

To complete the objectives stated in this report, it was necessary for OpenSpace to base our conclusions on the best information available during the period of the project and within the limits prescribed by our client in the agreement. This report is guided by CIEEM Guidelines for Ecological Report Writing.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. We therefore cannot guarantee that the investigations fully identified the degree or extent of e.g. species presence or habitat management efficacy described in this report.

Document Information

Client: Mr. K. Wirga

Address: Brandle How

Gilgarran Workington CA14 4RF

Project: Land at Gilgarran – West Site

Document Ref: OP-Gilgarran West–18/TRE03v2

Report Date: April 2018

Author(s): Diane Dobson

Report QA: Jonathan Rook

Report Revisions

Rev	Comment	Checked	Approved	Date
1	Final draft	DD	DD	15/02/18
2	Final draft QA'd	JR	JR	27/02/18
3	Final draft sent for comments	DD	DD	27/02/18
4	Final Draft v2	DD	DD	19/03/18
5	Final Report	DD	DD	03/04/18

OpenSpace, Ecological, Landscape & Tree Consultants

The Stables, Great Orton, Carlisle, Cumbria, CA5 6NA

Tel/Fax: 01228 711841. Email: jrook@openspacegb.com Web: www.openspacegb.com

CONTENTS

		RVEY FOR AN OUTLINE PLANNING APPLICATION FOR PROPOSED DEVELOPMENT GILGARRAN (WEST SITE)	
1		OJECT BACKGROUND	
2		OPE OF SURVEY AND METHODOLOGY	
3		SULTS OF SURVEY	
	3.1	Tree Results	3
4	TR	EE ASSESSMENT AND RECOMMENDATIONS	6
	4.1	Tree Assessment	6
	4.2	Removal of Trees Due to Poor Health or Quality	6
	4.3	Removal of Trees Due to Development	6
	4.4	Retained Trees	7
	4.5	Tree Protection Measures	7
	4.6	Tree Recommendations	9
5	SU	MMARY	10
6	RE	FERENCES/BIBLIOGRAPHY	11
7	AP	PENDIX ONE: KEY TO TREE SCHEDULE	12
8	AP	PENDIX TWO: PHOTOS	16
9	AP	PENDIX THREE: TREE COMMENTS	19
10	AP	PENDIX FOUR: TREE CATEGORIES	21
11	AP	PENDIX FIVE: TREE RPA	22
TAE	BLE		
Table	e 3.1.	Tree Identification Data	4
	URE	S Plan showing existing area of proposed development	2
		Aerial man of the site (showing proposed development footprint)	

i

Tree Survey for an Outline Planning Application for Proposed Development on Land at Gilgarran (West Site).

1 PROJECT BACKGROUND

This tree survey has been commissioned by Mr. Kevin Wirga in relation to an outline planning application for land in Gilgarran near Workington, Cumbria. As this is an application for outline planning, no detailed proposals are available.

The development is likely to affect a number of trees adjacent to the site. The site is not in a conservation area and there appear to be no TPO's on site.

2 SCOPE OF SURVEY AND METHODOLOGY

The tree survey aims to make a reasoned judgement as to the importance of all trees with consideration for their conservation and landscape value. The survey area (shown in the existing plan Figure 2.1 and the aerial photo in Figure 2.2) considered all trees within the site and by the site boundary that may be affected by the proposed development.

The inspection method was a standard Visual Tree Assessment (VTA) from ground level. The survey investigated the condition of each tree, including tree species, tree health, evidence of pathogens, tree structure, tree age (estimate), tree size and other observations on condition and use. Diane Dobson (BSc., MSc., MCIEEM) and Jonathan Rook (MIEnvSc) undertook the assessment, with over 15 years combined tree survey experience. Tree categorization was in accordance to guidance within BS 5837:2012 'Trees in Relation to Construction' (TIC) where an assessment was reached on the quality of each tree.

Proposed Development

150m

150m

Ordenses Survey: © Crosso Copyright 2018. All rights reserved. Licenses sustber 190622432. Photoed Survey. Proposed

Proposed Development

Ordenses Survey: © Crosso Copyright 2018. All rights reserved. Licenses sustber 190622432. Photoed Survey.

