

Tree Condition Inspection

at

Apple Acre

11a Norman Street

Caerleon

On the instructions of

C.I. Waite

Dated: 23rd January 2026

Reduced file size for TPO App



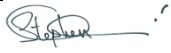
Reported by

Mr. S J Ambler Cert.Arb.(RFS), Tec.Arbor.A., Dip.Arb.(RFS), F.ARBORA.

of

Ambler-Lewis Tree Specialists Ltd

www.amblerlewistrees.com

Signed Steve Ambler	
Date	23 rd January 2026

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1. INTRODUCTION

Ambler-Lewis Tree Specialists Ltd are instructed by C.I. Waite to undertake a tree condition survey at Apple Acre, Caerleon. The purpose of the inspection is to visually assess the general health and condition of the two mature trees, to identify any obvious defects or concerns that may pose unacceptable risk to third parties and being the intention of my clients to manage such risk. Recommendations are sought where appropriate and the findings are offered here by way of a written report.

This visual tree assessment was carried out on the 23rd of January 2026 during damp, overcast weather conditions with no rain although reasonable for carrying out such an inspection. The trees were inspected from ground level. No diagnostic equipment was used during the assessment.

This Tree Survey Report is carried out by Steve Ambler who is the company founder and a professional arboriculturist with over 45 years' experience in the arboricultural industry. His company was established in 1999 and later expanded during 2006 with the launch of a specialist tree management unit to become - Steve Ambler & Sons Tree Specialists. Steve holds the following arboricultural qualifications: -

- a) Fellow Member of the Arboricultural Association.
- b) Professional Diploma in Arboriculture (Royal Forestry Society)
- c) Professional Technician in Arboriculture (Arboricultural Association)
- d) Certificate in Arboriculture (Royal Forestry Society)
- e) LANTRA Award, "Bats and Arboriculture – A Guide for Practitioners" developed by The Bat Conservation Trust.

Tree measurements are estimated only.

This Report does not consider damage in relation to subsidence or heave in relation to clay soils and a soil test has not been carried out.

The provision and acceptance of this Report are subject to the general terms and conditions of Ambler-Lewis Tree Specialists Ltd.

Unless otherwise stated, this Report remains valid for 12 months.

Where there is any recommendation within this Report for further investigation or diagnostic testing, climbing inspections and/or vegetation removal to allow a follow up survey etc., the onus is firmly on the Client to instruct such works, in writing.

The client is advised to review the survey boundary (red polygon) as indicated on the Tree Location Plan located in the Appendices, to confirm the trees surveyed meets their requirements. The client must advise Ambler-Lewis Tree Specialists Ltd immediately, in writing, where any discrepancies occur and where additional areas require surveying, they should be clearly identified by a site location plan (subject to our standard hourly fee rate and mileage rate, as applicable) .

2. SITE DESCRIPTION

Sitting within the designated Caerleon Conservation Area and on a site of national heritage importance, apple acre is now a stand-alone garden area that has been separated from the large neighbouring house currently under redevelopment.

Two trees under investigation sit at the rear or northern edge of the garden along the boundary with a residence situated to the west. The trees are within falling distance of the neighbouring property and so the target occupancy for both trees is considered high.

The garden land is generally level and is laid predominantly to well-maintained grass with areas of orchard and occasional shrub growth. To the south of the trees under investigation stand several apple trees (*Malus* spp.), likely forming the remnants of an historic orchard. These apple trees are relatively small and reduced in height due to routine pruning for fruit production and therefore provide limited shelter to the subject trees. However, the subject trees are not considered exposed, as they have been significantly reduced in height through pollarding, and the surrounding building structures afford additional shelter.

3. OBSERVATIONS

The trees under investigation here are afforded legal protection in the form of a Tree Preservation Order (TPO) that covers the group of 3 London planes and is designated G42 of TPO 84 Mon 1974. A copy of the TPO map is available at the rear of this document.

In addition to the TPO, the garden itself sits within a designated Conservation Area namely - Caerleon Reference CE7. Therefore, all the remaining trees within the garden enjoy a level of legal protection and must not be trimmed or removed within prior written consent for the LPA. Please refer to Legal Constraints on Page 13.

Both subject London Plane (*Platanus x hispanica*) trees are large and dominant specimens which sit next to another tree of equal merit in the neighbouring property, which is currently under development. Together, they form a group of 3 and were probably part of a larger avenue of trees serving the driveway to the large neighbouring house, although are the only trees surviving today. The 3 trees are co reliant on each other being adapted to their presence so ideally the group should be considered as one entity for the purpose of management.

Some years ago, all 3 specimens were brought back into pollard management as they were then "lapsed pollards". Pollard management is a cyclic management practice to control the overall size of the tree. This in turn reduces the crowns sail area and wind pressure experienced on it and thereby increasing the safety factor of the tree, however the regrowth of branches is weakly attached so require ongoing maintenance. See notes below.

Tree number 2 has visible decay in the main stem which was mapped out during an inspection in 2019 using a Resistograph. The failure criteria safety margins¹ were satisfied with good margins and the pollard operations ensued. As this tree has passed the rudimentary sounding test during this inspection and as the wound site does not appear to have enlarged and with the re pollard operation recommended, it was not felt necessary this time to redrill the tree. However, should the condition of the tree deteriorate, or fungal bodies become evident on the main stem wound or base during September, this will change this requirement. The Client was informed during the survey that should any such signs appear, then an Arborist should be consulted for an opinion.

¹ Mattheck and Breloer - The Body Language of Trees (A Handbook for Failure Analysis)

Old cut timber and other vegetation are currently piled within the Root Protection Area (RPA), as defined by BS5837, of both trees. This material should be carefully removed by hand, as its presence is detrimental to tree health. Accumulations of decaying organic matter can act as a catalyst for pathogenic decay organisms—such as *Armillaria* species—to develop and proliferate. In addition, the composting process can generate heat within the soil profile and contribute to raised ground levels, which restrict root respiration by impeding the essential gaseous exchange between the soil and the atmosphere. For these reasons, the RPA must be restored to its natural levels and kept free of debris to maintain optimal below-ground growing conditions,

Both trees are protected by a Tree Preservation Order which affords them a level of legal protection and through serving of that order, the Local Planning Authority has recognised their importance to the locality. A copy of the TPO map is available within the Appendices, attached hereto.

