



PATRICK STILEMAN LTD
ARBORICULTURAL CONSULTANCY

 Institute of
Chartered Foresters
Registered Consultant

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Tree Risk Assessment Report

Site

3/5 Winslow Road, 19 Winslow Road and Swanbourne House School, Winslow
Road, Bucks, MK17 0HZ

Client

Swanbourne House School

Prepared by

Patrick Stileman BSc(Hons), MICFor, MRICS, Dip. Arb (RFS), RC.Arbor.A

Date

13th November 2023

Project ref

TI01092301

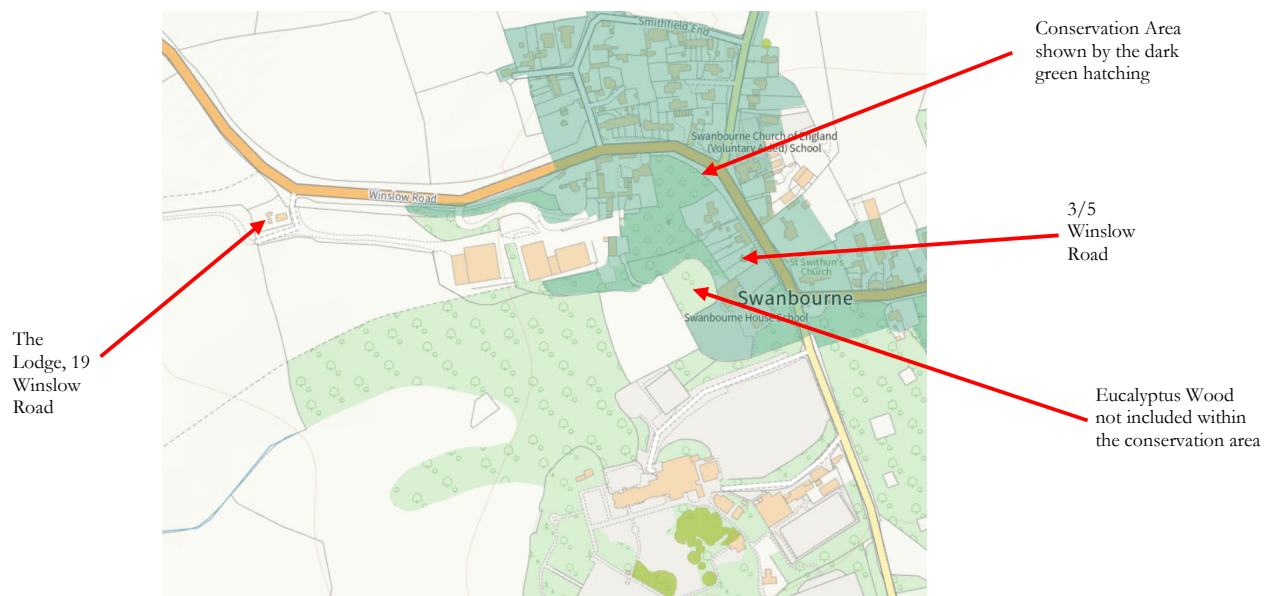
1 INTRODUCTION

- 1.1 I am Patrick Stileman, Director of Patrick Stileman Ltd. I am acting on instruction of the client, Swanbourne House School. I have qualifications and experience in arboricultural consultancy, and I have given details of this in Appendix 3.
- 1.2 **Brief:** Patrick Stileman Ltd has been instructed to inspect trees located at 3/5 Winslow Road, 19 Winslow Road, and of specific Eucalyptus trees (which have developed significant leaf browning since the last inspection) located within the Eucalyptus Wood at the school. We are to provide an assessment of the risk posed by the trees of causing harm or damage through structural failure. We are to provide recommendations for remedial work as required to reduce the foreseeable risk that they pose to a level which we consider to be acceptable.
- 1.3 **Report scope:** This report relates to the specific trees inspected. An assessment of the possible effect that these trees may have to structures through changes in soil volume is not included in this report. I had no access to third-party property.
- 1.4 **Previous inspection:** I previously inspected trees at the school in November 2022. At that time my inspection did not include trees at 3/5 Winslow Road and 19 Winslow Road.
- 1.5 **Method of inspection:** I inspected trees from ground level based on a technique called Visual Tree Assessment (VTA) in which growth features (body language) are used to interpret internal defects and to assist the assessment of the likelihood of failure. The assessment included a visual examination of each tree using basic tree survey equipment as required, which included a nylon mallet to ‘sound’ the stems; metal probes to examine low cavities; and binoculars to examine aerial parts of the tree. The inspection did not include detailed investigations such as climbing inspections, soil excavation or use of decay mapping equipment.
- 1.6 **Tree recording and identification:** Trees inspected have been recorded in the Tree Survey Data and their approximate positions shown on the Tree Location Plan, included on Page 5 of this report. Where appropriate, trees growing in close proximity to one-another have been recorded in the data and on the plan as groups prefixed by the letter G. The data for each tree is included within the schedule in Appendix 2. Trees within the Eucalyptus Wood have been tagged with a number to assist on-site identification.
- 1.7 **Risk assessment:** In order to assess the risk posed by trees in a consistent manner I used a tree risk assessment system called Tree Hazard: Risk Evaluation and Treatment System (THREATS). THREATS scores the three components of risk, being: the likelihood of failure; the nature of the land use within striking distance (the target); and the size of the tree, or part of tree in which failure is being considered. By scoring each of these and multiplying them together, a ‘THREAT category’ is determined which guides whether or not remedial work is required, and suggested time-scales. For a full description of the THREATS methodology, refer to Appendix 1. The conclusions that I have reached are based on interpretation of my observations using my knowledge and experience.

