

Arboricultural Impact Assessment and Method Statement

Prepared for: Adrian & Cory Learer

Site: 23 Highfields Grove, London N6 6HN

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Contents

Chapters	Content	Page no.
1.0	Instruction	1
2.0	Statement of purpose	1
3.0	Associated documents	1
4.0	Report Limitations	1-2
5.0	Methodology	2
6.0	Arboricultural impact assessment	2-3
7.0	Statutory Protection	3
8.0	Tree Protection Plan details	4
9.0	Preliminary Method Statement	4-5
10.0	Sequencing of works	6
11.0	Arboricultural supervision	6
12.0	Conclusion	6
Appendix 1	Tree survey schedule	
Appendix 2	Tree protection plan	
Appendix 3	List of contacts	
Appendix 4	Document record	



1.0 Instruction

1.1 Artemis Tree Services Itd has been instructed by Adrian & Cory Learer (Ref. 20897) to undertake a tree survey in accordance with BS5837:2012

Trees In relation to design, demolition and construction – Recommendations, and to produce an Arboricultural Impact Assessment, Preliminary Arboricultural Method Statement and Tree Protection Plan.

2.0 Statement of purpose

2.1 The purpose of this report is to provide local planning authorities with sufficient arboricultural information to consider the effect of the proposed development on nearby trees, and to demonstrate that trees have been properly considered throughout the development process.
The report includes an arboricultural method statement that describes how work will be undertaken to provide adequate protection of retained trees.

3.0 Associated documents and drawings

- 3.1 This report should be read in conjunction with the following documents and drawings:
 - 1. Existing and proposed plans: 21041-3-011 and 21041-3-111
 - 2. British Standards Institute BS5837:2012 Trees in relation to design, demolition and construction Recommendations
 - 3. Tree Protection Plan ATS-TPP-20897

4.0 Report limitations

- 4.1 The tree survey has been undertaken on a preliminary basis only. The survey must not be used in place of a tree risk survey. In cases where I consider further investigation is required, or where trees require immediate attention, this will be noted under the preliminary management recommendations of the survey.
- 4.2 The trees were viewed from public vantage points and within the site boundaries only. I had no access to third-party property.



4.3 I have not been instructed to identify impacts or risk to the current/proposed property in relation to subsidence. No soil samples have been taken.

5.0 Methodology

- 5.1 I visited the site on the 9th of July 2021 to undertake the tree survey. During my visit I recorded details of thirteen trees in and adjacent to the rear garden of 23 Highfields Grove and one tree in the front garden.
- I have categorised trees recorded in the survey in relation to their quality and value (in a non-fiscal sense) in accordance with Table 1 "Cascade chart for tree quality assessment" within BS 5837:2012, as described below:
 - **U** Trees unsuitable for retention Those in such a condition that they cannot be realistically be retained as living trees in the context of the current land use for longer than 10 years
 - A Trees of high quality With an estimated remaining life expectancy of at least 40+ years
 - **B Trees of moderate quality** With an estimated remaining life expectancy of at least 20-40 years
 - **C Trees of low quality** with an estimated remaining life expectancy of at least 10-20 years, or young trees with a stem diameter below 150mm
- 5.3 A schedule of trees surveyed in accordance with BS5837:2012 'Trees in relation to design, demolition and construction Recommendations' can be found in appendix 1, along with a key for survey data.

6.0 Arboricultural impact assessment

Table 1: Summary of impacts	
Tree removal	Т3
Facilitation pruning	None
Demolition within RPA	None
New surfacing within RPA	None
New structures within RPA	None



- 6.1 The removal of one tree (T3) is required to facilitate construction of the proposed extension. The removal of this tree will not impact visual amenity of the area as this tree can only be viewed from the rear garden of 23 Highfields Grove. All surrounding trees will be retained.

 Although visual amenity will not be impacted, replacement is proposed to offset the loss of T3. A tree of the same genera (Sorbus) or species growing to a similar mature size would be a suitable replacement for the garden size and space available.
- 6.2 No other tree removal or facilitation pruning is required to facilitate the proposed construction.
- 6.3 No excavation is required with the RPAs of the retained trees. Tree protection barriers shall be installed as shown on the tree protection plan (ATS-TPP-20897) to prevent damage to retained trees through compaction or contamination of soil.
- 6.3 Details of tree protection barriers and general tree protection measures are detailed within the preliminary arboricultural method statement (7.0).
- 6.4 Although the construction is situated outside of the RPA of all retained trees, dependent on the soil type, retained trees may have an influence on the soil beyond their calculated RPA. Given the proximity of retained trees to the proposed construction, it is recommended that a Structural Engineer is consulted to assess the implications of the tree retention on the required foundation design.

