TREE SURVEY

ARBORICULTURAL CONSTRAINTS ANALYSIS

Linton Rise

Carvynick Holiday Park

Summercourt

Newquay

TR8 5AF

Client: c/o CAD Architects

Reference: EV-4669-TCR

Site visit Date: 24th January 2024

Report Date: 25th January 2024

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1 INSTRUCTION

1.1 On behalf of their clients CAD Architects instructed Evolve Tree Consultancy to provide a Tree Survey & Arboricultural Constraints Plan.

2 INTRODUCTION

2.1 This constraints report and plan provide the baseline data that will inform the feasibility assessment and design of the development. It will assist in prioritising trees for retention and protection and balance the weight of any competing interests.

2.2 The site comprises part of a caravan and camping field enclosed by mature hedgerows.

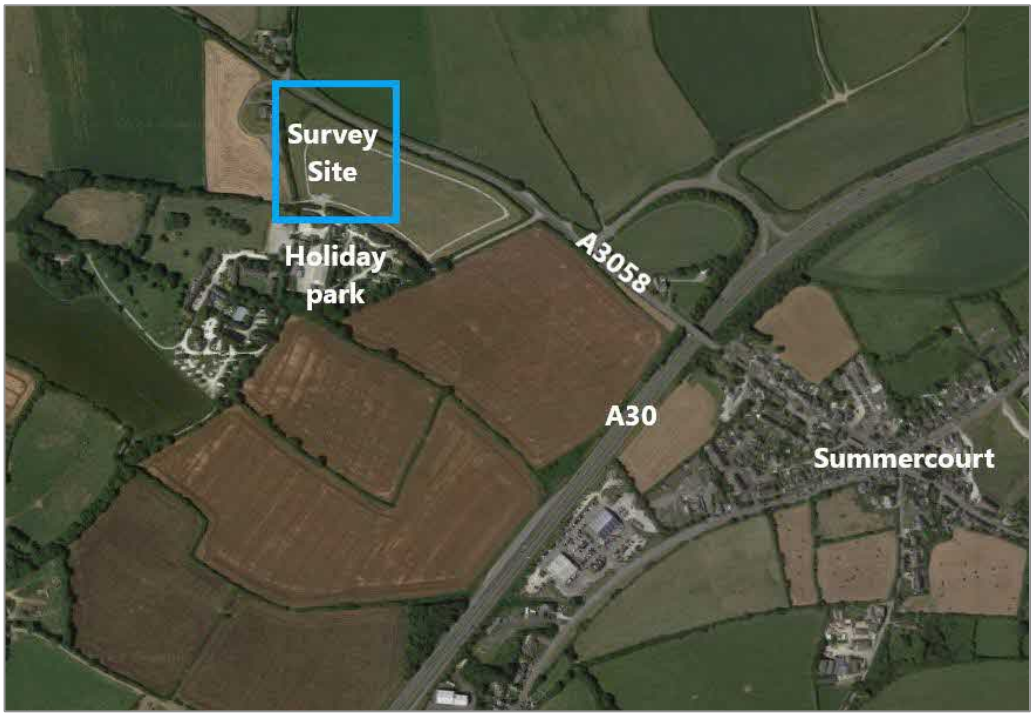

Image 1. Location Plan.
Exact site boundary subject to a topographic survey.
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Image 2. Site Location Plan. Application site denoted by red boundary.
Extract from CAD Architects drawing.
Exact site boundary subject to a topographic survey. Not to scale.

3 METHODOLOGY

3.1 Tree and hedgerow positions are indicated on the Tree Constraints Plan (TCP), which is prepared without the benefit of a topographical survey.

3.2 I have undertaken both survey and report to follow the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837). It is not a risk assessment, nor does it assess the problems related to subsidence, heave or other forms of disturbance associated with tree root growth or removal.

3.3 My survey was a visual one made from ground level. I did not have access to trees outside the boundary of the site; any observations of the are confined to what is visible from within the property.

3.4 Tree Schedule Explanatory Notes are listed in Appendix A.

4 SUPPORTING DOCUMENTATION

4.1 Relevant documents provided to me by CAD Architects are:

Site Location Plan drawing number 3253.1.01 dated November 2023.

Illustrative Block Plan drawing number 3253.3.01 dated November 2023.

4.2 This report should be read alongside Evolve drawing:

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Tree Constraints Plan: EV-4669-TCP.

5 STATUTORY PROTECTION & OTHER CONTROLS

5.1 Tree Preservation Order (TPO)/Conservation Area: I have used information supplied by the Cornwall Council Interactive map. The site is not subject to a Tree Preservation Order (TPO), nor is it within a designated Conservation Area.