1.8 Legal status of trees

- 1.8.1 Buckinghamshire Council (Aylesbury Vale Area) has an interactive GIS map on its website showing the location of trees which are protected by a tree preservation order (TPO), and the position of conservation areas, which impose statutory protection to trees with stem diameters exceeding 75mm at 1.5m above ground level.
- 1.8.2 The map shows that there are trees protected by a TPO located in a discreet area of land to the south of the main school building (shown pale green on the map – see Figure 2). This report does not relate to any of these trees.
- 1.8.3 The council's GIS map shows that the Swanbourne Conservation Area extends partially into the school grounds at the northern end of the site, and includes the properties 3/5 Winslow Road within which trees were inspected. The conservation area boundary excludes the Eucalyptus Wood and 19 Winslow Road.
- 1.8.4 Figure 1 below is an extract of the council's GIS map showing the trees which are protected by a TPO (pale green hatching), and the extent of the conservation area.

Figure 1. Extract from the council's GIS map



- 1.9 **Timescales:** I use suggested timescales to indicate the relative degree of assessed risk posed by trees, and the priority that should be given to work in the event that it needs to be phased for financial reasons. The suggested timescales are not intended to predict a moment in time beyond which trees will fail. Where work has been recommended the trees are assessed to be posing an elevated level of risk now, and it is for land owners to decide how to phase the work accordingly.
- 1.10 **Site visit:** I inspected the trees on 24th October 2023.

2 SUMMARY OF RECOMMENDATIONS

2.1 The data for each recorded tree is in the schedule, included as Appendix 2. The schedule includes a description of defects observed, an assessment of the risk that each tree poses, and recommendations made for remedial work where I considered that this is required for reasons of risk management.

2.2 In this section I have summarised the work to trees that I have recommended for risk management purposes, including the timescales that I consider the work should be completed within.

2.3 Table 2: Summary of work required for risk management within three months

Tree No	Species	Work recommended
1	Ash	Reduce spread of long lateral branches on east side over lawn by 2-3 metres. Reduce spread on north and south sides by 2-3 metres. Remove dead wood with diameter >20mm

2.4 Table 3: Summary of work required for risk management within 12 months

Tree No	Species	Work recommended
796	Eucalyptus	Remove dead branches in lower crown
797	Eucalyptus	Remove
798	Eucalyptus	Reduce to 5 metre height standing pole
803	Eucalyptus	Remove dead wood. Reduce crown spread by 3 metres

2.6 Table 4: Summary of work recommended for reasons other than risk management

Tree No	Species	Work recommended
4	Sycamore	Remove low branches in contact with roof
5	Ash	Remove

2.7 **Re-inspection.** I recommend that the trees are re-inspected by an arboriculturist within three years.

I recommend that following severe wind (Force 9 on the Beaufort scale or greater) an arboriculturist undertakes an informal walk-over assessment to look for signs of obvious damage as soon as practicably possible.

3 WILDLIFE

- 3.1 Nesting birds, bats and bat roosts are protected by law. It is the duty of the contractors to satisfy themselves prior to commencement that neither these, nor any protected species shall be adversely affected by the proposed work. Work should be undertaken in accordance with BS8596:2015: *Surveying for bats in trees and woodland – Guide*.

