



Tree Check
Arboriculture Ltd.

Tree Survey and Categorisation Land between A40 and Railway Carmarthen SA31 3RB



Conducted By: Ben Clark TechArborA

07736236152

21/09/23

Ben@treecheck.co.uk

Table of Contents

Introduction.....	3
Brief.....	3
Scope	3
Site Description.....	5
Section 1: Interpretation.....	6
BS Categories	6
Tree Age Ratings.....	6
Root Protection Areas (RPA's)	6
Remaining Contribution.....	6
Terminology.....	7
Section 2: Findings.....	8
Species Recorded.....	8
Retention Categories.....	8
Findings Table	10
Section 3: Preliminary Management Recommendations.....	17
Appendices	18
Appendix I: Photos	19
Appendix II: Tree Constraints Plan	21
Appendix III: Cascade Table for the Categorisation of Trees (BS5837)	22
Appendix IV: Recommended Configuration for Tree Protective Fencing (BS5837)	23
Appendix V: Glossary	23
Appendix VI: References.....	26
Terms and conditions.....	27
Limitations	27
Legal Constraints	27

Introduction

This survey was carried out by Ben Clark, Arboricultural Consultant, and Director at Tree Check Arboriculture Ltd. with over 8 years' experience in the arboriculture industry and holding the following qualifications:

- Level 4 Diploma in Arboriculture
- BSc. Geology (University of Southampton)
- LANTRA Professional Tree Inspection Certificate (PTI)
- Various NPTC qualifications in tree surgery.

Currently an MSC. Student in Arboriculture and Urban forestry, Ben is a technician member of the arboricultural association and attends regular training and seminars to remain up to date with current arboricultural practices.

The methodology of this report is based on the recommendations provided by the British Standards Institute document BS5837: Trees in Relation to Design, Demolition and Construction – Recommendations, as well as other recommendations provided by institutions such as the Arboral Association.

Brief

Tree Check has been instructed by Jason Evans of Evans Banks Planning to carry out a tree survey and categorisation at Land between A40 and Railway, Carmarthen. Based on the findings, we were also instructed to carry out an impact assessment to consider proposed development on site, as well as produce a method statement to protect retained trees

The following information was available:

- Indicative site layout, land joining Cillefwr Industrial estate (Evans Banks 2023)

It should be noted that none of the trees recorded in this report were shown on the topographical plan, and their locations in the Tree Constraints Plan are based on GPS and should be taken as indicative only. All locations and distances should be checked on site.

The site was visited on the 12-Sept-2023 during dry and bright weather conditions considered ideal for this type of survey.

Scope

- The purpose of this survey was to assess the location, size and general condition of the trees on and around site as well as determine their retention value and categorise them in accordance with the British standard: BS5837- Trees in Relation to Design, Demolition and Construction – Recommendations
- Trees have only received a cursory inspection and this report does not constitute a full tree condition/safety survey. Ongoing inspection should proceed as per the landowner's tree management plan. A suitably qualified arboricultural specialist should be consulted if a tree management plan is not already in place.
- A [Tree Constraints Plan](#) has been produced to indicate the locations of trees and the BS5837 calculated rooting areas. in relation to the site.
- Where trees have been noted to be hazardous in terms of unacceptable third-party risk this has been noted and recommendations given.
- General management recommendations have been given where appropriate.
- The inspection was carried out at ground level from inside the site and along adjacent public roads where appropriate. Trees were not climbed and no internal decay detection was used. It is our policy to recommend further investigation with decay detection equipment where features observed during visual inspection warrant such action.
- All heights of trees were estimated from ground level.

- Branch spread was measured from the base of the trees in four cardinal directions using a laser tape measure.
- Stem Diameter was measured at 1.5m above ground level using a diameter tape measure.
- Data on the observed structural condition of the tree has been entered, e.g., collapsing, leaning and the presence of any observed decay or physical defect has been noted.

Site Description

What3Words: ///banshee.diverging.vies

Nearest Postcode: SA31 3RB



The site is set at an elevation of 16m above sea level and is fairly sheltered from prevailing winds.

The site is made up of fields, formerly used for grazing livestock with trees on each side of the site providing screening from the railway line and the A40.

No soil analysis was carried out on site, however, data obtained from Cranefield Soil and Agrifood Institute ^[1] suggests the area is dominated by Freely draining slightly acid loamy soils.

Data obtained from Carmarthenshire Councils online map service ^[2] suggests that the site is not within a conservation area and there are no TPOs applying to trees on site.

Section I: Interpretation

BS Categories

Trees have been assigned retention categories in accordance with BS5837. These are as follows:

Category A- Trees with a high retention value which are either arboriculturally important, important within the landscape, or culturally/ecologically important.

Category B- Trees with a moderate retention value i.e. they are good examples of their species, provide some notable amenity value to the area, or provide significant ecological or cultural value.

Category C- Trees with a low retention value. Including trees with defects which reduce their amenity value or expected lifespan but not to the extent that they cannot be realistically retained within the development.

Category U- Trees of which retention is considered unrealistic within the context of the development due to poor condition and low life expectancy.

See [Table I](#) in the appendix section of this report for more information on the allocation of categories and subcategories.

Tree Age Ratings

Y- Young trees in their early stage of growth, have undergone minimal secondary thickening and are still primarily composed of active tissue.

EM- Early mature trees that have started to show characteristics of maturity such more developed crowns and increased stem thickness.

M- Mature fully developed trees.

OM- Over mature trees that are starting to show signs of decline.

A- Ancient trees that have reached a notably old age for their species and are therefore considered to be important.

V- Veteran trees with notable features such as wounds, cavities, cracks, etc. that provide significant habitat value. These are usually older trees.

Root Protection Areas (RPA's)

Root Protection areas have been calculated according to BS5837 and represent the estimated minimum rooting area required by the tree to carry out its functions.

Excavation in this area can cause physiological or structural harm to a tree and the movement of machinery or personnel over this area can cause soil compaction and in turn, physiological harm to the tree.

These areas may need to be segregated from the rest of this site using tree protective fencing and if excavations in these areas are unavoidable in the context of the design, then they should be carried out in accordance with an arboricultural method statement produced by a suitably trained and qualified arboriculturalist.

