TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS 5837:2012** at:

Aldham Industrial Estate,
Mitchells Road,
Barnsley,
S73 8HA

Prepared for:
ID planning

Date: *November 2022*

Reference: *AWA4564*

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instructions and Brief

1.1.1 We have been instructed by ID Planning to visit the site and prepare our findings in a report.

1.1.2 The report is required in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations,* to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

1.2.1 The survey took place during November 2022.

1.2.2 The trees were surveyed visually from the ground using "Visual Tree Assessment" techniques and in accordance with the guiding principles of British Standard 5837:2012.

1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.

1.2.4 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted using enhanced GPS technology (1-2m accuracy) and laser distance measurer.

1.2.5 This report has been prepared by Mr Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principal and Director of AWA Tree Consultants Ltd. The tree survey data collection was carried out by Miss Lucy Garbutt, MSc, BSc (Hons), arboriculturist at AWA trees.

1.2.6 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

2. The Site

2.1 Location and Description

2.1.1 The site is located in the curtilage of Aldham Industrial Estate, off Mitchell's Road in Wombwell, Barnsley.

2.1.2 The site comprises a section of grassland on Barnsley Road, with some trees and hedge vegetation, situated between a row of houses on the south east boundary and commercial unit on the northern boundary.

2.1.3 The approximate area of the survey is highlighted in the (2022 Google Earth) image below:



3. The Trees

3.1 Legal

3.1.1 The following advice is for guidance purposes only. Some trees are protected by legislation, and it is essential that the legal status of trees is established prior to carrying out works to them. Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record. Tree Preservation Orders, Conservation Areas, Planning Conditions, Felling Licences or Restrictive Covenants legally protect many trees in the UK.

3.1.2 An online search was undertaken with Barnsley Metropolitan Borough Council on 15/11/22 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. Trees at the site are protected by a Tree Preservation Order. As of this date no trees at the site are protected by a Tree Preservation Order or are within a Conservation Area.

3.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, statutory permission is required before any works can take place (unless such work is approved as part of full planning permission).

3.1.4 Trees provide a wide range of habitats for many species, some of which are legally protected such as bats, nesting birds, badgers and dormice. It is essential that appropriate care is taken to ensure that this legislation is not contravened.

3.1.5 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

3.1.6 All tree work should be carried out according to British Standard 3998:2010 Tree Work - Recommendations.

3.2 Tree Survey Results

3.2.1 The tree survey revealed 10 items of woody vegetation, comprised of 8 individual trees and 2 tree groups or hedges.

3.2.2 Of the surveyed trees: 3 trees are retention category `B' and 7 trees, tree groups and hedges are retention category `C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 Full details of the surveyed trees, tree groups and hedges are provided in the attached tree data schedule at Appendix 4. General comments are

provided below:

3.2.4 The significant tree cover within the site consists mainly of larger individual early mature trees from a mix of species. There is also a group of younger Hazel shrubs and a group of semi-mature Cypresses along the southeast boundary.

3.2.5 Species diversity at the site is relatively good. There are three Sorbus, two Limes, two Silver Maple, and one small Hazel tree/shrub. The hedgerows were either Hazel or Cypress.

3.2.6 The sites most significant trees are T1, T3 and T5, established Silver Maple and Lime. These trees are in good or fair condition and are prominent throughout the site and surrounding area and provides a moderate level of amenity value.

3.2.7 T4 Lime is in fair physiological and structural condition, yet has suffered from poor pruning practices, which has led to minor cavities with some decay, and it has a slightly suppressed form.

3.2.8 T6 is an early-mature Sorbus/Rowan with a slight lean and a very unbalanced crown towards the eastern side, potentially contributing to the lean. T2 and T7 are also Sorbus species, with minor defects, yet in fair condition.

3.2.9 The shrubby trees and hedges (G8, G9 and T10) located at the southeast boundary are of low value, however they provide adequate screening for the surrounding properties.

3.2.10 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases (G8 and G9) measurements were estimated and the condition values are indicative only.

3.2.11 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

3.2.12 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

3.3 Photographs

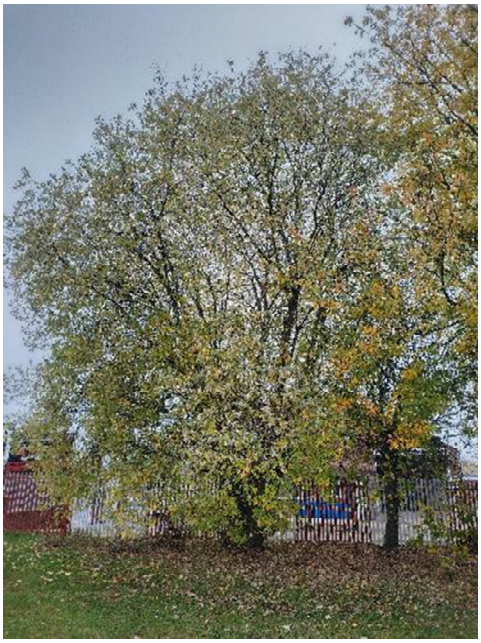

Photo 1: T1 and T2


Photo 2: T3 (left) and T4 from south.