Figure 2.1. Plan showing existing area of proposed development

Figure 2.2. Aerial map of the site (showing proposed development footprint)



3 RESULTS OF SURVEY

The daytime survey was undertaken on 12th February 2018 between the hours of 09.10 and 12.00 by Diane Dobson.

3.1 Tree Results

Seventeen trees were surveyed in accordance with TIC, with two trees adjacent to the site boundary (in the ownership of Mr. Wirga) having their girth measurement taken. One tree outside the proposed development site boundary, which is in in third party ownership, had the girth measurement taken. Of the TIC surveyed trees, 10 trees were considered to be Category C and seven trees considered to be Category U (four trees under 150mm were also considered to be Category U) (see Figure in Appendix Four for tree categories and Appendix One for explanation of the categories). As the survey was undertaken in winter the canopy and the leaf cover of deciduous trees could not be assessed.

General tree descriptions are provided in Table 3.1 on page 4; for further comments on trees see Appendix Three. Photos are provided on in Appendix Two.

It should be noted that only the trees over 150mm stem diameter at a height of 1.5m were surveyed.

Table 3.1. Tree Identification Data

No	Species	Height (m)	Diam. @1.5m (mm), at root flare for stem =*	No. of stems, M=multi- stemmed	N radius (m)	S radius (m)	E radius (m)	W radius (m)	Age Class	Tree age (years)	Remaining contribution (years)	Physiological condition	Structural condition	RPA radius (m)	RPA (m²)	Category
T1	Sycamore Acer pseudoplatanus	7	160	1	1	1	2	1.5	Y	20	20+	F	G	1.8	10	С
T2	Sessile Oak Quercus petraea	7	195	1	2	2.5	2.5	1.5	Y	20	20+	F	G	2.4	18	С
Т3	Sycamore Acer pseudoplatanus	11	240	1	0.5	1	1.5	2	SM	20-30	10-20	P-F	F	3.0	28	С
T4	Sycamore Acer pseudoplatanus											Р	Р			U
T5	Sycamore Acer pseudoplatanus	10	220	1	0.5	2.5	2.5	0	SM	20-30	10-20	P-F	P-F	2.7	23	С
T6	Sycamore Acer pseudoplatanus											Р	F			U
Т7	Sycamore Acer pseudoplatanus											Р	F			U
T8	Sycamore Acer pseudoplatanus											Р	F			U
Т9	Sycamore Acer pseudoplatanus	11	240	1	1.5	0.5	2	0.5	SM	20-30	10-20	P-F	F	3.0	28	С
T10	Sycamore Acer pseudoplatanus	10	220	1	0.5	2	1	1	SM	20-30	10-20	P-F	F	2.7	23	С
T11	Sycamore Acer pseudoplatanus	9	210	1	1.5	0.5	0.5	2	SM	20-30	10-20	P-F	F	2.4	18	С

No	Species	Height (m)	Diam. @1.5m (mm), at root flare for stem =*	No. of stems, M=multi- stemmed	N radius (m)	S radius (m)	E radius (m)	W radius (m)	Age Class	Tree age (years)	Remaining contribution (years)	Physiological condition	Structural condition	RPA radius (m)	RPA (m²)	Category
T12	Sycamore Acer pseudoplatanus	11	230	1	0.5	1	1	1	SM	20-30	20+	F	F	2.7	33	С
T13	Sycamore Acer pseudoplatanus	11	265	1	2	3	3	2	SM	30-40	20+	F	F-G	3.3	34	С
T14	Sycamore Acer pseudoplatanus	10	285	1	2.5	2	2	2	SM	30-40	10-20	P-F	F	3.3	34	С
T15	Sycamore Acer pseudoplatanus											Р	F			U
T16	Sycamore Acer pseudoplatanus											Р	F			U
T17	Sycamore Acer pseudoplatanus											Р	F			U
T18	Sycamore Acer pseudoplatanus		180											2.1	14	С
T19	Sycamore Acer pseudoplatanus		260											3.0	28	С
The	following tree is outside the	propose	ed develo	oment si	te bou	ndary	and ar	e in thi	rd party	ownership	o – only th	ne girth r	neasure	ment has	been ta	ken
			540*											5.4	92	

4 TREE ASSESSMENT AND RECOMMENDATIONS

4.1 Tree Assessment

The fully surveyed trees were within the proposed development site, with two trees adjacent to the site boundary (in the ownership of Mr. Wirga) and one tree outside the eastern boundary in third party ownership. From the Copeland Borough Council "my maps" webpage the site is not in a conservation area and there are no apparent TPO's on site.

