

Arboricultural Impact Assessment:

Lark House
Cornsay
Durham
DH7 9EP

Prepared for:

Wakefields Chartered Building Surveyors

On behalf of:

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Lark House
Cornsay
Durham
DH7 9EP

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Appended documents

Appendix 1 – Tree protection plan

1.0 EXECUTIVE SUMMARY

1.0.1 Dendra Consulting Ltd was commissioned by the client to undertake an arboricultural impact assessment to support a planning application for a proposed development at Lark House, Cornsay, Durham.

1.0.2 A site visit was made on the 6th December 2023 by Barry Anderson. The weather on the day of the visit was fine and dry with no significant visibility constraints.

1.0.3 Four trees and one hedgerow were surveyed. Most were assigned a low value, with the exception of T4 which has a moderate value.

1.0.4 Impacts are predicted from the following activities:

- Tree removal and tree pruning
- General construction works in proximity to trees being retained on neighbouring land
- Excavation within the RPA of tree to be retained

1.0.5 Mitigation has been recommended as follows:

- Tree pruning undertaken to current best practice standards
- The erection of protective fencing
- Hand digging within the RPA

1.0.6 Overall the proposals are likely to have a negligible impact.

2.0 INTRODUCTION

2.1 Background & Scope

2.1.1 Dendra Consulting Ltd was commissioned by the client to undertake an arboricultural impact assessment to support a planning application for a proposed development at Lark House, Cornsay, Durham. The survey was carried out in line with BS 5837 – Trees in Relation to Design, Demolition and Construction- Recommendations, 2012 (BSI 2012).

2.1.2 The property currently comprises a two-storey detached house with a small single storey extension on both the east and west elevations. It is proposed to demolish the existing dwellinghouse and replace it with a new dwellinghouse and separate double garage.

2.2 Personnel, Timing & Weather Conditions

2.2.1 A site visit was made on the 6th December 2023 by Barry Anderson. The weather on the day of the visit was fine and dry with no significant visibility constraints.

2.3 Survey Methodology

2.3.1 All observations were from ground level. Height was measured, where possible, using a clinometer and is expressed in metres. Crown spread is also expressed in metres. In dense tree cover height and crown spread may have been estimated. Stem diameter at 1.5 metres was measured using calibrated DBH tape and is expressed in millimetres.

2.3.2 A tree quality assessment is made for each tree or group of trees as recommended in BS 5837. A cascade chart based on the standard is provided as figure 1.

Figure 1 – Chart for tree quality assessment. Adapted from BS 5837.

Category	Criteria		
Category U Trees unsuitable for retention. Trees in such a condition that they cannot be realistically retained for longer than 10 years	<ul style="list-style-type: none"> • Dead, dying or dangerous trees • Trees with serious structural defects • Trees with serious physiological defects 		
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural & conservation values
Category A Tree of high quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species. Particularly of rare or unusual species. Trees forming essential parts of a group	Trees, groups or woodlands of particular visual importance.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value.
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be categorised in the higher category but are downgraded because of impaired condition.	Trees present in numbers such that they attract a higher collective rating than they would as individuals.	Trees with material conservation or other cultural value.
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 15cms.	Trees not qualifying in higher categories	Trees present in groups or woodlands that do not possess significant landscape values.	Trees with no material conservation or cultural value

2.4 Root Protection Area

2.4.1 The Root Protection Area (RPA) is represented by an area in m² around a tree which acts as a protective zone. In our schedule of trees it is expressed both as the RPA and as the Root Protection Radius (RPR). The RPR is a figure given in metres used to identify the radius of a circle around a tree which serves to act as the RPA. In certain circumstances the shape of the RPA may be altered to suit site specific factors such as the presence of buildings, roads, other trees etc.

3.0 REPORT FINDINGS

3.1 Survey Summary

3.1.1 Four individual trees and one hedgerow were surveyed. The full results of the survey are provided in section 8.0. The trees were examined for physiological and structural defects. Remedial works for such defects have been provided where appropriate, and this has been recommended regardless of development. **Please note that some of this work may be superseded by recommendations required for development purposes.** The results of the tree quality assessment are summarised in figure 2 below.

Figure 2 – Summary of tree quality assessment

Category	Tree/Group numbers
High	None
Moderate	T4
Low	T1, T2, T3, H1
Unsuitable for retention	None

3.2 Limitations

3.2.1 In the absence of changes to the site layout, the details specified within this report are valid for a period of two years.

4.0 IMPACT ASSESSMENT

4.1 Assessment Process

4.1.1 This section of the report identifies and evaluates impacts in the absence of any mitigation. Mitigation is then detailed in section 5.0 of the report. Impacts are categorised into pre development, development stage and post-development phases.

4.2 Pre-development Tree Work

4.2.1 The proposals will require the removal of T2. This is a low value tree.

4.2.2 It is recommended that T4 is pruned above the access road to allow for more clearance. Currently the branches are approximately 3m above ground level. Pruning to provide 5m clearance will greatly reduce the risk of damage when materials are being brought onto site.

