ARBORICULTURAL REPORT

Prepared for

Insurance Purposes

Site

Alconbury House

Alconbury

Huntingdonshire

Prepared by

ETS Arboricultural Consultants Limited

Regent Farm, 7 Heath Road, Swaffham Prior, Cambridge

Date

December 2024

arboricultural consultants

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Prepared by [redacted] Tech Arbor.A , PTI (Lantra)

Dated
16/12/2024

1.0 Instructions

1.1 Instructed by: [redacted]

Alconbury House
Rusts Lane
Alconbury
Huntingdonshire
PE28 4DN

to inspect trees at: Address Above

1.2 To carry out an inspection of all relevant trees to assess the physiological and structural condition of the trees, to identify whether the trees are dangerous or potentially dangerous to cause risk to persons or property, and to make management recommendations for remedial works that may be deemed necessary to alleviate or remove any problems that may exist regarding tree health and safety.

1.3 To carry out a limited aerial inspection of the cavities on the main stems from a ladder. This is to establish if the cavities significantly affect the structural condition of the trees, to identify whether they are dangerous or potentially dangerous to cause risk to persons or property, and to make management recommendations for remedial works that may be deemed necessary to alleviate or remove any problems that may exist regarding tree health and safety.

1.4 To minimise the level of risk to the general public, and minimise liability of the tree owner by helping to reasonably discharge their responsibility under common law (duty of care) and statute law (Occupiers Liability Act 1957 and 1984) to ensure that their trees do not pose an unreasonable threat to persons either on their property, persons on adjacent property and persons on adjacent public highways, footpaths or bridal ways.

1.5 Inspection date: Thursday 5th December 2024

1.6 Inspected by [redacted] TechCert (Arbor.A), TechArborA, Professional Tree Inspection (PTI LANTRA)

2.0 Limitations

2.1 The trees / cavities were subject to a ground based and limited aerial inspection, using both the Visual Tree Assessment method (VTA) – Mattheck, C and Breloer, H. *The Body Language of Trees, London. 1994* (pp118ff) and a physical inspection of each cavity. This method of inspection seeks to evaluate the structural condition of the tree by assessing the dimensions of the cavities in relation to the stem diameter, the presence of fungal activity and external signs of decay (where trees are not covered with Ivy etc.), physical damage and growth-related defects.

2.2 Only three trees were inspected in accordance with our instructions.

3.0 Disclaimers

3.1 This report has been prepared, and can only be used, for the purposes as stated in paragraph **1.0 Instructions**. It is for the sole use of the above-named client and refers only to the trees mentioned herein. Use by any other person, to apply its contents for any purpose other than those for which it was originally intended, will render the report invalid for that purpose.

3.2 The report takes into account the site as laid out at the time of inspection. Any additional structures, alterations or extensions to buildings, altering of soil levels, trenching, trimming or felling of adjacent trees, without consultation, could render the report on the surveyed trees void.

3.3 *No tree should ever be regarded as completely safe or free from risk. Trees are dynamic, living organisms subject to change and physical and environmental conditions that surround them.*

4.0 Site Description

4.1 The site lies to the east the village of Alconbury. The only access is a shared drive from Rusts Lane. The house is Grade II Listed, and the adjacent parkland / trees are likely to be of historic cultural importance.

4.2 The entire site is within a Tree Preservation Order area; it is not within a Conservation Area.

4.3 Two of the trees are opposite the house, on the other side of the gravelled drive. The other tree is close to the south-east corner of the house.

5.0 Findings / observations

5.1 T1 Mature Quercus robur (English / Pedunculate Oak)

5.1.1 The tree is situated to the front of the house, almost in line with main entrance door. The front of the house is within falling distance to the south (across the drive). The cavity is on the eastern side at approximately 5m above ground level.



T1 is shown with the ladder, the cavity can be seen just above the ladder.

5.1.2 The cavity openings, depth and vertical dimensions were measured and recorded. The stem diameter at the heights of the cavities were also recorded using a diameter measuring tape.

Cavity

- Stem Diameter (at cavity) - 930mm
- Opening dimensions - Width 300mm Height 300mm
- Depth - 600mm
- Vertical dimensions - up-200mm / down-200mm
- Internal dimensions - width 350mm

I have calculated the percentage of the entire stem (at the level of cavity), that is estimated to be sound wood based upon the measurements taken. This is based upon the cavities being semi-circular using the depth as a radius and reduced by 50% due to its internal width.

Cavity = 59% estimated sound wood remaining

Based upon biomechanical studies of tree cavities, it is reasonably established that at least a third of the stem should have sound wood assuming a hollow cylinder, in this case it is a cylinder with an opening. As such, this increases the percentage of sound wood required to remain within safe parameters.

5.2 T2 Mature Pinus sylvestris (Scots Pine)

5.2.1 The tree is situated to the front of the house, almost in line with the side elevation to the east. The corner of the house is within falling distance to the south (across the drive). The cavity is on the eastern side at approximately 6.5m above ground level.



