



Tree Constraints Report &
Arboricultural Impact Assessment

Ryeland
Trevenna Cross
St Mawgan
Cornwall
TR8 4HB

Client: Andrea and Marcus Bawden

Reference: EV-4510-AIA

Site visit Date: 26th July 2023

Report Date: 9th October 2023

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1 INSTRUCTION

- 1.1 We have been instructed by Andrea and Marcus Bawden to provide an Arboricultural Constraints Analysis and an Arboricultural Impact Assessment with Tree Protection Plan.

2 INTRODUCTION

- 2.1 Outline planning permission was granted by the local planning authority (LPA) on the 28th October 2022 for the construction of two dwellings with all matters reserved for later approval.
- 2.2 We have been asked to survey the trees to assess their condition regarding the potential for developing the land to provide two new dwellings and analyses the likely arboricultural effects of the final design.

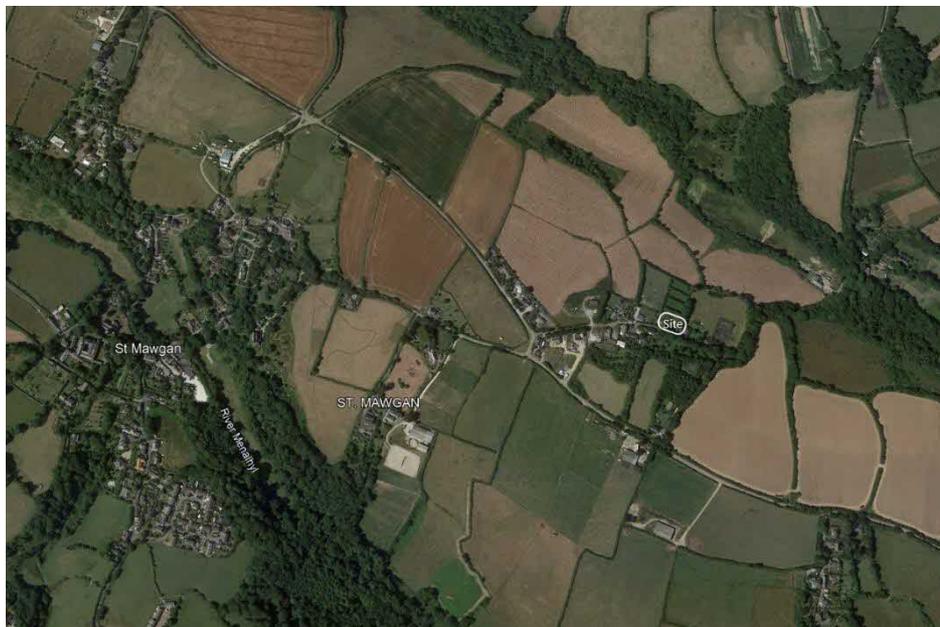


Image 1. Survey site location. ©Google Map Data 2023.

3 METHODOLOGY

TREE SURVEY:

- 3.1 The survey and report are carried out following the recommendations in British Standard 5837:2012 Trees in relation to design, demolition & construction - Recommendations (BS 5837).
- 3.2 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 these are confined to what is visible from within the property.
- 3.3 Tree Schedule Explanatory Notes & Methodology are listed in Appendix A.

3.4 Tree positions are indicated on the Arboricultural Impact Assessment Plan (AIA Plan), which is provided separately and is based on the topographical survey provided.

IMPACT ASSESSMENT:

3.5 My assessment focuses on the impacts relevant to the planning merits and is guided by the British Standard.

3.6 Typical considerations include:

Tree loss.	Construction access.	Shading.
Build practicability.	Statutory Protection.	Infrastructure
Mitigation planting.	Canopy protection.	Design conflicts
Effect on amenity value	Future conflicts	Necessary pruning
Removal of structures.	Proximity to other structures	Use of land near trees.

3.7 The British Standard sets out a precautionary approach, that if followed, will ensure a harmonious design. Two key recommendations are in sections 5.3.1 and 5.3.4 regarding root protection areas and crown size. The first phase of our assessment focuses on whether a conflict exists, if there is not, there is no impact requiring further comment.

3.8 In section 5.2 the British Standard advises that "the project arboriculturist should use the information detailed in 5.2 and 5.3 to prepare an arboricultural impact assessment that evaluates the direct and indirect effects of the proposed design and where necessary recommends mitigation." In 5.4.2 it advises that "The assessment should take account of the effects of any tree loss required to implement the design, and any potentially damaging activities proposed in the vicinity of retained trees."