Remaining Contribution

Remaining contribution has been estimated based on the trees overall condition, approximate age, and the life expectancy of the species in question. This is based on the assumption that new factors are not introduced that will affect the trees life expectancy, such as pathogens, climate factors or other biotic or abiotic influences.

Terminology

See appendix v for a glossary of the terms commonly used in tree reports.

Trees and groups are numbered with the following prefixes:

- **T-** individual trees.
- **G-** groups of trees with similar characteristics and rooting areas.
- **H-** Hedgerows.
- **W-** woodland groups, designated as such due to the presence of woodland features such as natural regeneration,

Section 2: Findings

Species Recorded

The following tree species were recorded on site (in alphabetical order):

- Algerian Oak - *Quercus canariensis*
- Ash - *Fraxinus sp.*
- Blackthorn - *Prunus spinosa*
- Common Hawthorn - *Crataegus monogyna*
- Common Holly - *Ilex aquifolium*
- Crack Willow - *Salix fragilis*
- Field Elm - *Ulmus minor*
- Field Maple - *Acer campestre*
- Goat Willow - *Salix caprea*
- Hawthorn - *Crataegus sp.*
- Hazel - *Corylus avellana*
- Oak - *Quercus sp.*
- Pedunculate Oak - *Quercus robur*
- Sycamore - *Acer pseudoplatanus*

Retention Categories

No Category A trees were identified on site.

The following Category B trees were identified on site:

- G1
- G2
- G3
- G4
- G6
- H1
- H2
- H3
- H4
- T1
- T10
- T11
- T13
- T14
- T15
- T2
- T22
- T23
- T24
- T25
- T26
- T27
- T28
- T29
- T30
- T31
- T32
- T33
- T34
- T35
- T4
- T5
- T6
- T7

- T8
- T9

The following trees were identified as Category U, their removal is recommended before work begins on site:

- T16
- T17
- T18
- T19
- T20
- T21

All remaining trees are category C and pose no major constraints on the site.

Findings Table

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m ²)	RPA Radius (m)	Photo
G1	N/A	Blackthorn (Prunus spinosa) Field Maple (Acer campestre) Hazel (Corylus avellana) Pedunculate Oak (Quercus robur) Common Hawthorn (Crataegus monogyna)	9	150	1	1	1	1	2	1	Mixed woodland planted on verge between site and highway providing screening to and from site.	No action required.	EM	40+	B2	10	1.8	/
G2	N/A	Sycamore (Acer pseudoplatanus)	16	350	4	0	4	4	2	5	Trees of fair form on banking between site and highway forming a good visual and acoustic barrier.	No action required.	EM	40+	B2	55	4.2	/
G3	N/A	Hazel (Corylus avellana) Field Elm (Ulmus minor)	5	100	2	2	2	2	1	1	Mixed group of small trees on banking between site and highway.	No action required.	EM	40+	B2	4	1.2	/
G4	N/A	Common Hawthorn (Crataegus monogyna) Hazel (Corylus avellana) Blackthorn (Prunus spinosa) Oak (Quercus sp.)	6	150	2	2	2	2	1	1	Mixed planted young to semi mature woodland on railway land acting as a barrier between site and railway line.	No action required.	EM	40+	B2	10	1.8	/

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m²)	RPA Radius (m)	Photo
					N	E	S	W										
G5	N/A	Goat Willow (<i>Salix caprea</i>)	8	150	2	2	2	2	2	2	Multi stemmed trees with some damaged and collapsed stems.	Re-coppice group. RPA may be reduced to reflect these works if it poses a major constraints.	EM	40+	C1,2	10	1.8	/
G6	N/A	Blackthorn (<i>Prunus spinosa</i>) Goat Willow (<i>Salix caprea</i>) Common Hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) Ash (<i>Fraxinus</i> sp.)	8	150	1	1	1	1	1	1	Mixed woodland on banking next to highway.	No action required.	EM	40+	B2	10	1.8	/
H1	N/A	Crack Willow (<i>Salix fragilis</i>) Hazel (<i>Corylus avellana</i>) Pedunculate Oak (<i>Quercus robur</i>) Goat Willow (<i>Salix caprea</i>) Blackthorn (<i>Prunus spinosa</i>) Hawthorn (<i>Crataegus</i> sp.)	4	100	1	1	1	1	0	0	Mixed hedge acting as boundary between site and highway.	Consider pruning back overhanging branches to the fence line.	EM	40+	B2	4	1.2	/
H2	N/A	Blackthorn (<i>Prunus spinosa</i>) Hawthorn (<i>Crataegus</i> sp.) Common Holly (<i>Ilex aquifolium</i>) Hazel (<i>Corylus avellana</i>)	7	100	1	6	4	1	0.5	1	Mature hedge bordering two fields within site.	No action required.	M	40+	B2	4	1.2	/

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m ²)	RPA Radius (m)	Photo
					N	E	S	W										
H3	N/A	Blackthorn (Prunus spinosa) Goat Willow (Salix caprea) Hazel (Corylus avellana) Common Hawthorn (Crataegus monogyna)	7	100	4	6	4	6	0	1	Mixed hedge line bordering two fields.	None	M	40+	B2	4	1.2	/
H4	N/A	Blackthorn (Prunus spinosa) Hazel (Corylus avellana) Common Hawthorn (Crataegus monogyna)	10	150	3	3	3	3	0	0	Mixed hedge acting as a boundary between fields.	No action required.	M	40+	B2	10	1.8	/
T1	301	Pedunculate Oak (Quercus robur)	10	520	6	7	5	5	0.5	2.5	Tree of fair form. Has suffered some heavy pruning works previously resulting in a decaying wound at 3m. Some major deadwood observed throughout crown.	Remove all deadwood over 50mm in diameter.	EM	40+	BI 2	122	6.2	/
T2	302	Pedunculate Oak (Quercus robur)	12	470	4	4	5	7	1	3	Tree of good form growing out of mixed hedge. Some major deadwood in the crown.	None.	M	40+	BI 2	99	5.6	/
T3	303	Pedunculate Oak (Quercus robur)	14	550	5	7	4	8	1.5	2	Twin stemmed tree with a developing compression fork at 0.5m above ground level. Poached ground with exposed surface roots around the base likely due to livestock, leaving exposed roots.	Reinspect annually for development of the compression fork. Consider soil improvement over the rooting area to improve long term viability.	M	40+	CI 2	136	6.6	5