7.0 Statutory protection

7.1 Artemis Tree Services Ltd have not been instructed to establish the presence of Tree Preservation Orders (TPO) or Conservation Area Designation at this stage. The existence of any statutory protection must be checked with the Local Planning Authority (LPA) for any tree works proposed before a planning consent is given.



8.0 Tree protection plan

8.1 The Tree Protection Plan (ATS-TPP-20897) has been produced based on the supplied topographical survey and proposed plan (21041-3-111). The plan is to be used for tree issues only.

9.0 Preliminary Method statement

9.1 Tree protection barriers

- 9.1.1 All retained trees shall be protected by tree protection barriers before any materials or machinery are brought onto the site, and before any demolition, development takes place. Tree protection barriers shall be installed around retained trees as indicated on the tree protection plan.
- 9.1.2 The protected area should be regarded as sacrosanct, and once installed, barriers shall not be removed or altered without prior recommendation by the project arboriculturist and, where necessary, approval from the local planning authority.
- 9.1.3 Default specification of tree barriers shall be used unless and alternative is agreed with the LPA Tree Officer. The default specification (Figure 1) should consist of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots.
- 9.1.4 Where tree protection barriers are to be erected on retained hard surfacing, 2m tall, welded mesh panels on rubber or concrete feet shall be installed (Figure 2). The fence panels shall be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers should be at least 1 m and should be uniform throughout the fence. The panels shall be supported on the inner side by stabilizer struts, secured with ground pins. Or it is otherwise unfeasible to use ground pins, e.g., due to the presence of underground services, the stabilizer struts shall be mounted on a block tray.



Figure 1 Default specification for protective barrier (Figure 2 BS5837:2012)

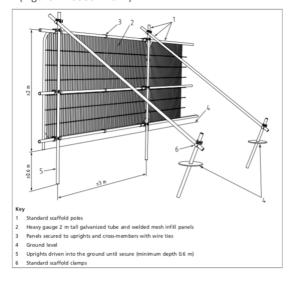
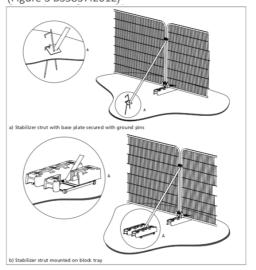


Figure 2 Above ground stabiliser system example (Figure 3 BS5837:2012)



9.2 General tree protection measures

- 9.2.1 The following measures shall be observed to prevent unnecessary damage to retained trees:
 - Machinery (e.g. diggers) must not be tracked across unprotected soil within Root Protection Areas (RPA).
 - Building materials must not be stored on unprotected soil within RPA.
 - Any materials that have the potential to contaminate the soil, e.g., concrete mixing and diesel oil must not be discharged within 15m of the tree trunk.
 - The topography of the site must also be considered to avoid materials hazardous to the tree's health washings towards its rooting area.
 - Fires must not be lit in close proximity to trees.
 - Notice boards, telephone cables or other services should not be attached to any part of retained trees.
 - Ground levels within RPAs must not be changed.



10.0 Sequencing of works

10.1 A logical sequence of events is to be observed to avoid unnecessary damage to retained trees on site.

Table 2:	Table 2: Sequence of events				
Stage 1	Removal of T3				
Stage 2	Installation of tree protection barriers a in accordance with tree				
	protection plan				
Stage 4	Construction of proposed extension				
Stage 5	Remove machinery and material from site				
Stage 6	Remove tree protection barriers				
Stage 7	Undertake replacement planting				

11.0 Arboricultural supervision

- 11.1 In light of the minor scale of the works, there is no need for an arboricultural consultant to undertake site supervision or monitoring.
- 11.2 It shall be the responsibility of the owner and contractor to observe the requirements of this method statement. Failure to do so could result in compliance action being taken by the local authority.

12.0 Conclusion

12.1 The proposed works can proceed without detrimental impact to retained trees, so long as the provisions of this arboricultural method statement are complied with in full.