4 SUPPORTING DOCUMENTATION

4.1 Relevant documents provided to me include:

Topographic Survey prepared by Prime Surveys Ref: PS2345.
12C Proposed Site Plan 1-100 - Ryeland

4.2 This report should be read alongside Evolve drawing:

Arboricultural Impact Assessment Plan: EV-4510-AIA (Plan).

5 STATUTORY PROTECTION & OTHER CONTROLS

- 5.1 Tree Preservation Order/Conservation Area: I have used information supplied by Cornwall Council's Interactive map. The site is not subject to a tree preservation order, nor is it within a designated Conservation Area.
- 5.2 Felling Licences: Parts of a site associated with the domestic property will not be subject to the provisions of the Forestry Act. Felling licenses are generally required for felling living trees unless they are fruit trees, or trees growing in a garden, orchard, churchyard or designated open spaces.
- 5.3 Hedgerow Regulations: 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.
- 5.4 Planning Conditions/Covenants: I did not investigate whether any planning conditions or legal covenants relevant to the trees are in place.

6 PLANNING POLICY & DESIGNATIONS

- 6.1 National Planning Policy Framework (NPPF): This sets out national planning policy.

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;

Paragraph 180. When determining planning applications, local planning authorities should apply the following principles:

(a) 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;

(c) 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 reasons⁶³ 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.

6.2 Cornwall Council Climate Emergency DPD: Natural Climate Solutions Canopy Policy G3 requires that:

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.

6.3 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."

7 THE SITE & THE TREES

The site is located to the east of 'Ryeland' and will be accessed via the existing driveway from the minor road to the south.



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

7.1 There are two key trees. Both are early mature sycamore trees situated atop Cornish hedges. One is located on the sites roadside boundary and the

second is on the boundary with 'Trevena Cottage' to the east. An established hedgerow is present atop part of the Cornish hedge that forms the southern boundary.

8 CONSTRAINTS ANALYSIS & DESIGN CONSIDERATIONS

- 8.1 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.
- 8.2 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.
 - 8.2.1 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.
 - 8.2.2 The key trees are identified in the survey schedule presented as Appendix B.
- 8.3 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 m².
 - 8.3.1 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.
 - 8.3.2 Encroachment within the RPA of retained trees will require justification and be supported by a sound rationale from the project arboriculturist.
- 8.4 Tree species: The species will influence a number of 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.
 - 8.4.1 The proximity of a tree to constructed houses and gardens can be a key factor affecting people's enjoyment of a property.
- 8.5 Age: Mature and over-mature trees are 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.

- 8.6 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.
- 8.6.1 Dense shade can be addressed by the siting of dwellings and a reasonable proportion of the garden outside the shade arcs.
- 8.6.2 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.
- 8.7 Services: It is prudent to locate new service 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.

9 THE PROPOSAL

- 9.1 The proposal is for two detached dwellings.



Image 3. Extract from Proposed Site Plan. Not to scale.

10 IMPACT OF PROPOSAL ON TREES

- 10.1 My assessment focuses on the impacts relevant to planning merits and is guided by the British Standard BS5837.

IMPACT 1 – TREE FELLING

1. Approximately ten small apple trees described as G3 will be removed to facilitate construction of the two dwellings and associated parking.
2. A modern hedgerow of hawthorn described as H4 will be removed to facilitate construction of the two dwellings and associated parking.

- 10.2 Both features are of low arboriculture, landscape and cultural value. They are not prominent to public views. The impact of removal is therefore low.

IMPACT 2 – TREE T2 INCURSION INTO THE ROOT PROTECTION AREA (RPA)

- 10.3 Making an allowance for two metres working space around the perimeter of dwelling 2 results in a small incursion into the RPA of tree T2. T2 is a mature sycamore tree of moderate landscape quality.
- 10.4 The infringement amounts to approximately 4% of the total RPA. Damage to such a small proportion of the notional RPA will not have a significant effect on its health and will not impact on its viability. Mitigating the very minor effects is the area of ground to the north and east that will remain undisturbed. This ground is contiguous with the RPA and adequately compensates for the small incursion.

