

Cam Parish Neighbourhood Development Plan 2019 - 2031

Regulation 15 Submission Version

Appendix 3 - Cam Design Code

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Cam Parish Council



Cam Design Code

*A guide to reinforcing the locally
distinctive sense of place in this rural
landscape and wooded Parish in
Stroud District*

October 2019

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Case Studies and Potential Projects

Appendix and References

The Cam Code has been researched and produced by Place Studio, consultants to the Cam Parish Neighbourhood Plan.

Funding for the Code was provided through the Locality administered grant funding programme for Neighbourhood Planning

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place



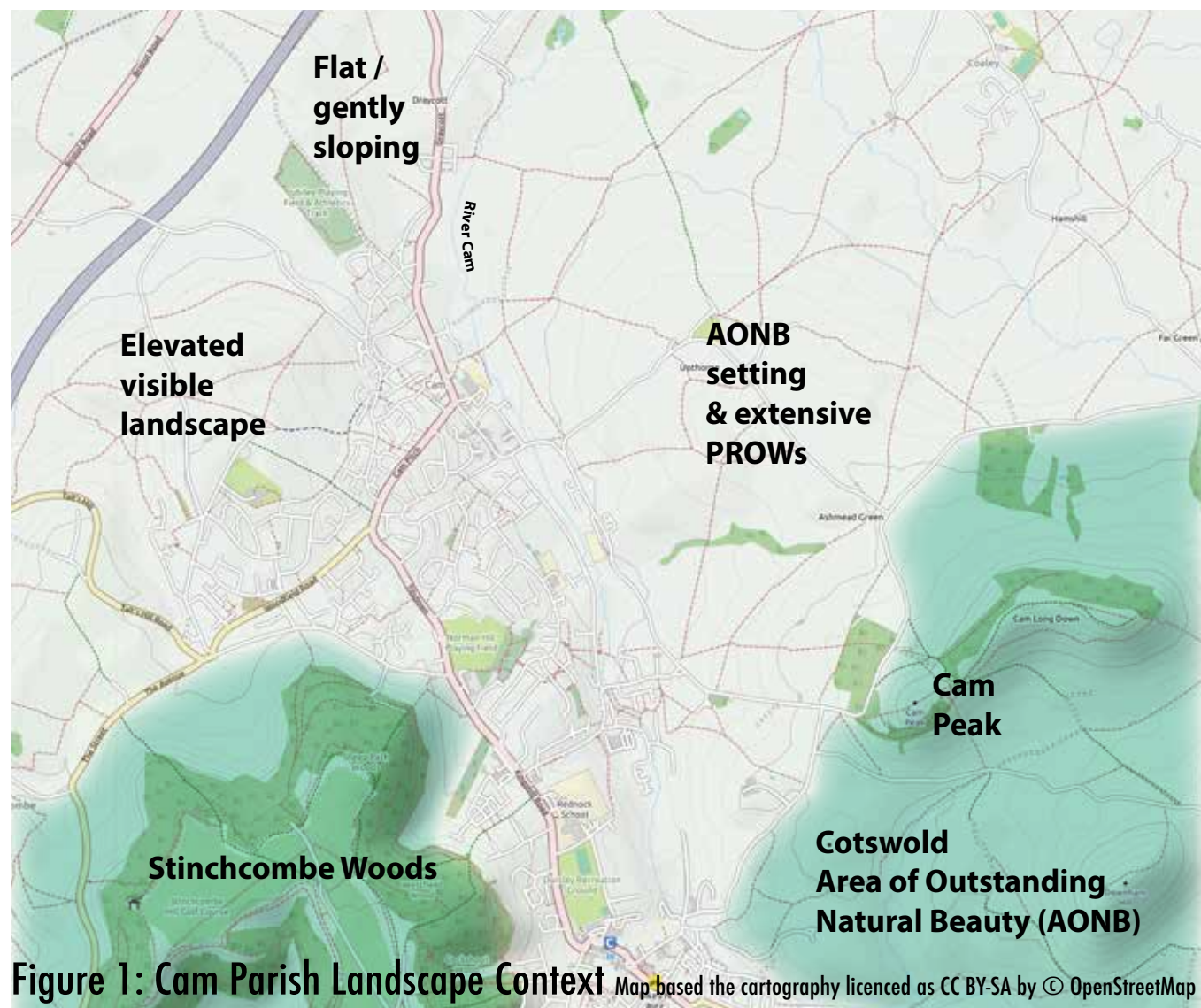
Part 1 Introduction to the Cam Design Code

1.1 Cam has a distinct and embedded relationship with landscape that is at the foundation of its character. Cam Parish Neighbourhood Plan aims to ensure this quality is protected, strengthened and infused into any change and conservation of the village or through any development allocation made by Stroud District Council.

1.2 The Cam Community Design Statement (2018) provides a comprehensive evidence base that has recorded the unifying characteristics of the village and the particular characteristics within each identified character area.

1.3 As Cam continues to be considered a strategic housing location, outside of the scope of its Neighbourhood Plan, Cam Parish Council wish to ensure the community's stated understanding of its distinct character is given great weight in all stages of the allocation and design of development.

1.4 This Code is part of the Cam Neighbourhood Development Plan and underpins policies on environment, local character and distinctiveness and access and movement.



1.1 Preparation of the Code and Evidence

1.1.1 This code was written by Place Studio whose team members include chartered members of the Landscape Institute and Royal Town Planning Institute.

1.1.2 Evidence supporting this code is provided by the accompanying Cam Community Design Statement (2018), which was prepared by the Neighbourhood Plan Working Group with support from Neighbourhood Plan consultants to ensure a robust approach to the methodology.

1.1.3 It also draws on workshops and consultation with the Cam Neighbourhood Plan Steering Group, local representatives and on feedback from the wider community.

1.1.4 Other material in the evidence base that underpins this Design Code include:

- Cam Parish Landscape Sensitivity Report 2018
- Cam Parish Green Infrastructure Report 2018
- Cam Parish Valued Views Report 2019

1.1.5 It has also been informed by national policy and standards, together with guidance documents and research.



Draycott Crescent

1.2 Why a Cam Design Code?

1.2.1 Cam has accommodated significant growth, with just over 75% of houses in the Parish built in the 20th Century. Cam is an important parish in the District of Stroud and is identified in the 2015 Local Plan as a strategic settlement. Due to its location and good range of facilities and services Cam is likely to see more new homes in the future. In addition to green-field development, sites within the built settlement are likely to change and be developed.

1.2.2 The Cam Community Design Statement (2018) demonstrates that development that is woven within Cam's distinctive rural setting and village landscape has extended and reinforced Cam's distinctive 'quality of place'. However, the Statement also identifies where and how development that has failed to do this has harmed and diluted local distinctiveness.

1.2.3 This Code builds on the Design Statement with detailed evidence and guidance to inform the delivery of any new development that may be proposed in Cam Parish. Together with the Design Statement, the Code should be used to inform a locally distinct and sensitive approach to development in Cam, especially where masterplans are required to be approved on sites allocated by Stroud District Council.