5.2 A Public Right of Way footpath runs along the western boundary of the site.

5.3 Planning Conditions/Covenants: I did not investigate whether any planning conditions or legal covenants relevant to the trees are in place.

5.4 Information regarding legal constraints is presented as Appendix C.

6 PLANNING POLICY & DESIGNATIONS

6.1 The following are relevant to our analysis:

National Planning Policy Framework (NPPF) sets out national planning policy
Cornwall Local Plan
Cornwall Council Climate Emergency Development Plan Document

- G2 Planning for Biodiversity Guide
- G3 Canopy Cover

St Enoder Neighbourhood Development Plan

6.1.1 Further details are presented as Appendix D Planning Policy.

7 THE SITE

7.1 The site comprises part of a caravan and camping field enclosed by mature hedgerows. It is accessed via Carvynick Holiday park. The surrounding land includes the A3058 road to the north. To the east is the remaining part of the caravan and camping field and to the south is the existing Carvynick Holiday park. To the west is a residential property and an agricultural field.

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7.2

Image 2. Aerial view.
©Google Map Data 2023.

8 THE TREES

8.1 The trees and hedgerows are described in detail in Appendix B – Tree Survey Schedule.

9 CONSTRAINTS ANALYSIS & DESIGN CONSIDERATIONS

9.1 The key constraints posed by the trees are shown on the TCP drawing. Both the above and below ground constraints have the potential to influence the design.

9.2 Tree Quality Assessment: The cascade chart, presented as part of Appendix B, is a construct of the BS5837 designed to help describe the characteristics and relative value of trees. It provides guidance enabling an estimate of which trees are important and which trees are not.

9.2.1 It does not dictate which trees ought to be retained or removed, merely the weight that should be given to them when balancing competing interests. Certain trees may be of such importance and sensitivity that they justify having a major influence on design. Others may be of little significance that could be removed without adverse impacts.

9.2.2 The key trees are identified in the survey schedule presented as Appendix B.

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9.3 The root protection area (RPA): This is an area (representing a volume of soil) considered necessary to maintain the trees viability. The area represented on the TCP is a minimum recommended by BS5837 and is capped at 707 m^2.

9.3.1 The shape of the RPA will vary in accordance with site conditions e.g. a road is likely to form a barrier to root growth. Whilst the notional RPA is circular the shape plotted on the TCP may be a polygon to reflect likely barriers to root growth.

9.3.2 Encroachment within the RPA of retained trees will require justification and be supported by a sound rationale from the project arboriculturist.

9.4 Tree species: Species characteristics will influence several factors relevant to design including height (represented by the length of the shade arc), spread (indicated on the TCP), ultimate height and spread (which may be indicated where appropriate), deciduous/evergreen nature, crown density, seasonal nuisance etc.

9.4.1 The proximity of a tree to a house and garden can be a key factor affecting people's enjoyment of a property.

9.5 Age: Mature and over-mature trees are generally more sensitive to change than young trees. Their inability to adapt to altered soil conditions within or near the RPA means that care is required when designing in these places.

9.6 Shade Arc: This is an average pattern of the shade as it passes through the day. It provides an indication of how trees may impede direct sunlight.

9.6.1 Dense shade can be addressed by the siting of dwellings and a reasonable proportion of the garden outside the shade arcs.

9.6.2 Siting buildings within the shade arc can adversely affect the availability of natural daylight to principal living rooms. The internal arrangement of buildings and fenestration design can make significant improvements to daylight availability.

9.7 Services: It is prudent to locate new services outside the RPA and crown (allowing for future growth) of retained trees. However, the impact of putting services close to trees will be determined by the sensitivity and/or quality of the trees.

10 CONCLUSION

10.1 My report provides a description of the physical characteristics of trees and hedgerows, their benefits, and the constraints that they pose to development. It is the key (arboricultural) part of the feasibility and planning assessment.

10.2 I trust this provides enough information for you to develop the plans. Should you have any queries I am happy to provide further advice and opinion.

11 NEXT STEPS

11.1 The LPAs validation procedure may require that a planning application is supported by an arboricultural impact assessment and tree protection plan.

11.2 When a preliminary design is available, I can provide further advice on the potential impacts and suggest measures for avoidance, mitigation, or compensation of any harm.