IMPACT 3 – TREE T6 INCURSION INTO THE ROOT PROTECTION AREA (RPA)

- 10.5 Making an allowance for two metres working space around the perimeter of dwelling 2 results in a small incursion into the RPA of tree T6. This area is also intended to provide a pedestrian path. T6 is an early-mature sycamore tree of moderate landscape quality.
- 10.6 The infringement amounts to approximately 8% of the total RPA. Risk of damage to such a small proportion of the notional RPA is unlikely to have a significant effect on its health and does not pose a risk to its long-term viability. Mitigating the minor effects is the area of ground to the east and west that will remain undisturbed and protected. This ground is contiguous with the RPA and adequately compensates for the minor incursion.
- 10.7 The layout is designed to ensure that the proposed footpath is built upon the existing ground levels. As such it can be incorporated into the tree protection provisions and will further mitigate the minor negative effects.

IMPACT 4 – SUNLIGHT AND DAYLIGHT (SHADING)

- 10.8 The AIA plan indicates that the shade from T6 falls towards both units. The shade arc demonstrates that the trees will have no significant effect on the enjoyment of the new gardens. BRE 209 – 'Site Layout Planning for Daylight and Sunlight' advises that trees are not normally included in calculations for available sunlight in gardens because dappled shade from trees is more pleasant than the deep shade cast by a building (particularly the case with deciduous trees). It goes on to say that people vary in their preferences and some like a shady, secluded garden. Most people tend to be satisfied with some areas of partial shade and other parts of the garden/amenity space in

full sun. If the whole garden is shaded by trees for a lengthy period in summer, the garden is probably too shady, which is not the case here.

- 10.9 Regarding the effects on daylight availability within the houses it is pertinent that during winter, when light levels are at their lowest, the tree will be free of leaves. The design includes a generous amount of fenestration (including roof lights and dormers), and the primary living accommodation is towards the north of the buildings (facing away from the tree). It is therefore unlikely that the tree will have an adverse impact on the enjoyment of either house.

11 TREE PROTECTION PROPOSALS

- 11.1 Based on the information available to date, this report and TPP provide defined tree protection proposals.
- 11.2 The root protection area (RPA) and canopy of the key trees can be protected by establishing a Construction Exclusion Zone (CEZ). The CEZ will be protected by way of a tree protection barrier (TPB) and ground protection (new footpath).
- 11.3 The ground protection will be established using a cellular confinement system to construct the section of footpath within the RPA of T6. This will be part of the primary tree protection measures, being installed after the tree protection barrier, but before any other building works taking place. A method statement for the construction of the path is given in Appendix H.
- 11.4 The AIA plan defines the position of tree protection fencing which will be erected prior to the commencement of development and thereafter retained until completion. Please refer to requirements and illustrations of tree protection barriers presented as Appendices C to G. Appendix E provides a suitable specification in this case.
- 11.5 The key element for successfully integrating trees into a new development is high quality site management. To that end, it would be reasonable for the LPA to require implementation of the tree protection measures as part of a planning condition.

12 CONCLUSIONS

- 12.1 Subject to the implementation of the proposed tree protection measures, the arboricultural impacts of the proposed development are low. Consequently, it does not conflict with either local or national planning policies.



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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 conducted 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.

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	1 st 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 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.
	V Veteran	Referred to as Over-mature in the British Standard. 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+).	

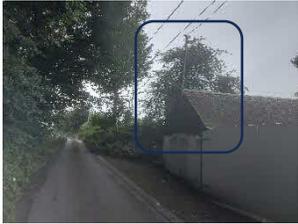
Physiological Condition	G Good	Tree that appears to be in good condition and healthy without significant defects.
	F Fair	Tree that appears to be structurally sound but due to minor defects is downgraded from good.
	P Poor	Tree which shows signs of poor health, in decline and/or with significant defects.
	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
<p>Category U</p> <p>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.</p>	<p>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).</p> <p>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</p> <p>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.</p> <p>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.</p>			<p>RED</p> 
<p>Category A</p> <p>Trees to be considered for Retention Trees of high quality with an estimated remaining life expectancy of at least 40 years.</p>	<p>1 Mainly arboricultural qualities</p> <p>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).</p>	<p>2 Mainly landscape qualities</p> <p>Trees, groups, or woodlands of particular visual importance as arboricultural and/or landscape features.</p>	<p>3 Mainly cultural values, including conservation</p> <p>Trees, groups, or woodlands of significant conservation, historical, commemorative, or other value (e.g. veteran trees or wood-pasture).</p>	<p>GREEN</p> 
<p>Category B</p> <p>Trees of moderate quality Trees with an estimated remaining life expectancy of at least 20 years.</p>	<p>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.</p>	<p>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</p>	<p>Trees with material conservation or other cultural value</p>	<p>BLUE</p> 
<p>Category C</p> <p>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.</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p>	<p>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.</p>	<p>Trees with no material conservation or other cultural value</p>	<p>GREY</p> 