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m²)	RPA Radius (m)	Photo
					N	E	S	W										
T4	304	Pedunculate Oak (Quercus robur)	14	700	5	6	6	6	1	2	Tree of fair form. Some decay and hollowing observed in branches around 2m. Some major deadwood in crown.	Remove all deadwood over 50mm in diameter. Reinspect every 18 months to monitor decay cavities in the crown	M	40+	B1.2	221	8.4	/
T5	N/A	Pedunculate Oak (Quercus robur)	10	350	2	2	5	2	2	2	Tree of fair form within woodland on verge between site and highway.	None	EM	40+	B2	55	4.2	/
T6	N/A	Field Maple (Acer campestre)	8	200	2	2	5	2	2	1	Tree of fair form in woodland on verge between site and highway.	No action required.	EM	40+	B2	18	2.4	/
T7	N/A	Pedunculate Oak (Quercus robur)	12	450	2	2	5	2	2	1	Tree of good form in woodland on verge between site and highway.	No action required.	EM	40+	B2	91	5.4	/
T8	N/A	Pedunculate Oak (Quercus robur)	10	200	4	4	6	4	2.5	3	Multistemmed tree of average form in woodland on verge between site and highway.	No action required.	EM	40+	B2	18	2.4	/
T9	N/A	Pedunculate Oak (Quercus robur)	12	450	2	2	5	2	2	1	Tree of good form in woodland on verge between site and highway.	No action required.	EM	40+	B2	91	5.4	/
T10	N/A	Pedunculate Oak (Quercus robur)	12	450	2	2	5	2	2	1	Tree of good form in woodland on verge between site and highway.	No action required.	EM	40+	B2	91	5.4	/
T11	N/A	Pedunculate Oak (Quercus robur)	12	450	2	2	5	2	2	1	Tree of good form in woodland on verge between site and highway.	No action required.	EM	40+	B2	91	5.4	/
T13	N/A	Field Maple (Acer campestre)	10	200	4	4	6	4	2.5	3	Multistemmed tree of average form in woodland on verge between site and highway.	No action required.	EM	40+	B2	18	2.4	/
T14	N/A	Pedunculate Oak (Quercus robur)	12	300	2	2	5	2	2	1	Tree of good form in woodland on verge between site and highway.	No action required.	EM	40+	B2	40	3.6	/

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m²)	RPA Radius (m)	Photo
					N	E	S	W										
T15	N/A	Pedunculate Oak (Quercus robur)	12	300	2	2	5	2	2	1	Tree of good form in woodland on verge between site and highway.	No action required.	EM	40+	B2	40	3.6	/
T16	N/A	Ash (Fraxinus sp.)	16	350	4	2	8	2	2	4	Tree of poor health on banking between site and highway. Ash Dieback Disease (Hymenoscyphus fraxineus) health stage 3.	Consult landowner about removal of trees.	EM	<10	U	0	0.0	/
T17	N/A	Ash (Fraxinus sp.)	16	350	4	2	8	2	2	4	Tree of poor health on banking between site and highway. Ash Dieback Disease (Hymenoscyphus fraxineus) health stage 3.	Consult landowner about removal of trees.	EM	<10	U	0	0.0	/
T18	N/A	Ash (Fraxinus sp.)	16	350	4	2	8	2	2	4	Tree of poor health on banking between site and highway. Ash Dieback Disease (Hymenoscyphus fraxineus) health stage 3.	Consult landowner about removal of trees.	EM	<10	U	0	0.0	/
T19	N/A	Ash (Fraxinus sp.)	16	350	4	2	8	2	2	4	Tree of poor health on banking between site and highway. Ash Dieback Disease (Hymenoscyphus fraxineus) health stage 3.	Consult landowner about removal of trees.	EM	<10	U	0	0.0	/
T20	N/A	Ash (Fraxinus sp.)	16	350	4	2	8	2	2	4	Tree of poor health on banking between site and highway. Ash Dieback Disease (Hymenoscyphus fraxineus) health stage 3.	Consult landowner about removal of trees.	EM	<10	U	0	0.0	/
T21	N/A	Ash (Fraxinus sp.)	15	750	8	8	8	8	2	6	Standing dead tree.	Remove tree.	D	Dead	U	0	0.0	I

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m ²)	RPA Radius (m)	Photo
					N	E	S	W										
T22	305	Pedunculate Oak (Quercus robur)	18	630	2	4	8	4	1	6	Tree of hood form growing out of mixed hedge line. One snapped out branch suspended in crown observed.	Removed snapped out branch and prune back to suitable growth point.	M	40+	B1,2	179	7.6	/
T23	306	Pedunculate Oak (Quercus robur)	15	700	10	8	5	8	0	4	Tree of good form growing from hedge line.	No action required.	M	40+	B1,2	221	8.4	/
T24	N/A	Hazel (Corylus avellana)	8	100	3	3	3	3	1	0	Hazel coppice on railway land overhanging site by 2m.	Consider trimming back to fence line.	M	40+	B2	4	1.2	/
T25	N/A	Pedunculate Oak (Quercus robur)	15	450	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	B1,2	91	5.4	/
T26	N/A	Pedunculate Oak (Quercus robur)	15	500	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	B1,2	113	6.0	/
T27	N/A	Pedunculate Oak (Quercus robur)	15	450	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	B1,2	91	5.4	/
T28	N/A	Pedunculate Oak (Quercus robur)	15	550	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	B1,2	136	6.6	/
T29	N/A	Pedunculate Oak (Quercus robur)	15	350	4	4	4	4	1	2	Multi stemmed tree of reasonable form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	B1,2	55	4.2	/

