



ARBORICULTURAL REPORT & Impact Assessment to BS 5837:2012 at:

***1 Tivy Dale Drive,
Cawthorne,
Barnsley,
S75 4EN***

Prepared for:
NYP Architectural Services Limited

Date: *May 2023*

Reference: *AWA5414*



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1. Introduction

1.1 Instructions and Brief

- 1.1.1 We have been instructed by NYP Architectural Services Limited 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 May 2023.
- 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 Mr James Brown, BSc (Hons) Arboriculture, MArborA, and Miss Lucy Garbutt, MSc, BSc (Hons), Arboriculturists at AWA Tree Consultants Ltd.
- 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

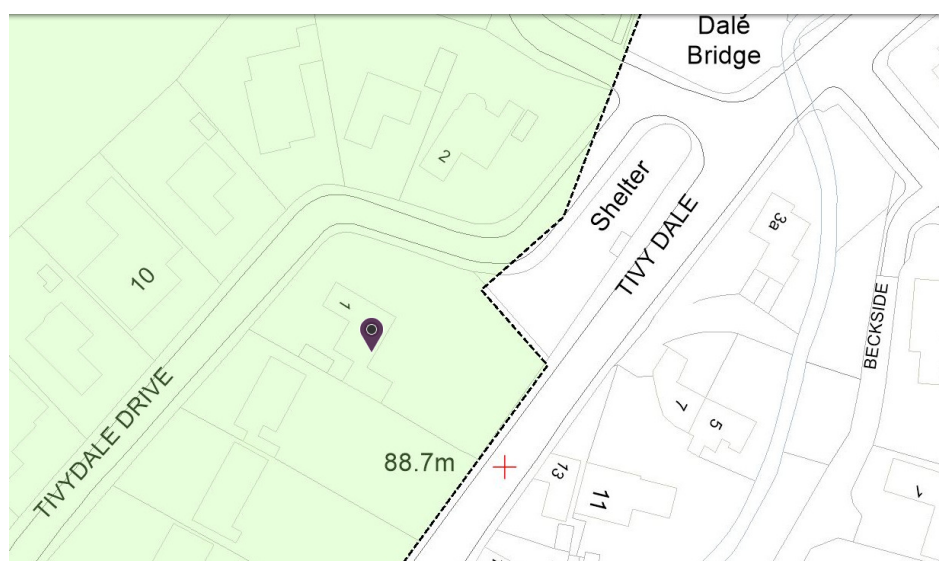
- 2.1.1 The site is located on Tivy Dale Drive, in the Cawthorne region of Barnsley, South Yorkshire.
- 2.1.2 The site comprises a detached residential property with gardens. To the immediate north and west runs Tivy Dale Drive and to the south east runs Tivy Dale Road. To the south west lies a neighbouring residential property.
- 2.1.3 The approximate area of the survey is highlighted in the (2021 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 Council on 19/05/2023 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. The site is partially situated within a Conservation Area. As such, all trees within the Conservation Area are legally protected.
- 3.1.3 The accessed map image from barnsley.gov.uk is detailed below:



- 3.1.4 Before carrying out any works to protected trees the permission of the local planning authority is required. There are large potential penalties for illegally carrying out work to protected trees. Statutory permission is not required for the removal of deadwood.
- 3.1.5 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such work is approved as part of full planning permission).

- 3.1.6 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to search for areas of ancient woodlands listed on the Ancient Woodland (DEFRA 2021), and a check for catalogued Ancient and Veteran trees using the woodland trust ancient tree inventory (Woodland Trust 2021).
- 3.1.7 It was confirmed that there are no designated ancient woodlands or veteran trees within the survey area.
- 3.1.8 Development, including construction and operational activities can affect ancient woodland. Natural England and Forestry Commission 'standing advice' for ancient woodland is a material planning consideration for local planning authorities when making planning decisions that affect ancient woodland.
- 3.1.9 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.
- 3.1.10 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.
- 3.1.11 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 33 items of woody vegetation, comprised of 28 individual trees and 5 tree groups or hedges.
- 3.2.2 Of the surveyed trees: 3 trees are retention category 'U', 1 tree is retention category 'A', 11 trees and tree groups are retention category 'B' and 18 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 of several early mature to mature Lime trees along the site's north and western boundary, Limes T6, T9, T11, T12, T13, T14, T21 and T22. All are in good condition providing moderate amenity to the site and the surrounding area, with few visual defects and as such are retention category 'B' trees.
- 3.2.5 The sites most valuable trees are Lime T14 and Oak T28. Both are large,