Tree ref No.	Species	Ht (m)	Dia @ 1.5m (mm)	RPA R (m) A (m2)	Crown spread (m)	Low Branches	Life stage	General observations P – Physiological condition S – Structural condition	Preliminary recommendations	Category & EC
T1	Birch (Betula pendula)	5	150	NA	NA	NA	Y	Dead tree	Fell	U
T2	Birch (Betula pendula)	11	120	1.50 7	N-1 S-2 E-2 W-1	NA	Y	Tree growing up into crown of adjacent cherry tree. P-good S-good	None	C 10+
ТЗ	Swedish whitebeam (Sorbus x intermedia)	11	240	3.00	N-4 S-1 E-4 W-2	4-N	EM	Pruning wounds on trunk from previous crown lifting. Minor deadwood in crown. Tree only visible from the rear garden of 23 Highfields Grove. P-good S-good	Remove to facilitate construction	C 20+
T4	Wild cherry (<i>Prunus</i> avium)	12	390	4.80 72	N-4 S-3 E-5 W-2.5	4-W	M	Trunk leaning slightly southeast. Asymmetrical crown. Crown reduced in height relatively recently. P-good S-good	None	B 20+
T5	Birch (Betula pendula)	12	200	2.40	N-0 S-5 E-5 W-2	3-S	Y	Situated at edge of road. Asymmetrical crown due to completion with adjacent trees. P-good	None	C 20+



Т9	18	17	Т6	
Leyland cypress (<i>Cupressus x</i> <i>leylandii</i>)	Sycamore (Acer pseudoplatanus)	Sycamore (<i>Acer</i> pseudoplatanus)	Leyland cypress (<i>Cupressus x</i> <i>leylandii</i>)	
9	10	15	10	
450	460	#500	340	
5.40 92	5.40 92	113	4.20 55	
N-3.5 S-3.5 E-3.5 W-3.5	N-3.5 S-4 E-3 W-3.5	N-3 S-5 E-5 W-2	N-3 S-3 E-3 W-3	
3-N	2-N	8- ZE	NA	
3	3	Ξ	EZ	
Tree recently reduced in height. Branch 2m below pruning points from previous height reduction. P-good S-good	Tree appears to have been topped to 5m in height in the past and more recently crown reduced to current size. P-good S-good	Situated in neighbouring garden. Tree leaning eastward toward road. Large cavity at base of trunk on rear side of trunk lean. Further investigation required to assess structural stability. P-good S-Fair	Situated directly adjacent to boundary, below crown of neighbouring sycamore (T7). P-good S-good	S-good
None	None	Notify owner of trunk cavity and potential risk of harm.	None	
C 20+	8 20+	C	C 20+	



T14	T13	T12	T11	T10
Wild cherry (<i>Prunus</i> avium)	Horse chestnut (Aesculus hippocastanum)	False acacia (Robinia pseudoacacia)	Hornbeam (<i>Carpinus betulus</i>)	Leyland cypress (Cupressus x Ieylandii)
00	10	12	12	9
420	#300	400	300	4/0
5.10 81	3.60	4.80 72	3.60	102
N-4 S-4 E-4 W-4	N-5 S-5 E-5 W-5	N-1.5 S-4.5 E-4.5 W-3	N-1.5 S-4.5 E-4.5 W-3	N-3.5 S-3.5 E-3.5 W-3.5
2-N	NA	3-NE	4-E	3.5-N
Σ	m S	Z	EZ	Ξ
Large bark wound on northeast side of trunk. Typical woundwood development at edge of wound. Tree crown reduced relatively recently. Slightly sparse upper crown. P-Fair S-good	Tree situated in neighbouring land. Tree viewed from rear garden only. P-good S-good	Pruning wound 1.8m from ground level (currently no visible woundwood development. Minor deadwood in crown. P-good S-good	Asymmetrical crown due to competition with neighbouring trees. Minor pruning wound on trunk. P-good S-good	Iree recently reduced in height. Branch stubs 2m below pruning most recent pruning points from previous height reduction. P-good S-good
None	None	None	None	None
B 10+	B 20+	8 20+	8 40+	20+



Survey Key

Diameter (mm)

by BS:5837 Annex C Stem diameter in millimetres measured at 1.5m above ground level. Where the stem is divided below 1.5m, measurement is taken as directed

RPA - Root Protection Area

RPA circle radius is determined from Annex D of BS:5837.

R- Radius

A – Area

Branch Spread (m)

Radial crown spread in metres, measured for each of the four cardinal points of the compass from the centre of the trunk.