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[redacted]

Simon Proctor BSc Hons, Dip Arb (RFS), M Arbor A, MICFor
Evolve Tree Consultancy

I am a Chartered Arboriculturist and a professional member of the Arboricultural Association. I hold the Royal Forestry Society's Professional Diploma in Arboriculture. I have been working as a full-time, professional arboriculturist since 1998 and have experience in both the public and private sector.

The authority of this report ceases when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s). The statements made in this report do not consider the effects of extremes of climate, vandalism, or accident, whether physical, chemical or fire. Evolve Tree Consultancy cannot accept any liability about these factors, nowhere prescribed work is not carried out in a correct and professional manner in accordance with current good practice.
The recommendations within this report remain valid for the period stated for re-inspection or twelve months from the date of survey.
The limit of Evolve Tree Consultancy's indemnity over any matter arising out of this report extends only to the instructing client; Evolve Tree Consultancy cannot be held liable for any third-party claim that arises following or out of this report. This report remains the intellectual property of Evolve Tree Consultancy.

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APPENDIX A Tree Schedule Explanatory Notes

Tree Number	Sequential Tree, Group or Woodland Reference Number.
Name	Scientific name (Common name in brackets).
Height	Recorded in metres by inclinometer in each discrete area and estimated from the measured tree. (Lwr crn ht - Lower crown height, the height of the canopy above the ground.
Stem diameter	Tree stem diameter in millimetres at 1.5 metres above adjacent ground level rounded up to nearest 50 millimetres. For multi-stemmed trees, a cumulative diameter is calculated (in accordance with BS 5837:2012 Annex C).
Branch spread	Measured in metres & taken at four cardinal points (N E S W).
1st Sig branch	1st Sig branch: Existing height in metres above ground level (agl) of the first significant branch with direction of growth (if available).
Life stage	

Y Young	Recently planted or established tree.
SM Semi-mature	Age less than one-third life completed. Established tree but one that has not reached its potential ultimate height and has significant growth potential.
EM Early-mature	One-third to two-thirds life completed. A tree reaching its ultimate potential height, whose growth rate is slowing down but will still increase in stem diameter and crown spread.
M Mature	Two thirds plus life completed. Specimen with limited potential for any significant increase in size but with a reasonable life expectancy.
LM Late-mature	Two-thirds plus life completed and declining. A tree that has passed its optimum growth rate and may require specialist management. These trees may offer significant benefits in terms of nature conservation. Referred to as Over mature in the BS.
V Veteran	A tree that shows features of biological, cultural, or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

Comments	General observations e.g. collapsing, the presence of any decay and physical defect and including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.
Life Expectancy	Estimated remaining contribution in years in terms of amenity (<10, 10+, 20+, 40+).

Physiological Condition		
	G Good	Tree that appears to be in good condition and healthy without significant defects.
	F Fair	Tree that appears to be structurally sound but due to minor defects is downgraded from good.
	P Poor	Tree which shows signs of poor health, in decline and/or with significant defects.
	D Dead	Tree which is moribund or has died.
Recommendations	Preliminary management recommendations based on the site as surveyed and for any likely pruning likely to be required should any development proceed.	
Category	A grade given in accordance with BS 5837:2012 - Tree Categories (see copy of Table 1 from BS 5837:2012 below).	
RPA-R (m)	Root Protection Area (RPA) Radius - The radius of an indicative circle of the RPA.	
RPA (m^2)	RPA Area in metres squared.	

Table 1 from BS 5837:2012 Trees in relation to design, demolition & construction – Recommendations. Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Category U Trees unsuitable for retention Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	Trees that have a serious, irremediable, structural defect, that such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality. NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.			RED
Category A Trees to be considered for Retention Trees of high quality with an estimated remaining life expectancy of at least 40 years.	1 Mainly arboricultural qualities Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	2 Mainly landscape qualities Trees, groups, or woodlands of particular visual importance as arboricultural and/or landscape features.	3 Mainly cultural values, including conservation Trees, groups, or woodlands of significant conservation, historical, commemorative, or othe value (e.g. veteran trees or wood-pasture).	GREEN
Category B Trees of moderate quality Trees with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	BLUE
Category C Trees of low quality Trees with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value	GREY

APPENDIX B Tree Schedule

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
H1.1	Prunus spinosa (Blackthorn), Corylus avellana (Hazel), Ulmus procera (English Elm), Fraxinus excelsior (Ash), Buddleja davidii (Buddleja)	4(1)	150	2	2	2	2	2(NE)	M	Dimensions vary - those recorded are an average representation. Atop Cornish hedge. Continuous woody vegetation. High local habitat value. 	40+	Good		A3	1.8	10
H1.2	Fraxinus excelsior (Ash)	6(1)	100,100, 100	2.5	2.5	2.5	2.5	2(S)	M	Dimensions vary - those recorded are an average representation. Laid and coppice ash. Atop Cornish hedge. Continuous woody vegetation. High local habitat value. 	40+	Fair		A3	2.1	14