mature trees providing moderate to high levels of amenity to the site and the surrounding properties. Lime T14 is in particularly good condition and as such is a retention category 'A' tree. Oak T28 would normally be retention category 'A' also, but it has defects which limit its value. The major defect limiting T28 was a large *Ganoderma australe* fungal bracket to the base of the stem which is likely to limit this tree's long term prospects. A formal tree risk survey is recommended to T28 regardless of development at the site.

- 3.2.6 Other noteworthy trees include Norway Maples, T5 and T23, and Spruce, T29. Maples T5 and T23 are both early-mature trees in good condition with good long term prospects. Spruce T29 is a large ornamental garden tree which appears in good condition. All three trees are retention category 'B'.
- 3.2.7 The species diversity at the site was high, with Lime being the dominant species. There were also several Norway Maples, Prunus, Beech, Hawthorn and Ash trees. There was also the occasional other species within this site. Ages of trees at the site varied widely, with a good mix of young and semi mature trees all the way through to more mature and prominent individuals.
- 3.2.8 The remaining trees within the site are of particularly low value and should not pose any significant constraint on the development potential of the site.
- 3.2.9 G3, T4 and T24 are recommended for removal regardless of development at the site.
- 3.2.10 Many Ash trees in the wider region are being impacted by Ash Dieback disease. Once a tree is infected, the disease is usually fatal, either directly or indirectly. While the identified Ash trees may continue to provide landscape and wildlife benefits for some time, their long-term prospects are likely to be limited as a result of Ash Dieback.
- 3.2.11 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.
- 3.2.12 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.
- 3.2.13 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: T14 from west.



Photo 2: T28 from north west.



Photo 3: *Ganoderma australe* fungus to base of T28.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

- 4.1.1 It is proposed to replace the existing residential property with a new residential property. new replacement dwelling 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, no trees, groups or hedges will require removal to facilitate the development.
- 4.2.2 Adjacent retained trees T31 and T32 will require pruning works to facilitate the development, reducing the crowns as required from the north east, not pruning beyond the site boundary. The required pruning works to T31 would be minor and the retained tree would readily tolerate the works with little negative impact. While the required pruning works to T32 would be more significant, the tree should tolerate the works and the tree is of low value and should not pose a significant constraint on development.
- 4.2.3 G3, T4 and T24 are recommended for removal regardless of development at the site.

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.
- 4.3.2 The proposed new development is situated within the RPA of adjacent retained tree T32, however, should remain largely unaffected by the works. T32 is of low value and should not pose significant constraints on development.
- 4.3.3 The proposed new development encroaches into the edge of the RPA of retained tree T6, however, the encroachment into the RPA is minor and the retained tree should remain largely unaffected by the works provided care is taken during the development.
- 4.3.4 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 Protection of the Retained Trees

- 4.4.1 The retained trees may require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 4.4.2 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



.....

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

19th May 2023

**AWA Tree Consultants Limited
Union Forge
27 Mowbray Street
Sheffield
S3 8EN**

www.awatrees.com



Institute of
Chartered Foresters
Registered Consultant

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 undertaken 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 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 has experience in botany and plant science and moved into arboriculture after previous experience of protected species and botanical surveys with a large environmental consulting company.

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.