Photo 3: T5


Photo 4: T6 and T7.


Photo 5: G8 and G9 from north east.


Photo 6: T10

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build 3 commercial units approx. 133sqm each with associated access, parking, landscaping and facilities. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

4.2 Direct Impacts

4.2.1 From assessing the new development proposals, 8 trees will require removal to facilitate the development as they are situated in the footprint of the development or their retention and protection throughout the development is not suitable.

4.2.2 The trees that require removal to facilitate the development are T1, T2, T3, T4, T5, T6, T7 an T10.

4.2.3 T1, T3 and T5 are retention category 'B'. Their removal will have some negative arboricultural and amenity impact in the short-term, however their retention is not feasible with the development layout. Suitable replanting will help mitigate for their removal.

4.2.4 T2, T4, T6, T7 and T10 are all lower value, retention category 'C'. Due to the low value of the trees to be removed, the removals will have only a negligible negative arboricultural impact.

4.2.5 Pruning to the overhanging of the shrubby Hazel group G8 the crown is required, back to suitable points within the site. Pruning should not extend beyond the boundary.

4.3 Indirect Impacts

4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendices 5 and 6, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority. As such, no significant negative indirect impacts have been identified.

4.3.2 Potentially damaging activities are proposed in the vicinity of retained trees. The new development encroaches close to and into the edge of the crown of G8. However, the encroachment is very minor, and should be mitigated through the detailed pruning.

4.3.3 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

4.4 Suitable Mitigation

4.4.1 The development of the site provides an excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme. As such, suitable new tree planting has the potential to mitigate for the required tree removals and, in the longer term, has the potential to improve the sites tree cover.

4.4.2 It is proposed to include a landscaping buffer to the west of the site, adjacent to Barnsley roadside, which would be a viable area for replanting to mitigate the required tree removals. Planted trees would need to be of medium ultimate size, or of a more upright form, such as Sorbus or fastigiate Oak, so as not to cause issues in the future with overhanging crowns into the site.

4.5 Protection of the Retained Trees

4.5.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.

4.5.2 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

5. Signature

I trust this report provides all the required information.

Signed



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Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, ACIEEM*

25th November 2022

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Appendices

Appendix 1: Authors Qualifications and Experience
Appendix 2: Survey Methodology and Limitations
Appendix 3: Explanation of Tree Descriptions
Appendix 4: Tree Data
Appendix 5: Tree Constraints Plan
Appendix 6: Tree Impacts Plan

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered*
Adam is the company Director and Principal Consultant. He has a mix of the highest-level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and he has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the crown court. Adam has also undertook locum Tree Officer work for several local authorities.

Mr James Brown, *BSc (Hons) Arboriculture, MArborA, PTI (Lantra), QTRA Registered*
James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Foresters student award. He is a Professional Member of the Arboricultural Association, an Associate of the Institute of Chartered Foresters, and he is working towards becoming a Chartered Arboriculturist. James joined AWA in 2016, he has several years' experience as an Arboricultural Consultant, he previously worked in Europe's largest container tree nursery and he has experience of local authority Tree Officer work.

Dr Felicity Stout, *PhD, MA, BA (Hons), Cert Ed Forestry, TechArborA, PTI (Lantra)*
Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced social forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and she has work published in The Arboricultural Journal on this subject. As well as working at AWA Felicity is the Tree Conservation Officer for the Peak District National Park Authority.

Mr James Godfrey, *BA (Hons), Dip Forestry and Arboriculture Level 4, Cert Arb L3, TechArborA, QTRA Registered*
James has extensive arboricultural experience working as a team leader within the public and private sector. By achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture, James was able to use his knowledge to inform and carry out appropriate maintenance that ensured the long term wellbeing of trees across the UK. During his time at Darlington Borough Council, James provided on site assessment and the management of the remedial works required to ensure safe and suitable retention of trees that provide a multitude of benefits to the urban environment. Currently, James is completing a Foundation Degree in Arboriculture and Tree Management, while working at AWA.

