

Tree survey & report

Land north of The Green Way, West
Walberton Lane, Walberton, Arundel
BN18 0QS

Report Ref: B/0618/26

Client: Archway Green

Date: 30th January 2026



Beechdown
Tree Consultancy

Jonathan Rodwell Cert Arb L4(ABC); TechArborA

Web: www.beechdown.com



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Appendices:

1- Tree survey schedule. 2 - Definition of terms. 3 - BS 5837 grading categories. 4 - Tree constraints plan. 5 - Development proposal plan. 6 - Tree protection plan. 7 - Protective barriers. 8- Site visit and arboricultural supervision record. 9 - Arboricultural monitoring. 10- Geoweb installation guide

SUMMARY

- The quality of 53 trees and one group of trees within potential influence of proposed development was assessed;
- an arboricultural impact assessment of the development proposal was prepared;
- the proposal is for construction of a detached dwelling and separate garage;
- implementation of the development proposal will require the removal of one category C tree but the overall arboricultural characteristics of the site will remain unchanged;
- precautionary measures will be required to protect the retained trees throughout the development process.

Details

- Date of survey - 17th December 2025
- Present at survey - Jonathan Rodwell Cert Arb L4(ABC); TechArborA
- Date of report - 30th January 2026

Contact Details

<u>Local Planning Authority</u>	Arun District Council	[REDACTED] [REDACTED]
<u>Architects</u>	Smith Simmons & Partners	[REDACTED] [REDACTED]

References

Roberts, J. Jackson, N. Smith, M. (2006). *Tree Roots in the Built Environment*. The Stationery Office
BSI British Standards (2012) BS 5837:2012 *Trees in relation to demolition and construction – Recommendations, Fourth (Present) Edition*. BSI



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30th January 2026

1.0 Introduction

1.1 I have received instruction from Jordan Devenish, Director at Archway Green, to report on arboricultural matters in relation to proposed development of land to the north of The Green Way, West Walberton Lane, Walberton, Arundel BN18 0QS.

1.2 The purpose of the instruction was to:

- | |
|---|
| • Assess the quality of any trees that could be affected by the proposed development. |
| • Prepare an arboricultural impact assessment evaluating the effects of the development proposal. |
| • Prepare a method statement and tree protection plan. |

1.3 The survey was conducted and the report prepared with reference to the guidelines detailed in BS 5837:2012 "Trees in relation to design, demolition and construction – Recommendations" and according to good arboricultural practice.

1.4 Contents of the report are exclusively for the use of the client; liability does not extend to any third party without our written consent.

1.5 **Qualifications and experience** – I am a qualified arboriculturist and Technician Member of the Arboricultural Association with more than 35 years' experience working with trees. I have a National Certificate in Arboriculture, the ABC Level 4 Certificate in arboriculture and the LANTRA Professional Tree Inspection Certificate along with certificates of training/attendance including arboricultural consultancy & report writing, veteranisation/microhabitat creation, valuing & managing veteran trees, subsidence investigation, assessment of tree forks, instrumental tree assessment, mortgage reports and risk assessment for commercial arboriculture.

2.0 Documents Provided

2.1 Drawings provided by Smith Simmons & Partners:

1804/SK02	Block plan - planning	1:1000@A3
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3.0 Survey Format

- 3.1 Trees included in the survey were those with the potential to be affected by the development proposal and with a stem diameter, at 1.5m high, greater than 75mm. The trees were inspected from the ground only and no specialist decay detection was undertaken. Trees were assessed from within the site or from public areas.
- 3.2 The tree identification numbers used are for the purpose of this report and may not reflect numbering used in previous surveys or inspections.
- 3.3 Data was recorded digitally; the individual trees plotted via GPS and their positions marked on the 1:750 @ A3 tree constraints plan (Appendix 4).
- 3.4 A detailed tree survey sheet is shown as Appendix 1 with an explanation of the terms and categories covered as Appendix 2.
- 3.5 The extent of the survey was limited to collecting sufficient data to inform upon the feasibility of the proposed development, it was not a detailed tree hazard or risk assessment and, unless specified, no guarantee, expressed or implied, can be given regarding the safety of the trees or their suitability for safe long-term retention.

4.0 Grading Categories

- 4.1 The quality of the surveyed trees was assessed and they were categorised to reflect the criteria recommended in Table 1 of BS 5837:2012 as detailed at Appendix 3.
- 4.2 The following is a breakdown of the number of trees in each BS category.

Category U	1 tree
Category A	1 tree
Category B	26 trees
Category C	25 trees; 1 group of trees

5.0 Legislation

- 5.1 **Tree Preservation Orders & Conservation Areas** - consultation with the Local Planning Authority confirmed that the application site is not within a designated conservation area but trees T1 & T2 are covered by tree preservation order number **TPO/WA/2/09** and trees T11 & T12 by order number **TPO/WA/2/19**.

- 5.2 **Wildlife legislation** – under Part 1 of the Wildlife and Countryside Act (1981), with only a few exceptions, it is an offence to intentionally take, damage or destroy the nest of any wild bird while the nest is in use or being built. Bat species are protected under Section 39 of the 1994 Conservation (Natural Habitats etc.) Regulations (as amended), the 1981 Wildlife and Countryside Act (as amended) and the 2000 Countryside and Rights of Way Act. It is illegal to damage or destroy any bat roost, whether occupied or not, or disturb or harm a bat. Further specialist investigation may be required before undertaking any recommended works.

6.0 Development Proposal

- 6.1 The proposal is for construction of a detached two-storey dwelling, a separate garage and associated infrastructure.

7.0 Site Description

- 7.1 The application site to the north of The Green Way consists of a broadly level plot of around 0.3ha and is accessed from Arundel Road to the north via a farm gate and a 150m narrow, unsurfaced but heavily compacted single track.
- 7.2 The site is in a semi-rural location with detached properties on West Walberton Lane to the south, new development at Daffodil Gardens to the west and open farmland and woods beyond the A27 to the north. The wider landscape includes individual trees or small groups as roadside trees, in domestic settings, in low hedgerows bordering lanes & along field boundaries and in locally dense mixed woodland between West Walberton Lane and Copse Lane to the north and east.
- 7.3 The British Geological Survey records the site geology as Lambeth Group clay, silt and sand sedimentary bedrock while the superficial geology is described by the UK Soil Observatory (www.ukso.org) as a freely-draining, slightly acid, loamy soil. No detailed analysis of the soil structure, composition or pH was undertaken and these details should not be relied on for design purposes.

8.0 Tree Survey

- 8.1 The recorded trees were within the site and bordering the access track, in the grounds of Little Burndell to the south-west, in land to the north of Abbeylands and in the grounds of Gracelands Farm. Trees and shrubs that were too small to be recorded or beyond influence of the development proposal included low level hedging, laurel, brambles, coppiced elder and newly planted hazel on the west side of the track; hazel, Lawson cypress, Leyland cypress and western red cedar beyond the post and rail fence on the east side of the track with a row of

Monterey cypress on the far side of the hard-surfaced driveway to Gracelands Farm; a belt of mature laurel and coppiced hazel interspersed with recorded trees beyond the western boundary; laurel, hazel, ash and larch beyond the panel fence at the southern end of the site; mature oaks in the field beyond the east boundary and scrubby layering laurel around the recorded trees in the north-west corner of the plot and in a wide border along the boundary with Gracelands Farm to the north.

9.0 Tree Appraisal

- 9.1 Details and comments of individual trees and groups are listed in the appended BS 5837 survey schedule detailed at Appendix 1.

10.0 Below Ground Constraints – Root Protection Area (RPA)

- 10.1 Section 3.7 of BS 5837: 2012 states that – *“The Root Protection Area (RPA) is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority. “*
- 10.2 The RPA calculations have been produced using the information gathered from the tree survey and section 4.6.1 of BS 5837:2012. This indicates the RPA in m² and the minimum required all round radial distances for rooting zone protection and allows a view to be taken as to whether the trees can be retained safely without undue damage to their root systems. The RPA calculations are detailed in the appended tree survey and the initial dimensions marked on the 1:750 @ A3 tree constraints plan (Appendix 4).
- 10.3 Tree root morphology can be affected by numerous factors; availability of water, aeration, soil type, temperature and structure, compacted or impervious surfaces and proximity to buildings and other structures all affect the way roots develop and although the RPAs are marked on the plan as uniform polygons the actual root systems will be far more irregular. Root mapping or hand excavation under arboricultural supervision could determine whether structural roots or root masses & likely mycorrhizal associations extend beyond the RPAs and require greater protection in relation to construction or whether it may be possible to develop within the RPA without a significant impact on the rooting environment.
- 10.4 The recorded trees are all growing in unsurfaced ground - some in close proximity the access track – but as a design layout tool the nominal RPAs shown are a fair representation.

