

A.M.LANE Ltd

ARBORICULTURE – SAFETY – QUALITY - PERFORMANCE



Hill Park House, Uffculme, Cullompton, Devon EX15 3BJ
 T 01884 840386 E tony@amlane.co.uk W www.amlane.co.uk



Arboricultural Report Findings

Location	Junction of Pedlerspool Lane & Old Tiverton Road, Sandford, Crediton		Ref:	R2532cw/AL
Client	Mid Devon District Council, Phoenix House, Tiverton, Devon		Report Date	29/10/19
Survey Inspector(s)	C Hawley Prof Dip. Arb, M. Arbor A.	A M Lane MIC For., F. Arbor A., MRICS	Inspection Date	9/10/19
Initial Report Prepared By:	C Hawley Prof Dip. Arb, M. Arbor A.	Final Report Checked & Amended By:	A M Lane MIC For., F. Arbor A., MRICS	

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

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.
- Ivy obscured the trunk and branch structure of parts of the tree and the inspection was limited to the visible areas of the tree. The removal of the ivy has been specified in the recommendations where appropriate.
- No trees other than the holm oak subject to the application have been inspected.
- The limit of A M Lane Ltd's indemnity over any matter arising out of this report extends only to the instructing client, namely Mid Devon District Council.

Instruction

Conduct a visual inspection of the tree(s) based on the submitted application reference 18/01966/TPO.

To review the amenity value of the tree in the context of the submitted application.

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.



Information provided

1.
 - a. Application form, a photograph and a location plan.
 - b. Highway tree safety inspection report by DCC.

Reasons For Work(s)

2. The proposed works are to part dismantle a **holm oak**; the following reasons have been cited
 - a. Tree has significant defect due to major crack between its two stems.
 - b. Large lateral stem over the road and is an unacceptable risk to the public and highway users

Description & Findings

1. The subject tree is a mature twin stemmed holm oak, located on the eastern corner of a mixed broadleaved copse at the end of Pedlerspool Lane where it joins Old Tiverton Road. The tree is growing in a 2m high raised bank above the road. (See Annex 1 and Plate 3 below)
2. There are obvious short range views of the tree from Old Tiverton Road, particularly as you approach it from the north west, it can also be seen from the main Crediton to Tiverton Road, as such it adds positively to the character of the area and is seen daily by numerous people using the road. It was noted that there is a further mature holm oak located on the western corner of the copse; the holm oaks are older and more prominent than the adjacent trees and are significant features that add appreciably to local amenity.
3. The tree is twin stemmed from the base, the northern stem leans slightly (to the north east) over Old Tiverton road, it bifurcates at approximately 5m. The bifurcation is partially hidden by ivy but looks to be normally formed; the southern stem leans (to the south west) into the copse. The tree appears to be in normal physiological health and has good vitality and crown density.
4. There is a historic wound at the base of the southern stem where an old stem appears to have failed many years ago, the decayed remnants of the old stem and its stump persist between the two remaining live stems. On the north side of the tree there is a vertical crack in the exposed wood of the old stump extending from ground level to the top of the old stump where the crack is some 2.5cm wide.
5. It appears that the crack may originate from the historic stem failure or may simply be the result of the exposed heartwood drying out and decaying over many years. There is no evidence found that the crack is actively propagating or of movement at the base of the tree.
6. Active load adaptive growth ribs are clearly evident on the tensile (inside) faces of both stems.
7. The northern stem of the tree appears to be firmly rooted in the bank and to be free from significant decay. There is exposed sapwood at the base associated with the old stump with callous formation noted at the edge of the exposed of it.
8. The northern stem or tree has undergone previous crown reduction and crown lifting over the highway, the pruning wounds appear to be free from decay and the upper crown has responded well to the reduction pruning
9. The tree is sheltered from the prevailing westerly and south winds by its location on the eastern side of the copse. There are further trees located on the north side of the lane which also provide shelter.