Mr Joe Thomas, *MSci Biology, Award L4 Arboriculture, TechArborA*
Joe achieved a first class degree in biology with an integrated Masters (MSci) from the University of Sheffield. Additionally, he has a Level 4 Award in Arboriculture. Joe joined AWA in 2022 after an Urban Forestry role with the Sheffield and Rotherham Wildlife Trust and Sheffield City Council, where he gained a variety of experience in different aspects of the arboriculture sector.

Mr James Boyle, *HND Level 5 Arboriculture and Urban Forestry, Dip Arboriculture Level 4, TechArborA*
Jim joined AWA in 2022, after having worked within the tree care profession for several years, alongside studying at college and university. During this time, he gained a wealth of experience and several professional and practical NPTC qualifications in the tree care industry. Jim has studied Arboriculture and Urban Forestry at Merrist Wood College in Surrey, Plumpton College in Sussex and University of Highlands and Islands in the Scottish Highlands, where he achieved a distinction in the Higher National Diploma Level 5.

Miss Lucy Garbutt, *MSc Animal Behaviour, BSc (Hons) Biology, CIEEM membership*
Lucy recently graduated with a masters degree in Animal Behaviour from the UK's highest rated university, St Andrews of Scotland, immediately following the completion of her BSc degree in Biology from Lancaster University. Lucy moved into arboriculture after previous experience of protected species' surveys with a large environmental consulting company. This included surveys of bats, reptiles, and dormice.

Appendix 2: Survey Methodology and Limitations

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.* The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - '*Tree Work: Recommendations'*.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked in green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees unsuitable for retention. These trees are in such a condition that any existing value would be lost within 10 years.