4 LEGAL CONSIDERATIONS

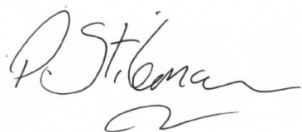
- 4.1 Trees within the Eucalyptus Wood and at 19 Winslow Road are not protected by a TPO or located within a conservation area. Trees at 3/5 Winslow Road are located within a conservation area (See Figure 1).
- 4.2 A conservation area notification (Section 211 Notice) is required for the recommended work to the following trees: 4 (sycamore), 5 (ash).

5 IMPLEMENTATION

- 5.1 All work should be carried out in accordance with BS3998 (2010) *Recommendations for tree work*. The contractors should be trained in the work that they are performing; carry public liability insurance (it is for the client to satisfy themselves that a suitable level of cover is held by the contractor; however, £5 million is a minimum level generally considered to be acceptable); and undertake written risk assessments for the work being undertaken. I recommend that a certificate of insurance and site-specific risk assessments should be seen by the client prior to the contractor commencing work. If a reputable contractor is not known, a list of Arboricultural Association approved contractors can be viewed on line at <https://www.trees.org.uk/ARB-Approved-Contractor-Directory>

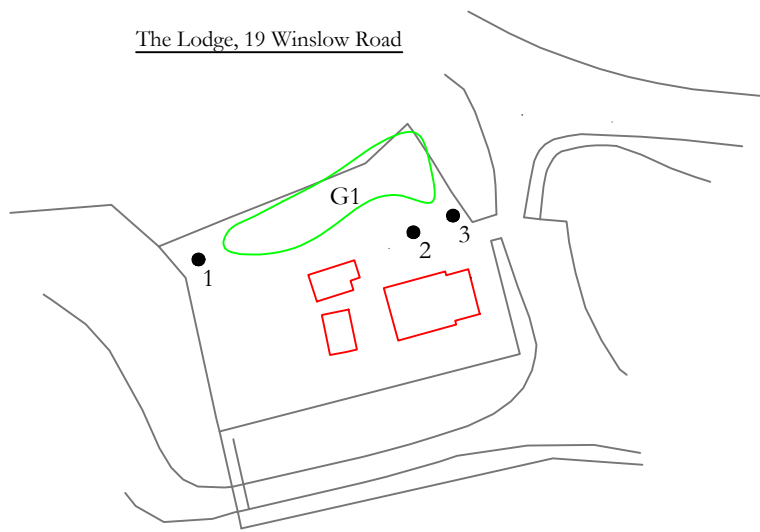
6 REPORT LIMITATIONS

- 6.1 Trees by their very nature will always pose a certain level of risk. This report is not intended to provide recommendations for the complete removal of risks from trees. The report is based on my assessment of the trees and provides recommendations for reasonable levels of management required in order to bring them to a level of risk which I consider to be defensible.



PATRICK STILEMAN BSc(Hons), MICFor, Dip.Arb(RFS), RC.Arbor.A
Chartered Arboriculturist. Arboricultural Association Registered Consultant

