and roofline	Buildings within the character area are mainly two storeys, often with a varied roofline owing to the diverse architectural designs of houses within the area. Pitched, hipped and jerkinhead roofs are commonly found, often with intersecting gable fronts, gable dormers, or extensions with skillion roofs. The area is a sprawling residential area with a density of approximately 11dph.
Public realm	Public realm within the area is confined to the street. Routes feature ample pavements with facilities such as benches close to bus stops and notice boards, except on New Bath Road (A4) and Old Bath Road. Soft boundary treatments and occasional mature trees add interest along the street scene.
Materials	The area features a distinct variety of architectural styles with multiple materials used throughout. Most commonly the area features red and light brick varieties, alongside render and roughcast. There are occasional instances of hangtile with either slate or clay pantile roofs. Casement windows are common, sometimes with additional features such as glazing bars.

Table 01: Characteristics of the Park View Drive North & South, Old Bath Road and Park Lane Character Area.

CA1

Key characteristics

Facade



Boundary treatments



Roofs



Fenestration





CA2 North of Old Bath Road

North of Old Bath Road includes some of Charvil's later periods of residential extension. The character area is primarily made up of latter twentieth century housing consisting of a variety of settlement patterns. These include instances of meandering cul-de-sacs and small perimeter blocks. Furthermore, the area is split into two constituent parts though these showcase similarities in land use, architectural styles and settlement patterns.



Figure 25: Images from the character area.

CA2

Land use	Land use in the area is dominated by residential development with only a small cluster of commercial activity. This is located to the west of the character area, at the roundabout junction between Old Bath Road and New Bath Road. This consists of the Wee Waif Pub and Hotel, and a petrol station containing a convenience store.
Pattern of development	The area north of Old Bath Road features two distinct development patterns. The western portion of the character area features more formal arrangements. Here, there are mainly detached properties within small perimeter blocks formed by Kingsley Close linking Park View Drive North and St Patricks Avenue, the latter of which is flanked by extensive linear development. Invariably, instances of backland development include small housing clusters set behind the building line. To the south of New Bath Road are a similar group of dwellings set among meandering cul-de-sacs. The eastern portion of the character area features similar patterns of development, with cul-de-sacs that can be accessed along Gingells Farm Road, linking this isolated area of development with Old Bath Road.
Building line/plot arrangement	Building lines within this area are varied. North of New Bath Road, buildings are arranged in a consistent and regimented manner with little variation in set back, space between buildings, and back garden depth. South of New Bath Road and in the eastern part of the character area, plot arrangements are more irregular, with building lines reflecting the meandering nature of residential streets.
Boundary treatment	Soft boundary treatments like lawns and hedges are common within the character area. There are also some wooden fences and low stone walls. More open interventions, such as lawns with street trees or shrubbery, are more common in areas south of New Bath Road and in the eastern part of the character area.
Scale, density and roofline	Buildings in the character area are a maximum of two storeys with pitched roofs being the most common roof typology. Some dwellings feature gable fronts or dormers and there are some hipped roofs with intersecting gable fronts. There is a density of approximately 11dph.
Public realm	There are no formal public spaces with public realm confined to residential streets. There are ample pavements sustaining pedestrian movement with grass verges occasionally buffering plots from the street. There are limited pavements along New Bath Road, though there is pedestrian provision around the Wee Waif Pub and the petrol station, with the former sustaining semi-private spill out space.
Materials	Materials include a mix of light and red bricks, hangtile and render with clay or slate tiles and pantiles. Some properties also feature external timber framing as a decorative facade treatment. PVC casement windows are prominent, sometimes with additional features such as glazing bars.

Table 02: Characteristics of the North of Old Bath Road Character Area.

Key characteristics

Facade



Boundary treatments



Tall hedges



Wooden fence and hedgerows



Open lawns and shrubbery

Roofs



Slate pantile, pitched roof with gable dormer



Pitched roofs with intersecting hipped fronts and gable dormers



Hipped roofs with intersecting gable fronts

Fenestration



Wooden casement windows with glazing bars



PVC casement windows with glazing bars



PVC window frames with a wood style finish

CA3



CA3 Milestone Avenue

The Milestone Avenue Character Area consists entirely of a stretch of linear residential development along a narrow rural by-way. There is a lower density of development within this area, contributing to its countryside character. Development runs along Milestone Lane's eastern edge, whilst the opposing side consists solely of dense vegetation that screens open fields. There are a range of architectural designs within the area, including a high concentration of traditional features.



Figure 26: Images from the character area.

Land use	The residential Milestone Avenue Character Area is entirely bounded to the west by arable farmland outside of the Neighbourhood Area boundary.
Pattern of development	This area features a long stretch of ribbon development along the eastern side of Milestone Avenue. The route is straight in character running north of North Bath Road and is flanked to the west by dense hedgerow screening open fields.
Building line/plot arrangement	The building line and plot arrangement along Milestone Avenue is consistent and regimented. Setbacks along the route are uniform with only slight variation of around 12-15 metres with garden depths of around 30-40 metres.
Boundary treatment	Dense hedges are primarily used as boundary treatments within the character area. Some properties also feature wooded or rough-iron gates or low brick walls. In many cases, vegetation used for boundary treatments screens buildings from Milestone Avenue.
Scale, density and roofline	Building heights within the character area are between one and two storeys. There is a range of roof typologies with many buildings featuring a mix of hipped and pitched roofs with intersecting features stemming from the varied architectural designs that are prevalent within the area. The area is of relatively low density at about 6dph.
Public realm	Public space is limited though there is immediate access to surrounding countryside along Milestone Avenue towards nearby public rights of way and permissive pathways.
Materials	The area features a wide variety of materials, with many houses featuring render and timber framed facade treatments. Wooden and PVC casement windows are common, though some contemporary renovations feature powder coated aluminium frames. Clay pantiles are the most commonly used roof material, though the area features an example of a thatched roof.

Table 03: Characteristics of the Milestone Avenue Character Area.

CA3

Key characteristics

Facade



Boundary treatments



Roofs



Fenestration





CA4 South Charvil Estates

The South Charvil Estates Character Area features some of Charvil's more recent housing extensions. It is primarily made up of residential development alongside the Village Hall and key green spaces. Within the character area are two distinct patterns of development, represented by housing either side of Park Lane. These include a series of permeable blocks to the east of Park Lane, and more meandering cul-de-sacs to its west. The area is also characterised by an abundance of red-brick houses with a greater frequency of decorative facade treatments than in other areas.



Figure 27: Images from the character area.

