

A.M.LANE Ltd

ARBORICULTURE – SAFETY – QUALITY - PERFORMANCE

Hill Park House, Uffculme, Cullompton, Devon EX15 3BJ

 Institute of
Chartered Foresters
Registered Consultant



Our Ref: R3482aI-No22ChurchRdSilverton-VTA 190922

Contact: Tony Lane

Visual Tree Assessment of Two Oak Trees Adjoining No22 Church Road Silverton

Instruction

Further to my recent site visit today I have much pleasure in forwarding the following report based upon my inspection of the subject trees as per the agreed instruction (ref: Q23123aI) below;

Conduct a visual assessment of T2 as identified in our previous report and any other tree related issues you would wish us to consider. In addition to the agreed specification I have included a passive assessment of T1.

Arboricultural Report Findings

Location	Treneer, 22 Church Road, Silverton, Exeter, EX5 4HS		Ref:	R2657aI R3482
Client	Mr & Mrs Salisbury		Report Date	22-06-20. 19/09/22
Survey Inspector(s)	A M Lane MIC For., F. Arbor A., MRICS		Inspection Date	22-06-20. 19/09/22
Report Prepared By:	A M Lane MIC For., F. Arbor A., MRICS	Report Checked By:	Unchecked	

Please note that abbreviations introduced in [Square brackets] are used throughout the report

Updated Report: Items of the report that are no longer relevant are struck out whereas additional items are either in bold or prefixed the date of the assessment.

Scope & Limitations

The inspection has been undertaken from ground level by optical means only using the Visual Tree Assessment [VTA] methodology which in addition to the literal meaning, is a system expounded by Mattheck & Breloer (1995) & D Lonsdale (1999) Principles of Tree Hazard Assessment & Management, DETR, to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.

The Visual Tree Inspection [VTA] ¹ methodology has been used in conjunction with a nylon sounding mallet.

No measurements and no tissue samples of any trees were taken.

No trees other than the two boundary Oak trees have been inspected.

This report does not address issues relating to tree related subsidence or heave that may affect the client's or third party property.

¹ **Visual Tree Assessment:** in addition to the literal meaning, a system expounded by Mattheck & Breloer (1995) & D Lonsdale (1999) Principles of Tree Hazard Assessment & Management, DETR, to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.



The limit of A M Lane Ltd's indemnity over any matter arising out of this report extends only to the instructing client, namely Mr & Mrs Salisbury.

Site Description & Tree Location(s)

1. The subject tree is located as per the plan shown at Annex 2.
2. Both trees are situated on a low boundary bank located to the North East of No22. The boundary comprises a running ditch 1.2m deep by approximately 1.8m wide on the property side of the hedgebank. The hedgebank itself is approximately 0.7m in height and is of earth construction with a mix of Hazel, Blackthorn and Dog Rose are growing on top. Both the stream and bank form a substantial boundary feature extending beyond the property and would have historically been a field boundary.
3. The stream is running and does not appear to dry up thus it creates a potential barrier to root ingress into the curtilage of No22.
4. The north eastern wall of the garage and a more recent garden room are within 1.4m of the edge of the ditch creating a narrow alley connecting the front parking area and the garden.
5. Both trees are protected by a TPO reference TP1 1979

The Trees

1. Both trees comprise mature Pedunculate Oaks and are denoted on the attached plan as T1 and T2. T1 is located on the boundary with No14 Hederman Close and T2 is located on the boundary with No2 Hederman Close.

T1 English Oak

2. T1 is a mature tree with an estimated height of 12m and crown spread of 6m. Access to the base of the tree is restricted by fencing and the aforementioned hedge. The bole straddles the hedgebank and extends down the face of the bank towards the stream. Pronounced buttress roots are noted on the off-stream side of the bole, with evidence of rooting following the linear hedgebank feature.
3. A garden shed and lawned garden extend up to the bole on the north east side.
4. A single trunk supports a generally ascending crown structure with a symmetrical crown. The first branch is as 2.4m on south west side and the main crown break is at 3-4m above the bank level.
5. The crown has been reduced in the past with some internodal cuts and others of a more targeted nature. The crown is showing increasingly reduced vigour with a variable, but generally moderate, very poor vigour or vitality. (See Plate 1 at Appendix 1)
6. Large diameter deadwood is noted throughout as well as smaller diameter more friable dead branches.
7. There is a significant amount of live reiterative growth showing an attempt to retrench however this is now increasingly isolated and thin. The tree was showing decline in 2005 & 2020 when last inspected and this decline has progressed albeit very slowly significantly now extending to approximately 70-80% of the expected crown volume. There are no signs of structural failure or root insecurity.