APPENDIX B Tree Schedule

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1 st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m ²
				N	E	S	W									
T1	Acer pseudoplatanus (Sycamore)	9 (4)	550	6	6	6	6	2.5(W)	M	In neighbouring property. Not prominent locally. Not accessible – dimensions estimated.	40+	Good		B1	6.6	137
																
T2	Acer pseudoplatanus (Sycamore)	11 (7)	200,250, 300,200	7	7	7	5	2.5(W)	M	In neighbouring property. Moderately prominent locally. Not accessible – dimensions estimated.	40+	Good		B1	5.8	105
																
G3	Malus (Apple)	3 (1)	100	2	2	2	2	1(N)	SM	Recent planting (15-20 years). Not visually prominent.	20+	Good		B1	1.2	5

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1 st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m ²
				N	E	S	W									
																
H4	Crataegus monogyna (Hawthorn)	2.5	50	0.5	0.5	0.5	0.5		SM	Well maintained modern hedgerow. Not visible from outside the site.	40+	Good		C2	0.6	1
T5	Crataegus monogyna (Hawthorn)	8 (3)	100,100, 100,100, 100	3	3	3	3	3(N)	EM	Historically part of hedgerow. Minor amenity value.	40+	Good		C2	2.7	23
																
T6	Acer pseudoplatanus (Sycamore)	12 (8)	340,350	4	6	6	6	6(E)	EM	Recently crown lifted to current dimensions. Moderately prominent locally. Moderate bark inclusion in basal stem union.	40+	Good		B2	5.9	108

Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1 st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m ²
				N	E	S	W									
G7	Acer pseudoplatanus (Sycamore), Crataegus monogyna (Hawthorn)	3.5 (1.5)	100,100, 100	1	1	1	1	1(N)	SM	Topped at 2m high. RPA adjusted accordingly.	40+	Fair		C2	2.1	14
T8	Acer pseudoplatanus (Sycamore)	5.5 (1.5)	250,300, 200,200	2.5	2.5	2.5	2.5	1(N)	SM	Topped at 2m high.	40+	Fair		C2	5.8	105



Tree No.	Name (Common & Scientific)	Ht (m) (Lwr cr ht)	Stem dia. (mm)	Branch Spread (m)				1 st sig branch (m)	Life Stage	Comments	Life Exp (yrs)	Cond	Advice	Cat	RPA R m	RPA A m ²
				N	E	S	W									
H9	Corylus avellana (Hazel), Crataegus monogyna (Hawthorn)	2.5	100	1	1	1	1		M	Dense native hedgerow extends along road frontage to the west. Hedgerow diminishes in extent and density to the east.	40+	Good		B2	1.2	5

APPENDIX C Legal Constraints

Trees outside the site/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 inexperienced 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 returned where appropriate.

Statutory wildlife obligations

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All wild birds are protected by law under the Wildlife & 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.

Tree Preservation Orders

Advice can be found at: <http://planningguidance.communities.gov.uk/blog/guidance/tree-preservation-orders/tree-preservation-orders-general/>

Conservation Areas

Advice can be found at: <http://planningguidance.communities.gov.uk/blog/guidance/tree-preservation-orders/protecting-trees-in-conservation-areas/>

Important: Exceptions for tree work relating to planning permission and permitted development from the Planning Practice Guidance 15 April 2015 paragraph 36-083-20150415.

Under the heading "Is there an exception for tree work relating to planning permission and permitted development?", of the PPG states:

"The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a full planning permission. For example, the Order is overridden if a tree has to be removed to make way for a new building for which planning permission has been granted.

Conditions or information attached to the permission may clarify what work is exempt.

However, the authority's consent is required for works on trees subject to an Order if:

- development under a planning permission has not been commenced within the relevant time limit (i.e. the permission has 'expired');
- only outline planning permission has been granted; and
- it is not necessary to carry out works on protected trees in order to implement a full planning permission."

Felling licence

In any calendar quarter*, you may fell up to 5 cubic metres on your property without a licence if no more than two cubic metres are sold. Contact your local Forestry Commission office if you are not certain whether these exemptions apply.

*1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October 31 December

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 a perceived danger. We may be able to give you advice that would minimise the danger without felling the trees. We strongly recommend that you contact us if you are considering felling a tree or trees in these circumstances. You may be prosecuted for illegal felling if it is shown that the tree did not present a 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 Forestry Commission Plant Health Officer (under the Plant Health (Forestry) (Great Britain) Order 1993, as amended).