1.3 Introduction to Cam

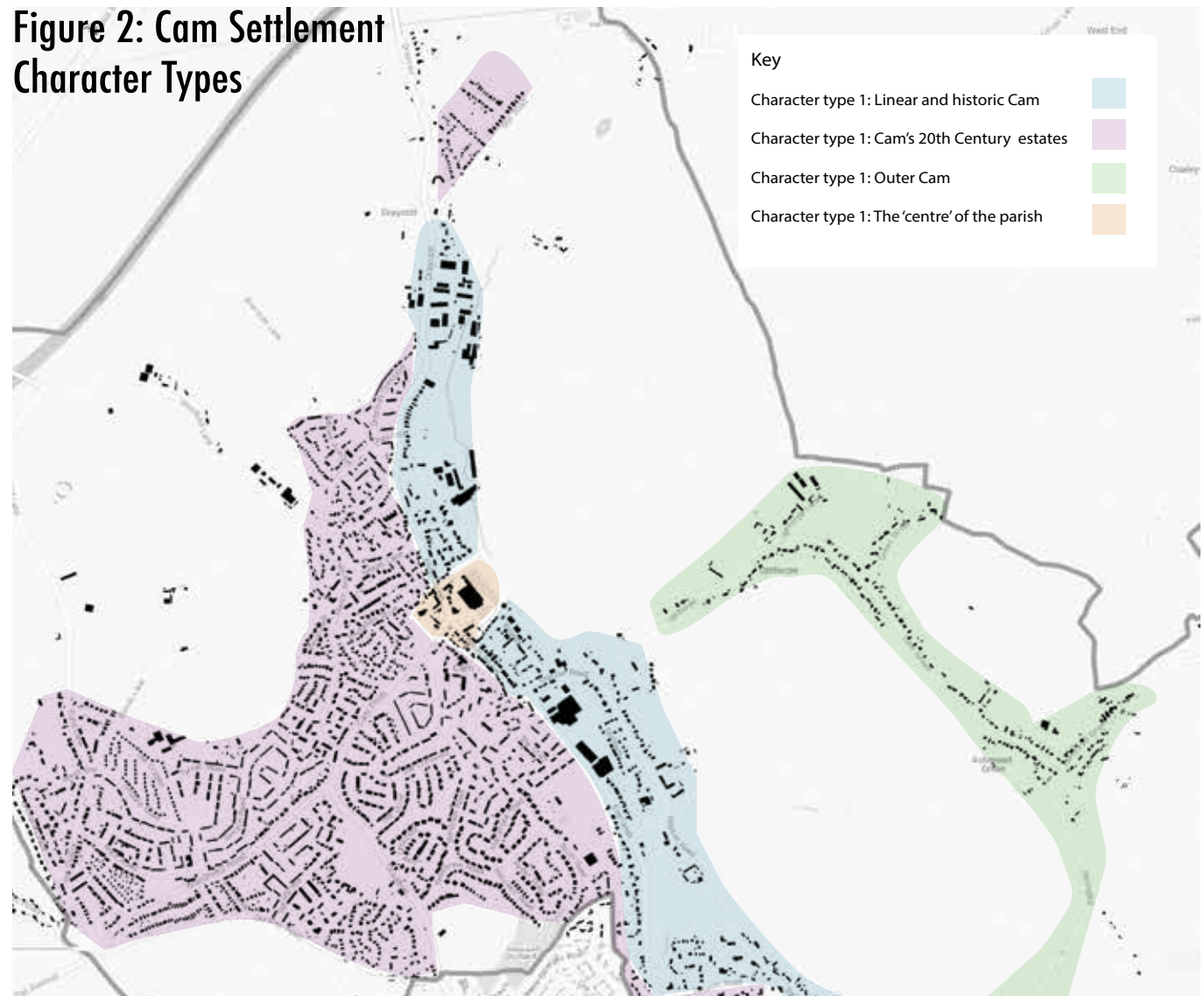
1.3.1 Cam is a large village and civil parish in Gloucestershire, situated in the setting of the Cotswold AONB, adjoining, but distinct from its neighbour, Dursley.

1.3.2 The Cam Community Design Statement identifies eight character areas, which fall into four broad village character types:

1. Linear and historic Cam, which follows the River Cam, and where many of the Parish's pre-1945 buildings are located, together with industrial buildings (some of which are historic mills). Cam's ancient core is a part of this area.
2. Cam's 20th Century residential estates primarily to the west and north
3. Outer Cam on the western edge of Cam with a distinct rural atmosphere
4. The 'centre' of the Parish

1.3.3 Whilst each character type has its own unifying characteristics reflecting Cam's development, a distinct and embedded relationship with the landscape setting, trees and green infrastructure is a common thread running through the village character.

Figure 2: Cam Settlement Character Types



Cam's Character Types



1.4 Code Focus: Landscape and Green Connections

1.4.1 The green infrastructure or the green networks in Cam are the threads that bind together the settlement and link into the landscape.

1.4.2 Cam's green network has a strong presence of trees throughout the routes and neighbourhoods of the Parish. Green threads criss-cross the Parish with the many 'snickets' and public footpaths that link people, places and habitats. There are also many different green spaces including private gardens, allotments, playspaces and parks.

1.4.3 The green network helps to define the landscape structure within the built area and creates links with the surrounding countryside, enabling walking and cycling and enhancing connectivity not only for people but also for wildlife and between different habitats.

1.4.4 Cam's green infrastructure includes woodland, green spaces and watercourses. These provide valuable functions and services such as shelter, access and travel, urban cooling, flood attenuation, pollution mitigation and food production – both in isolation and as parts of wider ecosystems.



1.5 How to use this Code

1.5.1 This code should be used alongside wider Stroud Local Plan and Cam Neighbourhood Plan (NP) policy.

1.5.2 It provides direction and guidance on approach to development, from major greenfield development to small scale infill. It should also be used to inform the stewardship of Cam's streets and public spaces, from major works in Cam's public spaces, streets and 'snickets' to smaller scale spaces in neighbourhoods.

1.5.3 It is a reference document of design approaches drawing on examples from across Cam's neighbourhoods, streets and spaces. It should be used to assist in adopting the most appropriate site specific approach to new development in the Parish.

1.5.4 Cam Parish Council will expect development proposals to demonstrate how they have integrated the approaches to delivering landscape and green infrastructure as set out in this code.

1.5.5 It is recognised that requirements of the Code relating to gateways, junctions, roadside verges etc will also be subject to and have to comply with Gloucestershire County Council Design Requirements.



A mighty veteran oak tree on the green by the side of Hopton Road (number 10 on Figure 2 - Trees in Cam)

Part 2 Cam Design Codes

2.1 Part 2 of this code is a manual of landscape and design approaches.

2.2 The Stroud Local Plan has established district wide standards for the provision of green and amenity space for new development. This sets the benchmark for achieving the acceptable amount of green provision for Cam.

2.3 In meeting Stroud Local Plan open space requirements, development proposals should draw on code guidance (together with other evidence base documents relevant to Cam such as the Stroud District Landscape Character Assessment) to provide a landscape character that reinforces this local distinctiveness.

2.4 For ease of reference, design coding is broken into distinct sections:

- Green Connections
- Sylvan Character
- Housing in the Landscape



Housing viewed from Uphorpe (Outer Cam) nestled in the landscape

Green Connections

A snicket is a narrow pathway or alley leading from one place to another from the old English word 'snican', to creep.

2.2 Cam's Snicket Network

2.2.1 Cam is a particularly walkable village with a distinct and popular network of pedestrian 'snickets', or non-vehicular greenways, that have been mapped and numbered. These provide comprehensive pedestrian and wildlife connections throughout its neighbourhoods. There are around 90 snickets throughout the neighbourhoods of Cam many of them are numbered on Figure 3.