	Tree Species			Measurements			Crown (m)				Tree Condition							Value		Management		
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G1	Elder, Shadbush, Berberis, Ash, Blackthorn, Cherry, Hawthorn, Rowan and Sycamore.	<i>Sambucus nigra</i> , <i>Amelanchier</i> , <i>Berberis</i> , <i>Fraxinus excelsior</i> , <i>Prunus spinosa</i> , <i>Prunus avium</i> , <i>Crataegus monogyna</i> , <i>Sorbus aucuparia</i> and <i>Acer psuedoplatanus</i>	Semi-mature	3.5	10	70	Yes	0	See plans.				No visual defects	Multiple stemmed at base. Vertical. Ivy covered. Old pruning wounds. Partially included bark. Tight union. Minor cavities	Old pruning wounds. Cavities. Minor dieback. Minor deadwood	Mixed species linear group. Occasional ivy covered stem and dead standing stem. Some Ash within the group have dieback.	Fair	Good	20 to 40 yrs	Low	C	No works required.
T2	Yew	<i>Taxus baccata</i>	Semi-mature	4	6	80	Yes	0	2	2	2	2	Limited access around base	Multiple stemmed at 1m. Vertical. Old pruning wounds. Tight union	Old pruning wounds. Minor deadwood	Pruned into shape.	Good	Good	>40 yrs	Low	C	No works required.
G3	Elm	<i>Ulmus procera</i>	Semi-mature	9	6	120	Yes	1.5	See plans.				Limited access around base	Multiple stemmed at 1m. Vertical. Old pruning wounds. Tight union	Old pruning wounds. Minor deadwood. Moderate deadwood	Linear group of dead elms likely from dutch elm disease. Ivy covered .	Poor	Poor	<10 yrs	Low	U	Removal recommended regardless of development.

	Tree Species			Measurements			Crown (m)				Tree Condition								Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T4	Laburnum	Laburnum anagyroides	Early-mature	6	4	180, 130, 190, 150	No	1.5	2.5	2	2.5	2	No visual defects	Multiple stemmed at 0.5m. Slight lean. Bark damage. Ivy covered. Old pruning wounds. Partially included bark. Tight union. Minor cavities. Moderate decay. Bark loss. Stubs	Old pruning wounds. Cavities. Moderate dieback. Minor deadwood	Slight lean south east. Previously heavily pruned. Very poor condition with dieback, cavities and decay.	Poor	Poor	<10 yrs	Low	U	Removal recommended regardless of development.
T5	Norway Maple	Acer platanoides	Early-mature	17	1	450	No	2	3.5	3.5	4.5	4	No visual defects	Single stemmed. Vertical	Minor deadwood	Telegraph pole with overhead cables through western crown.	Good	Good	>40 yrs	Moderate	B	No works required.
T6	Lime	Tilia x europaea	Early-mature	18	1	580	No	2	5.5	4	4.5	8	Exposed roots. Root damage /loss	Single stemmed. Vertical. Ivy covered. Epicormic growths	Minor deadwood. Tight unions. Included bark	Large exposed roots with significant bark damage with minor decay. Telephone line through western crown. Undergrowth prevented detailed inspection of base.	Good	Fair	>40 yrs	Moderate	B	No works required.
T7	Cherry	Prunus sp.	Semi-mature	5	2	150, 180	No	2	2.5	3	0.5	2	Root damage /loss. Exposed roots	Twin stemmed at 1m. Vertical. Old pruning wounds	Minor deadwood. Old pruning wounds. Major dieback. Snapouts	Adjacent street light to north east of crown. Undergrowth prevented detailed inspection.	Poor	Fair	10 to 20 yrs	Low	C	No works required.