The image above shows the Scots Pine in the foreground

5.2.2 The cavity openings, depth and vertical dimensions were measured and recorded. The stem diameters at the top and bottom of the cavity were also recorded using a diameter measuring tape. (See images below).

Cavity

- Stem Diameter - 463mm
- Opening dimensions - Width 60mm Height 60mm
- Depth - 160mm
- Vertical dimensions - up-00m / down-150mm +
- Internal dimensions - width 60mm tapering in a downward Rams Horn shape.
- Two smaller wood-pecker holes at 8m above ground level (too high to inspect with ladder)

I have calculated the percentage of the entire stem (at the level of cavity), that is estimated to be sound wood based upon the measurements taken. This is based upon the cavity being semi-circular using the depth (avg. 400mm) as a radius.

Cavity = 80% estimated sound wood remaining.

5.3 T3 Mature Quercus robur (English / Pedunculate Oak)

5.3.1 The tree is situated close to the south-east corner of the house; several large lower lateral branches have been damaged in strong winds leaving large scars / tears clearly evident from the ground. This is likely to be due to its exposed hill-top position on the corner of the house.



The image above shows the three scars left by the wind damage.
The tree to the rear-left is the one to be reduced to clear the building and reduce the load.

5.3.2 One of the scaffold stems is growing directly towards the side elevation of the house, with the branch ends now within 1m of the building. Directly below this stem are two building additions with pitched rooves.

5.3.3 Given the previous wind damage, it would be considered reasonable to assume further damage may occur caused by strong winds. The proximity of the branch ends to the property increase the risk of direct contact.

6.0 Conclusions

6.1 T1 Quercus robur (English / Pedunculate Oak)

Generally, the tree inspected appeared to be in a good physiological condition. The cavity within the main stem will have reduced the structural integrity. The calculated percentages of sound wood would ordinarily be considered sufficient to support the upper stems. However, the proximity of the house and drive / parking area does increase the risk of damage and injury.

6.2 T2 Pinus sylvestris (Scots Pine)

Generally, the tree inspected appeared to be in a good physiological condition. Currently, the cavity is not considered to significantly affect the structural condition of the tree, and as such, are not considered to represent a danger to persons or property. This may change in the future, and the tree should be re-inspected as part or regular tree inspections.

6.3 T3 Quercus robur (English / Pedunculate Oak)

Generally, the tree inspected appeared to be in a good physiological condition. The numerous large branch failures will have exposed the remaining branches to increased wind loadings. The proximity of the house to the branch ends increases the risk of damage to the building. The proximity of the house and building extensions beneath the tree, does increase the risk of damage and injury caused by falling masonry or branches.

7.0 Recommendations

7.1 T1 Quercus robur (English / Pedunculate Oak)

Given the proximity of the house (permanent target), a crown reduction is recommended to reduce the load and sail area of the tree to mitigate the weakness at the cavity point. Reduce the height by approximately 4m and reduce the spread towards the drive / house by up to 3m (limited growth on opposite side due to adjacent trees). This species of tree will tolerate such pruning works.

7.2 T2 Pinus sylvestris (Scots Pine)

No works currently required

7.3 **T3 Quercus robur (English / Pedunculate Oak)**

Given the proximity of the house (permanent target), a stem reduction is recommended to reduce the length, load and sail area. The upper fork to be 'Drop-Crotch' pruned to remove the lower branch, the upper branch to be reduced / thinned to clear corner of house by up to 4m and to reduce the branch end load and sail area. This will avoid leaving a large wound lower in the crown and retain some of the trees' integrity. This species of tree will tolerate such pruning.



The blue line above is a guide for the approximate 4m clearance from the edge of the building. The orange line are guides for the drop crotch pruning / thinning, the lower orange line shows where the largest branch should be removed.

7.4 **All records relating to surveys and inspections should be retained to prove an ongoing duty of care is being followed.**

8.0 Appendices

8.1 Indemnity

Professional indemnity held to £5,000,000.

8.2 References

BS3998:2010 - *Tree work Recommendations*
BS5837:2012 - *Trees in relation to design, demolition and construction - Recommendations*
European Tree Pruning Guide 1999
The Body Language of Trees – Claus Mattheck and Helge Breloer
Manual of Wood Decays in Trees – C Mattheck and K Weber
Mushrooms and other fungi of Great Britain and Europe – Roger Philips
Fungal Strategies of Wood Decay in Trees – F.W.M.R. Schwarze, J. Engels and C. Mattheck
Trees of Britain and Northern Europe – A Mitchell
Trees – A J Coombes

8.3 Contact Details

Client – Mr Timothy Trotman			
Alconbury House Rust Lane Alconbury Hunts PE28 4DN	**Contact** [redacted]	Telephone Email	[redacted]

Arboricultural Consultant – ETS Arboricultural Consultants Limited			
[redacted]	**Contact** [redacted]	Telephone Email	[redacted] info@etsac.co.uk

8.4 Site Plan (attached separately)