



Tree Inspection and Risk Assessment

12 Alexandra Road

September 2022

Survey details

Site	12 Alexandra Road, Chandlers Ford
Client	Mr Antill
Author	Matthew Strand
Date	16/09/2022
Reference	QU-5611

Survey information

Instruction and Scope of Work	Instruction was received from Mr Antill (the client) to carry out a tree inspection and risk assessment, in relation to likelihood of structural failure, on an individual tree (reference T1) located at 12 Alexandra Road (the site). Identification of the trees was provided by the client on 16/09/2022. The aim of this report is to provide an overview of the tree survey and to provide management recommendations to the person responsible for the risk management of the site.
Sites and Management	12 Alexandra Road is a detached property located in the residential area of Chandlers Ford, Eastleigh. This site is bordered to the East by the local school and the remaining cardinal points are neighbouring gardens and a dwelling. The site is a well maintained with mature shrubs and lawn. The site is managed as a garden.
Targets	Targets include third-party property. Please see individual tree observations for tree-specific targets and occupancy details.
Risk and Mitigation	Risk to a target is a combination of 1) the likelihood of a tree failure, and 2) the likelihood of the failed tree impacting that target, with associated consequences of the event. Therefore, low risk does not necessarily equate to low likelihood of a tree failing, it can also relate to low occupancy of targets. It follows, therefore, that risk can be mitigated not just by reducing the likelihood of failure, but also through reducing the likelihood of impact by target management (for example by excluding people from a target zone). However, as the main targets are external to the site, target management is not desirable or practical. Therefore, risk mitigation by target management has not been explored, and likelihood of failure is the focus of any risk mitigation recommendations.
Tree Survey Methodology	All trees, identified through the scope of work, underwent a systematic, visual inspection of their external surfaces (survey). This survey was carried out from ground level, and from within public or client-owned target areas, only. The aim of the survey is to identify any significant structural or physiological conditions of concern, evident at the time of the survey from public or client-owned target areas.

	Any significant structural features identified with the trees underwent a VALID Tree Risk Assessment in order to aid decision making. Only trees where recommendations have been made were recorded and communicated in this report. These may be found in the <i>Schedule</i>. Tree tags were not used as part of this survey. The tree numbers relate to the plans shown in <i>Appendix 1</i>. A preliminary inspection interval has been set at 3 years. Therefore, for all trees, including those <u>not</u> listed in the <i>Schedule</i>, the default re-inspection period is 3 year from the date of this report.
Generic Limitations	Trees are dynamic, living organisms and their condition is subject to change throughout their lifetime. All observations and recommendations relate solely to the arboricultural condition of the tree at the time of the inspection. Trees should be surveyed periodically and after significant change to their environment or situation. It is not possible to eliminate all risk associated with trees because even those of apparently good condition can fail when the forces acting upon them exceed their inherent strength; some risk must be accepted to experience the benefits that trees provide. The survey involved minimal interference with the natural environment due to the emphasis on conservation management. Where vegetative ground cover and climbing plants obscured the survey of individual trees from the target areas, removal of these obstructions was only recommended where symptoms of defects, or target occupancy, gave reasonable reason to do this.
Site Visits	Site visit was carried on 16/09/2022
Site Specific Limitations	No site specific limitations were observed
Recommendations	See Schedule
Re-survey	Re-survey must occur within 3 years, by September 2025

T1 - Ash - *Fraxinus excelsior*

Observations

T1 is a mature tree located in the northern corner of the garden. Sitting adjacent the neighbouring garden and school boundary.

There is garden structure adjacent the tree.

There has been no significant changes to the adjacent ground.

T1 is approximately 18m tall and is triple stemmed from 1.6m from ground level. The diameter below this point is 111cm. The three stems measure a diameter of 39cm, 46cm and 51cm.

The crown spread is as per the following cardinal points;

Eastern - 5m Southern - 7m Northern - 8m Western - 7m

The tree has an unusual growth habit on the main stem at 1m. This may indicate that it was an old coppice stool or is the result of 2-3 trees which have grown in unison. There is also a large burr at 1m on the eastern side approx. 500mm wide. Both these features are on the eastern side of the tree.