	Tree Species			Measurements			Crown (m)					Tree Condition										Value		Management
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works		
T8	Beech	Fagus sylvatica	Semi-mature	10	2	100, 120	Yes	0.5	2.5	2	2.5	2	No visual defects	Twin stemmed at 0.5m. Vertical. Tight union. Old pruning wounds	Old pruning wounds. Minor deadwood	Adjacent streetlight through northern crown. Lower crown managed from south and north. Crown in contact with streetlight. Undergrowth prevented detailed inspection.	Fair	Fair	10 to 20 yrs	Low	C	No works required.		
T9	Lime	Tilia x europaea	Early-mature	19	1	580	No	2	5.5	2.5	5.5	6	Exposed roots. Decay. Root damage /loss	Single stemmed. Vertical. Old pruning wounds. Epicormic growths	Old pruning wounds. Minor deadwood	Tight union and included bark to stem and crown. Undergrowth prevented detailed inspection.	Good	Good	>40 yrs	Moderate	B	No works required.		
T10	Robinia	Robinia pseudoacacia	Early-mature	20	1	420	No	5	6.5	9	7.5	4	Exposed roots. Root damage /loss	Single stemmed. Slight lean. Moderate decay. Moderate cavity. Old pruning wounds. Bark damage	Minor deadwood. Moderate deadwood. Snapouts	Slight lean south east. Long cavity to southern side of stem with moderate decay but with good reaction growth. Undergrowth prevented detailed inspection.	Fair	Fair	20 to 40 yrs	Low	C	No works required.		
T11	Lime	Tilia x europaea	Early-mature	18	1	420	No	2.5	6	5.5	3.5	3	Exposed roots. Bark damage	Single stemmed. Slight lean. Old pruning wounds. Epicormic growths. Tight union. Partially included bark	Minor deadwood. Old pruning wounds. Tight union. Included bark	Slight lean east. Stored garden waste to south.	Good	Good	>40 yrs	Moderate	B	No works required.		
T12	Lime	Tilia x europaea	Early-mature	20	1	480	No	1.5	5	3.5	5.5	4	Bark damage. Exposed roots. Girdled roots	Single stemmed. Slight lean. Ivy covered	Old pruning wounds. Tight union. Included bark. Minor deadwood	Slight lean south east.	Good	Good	>40 yrs	Moderate	B	No works required.		