CA4

Land use	The South Charvil Estates Character Area is predominantly residential, though the area also includes the Charvil Village Hall and the Park Lane Recreation Ground.
Pattern of development	South Charvil Estates is made up of two areas either side of Park Lane which are made up of late twentieth century housing development. East of Park Lane, detached houses are arranged into small blocks which are accessed by a series of small cul-de-sacs stemming from both the Hawthorns and East Park Farm Drive. These cul-de-sacs are regularly connected by footpaths, formalising the arrangement of small perimeter blocks. To the west of Park Lane are a series of cul-de-sacs with building arrangements that generally conform to the meandering character of the streets. Additionally there is a small contemporary development featuring detached houses fronting onto an internal green space with a small cul-de-sac set behind the main building line along Canberra Lake Way.
Building line/plot arrangement	Building lines are inconsistent, resulting from the meandering nature of streets within the area. There are small clusters which do feature consistent building lines, particularly along the character area's northern bounding edge, though these are maintained with greater variation in set back from the road. Plots are comparatively smaller than Charvil's other character areas, with back gardens of between 10-15 metres. There is also greater variation in the spacing between buildings.
Boundary treatment	This area features a wide variety of boundary treatments; open lawns, low lying shrubbery or hedges are the most common feature. Brick walls are generally used to screen back gardens from the street, though some dwellings also use tall hedges.
Scale, density and roofline	Buildings are predominantly two storeys with mainly pitched roofs, sometimes with gable fronts. Often the roofline features gabled dormers and intersecting gable fronts. The area features a comparatively higher density compared with other character areas of around 18dph.
Public realm	The area features the Park Lane Recreation Ground which includes the Hawthorns play area and open green space. Streets predominantly feature grass verges and pavements supporting pedestrian activity. There is also a small green space to the south of the area along Canberra Lake Way which is bounded by detached properties fronting onto the space.
Materials	Red and light brick facades are commonly found, with a few instances of flintstones. Many buildings within the area also feature additional decorative features with red brick and mock-Tudor timber frames integrated into facade treatments. Clay tiles are common roof materials with an abundance of PVC casement windows.

Table 04: Characteristics of the South Charvil Estates Character Area.

Key characteristics

Facade



Boundary treatments



Hedgerows



Low-lying shrubbery



Open lawns, driveways and shrubbery

Roofs



Jerkinhead roof with small gable dormer featuring black pantiles



Pitched roof



Intersecting hipped roof

Fenestration



PVC casement windows with glazing bars



Powder coated aluminium casement windows



PVC casement windows with a wood-style finish

CA5



CA5 Chiltern Drive Estate

The Chiltern Drives Estate is a distinct character area, with a homogeneous design synonymous with post-war architecture. Plot arrangements and building lines are uniform throughout with variations within the vernacular stemming from occasional differences in facade choices. The area is mainly residential and features Charvil's higher density housing typologies alongside some minor green spaces and the Vale View Playground.



Figure 28: Images from the character area.

Land use	The Chilterns Drive Estates Character Area is primarily residential with the exception of the Vale View Playground and some minor green spaces.
Pattern of development	The Chiltern Drive Estate is made up of twentieth century housing development set along a series of cul-de-sacs. There is a mix of detached and semi-detached housing as well as some small terraces. There are also three blocks of flats located in this character area.
Building line/plot arrangement	Building lines within this character area are uniform and regimented with only a few instances of variation as the building line follows meandering routes. Spaces between buildings vary between housing typology, though properties follow a consistent rhythm with a regimented layout.
Boundary treatment	There are fewer instances of formal boundary treatments within this character area. Dwellings often feature open lawns or driveways which are intermittently broken up with low lying shrubbery or hedges.
Scale, density and roofline	Buildings are mainly two storeys though there are a few single storey dwellings within the character area. Roofs are almost exclusively pitched, with a few exceptions of some roofs that are gable fronted or feature intersecting gable dormers. Density is approximately 18dph.
Public realm	Public realm within the character area includes the Vale View Playground and some small green spaces along Wenlock Drive and Cheviot Drive. There is also good pedestrian amenity along residential routes.
Materials	There is a uniformity of architectural styles with some differentiation between external facade treatments. Red bricks are the most prominent material alongside a mix of brown, red and green hangtiles. Alternatively, some dwellings feature plastic weatherboarding or a colour render facade. Slate tiles and PVC casement windows are exclusively used throughout the area.

Table 05: Characteristics of the Chiltern Drive Estate Character Area.

CA5

Key characteristics

Facade



Boundary treatments



Hedgerows



No boundary treatment



Open lawns and shrubbery

Roofs



Terraced row with slate, pitched roof



Gable front



Flat roof garage extension

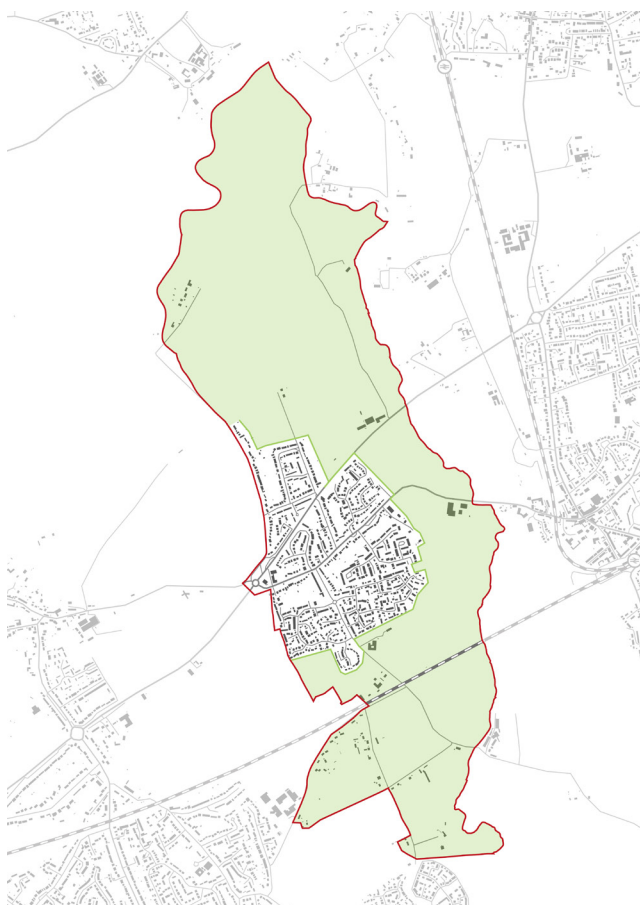
Fenestration



PVC casement windows



Powder coated aluminium casement windows



CA6 Open Countryside

The Open Countryside character area includes the rural surrounds which make up the vast majority of the Neighbourhood Area. There is an abundance of green fields and arable farmland with only a few small residential and commercial development clusters. Additionally, the character area features the Charvil Piggot Primary School and the Heron on the Ford Pub. Given the fragmented nature of development, the area's vernacular and settlement pattern is varied and is greatly influenced by the surrounding landscape.



Figure 29: Images from the character area.

CA6

Land use	Charvil's open countryside is mostly made up of country park and Charvil meadows as well as arable farmland. Woven into the character area are small clusters of residential development including Thames Drive, Beggars Hill and Waingels Road. Also contained within the area is the Charvil Piggot Primary School and key public spaces, including Charvil County Park and the Pavillion Play Area. The area also features much of the Neighbourhood Area's commercial activity with two small industrial estates to the north east and south west of the parish respectively. Additionally, the area contains a few leisure facilities such as the Heron on the Ford Pub.
Pattern of development	Given the expansive nature of this character area, there are a mix of development clusters with varied patterns of development. Residential areas are primarily small stretches of ribbon development set along routes with a rural character. Contrastingly, commercial areas and the Charvil Piggot Primary School feature buildings with large footprints that are set within secluded plots.
Building line/plot arrangement	Given the infrequent nature of development, there is no discernible building line within this character area. Within each cluster there is some formality to arrangements, particularly within the light industrial estates where business units have a consistent building line. Areas of residential development are arranged into loose clusters, with large plots which are loosely set along country lanes.
Boundary treatment	Residential clusters within the character area utilise dense vegetation including hedges and trees that help to integrate development into surrounding natural assets, often also aiding in the screening of dwellings. Commercial areas are well-screened by dense vegetation such as trees and hedges, as well as wooden and steel fences. Furthermore, the Charvil Piggot Primary School is screened from Park Lane by dense vegetation, and metal fencing separates the school from the car park and playing fields.
Scale, density and roofline	Building heights vary within the character area. Residential buildings range in height from one to two stories, while commercial buildings tend to just be one story high. Buildings have a variety of roof types, but they are predominantly hipped or pitched with gable ends, gable dormers, and flat roof dormers.
Public realm	Residential buildings regularly feature redbrick facades alongside some decorative brickwork. Some properties also feature a white render and mock-Tudor timber framing. Clay roof tiles and casement windows, sometimes with glazing bars, are common throughout. Additionally, light industrial buildings within the area also feature corrugated steel facades and roofs.