Appendix 4: Tree Data

Appendix 5: Tree Constraints Plan

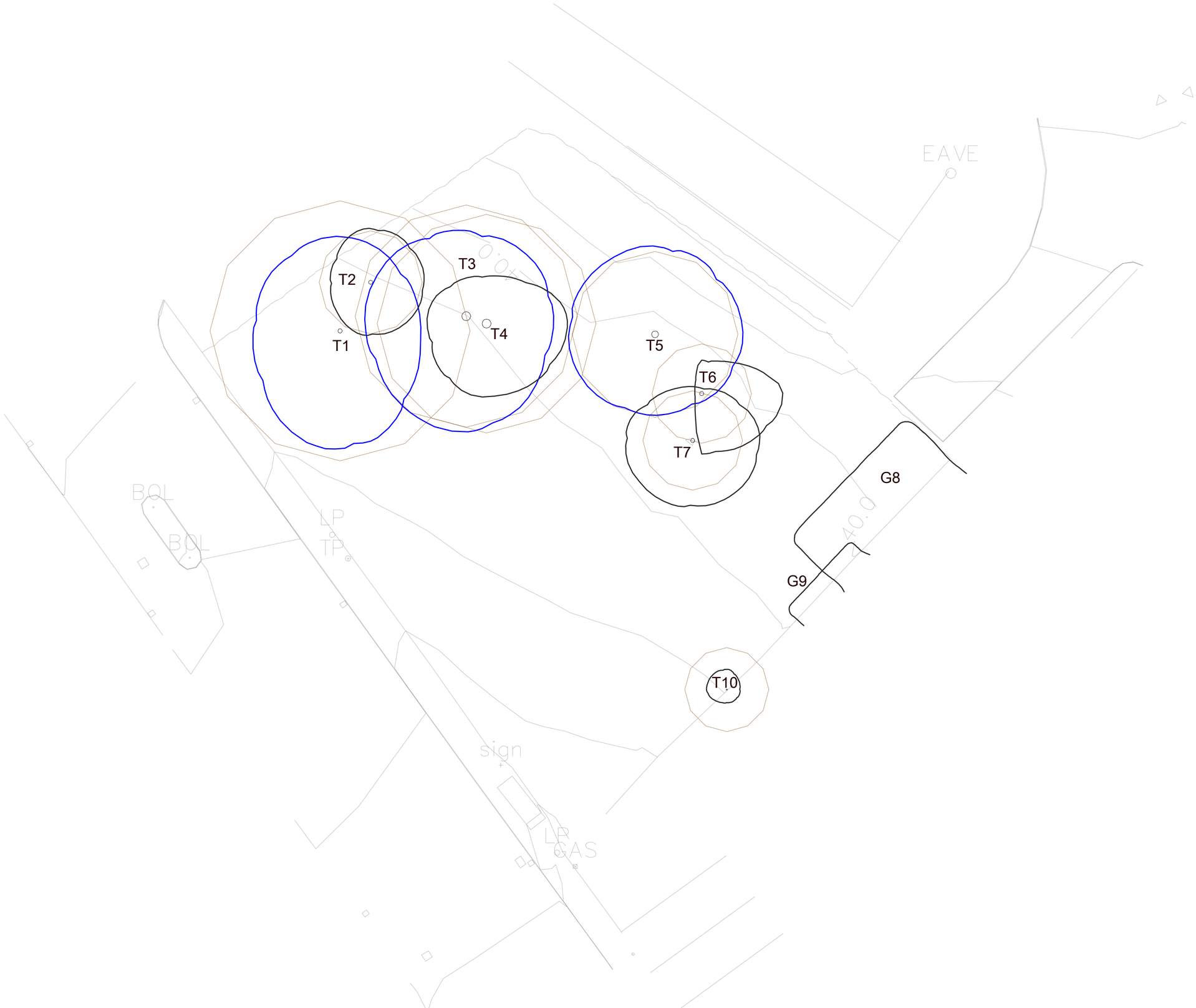
Appendix 6: Tree Impacts Plan

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Average Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Silver Maple	*Acer saccharinum*	Early-mature	14	6	320	No	3	7	6	9	6.5	Exposed roots	Multiple stemmed, at base. Vertical. Epicormic growths. Old pruning wounds. Cup-like union collecting dirt/water. Partially included bark. Tight union	Old pruning wounds. Minor deadwood. Overhanging adjacent land. Well developed crown.		Good	Fair	>40 yrs	Moderate	B	Removal required to facilitate development.
T2	Swedish Whitebeam	*Scandosorbus intermedia*	Early-mature	11	1	310	No	2	4	4	4	3	Exposed roots. Girdled roots	Single stemmed. at base. Vertical. Bark damage	Minor deadwood. Overhanging adjacent land. Overhanging into the site. Old pruning wounds.		Fair	Good	20 to 40 yrs	Low	C	Removal required to facilitate development.
T3	Silver Maple	*Acer saccharinum*	Mature	18	1	670	No	4	6.5	6.5	8.5	7.5	Exposed roots. Girdled roots	Single stemmed. at base. Vertical. Old pruning wounds. Epicormic growths. Pruning wounds - healing well	Minor deadwood. Overhanging adjacent land. Overhanging into the site. Well developed crown. Old pruning wounds		Good	Good	>40 yrs	Moderate	B	Removal required to facilitate development.

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	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Average Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T4	Lime	*Tilia sp.*	Early-mature	11	3	370, 350, 420	No	1.5	3.5	6	5.5	4.5	Girdled roots . Exposed roots. Concrete around base	Epicormic growths. Multiple stemmed. at 1m. Old pruning wounds. Vertical. Bark damage. Tight union. Partially included bark. Pruning wounds - healing poorly with some decay. Major cavity. Minor cavities. Minor decay	Minor deadwood. Old pruning wounds. Well developed crown	Pruned badly leading to cavities with some decay.	Fair	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development.
T5	Lime	*Tilia sp.*	Early-mature	10	1	500	No	2	6.5	6.5	6	6.5	Exposed roots. Girdled roots	Single stemmed. at base. Slight lean	Moderate deadwood. Overhanging adjacent land. Old pruning wounds	Several bits of moderate deadwood in crown.	Good	Fair	>40 yrs	Moderate	B	Removal required to facilitate development.
T6	Rowan	*Sorbus aucuparia*	Early-mature	8	1	300	No	2	2.5	6	4.5	0.5	Exposed roots	Single stemmed. at base. Slight lean. Old pruning wounds	Old pruning wounds. Cavities. Minor deadwood. Unbalanced	Crown very unbalanced, potentially worsening the lean.	Poor	Fair	10 to 20 yrs	Low	C	Removal required to facilitate development.

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Average Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T7	Whitebeam	*Sorbus aria*	Semi-mature	9	1	300	No	2.5	4	5	5	5	Exposed roots. Girdled roots	Multiple stemmed. at 1m. Vertical. Old pruning wounds. Partially included bark. Tight union. Bleeds	Old pruning wounds. Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	C	Removal required to facilitate development.
G8	Hazel	*Corylus avellana*	Young	7	10	120	Yes	1.5	See plan.				Group in adjacent property, with crowns overhanging into site. Provides screening for neighbouring houses. Some stems in contact with fence.				Fair	Fair	20 to 40 yrs	Low	C	Pruning will be required to facilitate development.
G9	Cypress	*Cupressus*	Semi-mature	10	10	150	Yes	0	See plan.				Group in adjacent property. Provides screening for neighbouring houses.				Good	Good	20 to 40 yrs	Low	C	No works required.
T10	Hazel	*Corylus avellana*	Young	3.5	10	80	No	0	See plan.				Limited access around base	Multiple stemmed. at base. Vertical. Epicormic growths. Old pruning wounds	Normal	Small shrubby tree	Good	Good	20 to 40 yrs	Low	C	Removal required to facilitate development.