Application Appraisal

1. The application is to dismantle the northern stem (tagged as 993) to 1.5m above ground level, citing the crack between the two stems as a major defect and stating that the tree poses an unacceptable risk to road users.
2. The application is supported by a tree inspection report carried out by DCC in August 2018, the report identifies the presence of a large crack between the stems and the large stem over the road and concludes that the stem should be felled.
3. As described above the crack at the base of the tree between the two stems appears to be wholly within the old stump of a previously failed stem, rather than being a crack between the two remaining stems. Cracks may sometimes develop between codominant stems where there is



weak embedded bark union and the union has begun to structurally fail by opening to form a crack. This is not in my opinion the case here with the two stems appearing to be growing essentially as two separate trees. There is a small area of bark to bark contact between the stems at the base on the south side (embedded bark) but they appear not to be joined above ground level by common annual rings.

4. The tree has evidently actively adapted to the described defect and the load imposed on both stems as evidenced by the observed growth ribs. Holm oak are considered to be structurally robust and are resilient to decay. There are no apparent signs of insipient failure or stem subsidence.
5. While the report by DCC states the probability of failure as moderate to high it does not provide an actual risk assessment for the tree by which to evaluate the risk of harm it may pose in relation to its surroundings, e.g. the road users. The tree has been subject to previous crown reduction to reduce its overall size and sail area such that it already has a reduced risk of failure given that the crown is smaller. If its perceived to pose an unacceptable risk perhaps repeating the crown reduction could have been considered as an option rather than felling the tree.
6. Numerous people have written in objection to the proposed dismantling of the tree stem, the objectors have raised the following concerns:
 - Questions whether the works are really necessary, no evidence the tree is unsafe, risk assessment needed
 - Loss of habitat and potential harm to the local environment, loss of important tree of potential historic importance

Sandford Parish Council has written to say it has no objection subject to TPO conditions.

Plate 1: Showing the east side of the union and decayed remains of the historic third stem failure associated with the southern stem.	Plate 2: Showing the west side of the union and the oxidised remains of the historically failed stem with the observed crack.
	

Plate 3: Showing the subject trees from the northern approach along 'The Old Tiverton Road'. The arrow indicates the subject tree.



Summary

1. The subject tree, a mature holm oak is a reasonably prominent feature of Old Tiverton Road from the northern approach. It forms a significant part of the wider tree canopies thus making a significant contribution to the character of the area and to local amenity. The proposed felling of its northern stem would be detrimental to the local visual amenity of the tree, as well as exposing the remaining stem crown to a significant change in wind exposure.
2. There are no immediate signs of instability either at the roots or between the two stems to indicate imminent failure now or in the near future.
3. The application states that the tree poses an unacceptable risk to road users but no substantive evidence to support this claim has been submitted in the form of a qualified risk assessment. The observations of the base of the tree indicate that the probability of failure is not particularly high and as such the tree does not seem to pose an unacceptable risk of harm to road users or passers-by.
4. A risk assessment undertaken using the QTRA method (www.QTRA.org.uk) indicates that the risk of harm posed by the tree is within the broadly acceptable threshold thus felling on safety grounds is unjustified.

Formal Recommendations

1. I recommend the following:

- a. Refuse consent to part dismantle the holm oak.

Reasons:

- b. There is insufficient evidence to support the felling of the stem on safety grounds.
- c. The loss of the main stem would be detrimental to local amenity and detract from the character of the area.

I trust that this preliminary visual 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

Fellow Member

Limitations and copyright: All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without our written permission. Its content and format are for the exclusive use of the addressee in dealing with this site.

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.



Director & Senior Consultant: Tony Lane F. Arbor.A., MIC For., MRICS., SFIIRSM., Tech IOSH
A M Lane Limited Registered In Cardiff - No. 5383142 - VAT Reg No: 855 3124 32
Registered Office: Hill Park House, Uffculme, Cullompton, Devon EX15 3BJ



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

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.)

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.)

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.

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

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.

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.

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.

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**.)

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".

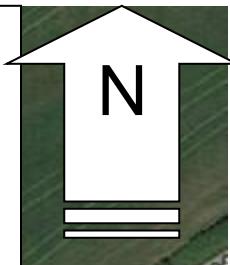


Annex 1: Approximate location of the Holm Oak as denoted by the red circle

Scale: Not To Scale – for location purposes only

Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence number 100042282(2010)

Aerial image courtesy of the Google



Imagery ©2019 Google, Imagery ©2019 Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, Map data ©2019