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
H1.3	Crataegus monogyna (Hawthorn), Prunus spinosa (Blackthorn), Corylus avellana (Hazel), Fraxinus excelsior (Ash), Acer pseudoplatanus (Sycamore)	5(1)	100,100, 100	2	2	2	2	2(S)	M	Dimensions vary - those recorded are an average representation. Atop Cornish hedge. Continuous woody vegetation. High local habitat value. 	40+	Fair		A3	2.1	14
H2.1	Prunus spinosa (Blackthorn), Corylus avellana (Hazel), Salix caprea (Goat Willow), Sambucus nigra (Elder)	4(1)	100,100, 100	2.5	2.5	2.5	2.5	2(NE)	M	Dimensions vary - those recorded are an average representation. Atop Cornish hedge. East Side has had earth mounded up to side of Cornish hedge. 	40+	Good		A3	2.1	14
H2.2	Corylus avellana (Hazel), Salix caprea (Goat Willow),	5(1)	100,100, 100,100	4	4	4	4	2(NE)	M	Dimensions vary - those recorded are an average representation. Atop a low Cornish hedge.	40+	Good		A3	2.4	18

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
	Quercus robur (Common Oak)									Continuous woody vegetation. High local habitat value. 						
H3.1	Ulex europea (Gorse)	2(1)	75	0.5	0.5	0.5	0.5	2(NE)	M	Dimensions vary - those recorded are an average representation. 30% density of woody vegetation. Dominated by bramble. Moderate quality as an extension to H3.2, but in isolation the low density is of low value. 	40+	Fair		B3	0.9	3
H3.2	Crataegus monogyna (Hawthorn)	3.5(1)	150	1.5	1.5	1.5	1.5	2(S)	M	Dimensions vary - those recorded are an average representation. No Cornish hedge.	40+	Fair		B2/B3	1.8	10

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m^2
				N	E	S	W									
										Off-site. North side of boundary fence. Moderate habitat and screening value to views from road. 						
T4	Acer pseudoplatanus (Sycamore)	9(3.5)	300, 300	3	3	3	3	4(S)	SM	Moderately prominent from road. 	40+	Fair		B2	5.1	81

APPENDIX C Legal Constraints

Trees outside the site or property

Landowners and managers have a duty of care not to damage trees on the neighbouring land. The common causes of damage (root damage, compaction, physical damage and inexpert pruning) must be avoided through good planning and site management. However, branches and roots from trees on adjacent properties that extend over boundaries can be pruned back to the boundary line without the permission of the owners. However, the branch material belongs to the tree owner and should be retuned where appropriate

Statutory Wildlife Obligations

The Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 200 provides statutory protection to birds, bats and other species that inhabit trees. All wild birds are protected by law under the Wildlife and Countryside Act 1981, and it is an offence to disturb, injure or kill a nesting bird intentionally or to take, damage or destroy an occupied nest or egg. If nesting birds are discovered, works on the trees should be deferred until the nests are abandoned. Care should be taken during any felling operation, or surgery works to trees to avoid damage or disturbance to birds during the nesting season.

Forestry Commission Felling Licence

In any quarter (1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December), you may fell up to 5 cubic metres on your property without a licence if no more than two cubic metres are sold.

Exemptions: Certain types of felling do not need permission from the Forestry Commission. The Forestry Act 1967, as amended, and related regulations give these exceptions in full.

The main categories are listed below:

Lopping and topping (which usually includes tree surgery, pruning and pollarding).

Felling included in an approved dedication plan.

Felling fruit trees, or trees growing in a garden, orchard, churchyard or designated public open space(e.g. under the Commons Act 1899).

Felling trees which, when measured at the height of 1.3 metres from the ground: have a diameter of 8 centimetres or less; or if thinnings have a diameter of 10 centimetres or less; or if coppice (i.e. managed by cutting to promote multi-stemmed growth arising at or near ground level) or underwood, have a diameter of 15 centimetres or less.

Felling trees immediately required for carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) or for work carried out by certain providers of gas, electricity and water services and which is essential for the provision of these services.

Felling necessary for the prevention of danger or the prevention or abatement of a nuisance (e.g. which may involve the threat of danger to a third party). This exemption will only apply if there is a real rather than perceived danger. We may be able to give you advice that would minimise the danger without felling the trees in these circumstances. You may be prosecuted for illegal felling if it is shown that the tree did not present and real or immediate danger.