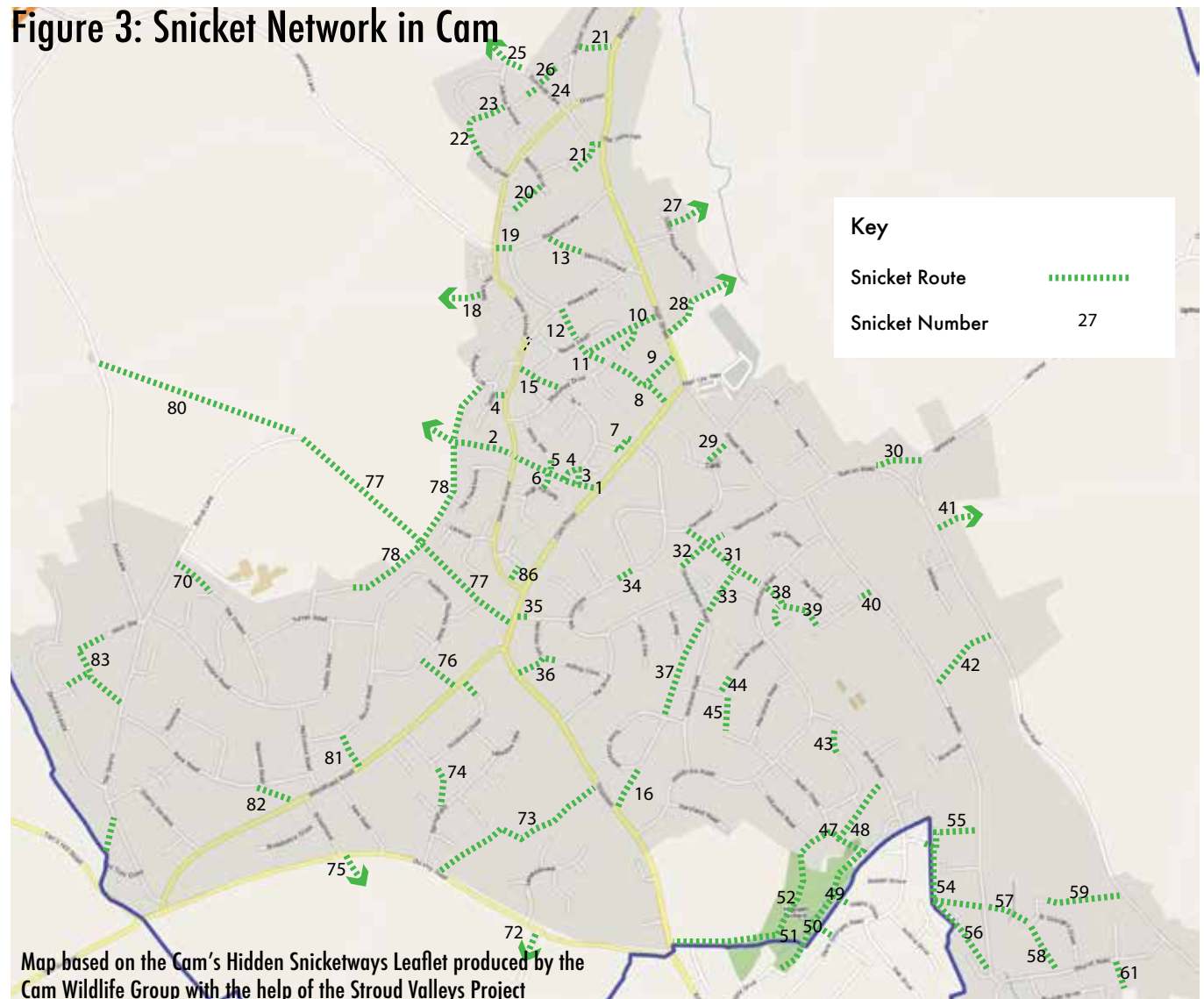
2.2.2 For 500 years a network of paths have been used to walk through the Parish to Cam's mills and churches. As the built settlement has grown, the paths have been retained and integrated connecting between neighbourhoods and out to the wider landscape.

2.2.3 Whilst they provide an additional layer of access, their quality of surface, lighting, safety and accessibility varies. However, more recent development in the south of the Parish (Littlecombe) has delivered exemplary safe, accessible pedestrian and cycle routes that are integrated with and connect the neighbourhood landscape to the benefit of quality of place and biodiversity.

Linked Neighbourhood Plan Objectives:

- 01 Green Infrastructure
- 04 Locally Distinctive Design
- 05 Trees and Hedgerows
- 08 Connections for Pedestrians and Cyclists

Figure 3: Snicket Network in Cam



Green Connections

2.2.4 As set out above there is wide variety in the character of Cam's snickets; wide, narrow, dark, well lit, old and new. Newer snickets in Littlecombe to the south of the Parish are dual use with bikes as part of the Cam, Dursley and Uley Greenway. All are important and have a valuable role to play in the character and connectivity of the settlement.

Images of snickets in Cam:

1. Snicket 33 - Winterbotham Lane. Narrow and rural in character
2. Snicket 17 - Manor Avenue to Knapp Lane. One of a number that provide connections on to Manor Avenue from cul-de-sacs
3. Snicket 31 - Fairmead to Woodview Road. A connecting route between neighbourhoods
4. Snicket 62 - Kingshill Lane. A wide snicket with an unsealed surface and grassed edges and trees, connecting new development into the historic core of Upper Cam.
5. Snicket 12 - Knapp Lane. Signposted as a public footpath to Upper Cam Church (St Georges)
6. Snicket 1 - Cam Pitch to Manor Avenue. Part of a strategic and closely linked network of snickets that connect to Woodfield Junior School

"It takes 10 minutes in a car to drive from side of Cam to the centre. It takes the same time to walk if one is familiar with the snickets" (Cam's Hidden Snicket Ways Map)



Green Connections

Case Study: Snickets in New Development

Littlecombe development in the south of the Parish, which is within both Cam and Dursley, highlights the key role of Green Infrastructure and snickets. The Masterplan illustrates the extensive and well integrated snicket network which contribute to a successful development that links in to the surrounding communities and its wider Green Infrastructure (notably the River Cam and the Cam, Dursley & Uley Greenway) and landscape setting.

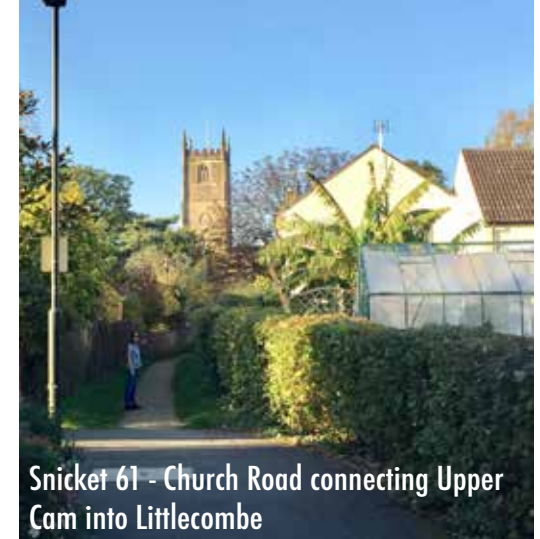
Below: extract from the St Modwen Masterplan (2016) for Littlecombe from the Cam end of the development



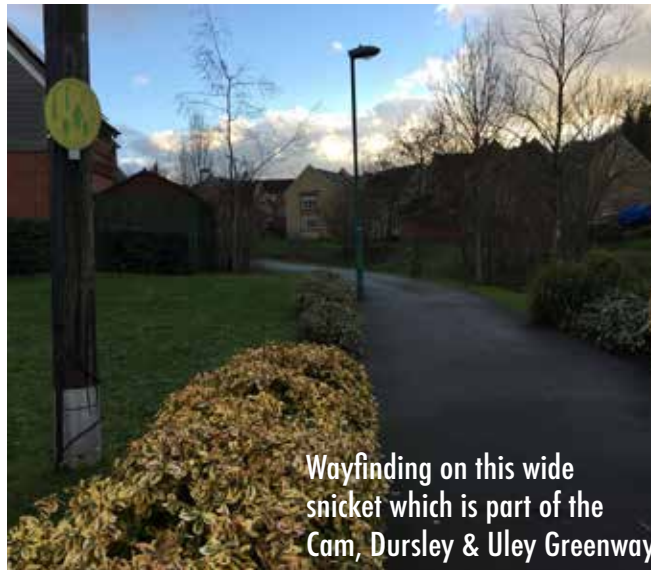
A wide snicket with active frontage and lighting



The edge of the snicket drops away to the River Cam, harnessing a local biodiversity asset



Snicket 61 - Church Road connecting Upper Cam into Littlecombe



Wayfinding on this wide snicket which is part of the Cam, Dursley & Uley Greenway



Active frontage and lighting as a snicket passes between dwellings

Green Connections

Cam Code 1: Snicket Design Guidance

In Cam new development should provide extensions to the existing distinct network of segregated footpaths pedestrian and cycle routes, known as snickets.

Snickets in Cam will be expected to be:

1 - Connected and Convenient

- A continuous and coherent network and hierarchy of routes should be integrated, ensuring a permeable environment with ease of access to all neighbouring areas;
- The network should be comprehensive, offering a choice of routes to greenspaces, local facilities and public transport (such as snickets 77 & 78 - School Close to beginning of Elstub Lane which is a key part of a car free route for many to Cam Woodfield Schools);
- The network should utilise existing linear features where possible for example along boundaries or movement corridors creating opportunities for wildlife threads;
- Provide for safe crossings where intersecting with roads (such as snickets 1 & 2 which connect across Manor Avenue).