The site forms part of a nationally designated heritage area with known Roman influence, and arrangements are currently underway for an archaeological investigation. It must be noted that the below-ground parts of the TPO-protected trees—namely the roots—are legally protected, and this protection prohibits any digging, scraping, or intrusive groundworks within their Root Protection Areas (RPAs). In accordance with BS5837, the RPA for these trees is calculated as a 15-metre radius, which should be regarded as entirely sacrosanct and left undisturbed.

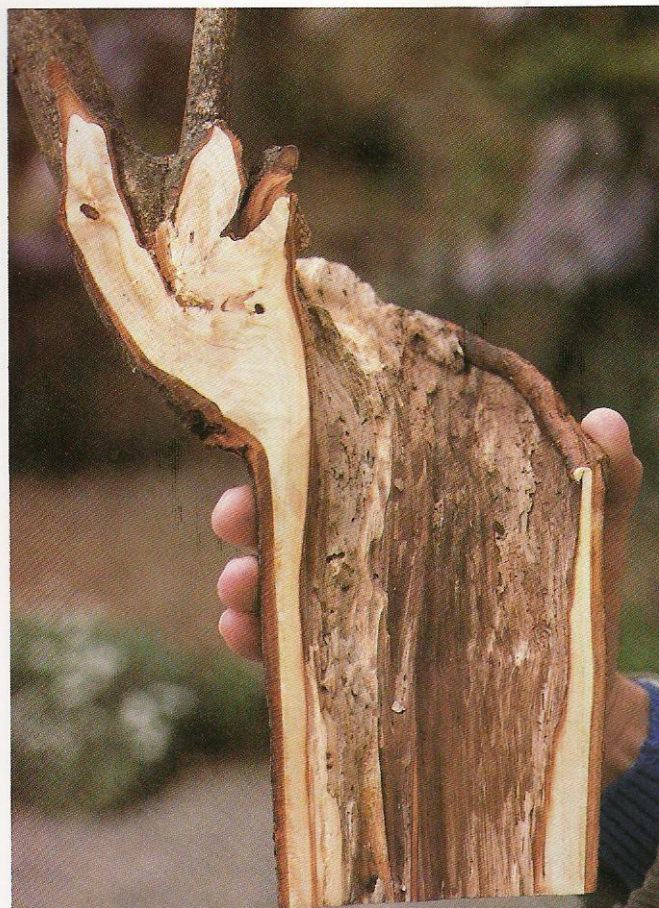
This zone must remain free from any form of trafficking, including the movement of machinery or plant, and should not be subject to excavation, changes in soil levels, or the storage of materials. No fires should be lit within the RPA, and any fire activity must be located at least 20 metres from the edge of the canopy. Where pedestrian movement is unavoidable, or where wheelbarrows or light equipment must cross the RPA, suitable ground protection or load-spreading measures are required to prevent compaction. Professional guidance from a qualified Arboriculturist should be sought prior to any works that may affect tree roots or protected areas.

POLLARDS THE NEED FOR CYCLIC CUTTING

Pollards, of which there are a number, are more vulnerable to wind damage where they are left to grow and establish large crowns following their initial pollarding exercise. When they are left to grow, the weight of the branches can cause them to tear-out from their unions. This is because the connection between the parent tree is fundamentally flawed and has originated from adventitious buds beneath the bark, therefore the origins are not deep seated to the anatomical centre of the parent tree.

The crowded branches of pollards very often tend to have bark to bark inclusions* at their point of attachments. This exacerbates the structural flaw even further to make failure highly likely. The recommendations contained in this Report for both pollarded and non-pollarded trees are given as a simple solution to lessen the likelihood of failure and possible damage or injury to third parties in the future. Such re-pollarding operations will become necessary in the future to maintain a level of safety. This on-going cost for the future management of the pollards should be allowed for in any future grounds' maintenance budget allocations, as future pollarding will be required on a cyclic event. The timing of such re pollarding will indeed be discretionary, to an extent, of perhaps between 1-5 years, and will depend on the desired size of re-growth.

The trees will require to be entered into a routine inspection programme where they will receive a visual inspection. The timing of re-pollarding may change as a result of various factors and will be advised by an Arborist during such inspection.



Picture – longitudinal section taken of a former pollard point and showing the origin of branch pollard growth (Shigo)

4. TREE SURVEY & TREE SURVEY PLAN

Trees are living dynamic organisms that can be affected by external environmental conditions and very occasionally internal biological symptoms that are not visible causing failure without warning. It is therefore not possible to state with any certainty that any tree is completely safe.

The visual tree inspection techniques used here follows the principles of the first phase of the Visual Tree Assessment (VTA) method created by Mattheck². This is a method of tree diagnosis on a scientific basis of tree biomechanics. It consists of viewing each subject tree from ground level and from close quarters and proceeds on the following basis...

1. The root-plate (rooting zone) is assessed visually where not obstructed by vegetation or extraneous matter looking for signs of poor anchorage. Particular attention is paid to areas at the base of the tree between buttress roots and the interface between the soil and stem base where possible, assessing the condition of the bark, looking for signs of decay fungi and or necrotic tissue, splits cracks or cavities or other predisposing factors. If sufficient evidence cannot be obtained, then further investigations will be requested.
2. The bole (trunk) is assessed visually looking for signs or symptoms that may indicate an internal flaw such as cracks, splits, bulges, cavities, indentations, compression defects, or areas of necrotic periderm, cavities, fungal fructifications, wood boring or sucking insect activity and structural defects or other predisposing factors. Resonance testing is used where visual evidence may indicate the presence of decay or stem hollowing. If sufficient evidence cannot be obtained, then further investigations and/or a climbing inspection will be requested.

² Mattheck C. & Breloer H. The Body Language of Trees Department of the Environment.

3. The crown is assessed visually looking for any indications of physiological impairment through symptoms such as low vigour, poor vitality, die back, undersized leaves, and or abnormal colour, some of which are dependent on timing. The structure of the crown is also assessed visually looking for compression defects, cavities, splits, hazard beams, and decay fungi. Where any potential defects are evident: binoculars are sometimes used for a closer examination. If sufficient evidence cannot be obtained when using binoculars, then further investigations and/or a climbing inspection will be requested.