Ref	Tag	Species	Height (m)	Stem Diam (mm)	Crown Spread (m)				Crown Clearance (m)	Lowest Branch (m)	Survey Notes	Recommendations	Life Stage	Life Expectancy (years)	Retention Category	RPA Area (m ²)	RPA Radius (m)	Photo
					N	E	S	W										
T30	N/A	Pedunculate Oak (Quercus robur)	15	400	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	BI ₂	72	4.8	/
T31	N/A	Pedunculate Oak (Quercus robur)	15	500	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	BI ₂	113	6.0	/
T32	N/A	Pedunculate Oak (Quercus robur)	15	300	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	BI ₂	40	3.6	/
T33	N/A	Pedunculate Oak (Quercus robur)	15	400	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	BI ₂	72	4.8	/
T34	N/A	Pedunculate Oak (Quercus robur)	15	300	4	4	4	4	1	2	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	BI ₂	40	3.6	/
T35	N/A	Pedunculate Oak (Quercus robur)	15	200	2	2	2	2	1	0.5	Tree of good form on railway land providing visual and acoustic screening between site and railway line.	Consider crown raising over site to suitable growth points.	M	40+	BI ₂	18	2.4	/
T36	N/A	Sycamore (Acer pseudoplatanus)	10	200	3	3	3	3	2	2	Multi stemmed coppice with many tight forks and crossing branches.	Consider removal.	EM	20-40	CI	18	2.4	/

Section 3: Preliminary Management Recommendations

- Category U Trees should be removed before work begins on site.
- The trees or groups with reference numbers: T16, T17, T18, T19, T20, T21 are considered unsafe and recommended remedial work should be considered a top priority, regardless of the progression of development.
- Use the findings of this report to inform the site design and minimize tree losses and damage to retained trees. Considering the following points:
 - Any excavation works within the Root Protection Areas (RPAs) of retained trees, including drainage and service installation, as well as foundation laying should be avoided wherever possible.
 - Installation of hard surfaces over the RPAs of trees should be avoided wherever possible.
 - Avoid creating level changes within the RPAs of trees.
 - If works within the RPAs of retained trees cannot be avoided, specialist engineering techniques should be provided in an arboricultural method statement.
 - If an incursion into the Root Protection Area (RPA) is significant enough that an Arboricultural Method Statement cannot adequately minimize the risk of damage or loss, the tree should be considered lost to development. This should be clearly stated in the Arboricultural Impact Assessment, and the affected tree should be removed before commencing construction works, following planning approval.
 - Category C trees do not necessarily constrain the site design but can be retained if desired, as long as their presence does not conflict with the desired layout.
 - Make efforts to retain category A and B trees.
 - Consult the project arboriculturalist on the future stem thickening of light structures and surfacing, such as footpaths, walls, and fencing, or use the guidance provided in Table A of BS5837.
 - Consider the shading impact of retained trees on buildings. Position spaces requiring natural light away from trees or facing away from trees to prevent future pressure for tree removal.
- Commission an Arboricultural Impact Assessment upon completion of the design to determine if retained trees are at risk of damage from the proposed development.
- Commission an Arboricultural Method Statement, where necessary, to minimize the risk of damage or loss of retained trees.
- Obtain relevant approval from the Local Planning Authority (LPA) before proceeding with tree clearance works. **Removal of category U trees can proceed immediately where they pose a current safety concern.**
- Reinspect retained trees upon completion of the development.
- Install barrier fencing around all RPAs and tree crowns, where possible, to protect all trees before commencing any works on the site. This should establish a construction exclusion zone.
- Follow the steps outlined in the Arboricultural Method Statement when construction activities within the RPAs of retained trees are unavoidable.
- Produce an Arboricultural Impact Assessment, Tree Protection Plan, and Arboricultural Method Statement to prevent damage to retained trees on the site.
- It is strongly recommended all recommended works are completed within the specified time frame. Failure to do so may increase the risk of damage or injury.
- Unless specified in this report, the assessment of trees does not consider any habitat constraints that may be present. Ensure that tree surgeons commissioned for tree work are aware of their responsibilities under the Wildlife and Countryside Act (1981) regarding protected species.
- Conduct relevant soil analysis by geophysical engineering specialists to determine constraints related to shrinkable clay soils.
- Ensure that all tree work is carried out by suitably qualified operatives in accordance of the relevant industry best practices and British Standard (BS3998: Tree Work: Recommendations).
- Trees require regular inspection and maintenance particularly in situations where they are close to high usage areas such as residential properties and roads. The recommended date for next inspection is: 12/03/2025

Appendices

Appendix I: Photographs taken on site.

Appendix II: Tree constraints plan showing the location of trees and their root protection areas

Appendix III: A cascade chart from BS5837: 2012- Trees in relation to design, demolition, and construction– Recommendations explaining the categorisation of trees.

Appendix IV: A diagram showing the recommended configuration for tree protective fencing, from BS5837: 2012- Trees in relation to design, demolition, and construction– Recommendations.

Appendix V: A Glossary of terms and phrases commonly used in tree reports.

Appendix VI: references.