T2 English Oak

8. T2 is mature with an estimated height of 22m and an average crown spread of 9m.
9. The tree is growing on the south west edge of the hedgebank with a substantial buttress formation extending down the face of the bank towards the stream. Buttressing on top of the bank is largely symmetrical but has a bias along the line of hedgebank. The trunk as a slight lean to the south west. This is possibly due to partial windthrow historically, but which has fully stabilised.
10. Crown break is estimated to be at around 4m with a broad generally symmetrical crown architecture. The lower crown has been reduced in radial spread in the past resulting in a vigorous secondary crown arising from the truncated ends. Possibly undertaken at the time of the residential development.
11. The central upper crown however does not appear to have been treated in the same way.



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12. Normal vigour and good vitality was observed in the lower half of the crown however the central upper crown, particularly on the east side, has a significant degree of distal dieback. Vigorous growth along the retrenching limbs is notable however and the dieback appears to be slow.
13. 19/09/22 Inspection of the lower trunk on the streamside identified a fresh fungal fruiting body of *Pseudoinonotus dryadeus* commonly known as 'Eifel Tower Fungus' located level with the top of the bank on the NW side. (See Plate 2 at Appendix 1). The old remains of two further fungal brackets of the same species were noted midway down the bank face on the west side and associated with a buttress root column extending down the bank.
14. 19/09/22 Close examination of the root mass extending down the face of the bank revealed healthy buttress roots with no evidence of extensive decay. Open bark striations revealed active annual secondary thickening growth associated with the main structural roots and the lower trunk. Columns of load adaptive growth extended up the trunk of the trees.

Conclusions

1. Both trees are part of a former agricultural boundary which is now constrained on either side by residential development and gardens. The stream is likely to have created a natural barrier to root growth extending into the garden of No22. The larger part of the root volume of both trees is therefore likely to extend across the gardens of No2 and No14 Hederman Close.
2. The observed crown debility which is especially evident in T1 is possibly a symptom of 'development pressure' on the root system of both trees. Although the development was completed in 1980 the damage caused to the roots systems, especially of Oaks, by development can take a considerable amount of time to fully manifest. Where individual trees have a high degree of 'vitality' the trees decline is slowed, if not mitigated by the formation of a new retrenched crown.
3. In the case of T1 this process is clearly advanced and there is a mix of reasonably health secondary limbs and those showing progression to becoming senescent. The deadwood noted is substantial in size and therefore causes concern for the adjoining homeowners. The deadwood in Oaks however tends to be secure and as is evident it gradually falls away from the distal parts over time. It does not therefore currently pose an unacceptable risk of harm to either property.
4. Although T1 is showing advanced crown debility there is still sufficient vitality to potentially enable a long term retrenched crown. Sensitive retrenchment pruning now could therefore provide a sustainable option for retaining the tree for the future. This would reduce the perceived risk and also managing the nuisance of falling deadwood for adjoining property owners, whilst retaining a valuable habitat and historic remnant of the pre-development landscape. 19/09/22 T1 is now in terminal decline and I would predict it is highly likely to have died within the next 5-8 years if not before.
5. T2 appears to be showing recovery with the central crown beginning to 'stag head' particularly on the east side. This is likely to be progressive leaving the central ascending limbs as dead spires in the next 5-10 years.
6. 19/09/22 Eifel Tower fungus causes a white of the central heartwood of tree and is mostly associated with the root crown and lower trunk. Hollowing is a normal long term outcome with the retained buttress roots forming the supporting legs hence the 'Eifel Tower' description. It is therefore significant but not an immediate concern. In very rare situations the remaining columns can fail however this not before the decay becomes extensive.