Table 06: Characteristics of the Open Countryside Character Area.



3.2 CHARACTER AREA SUMMARY

The character summary set out in this section and the key findings are informed by the context analysis and more detailed character area analyses. These findings will help to shape the design codes and guidance in the following chapter.

Points of strengths will be harnessed and further reinforced by the design codes and guidance. Any issues and potential threats identified will be targeted and mitigated against through suggestions of good urban design practices and principles.

Positive attributes in Charvil that could act as references in future development	Relevant design guidelines and codes in Chapter 4
As a picturesque rural area, Charvil boasts well-vegetated streets, rich natural boundary treatments and green spaces surrounded by green infrastructure. Improve the rural character of the parish by protecting green and blue infrastructures (See Figure 17) and enhance connections to the countryside. Propose adequate green verges and hedges which contribute to the high-valued semi rural character of the parish.	MC03 MC04 MC05
Long- and short-distance views towards landscape backdrops and green spaces should be preserved and promoted in any new development. Similarly, views towards important landmarks and heritage structures should not be obstructed.	MC02
The scale, building orientation and rhythm of the new development should be sympathetic to the surrounding built up area. In addition, the choice of material on façades of any new development should be sensitive to the general materials palette that is part of the village's traditional vernacular.	MS02
Existing pedestrian and cycle road networks should be connected to the settlement, countryside and beyond. Potential cycle route network should be connected to National Cycle Network 4 offering connections to the countryside, River Thames, River Loddon and canals. Provide adequate pavements to increase the pedestrian safety where possible.	AM02

Issues and potential threats in Charvil that could act as references in future development	Relevant design guidelines and codes in Chapter 4
Mitigate the traffic issue such as the issue on Park Lane by proposing adequate and suitable traffic calming measures. Provide well-connected development to reduce the dependence on cars.	AM03
Adequate parking arrangements should be provided for any new or infill development to ensure streets aren't cluttered by inappropriate parking that can lead to congestion.	AM01
An opportunity to provide community facilities such as community cafe, a place for events and gathering, pre-school or GP within Charvil, near Margaret Gimblett Pavilion and the primary school to improve the quality of life and the sense of community.	MC01
Ensure the design of infill development and extensions are sympathetic to surrounding properties.	IE01 IE02
Eco design elements (e.g. SuDS, grey water recycling, electric charging points and solar panels) should continue to be promoted and houses should consider including other environmentally conscious features (e.g. ground/air source heating, insect friendly bricks etc.)	SE01 SE02 AM01
Mitigate the flood risk by proposing adequate and sustainable flood risk measures to the north and east of the Neighbourhood Area at the confluence of River Thames and River Loddon.	SE02



DESIGN GUIDANCE
AND CODES

04

4. DESIGN GUIDANCE AND CODES

Development in the Neighbourhood Area should demonstrate how best practice design guidance contained in national and local policy and guidance documents, including this design guide, has been considered in the layout, architectural and landscape design.

4.1 INTRODUCTION AND OVERVIEW

This section sets out the Design Guidance and Codes that support the Neighbourhood Plan. This design guide is in addition to, and should be read in conjunction with, national and local policy and guidance on design.

The design guidance and codes set out the expectations that are specific to the context of the Charvil Neighbourhood Area. The codes are divided into four sections by theme, as shown on this page, each one with a different number of subsections.

Theme	Prefix	Code
Access and movement (AM)	AM01	Car parking
	AM02	Cycling networks and PRow
	AM03	Traffic calming measures
Maintaining the semi-rural character and sense of community (MC)	MC01	Sense of community
	MC02	Settlement pattern, density and views
	MC03	Boundary treatment
	MC04	Biodiversity and landscape setting
	MC05	Preserving street trees
Sustainability and eco-housing (SE)	SE01	New and retrofit eco-housing
	SE02	Water management and SuDS
Infill and extensions (IE)	IE01	Infill development
	IE02	Extensions

4.1.1 Access and movement (AM)

AM01 Car Parking

Parking areas remain a necessity for many modern developments. However, they do not need to be unsightly or dominate the streetscape. Parking provision should be undertaken as an exercise of placemaking. This section provides some design principles and guidelines for on-plot and on-street parking solutions that any new development should adhere to, alongside guidance set out by the 'Borough Design Guide' SPD by Wokingham Borough Council¹.

¹ <https://www.wokingham.gov.uk/planning-policy/planning-policy-information/supplementary-planning-guidance-and-documents>

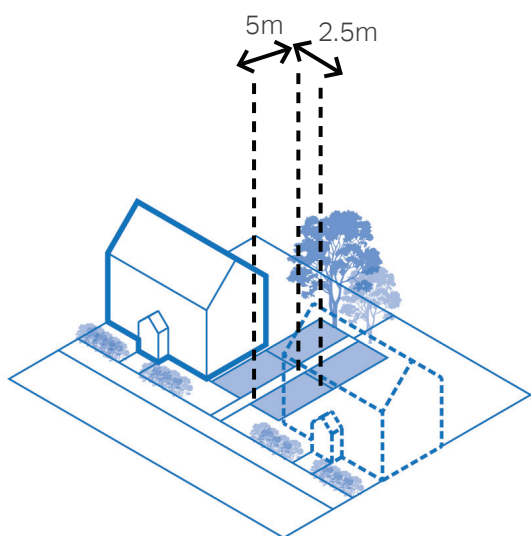


Figure 30:
Illustrative diagram showing an indicative layout of on-plot side parking.



Figure 31: Example of on-plot parking with attached garage.

On-plot side or front parking

- Parking provided on driveways directly in front of dwellings should be restricted due to the visual impact that cars have on the street;
- The use of on-plot car parking ports is recommended for terraces as a space efficient car parking typology;
- On-plot parking should aim to be well screened with hedgerows when providing parking space to the front of a dwelling; and
- Parking provided on a driveway for a single vehicle should be a minimum depth of 5m x 2.5m, with the parking set behind the building line so that it doesn't dominate the street scene.