4.3 Site Clearance and Demolition

4.3.1 Given the scale of the demolition, and the distance from any trees, damage during this stage is considered unlikely.

4.4 Development Stage

4.4.1 Once construction is in progress it is possible that general construction works such as the passage of pedestrians/vehicles, storage of materials, etc, could result in damage to trees being retained. This can lead to the decline or death of the trees in the years following construction.

4.4.2 The proposed new garage narrowly breaches the RPA of T1. Standard construction methods could result in significant root damage.

4.5 Post Development Conflicts

4.5.1 Potential post development tree/resident conflicts such as encroachment, shading, leaf fall, honeydew, etc usually arise from the erection of buildings

close to large trees. Such problems are subjective and depend entirely on different attitudes to trees. Consequently, the impacts are difficult to predict with any degree of accuracy. In this instance, due to the very low numbers of trees present around the property, and the distance from the trees to the property, the potential for such impacts is considered to be very low.

5.0 MITIGATION

5.1 Tree planting and pruning

5.1.1 The loss of T2 will result in a negligible impact only. No compensation is required.

5.1.2 All tree pruning will be undertaken by a suitably trained and qualified tree surgeon working to current best practice.

5.2 Site Clearance and Demolition

5.2.1 During the demolition stage protective fencing of the types shown in figures 3 and 4 below will be erected once the tree pruning/felling works have been completed. Signs will be attached to the fencing stated that it must not be moved. The location of the fencing is shown on appendix 1.

5.3 Development Stage

5.3.1 The protective fencing detailed above will remain in place throughout the construction stage.

5.3.2 The breach of RPA of T1 is considered to be minor and in this case acceptable. However excavation using a machine can result in roots being torn back toward the main stem, increasing the damage beyond the working area. Therefore in area hatched on the tree protection plan the excavations for the foundations will be dug by hand. Roots will be severed using a hand saw or bypass secateurs.

5.4 Post Development Tree Management

5.4.1 No special considerations required in this instance.

Figure 3 – Default protective fencing for trees on demolition/development sites.

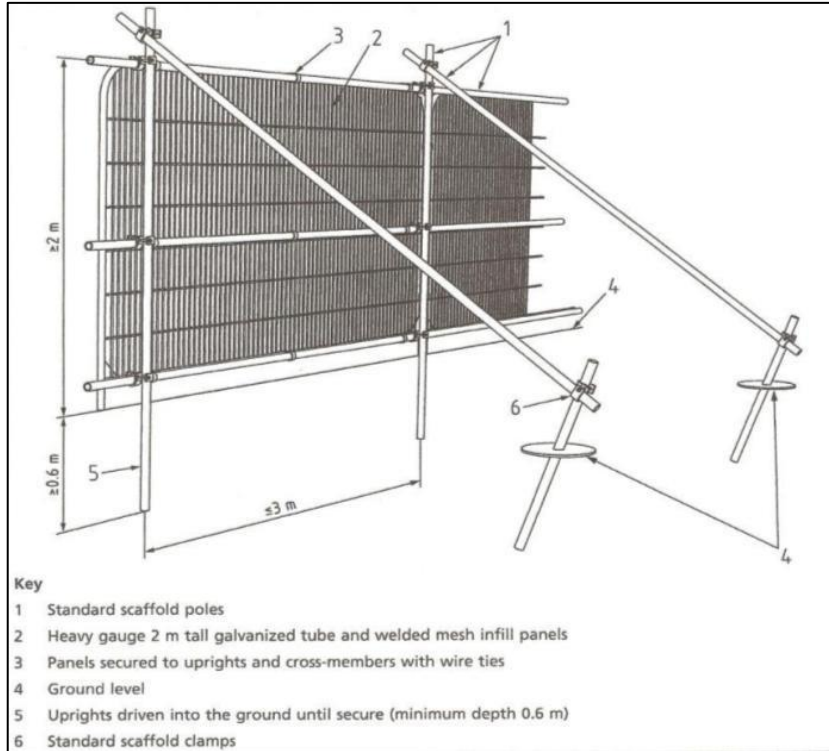
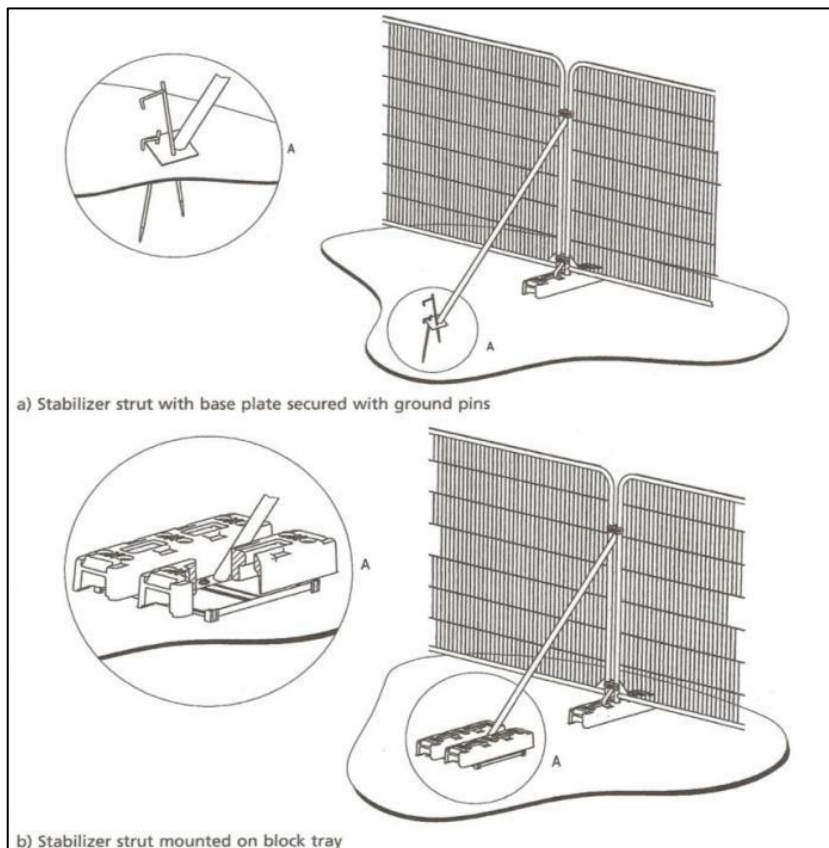