2 - Comfortable

- The width of the snicket should be sufficient to provide habitats, wildlife routeways and surfaces for people. Where feasible, the surface for people should be between 1.5 - 2 metres or 3 metres if dual use with a bike;
- A machine laid sealed surface (an impermeable layer, or layers, primarily of bitumen-based tarmac or asphalt material) should be the first choice for surface material. The cycling charity Sustrans point to this type of surface as being the best option for pedestrian and mobility impaired users, as well as cyclists, which tends to generate greater levels of use by all groups;
- Sustainable Drainage Systems (SuDS) should be applied with verges finished lower than the path edge to allow for any surface water run off.

3 - Attractive and Multi-functional

- Edges or verges should be planted to both create a safe, attractive and biodiverse thread. Where width permits it, the directly adjacent areas should be mown to maintain a clear visual route and usable width, and the remainder of the verge should be utilised to provide a variety of habitats appropriate to the location;
- Trees should be integrated along snicket routes, and at

gateways to the routes where possible;

- The approaches to snicket design should reflect different hierarchy of use and characteristics;
 - Where appropriate, seating, sculptures or play areas should be incorporated along a snicket way;
- ### 4 - Conspicuous and Safe
- The areas immediately adjacent to the path should be free from tall grasses and vegetation that can impact upon visibility. Taller vegetation and hedge lines should be set back by at least 1 metre, and always allow room for growth;
 - Snickets should be sensitively lit (balancing safety and the need to consider light pollution in the rural environment) and where possible overlooked.

Green Connections

2.3 Roadside Verges

2.3.1 Grass verges and rural grass and hedge banks are common roadside features within Old Cam and 20th Century neighbourhoods. These are often integrated with single landmark trees or informally spaced tree groups and rows.

2.3.2 Verges provide a valuable sustainable drainage tool which should be harnessed within the development drainage proposals.

2.3.3 In some unprotected locations verges have been damaged by or removed for car parking. To minimise the risk of such damage, new housing will be expected to provide on-site parking (in conformity with Stroud District Local Plan minimum standards).

Linked Neighbourhood Plan Objectives:

- 01 Green Infrastructure
- 04 Locally Distinctive Design
- 05 Trees and Hedgerows



Wide verges with large mature trees contribute to the setting for a neighbourhood centre



Informal rural raised verge without formal kerb at entrance with landmark tree creating informal setting for roadside path



Continuous verges connecting to focal green space and tree and frontage landscape in Woodfield



Grass verges combined with a comprehensive approach to open frontages and sweeping views create visual connections with Cam Peak landmark in Tilsdown

Green Connections

Cam Code 2: Roadside Verges

Development proposals that create an extension to the highway network will be expected to include this character into principal routes within the site plan and integrate them with the tree planting strategy.

Verges should be wide to enable tree growth specific to the tree planting in that location without impinging on highway and footway access. (See also 'Building Form' below).

Verges should be protected from vehicles by kerb edges, low bollards or profiling.

Pedestrian footways should be located to the back edge of the verge adjacent to property boundaries and entrances.

Street furniture including seating, litter bins, street lighting and street name plates should be located within the verge.

Bus shelters may also be located within a verge with flush surface access connecting to the footway. Note - a number of more traditionally designed and locally distinctive bus shelters can be found in the Parish, as well as recently installed plastic / metal. Bus shelters of locally distinctive design will be supported.



Verge in Bowers Lea contributing to the character of this small area with road alignment and grouping of trees

Sylvan Character

2.4 Cam's Trees

2.4.1 Trees are important in Cam, making a primary contribution to the sense of place and distinctiveness of the Parish. It is estimated that tree canopy coverage in the 20th century areas of Cam is estimated to be around 26.5% (estimated using i-Tree - see appendix for more information). The numerous trees in Cam include ancient woodlands as well as veteran trees which are irreplaceable. Their cultural and historical value for the community in Cam is as high as for the built heritage. The Parish Council recognises the importance of trees in the Parish and commits to increasing the tree coverage of Cam where possible in the coming years.

2.4.2 Trees provide an important backdrop to the village, but they are also notable in the role they play in placemaking in Cam's built settlement, marking gateways, landmarks and defining key spaces and routes.

Linked Neighbourhood Plan Objectives:

- 01 Green Infrastructure
- 04 Locally Distinctive Design
- 05 Trees and Hedgerows

The Importance of Trees

- Trees naturally absorb CO₂, a key greenhouse gas removing 4 million tonnes of it from the atmosphere every year
- Greenspace with good levels of tree cover is proven to be much less costly to maintain than grassed areas
- The presence of trees often encourages people to exercise, thereby reducing the incidence of heart attacks and Type 2 Diabetes.
- Symptoms of anxiety, depression and insomnia alleviated with the presence of trees
- Family and community environments are much more harmonious and closely knit where the setting includes trees
- Local air quality is improved as trees cut the level of airborne particulates¹⁰ and absorb nitrogen dioxide, sulphur dioxide and ozone
- Trees can link pockets of wildlife that, in time, helps to increase it and also bring people closer to nature.
- Trees and greenspaces can increase property value of 15 – 18%. The larger the trees are then the greater their proportional value.

(Source: The Case for Trees . Forestry Commission 2010)

Sylvan Character

2.4.3 Whilst there is an ambient 'sylvan' or wooded quality across the village, the location, stature and species of landmark trees or groups is also a defining factor within the village character.

2.4.4 Trees in the surrounding landscape and within the village, perform a range of functions which this code has defined. Key trees have also been mapped and recorded (see Figure 4) which should be referenced when considering works that may affect a mature tree.

Trees in Cam:

- provide a 'backcloth' to Cam with wooded hills;
- connect the built settlement with the rural landscape;
- define gateways, to the Parish and into neighbourhoods;
- are important landmarks;
- can be neighbourhood focal points
- define distinct areas, such as Cam Pitch
- are located at key points along some of Cam's snickets, together with hedgerows;
- even in private gardens contribute to the public realm;
- contribute to Cam's green infrastructure, air quality, water management and wildlife value;
- provide seasonal interest;
- include ancient irreplaceable trees, living links with the past, and
- celebrate special historical events (Jubilee Tree on the A4135).

Figure 4: Key Trees in Cam (Note: numbered trees relate to images in this document)

Key

Ancient / Veteran Trees



TPO Tree(s)