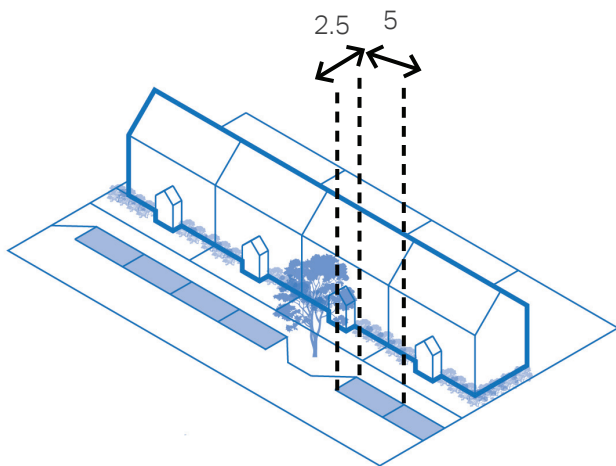


Figure 32:
Illustrative diagram showing an indicative layout of on-street parking

EV charging

- Where possible, electric vehicle charging points should be incorporated into on-plot parking in new developments to promote more sustainable modes of transport;
- EV charge points that are ground fixed should have a measure in place to prevent a vehicle inadvertently driving into the charge point. This could include bollards, a guard provided by the manufacturer, or the charge point could be mounted on a kerbed footway; and
- Given the move towards electric vehicles, every opportunity must be taken to integrate charging technologies into the fabric of road and street furniture in the public and private realm.

On-street parking

In order to reduce the visual impact of parked cars on the street, on-street parking should not be the only form of parking arrangement in future developments and on-plot parking should be encouraged for the majority of cases. Where they are needed:

- On-street parking must be designed to avoid impeding the flow of pedestrians, cyclists, and other vehicles. They can also serve as informal traffic calming; and
- On low-traffic residential streets or lanes that are shared between vehicles and pedestrians, parking bays can be clearly marked using changes in paving materials instead of road markings.



Figure 33: Example of on-street electric vehicle charging points.
Source: www.theguardian.com.

AM02 Cycling networks and PRow

It is vital that the distinctive settlement areas and developments within Charvil are well-integrated and connected. Public transport and other sustainable transport methods such as walking and cycling are encouraged. The following guidelines should help create places that are easy to move through and around.

- New footpath links should be provided wherever possible, and these must connect up with the existing walking and cycling networks such as Thames Path and other existing public right of ways, and National Cycle Network 4 placing the priority on the pedestrian and cyclists, thereby encouraging people to favour active travel over the car;
- The design of the street network should respond to the topography and natural desire lines;
- Streets and footpaths should be laid out in a permeable pattern, allowing for multiple connections and choice of routes, particularly on foot. Any cul-de-sac should be relatively short and provide onward pedestrian links; and
- Development should design internal streets and paths that are well connected and direct, responding to any desire lines.



Figure 34: A connected layout, with some cul-de-sacs, balances sustainability and security aims in a walkable neighbourhood.

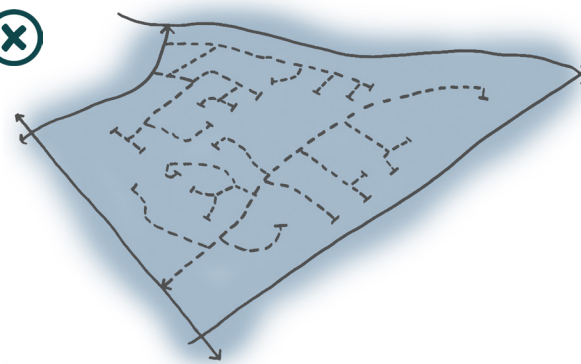


Figure 35: A layout dominated by cul-de-sacs encourages reliance on the car for even local journeys.

AM03 Traffic calming measures

Traffic calming uses physical design and other measures to improve safety for everyone. These measures can be applied on roads that have traffic issues such as Old Bath Road, Park View Drive, and Park Lane. There are also concerns with safety in terms of crossing Park Lane, for the primary school.

It aims to encourage safer, more responsible driving and potentially reduce traffic flow. Paving materials in all traffic calming measures should contribute to the character of Charvil as a place to be coherent.

Note that traffic calming is usually outside the remit of neighbourhood planning policies, unless as part of a wider planning application.

Speed bumps / humps and cushions

There are traffic calming devices that use vertical deflection to slow vehicle traffic to improve safety conditions.

Speed tables

A speed table is long flat-topped speed humps that slow vehicles more gradually than humps and provide safer conditions.

Raised pedestrian crossings

Raised pedestrian crossings act as speed tables, often situated at intersections, as well as improving the walking environment.



Figure 36:
An example of raised pedestrian crossing with a plateau in Hemel Hempstead.



Figure 37:
Speed cushions.

4.1.2 Maintaining the semi-rural character and sense of community (MC)

MC01 Sense of community

Streets should be designed to not only accommodate vehicles but also as 'spaces' for people that live on and along them. An active streetscape is an essential part of a successful public realm design and helps create a sense of community.

- New streets must be designed as a 'space' to be used by all. Existing streets should be retrofitted for the same purpose and to discourage speeding;
- Create public-realm spaces which provides plenty of places to sit, chat or play along the street;
- Make use of landscape and planting layers which add sensory richness; and
- New development schemes should provide an appropriate amount of accessible footpaths, and should consider design value and the needs of users.