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

More advice can be found at: [http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/\\$FILE/treefellingaugust.pdf](http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/$FILE/treefellingaugust.pdf)

APPENDIX D Tree Protection Barriers

No equipment, machinery or materials shall be brought onto the site for the purposes of the development until fencing has been erected in accordance with the plans and particulars which shall have been previously approved by the local planning authority in writing. The areas forming the Construction Exclusion Zone are to be protected by Tree Protection Barriers as per the recommendations in BS 5837:2012 (Figure 2) or as specified below at Appendix H.

This fencing is to be erected before any work commences on site and is to remain in place undamaged for the duration of all work or each phase. It will only to be removed once all work is completed and if required by planning condition, with the formal consent of the local planning authority.

If the fencing be broken or removed during the course of carrying out the development, it shall be promptly repaired or replaced to the satisfaction of the local planning authority.

Within any area fenced in accordance with this condition, nothing shall be stored, placed, or disposed of on the above or below ground, the ground level shall not be altered, no excavations shall be made, nor shall any fires be lit, without the prior written consent of the local planning authority.

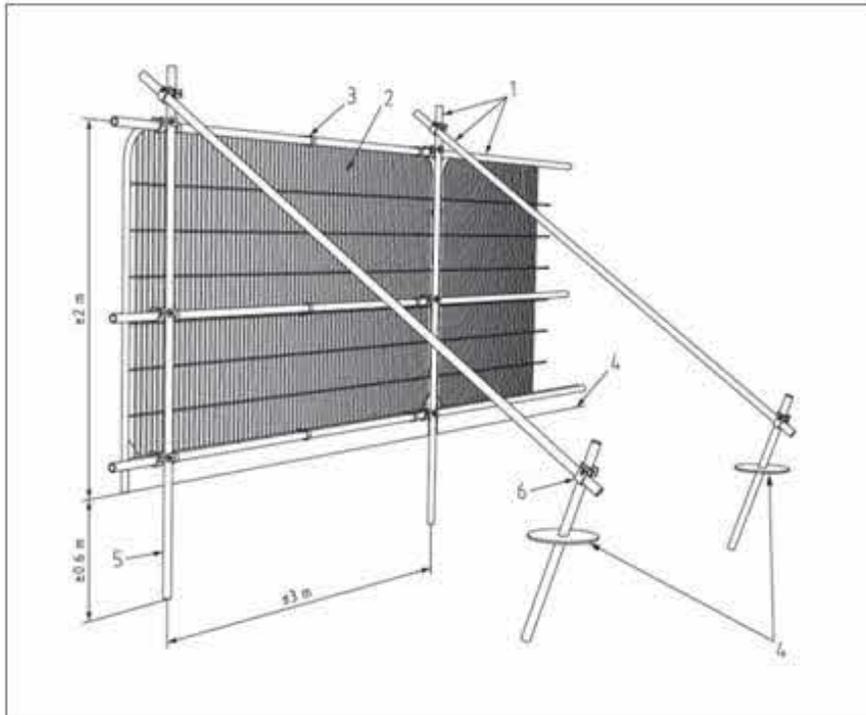
Other than works detailed within this method statement or approved in writing by the local planning authority, no works at all (including storage or dumping of materials) shall take place within the exclusion zones defined by the protective fencing.

The fencing is to carry waterproof warning notices denying access within the RPA. The following signs or similar will be attached to the fence panels.



APPENDIX E Specification for Tree Protection Barriers

Below is the fencing specification reproduced from BS 5837:2012 Trees in relation to design, demolition, and construction – Recommendations.