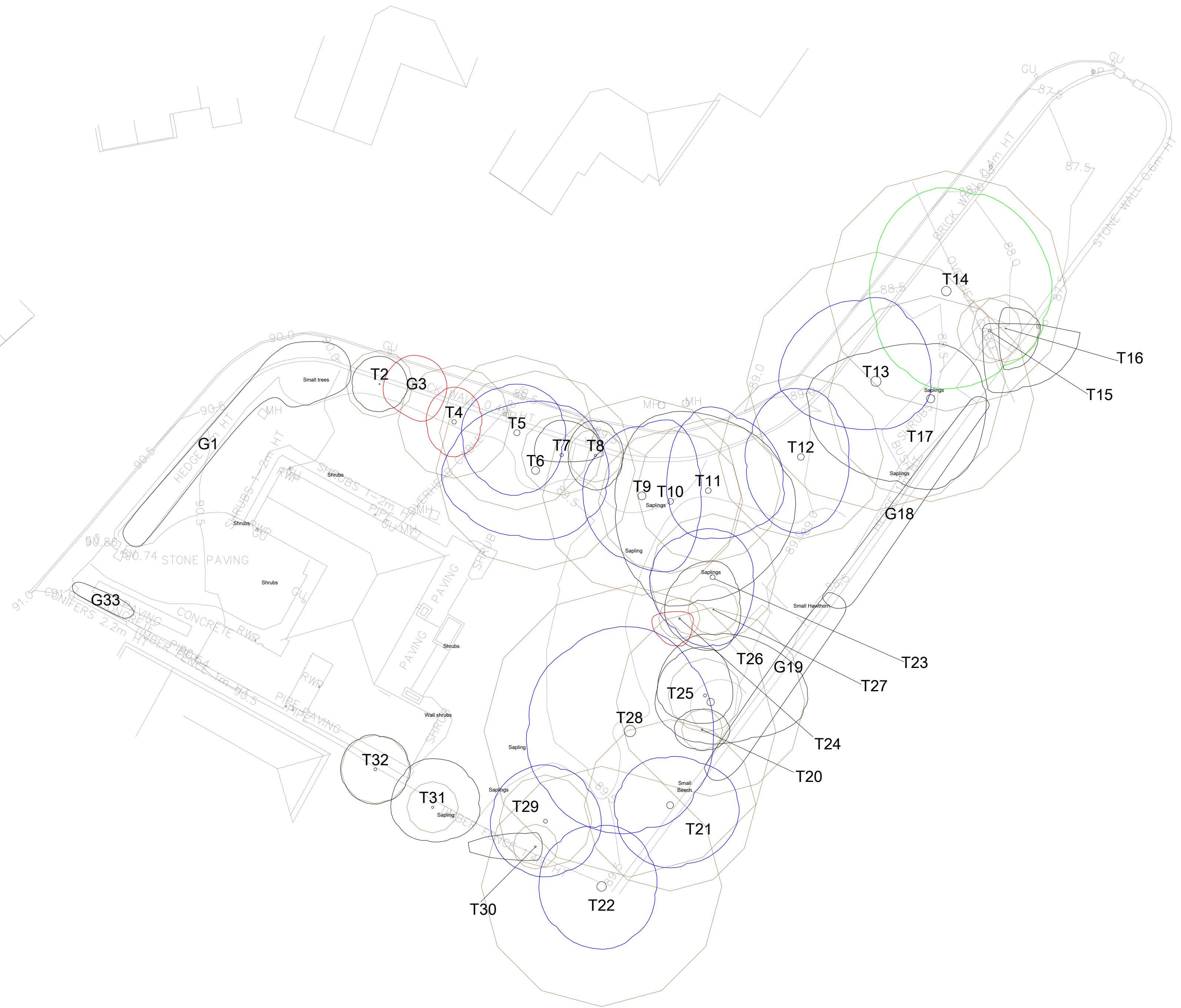
	Tree Species			Measurements			Crown (m)					Tree Condition							Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T13	Lime	Tilia x europaea	Early-mature	20	5	300, 150, 450, 260, 430	No	1.5	6	4	3.5	7	Exposed roots. Girdled roots. Bark damage	Multiple stemmed at 1m. Vertical. Old pruning wounds. Tight union. Partially included bark	Minor deadwood. Old pruning wounds. Tight union. Included bark	Multiple stemmed at 1m. Maybe historically pruned.	Good	Fair	>40 yrs	Moderate	B	No works required.
T14	Lime	Tilia x europaea	Mature	20	1	700	No	1.5	7.5	7.5	7	5.5	Bark damage. Girdled roots. Exposed roots	Single stemmed. Vertical. Epicormic growths. Old pruning wounds	Old pruning wounds. Tight union. Included bark. Minor deadwood	Black staining to stem.	Good	Good	>40 yrs	High	A	No works required.
T15	Ash	Fraxinus excelsior	Semi-mature	10	1	190	No	1	0.5	6.5	4.5	0.5	No visual defects	Single stemmed. Significant lean. Epicormic growths	Old pruning wounds. Minor deadwood	Growing from base of bus stop with significant lean east. Adjacent street line to south of crown	Good	Fair	10 to 20 yrs	Low	C	No works required.
T16	Hawthorn	Crataegus monogyna	Semi-mature	9	6	80	No	0	1.5	2.5	3	0.5	No visual defects	Multiple stemmed at base. Vertical. Tight union. Partially included bark. Old pruning wounds	Minor deadwood. Old pruning wounds	Growing at base of bus stop. Crown in contact with bus stop to west. Adjacent street line to east. Crown in contact with streetlight. Lower crown managed over footpath	Fair	Fair	10 to 20 yrs	Low	C	No works required.
T17	Sycamore	Acer pseudoplatanus	Early-mature	21	1	600	No	1	4	4	6.5	9	No visual defects	Single stemmed. Vertical. Ivy covered. Tight union. Partially included bark. Bark damage. Bark loss. Minor decay. Epicormic growths	Minor dieback. Minor deadwood. Minor snapouts. Ivy covered	Two co dominant stems at 1.5m with included bark and bark loss and minor decay. Telephone wire to south east of crown. Undergrowth prevented detailed inspection of the roots, ivy prevented detailed inspection of stem and crown.	Fair	Fair	20 to 40 yrs	Moderate	C	No works required.