Figure 4 – Alternative protective fencing for trees on demolition/development sites.



[Figures 3 & 4 reproduced with the permission of the British Standards Institute].

6.0 SUMMARY OF IMPACTS AND MITIGATION

6.1 The impacts and mitigation criteria shown in figure 5 below have been used to assess the impacts of the proposed development, which is summarised in figure 6.

Figure 5 – Impact assessment parameters and predictions

Assessment parameters	Measure of impacts
Nature and Magnitude of impact	Major negative Negative Minor negative Neutral / Negligible Minor positive Positive Major Positive
Extent of impact	Site level Street level Local level District level County level National level
Probability that impact will occur	Certain / Highly likely Likely Possible Extremely unlikely

Figure 6 – Site impacts before and after mitigation.

Proposed activity	Predicted impact without mitigation	Assessment of impact without mitigation	Proposed Mitigation	Assessment of impact with mitigation
Vehicles driving below canopy of T4	Damage to branches of tree	Negative Site level Possible	Tree to be pruned. Work undertaken to current best practice	Neutral Highly likely
Tree removal	Loss of low value tree	Negligible Site level Highly likely	None proposed	Negligible Site level Highly likely
General construction works in proximity to trees outside the working area	Damage to roots, stems and branches of trees outside the working area	Negative Site level Possible	Protective fencing to be erected	Neutral Highly likely
Excavation of RPA for foundation of garage	Damage to roots of tree being retained	Negative Site level Highly likely	Hand digging within RPA	Neutral Highly likely

7.0 REFERENCES

BSI (2012) *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*. British Standards Institution. London.

8.0 SCHEDULE OF TREES

KEY

NR: Not recorded

Age: Y = Young, SM = Semi mature, EM = Early mature, M = Mature, OM = Over mature

Estimated Remaining Contribution: Expressed in years

Recommendations for health and safety reasons are not highlighted. Recommendations for development purposes are highlighted in **RED**

No.	Species	Height (m)	Stem diam. (mm)	Crown Spread (m)				Height of main canopy (m)	Height of first significant branch (m)	Direction of first significant branch	Age class	Estimated remaining contribution	Comments	Recommendations	Tree quality Assessment	RPA (m ²)	RPR (m)
				N	E	S	W										
T1	Ash	9.0	470	4.0	4.0	4.0	5.0	2.0	NR	NR	EM	20+	Minor deadwood in crown. Unidentified fruiting body near the stem base	No action required at the present time	C1	100	5.6
T2	Western red cedar	5.0	210	1.0	1.0	1.0	1.0	0.5	NR	NR	SM	40+	No major defects	Fell for development	C1	20	2.5
T3	Holly	4.0	250	3.0	3.0	3.0	2.0	0.5	NR	NR	EM	40+	No major defects	No action required at the present time	C1	28	3.0
T4	Sycamore	15.0	950	6.0	8.0	8.0	7.0	3.0	NR	NR	M	40+	No major defects	Crown lift over access track to 5m	B1	408	11.4
H1	Hedge	2.0	150	1.0	1.0	1.0	1.0	1.0	NR	NR	EM	40+	Fragmented hedge	No action required at the present time	C1	10	1.8

KEY

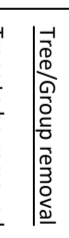
Tree retention category

- Category A ●
- Category B ●
- Category C ●
- Category U ●

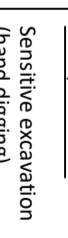
Tree Constraints



Root Protection Area



Tree/Group removal



Trees to be removed

Tree protection



Sensitive excavation (hand digging)



Protective fencing

Scale: 1:200 @ A3

The original of this plan was produced in colour - a monochrome copy should not be relied upon

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