The trees surveyed are identified on the attached Tree Location Plan (Appendices) located at the rear of this Report. It provides reference to the location of the trees using a tree reference number or tree tag number or both. Where numbered tags are used, they are attached to the trunk of each tree at about 1.5-2.0 metres above ground level. A table found in Section 6 - The Findings, later in this Report records the baseline details of each tree or group against the reference number or numbered tag.

Where trees are found to require immediate attention, they will be identified in red bold text.

The Tree Location Plan provided at the rear of this Report is indicative only and not to scale.

5. TREE SURGERY SCHEDULE

Number (No.) The tree number provides reference to an individual tree either by way of T1, T2 (tree 1 or tree 2) and relates to an attached plan showing their approximate positions or through a series of numbers (00123) that relates to a tag on the tree and may also be indicated on an attached plan.

Species The species is the given name of the tree which is usually provided in both the common and scientific names.

Diameter (DBH) In the following text, the diameter for each tree is estimated in millimetres based on the diameter of the trunk measured at a height of approximately 1.5 metres above ground level, unless otherwise stated.

Crown Spread The crown spread of the tree is measured at 4 cardinal points as the diameter (from the centre of the trunk) in meters.

Height The height of the tree is measured in metres and is usually approximate.

Age The age of the tree is given based on its life expectancy. For example, an oak tree at an age of 100-years is perceived as early mature when a hawthorn at 100 years would be considered old. Age classes are given as follows: -

- Y. Young trees** (age less than 1/3 life expectancy)
- EM. Early Mature** (between 1/3 – 2/3 life expectancy, still growing vigorously but not as fast as a younger tree)
- M. Mature trees** (above 2/3 life expectancy. Growth rates beginning to slow down at this stage)
- OM. Over Mature trees** (growth rates slow and possibly beginning to display signs of decline)
- V. Veteran** (decline is well set-in, but the tree **may** be of specific ecological value. The tree is likely to contain sufficient deadwood and decay that is a special habitat for many rare invertebrates that are considered to be at risk from extension)

Recommendations The recommendations are provided giving the appropriate action required for the tree or groups of trees to fulfil the brief, which possibly include reducing foreseeable risk or improve the physiology of the tree.

Target Rating

Target rating is used to consider how likely a mobile or stationary target will be present at any one moment in time, within proximity to the tree under investigation. It is often approximated after a short period on site and often with

little knowledge of the site. Unless otherwise stated, no information on visitor or vehicle numbers have been provided by the client and this assessment is based on a small 'snap-shot in time', the client should consider this assessment and where it is not considered accurate, should make the Author aware immediately and certainly within 7 days of issue of the Report.

Low Target Occupancy (occasional use)

Infrequently used footpaths, isolated car parks, desire lines (permissive and non-permissive paths) through woodlands, open spaces without particular features or attractions, (such as picnic benches), and difficult to access areas due to undergrowth, perhaps the occasional jogger, dog walker or cyclist could be expected during day light and reasonable weather conditions.

Medium Target Occupancy (Intermittent use)

Target not present for any length of time i.e. low use car parks, footpaths in countryside, parkland open during normal working hours and access roadways. No stationary targets and could normally be expected during day light and reasonable weather conditions.

High Target Occupancy (Frequent use)

Target not present for 24 hours but a frequently used site such as - day use car parks, B-Class and minor roads, footpaths in towns and cities, offices operating normal working hours, excluding weekends, access roadways to a facility. Target maybe stationary for short periods of time.

Very High Target Occupancy (Constant use)

Where persons are present at all times such as a hospital building and car park, A-class roads, railways, dual carriageways, motorways and residential properties where vehicles or persons are expected during any time day or night.

Priority Coding is provided to relay the urgency in which any recommended work is required based on the hazard presented by the tree and the considered target occupancy. Whilst it highlights the most urgent works to help offset risk, it may also be helpful for budgeting purposes.

Priority 1	Top priority: to be undertaken as soon as it is practicable for reasons of offsetting foreseeable risk, injury or damage and where the likelihood of it occurring is considered high. Action should be taken diligently
Priority 2	Medium priority: attention strongly advised at your earliest convenience to deal with a problem that whilst is not as serious as priority one, carries significant concern and liability. In any event, works should be completed within 6 months.
Priority 3	Low Priority: the work is advised but of a lower priority than above which should be carried out before a period of 12 months' lapses.
Priority 4	Minor Problems representing no immediate hazard at the time of inspection although potential for harm or hazard to develop as the tree grows or faults developing that may become significant at a later date if left to develop. Works without any immediate urgency, possibly to rectify a minor fault or to abate a nuisance present or developing.

- *All measurements given are approximate.*
- AGL: an abbreviation for above ground level.

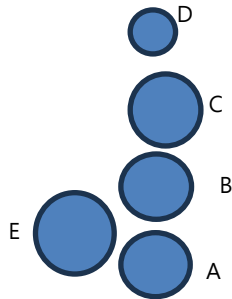
Please note – all measurements are approximate.

6. THE FINDINGS

Tree Number	Tag Number	Tree Species	Stem mm	Crown Spread	Tree Height	Remarks	Recommendations	Potential Bat Habitat	Priority	Target
1	00563	London Plane (<i>Platanus x hispanica</i>)	1320 @ 1.4 m AGL.	8 NW 4 NE 4 SE 8 SW	14 m	Root Plate and Buttress Zone. The required Root Protection Area required is 15 metres radius when measured from the centre of the trunk. The root-plate and buttress are inspected visually, and the roots appeared firmly anchored at the time of inspection with no obvious mounding, lifting, splits, cracks, or voids occurring in the soil surface of the root-plate of between the buttress roots and the soil. No fungal fruitifications were observed or other factor giving rise to concern over the stability of this tree. A single stemmed specimen showing good buttress formation. The lower stem is kraaled and lumpy but normal for a tree of this age. There were no obvious signs of decay, cavities or other signs to warrant concern. The trees stem and buttresses were sounded using a sounding hammer and normal and acceptable audial results were noted. The trunk appeared fine at the time of inspection with no obvious defects visible. No cavities, splits, cracks, swellings, or bulging noted. No fungal fruitifications were observed or other indications giving rise to concern over the health or stability of this tree. No specialised decay diagnostic equipment was used although a sounding hammer was utilised which returned adequate audible results.	Undertake a climbing inspection looking for any notable defects and paying particular attention to the cavity at 7 m. Report back to the Author or appointed Arborist with the findings. Re pollard crown back to the pollard heads without causing damage to them. The final cut should be 100-mm outside the existing pollard head. Leave ALL lateral regrowth below the pollard heads intact. Re-inspect tree in September 2028. In the absence in any changes in condition –	Low	2	VH