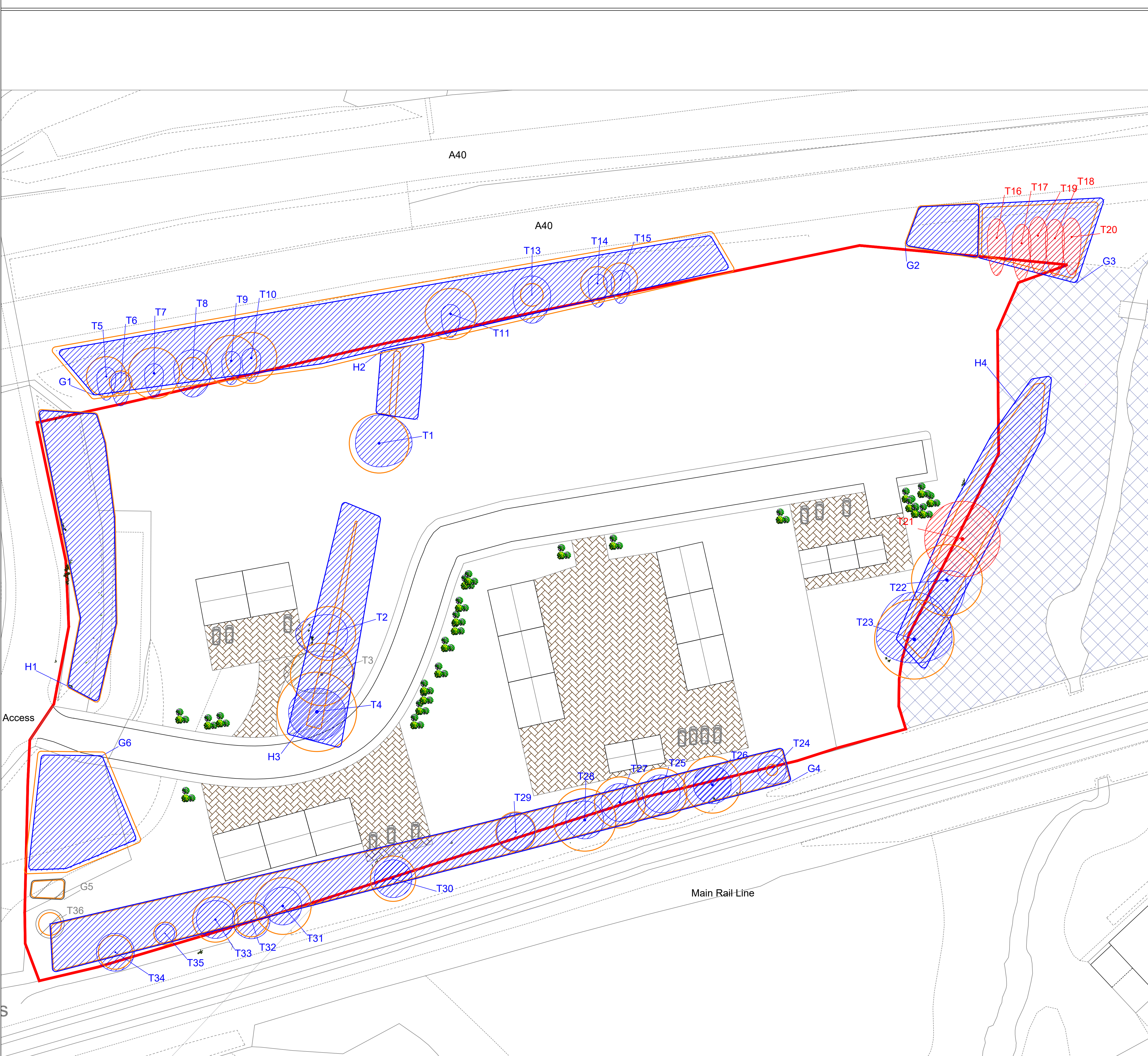
Appendix I: Photos

Photo I: T21 Dead Ash tree.



Photo 5: T3 Exposed roots due to livestock grazing.





Ref	Tag	Species	Height	Stem Diam (mm)	Life Stage	Life Expectancy	Retention Category	RPA Area (m ²)	RPA Radius (m)
G1	N/A	Blackthorn (Prunus spinosa) Field Maple (Acer campestre) Hazel (Corylus avellana) Pedunculate Oak (Quercus robur) Common Hawthorn (Crataegus monogyna) Sycamore (Acer pseudoplatanus)	9	150	EM	40+	B2	10	1.8
G2	N/A	Hazel (Corylus avellana) Field Elm (Ulmus minor)	16	350	EM	40+	B2	55	4.2
G3	N/A	Common Hawthorn (Crataegus monogyna) Hazel (Corylus avellana) Blackthorn (Prunus spinosa) Oak (Quercus sp.)	6	150	EM	40+	B2	10	1.8
G4	N/A	Goat Willow (Salix caprea)	8	150	EM	40+	C1, 2	10	1.8
G5	N/A	Blackthorn (Prunus spinosa) Goat Willow (Salix caprea) Common Hawthorn (Crataegus monogyna) Hazel (Corylus avellana) Ash (Fraxinus sp.)	8	150	EM	40+	B2	10	1.8
G6	N/A	Crack Willow (Salix fragilis) Hazel (Corylus avellana) Pedunculate Oak (Quercus robur) Goat Willow (Salix caprea) Blackthorn (Prunus spinosa) Hawthorn (Crataegus sp.)	4	100	EM	40+	B2	4.5	1.2
H1	N/A	Blackthorn (Prunus spinosa) Hawthorn (Crataegus sp.) Common Holly (Ilex aquifolium) Hazel (Corylus avellana) Blackthorn (Prunus spinosa) Goat Willow (Salix caprea) Hazel (Corylus avellana) Common Hawthorn (Crataegus monogyna)	7	100	M	40+	B2	4.5	1.2
H2	N/A	Blackthorn (Prunus spinosa) Hazel (Corylus avellana) Common Hawthorn (Crataegus monogyna)	7	100	M	40+	B2	4.5	1.2
H3	N/A	Blackthorn (Prunus spinosa) Hazel (Corylus avellana) Common Hawthorn (Crataegus monogyna)	7	100	M	40+	B2	4.5	1.2
H4	N/A	Blackthorn (Prunus spinosa) Hazel (Corylus avellana) Common Hawthorn (Crataegus monogyna)	10	150	M	40+	B2	10	1.8
T1	301	Pedunculate Oak (Quercus robur)	10	520	EM	40+	B1,2	122	6.2
T2	302	Pedunculate Oak (Quercus robur)	12	470	M	40+	B1,2	100	5.6
T3	303	Pedunculate Oak (Quercus robur)	14	550	M	40+	C1, 2	137	6.6
T4	304	Pedunculate Oak (Quercus robur)	14	700	M	40+	B1,2	222	8.4
T5	N/A	Pedunculate Oak (Quercus robur)	10	350	EM	40+	B2	55	4.2
T6	N/A	Field Maple (Acer campestre)	8	200	EM	40+	B2	18	2.4
T7	N/A	Pedunculate Oak (Quercus robur)	12	450	EM	40+	B2	92	5.4
T8	N/A	Pedunculate Oak (Quercus robur)	10	200	EM	40+	B2	18	2.4
T9	N/A	Pedunculate Oak (Quercus robur)	12	450	EM	40+	B2	92	5.4
T10	N/A	Pedunculate Oak (Quercus robur)	12	450	EM	40+	B2	92	5.4
T11	N/A	Pedunculate Oak (Quercus robur)	12	450	EM	40+	B2	92	5.4
T12	N/A	Field Maple (Acer campestre)	10	200	EM	40+	B2	18	2.4
T13	N/A	Pedunculate Oak (Quercus robur)	10	200	EM	40+	B2	41	3.6
T14	N/A	Pedunculate Oak (Quercus robur)	12	300	EM	40+	B2	41	3.6
T15	N/A	Pedunculate Oak (Quercus robur)	12	300	EM	40+	B2	41	3.6
T16	N/A	Ash (Fraxinus sp.)	16	350	EM	<10	U	0	0
T17	N/A	Ash (Fraxinus sp.)	16	350	EM	<10	U	0	0
T18	N/A	Ash (Fraxinus sp.)	16	350	EM	<10	U	0	0
T19	N/A	Ash (Fraxinus sp.)	16	350	EM	<10	U	0	0
T20	N/A	Ash (Fraxinus sp.)	16	350	EM	<10	U	0	0
T21	N/A	Ash (Fraxinus sp.)	15	750	D	Dead	U	0	0
T22	305	Pedunculate Oak (Quercus robur)	18	630	M	40+	B1,2	180	7.6
T23	306	Pedunculate Oak (Quercus robur)	15	700	M	40+	B1,2	222	8.4
T24	N/A	Hazel (Corylus avellana) Pedunculate Oak (Quercus robur)	8	100	M	40+	B2	4.5	1.2
T25	N/A	Pedunculate Oak (Quercus robur)	15	450	M	40+	B1,2	92	5.4
T26	N/A	Pedunculate Oak (Quercus robur)	15	500	M	40+	B1,2	113	6
T27	N/A	Pedunculate Oak (Quercus robur)	15	450	M	40+	B1,2	92	5.4
T28	N/A	Pedunculate Oak (Quercus robur)	15	550	M	40+	B1,2	137	6.6
T29	N/A	Pedunculate Oak (Quercus robur)	15	350	M	40+	B1,2	55	4.2
T30	N/A	Pedunculate Oak (Quercus robur)	15	400	M	40+	B1,2	72	4.8
T31	N/A	Pedunculate Oak (Quercus robur)	15	500	M	40+	B1,2	113	6
T32	N/A	Pedunculate Oak (Quercus robur)	15	300	M	40+	B1,2	41	3.6
T33	N/A	Pedunculate Oak (Quercus robur)	15	400	M	40+	B1,2	72	4.8
T34	N/A	Pedunculate Oak (Quercus robur)	15	300	M	40+	B1,2	41	3.6
T35	N/A	Pedunculate Oak (Quercus robur)	15	200	M	40+	B1,2	18	2.4
T36	N/A	Sycamore (Acer pseudoplatanus)	10	200	EM	40	C1	18	2.4