Ancient Woodland



Parish Gateway Tree



Neighbourhood Gateway Tree



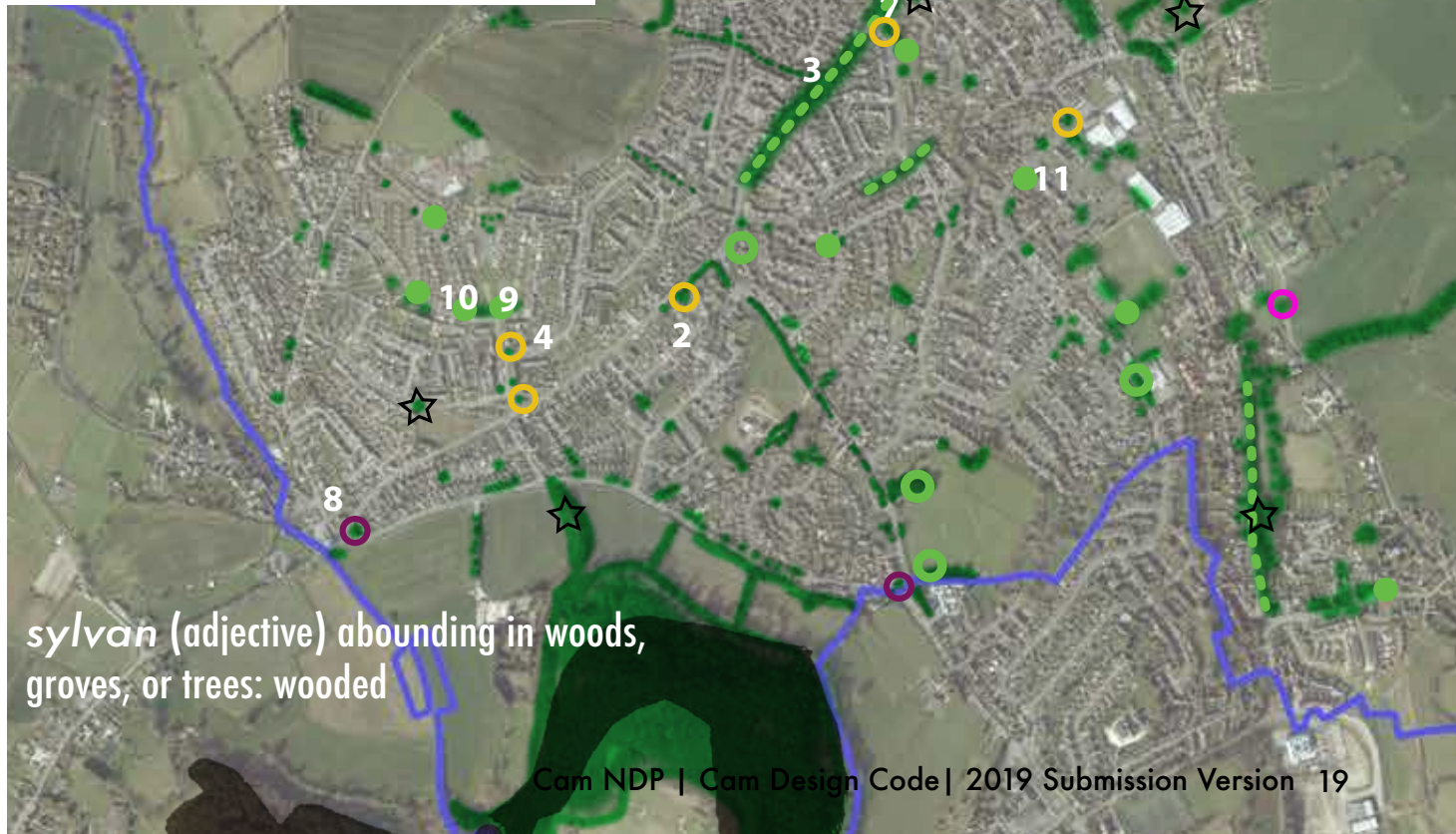
Neighbourhood Focal Tree(s)



Landmark Tree



Significant Groups of Trees



sylvan (adjective) abounding in woods, groves, or trees: wooded

Sylvan Character

"Trees are a key feature throughout the settlement providing important landmarks and contributing to sense of place."
Quote from Code Preparation Workshop



2.4.5 Trees can have various levels of status and protection to include: Tree Protection Orders (TPO), Veteran Trees, trees that form part of the setting of a Listed Building as well as trees in Conservation Areas. Stroud District Council can provide advice on a particular area or tree (TPO map included in appendix).

Images of trees in Cam:

1. A Sweet Chestnut (*Castanea sativa*) planted in celebration of the Queen's Silver Jubilee in 1977 by a bus stop and bench on A4135
2. A group of three Horse Chestnut (*Aesculus hippocastanum*) Trees marking a pedestrian entrance (or snicket) from Woodfield Road into Tilsdown
3. Cam Pitch - a distinct grouping of trees which line and enclose the A4135 on the approach to the centre
4. Robinia 'pseudoacacia' (False acacia) marking a neighbourhood gateway into Severn Road
5. Wellingtonia (*Sequoiadendron giganteum*) in private garden in Courthouse Gardens - TPO No 332
6. Cherry Tree (*Prunus* spp) on a neighbourhood green on Draycott Crescent



Sylvan Character

Cam's Hedgerows

Hedgerows, like trees, can make an important contribution to the character of an area can also be important historically as indications of land use and previous ownership. They also contribute significantly to biodiversity and amenity value of the natural and in places, built environment.

Together with the planning system, hedgerows are offered some protection under The Hedgerow Regulations 1997. The Regulations offer some protection for hedgerows of more than 20 metres in length or which join other hedgerows provided they adjoin agricultural land, forestry, paddocks, common land, village greens, a site of special scientific interest or a local nature reserve.

Hedgerows in the countryside, and their conservation, is a different subject from the management and regulation of hedges around houses, and between neighbours. For this reason, the Hedgerows Regulations 1997 specifically exclude any hedgerow which is within, or borders, a domestic garden.

To qualify for the regulations a hedgerow must be at least 20m in length or connected at both ends to another hedgerow of any length. Any stretch within such a

hedgerow also counts. Gaps of up to 20m are counted as a part of the hedgerow.

A hedgerow is defined as 'important' if it has existed for 30 years or more and it meets one of the criteria set out in the Regulations, which include:

- It marks a boundary between parishes existing before 1850;
- It marks an archaeological feature of a site that is a scheduled monument or noted on the Historic Environment Record;
- It marks the boundary of a pre-1600 estate or manor or a field system pre-dating the Enclosure Acts.

There are a number of exemptions to the Regulations.

No prior notification is necessary for hedgerows removed in the course of development for which planning permission is granted under Parts 11 (development under local or private Acts or orders) and 30 (toll road facilities) of Schedule 2 to the Town and Country Planning General Permitted Development Order.

If removal of a hedge is proposed as part of a planning

Hedge 'A fence or boundary formed by closely growing bushes or shrubs' (source: oxforddictionaries.com)

application then its impact on the bio-diversity, heritage significance and character of the area may be taken into account in accordance with planning policies in the National Planning Policy Framework and the Local Development Plan.

Sylvan Character

Cam Code 3a: Conserving Existing Trees and Hedgerows

Where a proposed development could affect existing trees and hedgerows, appropriate surveys will be submitted with any planning application as set out in District policy.

The amenity value of trees is important in Cam, as part of tree surveys regard should also given to three criteria:

1. **Visibility:** The extent to which the trees or woodlands can be seen from a public viewpoint (e.g. a footpath or road);
2. **Size and Form:** Taking into account factors such as the rarity of trees, and their potential growth; and,
3. **Wider Impact:** The significance of the trees in their local surroundings.

Of critical importance is that all existing trees that are to be retained are shown accurately on all drawings throughout the design and implementation process, and are protected during development works in line with BS5837 guidance.

They are a very important constraint to all parts of any development scheme and everyone involved in the scheme should ensure that their part of the process takes proper account of them and the zone required to protect them.

Where there is an unavoidable loss of trees on site, replacement trees should be planted. Consideration should be given to the quality of the trees proposed as replacements in order to assess the appropriate number of replacement trees required in relation to the quality of those being lost.

Cam Parish Council is aiming to increase tree coverage in the Parish going forward, so proposals for replacement trees either in number or quality in relation to a tree lost, will be welcomed.

In Cam, hedgerows also make important contributions to the character of the Parish, in particular to the edge treatment between the built settlement and the landscape of the Parish. Whilst it is acknowledged that through strategic allocation of development, hedgerows will be lost, it may be possible to retain some as part of the layout of new development. If the rear of properties border the open landscape, a sensitive rural edge is important to establish where possible. The western edge of Cam sets a good precedent with a positive, clear and strong edge to the countryside with a retained field hedgerow boundary that is separate to the edge of the gardens (see page 31) and therefore protected under the Hedgerow Regulations.



"Trees are a link to our past and critical to our future"
Clive Anderson, President of the Woodland Trust

Sylvan Character

Cam Code 3b: Trees, Gateways and Junctions

Where feasible, gateways into Cam and into Cam's neighbourhoods should be defined by grassed junction islands or verges with a rural character that contains a landmark tree or tree group.

As important junction points, these spaces should incorporate other highway, public transport and community furniture including:

- Street name signs (mounted on frame)
- Bench (with view)
- Potential bus stop and shelter
- Wayfinding



Lime tree (*Tillia* spp) at Junction into Summerhayes area from Cam Pitch (7)



Copper Beech (*Fagus sylvatica purpurea*) at the Parish Gateway on Dursley Road (8)

Sylvan Character

Cam Code 3c: Neighbourhood Placemaking and Landmark Trees

Particularly within Cam's 20th Century residential neighbourhoods, landmark public realm trees, integrated with a network of small green spaces and verges is a primary placemaking characteristic.