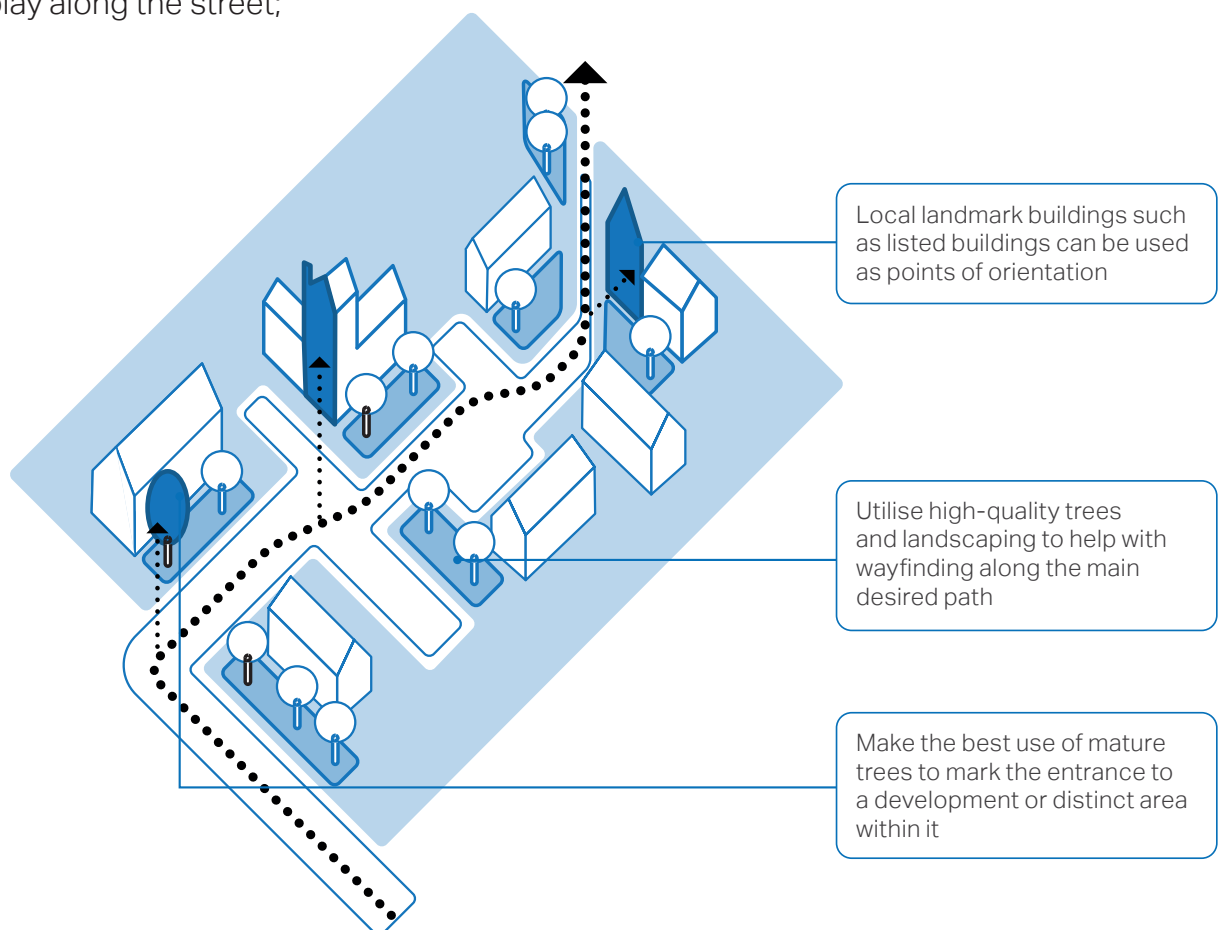


Figure 38: Diagram showing the use of streets as spaces through enhancements to the public realm.

Public realm enhancement measures

High-quality, well-connected public spaces are essential for neighbourhoods. They create informal meeting places, offer a place to rest, and can even provide shelter. The public realm should be coordinated and strengthen local distinctiveness making it a more legible and user-friendly environment. This can be done via:

- A place to meet others - Locally run cafe or a place for events can be an opportunity for gathering which could potential improve the sense of community. This can be proposed near the pavilion and the primary school;
- Street furniture - these should be added in appropriate locations to provide people with places to stop and linger. Distinctive street furniture can improve legibility and wayfinding whilst enhancing the character of a place. The choice of materials should be of high quality that complements the surrounding;
- Public art and installations - public art could be used to assist wayfinding. New landmark sign/sculpture could be used to mark the gateway spaces; and
- Child-friendly places - public realms should be designed with child-friendly interventions, aligned with key routes that connect schools and residential neighbourhoods.



Figure 39: Example of creating spaces for the local community to get together; with a central play feature, and street furniture. Image credit: <https://landezine.com/futureproof-village-realm-alpen-by-felixx/>



Figure 40: Rainbow pedestrian crossing, Somerset. Image credit: BBC News



Figure 41: A cafe in Reading. <https://www.tripadvisor.co.uk/>

MC02 Settlement pattern, density and views

It is important that any new development is sensitively sited and designed so that they do not detract from the character of their streetscape and setting. Any new proposals should respect the following principles:

- New developments must demonstrate an understanding of the scale, building orientation, enclosure, and rhythm of the surrounding built environment;
- Buildings should front onto the streets to maintain active frontages and avoid having blank façades that hinder activity and movement;
- The building line of new development should be in conformity with the existing. As there are very few areas of dense and terraced groupings within Charvil it might be acceptable that the building line closely aligns with the existing arrangement of buildings where there is an irregular, meandering building line. See overleaf for typical building lines across different character areas that infill or new developments should reference;
- The density of any development should reflect the character of the immediate area and location within the village. The optimum density will respond to surrounding densities, whilst making efficient use of land;
- The form and layout of new streets should align with historic ones where possible, and be delivered in the form of simple grid plan where feasible. Cul-de-sacs must be relatively short and provide overlooked pedestrian and cycle links;
- Any new development should aim to re-purpose buildings or sites which are no longer viable. Brownfield sites are preferred rather than any development on Greenfield;
- Development should relate sensitively to local heritage buildings, topography/ landscape features, countryside setting and long-distance views;
- Development should preserve long-distance views towards the open fields and countryside; and
- Development should preserve key short-distance views towards important landmarks or heritage assets.

Pattern of development and building lines



CA1 Park View Drive & South, Old Bath Road and Park Lane

Building lines in CA1 are consistent and regimented. These include setbacks with gardens and drives of between 8-10 meters. The area has a density of approximately 11dph.



CA2 North of Old Bath Road

Building lines in CA2 are varied between north and south of New Bath Road. There is a density of approximately 11dph.



CA3 Milestone Avenue

Building line and plot arrangement along Milestone Avenue is consistent and regimented. Setbacks are uniform with only slight variation of around 12-15 metres. The area is relatively low density of about 6dph.



CA4 South Charvil Estates

Building lines are inconsistent, resulting from the meandering nature of streets within the area. The area features a comparatively higher density compared with other character areas of around 18dph.



CA5 Chiltern Drive Estate

Building lines are uniform and regimented with only a few instances of variation as the building line follows sometimes meandering routes. Density is approximately 18dph.

MC03 Boundary treatment

Quality boundary treatments are a key design element in new developments, particularly when they are facing green open spaces, and the perimeter of properties are visible to others. Boundary treatments should be used at the plot edge to provide a sense of continuity and cohesion along the street as well as providing separation between the public and private domain.

Soft boundary treatments such as hedges are a common boundary treatment throughout Charvil and are accompanied by green foliage both in private front gardens and on building facades. Other boundary treatments include timber fences, low stone walls, some examples of low brick walls.

New developments should adhere to the following principles:

Front gardens

- Properties should have a front garden or privacy strip ranging from 1m to 6m in depth to create the desired amount of enclosure along the street;
- Brick walls as boundary treatment are not commonplace in the village and is generally not advisable. Timber fencing or hedgerow planting is preferred and is in keeping with the traditional boundary treatments in the area.



Figure 42: An example of hedges as boundary treatment

Rear and side gardens

- Wooden boarding can be used for concealed rear and side gardens backing onto each other only if these gardens do not face the street or open spaces; fences higher than 1.8 metres are not advisable;
- When rear and side gardens are facing the street, a public space or the open countryside, the boundary treatment should add value to views onto the site.

MC04 Biodiversity and landscape setting

Biodiversity should be prioritised through design, because of vulnerability to climate change. Some design guidelines are:

- Development should protect and enhance existing habitats, for example woodlands, streams, rivers and hedgerows. In particular, development should help increase movement between isolated populations and provide escape cover from predators and shelter during bad weather;
- Biodiversity interventions in the public space could help improve the environment as well as inform and educate the community about the existing species and habitats. For instance, creating hedgehog streets, wildlife-friendly show gardens, community forests, or designated areas within green space for wildlife could raise awareness about biodiversity;
- A variety of measures could be retrofitted into existing front and rear gardens to enhance biodiversity and movement of species. Such measures include bird boxes, pollinator gardens, bat boxes, hedgehog houses or bug hotels. These additions, apart from enhancing biodiversity, could improve the surrounding environment;
- Development should respect the existing natural boundary treatments, whilst new ones should be designed to allow for the movement of wildlife and provide habitats for local species e.g. hedgehogs. For instance, trees, hedges and hedgerows should be preserved; and
- Please refer to Section 13: Biodiversity from the Sustainable Design and Construction SPD by Wokingham Borough Council for more information.¹

¹ <https://www.wokingham.gov.uk/planning-policy/planning-policy-information/supplementary-planning-guidance-and-documents>