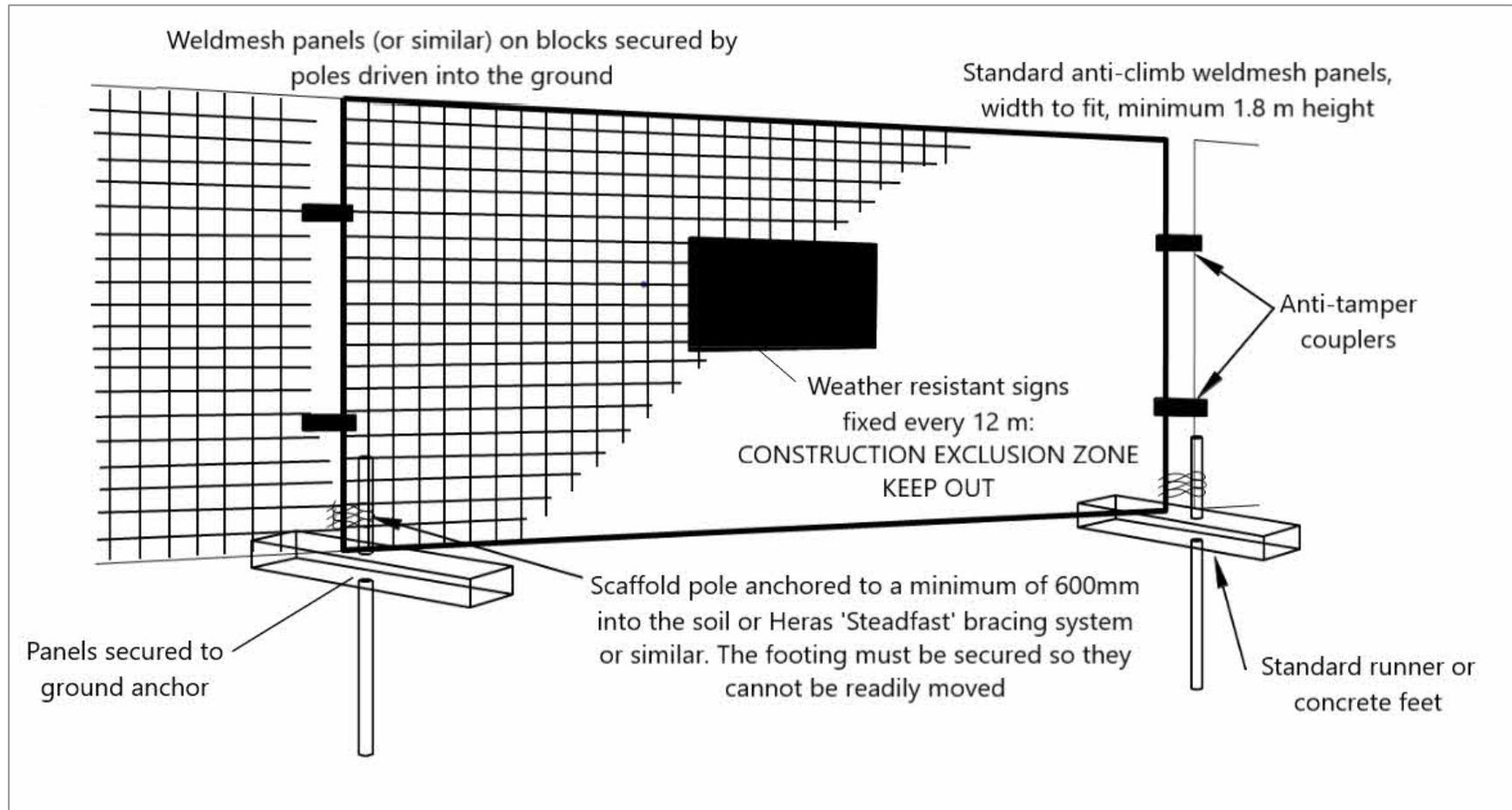
Key

- 1 Standard scaffold poles.
- 2 Heavy gauge 2 m tall, galvanized tube and welded mesh infill panels.
- 3 Panels secured to uprights and cross-members with wire ties.
- 4 Ground level.
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m).
- 6 Standard scaffold clamps.