Key

- Category A. Trees with high retention value.
- Category B. Trees with moderate retention value.
- Category C. Trees with low retention value.
- Category U. Trees unsuitable for retention due to condition
- Root Protection Area (RPA)

Tree Key

- Canopy extents, hatched area represents area within the canopy.
- Location of tree base, taken from position on TOPO or GPS.

Reference number (T for trees, G for groups, W for woodlands, H for hedges).

RPA- an indication of the estimated minimum rooting area required by the tree. Calculated in accordance with BS5837.

Tree Constraints Plan- Land Between A40 and Railway

1:400 at A1

Client	Evans Banks Planning
Survey Code	2335
Drawn by	BC
Surveyed by	BC
Date	21/09/2023

Tree Check
Arboriculture Ltd.

Ben Clark
TechArbora, Dip Arb L4 (ABC)

Tree Check Arboriculture Ltd.
Tel. 07736236152
Email:ben@treecheck.co.uk
www.Treecheck.co.uk

Drawing designed to be viewed in colour. Indicative only, check all RPA's on site in accordance with table.

Appendix III: Cascade Table for the Categorisation of Trees (BS5837)

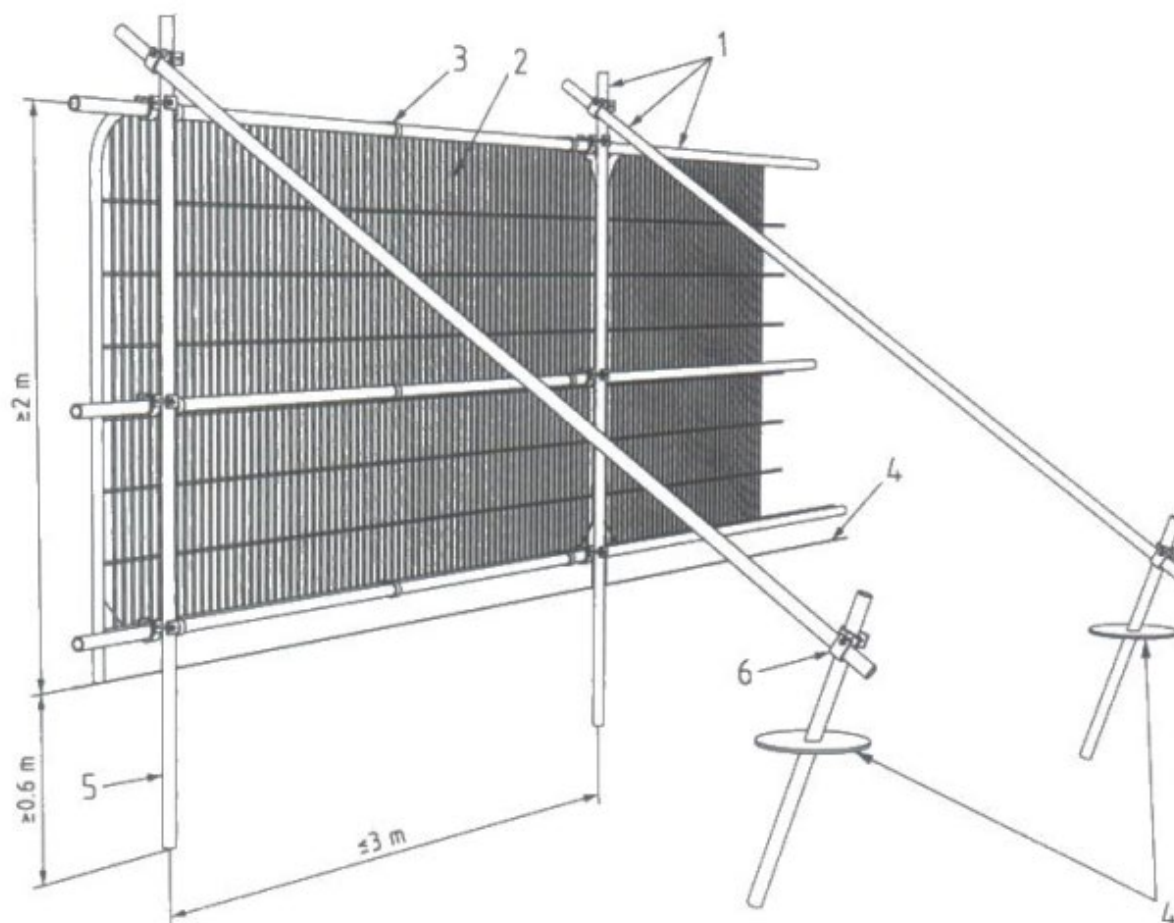
Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
Category U 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, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U category trees (i.e. 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; see 4.5.7		
	1 Mainly Arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation
Category A Those of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as Arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation; historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B Those of moderate quality 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 benefits
Category C Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	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