T1 English Oak

1. Consider the removal of the tree before it stands dead so that it is stable on which to work. (M2)
2. Unstable and small diameter deadwood to be removed however the larger deadwood where it is stable should be retained where safe and unlikely to cause major concerns. (M3)
3. Reinspect the tree in 2 years from the date of this report.

T2 English Oak

4. Remove one secondary lower limb extending towards the garage roof of No22. This will provide long term clearance. (M3)



5. Remove any unstable deadwood overhanging the parking for No22. (M3)
6. Reinspect the tree in 2 years from the date of this report.

Please note that the recommended pruning works will require permission from Mid Devon District Council. The removal of deadwood however can be undertaken without permission by exception.

I trust that this tree assessment provides sufficient information but if I can be of further assistance in this matter please do not hesitate to contact me.

Yours sincerely

A M Lane F. Arbor A., MIC For., MRICS, SFIIRSM, Tech IOSH, Tech Cert ARBOR A
Arboricultural Consultant, Chartered Forester & Chartered Surveyor



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The statements made in this report do not take account of extremes of climate, vandalism or accident, whether physical, chemical or fire. A M Lane cannot therefore accept any liability in connection with these factors, nor where prescribed work is not carried out in a correct and professional manner in accordance with current good practice. The authority of this report ceases at any stated time limit within it, or if none is stated after two years from the date of the survey or when site conditions change, or pruning or others works unspecified in the report are carried out to, or affecting , the subject tree(s), whichever is sooner.

Heights / Distances: All dimensions given are estimated.

Age Class: Young (Y) = first third of life expectancy including recent planting
 Semi Mature (S) = middle third of life expectancy
 Mature (M) = Final stage of maturity and approaching or at its final size
 Over Mature (OM) = Starting to decline or retrench.
 Veteran (V) = over mature, high wildlife and/or cultural status

Recommendations should reflect the condition findings and seek to address problems identified. Each recommendation is assigned an (S) or (M) prefix. (S) Followed by bold text denotes the recommendation addresses a safety issue and should be undertaken as soon as practicable. (M) followed by ordinary text denotes a management issue. A suggested priority code is indicated as follows (M1) and follows the stated periods below. This period will depend on species, issues identified and season. Where appropriate an arboricultural justification is made to support the recommendation. Further detailed inspection may be specified.

Priority Code is assigned to each recommendation within the brackets i.e. (M3) = Management works, carry out in 12 months.

The codes are as follows 1 = Carry out with immediate effect
 2 = High Priority Works (Carry out work within 6 months)
 3 = Moderate Priority Works (Carry out work within 12 months)
 4 = Low Priority Works (At the clients discretion or as indicated in years.)

Appendix 2: Photographs

Plate 1: 22/06/22 Taken from the garden of No14 Hederman Close. T1 in the foreground showing extensive crown debility. T2 is observable in the background with the central upper crown on the north east side (right of picture) showing dieback.



Plate 2 – 19/09/22 Fungal bracket viewed from the stream.



Plate 3: 19/09/22 Old remains of a fungal bracket.



Abbreviations & Glossary of Terms

(Glossary From: D Lonsdale, Principles of Tree Hazard Assessment and Management)

GL	Ground level
mm	Millimetres
m	Metres
N,E,S,W	Cardinal compass points and points between i.e. SW

Abiotic components are non-living chemical and physical factors in the environment that can cause damage to trees i.e. mower damage, vandalism, herbicide or salt damage as opposed to biotic or living organisms that can cause damage e.g. diseases, fungi, insects and mammals

Adaptive growth: in tree biomechanics, the process whereby wood formation is influenced both in quantity and in quality 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.

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.)

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.

Buttress [root]: a tree root that extends above ground as a platelike outgrowth of the trunk supporting the tree. The buttress formation normally creates a concave sweep between the roots to the trunk and is commonly symmetrically arranged around the bole. As trees mature so the buttresses become more pronounced.