11.0 Above Ground Constraints

- 11.1 Consideration should be given to the effects that the current tree size, future growth potential, shade levels and leaf and fruit nuisance may have on the proposed development. Tree height and crown spread measurements are detailed in the appended tree survey; the crown spread of the trees and the shadow pattern through the main part of the day is indicated on the 1:750 @ A3 tree constraints plan (Appendix 4).

12.0 Comment

- 12.1 The 1:750 @ A3 proposed development plan (Appendix 5) shows that construction of the dwelling can be achieved with no direct impact on any of the recorded trees.
- 12.2 Construction of the separate detached garage impacts on around 17% of the nominal RPA of the category C holly (T28). While there are technical solutions that would allow construction within the RPA, the tree is not particularly prominent and surrounding vegetation means that its removal will have little impact on the wider landscape.
- 12.3 The existing track from Arundel Road crosses the nominal RPA of multiple on and off-site trees and although heavily compacted, the surface may not be suitable for construction traffic or long-term regular use. Improving the driveway surface within the combined RPA has the potential to damage tree roots and the structure of the soil; installation of a cellular confinement system no-dig surface will stabilise the driveway, improve access and minimise potential impact on the RPA but it has to be installed correctly and with appropriate supervision. Resurfacing the track before any other site work will prevent possible tree root damage or compaction and provide an appropriate permanent surface.
- 12.4 The shade pattern throughout the day moves from north-west to east and will cast occasional shade but for the majority of the day light levels to the property will be uninterrupted.
- 12.5 General construction practices have the potential to damage trees if not carefully managed. The key to successful construction with no adverse impact on the condition and health of the retained trees will be a carefully sequenced approach with appropriate tree protection and monitoring.
- 12.6 Construction access, delivery of materials and removal of waste will be via the existing resurfaced access track.

13.0 Conclusion

- 13.1 With appropriate precautionary measures I consider that the proposed development at the application site is feasible, in relation to the recorded trees for the following reasons.

- Construction of the garage will require the removal of one Category C tree but the overall arboricultural characteristics of the site remain unchanged.

- Precautionary measures will prevent damage and adverse effects on the current and long-term health of the retained trees.

ARBORICULTURAL METHOD STATEMENT

- This method statement sets out the procedures to be followed for general construction practices around trees.
- The purpose is to ensure that works are undertaken in a manner that prevents unacceptable damage to tree roots, soil structure and overall tree health.
- The development process must follow a sequence that results in the least risk to the retained trees and with tree protective fencing and exclusion zones in place as per the tree protection plans (TPP).
- The arboricultural method statement includes the following tree protection plans.

Appendix 6 <i>tree protection plan</i>	1:750@A3	• Tree protection plan showing position of protective barriers and construction exclusion zones.
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14.0 Responsibilities

- 14.1 **Site manager/main contractor** – responsible for implementing method statement, ensuring all operatives are briefed and that relevant works are carried out under arboricultural supervision.
- 14.2 **Project arboriculturalist** – to be present during any relevant works that impact directly on the RPA, to document compliance and monitor.
- 14.3 **Site operatives** – follow root protection procedures; report any roots (>25mm) encountered.

15.0 Sequence of Events

- 15.1 Sequence of events, tree protection and precautionary measures in relation to phases of development.

Pre-construction:

- Site manager, project arboriculturalist and main contractor to review method statement;
- project arboriculturalist to identify construction exclusion zones and mark position of protective barriers;

- project arboriculturalist to check position of protective barrier forming construction exclusion zone prior to work commencing.

Construction:

- Access track resurfacing using a cellular confinement system no-dig technique with a porous and permeable base layer and surface finish;
- construction of the dwelling and garage;
- new driveway and landscaping;
- arboricultural supervision & monitoring at relevant stages.

16.0 Protective Barriers & Construction Exclusion Zone

- 16.1 Prior to the commencement of construction work and before any machinery or materials are brought onto the site, protective barriers, marked as **a green broken line** on the tree protection plans (Appendix 6), must be erected, around the vulnerable Root Protection Area (RPA) to create a construction exclusion zone beyond the working area.
- 16.2 The construction exclusion zone, shown as **light purple shading** on the tree protection plan, will be afforded protection at all times during the development process; strictly no access, excavation, changes in soil levels, construction activities, mixing materials or storage will be allowed.
- 16.3 The barrier will have weather proof signs attached stating that it is protecting a **construction exclusion zone** and that **no works are permitted** beyond the barrier; the protective barrier must remain in place for the duration of the development process.
- 16.4 The protective barriers must be positioned in accordance with the tree protection plans and would typically be constructed as per figure 2 of BS 5837:2012 (shown at Appendix 7) and consist of a vertical and horizontal scaffold framework, well braced to resist impacts with vertical tubes spaced at a maximum interval of 3m and driven securely into the ground and onto which weld mesh panels would be fixed with wire or scaffold clamps. Care should be taken when locating the vertical and bracing poles to avoid roots; if the presence of roots or hard surfaces precludes the use of driven poles, above ground stabilising using struts mounted on a block tray, constructed as per figure 3 b) of BS 5837:2012 may be used.
- **Construction exclusion zone 1** – at the entrance to the site and formed of four weld mesh panels preventing access to the combined RPA of the coppiced hazels (T9 & T10).

- **Construction exclusion zone 2** - between the proposed dwelling and the western boundary, formed of 19 weld mesh panels preventing access to the base of trees (T11-T15).
- **Construction exclusion zone 3** - between the proposed dwelling and the eastern boundary, formed of 10 weld mesh panels preventing access to the base of trees (T17-T26).
- Access to the RPA of the ash (T16) is restricted by dense vegetation and no further protection is likely to be required.
- The newly installed no-dig surface of the access track will provide an adequate level of protection while limited space and low-level vegetation either side of the track will restrict access so additional protective barriers are unlikely to be needed.

16.5 Temporary ground protection mats, shown as **pale blue shading** at Appendix 6, will need to be positioned over the unsurfaced RPA between the protective barrier and the building to allow room for access & construction but ensuring that the vulnerable RPA remains intact. 2.4m by 1.2m heavy duty access mats – with a maximum weight loading of 50+ tonnes – bearing on 150mm depth of woodchips spread over a geotextile membrane and pinned in place to prevent slipping will provide appropriate protection for the anticipated level of access needed and prevent any compaction of the soil.

17.0 Permanent Hard-Surfacing within RPA

17.1 Resurfacing the single track must use a no-dig specification with a porous and permeable base layer and surface finish. Appendix 10 provides a detailed installation guide for the Geoweb® tree root protection no-dig Three-Dimensional Cellular Confinement System as summarised below:

- Up to 50mm of the surface vegetation, leaf litter and loose material to be removed by hand.
- A permeable geotextile non-woven membrane should be laid on the subgrade to separate the soft ground from the angular stone fill to maintain drainage capacity.
- The new access drive leading to the site will be formed from Geoweb 100mm-200mm deep panels placed on the geotextile and joined end to end.
- The Geoweb panels will be filled with porous, no-fines 4/20 or 20/40 clean angular stone; the cells must be fully expanded to work effectively and should be overfilled by at least 25mm to protect the membrane and ensure the cells are filled to capacity.
- The panels can be filled by hand or using a dumper truck to tip the stone into the cells while a tracked excavator spreads the stone with an un-

toothed bucket. If using machinery, it must operate from the already filled panels as a base.

- The finished surface must be permeable to moisture penetration and gaseous exchange – suitable surface finishes include porous asphalt, loose gravel, resin-bound gravel & permeable block paving. An appropriate finished surface must be agreed with the LPA.

18.0 Foundation Construction

18.1 Foundation depth should be determined by the architect or a structural engineer and with reference to NHBC Chapter 4.2 – Building near trees.

18.2 Excavation for foundations is outside the nominal RPA of retained trees; however, if roots are encountered during construction work:

- Careful use of hand tools will avoid bark damage of retained roots at the edge of the foundation if present;
- Carefully remove soil from around roots without tearing or levering;
- exposed roots or fibrous root masses that are to be retained must be immediately covered – with hessian or similar - to prevent drying;
- individual roots less than 25mm diameter that need to be removed will be cleanly severed, with secateurs or a pruning saw, far enough back from the edge of the foundation (>100mm) that the effects of uncured cement do not impact tree health;
- the project arboriculturalist will determine whether it is possible to sever roots greater than 25mm diameter, whether bridging with a lintel may be possible or if an alternative foundation type is necessary;
- use of impermeable membranes to line the excavations before the concrete is poured will help prevent damage by the alkaline properties of cement;
- backfill gently with excavated soil and avoid heavy compaction.