Tree Number	Tag Number	Tree Species	Stem mm	Crown Spread	Tree Height	Remarks	Recommendations	Potential Bat Habitat	Priority	Target
						The stem rises to a point at around 2.2 m where it divides to form two major limbs. Both limbs divide again with the larger more vertical sub dividing again to form the crown. The union at each division is formed under tension. Crown The crown of the tree was inspected from ground level. On this occasion, and whilst using binoculars, sufficient information was gathered using this method and it was not deemed necessary to climb the tree. No splits, broken branches, hazard beams, cavities, fungal fruitifications, or other factors that would give rise to concern over the health or stability of this tree. The trees crown is asymmetric due to its neighbour which is normal and when viewed together the overall combined crown seems symmetrical and pleasing to the eye. One open wound and cavity is noted on the upper side of a scaffold limb at 7 metres above ground level (AGL). Extension growth within the crown is seen as vigorous with measurements from the terminal apical bud to girdle abscission scar in excess of 400-mm in places with the lower more shaded branches having a growth signature of 200.mm. Former pollards such as these require re pollarding on a cyclic basis as branch attachments are weak at the pollard heads. This matter is explained in more detail above within this Report.	Repollard again during the winter of 2030			

Tree Number	Tag Number	Tree Species	Stem mm	Crown Spread	Tree Height	Remarks	Recommendations	Potential Bat Habitat	Priority	Target
2	00564	London Plane (<i>Platanus x hispanica</i>)	1340 1320 @ 1.2 m AGL.	8 NW 4 NE 5 SE 3 SW	14 M	Root Plate and Buttress Zone Root protection Area required is 15 metres radius when measured from the centre of the trunk. The root-plate and buttress are inspected visually, and the roots appeared firmly anchored at the time of inspection with no obvious mounding, splits, lifting, cracks, or voids occurring in the soil surface of the root-plate or between the buttress roots and the soil. No fungal fruitifications were observed either or other factor giving rise to concern over the stability of this tree. Good stem taper and buttress root development of this specimen. Trunk A single stem up to 3.5 M AGL where it divides into five major limbs. These limbs are shown on plan below and labelled A-E and discussed in part. Limb A originates as horizontal and remains so for approximately two metres before turning vertical. Two open wounds occur first at 5 metres with a cavity measuring 100 x 200 x 100? Second wound occurs at 6.5 m AGL showing exposed xylem tissue following a tear out wound and possible small window through to a cavity. The trunk has a large wound and exposed associated decaying xylem tissue evident within a wound from ground level up to 3 m AGL. At ground level the basal cavity extends inwards by 1000 mm. The wound extending upwards to 3 m narrows towards the top to around 250 mm width. The trunk was sounded using a sounding hammer and despite the obvious wound, no hollowing was detected by sounding apart from a small area at the very base and very close to the edge of the wounds overall. Where the wound narrows and terminates, it supports two scaffold limbs identified as C and D.	Undertake a climbing inspection looking for any notable defects and paying particular attention to the cavity at 7 m. Report back to the Author with the findings. Re pollard crown back to the pollard heads without causing damage to them. The final cut should be 100-mm outside the existing pollard head. Leave ALL lateral regrowth below the pollard heads intact. Limb identified as D, (see plan to left) shorten by 1.5 metres in length back to the whorl of small branches that occur on the upper side of the limb. Refer to photographs in the Appendices.	Med	2	VH



Tree Number	Tag Number	Tree Species	Stem mm	Crown Spread	Tree Height	Remarks	Recommendations	Potential Bat Habitat	Priority	Target
						The wound was probed with a metal rod, but the exposed xylem tissue was mainly firm and only in two places would it penetrate more than 200-mm. The remainder of the trunk appeared reasonable at the time of inspection with no obvious defects visible. No cavities, splits, cracks, swellings, or bulging noted. No fungal fruitifications were observed or other indications giving rise to concern over the health or stability of this tree. No specialised decay diagnostic equipment was used although a sounding hammer was utilised which returned adequate audible results. Crown The crown of the tree was inspected from ground level. On this occasion, and whilst using binoculars, sufficient information was gathered using this method and it was not deemed necessary to climb the tree. No splits, broken branches, hazard beams, cavities (other than the two discussed), fungal fruitifications, or other factors that would give rise to concern over the health or stability of this tree. Good re-growth has occurred since the last pollard operations and good extension growth was observed in all parts of the crown. There were no signs in either tree to demonstrate any physiological impairment.	Chip all arisings. Re-inspect tree in September 2028. Check the main stem using diagnostic testing in September 2028. In the absence in any changes in condition – Repollard again during the winter of 2030			

7. RECOMMENDATIONS

- YOU ARE STRONGLY RECOMMENDED TO undertake the works as recommended within the time period given against each priority within the Findings Table (Priority Ratings defined within Section 5).
- An application to the Local Planning Authority (LPA) must be made prior to undertaking these works. Priority 2, 3, or 4 works—such as those recommended in this report—require formal written consent from the LPA via a Tree Preservation Order (TPO) application. In all cases, this report should be submitted as a supporting document to accompany the application.
- All tree works shall be in accordance with the British Standard Recommendations for Tree Works BS 3998: 2010 and industry best practice.
- Recommended date of next inspection³ - September 2027 (Trees should be cyclically inspected every 18 months thereafter).
- ANY LANDOWNER OR LAND MANAGER SHOULD BE AWARE THAT - Trees must receive regular tree inspections by persons with adequate specialist arboricultural qualifications. A landowner has a duty of care imposed by statute and common law to do so and keep records of such (see legal constraints below). For further advice contact www.trees.org.uk
- Tree felling and surgery works should only be undertaken by trained, competent and appropriately certificated personal with adequate experience and public, third party and employers liability insurance to £5,000,000. Always ask for proof from the contractors prior to engagement and seek references where necessary.