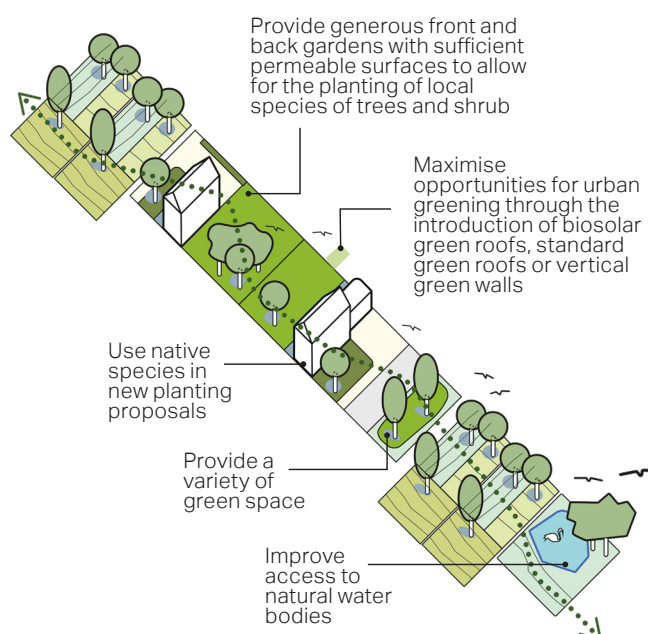


Figure 43: Illustrative diagram showing a green and blue network

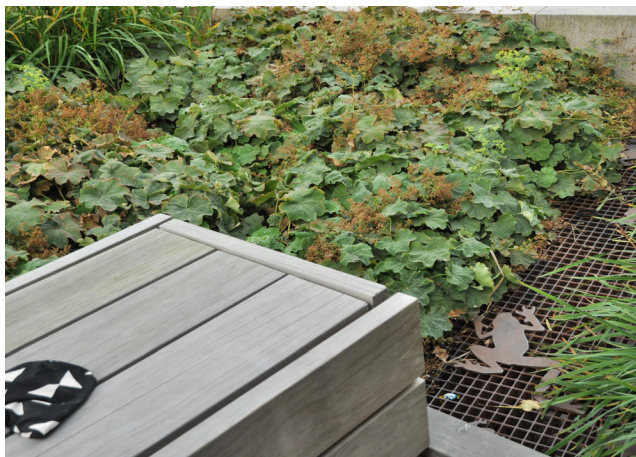


Figure 44: Example of a structure used as a frog habitat corridor located in an outdoor green space.



Figure 45: Example of a pollinator garden that could be placed in a communal green space within the built environment.



Figure 46: Example of a bird feeder located on a grass area opposite a public footpath.



Figure 47: Example of a bat box placed in the front or rear garden of a property.



Figure 48: Example of a bug hotel that could be placed in the front or rear garden of a property.



Figure 49: An example of a Hedgehog tunnel within a garden fence.

MC05 Preserving street trees

Street trees and flower beds are important contributors to the character of Charvil and bring many benefits, such as supporting biodiversity, improving air quality and improving people's well-being. It also helps soften the built form and reinforce the leafy village character.

- Existing mature trees should be preserved and incorporated into any new landscape design and can be used as landmarks, where appropriate;
- New development should incorporate existing native trees and shrubs and avoid unnecessary loss of flora. Any trees that are lost to the new development should be replaced;
- The introduction of new street trees and vegetation should be tailored to the function and character of different street types;
- New trees can be added in strategic locations to strengthen vistas and focal points while retaining clear visibility of amenity spaces. The species of plants and trees used should be carefully considered, avoiding large blocks of single-species planting and consider climate change adaptation. In particular, nature species that are best able to absorb airborne pollutants, attenuate surface water run-off and provide shade and shelter should be prioritised; and
- New trees and vegetation should be integrated into the design of new developments from the outset and can be coordinated with sustainable drainage systems to provide an integrated approach.

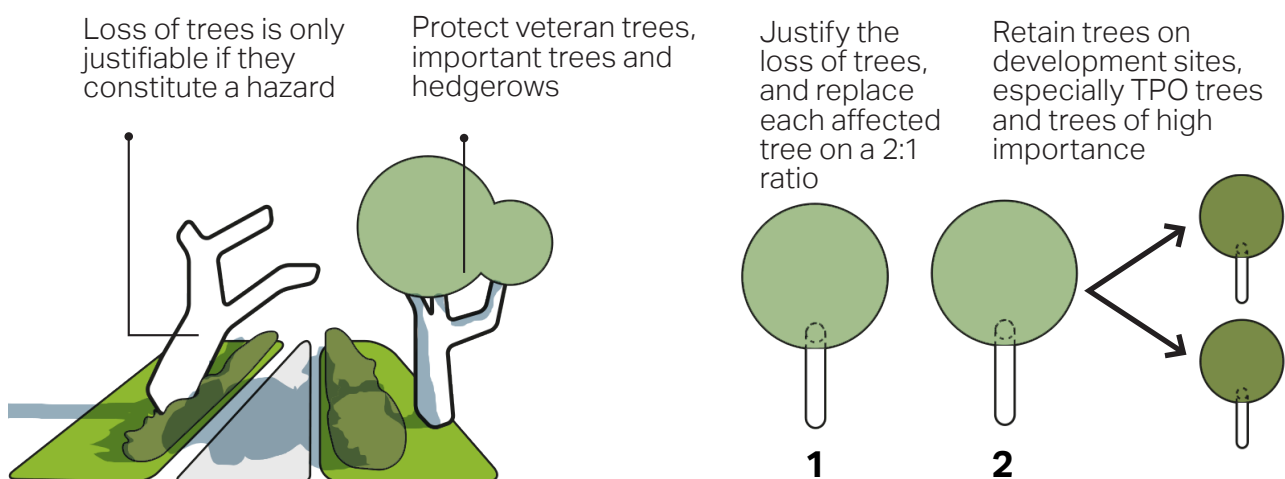


Figure 50: Diagram to highlight some guidelines related to tree preservation.

4.1.3 Sustainability and eco-housing

SE01 New and retrofit eco-housing

All new development must demonstrate that it is responding to climate change and reducing its carbon dependency. The government's forthcoming Future Homes Standard, including changes to Part L and Part F of the Building Regulations, will aim to cut carbon emissions by 80% in all new homes by 2025.

For new homes this likely means a 'fabric-first' approach with the highest standards of insulation and energy conservation - roof, wall and under floor insulation, efficient double or triple glazing and air-tightness. Ventilation with heat recovery, solar panels, ground and air source heat pumps must be considered alongside smart meters. New housing should demonstrate how rainwater will be stored and reused as grey water to reduce demand on mains supplies.

All proposals must demonstrate sustainable surface drainage systems that will not unduly increase pressure on existing wastewater and natural drainage systems. There is a number of energy efficient technologies that could be incorporated in buildings. The use of such principles and design tools is strongly encouraged to future-proof buildings and avoid the necessity of retrofitting.

Energy efficient or eco design combines all around energy efficient appliances and lighting with commercially available renewable energy systems, such as solar electricity and/or solar/ water heating and electric charging points.

The illustration on the following page shows possible design measures and building fabric considerations. Those on the top show the features that should be strongly encouraged in existing homes, while those on the bottom show additional features that new build homes should be encouraged to incorporate from the onset. Please note that some measures, such as double/triple glazing, draught proofing and solar panels, may be problematic in the Conservation Area, or for buildings that are historic or used as second homes or holiday lets.