Existing and retained trees should be incorporated into master plans as focal elements within the public realm.

Larger individual trees could be included at key points within the scheme where a landmark or primary landscape feature is required. Trees can be planted at a range of sizes and sometimes using a very large tree can provide 'instant maturity'.



Cherry trees (*Prunus* spp) line the edge of Hadley Road Green Space



Lime tree (*Tilia* spp) on the corner of The Crapen and Tyndale Road (10)

Sylvan Character

Cam Code 3d: Tree Groups and Clusters

Particularly within Cam's 20th Century neighbourhoods, informal clusters or rows of trees establish the setting for building groups or help to frame long distance views towards the landscape backdrop.

Trees within verges and groups should be planted in grass and be located at a sufficient distance from buildings to allow trees to reach maturity without impact to residential amenity or structures.

Trees may be located to optimise shading and form the setting for other street furniture.



Trees planted in verges in Littlecombe



Woodview Road (11) verge, trees and bus shelter



Woodview Road (11) verge and trees with Birch Tree marking entrance to snicket 38

Sylvan Character

Cam Code 3e: Trees in Private Land and Gardens

Front and rear gardens and privately maintained rural edge landscape make a significant contribution to reinforcing Cam's distinct rural and green character and the subtlety of its setting in the surrounding landscape. Gardens also contribute to Cam's green infrastructure and habitat network.

Developers should:

- Establish communal frontage tree and shrub landscape schemes, including coordinated frontage landscape schemes within residential frontages;
- Where feasible, provide sufficient space for future occupants to plant appropriate species of trees within rear plots. This is of particular value at the ends of exposed terraces and in boundaries between plots (see also building siting coding);
- Make sure there is adequate space for the eventual size of the tree;
- Refer to this document, and other guidance material to select appropriate species.



Sylvan Character

Cam Code 3f: Tree Replacement, Planting & Maintenance

Tree Replacement

In the preparing this document and the Neighbourhood Plan, the importance of trees in Cam has become clear and the Parish Council are committing to increasing tree cover in the Parish in the future. As part of this, tree loss and replacement as part of development have been researched to find good precedents that can be use to inform how to approach this issue in Cam.

Bristol City Council have developed a bespoke system of compensation for the loss of trees from development sites,

where the number of trees required to compensate for loss of existing trees depends upon the size of its trunk diameter. This replacement standard can be used to inform how trees lost in Cam should be replaced. The aim of this standard is to plant suitable numbers of replacement trees in relation to trees lost. The Bristol Tree Replacement Standard is set out in the table below.

Replacement planting should normally be within the development site, but could also be planted at a suitable location off site if that is not feasible.

It is recognised the trees may be felled in preparation for development, some time in advance to a planning application. Where there is evidence of prior felling, this could be applied retrospectively to include all trees

felled within the year before the planning application. In this way any trees felled before the development could be taken into account when considering appropriate replacement.

Whilst the number of tree replacements contributes to Parish's aim of increasing tree cover, the quality of proposed replacements should also inform the decision on numbers of replacement trees. Therefore, consideration should also be given to the quality of the trees proposed as replacements in order to assess the appropriate number of replacement trees required in relation to the quality of those being lost.

Tree Species

There are a number of important documents that should be used when designing a tree planting scheme. The Government have recently published their latest guidance on trees in the urban environment entitled the 'Urban Tree Manual'.

<https://www.forestresearch.gov.uk/tools-and-resources/urban-tree-manual/>

This provides advice on selecting and procuring the right tree for the right place in urban areas. The manual also highlights long term issues of the threats to existing trees from pests, disease and climate change, and describes the

Trunk Diameter of Tree lost to development (cm measured at 1.5 metres above ground level)	Number of Replacement Trees
Less than 15	0 - 1
15 - 19.9	1
20 - 29.9	2
30 - 39.9	3
40 - 49.9	4
50 - 59.9	5
60 - 69.9	6
70 - 79.9	7
80 +	8

Cam Code 3f: Tree Replacement, Planting & Maintenance *continued*

benefits to the environment and for well-being that urban trees can provide.

Selecting the right tree for a particular place can avoid costly disappointments later. It is important to understand the particular function a tree is expected to provide and then look for a species that matches those criteria. There are many sources of guidance but in the UK, 'right tree, right place' is perhaps the most appropriate.
<http://www.righttrees4cc.org.uk/default.aspx>

Below are a list of plants provided to illustrate an example of some species that may be appropriate in different situations:

Neighbourhood street trees could include:

- Small Leafed Lime (*Tilia cordata*)
- Bird Cherry (*Prunus padus*)
- Field Maple (*Acer campestre*)
- Silver Birch (*Betula pendula*)
-

Gateway or landmark trees could include:

- English Oak (*Quercus robur*)
- Purple Beech (*Fagus sylvatica purpurea*)

- Robinia 'pseudoacacia' (False acacia)
- Sweet Chestnut (*Castanea sativa*)

Planting and Maintenance

It is critically important that a new tree is planted properly and cared for, especially in the first 2-3 years whilst it is establishing itself in its new home. Ground preparation and the use of good quality soil and other ameliorants is key. Consider the use of an irrigation system if the tree is to be planted in a paved area.

The most recent guidance is found in BS 8545 Trees: From nursery to independence in the landscape.

The Arboricultural Association is based locally at - The Malthouse, Stroud Green, Standish, Stonehouse, Gloucestershire GL10 3DL. They are the national authority on all matters concerning trees.

<https://www.trees.org.uk/>



Sketch looking north along Manor Avenue

Housing in the Landscape

2.5 Layout and Housing Form

2.5.1 The Cam Community Design Statement illustrates that there are varied building forms within Cam's three main residential character quarters. But it has also identified the ambient and unifying relationship of building form and siting with landscape which should inform the layout of new development.

2.5.2 Within the historic quarter of Cam, more tightly packed, informal terraces, continuous boundary walls and hedges and glimpsed views to backdrop trees play a primary role in defining the sense of place.

2.5.3 Within the 20th Century Cam, each neighbourhood or estate presents a distinct building design and material character. However neighbourhoods where building layout and form harness Cam's distinct approach to landscape planning succeed in creating distinct character areas which are recognisable as being part of Cam.

Linked Neighbourhood Plan Objectives:

- 01 Green Infrastructure
- 02 Protection of AONB Setting
- 03 Views
- 04 Locally Distinctive Design
- 08 Connections for Pedestrians and Cyclists



Embedded landscape and tree cover combine with informal layout and recessive roof forms to weave Cam's housing into the rural setting

Housing in the Landscape

Cam Code 4a: Housing Layout and Siting

Development proposals will be expected to adopt a landscape led approach that demonstrates how the particular site context and existing green infrastructure shapes and informs the layout, and how approaches to landscape and building form directed by this code have been adopted.

Beginning with a Landscape appraisal (to the Landscape Institute GLVIA3 guidelines) to identify opportunities and constraints of a site, development proposals should seek to harness the multifunctional potential of existing and new green infrastructure drawing from sites features such as topography. The integration of sustainable drainage features to manage water flow for example will be informed by site topography and should provide opportunities for multifunctional green infrastructure benefitting both people and wildlife.

Stroud District Council Supplementary Guidance should be referenced in relation to detailed building design.

Proposals for infill development within Cam's existing settlement should reference the Cam Community Design Statement to inform the most appropriate response to form and materials.



Housing in the Landscape

Cam Code 4b: Creating Visual Connections to Cam's Landscape Setting

Views out to Cam's distinct landscape context are anchoring characteristics of many of Cam's neighbourhoods.

Site access and routes and housing siting and form should be designed within a landscape led approach that harnesses location and topography to create panoramic, framed and glimpsed public views towards the open country.