Ancient Woodland Designation

The site is part of a Natural England designation of "Ancient Woodland". During a Phase 1 Habitat Survey (See OpenSpace Preliminary Ecological Appraisal Report, (OpenSpace, 2018)) the site has been classed as "Broad-leaved Parkland". The parkland had ancient woodland ground flora indicators present at the time of survey. With the presence of numerous trees and other indicators species present there is still ancient woodland habitat present. Since the site is designated Ancient Woodland, consultation with Natural England must be undertaken before any decision on the planning application is determined.

4.2 Removal of Trees Due to Poor Health or Quality

Seven surveyed trees and four trees under 150mm in girth could be removed due to poor health or poor structure. The removal of seven trees is considered to be of moderate to high visual amenity impact as the trees can be seen from the lane to Gilgarran, the main road and the site is designated as ancient woodland. If any approval is given to allow development or tree removal, there must be adequate compensation planting to offset the loss of tree resource. Any planting scheme must consider native tree species.

4.3 Removal of Trees Due to Development

There are currently no proposed plans available and it is not known if any trees are proposed for removal. The removal of several of the trees (as well as the above poor status trees) is considered to be of moderate to high visual amenity impact as the trees can be seen from the lane to Gilgarran, the main road and the site is designated as ancient woodland. If the proposed development is small scale with the removal of few trees then the potential impact is likely to be reduced.

Since ancient woodland habitat forms over hundreds of years (including the soil structure), it is recommended that any development, whatever the size, allows for soil and habitat

retention where possible. To compensate for the loss of several trees, a robust mitigation planting schedule should be put in place using native tree species. Mr. Wirga is in a Woodland Grant WIGS scheme and part of the mitigation could include positive management, such as native tree planting in the adjacent woodland.

4.4 Retained Trees

As there are no plans available, it is not known if there will be any impact on an RPA. If there are potential incursions into any RPA, there is a risk that tree roots will be damaged during installation of the access, with a risk of soil compaction from construction machinery. There may be an impact to third party trees growing outside the development site.

The impact of the proposed development will be determined by the final layout plan for the full application. Any landscaping proposals within the RPA must considered potential damage to roots.

4.5 Tree Protection Measures

To reduce and manage the potential impacts on all retained trees the following measures must be considered.

- 1. Construction to be directed away from retained trees.
- 2. No tree roots greater than 25mm to be cut.
- 3. Limited pruning of retained trees to be approved by the Tree Officer.
- 4. Permeable materials and Geogrid (or equivalent i.e. Geoweb) to be considered for the access into the site and any car parking area where in or near to RPAs.
- 5. All materials for construction and machinery stored outside all RPA.
- 6. No construction vehicles to access near all retained trees.
- 7. Set up protection fencing along the edge of the RPA to stop machinery entering. Since the risk of machinery needing to access the RPA this report recommends a simple wooden post and plastic net fencing will be sufficient. IF the works require greater impact outside of the site footprint then is would be necessary to install Full Tree Protective Fencing.
- 8. Where issues arise for root compaction wooden working boards should be used to protect the tree roots.

- Trees should be felled between September and March. If felled trees are removed within the bird breeding season a detailed bird nest survey must be undertaken before any felling commences.
- 10. Any trees due for works that have potential for bat roosts must be inspected for bats prior to felling / works.
- 11. Any trees proposed for works or removal should be checked for squirrel dreys prior to removal.

This report recommends a no dig option or hand digging option be considered to reduce impact to tree roots where the works are located within or adjacent to the RPA of retained trees. Where digging is to take place within the RPA, permission would need to be gained from the local planning authority to dig within the RPA.

Within the design, where possible, geogrid or geotextile (or equivalent i.e. Geoweb) and permeable materials could be used for new access routes, paths or parking areas where the RPA of retained trees is affected.