There is a recessed buttress cavity/void from ground level on the eastern side the stem with a 250mm wide opening which is approx. 500mm in height this presented an approximate circular internal void with a 300mm depth to the back wall. There was an area of decay on the back wall, on probing this extended to an extra 300-350mm in depth.

Above this cavity is another unusual cavity between the burr and unusual growth feature. It is approx. 50mm wide and 270mm deep.

This linked cavity feature extends beyond 1.5m from the ground level in the centre of the tree.

Above this cavity feature 2no. *Inonotus hispidus* fungal brackets were visible.

Below these fungal brackets was necrotic bark and associated staining.

These 2 cavity features and the location of the fungal brackets are all linked decay features.

On the northern side of the stem at ground level there was a buttress cavity 200mm wide, 270mm high and 250mm deep.

Surface roots were present on the eastern side of the tree 2m from the main stem.

The tree main stems, primary and secondary branches appeared normal with no significant features.

Overall the canopy showed signs of historic deadwood removal and with some localised epicormic growth. The outer canopy is showing signs of localised thinning on the southern aspect which is associated with Ash Die Back.

Discussion

Linked Cavity Feature

This historic feature is likely the result of several individual decay features which over time have linked and created a significant cavity /void with associated dysfunctional tissue, this has exacerbated potential structural issues.

The tree has responded to this feature with increased buttressing and wound wood around the opening and has been doing this for some time.

Inonotus hispidus

This is a known decay fungi for this species of tree.

This species creates a simultaneous white rot form of decay which breaks down the cellulose and lignin in the affected area.

The effect of this fungi is significant and can result in stem or branch failure.

It is likely that some or all of the cavities in the tree are as a result of these particular fungi.

The location of the fungi is also significant as it is just below one of the unions of the triple stem.

Ash Die Back

This is a relatively new fungal based pathogen affecting firstly the leaves and small twigs with thinning and die back and often resulting in tree death. It is known for its fast infection rate and associated decline in overall tree health.

Early signs of this fungal disease are evident and not a significant issue at this time but may be relevant in the trees management .

Conclusion

It is clear that this tree has been responding to cavity formation and overall loss of strength for some time.

It is clear that a central column of decay to beyond 1.5m is present.

However due to the trees triple stem formation, the extent of decay and continuing loss of strength due to *Inonotus hispidus* the risk of a stem failing is high.

Consideration has also been given to Ash Die Back affecting the long term viability of tree for the future.

Recommendations

Given all the issues facing the tree and its location it is recommended to fell the tree and replant with a suitable garden tree.