NOTE - *There is a duty within law imposed on all landowners' and managers requiring an active programme of tree condition inspections and recording to include all remedial works, to satisfy a Landowner's Duty of Care towards offsetting foreseeable risk that trees within their ownership may pose. In addition, this is likely to be a requirement of the client's insurance. It is strongly recommended that all trees within influencing distance of third - party properties, highways or public space should be inspected to offset any foreseeable risk to third parties or property. Further advice and guidance can be sought from Ambler-Lewis Tree Specialists Ltd.*

³ All instructions from our client to undertake the physical tree works recommended in Item 7 of this Report will not invoke the future recommended inspection or monitoring. This must be formerly instructed in writing citing the date and title of the Report, the exact items instructed and providing tree references. No liability will be accepted where liabilities arise due to any absence in future monitoring, which is not separately instructed.

8. LEGAL CONSTRAINTS

Tree Preservation Orders and Conservation Area Status in Wales

In Wales, the law on TPOs is in Part V111 of the Town and Country Planning Act 1990 Town and Country Planning (Trees) Regulations 1999. When any tree/s are protected by a TPO or are situated within a Conservation Area, it is an offence (1) cut down (2) uproot (3) top (4) lop (5) wilfully damage or (6) wilfully destruct a tree without the express written permission from the Local Planning Authority (LPA), there are exceptions. A LPA may grant permission, if considered reasonable following the submission of an application for consent to undertake the works, or where in accordance with an Approved Planning Application or under the exemptions within the Town and Country Planning Act 1990 of dead, dying, or dangerous. It is advisable to consult the LPA and an Arborist prior to conducting any tree works under these exemptions.

Felling Licence

A Felling Licence may be required in certain felling operations, and these are administered by the Forestry Commission where more than five cubic metres of wood are felled in one calendar quarter and when selling more than two cubic metres. There are exceptions, and these are in the Forestry Act 1967 and Regulations made under this Act. Contravention of the felling licence controls can incur substantial penalties. Tree felling forming part of a Local Authority Planning Approval is exempt.

Tree work operations have the potential to impact on protected species, most notably birds and bats. **The Wildlife and Countryside Act 1981** is the primary legislation which protect birds in the UK and it is an offence, with certain exceptions, to intentionally kill, injure or take any wild bird, or intentionally take, damage or destroy the nest of any wild bird while it is in use or being built or take or destroy an egg of any wild bird. Certain species of bird are afforded additional protection, whereby it is an offence to intentionally or recklessly disturb any wild bird included on Schedule 1 of the Act, while it is nest building or at a nest containing eggs or young, or disturb the dependent young of such a bird.

It is not an offence to fell trees during the bird nesting period (which is generally considered to be between mid-February and September inclusive) providing it is done so without breaching the legislation detailed above.

Caution must be aired if tree works are programmed during the nesting season as there is the potential for delay if nesting birds are found to be on site. Should nesting birds be present then all but essential works must be postponed. If in undertaking essential works a nest or nests are found to be present, then further advice must be sought from the statutory nature conservation authority, which in Wales is Natural Resources Wales and in England is Natural England, or from an appropriately qualified ecologist. The penalty for disturbing or destroying one bird or nest can be an unlimited fine and up to six months in prison, or both.

Bats...Summary of Current Relevant Legislation

Bats are also generally associated with trees and can be impacted by tree work operations. There are some 17 species of bat which are known to breed in the British Isles, all are insectivorous and depend to some extent on habitat in which trees are a significant element. Bats are a protected species and are in decline both globally and nationally. Therefore, they are to be fully considered before any tree work commences and particularly if the trees are mature. All species of bats are afforded **full** protection under the **Conservation of Habitats and Species Regulations 2017 (as amended)** and **partial** protection under the **Wildlife and Countryside Act 1981 (as amended)**. It is an offence (with limited exceptions) to deliberately take, injure, or kill a bat, intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats, deliberately damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time) or intentionally or recklessly obstruct access to a bat roost.

Therefore, bats are to be fully considered before any tree work commences and particularly if trees contain veteran features (which can occur in young trees as well as older trees). This can include all work on trees whether it is surgery, felling, the covering, or filling of cavities or the installation of rod braces and flexible cable braces. If a bat roost is known to be in any tree that is to be removed or worked on, or if any work is to take place adjacent to a known bat roost that may result in disturbance to that bat/s, then a license must be obtained from Natural Resources Wales or Natural England before work can take place.

Where there is the risk of a bat roosts being present, it is incumbent upon the owner or manager to commission a specialist bat survey to identify bat roosts before instructing tree surgery to commence. Failure to do so and in the event of breaching the legislation detailed above is an offence.

Maximum penalties for committing offences relating to bats or their roosts can amount to imprisonment for a term not exceeding six months or to fines of up to Level 5 on the standard scale under the Criminal Justice Act 1982/ 1991 (i.e., £5000 in April 2001) per roost or bat disturbed or killed, or to both.

NOTE - This is a simplified summary of the legal position relating to bats and birds and is intended for guidance purposes only. If further assistance is required, the primary legislation should be referred to. It may also be necessary to see legal advice or the advice of an appropriately qualified ecologist.

In the event of disturbing a roost site or injuring any bats is an offence. Maximum penalties for committing offences relating to bats or their roosts can amount to imprisonment for a term not exceeding six months or to fines of up to Level 5 on the standard scale under the Criminal Justice Act 1982/ 1991 (i.e., £5000 in April 2001) per roost or bat disturbed or killed, or to both.

Statute and Common Law – for Tree Inspections.

A landowner or land manager should be aware that both statute and common law dictates regular inspections of trees on land in their control are necessary where such trees could cause injury or damage in the event they should fall or shed any parts. A person suitably qualified in arboriculture should undertake such routine inspections and any remedial tree works recommended should be carried out within the time constraints specified, to prevent injury or damage occurring. A landowner should retain records of all inspections and any remedial tree works that have resulted from such inspections. Arboricultural Association, the Malthouse, Stroud Green, Standish, Stonehouse, Gloucestershire, GL10 3DL. Telephone 01242 522152. www.trees.org.uk are able to provide advice on suitably qualified persons or indeed suitable qualifications a person should hold to undertake qualified inspections.

9. LIMITATIONS OF THIS REPORT

There are occasions when even healthy and completely defect-free trees break or become windblown. This represents a "normal failure rate" which is the price of the lightweight, energy-saving structure that favours the species to compete with others in a cost-effective way.