Cambium: A tree's cambium is the layer of cells lying between the inner bark and the wood. These living cells cover the entire surface area of the tree and from which new bark (phloem) is formed and wood cells (xylem) originate. This layer forms a key protective layer against the ingress of decay or disease.

Compartmentalisation: the confinement of disease, decay or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defences operating at the boundaries of the affected region.

Coppicing: the cutting of a woody plant near ground level to encourage the development of multiple stems.

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; similarly pertaining to leaf bases and other plant organs which extend down the stem.

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.)

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

Etiolated: to be drawn up to the light and in so doing developing a low stem to height ratio with a small crown. Often relying on mutual support or shelter from neighbouring trees and thereby prone to failure if exposed due to thinning or removal of surrounding trees.

Epicormic: pertaining to shoots or roots which are initiated on mature woody stems; shoots may form in this way from dormant buds or they may be adventitious

Excurrent: in trees, a system of branching in which a single, distinct main stem bears a succession of branches whose diameter is progressively smaller towards the top of the tree; also pertaining to structures such as the midribs of leaves, which project beyond the lamina (cf: decurrent.)

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.)

Girdling: in woody plants, any form of damage which destroys or kills the bark and cambium all the way around a stem, branch or root, usually leading to the death of the distal portion.

Hazard beam: in a tree, an upwardly curved part in which strong internal stresses may occur without the compensatory formation of extra wood. (LONGITUDINAL SPLITTING OCCURS IN A SMALL PROPORTION OF SUCH CASES.)

Incipient Decay: Wood in the early stages of infection or invasion by a wood decay fungus, so that the wood is not yet evidently or fully degraded.

Incipient failure: in wood tissues, a mechanical failure that results only in deformation or cracking, and not in the fall or detachment of the affected part.

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

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.

Reaction zone: a zone, usually dark in colour, within the wood of a living tree, which forms a boundary – often a defensive one – between fully functional sapwood and dysfunctional or decaying wood.

Retrenchment: Crown retrenchment refers to the natural ageing process of trees when in full maturity the tree's roots capacity is exhausted and is unable to 'finance' further crown extension. This results in the natural dying back of the crown to re-establish a reduced canopy operating in balance with the root system. When this first occurs, the tree is said to enter the 'ancient stage' (which in favourable conditions may be the longest phase in the life of the tree).

Root flare: the curving region where a stem base joins the main lateral roots, usually composed of individual buttresses: more or less synonymous with the buttress zone. (cf. Basal flare)

Sapwood: Wood that contains living cells and is always the younger, outermost wood; in the growing tree but may also extend into the core or heart of the tree in some species. Its principal functions are

to conduct water from the roots to the leaves and to store up and give back energy reserves according to the season.

Senescent: The phase in which a tree has entered terminal decline. This may take many years before the tree completely dies but is normally preceded by a gradual decline in crown health and vitality.

Shear stress: mechanical stress, which tends to induce shearing.

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.

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

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

Target canker: a kind of perennial canker, containing concentric rings of dead occluding tissues.

Target pruning: the pruning of a twig or branch so that tissues recognisably belonging to the parent stem are retained.

Targets: in 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, a term sometimes used to describe the shortening of branches.

Topping / Topped: relating to the removal of the crown of a tree often to primary or at minimum secondary branches. This practice is not considered good practice in most cases due to the creation of decay points the crown and potentially weak attachment of any regrowth from truncated limbs to the parent limb.

Veteran Tree: is defined as 'a tree that is of interest biologically, culturally or aesthetically because of its, age, size or condition.

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

Visual Tree Assessment: in addition to the literal meaning, a system expounded by Mattheck & Breloer (1995) & D Lonsdale (1999) Principles of Tree Hazard Assessment & Management, DETR, to aid the diagnosis of potential defects through visual signs and the application of mechanical criteria.