The Lodge, 19 Winslow Road



TREE LOCATION PLAN

SITE ADDRESS

Swanbourne House School, Winslow Road, Bucks, MK17 0HZ

CLIENT

Swanbourne House School

Project Ref

TT02122201

DRAWING NO

TT01092301.1

DATE

13/11/2023

Patrick Stileman Ltd

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HP4 2JL 01442 866112



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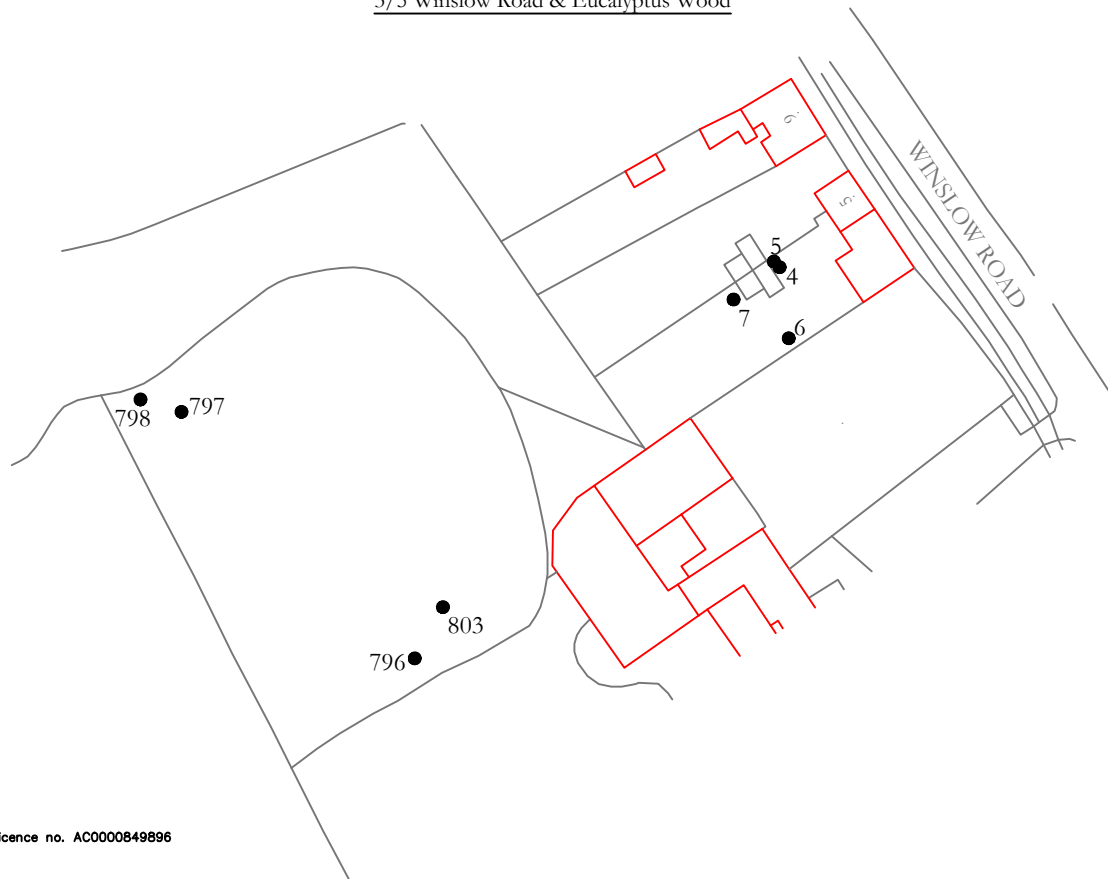
● 4 Approximate position of inspected tree

○ G1 Approximate position of tree group

NOTE:

Tree positions have been estimated and are indicative only.

3/5 Winslow Road & Eucalyptus Wood



APPENDIX 1 THREATS METHODOLOGY

THREATS is an acronym for Tree Hazard: Risk Evaluation and Treatment System. It provides a methodology for applying mathematical quantification to the risk posed by trees based on the tree inspectors assessment of the condition of the tree, and its location to provide a consistent and systematic approach to the decision making process.

THREATS considers in turn the three components that inevitably combine to derive risk, being: the likelihood of failure; the target value (the likelihood of people, or objects of value being within striking range of the tree at any given time); and the likely impact of the defect being assessed if it were to fail.

Each of the three components described above are assessed, and awarded a numerical 'score'. These scores are derived in the following way:

- **Failure Score:** Using training and experience, the assessor identifies defects within the tree, and uses his or her judgement to assess the relevance of these defects. The assessor then chooses the defect with the greatest significance, and allocates one of five scores to that defect based on the likelihood and imminence of it causing failure.

Score	Probability of failure	Example defects
50	Imminent/Immediate	Uprooting; Extreme root loss; Collapsing structure, unimpeded hanging breaks
8	Probable/Soon	Altered exposure; Primary decay fungus; Severe inclusive bark/root loss, Fragile dead wood
2	Likely, foreseeable	Lapsed pollard; Overweight/subsiding limbs; Poor stem taper; Dieback
.8	Potentially with time	Early development of inclusive bark; Robust dead wood
0	Unlikely ever	Tree generally free of defects, or insignificant defects only

- **Target score:** This describes the relative value of the land use within likely striking distance of the component part affected by the selected defect. It also takes into account the likelihood of human occupancy at any given time. The assessor selects one of the following six scores:

Score	Value	Static target examples	Target occupancy examples
40	Very high	Building 24 hour use, railway	Constant vehicular traffic/busy playground
25	High	Building 12 hour use, ≥11Kv power lines	Frequent vehicular traffic/constant pedestrian use
20	Medium	Building/structure occasional use, <11Kv lines	Peak times traffic/intermittent use, eg commuter run
15	Low	Garage, Summer house, Listed wall	Occasional traffic/sporadic use, eg slow country road
7	Very low	Unlisted wall, paving, garden features	Infrequently used access/public right of way/bridleway
0	None	Grass	Hardly ever used, eg remote path