General Precautions

The following schedule sets provides general measures for all retained trees on site. These will be carried out before commencement of other site operations including erection of protective fencing. These are:

- All works will be carried out in accordance with the British Standard Institution (2010). BS3998:2010 Recommendations for Tree Work – recommendations. BSI, London.
- The specification for protective fencing will conform to British Standard Institution (2012). BS5837:2012 Trees in relation to Construction – recommendations. BSI, London.
- All protective measures signed off by arboricultural consultant.
- No vehicles will be allowed to enter areas to be protected by fencing.
- No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a retained tree.

Follow other general measures as below:

Do not store materials, plant or equipment within RPA.

- Do not move plant or vehicles within the RPA.
- **Do not** lean materials against, or chain plant to, the trunk.
- Do not cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.
- Do not repeatedly move / use heavy mechanical plant except on hard standing/ access road zone.
- Do not store spoil or building material, including chemicals and fuels, within this
 zone.
- Do not light fires under any tree canopy or within 20 metres of any tree to be retained.
- Do not empty cement washing or other chemical within the RPA.
- **Do** contact the local authority tree officer or owner of the tree if excavation within RPA by machinery is unavoidable or not been agreed prior to works.
- **Do** protect any exposed roots uncovered within RPA with dry sacking.
- **Do** backfill with a suitable inert granular and top soil material mix as soon as possible on completion of works.
- **Do** notify the local authority tree officer or the tree's owner of any damage.

4.6 Tree Recommendations

Any loss of tree resource on site should be mitigated by planting replacement trees. To enhance local biodiversity most tree planting should consider using native trees (or wildlife friendly ornamental species) in appropriate locations across the site. The trees should be located on an agreed Landscape Plan. The tree planting should aim for a 1:1 ratio of replacement, with an additional five trees to be considered as enhancement planting.

To enhance local biodiversity the tree planting should consider using native trees (or wildlife friendly ornamental species) in appropriate locations across the site. The trees should be located on an agreed Landscape Plan.

Planting Recommendations

These species are appropriate for the location and all are native species (Ash has currently not been recommended due to the restrictions in place due to Ash Dieback). Planting native trees and shrubs will enhance the site for biodiversity.

Native tree species suggested:

Silver Birch (Betula pendula)

Wild Cherry (Prunus avium)

Rowan (Sorbus aucuparia)

Sessile Oak (Quercus petraea)

English Oak (Quercus robur)

Small tree/ shrub species suggested:

Hawthorn (Crataegus monogyna)

Hazel (Corylus avellana)

Holly (*Ilex aquifolium*)

Bird Cherry (Prunus padus)

Guelder Rose (Viburnum opulus)

Dog Rose (Rosa canina agg.)

Use of native ground flora could be planted using plug plants or selected seed sowing. The species should be chosen following a site visit in the spring to identify what species are present.

5 SUMMARY

There are currently no plans available for the proposed development west of Gilgarran and therefore final analysis of impact is limited. As the site is designated ancient woodland, if several of the trees are proposed for removal, the impact of removal is expected to be of moderate to high impact. If the proposed development is small scale with the removal of fewer trees then the impact is likely to be reduced. There will be a requirement for a robust planting mitigation scheme put in place to compensate for the loss of the trees. If the proposed landscape plan allows for new tree planting and other native planting then any tree removal could be suitability mitigated. However, this does not remove the requirement to consult with Natural England to determine the status of the Ancient Woodland designation.

There may be an impact on the RPA of retained trees. It is important to ensure that any construction should follow **British Standard 5837:2012 trees in relation to construction** to avoid any damage to the retained trees.

6 REFERENCES/BIBLIOGRAPHY

British Standards 3998:2010 (2010). Tree Work. Recommendations. BSI, London.

British Standards 5837:2012 (2012). 'Trees in relation to construction'

CIEEM (2015). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

HMSO (1981). Wildlife and Countryside Act 1981, Schedule One

HMSO (2000). Countryside and Rights of Way Act 2000.

HMSO (2017). The Conservation (Natural Habitats, &c.) Regulations 2017. Statutory Instrument 2017 No. 1012.

Mattheck, C & Breloer, H (2007). The body language of trees. A handbook for failure analysis. The Stationery Office.

National Planning Policy Framework (2012). Conserving and Enhancing the Natural Environment.

11

Stace, C. (2010). New Flora of the British Isles (3rd Edition). CUP, Cambridge.

7 APPENDIX ONE: KEY TO TREE SCHEDULE

Tree ID No: Relates to individual trees identified within the Tree Survey Plan.