Tree Species				Measurements			Crown (m)				Tree Condition								Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G18	Hawthorn	Crataegus monogyna	Semi-mature	1.5	10	70	Yes	0	See plans.				No visual defects	Multiple stemmed. Partially included bark. Tight union. Old pruning wounds. Epicormic growths. Bark damage. Minor cavities. Minor decay. Fused stems	Minor deadwood. Old pruning wounds	Managed Hawthorn hedge.	Good	Good	>40 yrs	Low	C	No works required.
G19	Beech	Fagus sylvatica	Semi-mature	15	10	120	Yes	0	See plans.				No visual defects	Multiple stemmed. Partially included bark. Tight union. Old pruning wounds. Epicormic growths. Bark damage. Minor cavities. Minor decay. Fused stems	Minor deadwood. Old pruning wounds	Linear group of semi mature beech. Likey once managed now unmanaged row of stems. Retaining wall to immediate south.	Good	Good	20 to 40 yrs	Moderate	C	No works required.
T20	Beech	Fagus sylvatica	Young	5	1	120	No	0.5	1.5	2	1.5	2	No visual defects	Single stemmed. Slight lean. Ivy covered	Minor deadwood	Slight lean south. Retaining wall to immediate south.	Good	Good	20 to 40 yrs	Low	C	No works required.

	Tree Species			Measurements			Crown (m)					Tree Condition							Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T21	Lime	Tilia x europaea	Semi-mature	22	5	250, 250, 150, 250, 200	No	1.5	3.5	5	4.5	4	No visual defects	Multiple stemmed at base. Vertical. Epicormic growths. Partially included bark. Tight union. Old pruning wounds	Minor deadwood. Minor snapouts. Included bark. Tight union. Old pruning wounds	Multiple stemmed. Dense epicormic growths at base prevented detailed inspection. Retaining wall to immediate south. Ivy and undergrowth prevented detailed inspection of the roots.	Good	Fair	20 to 40 yrs	Moderate	B	No works required.
T22	Lime	Tilia x europaea	Mature	22	1	700	Yes	1.5	4.5	4	4.5	4.5	No visual defects	Single stemmed. Vertical. Epicormic growths. Old pruning wounds. Tight union. Partially included bark	Minor deadwood. Old pruning wounds	Single stemmed but with large epicormic growths at base, which prevented detailed inspection. Ivy undergrowth prevented detailed inspection of roots. Retaining wall to immediate south.	Good	Fair	20 to 40 yrs	Moderate	B	No works required.
T23	Norway Maple	Acer platanoides	Early-mature	14	2	290, 230	No	1.5	3.5	3	5	4.5	No visual defects	Twin stemmed at 1m. Vertical. Tight union. Partially included bark	Minor deadwood. Old pruning wounds	Co-dominant stems at 1m.	Good	Good	>40 yrs	Moderate	B	No works required.
T24	Prunus	Prunus sp.	Semi-mature	6	2	80, 90	No	2	0.5	1	2	2	No visual defects	Twin stemmed at 1m. Vertical. Major decay. Major cavity	Minor deadwood	Very long decayed bark wound and cavity to northern side of stem.	Fair	Poor	<10 yrs	Low	U	Removal recommended regardless of development.
T25	Ash	Fraxinus excelsior	Early-mature	20	1	550	No	8	5	7	3	4	Limited access around base. Exposed roots	Single stemmed. Slight lean. Ivy covered. Minor cavities. Major decay	Old pruning wounds. Ivy covered. Minor snapouts	Large pruning wounds with decay at base to east, likely was multiple stemmed previously. Situated within planting pit. Ivy and undergrowth prevented detailed inspection at base.	Fair	Fair	10 to 20 yrs	Moderate	C	No works required.