- **Impact score:** The assessor makes a judgement on the likely consequences should the defect being assessed cause failure of the tree or part of tree in question if the target beneath it is occupied. The assessor selects one of the following four scores:

Score	Degree of harm and consequences (examples)	Agent: trees, mm, or branches, kg (size/weight for guidance only)		
10	Severe structural damage, vehicles crushed – passenger fatalities very probable	VL	> 750mm	> 500kg
6	Moderate structural/ severe vehicle damage – fatal/disabling injuries likely	L	350-750mm	50-500kg
4	Minor damage/probable disabling/hospitalising injury to pedestrians	M	100-350mm	10-50kg
1	Fragile objects destroyed, superficial/recoverable injury to pedestrians	S	< 100mm	< 10kg

The three scores derived from the methodology described above are multiplied together to provide a 'hazard rating'. The hazard rating score will fall into one of seven 'threat category' score ranges, from 1 'insignificant' to 7 'extreme'. The threat category that is finally reached determines whether or not remedial work is required, and a timescale in which any remedial work should be carried out, or the tree re-inspected.

The following is an extract from the THREATS survey sheet, indicating the score ranges (derived from a multiplication of the three scores listed above), the 'threat category' that these score ranges fall into, and whether or not intervention is required based on the threat category, with timescales.

Score range	Threat Category	Recommended action & Completion deadline
4000+	7- Extreme	Evacuate/ prevent access to impact site, emergency call-out of contractors
2001-3999	6- Serious	Close site if practical; arrange for work to be completed within 7 days
1000-2000	5- Significant	Arrange for work to be completed within one month maximum
350-999	4- Moderate	Remediate within 3 months, re-inspect after gales in the meantime (Force 7+)
160-349	3- Slight	Re-inspect annually/ after storms (Force 10+), expect to schedule work within 2 yrs
50-159	2- Minimal	Re-inspect within 3 yrs if adjacent to public access, schedule work as required
0-49	1- Insignificant	Re-inspect within 3 yrs if Target Score = 20, 25 or 40. Otherwise reassess within 5 years.

APPENDIX 2

TREE SCHEDULE

Explanatory notes

- **Tree:** Tree number allocated to each tree during the survey. Where trees form distinct groups in which we considered it unnecessary to select trees individually, the prefix G is given.
- **Species:** The common English species name is used. If there is uncertainty regarding species a ? is used.
- **Age class:** An estimate the approximate stage of the trees life, where Y = young, SM = semi-mature, EM = early-mature, M=mature, OM = over-mature or veteran.
- **Diam & Hgt:** The size of the tree is based on the estimated trunk diameter in millimetres, and the estimated height of the tree in metres.
- **Condition, observations and defects:** A brief description of the tree's condition, with the principal defects described. The primary defect considered for the THREATS assessment is highlighted **bold**.
- **FS:** Failure score (See Appendix 1)
- **TS:** Target score (See Appendix 1)
- **IS:** Impact score (See Appendix 1)
- **Score:** The hazard rating score is derived by multiplying FS, TS and IS.
- **Threat Cat:** Threat category from a range of 1 'insignificant' to 7 'extreme'. See Appendix 1.
- **Recommendations:** Based on the threat category, the decision is made whether or not remedial work is required, and in what timescale if it is. Recommendations made are based on our knowledge and experience.
- **Time scale:** Maximum timescale required for either the work recommended as stated in the previous column, or future re-inspections to be carried out.

APPENDIX 2 (continued)

Tree schedule

Tree	SPECIES	Age class	Diam (mm) + Ht (m)	Condition, Observations and defects	FS	TS	IS	Score	Threat Cat.	Recommendations	Time scale
1	Ash	M	850 20	Pronounced crown asymmetry to east due to past pruning over garden to clear HV power lines on west side. Good vitality in lower crown on north and west side. On east side early infection by ash die-back. Broken dead twigs on lawn, dead twigs through crown and large-sized dead wood. Recent low branch failure on south side. Likely that tree has short retention span, but removal premature at this stage. With onset of ash die-back disease, branch failure is foreseeable and pruning may result in re-growth which is less susceptible.	8	20	6	960	4	Reduce spread of long lateral branches on east side over lawn by 2-3 metres. Reduce spread on north and south sides by 2-3 metres. Remove dead wood >20mm in diameter	3 months
2	Holly	M	650 14	Twin-stemmed from 1.6 metres. Slightly low vitality. No defects seen of apparent structural significance.	0	15	-	0	1	Re-inspect	3 years
3	Holly	M	500 13	Slightly low vitality. No defects seen of apparent structural significance.	0	15	-	0	1	Re-inspect	3 years
4	Sycamore	EM	500 9	Base 30 cm from out-building and stem 20 centimetres from roof. High growth potential and likely to cause damage in the future, but currently not causing obvious damage, and removal at this stage is not clearly required. Low branches in contact with roof. No defects seen.	0	20	-	0	1	Remove low branches in contact with roof	No timescale