Species: Common name (*Latin name*).

Height: Estimated height expressed in metres to the nearest half metre.

Stem diameter: Diameter of main trunk or stems of a multi-stemmed tree taken at 1.5m

above ground level where this is measurable (where the stem diameter is affixed by a '*' this measurement has taken above the root flare for multistemmed trees where the stems cannot be measured). Measurement

expressed in millimetres to the nearest 10mm.

Branch Spread: (N, S, E, W radius) Estimated crown radius expressed in metres to the

nearest half metre. Where a trees crown is heavily asymmetrical, the crown

radius for each cardinal compass point is given.

Age Class Y Young - Less than one third of natural life expectancy

SM Semi-mature - One thirds of natural life expectancy
EM Early mature - Two thirds of natural life expectancy

M Mature - More than two thirds of natural life expectancy

OM Over mature

No. of stems: M = multi-stemmed

Physiological Condition: G = Good F=Fair P=Poor D=Dead

Structural Condition: G = Good F=Fair P=Poor

Estimated remaining

Contribution: Expressed in years (<10, 10+, 20+, 40+)

Abbreviations: #: Estimated Ave: Average A.G.L: Above ground level

Cascade chart for tree quality assessment, with the colour identification added (from BS5837:2012)

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)							
Trees unsuitable for retention	(see Note)							
Category U		ole, structural defect, such that their early loss		See Table 2				
Those in such a condition	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)							
that they cannot realistically be retained as living trees in	Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline							
the context of the current land use for longer than 10 years	5.000 DE 20 30 W WWW W W ST	nificance to the health and/or safety of other						
To years	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 qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation					
Trees to be considered for rete	ention							
Category A	Trees that are particularly good	Trees, groups or woodlands of particular	Trees, groups or woodlands	See Table 2				
Trees of high quality with an estimated remaining life expectancy of at least 40 years	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)	visual importance as arboricultural and/or landscape features	of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light green				
Category B	Trees that might be included in	Trees present in numbers, usually growing	Trees with material	See Table 2				
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	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	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	conservation or other cultural value	Mid blue				
Category C	Unremarkable trees of very limited	Trees present in groups or woodlands, but	Trees with no material	See Table 2				
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	merit or such impaired condition that they do not qualify in higher categories	without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	conservation or other cultural value	Grey				

Root Protection Area: This is the minimum Root Protection Area (RPA) recommended within the British Standards 5837: 2012 'Trees in relation to construction'. The RPA is an area (m²) equivalent to a circle with a specified radius. This is the minimum area in m², which should be left undisturbed.

Calculating the Root Protection Area (RPA), BS5837: 2012 Trees in relation to construction - Recommendations Number of stems	Calculation			
Single stem tree	See Table D.1			
Tree with more than one stem arising below	$RPA(m^2) = a)$ For trees with two to five stems, the			
1.5m above ground level	combined stem diameter should be calculated as			
	follows:			
	$\sqrt{\text{(stem diameter 1)}^2 + (\text{stem diameter 2)}^2 \dots +}$			
	(stem diameter 5) ²			
	b) For trees with more than five stems, the			
	combined stem diameter should be calculated as			
	follows:			
	$\sqrt{\text{(mean stem diameter)}^2 \times \text{number of stems}}$			
NOTE The 12 x multiplier is based upon NJUG and published works by Metheny and Clark.				

Notes:

Whilst 'C' category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation or replacement through mitigation.

The calculated RPA should be capped to 707m², e.g. which is equivalent to a circle with a radius of 15m.

The RPA, for each tree (as determined in Table D.1 for single stemmed trees and equivalent resultant combined stem diameter for multi-stemmed trees – note for multi-stemmed trees where the stems are not measurable OpenSpace use the previous method of measuring the stem above the root flare (RPA(m^2) = ((Basal diameter(measured immediately above root flare)(mm) x 10) / 1000) x 3.142)), should be plotted on the TCP taking full account of the following factors, as assessed by an arboriculturalist, which may change its shape but not its area whilst still providing adequate protection for the root system:

a) The likely tolerance of the tree to root disturbance, based on factors such as species, age and condition and presence of other trees.