19.0 Infrastructure Requirements

19.1 Any service trenches, drainage runs & soakaways must be located outside the RPA with connections to existing drains and services also made beyond the RPA.

19.2 Undisclosed siting of service runs, above ground services, CCTV cameras, electrical sub-stations, refuse stores, lighting and other infrastructure requirements can lead to unnecessary tree pruning or root loss during or post development. Should any infrastructure requirements become necessary post planning their design should be discussed with the project arboriculturalist and, if necessary, the permission of the local planning authority obtained.

20.0 Additional Precautions

- 20.1 No storage or mixing of materials to take place within the construction exclusion zone or in the ground protected RPA.
- 20.2 No storage or mixing of materials will take place in any location where they may leak into the construction exclusion zone, RPA or buffer zone.
- 20.3 Materials which may contaminate the soil will not be discharged within 10m of the tree stems or mixed in any location where gradients allow contaminants to run towards RPAs or the buffer zone.

21.0 Supervision and Monitoring

- 21.1 It will be the responsibility of the main contractor to ensure that any conditions attached to the planning consent are adhered to at all times and that a monitoring regime with regard to tree protection on site is adopted.
- 21.2 An arboriculturalist should be appointed to monitor tree protection measures and address any arboricultural issues that may arise.
- 21.3 The project arboriculturalist should mark the positions of the protective barriers and inspect them once erected and prior to site work commencing.
- 21.4 In addition to any scheduled supervision, regular site visits to inspect the protective barriers may be required. Frequency of the visits is dependent on the progress of the development but should take place every two to four weeks of continuous site activity.
- 21.5 A copy of a site visit and arboricultural supervision record is shown at Appendix 8.
- 21.6 A copy of an arboricultural monitoring record is shown at Appendix 9.
- 21.7 The main contractor will be responsible for ensuring subcontractors comply with the arboricultural method statement and do not undertake any operation that is likely to impact adversely upon any tree on site.
- 21.8 The main contractor will ensure that the build sequence is appropriate to ensure that no damage occurs to the trees during the development process.

BS5837:2012 Tree Survey

Beechdown Tree Consultancy

Client: Archway Green
 Project: Land north of The Green Way
 Survey Date: 17/12/2025
 Surveyor: Jonathan Rodwell Cert Arb L4(ABC); TechArborA



Club Cottage, Top Road
 Slindon
 Arundel
 West Sussex
 BN18 0RP

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
G1													
A Group - -		0	0					A: 0 R: 0		C: S: B:	Group of off site multi-stemmed sycamores in a border of low level small Lawson cypress, laurel and Leyland cypress; 100mm-150mm stem diameter; stems nearest the track showing signs of dieback.		
T1													
English oak <i>Quercus robur</i>		15	1	450	N E S W	4 4 3 3	2 2 2 1.5	M A: 91.6 R: 5.39	Good	C: Good S: Good B: Fair			B.1.2 >40 yrs
T2													
English oak <i>Quercus robur</i>		16.5	1	700	N E S W	9 7 7 6	4 7 1.5 3	M A: 221.7 R: 8.4	Good	C: Good S: Ivy B: Good			B.1.2 >40 yrs
T3													
Wild Cherry <i>Prunus avium</i>		5	1	200	N E S W	4 2 2 3	4 3 3 3	SM A: 18.1 R: 2.4	Good	C: Good S: Good B: Fair			B.1 20 to 40 yrs
Age Classifications:		N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems: ERC:		Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio	

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T4													
Silver Birch	10	1	110	N	2	4	SM	A: 5.5	Good	C: Good			C.1
Betula pendula				E	2	5		R: 1.32		S: Good			20 to 40 yrs
				S	2.5	3				B: Good			
				W	2	5							
T5													
Sycamore	14	1	300	N	3	4	SM	A: 40.7	Good	C: Good			B.1
Acer pseudoplatanus				E	3	4		R: 3.59		S: Good			20 to 40 yrs
				S	4	5				B: Good			
				W	3	4							
T6													
Sycamore	12	1	150	N	2	8	SM	A: 10.2	Fair	C: Fair			C.1
Acer pseudoplatanus				E	2	5		R: 1.8		S: Fair			10 to 20 yrs
				S	1	8				B: Fair			
				W	2	8							
T7													
Sycamore	12	6	367	(Eq) N	3	5	SM	A: 61.1	Good	C: Fair			C.1
Acer pseudoplatanus				E	3	4		R: 4.41		S: Ivy			10 to 20 yrs
				S	3	5				B: Fair			
				W	4	5							
T8													
Sycamore	10	2	356	(Eq) N	4	3	SM	A: 57.4	Good	C: Good			B.1
Acer pseudoplatanus				E	2	2		R: 4.27		S: Ivy			20 to 40 yrs
				S	3	2.5				B: Fair			
				W	4	2							
T9													
Hazel	7	10	253	(Eq) N	4	2	M	A: 29	Good	C: Good			C.1
Corylus avellana				E	3	2.5		R: 3.03		S: Ivy			20 to 40 yrs
				S	1.5	1				B: Fair			
				W	2	0.5							
Age Classifications: N Newly planted EM Early Mature Condition: C Crown													
Y Young M Mature S Stem													
SM Semi-mature OM Over Mature B Basal area													
Stems: Ø Diameter													
(Eq) Equivalent stem diameter using BS5837:2012 definition													
ERC: Estimated Remaining Contributio													

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T10													
Hazel <i>Corylus avellana</i>		9	10	316 (Eq)	N E S W	2 3 5 3	1 0.5 0.5 0.5	M	A: 45.2 R: 3.79	Good	C: Good S: Ivy B: Fair		C.1 20 to 40 yrs
T11													
English oak <i>Quercus robur</i>		18	1	950	N E S W	12 8 6 9	5 3 7 5	M	A: 408.3 R: 11.4	Good	C: Good S: Ivy B: Good		B.1.2 >40 yrs
T12													
English oak <i>Quercus robur</i>		20	1	1100	N E S W	5 7 8 9	8 9 9 7	M	A: 547.5 R: 13.2	Good	C: Good S: Good B: Good		A.1.2 >40 yrs
T13												Estimated Measurements	
Ash <i>Fraxinus excelsior</i>		17	1	400	N E S W	4 5 3 6	10 9 9 9	M	A: 72.4 R: 4.8	Good	C: Good S: Fair B: Good		B.1 10 to 20 yrs
T14													
English oak <i>Quercus robur</i>		19	1	650	N E S W	8 7 6 7	10 4 4 3	M	A: 191.2 R: 7.8	Good	C: Good S: Good B: Fair		B.1 >40 yrs
T15												Estimated Measurements	
European Larch <i>Larix decidua</i>		10	1	650	N E S W	2 3 5 3	3 3 1.5 3	Dead	A: 191.2 R: 7.8	Dead	C: Poor S: Ivy B: Poor	Ivy-covered dead tree - off site.	U n/a
Age Classifications: N Newly planted EM Early Mature Y Young M Mature SM Semi-mature OM Over Mature Condition: C Crown S Stem B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio													

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T16													
Ash <i>Fraxinus excelsior</i>		9	1	180	N	4	1.5	Y	A: 14.7	Good	C: Good		B.1
					E	3	2		R: 2.16		S: Ivy		10 to 20 yrs
					S	2	3				B: Good		
					W	2.5	3.5						
T17													
Silver Birch <i>Betula pendula</i>		12	1	200	N	3	3	SM	A: 18.1	Good	C: Good		B.1
					E	3	3		R: 2.4		S: Ivy		20 to 40 yrs
					S	4	2				B: Good		
					W	2	5						
T18													
Silver Birch <i>Betula pendula</i>		12	1	150	N	1	9	Y	A: 10.2	Good	C: Fair		C.1
					E	1.5	9		R: 1.8		S: Fair		10 to 20 yrs
					S	2	6				B: Fair		
					W	2	8						
T19												Estimated Measurements	
English oak <i>Quercus robur</i>		17	1	700	N	5	3	M	A: 221.7	Good	C: Good		B.1.2
					E	5	3		R: 8.4		S: Good		>40 yrs
					S	7	2				B: Good		
					W	5	4						
T20													
Sycamore <i>Acer pseudoplatanus</i>		13	2	269 (Eq)	N	3	6	SM	A: 32.8	Good	C: Good		B.1
					E	2	3		R: 3.23		S: Fair		20 to 40 yrs
					S	3	3				B: Fair		
					W	2	4						
T21													
Silver Birch <i>Betula pendula</i>		12	1	100	N	1	7	Y	A: 4.5	Fair	C: Fair		C.1
					E	1	7		R: 1.19		S: Ivy		10 to 20 yrs
					S	1	8				B: Fair		
					W	1	7						
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Y Young M Mature S Stem SM Semi-mature OM Over Mature B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio													