BRITISH
STANDARD
D BS
5837:201
2

Appendix IV: Recommended Configuration for Tree Protective Fencing (BS5837)

Figure 2 Default specification for protective barrier



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 V: Glossary

Aerial Inspection: A close inspection of the aerial part of a tree, either by mobile elevated work platform (MEWP) or by a tree surgeon (climbing inspection). **Adaptive Growth;** The growth of new wood in response to a stress concentration in the structure of a tree

Adventitious; A shoot which arises from tissue other than a growing shoot apex or bud, for instance in callus associated with a wound.

Anchorage; The holding of the structural root system of a tree within the soil.

Architecture; the formation and distribution of a tree's branch system.

Arboricultural Impact Assessment: That part of the BS 5837 (2012) procedure that evaluates the tree-related constraints to a development (loss of trees, encroachment into root protection areas etc.).

Arboricultural Method Statement: That part of the BS 5837 (2012) procedure that sets out how site works should be carried out near trees to avoid accidental damage.

Arboriculturalist: A person skilled or knowledgeable in the field of arboriculture. The alternative term 'arboriculturalist' is sometimes used. A Person trained and experienced in the management of trees, and trees in relation to construction.,

Assessment: The process of examining the variables involving a trees condition and location in order to assess the risk posed by an individual tree.

Bole (trunk): The main , vertical stem or trunk of a tree.

Branch: a limb extending from the main stem or parent branch of a tree

Canopy: the combined foliage of a group of trees or a woodland, i.e. the combined area of numerous crowns.

Construction Exclusion Zone: The part of a development site from which all pedestrian and vehicular movements are excluded by protective fencing, typically to ensure the wellbeing of trees, during site works. Usually determined by the RPA of a tree.

Crown: in arboriculture the main foliage-bearing portion of a tree containing the leaves and branches

Defect: Any feature of a tree that is likely to make it less safe (in the case of a structural defect) or otherwise to reduce its health, longevity, landscape prominence or conservation value for any other reason.

Dysfunction: The cessation of physiological function in woody material, especially vascular functions such as water and sap transportation.

Failure: Fracture or deformation in any load bearing part of the tree, compromising stability or causing loss of support for part of, or all of the tree structure,

Group: More than one tree in close proximity that possess sufficient similarity or cohesiveness that they can be treated as a single entity for the purpose of this report.

Heave: deformation of shrinkable clay soil related to the expansion caused by rehydration.

Leader: the dominant, vertical shoot or stem of a tree.

Pruning: The cutting off or cutting back of tree branches or foliage to direct growth, remove an obstructing part, mitigate a nuisance, make safe, remove a diseased part, increase longevity, simulate natural damage, enhance habitat for wildlife etc.

Retained Tree: a tree that has been considered suitable for retention and therefore selected to remain as part of the final site layout.

Risk: the likelihood of a hazard to cause actual harm to people or property,

Root Protection Area (RPA): The area around the base of a tree that contains sufficient root volume to ensure the future well-being of the tree in the event of nearby soil disturbance (as on a development site). It is calculated according to guidelines in BS 5837 (2012).

Subsidence (branch): Branches, especially if spreading, tend gradually to subside under their own weight, and may eventually reach ground level in large open-grown trees. Rapid subsidence may result in crown separation or congested bark and can lead to branch failure where there is no support within the elastic limit of a given branch.

Subsidence (soil): Broadly, the downward movement of ground and an affected foundation influenced by soil properties, weather, foundation depth and nearby vegetation.

Targets: An element of tree risk: the subject of injury or damage within range of a hazard.

Tree: The definition of 'tree' is a composite of tree species, tree form and tree size. The blue book offers the following: A perennial plant with a self-supporting woody main stem, usually developing woody branches at some distance from the ground and growing to a considerable height and size. This definition has the three main elements in general form. **For the purposes of 5837 surveys, only plants with a stem diameter of 75mm or above are considered trees.**

Tree Constraint Plan (TCP): Site plan showing the tree-related constraints to development as envisaged in BS 5837 (2012). Common constraints are the loss of trees, encroachment into a tree's root protection area.

Tree Condition Inspection/Survey: A procedure to inspect a tree or trees. Variables used to describe a tree include position (if not already plotted on a topographical survey), species identity, maturity, various dimensions (main stem diameter, height, crown radius etc.),

aspects of form, vigour, condition, incidence of pests, diseases, damage and defects, evidence of past management etc. Site factors, position in the landscape and site usage may also be relevant, usually including its position, species identity, dimensions, age class, condition, conservation value etc. as appropriate, and to identify and evaluate defects. It is also common to make management recommendations (see schedule of works). Tree inspection is a fundamental of tree management and advisory practice in arboriculture.

Tree Preservation Order: (UK) an order made by a local authority or other planning authority to protect a tree, group of trees, area of (scattered) trees or woodland under Part VIII of the Town and Country Planning Act 1990. There have been several amendments, the latest being the Town and Country Planning (Tree Preservation) (England) Regulations 2012. An order is generally made on the grounds of amenity and expediency. Anyone proposing works to a TPO tree must seek prior consent from the authority using the form IAPP. With the advent of the 2012 regulations, some of the detail in existing TPOs in England has been revoked.

Tree Protection Plan: scale drawing prepared by an arboriculturalist showing the final layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement (AMS), which can be shown graphically.