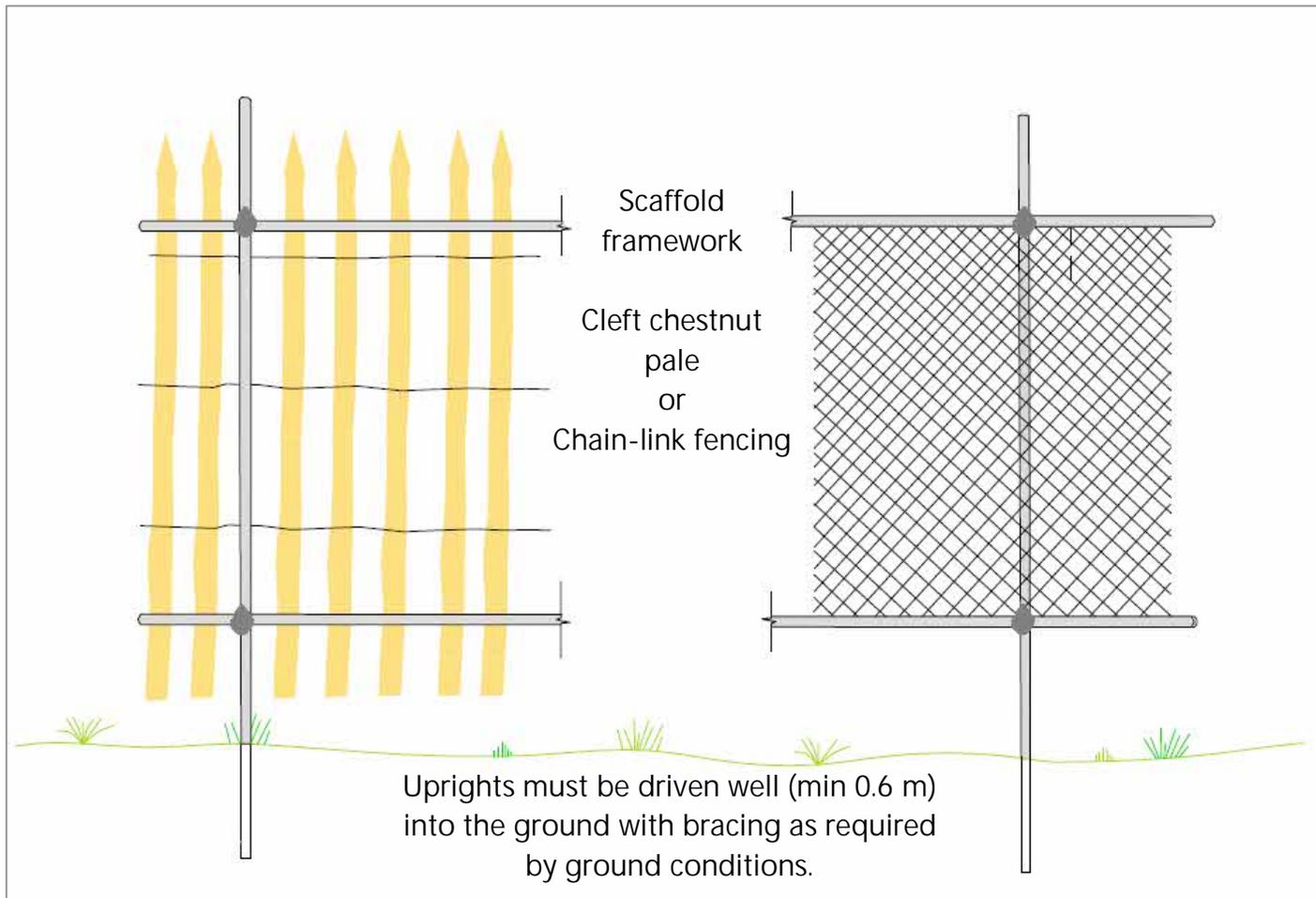


APPENDIX F Tree Protection Barriers Medium Construction Pressure

Tree Protection Barriers (derived & amended from BS5837:2012 Figure 2) where there is insufficient space to install bracing. Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18



APPENDIX G Secondary Tree Protection Barriers Low Construction Pressure



Arboricultural Site Considerations – To be displayed in a prominent place.

Tree Protective Barriers must be regarded as sacrosanct and must not be removed or altered without prior consultation with either the Local Planning Authority (LPA) or the arboricultural consultant responsible for the site supervision.

Ground protection must not be lifted or removed without prior consultation with either the LPA or the arboricultural consultant responsible for the site supervision.

Damage caused to protective fencing or ground protection must be reported to the site supervisor immediately to ensure efficient repair.

No materials, chemicals, machinery, or vehicles must be stored within the Construction Exclusion Zone as defined on the Tree Protection Plan (TPP) and identified on site by fencing and above ground root protection.

No materials must be rested against a tree's trunk or machinery chained to it.

No pruning of trees may be undertaken by anyone other than an arborist, and all work must be approved by the supervising arboricultural consultant.

Any physical damage caused to a tree retained on site must be reported to the site manager so remedial work can be undertaken without delay.

Builder's sand, which contains salt, must not be used to back fill excavation within or in close proximity to tree roots, as this can have a toxic affect. Sharp sand can be used instead.

Material that will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, must not be discharged within 10 metres of a tree stem.

Fires must not be lit in a position where their flames can extend to within 5 m of foliage, branches, or trunk. This will depend on the size of the fire and wind direction.

Notice boards, telephone cables or other services must not be attached to any part of a tree.



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APPENDIX H Hardstanding Construction Method Statement

The area of footpath within the root protection area (RPA) of trees is shown on the TPP with a purple hatch. It is this area that will be subject to the AMS.