Tree	SPECIES	Age class	Diam (mm) + Ht (m)	Condition, Observations and defects	FS	TS	IS	Score	Threat Cat.	Recommendations	Time scale
5	Ash	SM	150 8	Slender stem with pronounced lean from competition with Tree 4. In contact with fence. Short retention span. No sign of ash die-back disease.	0	20	-	0	1	Remove	No timescale
6	Norway spruce	M	700 + 700 22	Twin-stemmed from ground level, then each stem divides again at 3-4 metres resulting in 7 upright leading stems. Base appears sound. Unions are well formed. Tree has good vitality.	0	20	-	0	1	Re-inspect	3 years
7	Juniper	EM	390 9	Low crown vitality. Distorted form. Relatively short likely retention span, but currently assessed to pose low risk and can reasonably be retained.	0.8	20	4	64	2	Re-inspect	3 years
803	Eucalyptus	EM	400 12	Pronounced crown asymmetry. Extensive die-back in some branches. Vigorous re-growth in lower crown. Previous recommendation to reduce spread by 3 metres.	2	20	6	240	3	Remove dead wood. Reduce crown spread by 3m	1 year
796	Eucalyptus	EM	650 23	Recently killed branches in low crown – probably killed by winter frost. Branches pose slight risk.	2	25	4	200	3	Remove dead branches in low crown	1 year
797	Eucalyptus	EM	300 11	99% dead tree. Probably killed by winter frost.	2	20	4	160	3	Remove	1 year
798	Eucalyptus	EM	350 17	Pronounced lean to north. Extensive dead branches throughout, but re-growth on main stem.	2	20	4	160	3	Reduce to 5 metre height standing pole	1 year
G1	Yew	M	700 9	Linear group, comprising 10 trees, close to boundary. Some trees with low vitality, but no defects seen of apparent structural significance.	0	15	-	0	1	Re-inspect	3 years

APPENDIX 3.

Qualifications and experience of Patrick Stileman BSc(Hons), MICFor, Dip.Arb(RFS), RC.Arbor.A

I am Patrick Stileman, director of Patrick Stileman Ltd Arboricultural Consultancy.

My qualifications in arboriculture are as follows:

National Certificate in Arboriculture *Ncb(arb)*

The Arboricultural Associations Technicians Certificate *Tech.Cert (Arbor.A)*

The Royal Forestry Society's Professional Diploma in Arboriculture *Dip.Arb(RFS)*

In addition to the qualifications listed above which are specific to the field of arboriculture, I also hold an honours degree in Environmental Science *BSc(Hons)*.

I hold chartered status, being a Chartered Arboriculturist and professional member of the Institute of Chartered Foresters *MICFor*. I am a professional member of the Royal Institution of Chartered Surveyors *MRICS*.

I am a registered consultant with the Arboricultural Association.

I am a trained expert witness, and hold the Cardiff University Bond Solon Expert Witness Certificate.

I am a member of the Royal Forestry Society.

I have been working within the arboricultural industry since 1994 and have been working as a consultant since 2001. I am frequently instructed by professionals to provide advice and assistance relating to trees within the planning process; I have a wide client base in this field including developers, architects, planning consultants, and Local Planning Authorities. I am experienced with providing arboricultural input in planning appeals as written representation, informal hearing and public local inquiry.

I am regularly instructed to assist with tree risk assessments, and to provide guidance relating to tree safety. Past clients for this work include Local Authorities, schools, residents' associations, large organisations including zoos and estates, and private individuals.

I provide advice in relation to alleged tree-related damage to buildings. Clients for this work are typically domestic homeowners, but have also included local authorities. Other work that I undertake involves the provision of tree planting schemes; and advice relating to the general management of trees.

I have worked as an arboricultural expert witness for public and private sector clients.

Prior to running my current consulting practice, I was a partner in an arboricultural contracting business in which I was involved with the practical aspect of organising, and execution of contract tree work.