- b) The morphology and disposition of the roots, when know to be influenced by past or existing site conditions (e.g. presence of roads, structures and underground services).
- c) The soil type and structure.
- d) Topography and drainage.
- e) Where any significant part of a tree's crown overhangs the provisional position of tree protection barriers, these parts may sustain damage during the construction period. In such cases, it may be necessary to increase the extent of tree protection barriers to contain and thereby protect the spread of the crown. Protection may also be achieved by access facilitation pruning. An arboriculturalist should assess the need for such measures, including the precise extent of pruning.

PLOTTING THE RPA - TABLE D.1 (from BS5837:2012)

Table D.1 Root protection areas

Single stem	Radius of	RPA	Single stem	Radius of	RPA
diameter	nominal circle		diameter	nominal circle	
mm	m	m²	mm	m	m²
75	0.90	3	675	8.10	206
100	1.20	5	700	8.40	222
125	1.50	7	725	8.70	238
150	1.80	10	750	9.00	255
175	2.10	14	775	9.30	272
200	2.40	18	800	9.60	290
225	2.70	23	825	9.90	308
250	3.00	28	850	10.20	327
275	3.30	34	875	10.50	346
300	3.60	41	900	10.80	366
325	3.90	48	925	11.10	387
350	4.20	55	950	11.40	408
375	4.50	64	975	11.70	430
400	4.80	72	1 000	12.00	452
425	5.10	81	1 025	12.30	475
450	5.40	92	1 050	12.60	499
475	5.70	102	1 075	12.90	519
500	6.00	113	1 100	13.20	547
525	6.30	124	1 125	13.50	573
550	6.60	137	1 150	13.80	598
575	6.90	150	1 175	14.10	625
600	7.20	163	1 200	14.40	652
625	7.50	177	1 225	14.70	679
650	7.80	191	1 250+	15.00	707

NOTE These figures are derived from the calculations described in 4.6.