	Tree Species			Measurements			Crown (m)					Tree Condition								Value		Management
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T26	Hawthorn	Crataegus monogyna	Semi-mature	7	2	120, 180	Yes	1.5	3.5	2	2	3.5	No visual defects	Twin stemmed at base. Vertical. Ivy covered. Partially included bark. Tight union	Minor dieback. Minor deadwood. Old pruning wounds	Situated next to Ash T25 in planting pit.	Fair	Fair	20 to 40 yrs	Low	C	No works required.
T27	Dogwood	Cornus sp.	Semi-mature	4.5	6	60	Yes	1	3.5	2	3	3.5	No visual defects	Multiple stemmed at base. Vertical. Stubbs. Tight union. Partially included bark. Bark damage. Old pruning wounds	Old pruning wounds. Minor deadwood		Fair	Fair	10 to 20 yrs	Low	C	No works required.
T28	Common Oak	Quercus robur	Mature	21	1	850	No	1.5	7.5	6	7.5	7.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Fungus. Bark damage	Minor deadwood. Moderate deadwood. Old pruning wounds. Minor snapouts	Metalwork embedded in stem. Large Ganodemra australe fungal bracket to north eastern side at base of stem. Likely historic pruning works undertaken such as crown reduction.	Good	Fair	20 to 40 yrs	Moderate	B	Formal tree risk assessment recommended regardless of development
T29	Norway Spruce	Picea abies	Semi-mature	16	1	270	No	1	4	4	4	4	No visual defects	Single stemmed. Vertical. Ivy covered	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	B	No works required.
T30	Goat Willow	Salix caprea	Semi-mature	9	1	130	No	1	1	0.5	1	5	No visual defects	Single stemmed. Significant lean	Minor deadwood	Significant lean north west. Crown in contact with fence.	Good	Fair	10 to 20 yrs	Low	C	No works required.

	Tree Species			Measurements			Crown (m)				Tree Condition								Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Crown height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T31	Ashleaf Maple	Acer negundo	Semi-mature	7.5	1	150	No	2	3.5	3.5	2.5	3	Limited access around base	Single stemmed. Vertical	Minor deadwood. Old pruning wounds	Adjacent tree preventing access. Crown overhangs site by 3m.	Good	Good	20 to 40 yrs	Low	C	Pruning works required to facilitate development - reduce crown from north east as required - do not prune beyond site
T32	Cherry	Prunus 'Amanogawa'	Semi-mature	8	1	200	No	2	2	2	2	2	Limited access around base	Single stemmed. Vertical. Tight union. Partially included bark	Old pruning wounds. Minor deadwood	Adjacent tree preventing access. Upright form.	Good	Good	20 to 40 yrs	Low	C	Pruning works required to facilitate development - reduce crown from north east as required - do not prune beyond site
G33	Cypress	Cupressus	Semi-mature	2.5	10	70	Yes	0	See plans.				No visual defects	Multiple stemmed. Partially included bark. Tight union. Old pruning wounds. Epicormic growths. Bark damage. Minor cavities. Minor decay. Fused stems	Minor deadwood. Old pruning wounds	Managed Cypress hedge on boundary.	Good	Good	>40 yrs	Low	C	No works required.