Every attempt has been made to provide a realistic and accurate assessment of trees and their condition at the time of this inspection. No responsibility can be accepted for damage or injury as a result of the failure of any tree or its parts due to faults not apparent upon a visual inspection carried out at this season, or for faults developing subsequent to the survey. Similarly, no liability can be accepted for the condition of the trees that are obscured in part or by whole (e.g. due to dense ivy or other foliage), nor for any that proved inaccessible to the inspector. Certain features which might provide evidence of ongoing decay or decline (Such as seasonal fruiting bodies, damage to foliage, insect emergence holes etc.) may not be in evidence. Only those features present at the time of inspection could be assessed.

This report is based on the trees circumstances and condition at the time of the survey. It must be recognised that the circumstances may be altered radically over the course of any development process and that such changes cannot be accurately predicted. The report also does not provide any specific long-term management recommendations.

The statements made in this report do not take account of the effects of extremes of climate, vandalism or accident, whether physical, chemical or fire. Ambler-Lewis Tree Specialists cannot therefore accept any liability in connection with these factors, nor where the recommended work is not carried out in a correct and professional manner in accordance with current good practice and within a reasonable time. The authority of this report ceases at any stated time limit within it, or if none stated after one year from the date of the survey or when any site conditions change, or pruning or other works unspecified in the report are carried out to, or affecting, the Subject Tree(s), whichever is the sooner.

Unless stated in writing, the inspection shall not include any underground parts of the tree. It does not consider **indirect** damage resulting from the extraction of moisture from shrinkable clay soils by tree roots causing **subsidence** or by **heave** occurring through soil rewetting following removal of trees on this site. Such problems are almost entirely restricted to areas of shrinkable clay soils and as I have **not** considered a soil analysis as part of my present brief, this aspect is **not** addressed at this time.

Unless otherwise stated in writing and in the absence of altered circumstances, a report on the health and safety of a tree or trees cannot be relied on after a period of 12 months. Following such a period, a further inspection is required.

Further and more general report limitations are set out in the authors Terms and Conditions and copies are available upon request

10. GLOSSARY OF TERMS

Adventitious: Latent or dormant bud on stem or root often invisible until stimulated into growth which occurs from an unusual place i.e. not a twig, leaf or bud.

Adaptive Growth: in tree biomechanics, the process whereby wood formation is influenced both in quality and in quantity by the action of gravitational force and mechanical stresses on the cambial zone (THIS HELPS TO MAINTAIN A UNIFORM DISTRIBUTION OF MECHANICAL STRESS)

Anchorage: in trees, the holding of the root system within the soil, involving the flow of forces from the stem through the branches of the root system to the cohesive root/soil interface.

Arboriculture: the culture and management of trees as groups and individuals, primarily for amenity and other non-forestry purposes.

Architecture: in a tree, a term describing the pattern of branching of the crown or root system.

Assessment: in relation to tree hazards, the process of estimating the risk which a tree or group of trees poses to persons or property (THIS INVOLVES A VISUAL INSPECTION FOR DEFECTS AND CONTRIBUTORY SITE FACTORS, AND SOMETIMES ALSO A DETAILED INVESTIGATION OF SUSPECTED DEFECTS)

Assym: this abbreviation means...asymmetric...and refers to the tree having an asymmetric or unbalanced crown. This is usually preceded by a measurement in metres which provides the extent of crown asymmetry and is measured from the centre of the trunk. It may also have a correlation to the lever arm

Bark: a term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm: occasionally applied only to the periderm or the phellem.

Bole: (trunk) the main stem of a tree below its first major branch

Bracket: in wood-decaying fungi, the type of fruit body produced by many species, plate like to hoof-like in shape and with one side attached to the wood or bark.

Branch: a limb extending from the main stem or parent branch of a tree

Broadleaf, broadleaved tree: a tree belonging to one of the families of angiosperms i.e. not a conifer or other gymnosperm

Buttress zone: the region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper sides of the junctions

Callus: a term with more than one botanical meaning, especially an undifferentiated mass of cells, for example forming on the surface of wounded living plant tissue: also used to describe the fold of differentiated wood and bark forming around a tree wound (*see also* woundwood)

Canopy: the topmost layer of twigs and foliage in a woodland, tree, or group of trees

Chlorosis: an atypical colouring, usually yellowish, of foliage: often a symptom of mineral nutrient imbalance or inadequate root function

Cladotopsis: the shredding of twigs by abscission usually of non-performing or shaded parts that make little or no contribution to energy production

Crown: in arboriculture the main foliage-bearing portion of a tree

Decurrent: in trees, a system of branching in which the crown is borne on a number of major widely spreading limbs of similar size (*cf.* excurrent): also a term pertaining to certain fungi with toadstools as fruit bodies, whose gills run some distance down the stem.

Defect: in relation to tree hazards, any feature of a tree that detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Dieback: the death part of a plant, usually starting from a distal point and often progressing in stages.

Disease: a malfunction in or destruction of tissues within a living organism, usually not taken to include mechanical damage: in trees, usually caused by pathogenic microorganisms.

Distal: within part of a tree or other living organism, the region furthest from the main body of the organism, i.e. towards the tip (*cf.* proximal)

Dominance: in trees, the tendency for a leading shoot to maintain a faster rate of expansion than the lateral shoots: also, the tendency of a tree to maintain a taller crown than its neighbours.

Dysfunction: in woody tissues, the loss of physiological function, especially water conduction.

Energy: the capacity to do work (THROUGH PHOTOSYNTHESIS, GREEN PLANTS ABSORB ENERGY FROM SUNLIGHT AND STORE IT IN THE FORM OF CHEMICAL COMPOUNDS WHICH ARE USED IN ENERGY-DEPENDANT PROCESSES SUCH AS GROWTH)

Extension Growth a growth signature made visible by the termination of apical growth at the end of the growing season leaving a girdle scar

Failure: in connection with tree hazards, a partial or total fracture within woody tissues or loss of cohesion between roots and soil. (IN TOTAL FAILURE THE AFFECTED PART SNAPS OR TEARS AWAY COMPLETELY. IN PARTIAL FAILURE, THERE IS A CRACK OR DEFORMATION WHICH RESULTS IN AN ALTERED DISTRIBUTION OF MECHANICAL STRESS)

Foreseeable: in tree hazard assessment, pertaining to failure and associated injury or damage which are predictable based on evidence from a tree and its surroundings.