CCS as a generic material but there are several manufacturers of similar products. In the absence of an engineer's specification, I propose that 100mm will be used. It will be laid in the following order:

- 1) Prior to laying the CCS, uneven ground will be levelled with the addition of sharp sand.
- 2) If it is feasible to do so vegetation will be killed with a contact herbicide that will not affect the trees and dead material removed. Alternatively, grass will be cut at ground level and any litter removed with hand tools. There will be no excavation within the RPA.
- 3) A geotextile separation layer will be laid on the ground. It will be made of polypropylene or polyester (min. 300g/m²) with a CBR puncture resistance of 4000N. Edges will overlap by 30 cm.

Note: The permeability of the geotextile separation layer is critical to the systems performance. Clogging from silt during construction must be avoided because this will affect gas and water permeability.

- 4) The CCS panels will be expanded to their full length and width and the edges joined as per the manufacturer's guidelines. The cells are kept in place by j-hooks, steel pins or timber stakes. The stake, pin or hook should be three times the depth of the cell and inserted into the ground until it is level with the top of the CCS.
- 5) The CCS will then be infilled with a no-fines angular aggregate fill (typically 20-40mm).



Figure 1 – CCS being filled with no fines aggregate.

When introducing the stone, the excavator or dumper should be positioned outside of the root protection area or on top of a stone-filled geocell mat. As the stone is tipped,

they will be spread manually into the cells. In this way the vehicle will only be passing over the stabilised, stone filled CCS.

- 6) The stone is not compacted in the traditional way. Settlement of the infill material is achieved by a minimum of four passes of a smooth roller (max. weight of 1000kg/m width without vibration), or alternatively by several passes with a tracked excavator. After several passes the infill reorients and becomes stable.
- 7) The driveway edge restraints will be secured before use. Tanalised timber board and posts will be sufficient.

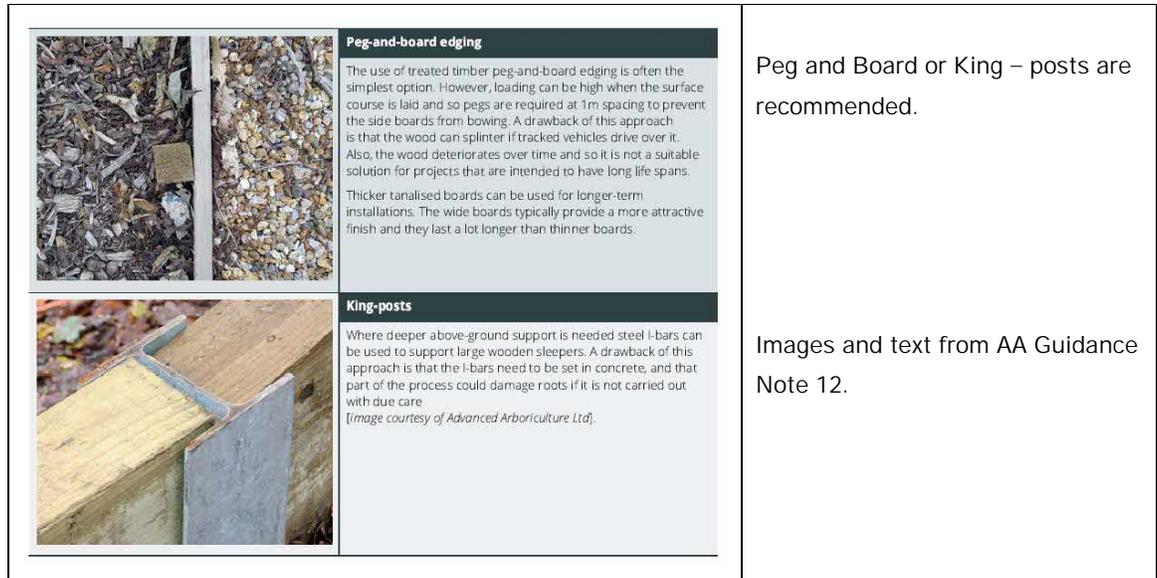


Figure 3 – Edge supports.

- 8) There are two options for treatment during the construction phase. The cells can either be overfilled by 50mm and the excess removed before applying a wearing course, or the asphalt base course (permeable) can be laid as a temporary surface.
- 9) The final wearing course has not been specified, but can be a porous tarmac, resin bound gravel, open jointed brick paviours or a loose material.
- 10) The path will require a specification/verification from an engineer to ensure that it will perform adequately.