Below: Well considered combination of sweeping layout, recessive roof-line and frontages set back behind an open and coordinated gardens, maximise the value of this panoramic view in creating a highly distinctive quality of place



Glimpsed views between houses on Manor Avenue



Housing and landscape structure framing rural views to create a neighbourhood that's distinctly part of Cam

Housing in the Landscape

Cam Code 4c: Creating Cam's Rural Character within Neighbourhoods

In addition to district design guidance, the Cam Community Design Statement has highlighted the ambient rural character within the village's historic and 20th Century character areas. Housing layouts will therefore be expected to be embedded within an internal landscape plan that strengthen this distinctive quality of place.

Key Housing Form Characteristics:

- Housing groups relate to public frontage public green spaces, landmark trees or tree clusters (see Sylvan Character);
- Facades on varied building lines;
- Occasional gable end housing set to back edge of highway or verge;
- Housing set within a landscape garden plot;
- Reasonable separation (suggested space is 3 metre) between housing groups;
- Separation at first floor level where single storey garages set back from the host house building line, connect houses.



Housing in the Landscape

Cam Code 4d: Creating a Strong and Sensitive Edge to the Parish Landscape

Where green-field development creates a new edge to Cam, the interface between the built edge and surrounding countryside should be consistent in application and provide amenity and bio-diversity value.

Where possible, existing hedgerows should be retained and if necessary enhanced, or new hedgerows planted. This should be either:

- to the front of dwellings as an integral part of the new public realm;
- to define green spaces;
- to the rear of individual building plots where they form an edge between the built area and landscape a hedgerow should be retained or planted to the rear of the plot edge and separated by a buffer and maintenance strip of 2m minimum width.

Hedgerow and buffers should be maintained as part of the development's communal green space.



The western built edge of Cam when viewed from the Public Right Of Way snicket 77 near Elstub Lane

Housing in the Landscape

Cam Code 4e: Building Height Cam Code 5f: Roof Form

The use of taller buildings as vistas is rare in Cam. Landscape features are key placemaking tools.

Ambient building height is between one and two storeys across the village. However, there are a small number of 2.5 and 3 storey buildings both historic and in Cam's 20th Century neighbourhoods.

The precedent set by the taller building heights in places in Cam present opportunities to exceed the ambient height where there is a clear layout and townscape case and no harm to amenity or village setting.

On sites where there is varied topography, the use of 2.5

storey and 3 storey homes on lower parts of the site may be appropriate.

Housing in Cam is predominantly of a traditional tile hung pitched roof form, although there is a variety of roof designs.

This form combines with embedded sylvan character to make the village a recessive feature within the landscape.

Shallow and recessive stepped rooflines, sweeping street line and coordinated hedge boundaries maximising placemaking quality of wooded hillside backdrop



3 storey block marking neighbourhood centre coordinated with focal landscape setting



Housing in the Landscape

Cam Code 4g: Boundaries and Frontage Treatment

Boundary treatment plays a vital role in delivering Cam's distinctive landscape led character. Boundary treatments vary within Cam's character areas, however these can be categorised in two broad typologies:

1 Old Cam and Pre-War Housing

Plot boundaries at the back edge of the pavement are defining the street edge by an informal combination of brick or stone walls with hedgerow and trees. Whilst building lines vary, larger front gardens often contain trees that contribute to a rural quality.

Historic Cam boundaries are defined by substantial brick or stone walls with 'cock and hen' coping to top the wall or railings and frontage landscape together with tree planting. Some recent developments in the older parts of Cam have boundary treatments which reinforce this local characteristic.



Brick walls together with railings form a boundary to substantial front gardens to these terraced houses



Low brick walls topped with railings



Low stone walls with cock and hen coping to the top



Low stone walls with flat top

Cam Code 4g: Boundaries and Frontage Treatment - continued

2 20th Century Residential Development

The most successful post war housing is almost always consistently designed to maximise the connection with landscape and feeling of green space. This includes low hedges and walls or open front garden plots accommodating coordinated tree and shrub planting and car parking. When integrated with internal green space, legacy tree planting and views towards Cam's landscape setting, the approach can positively contribute to connecting internal landscapes with panoramic views into the countryside.



20th Century Cam neighbourhoods often harnessing backdrop views with open frontages, semi-public landscape and recessive roof forms. NB streets without white lines and highway clutter

Case Studies and Potential Projects

During the workshops that were held to inform the drafting of this document, case studies and examples of practical projects were shared and discussed. It was agreed that some of the key characteristics that have been identified as a result of this work (and the Community Design Statement) are important not only in terms of new development, but also in terms of protection and stewardship by the local community.

The area is already served with a local volunteer group. The Cam, Dursley and Uley Joint Woodland Committee are a well established group of local councillors who have been working to protect, champion and maintain the tree resource in the three parishes.

Potential Projects

Potential projects that could come forward to support some of the objectives for conserving and enhancing the distinctiveness of Cam include:

1. Undertake a detailed tree survey mapping all trees in Cam. This could take the form of an interactive google map or use of the Woodland Trust British Trees App <https://www.woodlandtrust.org.uk/visiting-woods/trees-woods-and-wildlife/british-trees/identify-trees-with-our-tree-id-app/>

2. Identification of key trees (both in the public realm and private gardens) that may be worth a TPO in recognition of the contribution that tree makes to local character.

3. Set up a network of local tree volunteers. Tree Wardens are active volunteers who champion, conserve and enhance their communities' trees and woods. <https://www.treecouncil.org.uk/Take-Part/Tree-Wardens>

4. In line with the Parish Council's aim to increase tree coverage, identify spaces that could benefit from tree planting. Planting Grants are available through the tree council <https://www.treecouncil.org.uk/What-We-Do>

5. Undertake a more detailed Tree Canopy Coverage estimate for the Cam Wards East and West and add to the Forestry Research compilation of TCC data from across the UK (see also page 35 for information). <http://forestry.maps.arcgis.com/apps/webappviewer/index.html?id=d8c253ab17e1412586d9774d1a09fa07>

5. Raise awareness of the importance of boundaries and the different options that can make a positive contribution to the neighbourhoods of Cam.

6. Undertake a detailed audit of all Cam's snickets, considering elements such as signage, lighting, vegetation growth, surfacing etc.

7. Raise local awareness of the snicket network and the places that can be reached taking these quick car free routes.



Case Studies

Case Studies

Petersfield Tree Evidence Base

A number of tools are available for compiling detailed information on trees, including 'i-Tree Eco'. Application of the 'i-Tree Eco' tool in Petersfield town revealed that their trees provide environmental services valued at £75,000 each year. However, it also revealed that the population is dominated by several tree species which are very vulnerable to devastating pests and diseases. Decisions are now being made on which species to plant for a more diverse population, safe in the knowledge that the financial investment will yield an economic as well as a social return associated with high levels of pedestrian and vehicle traffic. (Case Study taken from The Urban Tree Manual <https://www.forestresearch.gov.uk/tools-and-resources/urban-tree-manual/>)

Lewes Arboretum Town

"When speaking of trees in the urban environment it is always in that order. It is the trees which are in the town. Use the same words in a different order and an entirely different perspective on the same thing is created. The

town in the trees has an entirely different feel to trees in the town" Treeconomics 2014

The Lewes Arboretum town is a community-led project at the roots of which is a clear recognition that trees provide many benefits to the town. The Tree Committee is the local group which is progressing the project. The committee consults with residents and landowners across Lewes to identify possible places to plant new trees or replace existing ones to restore or improve the overall streetscape and environment. It monitors, and responds to, all planning applications which include tree works.

<https://friends-of-lewes.org.uk/natural-environment/lewes-urban-arboretum/>

Trees of Bristol

Trees in Bristol have an organisation made of local volunteers that champion and promote the planting and preservation of trees in the city.

The Forum monitors planning applications, organises local 'tree champions' and planting of new trees.

The Trees of Bristol site provides an interactive guide to

Bristol's remarkable tree collections. It uses data gathered from multiple sources, including:

- Bristol City Council
- The National Trust
- The Woodland Trust

<http://www.bristoltrees.space/Tree/?>

Bristol City Council Core Strategy Policy

As part of its goal to increase tree canopy cover from 13 to 30%, Bristol City Core Strategy includes a policy on green infrastructure (Policy BCS9) which emphasised that:

- Individual green assets should be retained wherever possible and integrated into new developments.
- Loss of green infrastructure will only be acceptable where it is allowed for as part of an adopted Development Plan Document or is necessary, on balance, to achieve the policy aims of the Core Strategy.
- Appropriate mitigation for the lost green infrastructure assets will be required.