Fungi: organisms of several evolutionary origins, most of which are multi-cellular and grow as branched filamentous cells (hyphae) within dead organic matter or living organisms (WOOD DECAY FUNGI ARE SPECIALISED FORMS WHICH HAVE CO-EVOLVED WITH WOODY PLANTS)

Heartwood: the dead or predominately dead central wood of various tree species whose outer living wood, sapwood, has a finite and pre-determined life span: *see also* extractives.

Heave: in relation to a shrinkable clay soil, expansion due to re-wetting, sometimes after the felling or root severance of a tree which was previously extracting moisture from the deeper layers: also, in relation to root growth, the lifting of pavements and other structures by radial expansion: also, in relation to tree stability, the lifting of one side of a wind-rocked root plate.

Leader: in a tree, a topmost shoot that has apical dominance.

Lever arm: a mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or one of its branches

Loading: a mechanical term describing the force acting on a structure from a particular source: e.g. the weight of the structure itself or wind pressure.

Mycelium: the body of a fungus, consisting of branched filament (hyphae).

Mycology: the study of fungi.

Occluding tissues: a general term for the wood, cambium, and bark that form around a wound on a woody plant (*cf.* woundwood)

Occlusion: the process whereby a wound is progressively closed by the formation of new wood and bark around it.

Preventive action: in a tree hazard management, action that helps to prevent injury to persons or damage to property.

Probability: a statistical measure of the chance that a particular event (e.g. a specific failure of a tree or a specific kind of harm to persons or property) might occur.

Proximal: in the direction towards the main body of a tree or other living organism (*cf.* distal)

Pruning: the removal or cutting back of twigs, branches or roots: in some contexts, applying only to twigs or small branches only, but more often used to describe all kinds of work involving cutting.

Remedial Action: in tree hazard management, action to remove or mitigate the risk of injury to persons or damage to property.

Resistance: in tree health assessment, the ability of a tree to withstand particular adverse conditions or attack by a specific pest or pathogen

Risk: the likelihood of the potential harm from a particular hazard becoming actual harm.

Root rot: either a general term for any form of wood decay in roots, or a disease in which fine, non-woody roots are killed

Root and butt-rot: a form of decay in standing trees, which primarily affects the roots and buttress zone but may also extend up the stem.

Sail area: in arboriculture, a general term for the wind-intercepting area of a tree's crown, which varies both with leaf cover and the orientation of leaves and twigs under different wind conditions.

Sap: a general term for fluids in plant tissues, whether in living cells or in the hollow water conducting cells of the xylem.

Scaffold limbs: the branches, which form the main framework of the crown of a tree with a de-current growth habit.

Shoot: in a tree, the elongating region of a stem or branch

Shrub: a woody plant, which branches at or near ground level and so, does not have a single trunk.

Significant: in relation to health and safety, pertaining to hazards or risks which are deemed to exceed accepted standards of safety and which therefore require remedial or preventive action.

Soil heave: *see* heave

Stem: in a tree, the principal proportion of the woody structure (i.e. the trunk), or one of a number of such portions with similar size and status.

Strength: the resistance of a structure or material to mechanical failure when subjected to a particular type of stress, tensile, compressive, shear, torsional etc.

Stress: in plant physiology, a condition under which one or more physiological functions are not operating within the optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature

Stress: in mechanics, a force acting on an object, measured per unit area of the object (*cf.* strain)

Stress-notch: a point where mechanical stress is locally concentrated within a structure, sometimes resulting in failure or perhaps stimulating adaptive growth in the case of a living organism.

Subsidence: in relation to soil or structures resting in or on soil, a sinking due to shrinkage when clay soils dry out, sometimes due to extraction of moisture by tree roots.

Subsidence: in relation to branches of trees, a term that can be used to describe a progressive downward bending due to increasing weight.

Targets: in a tree hazard assessment (and with somewhat incorrect terminology), persons or property or other things of value, which might be harmed by mechanical failure of the tree or by objects falling from it.

Tipping: in arboriculture, the removal of the crown of a (usually mature) tree, or of a major proportion of it.

Topping: in arboriculture, the removal of the crown of a (usually mature) tree, or of a major proportion of it.

Tree: a woody plant, which typically has a single main stem and, in maturity, attains a height of at least four metres and a stem diameter at breast height of at least 75-mm.

Tree Preservation Order: in Great Britain, an order made by a local authority, whereby the authority's consent is generally required for the cutting down, topping or lopping of specified trees.

Trunk: the single main stem of a tree.

Vigour: in tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth (*cf.* vitality)

Visual Tree Assessment (VTA): in addition to the literal meaning, a system expounded by Mattheck & Breloer (1995) to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.

Vitality: in a tree assessment, and overall appraisal of physiological and biochemical processes, in which high vitality equates with healthy function (*cf.* vigour)

Wind exposure: the degree to which a tree or other object is exposed to wind, with regard both to duration and velocity.

Wind pressure: the force exerted by wind on a tree or other object.

Wind snap: the breaking of a tree stem by wind.

Windthrow: the blowing over of a tree at its roots.

Wood: secondary xylem: the main structurally supporting and water-conducting tissue of trees and shrubs (*see also* xylem)

Woundwood: wood with atypical anatomical features, formed in the vicinity of a wound: also, a term sometimes used to describe the occluding tissues around a wound in preference to the ambiguous term 'callus'

11. REFERENCES

Arboricultural Association, Guidance Note 10, Protected Species and Arboriculture

British Standard Recommendations for Tree Work BS 3998: 2010

Fay N, Dowson D, Heliwell R. Tree Surveys, A Guide to Good Practice, Arboricultural Association

Lonsdale D. Hazards from Trees, A General Guide, Forestry Practice Guide

Lonsdale D. Principles of Tree Hazard Assessment and Management.

Mattheck C. & Breloer H. The Body Language of Trees Department of the Environment.

Mattheck.C & Bethge.K, Weber.K – The Body language of Trees – Encyclopedia of Visual Tree Assessment.

12. TERMS AND CONDITIONS

The Parties:

“The Consultant Arboriculturalist” will be Stephen James Ambler or Vaughan Lewis or otherwise the person duly authorised and appointed by Ambler-Lewis Tree Specialists Ltd, hereafter referred to **The Consultant**, who is to investigate and report on the arboricultural matter forming the subject of any investigation. “The Client” is the party commissioning and funding the investigation or survey report.