Trunk: see bole.

Vigour: The health and resilience of a tree (from the Latin 'to be strong'), reflected in the capacity of the whole tree to grow (see growth rate). The term is often used as a description of overall condition on a qualitative scale from 'high' to 'low'.

Visual Tree Assessment (VTA): The standard approach to tree risk assessment consisting of the diagnosis of structural defects and the evaluation of their significance from visible signs and the application of biomechanical criteria. Simple equipment such as a sounding mallet, probe and binoculars are commonly used.

Wind exposure: the degree to which a tree or other object is exposed to wind, with regard both to duration and velocity, often taking into account prevailing wind directions.

Windthrow: the blowing over of a tree at its roots.

Appendix VI: References

1. Cranfield Soil and Agrifood Institute (2023). Soilsclapes soil types viewer - National Soil Resources Institute. Cranfield University. [online] www.landis.org.uk. Available at: <https://www.landis.org.uk/soilsclapes/>.
2. Gov.wales. (2023). My Nearest - Planning information. [online] Available at: <https://www.carmarthenshire.gov.wales/home/council-services/planning/my-nearest-planning-information/> [Accessed 9 Jun. 2023].
3. Claus Mattheck, Klaus Bethge and Karlheinz Weber (2015). The body language of trees encyclopedia of visual tree assessment. Karlsruhe Karlsruhe Inst. Of Technology - Campus North.
4. Hiron, A.D. and Thomas, P.A. (2018b). Applied tree biology. Chichester, West Sussex Wiley Blackwell.
5. British Standards Institution (2012). Trees in relation to design, demolition and construction : recommendations. London, Eng.: B.S.I.
6. British Standards Institution (2010). Tree work : recommendations. London: British Standards Institution.
7. Rose, B. (2020). THE USE OF CELLULAR CONFINEMENT SYSTEMS NEAR TREES: A GUIDE TO GOOD PRACTICE. [online] Stonehouse, Gloucestershire: Arboricultural Association. Available at: <https://www.trees.org.uk/News-Blog/Latest-News/New-guide-to-use-of-cellular-confinement-systems-n> [Accessed 25 Mar. 2023].

Terms and conditions

The Client is the party commissioning and funding the survey. The Consultant is any person(s) employed by Tree Check Arboriculture LTD to carry out any related works, as well as Tree Check Arboriculture LTD as an entity.

Limitations

1. This survey reflects the condition of the trees as they were observed on 12-Sept-2023. The condition of trees can change quickly and if any significant change is observed then a qualified arboriculturist should be consulted regardless of the recommended reinspection period.
 2. While every attempt has been made to provide accurate recommendations based on the condition of the observed trees, Tree Check Arboriculture Ltd. can accept no liability for damage, injury, or loss of property caused by faults that were not apparent at the time of inspection. These include but are not limited to faults that may only be visible seasonally such as fungal fruiting bodies, or faults that were obscured or inaccessible to the surveyor such as those high up in the crown or obscured by ivy.
 3. During adverse weather conditions such as storms, otherwise healthy trees can fail. Trees should be visually inspected after any high winds.
 4. This report cannot predict the reaction of inspected trees to external factors such as extreme climate events, accidents, or vandalism.
 5. The author(s) can accept no liability for damages if the recommended works are not carried out as per this report in line with BS:3998.
 6. Operational recommendations (e.g.) climb and dismantle, are for loose guidance only. It remains the responsibility of the assigned contractor to decide on the safest work method. Tree Check Arboriculture LTD. accepts no responsibility for damages occurring during the carrying out of recommended works.
 7. This report does not cover any underground part of trees, nor does it consider any affect inspected trees may have on shrinkable clay soils since these issues are almost entirely restricted to areas of shrinkable clay soils and soil analysis was not specified in the brief.
 8. **Recommendations made in this report do not override any legislation covering the affected trees. Trees in a conservation area, trees subject to preservation orders and groups of trees requiring felling licenses still require relevant permissions before work can be carried out. Unless otherwise agreed the Tree Check Arboriculture LTD will not be checking for the presence of this legislation or be applying for these permissions. The Client must contact the consultant if they are unsure on this matter.**
 9. Certain areas of the site were inaccessible in the time scale of this survey due to dense vegetation cover. Areas and trees where this has been an issue are described in certain trees and groups in the survey table.
1. **The findings of this report cannot be relied upon after 12 months from the time of inspection or the recommended reinspection date (if sooner).**

Legal Constraints

10. The report is for use by the client and any reasonably involved third party advisors only. Rights to reproduce, publish, or broadcast the contents of this reports are reserved.
11. It is prohibited to make any amendments or omissions to this report under any circumstances. This report should be provided unaltered and in full to any third-party advisors, contractors or other involved parties to ensure that the hazards highlighted are understood and the necessary remedial works are commissioned. Failure to comply will invalidate the report and Tree Check Arboriculture Ltd. will accept no liability for damages occurring.
12. Tree Check Arboriculture LTD retains full title on this, and all subsequent reports until the relevant invoices are settled. Tree Check Arboriculture LTD accepts no liability relating to the contents of reports that have not been fully paid for.
13. This report only covers the scope described in the introduction of this report, as discussed with the client, Trees, and methods of inspection not described in the scope were not included, and it is the client's responsibility to bring it to the attention of Tree Check Arboriculture LTD if they feel the scope doesn't fully meet their requirements.
14. The consultant is under no obligation to inspect trees in areas that are not freely accessible. It is the client's responsibility to ensure that all relevant areas of site are legally and practically accessible to the consultant.
15. In some instances, the consultant may recommend that further professional opinions are sought. For example, structural engineers, geotechnical engineers, drain engineers etc. Tree Check Arboriculture LTD accepts no responsibility for losses occurring from the advice sought from these third parties, nor from damages caused from acting without the consultation of the recommended professionals.
16. Tree Check Arboriculture LTD. accepts no responsibility for losses occurring between the time of commissioning and the delivery of a written report. No responsibility is accepted for losses occurring where delays or failure to deliver a report on the agreed date where delays or failures occurred due to circumstances out of the control of Tree Check Arboriculture LTD.
17. Each provision of these conditions limiting or excluding liability operates and survives independently of the others