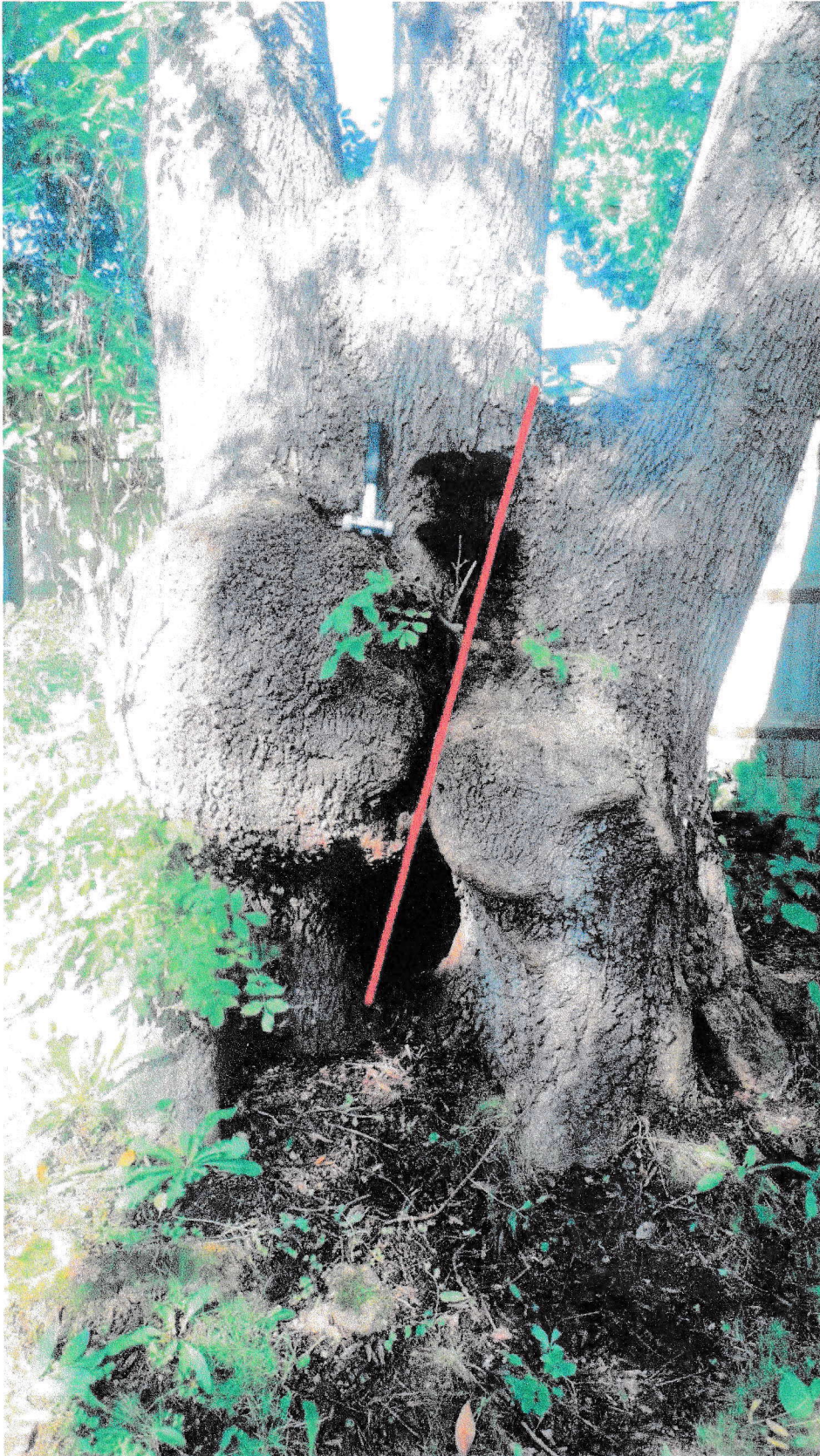
Photographs



T1 from the east



T1 from the south



Close up of the linked decay feature and *Inonotus hispidus* and the most likely point of failure, represented by the red line.



The basal cavity with a sounding hammer for scale.

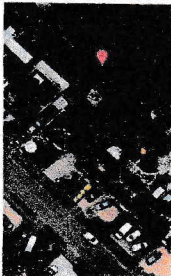
Summary

Risk

European Ash



Tree Details and Location



Highest Risk	Not Acceptable
Risk reduction	3m reduction
Tree Management	
Review Year	2022
Date Assessed	2022-10-12 08:44 am
Assessed By	Matt Strand
Phone Number	07833586982
Email	Matthew.strand@shawyers.com



Species	Height (m)	Stem Ø (cm)	Crown Ø (m)
European Ash Fraxinus excelsior	18	111	15
Chandlers Ford Eastleigh			

Risk Inputs

Likelihood of Occupation



Consequences



Structure



Parked



Services



Train/Tram



Property

C



Tree



Stem



Branch



Deadwood



C

3

Moderate

Likelihood of Failure

VITALITY	V	crown density	3
ANATOMY	A	woundwood	3
LOAD	L	response growth	3
IDENTITY	I	wood properties	3
DEFECT	D	architecture	3
		H/D ratio	3
		exposure	3
		changes to the tree	3
		changes around tree	3
		species profile	A
		Age of wounds	A
		COPIT	A
		soundwood	R
		decay - extend	R
		feature or fault	R

Notes

The highest risk is stem failure



F

1

Very High