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T22													
Silver Birch	14	2	234 (Eq)	N	3	7	Y	A: 24.8	Fair	C: Fair			C.1
Betula pendula				E	2	5		R: 2.8		S: Fair			10 to 20 yrs
				S	2	7				B: Fair			
				W	3	6							
T23													
Silver Birch	11	1	100	N	3	7	Y	A: 4.5	Fair	C: Fair			C.1
Betula pendula				E	1	8		R: 1.19		S: Poor			10 to 20 yrs
				S	1	7				B: Fair	Bark wounds on the lower trunk.		
				W	2	6							
T24													
Silver Birch	11	1	100	N	1	5	Y	A: 4.5	Fair	C: Fair			C.1
Betula pendula				E	3	4		R: 1.19		S: Fair			10 to 20 yrs
				S	1	5				B: Fair			
				W	1	5							
T25													
Silver Birch	12	1	150	N	1.5	6	SM	A: 10.2	Fair	C: Good			C.1
Betula pendula				E	2	5		R: 1.8		S: Fair			10 to 20 yrs
				S	1.5	4				B: Fair			
				W	1.5	6							
T26													
Silver Birch	9	1	100	N	2	5	Y	A: 4.5	Fair	C: Fair			C.1
Betula pendula				E	3	6		R: 1.19		S: Fair			10 to 20 yrs
				S	1	7				B: Fair			
				W	1.5	6							
T27													
Holly	7	2	234 (Eq)	N	2	0.8	SM	A: 24.8	Fair	C: Good			C.1
Ilex aquifolium				E	2	0.5		R: 2.8		S: Good			10 to 20 yrs
				S	2	0.5				B: Fair			
				W	2	0.5							
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Y Young M Mature S Stem SM Semi-mature OM Over Mature B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio													

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T28											Estimated Measurements		
English oak <i>Quercus robur</i>		18	1	700	N E S W	10 7 7 5	3 5 3 4	M A: 221.7 R: 8.4	Good	C: Good S: Good B:	-----		B.1.2 >40 yrs
T29											Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>		10	1	300	N E S W	3 4 2 3	5 4 5 3	SM A: 40.7 R: 3.59	Good	C: Good S: Good B:	-----		B.1 20 to 40 yrs
T30											Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>		11	1	200	N E S W	3 2 2 3	6 6 4 5	SM A: 18.1 R: 2.4	Good	C: Good S: Good B:	-----		B.1 20 to 40 yrs
T31											Estimated Measurements		
Hornbeam <i>Carpinus betulus</i>		6.5	1	100	N E S W	3 3 3 2	3 2 2 2	Y A: 4.5 R: 1.19	Good	C: Fair S: Fair B: Fair	-----		C.1 20 to 40 yrs
T32											Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>		11	1	300	N E S W	3 3 3 2	3 5 3 4	SM A: 40.7 R: 3.59	Good	C: Good S: Ivy B: Good	-----		B.1 20 to 40 yrs
T33											Estimated Measurements		
English oak <i>Quercus robur</i>		10	1	300	N E S W	5 5 5 3	3 1.5 1.5 3	SM A: 40.7 R: 3.59	Good	C: Good S: Good B:	-----		B.1 >40 yrs
Age Classifications:		N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:		Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC	
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T34														
Hawthorn <i>Crataegus monogyna</i>		6	1	100	N	2	2.5	M	A: 4.5 R: 1.19	Good	C: Good S: Ivy B: Good		C.1 20 to 40 yrs	
T35														
Hazel <i>Corylus avellana</i>		6	2	125 (Eq)	N	2	0.5	SM	A: 7.1 R: 1.5	Good	C: Fair S: Ivy B: Fair		C.1 20 to 40 yrs	
T36												Estimated Measurements		
Yew <i>Taxus baccata</i>		5	1	200	N	4	0.5	SM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good		B.1 >40 yrs	
T37												Estimated Measurements		
English oak <i>Quercus robur</i>		9	1	200	N	4	5	SM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good		B.1 >40 yrs	
T38												Estimated Measurements		
Sycamore <i>Acer pseudoplatanus</i>		11	3	245 (Eq)	N	3	3	SM	A: 27.1 R: 2.93	Good	C: Good S: Ivy B: Good		B.1 20 to 40 yrs	
T39														
Sycamore <i>Acer pseudoplatanus</i>		10	1	150	N	1	3	Y	A: 10.2 R: 1.8	Good	C: Good S: Good B: Good		C.1 10 to 20 yrs	
Age Classifications:		N	Newly planted	EM	Early Mature		Condition:		C	Crown	Stems:		Ø	Diameter
		Y	Young	M	Mature				S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition
		SM	Semi-mature	OM	Over Mature				B	Basal area	ERC:		Estimated Remaining Contributio	

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T40														
Sycamore <i>Acer pseudoplatanus</i>		10	4	200 (Eq)	N E S W	2 2 1 1	3 3 3 3	Y A: 18.1 R: 2.4	Good	C: Good S: Ivy B: Good				C.1 10 to 20 yrs
T41													Estimated Measurements	
Sycamore <i>Acer pseudoplatanus</i>		10	3	255 (Eq)	N E S W	3 2 4 3	4 4 4 3	SM A: 29.4 R: 3.05	Good	C: Good S: Ivy B: Fair				B.1 20 to 40 yrs
T42														
Sycamore <i>Acer pseudoplatanus</i>		6.5	2	128 (Eq)	N E S W	2 1 1 1	3 3 3 3	Y A: 7.4 R: 1.53	Good	C: Fair S: Fair B: Fair				C.1 10 to 20 yrs
T43														
Hazel <i>Corylus avellana</i>		7	10	237 (Eq)	N E S W	4 2 1 2	3 1.5 1 1.5	SM A: 25.5 R: 2.84	Good	C: Fair S: Fair B: Fair				C.1 20 to 40 yrs
T44														
Sycamore <i>Acer pseudoplatanus</i>		7	4	177 (Eq)	N E S W	2 2 2 2	3 4 4 3	SM A: 14.1 R: 2.11	Good	C: Good S: Fair B: Fair				C.1 20 to 40 yrs
T45														
Sycamore <i>Acer pseudoplatanus</i>		7	4	177 (Eq)	N E S W	2 2 2 2	3 4 4 3	SM A: 14.1 R: 2.11	Good	C: Good S: Ivy B: Fair				C.1 20 to 40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature EM Early Mature M Mature OM Over Mature Condition: C Crown S Stem B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio														

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T46											Estimated Measurements		
Ash <i>Fraxinus excelsior</i>		12	1	200	N E S W	3 2 2 1	6 7 7 7	SM A: 18.1 R: 2.4	Decline	C: Poor S: Ivy B: Fair	Of site ivy-covered ash with symptoms of Chalara dieback.		C.1 <10 yrs
T47													
Sweet Chestnut <i>Castanea sativa</i>		14	1	250	N E S W	4 4 5 3	3 3 3 3	M A: 28.3 R: 3	Good	C: Good S: Ivy B: Fair			B.1 >40 yrs
T48											Estimated Measurements		
Sweet Chestnut <i>Castanea sativa</i>		14	1	350	N E S W	4 6 4 4	2.5 2 2 2.5	M A: 55.4 R: 4.19	Good	C: Good S: Ivy B: Good			B.1 >40 yrs
T49											Estimated Measurements		
Holly <i>Ilex aquifolium</i>		9	1	200	N E S W	3 2 3 2	1 1 1 1.5	M A: 18.1 R: 2.4	Good	C: Good S: Good B: Good			B.1 20 to 40 yrs
T50													
Sycamore <i>Acer pseudoplatanus</i>		11	1	100	N E S W	2 1 1 1	4 5 5 5	Y A: 4.5 R: 1.19	Good	C: Good S: Ivy B: Good			C.1 10 to 20 yrs
T51													
Sweet Chestnut <i>Castanea sativa</i>		12	1	250	N E S W	3 3 3 4	4 4 4 4	M A: 28.3 R: 3	Good	C: Good S: Ivy B: Fair	Single remaining stem from coppice stool; some decay at base.		B.1 20 to 40 yrs
Age Classifications:		N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:		Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T52												
Hawthorn	6	2	131	(Eq)	N	3	0.5	M	A: 7.8	Good	C: Good	C.1 20 to 40 yrs
Crataegus monogyna					E	2	0.5		R: 1.57		S: Good	
					S	2	0.5				B: Good	
					W	2	0.5					
T53												
Sycamore	12	5	304	(Eq)	N	4	1.5	SM	A: 41.9	Good	C: Fair	B.1 20 to 40 yrs
Acer pseudoplatanus					E	3	3		R: 3.65		S: Ivy	
					S	1	4				B: Fair	
					W	2.5	4					