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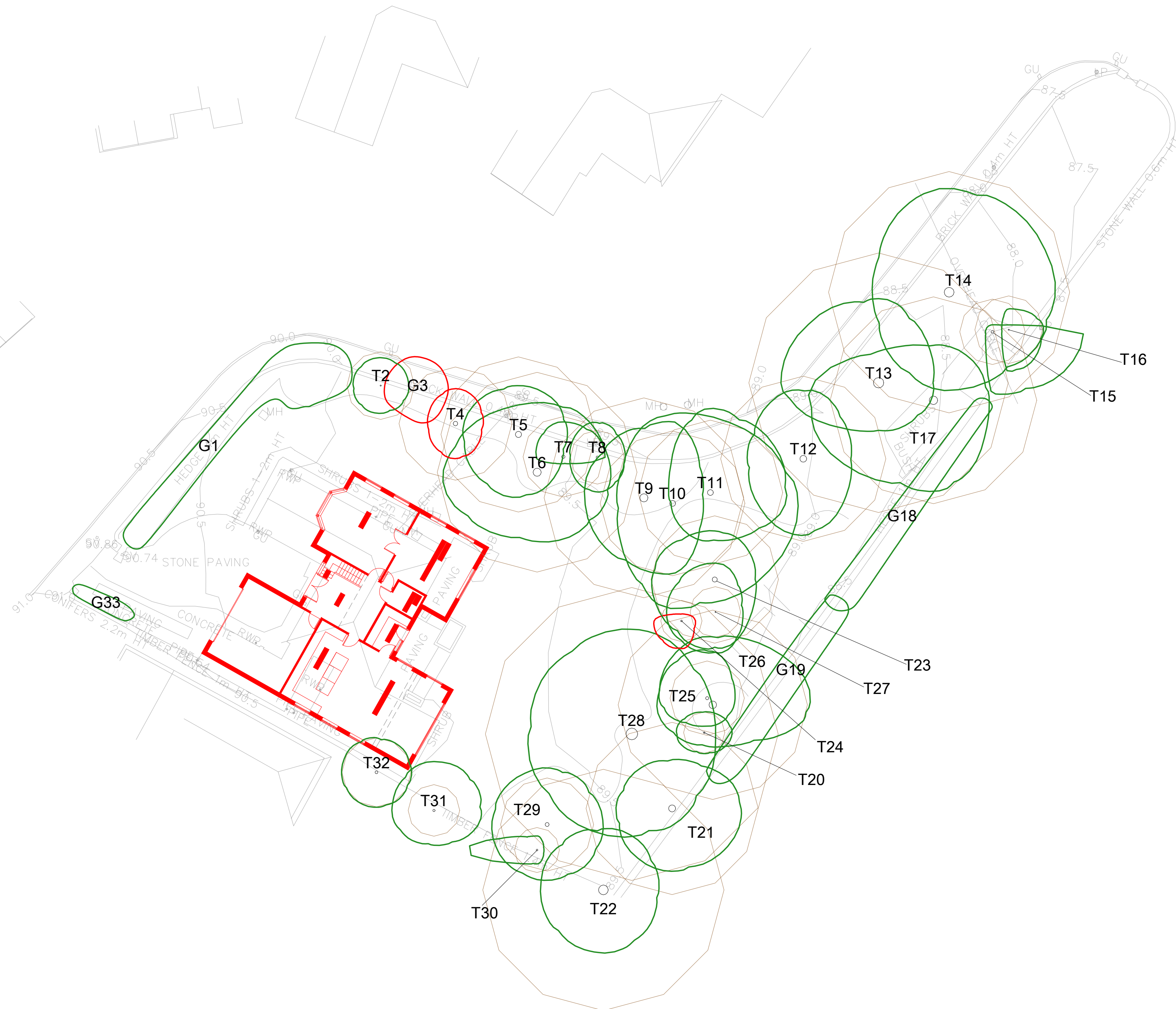
Appendix 5:
Tree Constraints Plan

1 Tivy Dale Drive, Cawthorne, Barnsley, S75 4EN
Ref: AWAS414

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

1 Tivy Dale Drive, Cawthorne, Barnsley, S75 4EN
Ref: AWA5414

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A2

	TREE/ TREE GROUP/ HEDGE TO BE RETAINED
	TREE/ TREE GROUP/ HEDGE TO BE REMOVED
	RPA: ROOT PROTECTION AREA
	TREE STEM