Please refer to Section 8: Sustainable Design from the Sustainable Design and Construction SPD by Wokingham Borough Council for more information on Passive Solar Gain, Landscaping, Internal Layout, and, Thermal Mass.¹

¹ <https://www.wokingham.gov.uk/planning-policy/planning-policy-information/supplementary-planning-guidance-and-documents>

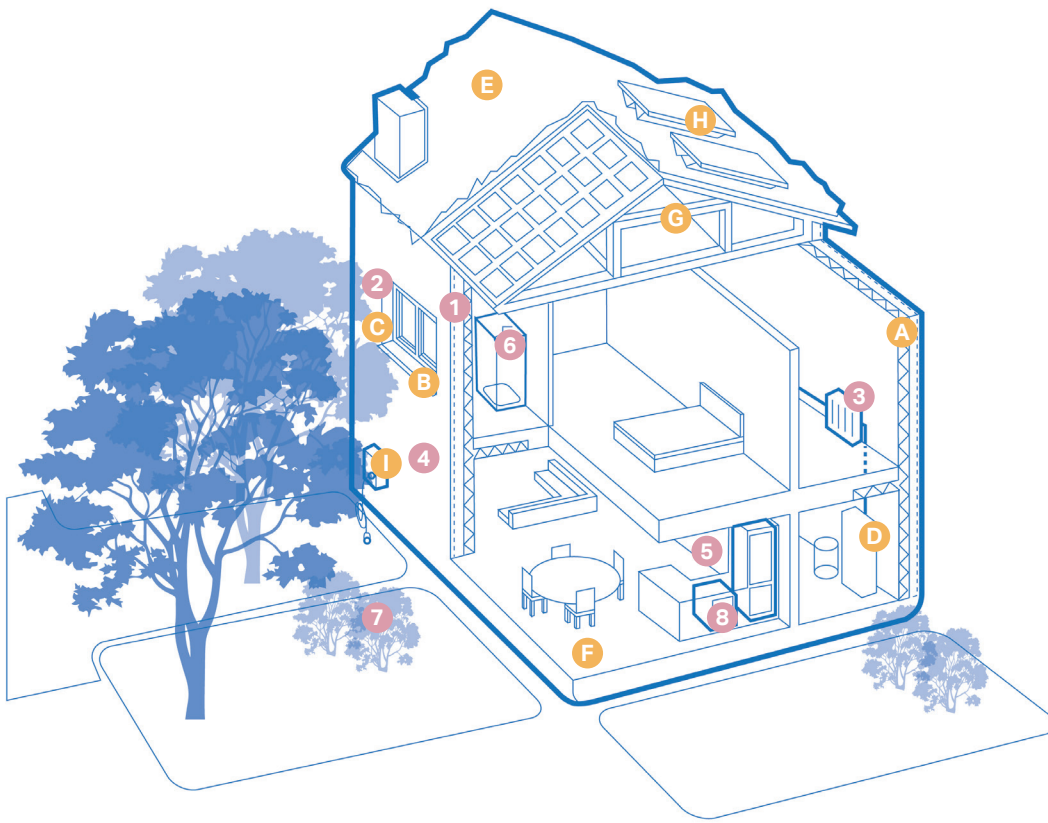


Figure 51: Sustainable design features.

Existing homes

- 1  **Insulation**
in lofts and walls (cavity and solid)
- 2  **Double or triple glazing with shading**
(e.g. tinted window film, blinds, curtains and trees outside)
- 3  **Low- carbon heating**
with heat pumps or connections to district heat network
- 4  **Draught proofing**
of floors, windows and doors
- 5  **Highly energy-efficient appliances**
(e.g. A++ and A+++ rating)
- 6  **Highly water-efficient devices**
with low-flow showers and taps, insulated tanks and hot water thermostats
- 7  **Green space (e.g. gardens and trees)**
to help reduce the risks and impacts of flooding and overheating
- 8  **Flood resilience and resistance**
with removable air back covers, relocated appliances (e.g. installing washing machines upstairs), treated wooden floors

Additional features for new build homes

- A  **High levels of airtightness**
- B  **Triple glazed windows and external shading**
especially on south and west faces
- C  **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest
- D  **More fresh air**
with mechanical ventilation and heat recovery, and passive cooling
- E  **Water management and cooling**
more ambitious water efficiency standards, green roofs, rainwater harvesting and reflective walls
- F  **Flood resilience and resistance**
e.g. raised electrical, concrete floors and greening your garden
- G  **Construction and site planning**
timber frames, sustainable transport options (such as cycling)
- H  **Solar panel**
- I  **Electric car charging point**

SE02 Water management and SuDS

The term SuDS stands for Sustainable Drainage Systems. It covers a range of approaches to managing surface water in a more sustainable way to reduce flood risk and improve water quality whilst improving amenity benefits. SuDS work by reducing the amount and rate at which surface water reaches a waterway or combined sewer system. Usually, the most sustainable option is collecting this water for reuse, for example in a water butt or rainwater harvesting system, as this has the added benefit of reducing pressure on important water sources.

The most effective type or design of SuDS would depend on site-specific conditions such as underlying ground conditions, infiltration rate, slope, or presence of ground contamination. However, a number of overarching principles that could be applied in new development are:

- Reduce runoff rates by facilitating infiltration into the ground or by providing attenuation that stores water to help slow its flow down, so that it does not overwhelm water courses or the sewer network;
- SuDS are often also important in areas that are not directly in an area of flood risk themselves, as they can help reduce downstream flood risk by storing water upstream;
- Improve water quality by filtering pollutants to help avoid environmental contamination;
- Manage surface water as close to where it originates as possible;
- Some of the most effective SuDS are vegetated, using natural processes to slow and clean the water, whilst increasing the biodiversity of the area;
- Integrate into development and improve amenity through early consideration in the development process and good design practices; and
- Best practice SuDS schemes link the water cycle to make the most efficient use of water resources by reusing surface water.

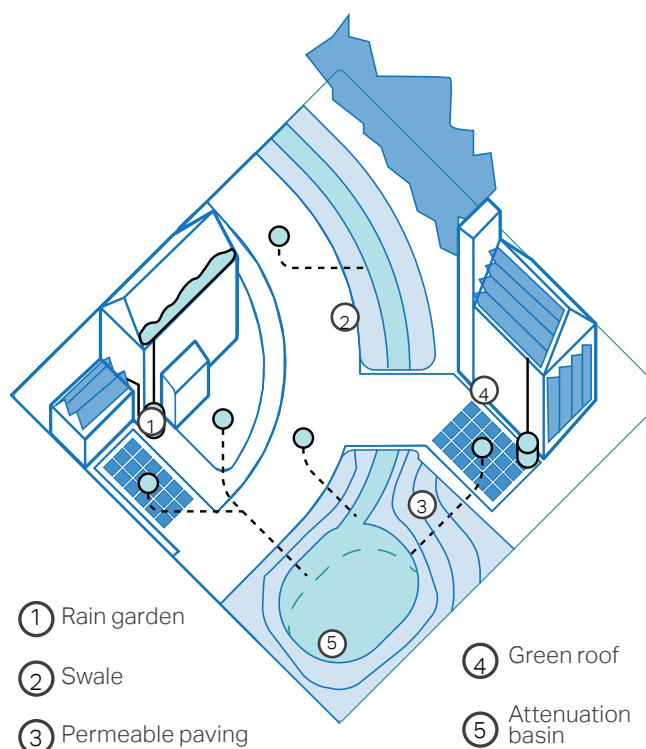


Figure 52: Diagram showing the best use of harvesting water systems rain garden, swales, permeable paving, green roofs.