1. A Report, Technical Note or Statement is for sole use of the named Client and his/her professional advisors and other persons with a legitimate interest in the management of the trees under investigation. No responsibility is accepted to any persons other than the Client in respect of its contents and conclusions. Neither the Report, Technical Note or Statement nor any part of it may be published, broadcast, or otherwise distributed to the general public in any form without the express written consent of the Consultant.
2. Payment Terms - The Client shall pay the Consultant a fee for preparing the Report, Technical Note or Statement, based upon an hourly rate to be determined from time to time (the relevant rate available on request), unless a fixed price quotation has been offered and accepted prior to engagement. In addition, all reasonable out of pocket expenses incurred will be payable, as will any VAT due on the fee and expenses. The total sum due must be paid within 28 days of the date of invoice, unless otherwise agreed in writing by the Consultant. If the payment of any sum due is delayed The Consultant shall be entitled to charge interest at the rate of 4% above the base rate of the Bank of England for the time in force on the overdue amount and/or suspend performance of the Consultancy Services provided that the Consultant shall not suspend performance unless it shall have given to the Client written notice requiring payment of the overdue sum within 7 days and the Client shall have failed to comply with such a notice.
3. If any part of an invoice is disputed or queried by the Client, the Client shall notify the Consultant of the details of such dispute or query not less than 10 days prior to the due date of payment and of its intention to withhold payment. The payment of any undisputed part of the invoice shall not be delayed.
4. The Consultant retains full title on any written Report, Technical Note or Statement, until the fee is paid in full: No liability whatsoever is accepted on the contents of any report where the due fee remains unpaid in part or in full. The consultant reserves the right to withdraw a Report, Technical Note or Statement, where full payment is not received within the payment terms.
5. The Consultant will carry out the inspection and investigations as specified in the Clients Instructions and/or as set out in the Consultant' s preliminary proposals. Unless otherwise specified, inspections will comprise Visual Tree Assessments made working from ground level only. The Consultant will not be expected or required to carry out any further investigations or inspections unless such investigations/ inspections are agreed between the Consultant and Client.
6. The Inspection will be limited to those areas or trees included in the Clients instructions that are practically accessible and safe for inspection. The Client must ensure that free and lawful access is available: the Consultant is under no obligation to inspect areas that are unexposed, inaccessible, or potentially hazardous.
7. Unless stated in writing, the inspection shall not include any underground parts of a tree, nor will it consider any possible effects of root action upon shrinkable soils. Unless the Report is specified to include a Subsidence Risk Assessment, or an investigation of roots in relation to drainage systems, no liability is accepted for any loss or expense incurred consequent upon such effects.
8. The Report, Technical Note or Statement, will be prepared with the care and diligence to be reasonably expected of a professional Consultant Arboriculturalist, with due account taken of any and all limitations specified in the instructions. No responsibility is accepted to comment on subjects or circumstances other than those specified in the Client' s instructions, nor for matters beyond the professional competence of a Consultant Arboriculturalist.
9. The Consultant shall provide his opinion on Arboricultural matters as agreed with the Client. It may be recommended that other specialists (e.g., Structural Engineer, Soil Scientist, Drain Engineer) be required to carry out further investigations. The Consultant accepts no liability in respect of matters on which the Client is recommended to obtain such other specialist advice, nor if the Client acts without obtaining, or in contradiction of, such advice.
10. No liability is accepted for errors in the data collected and recorded by the IML Resistograph instruments and software or for the transfer of data between the Resistograph data files and Resistograph analysis software.
11. Subject to a commitment to undertake appropriate maintenance and servicing of the equipment, Ambler-Lewis Tree Specialist Ltd does not accept any liability for the accuracy of the data recorded and collected by the IML Resistograph instruments.
12. Trees and their environments change over time: No liability is accepted for events arising as a result of circumstances not apparent at, or developing subsequent to the inspection, unless such circumstances are specifically brought to the attention of the Consultant by the Client or his/her agents. Unless otherwise stated, and in the absence of altered circumstances, a Report on the health and safety of a tree or trees should not be relied upon after a period of 12 months without a further inspection being carried out. Subsidence Risk Assessments remain valid for a period of 5 years, under similar contradiction of, such advice.

13. Any claim by the Client based on an alleged defect in the scope, nature or quality of a Report shall be notified to the Consultant within 14 days of the date of the supply of that Report. Should any problem allegedly arise relating to a tree (or other matter) the subject of a submitted Report, Technical Note or Statement, any claim must be notified to the Consultant within 14 days of the alleged problem becoming apparent.
14. Any dispute arising out of or in connection with the contract between the Client and Consultant shall be referred to the arbitration of a single Arbitrator appointed by agreement between the parties, or in default of agreement, nominated by the Arboricultural Association upon the application of either party.
15. The Consultant shall not be liable to the Client for any consequential loss arising in any way from the negligence of the Consultant or his employees or agents or otherwise.
16. The Consultant shall not be liable to the Client or be deemed to be in breach of the contract by reason of any delay in performing, or any failure to perform, any of the Consultant's obligations in relation to the services he renders, if the delay or failure was due to any cause beyond the Consultant's control.
17. Each provision of these conditions limiting or excluding liability operates in itself and survives independently of the others.
18. The Laws of England and Wales shall govern the contract between the Client and the Consultant.
19. Only reports signed by hand or digitally by the Consultant are valid.
20. In respect of tree surveys and inspections, the client is advised to review the survey boundary (red polygon) as indicated on the Tree Location Plan located in the Appendices of our Report, Technical Note or Statement, to confirm the area surveyed meets their requirements. The client must advise Ambler-Lewis Tree Specialists Ltd immediately, in writing, where any discrepancies occur and where additional areas require surveying, they should be clearly identified by a site location plan or other method (subject to our standard hourly fee rate and mileage rate, as applicable) .

APPENDICES

PHOTOGRAPHS

TREE LOCATION PLAN

PHOTOGRAPHS

Tree 1 (Tag 00563)



Tree 2 (Tag 00564)



Tree 2



Tree 2

Tree 2



Picture showing 3 trees as a single group

Plan showing Root Protection Areas for each tree.

Source – Ambler 2017

TREE PRESERVATION ORDER MAP AND TREE LOCATION PLAN (red circle overlay)