Appendix and references

Assessing Development Proposals for Delivering Local Distinctiveness

Key Prompt Questions of Applications

1. Validation of the Analysis

Has the analysis correctly recorded the site's setting and context?

- Key public views in, across and out from the site
- Neighbouring buildings and green infrastructure
- Key built and landscape character cues from the host character area

Has the analysis correctly recorded site and features?

- On site trees and vegetation
- Nature and biodiversity
- Manmade features

Has the proposal analysed existing and potential connections?

- Existing points of access
- Existing routes through the site
- Opportunities to connect to snickets

2. Assessing the Proposals

Protecting Cam's Setting and Views:

- Do proposals respect and retain valued local views?
- Do proposals protect or enhance views of the village from the countryside?
- Do they create positive new 'anchoring' views to the landscape?

Protecting and Integrating Existing Features:

- Do proposals sufficiently protect neighbouring amenity and boundary natural features?
- Is the setting of any historic features protected sufficiently?
- Have proposals retained and integrated valued on-site natural and manmade features appropriately?

Reinforcing Cam's Distinct Landscape and Green Infrastructure:

- Does the proposal demonstrate a positive response to the Cam Design Code through:
1. Public green spaces and verges: Amount and their relationship to housing layout

2. Tree planting: Amount, focal locations and species
3. Green Infrastructure Network Connections (hedges and snickets)

Plan Layout:

- Does the layout relate appropriately to existing topography?
- Are building plot sizes and building siting appropriate within the host area?
- Are front and rear garden sizes and gaps between buildings appropriate?

Access and Safety:

- Does the proposal provide good connections for pedestrians and cyclists?
- Are pedestrian routes attractive accessible and safe?
- Is car parking provided appropriately?

Building Design and Materials:

- Have proposal design and materials reflect the Cam Character Statement?
- Does the building scale, building and roof form, appearance and materials enhance the character of the host area?
- Do front gardens and boundary treatments reinforce local character?

Tree Canopy Cover Estimate Methodology

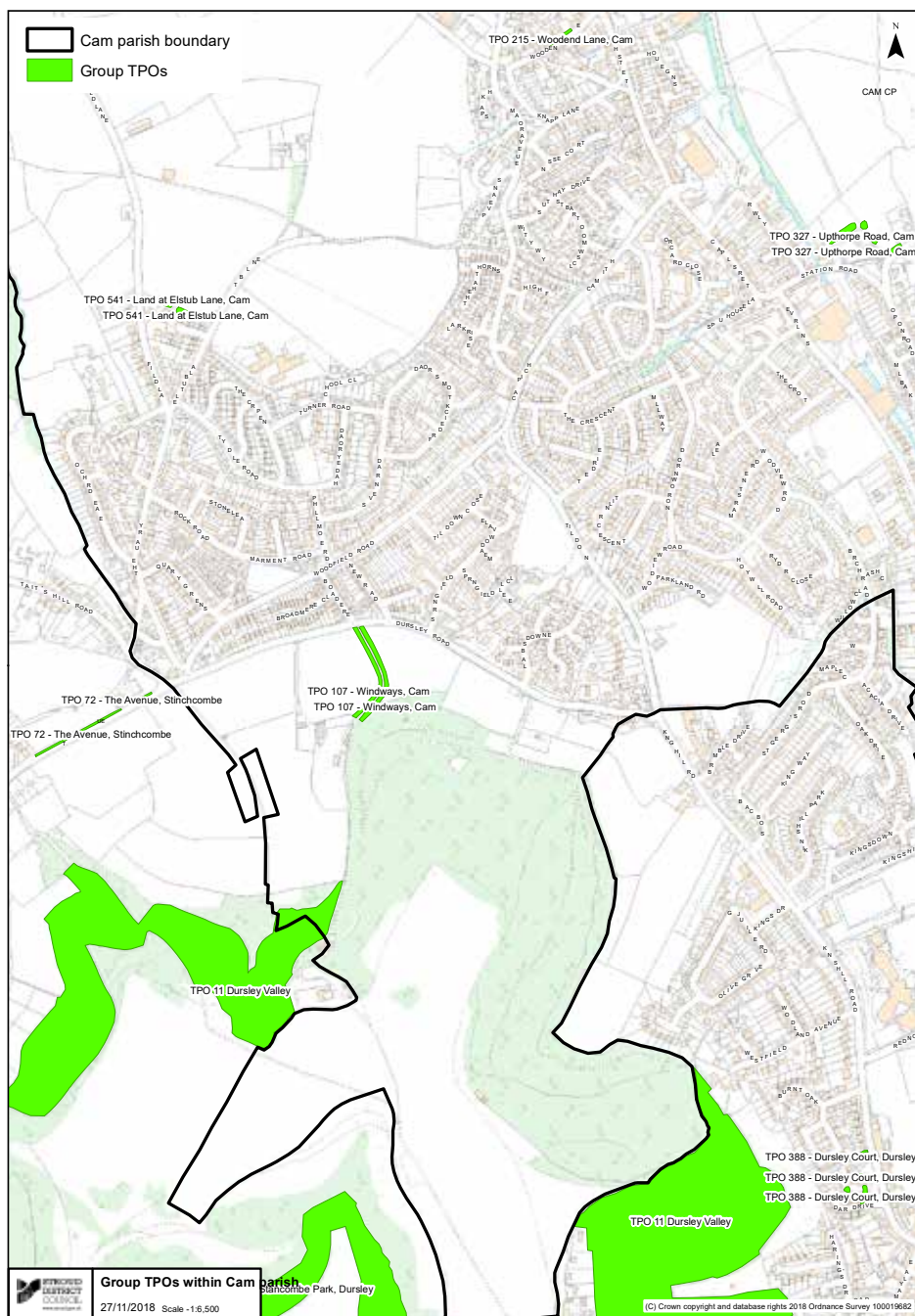
An estimate of Tree Canopy Cover (TCC) in the 20th century areas of Cam was calculated using the i-Tree Canopy tool. This tool uses Google Earth imagery and allows the user to select a number of random sample points in a pre-defined region, in this case the 20th century character areas in Cam. If a sample point falls on any tree canopy it is defined 'tree', otherwise it is defined as 'non-tree'. Once enough sample points have been collected, it is possible to estimate the percentage TCC for the area selected. The TCC estimates in this analysis are based on 800 sample points using Google Earth 2019 imagery.

Forestry Research are compiling TCC data from across the UK and it is mapped online on a ward by ward (there are two wards in Cam Parish) basis - <http://forestry.maps.arcgis.com/apps/webappviewer/index.html?id=d8c253ab17e1412586d9774d1a09fa07>

iTree: tools for assessing and managing forests and community trees <https://canopy.itreetools.org>

Cover Class	Description	Abbr.	Points	% Cover
Tree	Tree, non-shrub	T	220	27.5 ±1.58
Non-Tree	All other surfaces	NT	579	72.5 ±1.58





References

Stroud District Council Residential Design Guide SPG (2000)

Stroud District Council Local Plan (2015) - *note currently under review*

British Standards Institute, BS 8545 Trees: from nursery to independence in the landscape

British Standards Institute BS 3998: 'Recommendations for tree work' (provides guidance on the appropriate maintenance and management of trees)

British Standard (BS) 5837: 'Trees in relation to construction' (provides guidance on how to decide which trees should be retained and how best to protect them when a site is being developed. It also gives guidance on how to incorporate trees into the new landscape)

Woodland Trust (2011) Trees in Our Towns <https://www.woodlandtrust.org.uk/mediafile/100083915/Trees-in-our-towns.pdf>

Forest Research
<https://www.forestresearch.gov.uk>

Forestry Commission (2010) The Case for Trees

TDAG (2012) Trees in the Townscape: A Guide for Decision Makers (developed by the Trees and Design Action Group, the Trees in the Townscape Guide offers a comprehensive set of 12 action-oriented principles)

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