Felling necessary to prevent the spread of a quarantine pest or disease and done in accordance with a notice served by a Forest Commission Plant Health Officer (under the Plant Health (Forestry) (Greta Britain) Order 1993, as amended.

The felling is done in compliance with any obligation imposed by or under an Act of Parliament.

The Hedgerow Regulations 1997

The hedgerow regulations do not apply to the boundary of a domestic curtilage but will affect those hedgerows that border land used for keeping horses or agriculture. The Hedgerows Regulations 1997 make it an offence to remove most countryside hedges without first giving the local planning authority 42 days' notice.

APPENDIX D Planning Policy

National Planning Policy Framework

Paragraph 131. Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined 50 , that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.

Paragraph 174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
c) Paragraph 180. When determining planning applications, local planning authorities should apply the following principles:
d) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
e) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons [63] and a suitable compensation strategy exists.

Cornwall Local Plan

This sets out local planning policy. It includes the following relevant policies:

Policy 12: Design – Development must ensure Cornwall's enduring distinctiveness and maintain and enhance its distinctive natural and historic character.

Policy 22: European Protected Sites – mitigation of recreational impacts from development.

Policy 23: Natural environment. Development proposals will need to sustain local distinctiveness and character and protect and where possible enhance Cornwall's natural environment and assets according to their international, national, and local significance.

Cornwall Council Climate Emergency Development Plan Document February 2023

In order to achieve the vision of achieving carbon neutrality by 2030 policies have been developed to:

Decarbonise lifestyles via the reduction of emissions from buildings, travel and leisure

Create resilient communities and nature

Create environmental growth, develop and reinforce natural systems to protect and enhance the environment

Rebalance the need to travel and how people move around and work

Ensure the health and wellbeing of residents

Embed practice and standards to make buildings and places more efficient

Reduce use of material and waste

Develop a whole system approach.

The policies most relevant to trees and development are:

Policy G1 Green Infrastructure Design and Maintenance
Green infrastructure should be central to the design of schemes, ensuring permeability of the site for wildlife and people and creating a multi-functional; network of spaces and uses. All developments should be planned around the protection and enhancement of nature.

Policy G2 Biodiversity Net Gain
All development proposals (except those defined as exempt in secondary legislation) must achieve a minimum of 10% Biodiversity Net Gain (or any higher percentage mandated by national policy/legislation) over the pre-development site value as measured by the latest version of the DEFRA Biodiversity Metric.

Policy G3 Canopy
All major development should provide, through the retention of existing and or / the establishment of new, canopy coverage equal to at least 15% of the site area (excluding areas of the site that are priority habitat types) in accordance with a Cornwall Council approved calculator or metric.

1. Any proposal to remove canopy on the site should be justified in accordance with the canopy mitigation hierarchy.
2. Where a pre-development site already contains canopy that exceeds the 15% requirement, the development proposal should ensure the retention of as much canopy as possible on site in line with the mitigation hierarchy and should justify the losses proposed. An alternative canopy cover percentage, as evidenced by a council approved canopy metric, should be agreed with the Local Authority.
3. Where there are significant ecological, historical, landscape or operational reasons to justify a canopy requirement of less than 15% on site and this can be fully evidenced, an alternative percentage of canopy provision shall be agreed with the Council.
4. Minor development sites (with the exception of householder development and Change of Use (not creating new dwellings or additional floorspace) are not required to demonstrate the 15% canopy target but should explore all options in relation to canopy provision and take appropriate measures to both avoid or reduce harm to existing onsite trees. Proposals shall include where appropriate and practicable provision of new canopy.
5. New canopy should provide a mix of species that are resilient to pests, diseases and climate change and should be delivered in sustainable locations, in a manner that supports the growth and spatial requirements of canopy. New canopy should positively contribute to the climate resilience of the site in a manner which protects and enhances existing canopy.

Further details of these policies can be found in the Cornwall Council Climate Emergency Development Plan Document February 2023 available on the Cornwall Council website.

Cornwall Council Planning for Biodiversity Guide
The guide sits below the Local Plan and provides additional information to guide decisions relying on policies 22 and 23.
Paragraph 10.7.3 states that “Buffering for hedges suggests that for residential developments that an absolute minimum buffer of 2-metre either side of the hedge is required. For industrial and solar farm developments a 5-metre buffer is an absolute minimum. Where woodland is present a 10-metre buffer is absolute minimum.”