Appendix 2 – tree survey definition of terms

<u>Tree ID/tag -</u>	Identification number and/or tree tag number.	
<u>Species -</u>	Common and/or scientific name.	
<u>Height (m) -</u>	To the nearest 0.5m below 10m; to the nearest 1m above 10m.	
<u>Ø (mm)/No. of stems -</u>	Stem diameter measured at 1.5m or equivalent with reference to Annex C of BS5837:2012.	
<u>First branch -</u>	Height above ground level and direction of first significant branch.	
<u>Crown spread (m) -</u>	Measured at the cardinal points.	
<u>Canopy height/clearance -</u>	Crown clearance in metres above ground level at the cardinal points.	
<u>RPA -</u>	Root protection area (m ²) and length of radial protection (m).	
<u>Age class:</u>	<i>Young -</i>	Less than approximately 10 years old.
	<i>Semi-Mature -</i>	Less than 1/5 of typical life expectancy.
	<i>Mature -</i>	Between 1/5 and 5/5 of typical life expectancy.
	<i>Over-Mature -</i>	Tree having reached its maximum life span and declining in health and size.
	<i>Veteran -</i>	A tree that is of interest biologically, aesthetically or culturally because of its age, size or condition.
<u>Structural/physiological condition:</u>	General condition of tree crown, stem and basal area structure and form - assessed as:	
	<i>Good -</i>	Good form, structure and vitality; no apparent signs of decay, structural weakness, decline in health, pests or diseases.
	<i>Fair -</i>	Moderate form and structure.
	<i>Poor -</i>	Poor form or structure; significant decay, structural weakness or decline in vitality.
<u>BS 5837 category -</u>	BS grading category detailed at Appendix 3.	
<u>ERC -</u>	Estimated remaining contribution.	

Trees Unsuitable for Retention

Category U	Trees 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 – shown in dark red on plans.
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Trees To Be Considered for Retention

Category A	Trees of high quality with an estimated remaining life expectancy of at least 40 years - shown in light green on plans. <u>1 - Mainly arboricultural qualities</u> – trees that are good examples of their species, especially if rare or unusual; or those that are essential components of groups, formal or semi-formal arboricultural features. <u>2 - Mainly landscape qualities</u> – trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features. <u>3 - Mainly cultural values, including conservation</u> – trees, groups or woodlands of significant conservation, historical, commemorative or other value.
Category B	Trees of moderate quality with an estimated life expectancy of at least 20 years - shown in mid blue on plans. <u>1 - Mainly arboricultural qualities</u> – trees that might be included in category A but are downgraded because of impaired condition (e.g. presence of significant but remediable defects) to the extent that they are unlikely to be suitable for retention beyond 40 years; or trees lacking the particular quality necessary for category A designation. <u>2 - Mainly landscape qualities</u> – trees present in numbers, usually growing as groups or woodlands, that attract a higher collective rating than they might as individuals; or groups of trees situated so as to make little visual contribution to the wider locality. <u>3 - Mainly cultural values, including conservation</u> – trees with material conservation or other cultural values.

Appendix 3 – BS 5837 grading categories

Category C	Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter under 150mm - shown in grey on plans.
	<u>1 - Mainly arboricultural qualities</u> – unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
	<u>2 - Mainly landscape qualities</u> – 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 landscape benefits.
	<u>3 - Mainly cultural values, including conservation</u> – trees with no material conservation or other cultural values.

Beechdown Tree Consultancy Ltd

Club Cottage, Slindon, Arundel BN18 0RP

Tel - 01243 814740 Mob - 07941 156492
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Web - www.beechdown.com

**Land north of The Green Way
Appendix 4 - tree constraints plan**

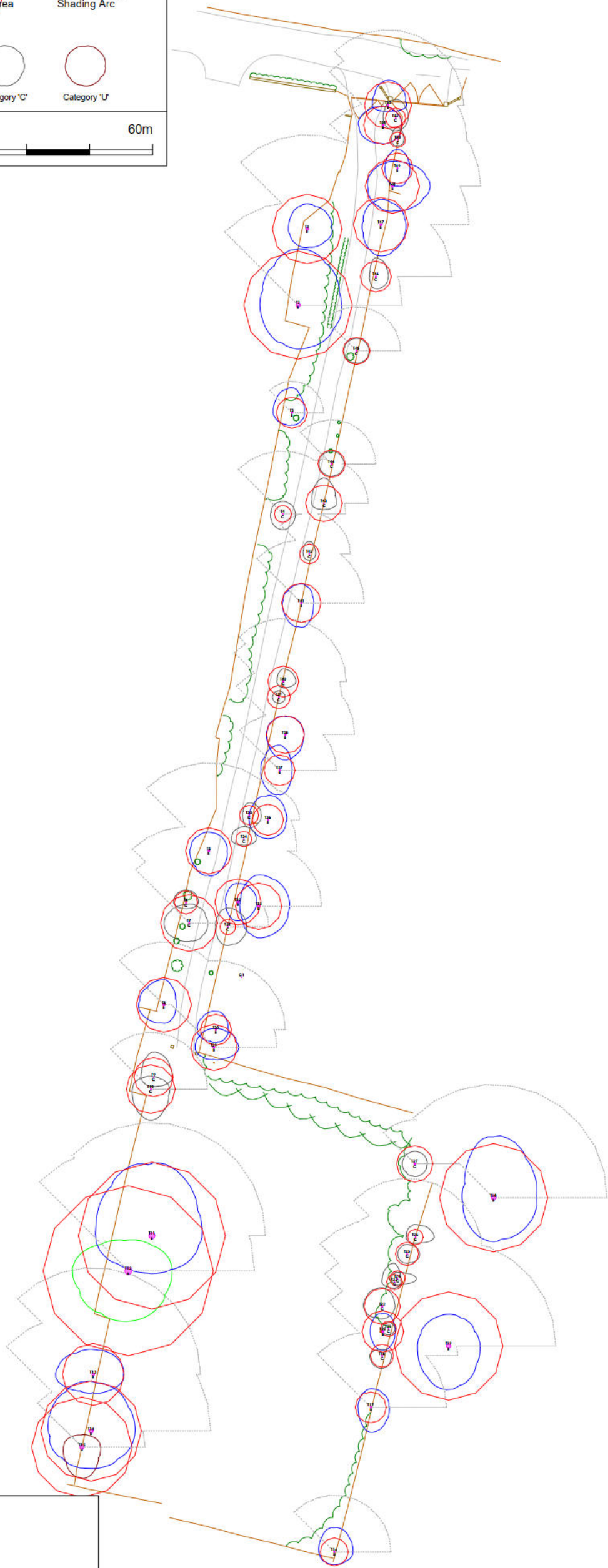
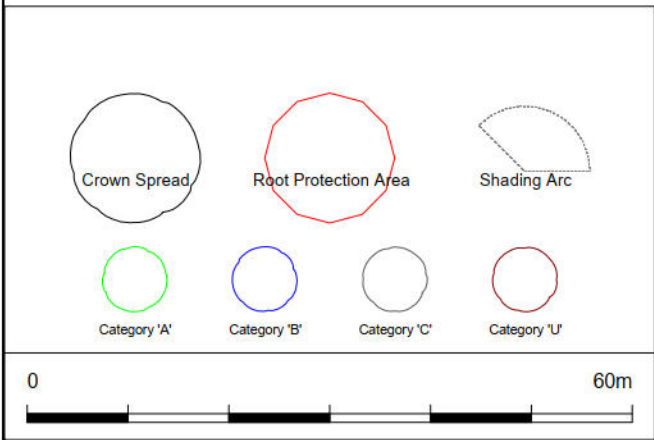
SCALE :
1 : 750

@ A3

DATE :
30/01/2026

Beechdown ref: B/0618/26
The Green Way - BS 5837 tree survey & report - January 2026

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Legend:

- Fences
- Walls
- Access drive
- Hedges, borders and low-level vegetation
- Combined shade pattern

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**Land north of The Green Way
Appendix 5 - development proposal plan**