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

Windthrow: the blowing over of a tree at its roots

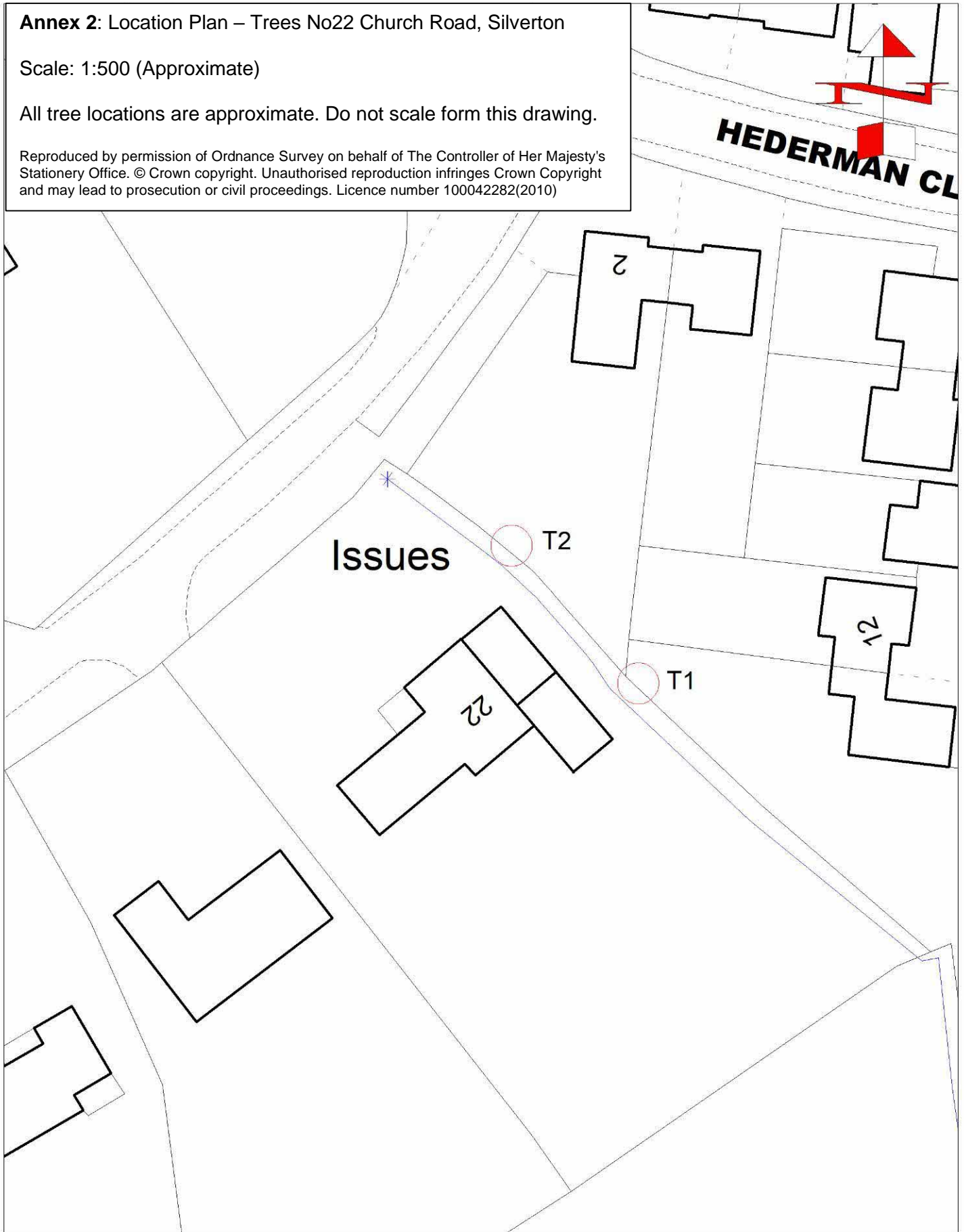
Woundwood: wood with atypical anatomical features, formed in the vicinity of a wound; also a term sometimes used to describe the occluding tissues around a wound in preference to the ambiguous term "callus".

Annex 2: Location Plan – Trees No22 Church Road, Silverton

Scale: 1:500 (Approximate)

All tree locations are approximate. Do not scale form this drawing.

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Scale: 1:500

Date: 22/06/20

Ref: No22 Church Road

Tree Location Plan
No22 Church Road
Silverton