8 APPENDIX TWO: PHOTOS





Photo 1. Tree T1

Photo 2. Trees T2



Photo 3. Trees T3-T6 and T8





Photo 4. Tree T7

Photo 5. Trees T9-T10







Photo 7. Tree T13





Photo 8. Tree T14

Photo 9. Trees T15-T17



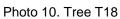




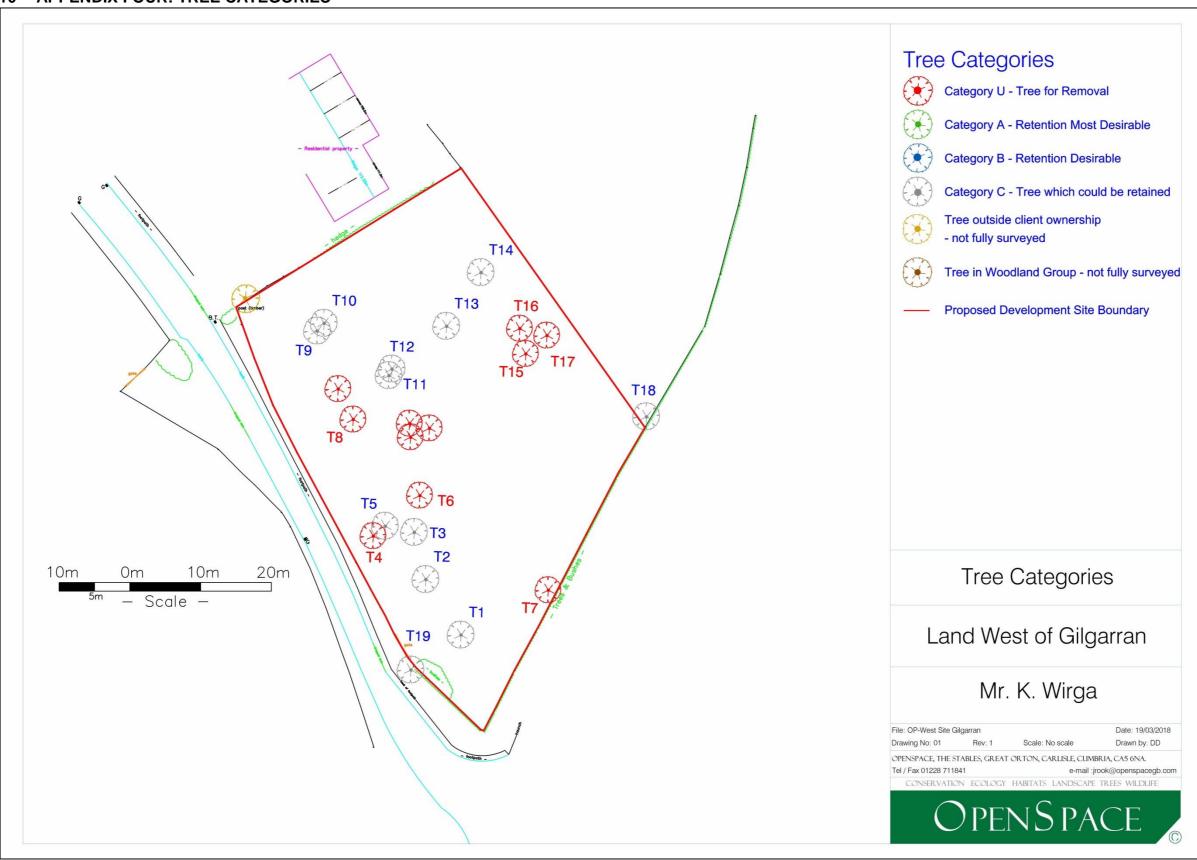
Photo 11. Tree T19

9 APPENDIX THREE: TREE COMMENTS

Tree		
no.	Species	Comments
T1	Sycamore	Single stem. Small wound in stem, largely healed. No
	Acer pseudoplatanus	obvious bat roost potential. No obvious squirrel dreys.
T2	Sessile Oak	Single stem. Small wound in stem, largely healed. No
	Quercus petraea	obvious bat roost potential. No obvious squirrel dreys. Dead stumps. Single stem regrowth. Pruned in past with
Т3	Sycamore Acer pseudoplatanus	cuts healed/not healed. No obvious bat roost potential. No obvious squirrel dreys.
T4	Sycamore Acer pseudoplatanus	Regrowth from mostly dead stump. Growth to north – restriction in growth from T5. No obvious bat roost potential. No obvious squirrel dreys.
T5	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed. Growth to south – restriction in growth from T5. No obvious bat roost potential. No obvious squirrel dreys. Old birds nest in tree.
Т6	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed. Large open wounds. No obvious bat roost potential. No obvious squirrel dreys.
T7	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed – leaving open wounds in stem. No obvious bat roost potential. No obvious squirrel dreys.
Т8	Sycamore Acer pseudoplatanus	Pruned in past with cuts not healed—leaving open wounds in stem. No obvious bat roost potential. No obvious squirrel dreys.
Т9	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed. Occasional cracked off limb. Leans to north. Some restriction in growth due to T10. No obvious bat roost potential. No obvious squirrel dreys.
T10	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed. Some restriction in growth due to T9. No obvious bat roost potential. No obvious squirrel dreys.
T11	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed. Some restriction in growth due to T12. No obvious bat roost potential. No obvious squirrel dreys.
T12	Sycamore Acer pseudoplatanus	Single stem. Some restriction in growth due to T11. No obvious bat roost potential. No obvious squirrel dreys.
T13	Sycamore Acer pseudoplatanus	Single stem. Pruned in past with cuts healed/not healed. Leans to south. No obvious bat roost potential. No obvious squirrel dreys.
T14	Sycamore Acer pseudoplatanus	Single stem – regrowth from cut stump. Pruned in past with cuts healed/not healed – leaving open wounds. No obvious bat roost potential. No obvious squirrel dreys.
T15	Sycamore Acer pseudoplatanus	Single stem – regrowth from cut stump. Pruned in past with cuts healed/not healed– leaving open wounds.in stem leading to wood rot. No obvious bat roost potential. No obvious squirrel dreys.
T16	Sycamore Acer pseudoplatanus	Single stem and dead stumps. Pruned in past with cuts healed/not healed – leaving open wounds.in stem leading to wood rot. No obvious bat roost potential. No obvious

		squirrel dreys.
T17	Sycamore Acer pseudoplatanus	Single stem – regrowth from rotting stump. Large open wound in stem. No obvious bat roost potential. No obvious squirrel dreys.

10 APPENDIX FOUR: TREE CATEGORIES



11 APPENDIX FIVE: TREE RPA