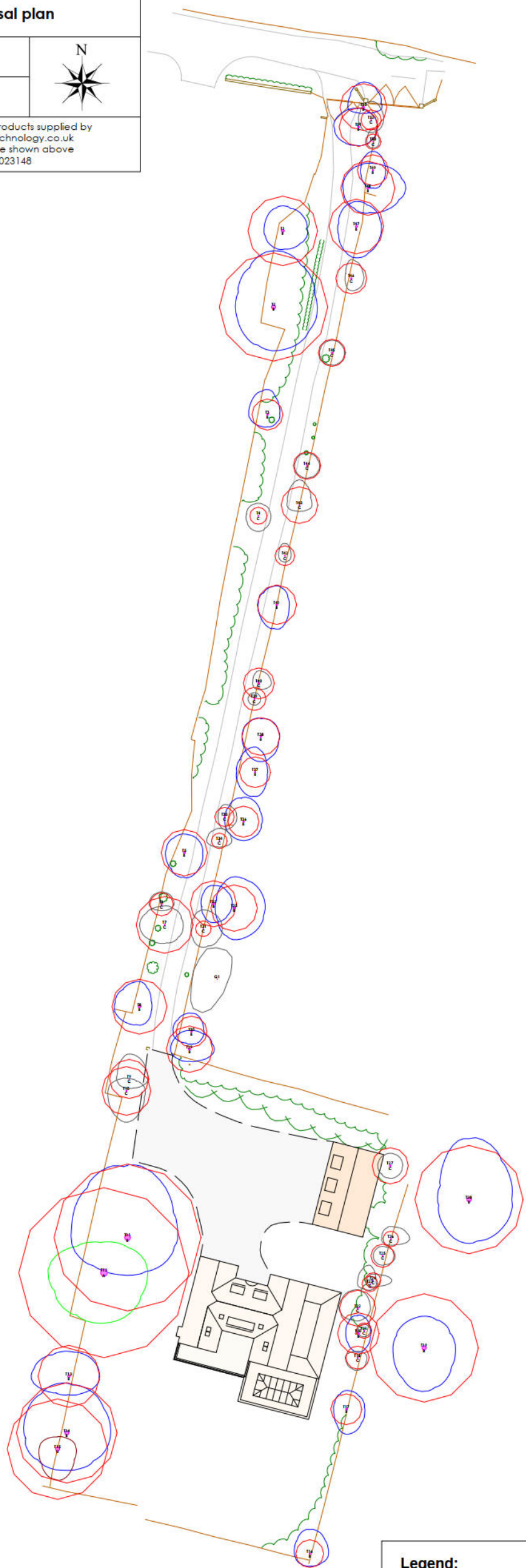
SCALE :
1 : 750 @ A3

DATE :
30/01/2026



Beechdown ref: B/0618/26
The Green Way - BS 5837 tree survey & report - January 2026

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Legend:

	New driveway		Terrace
	Proposed dwelling		Garage
	Fences		Walls
	Access drive		Hedges, borders and low-level vegetation

Beechdown Tree Consultancy Ltd

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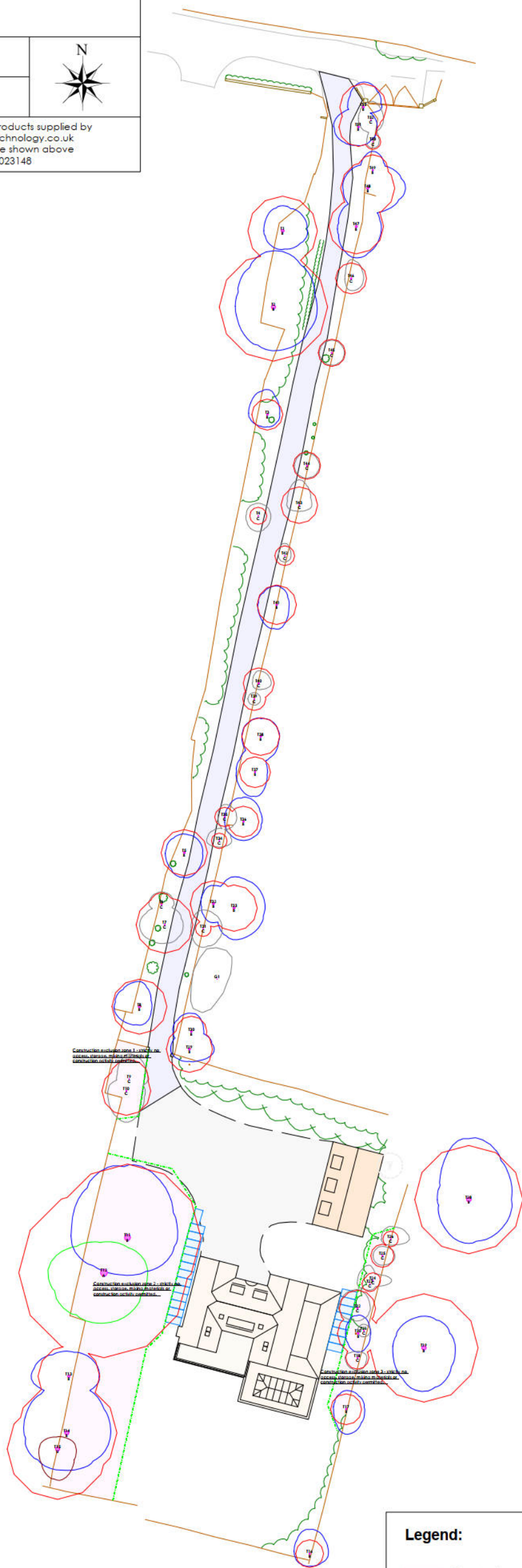
Land north of The Green Way
Appendix 6 - tree protection plan

SCALE :
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30/01/2026

Beechdown ref: B/0618/26
The Green Way - BS 5837 tree survey & report - January 2026



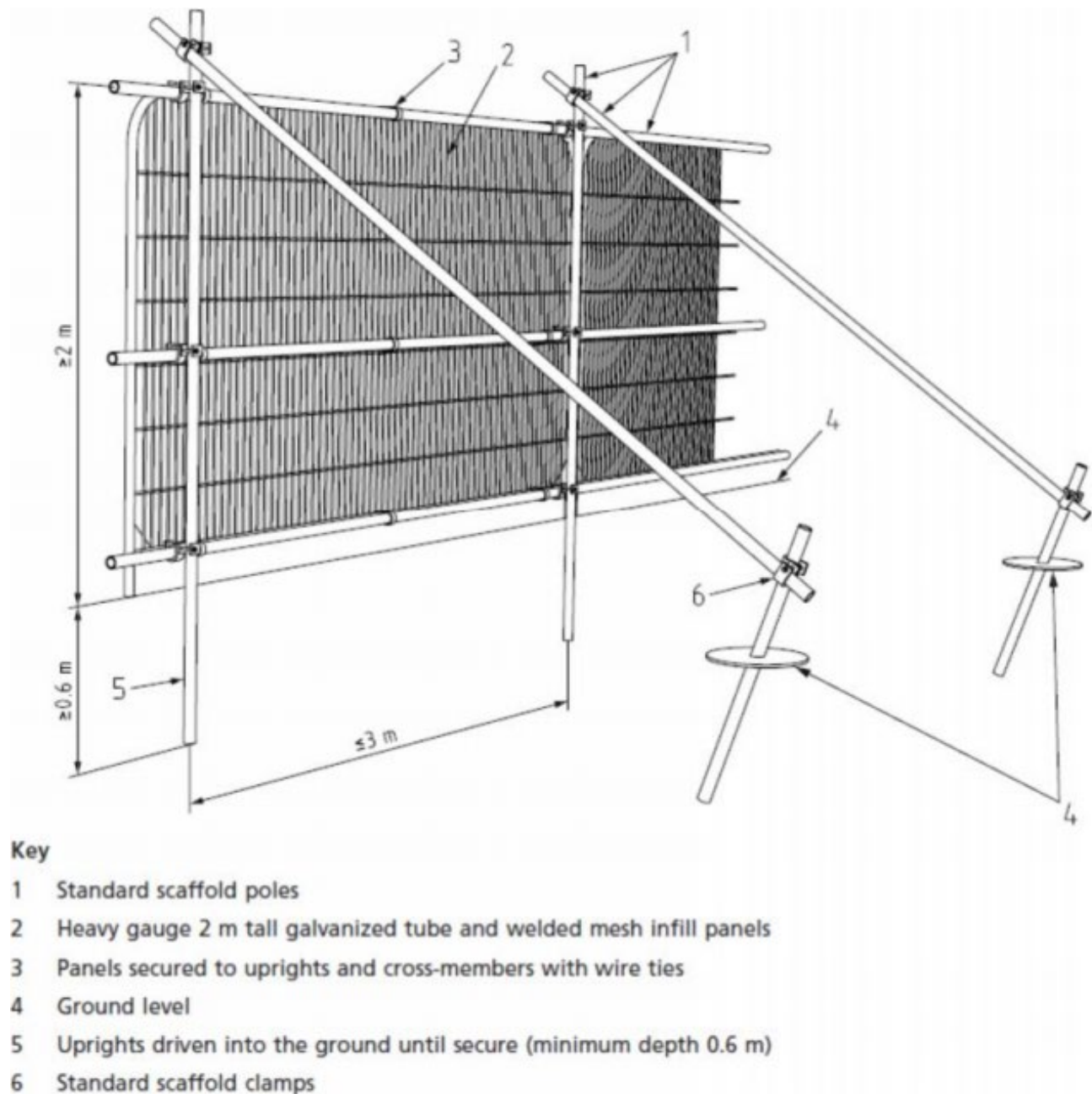
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Legend:

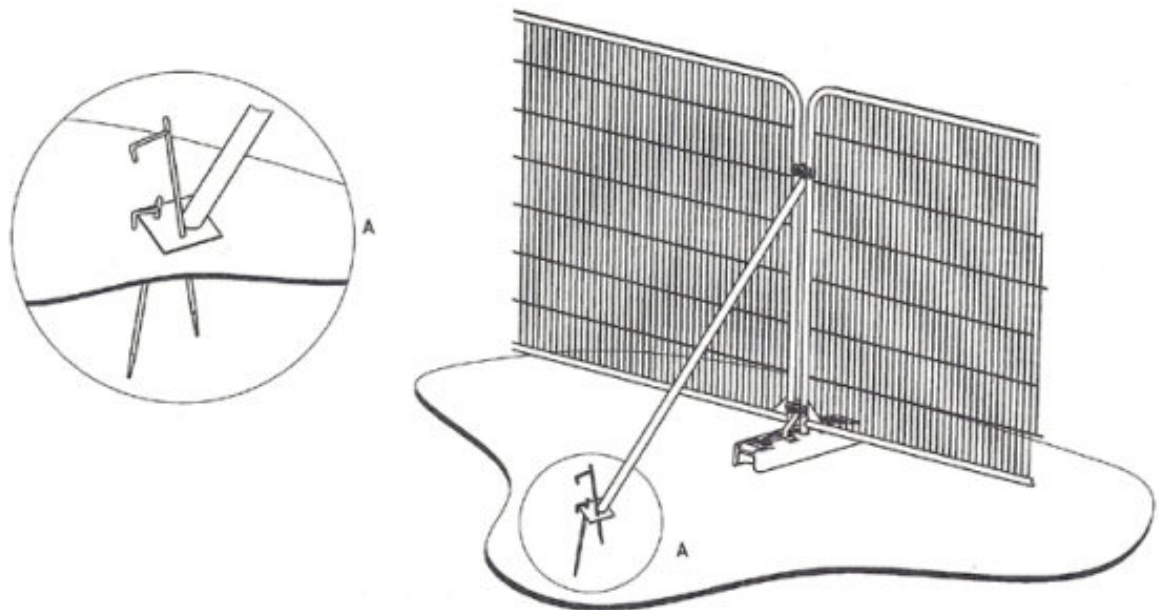
- | | | |
|------------------------------|------------------------------|--------------------|
| Construction exclusion zone | No-dig surfacing | New driveway |
| Terrace | Proposed dwelling | Garage |
| Ground protection mats | | |
| Protective barrier | Category B - combined canopy | Category C removed |
| Category C - combined canopy | Combined RPA | |

Appendix 7 – Protective Barrier

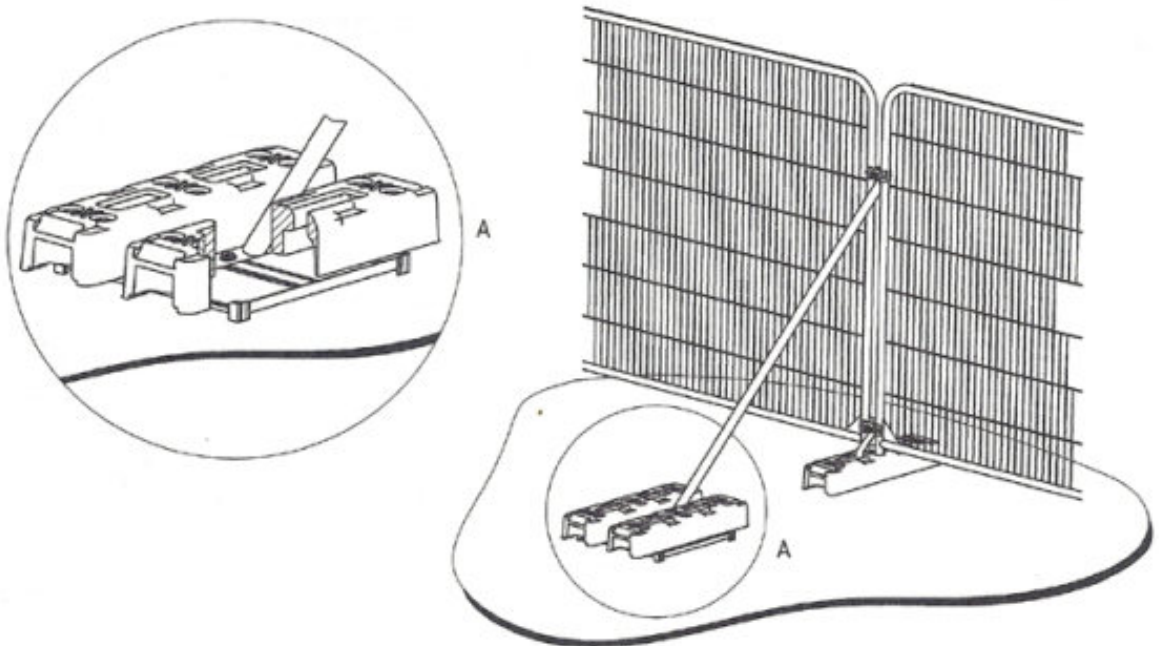


Default specification for protective barrier as per Figure 2 of BS 5837:2012 *Trees in relation to demolition and construction – Recommendations, Fourth (Present) Edition*. BSI

Appendix 7 – Protective Barrier



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Examples of above-ground stabilising systems as per Figure 3 of BS 5837:2012 *Trees in relation to demolition and construction – Recommendations, Fourth (Present) Edition*. BSI

Appendix 8 - Record of Site Visits and Arboricultural Supervision

Client		Address
Archway Green		Land to the north of The Green Way, West Walberton Lane, Walberton, Arundel BN18 0QS
Local planning authority	Arun District Council	
Planning application	-	
Development	Construction of a detached two-storey dwelling, a separate garage and associated infrastructure.	

Stage of development	Action required
<u>Pre-construction</u>	Mark position of protective barrier forming construction exclusion zone.

Notes	
-------	--

Arboriculturalist	
Signed	
Date	

NOTE - COPY OF COMPLETED FORM TO BE SCANNED AND SENT TO LPA ARBORICULTURAL OFFICER

Appendix 8 - Record of Site Visits and Arboricultural Supervision

Client		Address	
Archway Green		Land to the north of The Green Way, West Walberton Lane, Walberton, Arundel BN18 0QS	
Local planning authority	Arun District Council		
Planning application	-		
Development	Construction of a detached two-storey dwelling, a separate garage and associated infrastructure.		

Stage of development	Action required
<u>Pre-construction</u>	Check position of protective barrier forming construction exclusion zone.

Notes	
-------	--

Arboriculturalist	
Signed	
Date	

NOTE - COPY OF COMPLETED FORM TO BE SCANNED AND SENT TO LPA ARBORICULTURAL OFFICER

Appendix 9 - Arboricultural Monitoring Form

Client		Address	
Archway Green		Land to the north of The Green Way, West Walberton Lane, Walberton, Arundel BN18 0QS	
Local planning authority	Arun District Council		
Planning application	-		
Development	Construction of a detached two-storey dwelling, a separate garage and associated infrastructure.		

Area inspected	Comments	Action required
Protective barriers		
Construction exclusion zone		
Site storage/material mixing		
Other		
Additional Comments		

Arboriculturalist	
Signed	
Date	

NOTE - COPY OF COMPLETED FORM TO BE SCANNED AND SENT TO LPA ARBORICULTURAL OFFICER

SITE SPECIFIC CALCULATIONS

Established trees that experience sudden compaction of the soil frequently suffer root death and crown dieback. This often occurs because of the inability of the tree to adapt quickly to the rapid change in soil conditions. Also, oxygen supply to roots is governed by soil structure and texture; in loose or coarse textured soils the air gaps between the soil particles are relatively large and so atmospheric oxygen diffuses readily into the soil, and the waste product of respiration, carbon dioxide, can diffuse away. Sudden compaction of existing tree root areas can result in the death and decay of a large proportion of the existing root system.