4.1.4 Infill and extensions

IE01 Infill development

Infill sites will vary in scale, context and location within any given settlement. An infill can have significant impact on the character and appearance of the built environment.

The following principles should be applied in any future infill site:

- The original building should remain the dominant element of the property regardless of the scale or number of extensions. The newly built extension should not overwhelm the building from any given viewpoint;
- Complement the street scene into which it will be inserted. Points of continuity in the streetscape can be created by material / colour palette, roofscape features (such as chimneys and ridge/eave heights), scale and massing.
- Infill development should complement the street scene into which it will be inserted. Points of continuity in the streetscape can be created by material, colour palette, roofscape features (such as chimneys and ridge/eave heights), scale and massing;
- The density of any new infill development should reflect its context and its location in the village (centre or edge), or in a smaller settlement nestled in a wider landscape. The optimum density will respond to surrounding densities whilst making efficient use of land; and
- The building line of new development should generally be in keeping with the existing.

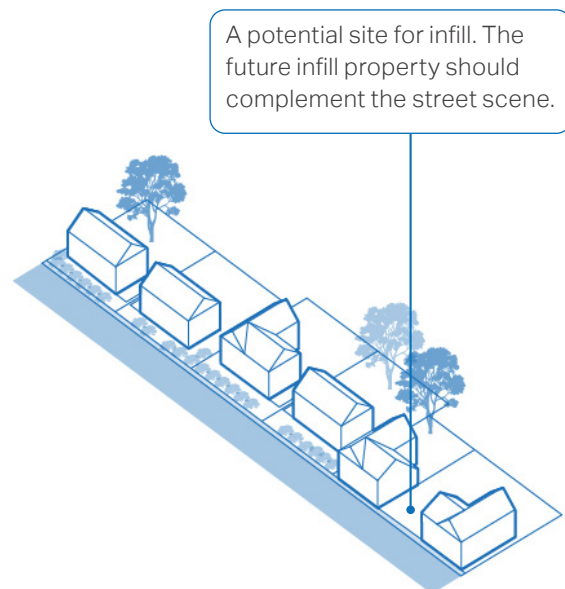


Figure 53: An indicative site before infill.

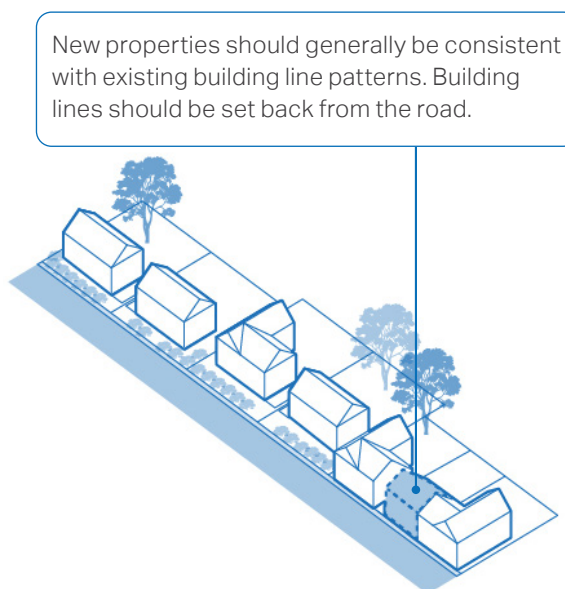


Figure 54: An indicative site after infill.

IE02 Extensions

There are a number of principles that residential extensions and conversions should follow to maintain character. It should be noted that many household extensions are covered by permitted development rights, and so do not need planning permission. These rights do not apply in certain areas such as Conservation Areas.

- The original building should remain the dominant element of the property regardless of the scale or number of extensions. The newly built extension should not overwhelm the building from any given viewpoint;
- Extensions should not result in a significant loss to the private amenity area of the dwelling or its neighbours;
- In the case of rear extensions, the new part should not have a harmful effect on neighbouring properties in terms of overshadowing, overlooking or privacy issues;
- The pitch and form of the roof used on the building adds to its character and extensions should respond to the existing building where appropriate;
- Extensions should consider the materials, architectural features, window sizes and proportions of the existing building and respect these elements to design an extension that matches and complements the existing building;
- In the case of side extensions, the new part should be set back from the front of the main building and retain the proportions of the original building. This is in order to reduce any visual impact of the join between existing and new; and
- Where possible, reuse as much of the original materials as possible, or alternatively, use like-for-like materials. Any new materials should be sustainable and be used on less prominent building parts.

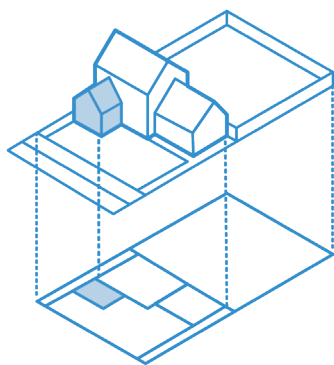


Figure 55: An example of a front extension.

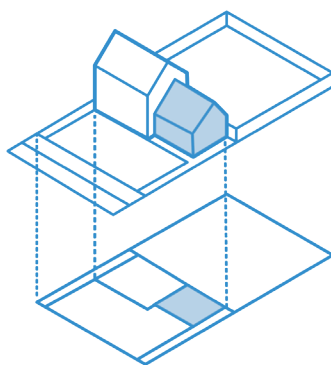


Figure 56: An example of a side extension.

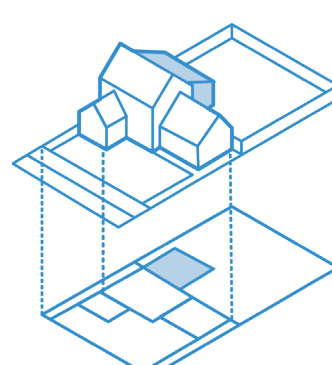


Figure 57: An example of a rear extension.

A photograph of a narrow, gravel-covered path winding through a forest. The path is covered with fallen brown and yellow leaves. The trees on either side are mostly bare, with some green ivy visible on the trunks. A large, semi-transparent teal circle is centered over the path. Inside this circle, the word "DELIVERY" is written in a small, white, sans-serif font, and the number "05" is written in a large, white, serif font.

DELIVERY

05

5. DELIVERY

This document has set out design guidance and codes to be embedded in or appended to the Charvil Neighbourhood Plan.

The table below provides a list of actors and how they will use the document.

Actors	How they will use the design guidelines
Applicants, developers, and landowners	As a guide to community and Local Planning Authority expectations on design, allowing a degree of certainty – they will be expected to follow the Guidelines as planning consent is sought.
Local planning authority	As a reference point, embedded in policy, against which to assess planning applications. The Design Guidance and Codes should be discussed with applicants during any pre-application discussions.
Parish council	As a guide when commenting on planning applications, ensuring that the Design Guidance and Codes are complied with.
Community organisations	As a tool to promote community-backed development and to inform comments on planning applications.
Statutory consultees	As a reference point when commenting on planning applications.

About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle — from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivalled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a *Fortune 500* firm and its Professional Services business had revenue of \$13.2 billion in fiscal year 2020. See how we are delivering sustainable legacies for generations to come at aecom.com and [@AECOM](https://twitter.com/AECOM).