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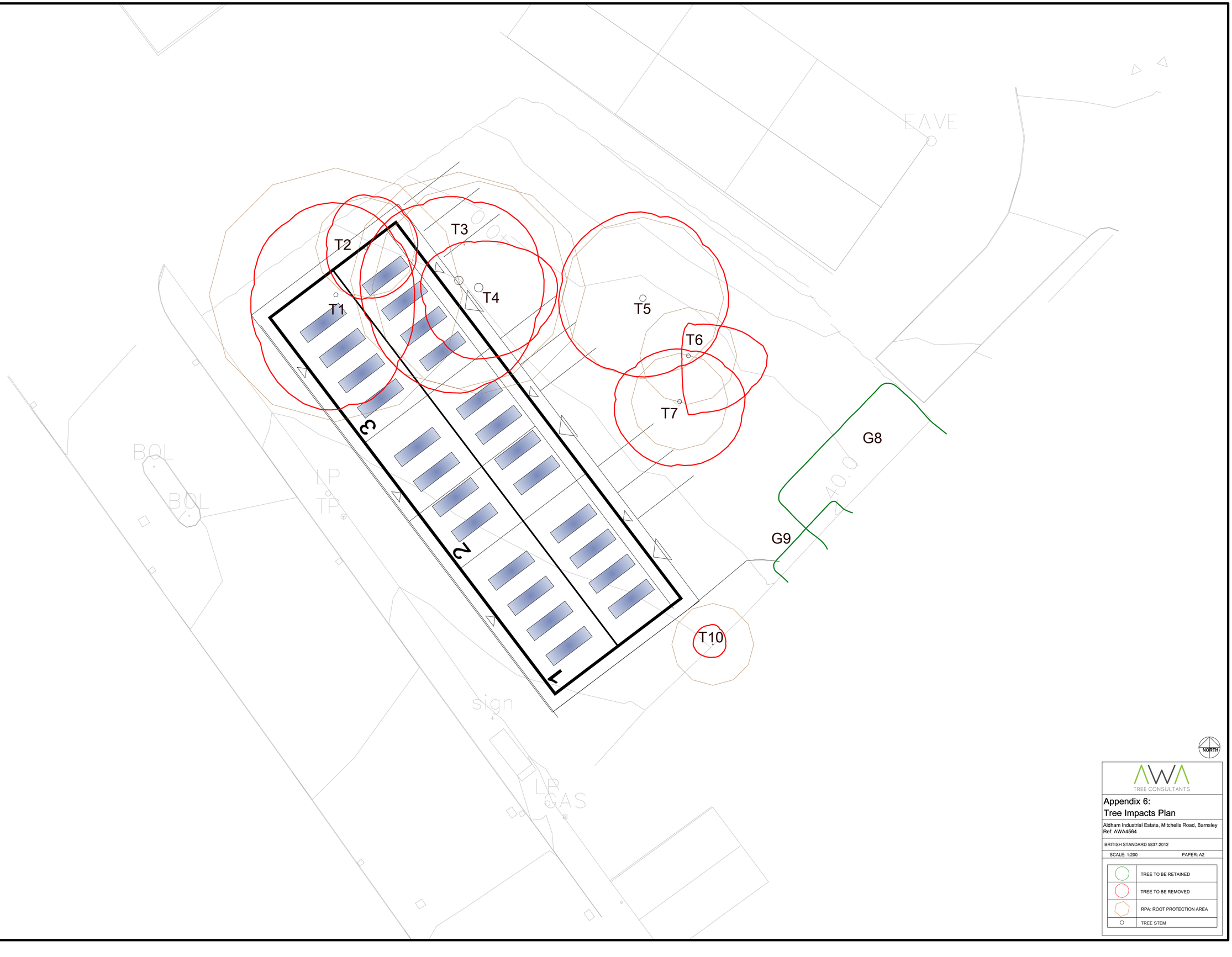
Appendix 5:
Tree Constraints Plan

Aldham Industrial Estate
Ref: AWA4564

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:200 PAPER: A2

	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: UNSUITABLE FOR RETENTION
	RPA: ROOT PROTECTION AREA
	TREE STEM



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Appendix 6:
Tree Impacts Plan

Aldham Industrial Estate, Mitchells Road, Barnsley
Ref: AWA4564

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A2

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	RPA: ROOT PROTECTION AREA
	TREE STEM