Locations can differ greatly, even in close proximity. Trees in various locations will adapt very differently to meet the conditions of its environment. For this reason, should sudden changes to the bulk density or porosity be required, generic protections cannot hope to cover all eventualities. Only calculated, site specific control measures can ensure the reduction of changes to the established trees environment.

www.greenfix.co.uk

GREENFIX BULK DENSITY TREE ROOT PROTECTIONS SOLUTIONS

Greenfix offer a full range of services for site specific solutions for your tree root protection and bulk density requirements.

These services expand across all stages of the industry, and are completely free of charge. For full assistance please do not hesitate to contact Greenfix on 01608666027

TECHNICAL SUPPORT FOR YOUR PROJECT

Greenfix technical team can attend both design and on-site support to offer recommendations for the project according to the British Standard 5837.

Our engineering team can calculate recommendations based on both CBR and bulk density values for true site specific tree root protection solutions. For any assistance completing the questionnaire please do not hesitate in contacting us.

For a free of charge tree root protection solution calculated on Bulk Density, simply request a questionnaire from the contact details below. This will be completed and returned to you within 7 working days. A PDF detail of the Geoweb build-up will also be provided for your use within your specification.

PRESTO
GEOSYSTEMS

**GEOWEB® EARTH RETENTION SYSTEM
REQUEST FOR PROJECT EVALUATION**

For preliminary evaluation, complete this form and fax to your Presto Geosystems distributor/representative or Presto Geosystems. Items marked with a * are required to proceed with a preliminary evaluation.

Project Information

*Project Name _____
*City _____ *State/Province _____
*Country _____ Estimated Geoweb® Area _____ m² (ft²)
*Describe problem to be solved by the Geoweb system: _____

Person Requesting Information

*Relationship with Project (check one)
☐ Primary Consulting Engineer ☐ Sub to Primary Consulting Engineer
☐ Primary Architect ☐ Sub to Primary Architect
☐ Primary Contractor ☐ Sub to Primary Contractor
☐ Project Owner ☐ Other (explain) _____

*Company _____
*Contact Name _____
*Address _____
*City _____ *State/Province _____ *Zip/PC _____
*Phone _____ *Fax _____ *Email _____

Presto Geosystems Distributor / Representative Information

Company _____
Contact _____
Office Location _____ Distributor / Rep Project # _____

Once the tenders have been approved, Greenfix will continue to assist, and be available to attend site the date of installation. This support is to provide the contractor with recommendations of correct installation for tree root protection.



Installation Recommendation

1. **Preparation of the subgrade ready for Geoweb tree root protection no dig solution. Whilst inside the tree rooting area, all actions must ensure no detrimental effect on the ground condition. The tree rooting area is the surface which is being protected**
 - Removal of surface vegetation using prior agreed methods with local authority. No methods of removal which will cause compaction to the subgrade can be used. This includes the use of plant, vehicles and machinery. Examples of appropriate methods include hand tools or herbicide
 - When creating a level subgrade, do not grade off humps or level off through compaction, as these may contain tree roots. Rather infill hollows with a permeable material such as clean stone or sharp sand to create a level surface.
 - All external debris, such as rocks and waste, should be removed
 - When an existing hard surface is scheduled for removal, care should be taken not to disturb tree roots that may be present beneath. Hand held tools or appropriate machinery should be used to remove the existing surface, working backwards over the area so not trafficking the exposed area
2. **TRP4000 Non-woven Geotextile**
 - Lay out the TRP4000 over the prepared area, overlapping joins by a minimum of 300mm, dependent on soil conditions
 - When overlapping the TRP4000, ensure the overlap is in the same direction as the Geoweb will be extended. This will ensure the geotextile does not pull up when extending the Geoweb
 - If a site specific solution has been provided by Greenfix which includes a sub-base, this will require installation through non compaction methods
3. **Installation of the Geoweb panels**
 - Lay out the collapsed Geoweb on the TRP4000 and secure at one end in the middle of the width.
 - Extend the panel to 6.6m length, and secure its length at the other end
 - Extend the width of the Geoweb to 2.6m wide, and secure each corner
 - Ensure the panel is secured at 6.6m x 2.6m, as this will achieve the 259mm by 224mm cell diameter required.
4. **Connection of the panels to create one single mattress**
 - All panels must be adjoined to one another both side by side and end to end
 - Simply connect the Geoweb with the supplied ATRA® keys, through the aligned slots



For enquiries and recommendations please contact



Web: www.greenfix.co.uk

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Geoweb Tree Root Protection Installation Guide

1. Infill of the Geoweb for tree root application

- Compacted, non-porous material, such as M.O.T. Type 1 / crushed stone with fines should not be used for tree root protection
- Infill Geoweb panel with 4-20mm clean angular stone, ensuring Geoweb is not visible and is overfilled by a minimum 25mm. Plant and tracked vehicles should not drive on exposed Geoweb as this will lead to tearing and damage.
- Infill towards the tree, using the filled Geoweb cells as the working platform
- For a stone specification sheet please contact Greenfix Ltd go to www.greenfix.co.uk

2. Compaction of the infilled material

- Compaction of the Geoweb system is not required on generic site conditions, as the infill will secure its own level when trafficked over a short time
- If on poor / site specific conditions, complete 4 passes of a non-vibrating, smooth wheeled roller over the 25mm overfill. Refill and roller as necessary to ensure a 25mm surcharge remains

3. Edging options

- Where edging is required for light structures, such as footpaths, above ground peg and treated timber edging may be acceptable. Where areas of hard surface require edge support, the use of pinned sleepers, gabions or non-invasive haunch kerbing can provide appropriate solutions.
- For recommendations and details (CAD or PDF), please contact Greenfix for assistance

4. Surface options available

- Geoweb acts as a sub-base to all available surfaces on the market, including asphalt, block-paving, resin bound, grass vegetation or gravel etc.
- For tree rooting areas, the surface must be porous unless approved otherwise by local authority.
- For details of surface options please contact Greenfix for assistance

Additional Greenfix services available

For an on-site installation visit on the day of installation on any purchase of Geoweb TRP, please contact Greenfix for recommendations and support.

Site specific calculations and technical recommendations are also available via Greenfix.

Greenfix can offer an on-site visit to recommend correct installation to the calculated recommendation if it has been complete via Greenfix

This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experimentation. It is not intended however to substitute for any testing you may need to conduct to determine for yourself the suitability of the product for your particular use. Since we can not anticipate all variations in actual end use conditions, Greenfix Ltd make no warranties and assumes no liabilities in connection with this information. Nothing in this publication is to be considered as a licence to operate under or a recommendation to infringe any patent right



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Clean Angular Stone 4-20mm

Specification for open graded infill material for Geoweb cellular confinement within tree root protection applications. The no fines material is to ensure high ratio void space which corresponds with ideal soil void ratios for tree root health.

Material to BSEN1342 or BSEN12620. Crushed gravel is not permitted.

Properties of material	Test	Value
Grading of particle size	BSEN 13242	Grading 4-20mm
Fines Content	BSEN 13242	f ₄
Shape flakiness index	BSEN 13242	Fl ₂₀
Resistance to fragmentation	BSEN 13242	LA ₃₀
Resistance to wear	BSNE 13242	M _{DE} 20
Water absorption rate BSNE 1097-6:2000 clause 7	BSNE 13242	WA ₂₄₂
For typical WA>2% magnesium sulphate soundness	BSNE 13242	MS ₁₈
Acid soluble sulphate content air-cooled blast furnace slag	BSNE 13242	AS _{0.1}
Acid soluble sulphate content non air cooled blast furnace slag	BSNE 13242	AS _{0.2}
Total sulphur aggregates other than air cooled blast furnace slag	BSNE 13242	<1% by mass
Total sulphur air cooled blast furnace slag	BSNE 13242	<2% by mass

Sieve Size mm	Percentage of 4-20mm passing
40	100
31.5	98 - 100
20	90 - 99
10	25 - 70
4	0 - 15
2	0 - 5
1	-

Air cooled blast furnace and steel slag should be free from Dicalcium silicate and iron disintegration in accordance with BSEN 13242:2002, 6.4.2.2 V5

Leaching of materials for blast furnace slag and other recycled materials should meet requirements of the Environmental waste acceptance criteria for inert waste when tested in accordance with BSEN 12457-3

On poor site conditions which require compaction, this should be minimum 4 passes of a smooth wheeled roller at max weight 1000kg/m width without vibration