Low branches

Height above ground in metres of the lowest branch and use of the 4 cardinal points of the compass

Age class

- (NP) Newly planted a tree within 3 years after planting
- (Y) Young a tree within its first one third of life expectancy
- (EM) Early Mature a tree within its second third of life expectancy
- (M) Mature a tree in its final one third of life expectancy
- (OM) Over Mature a tree having reached its maximum life span and is declining in health and size due to old age
- decay fungi, holes, wounds and large dead branches (V) Veteran – a tree in the second or mature stage of its life and has important wildlife and habitat features including; hollowing or associated
- age, size and condition (A) Ancient – a tree in the ancient or third and final stage of their life that is of interest biologically, aesthetically or culturally because of its



Physiological Condition

GOOD – a tree in a healthy condition with no significant problems

FAIR – a tree generally in good health with some problems that can be remediated

POOR — a tree in poor health with significant problems that can't be remediated

DEAD – a tree without sufficient live material to sustain life

Structural Condition

An assessment of the structural/safe condition of the tree categorised into:

GOOD – a tree in a safe condition with no significant defects

FAIR – a tree in a safe condition at present but with defects or with significant defects that can be remediated

POOR – a tree with significant defects that can't be remediated

EC - Estimated remaining contribution in years (based on the species and its current condition)

<10 Up to 10 years

10+ 10 years or more

20+ 20 years or more

40 years or more

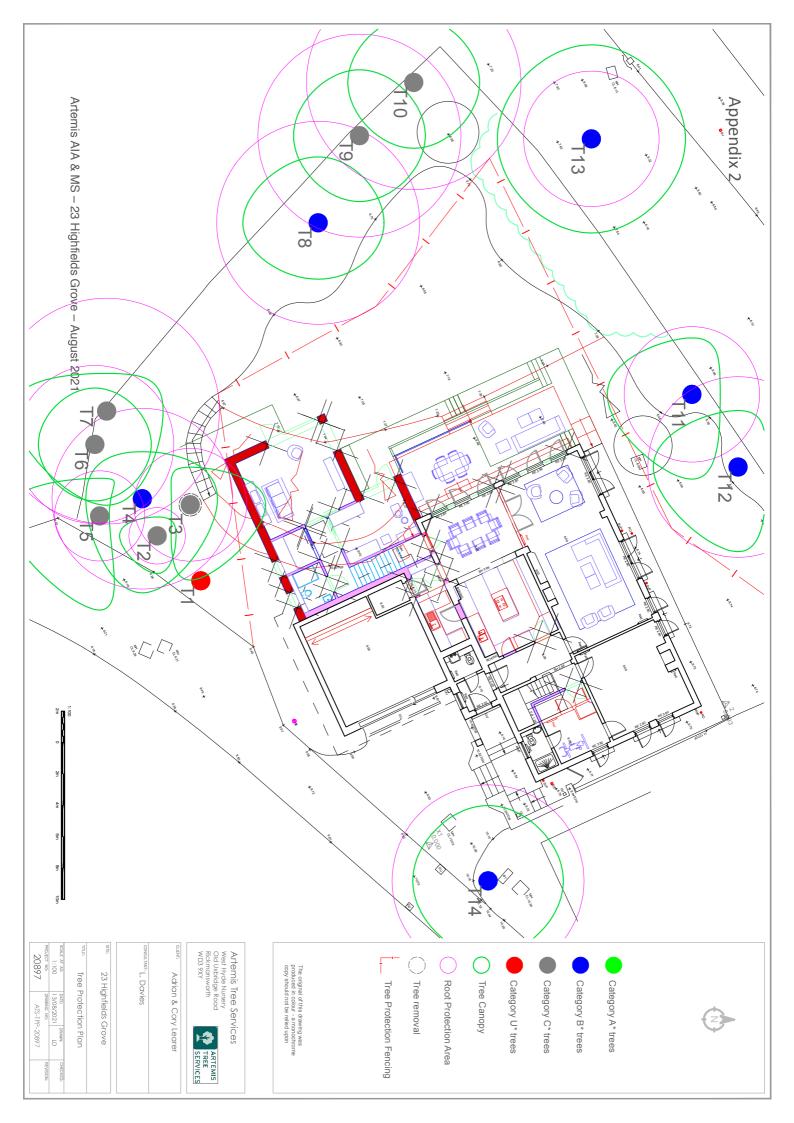
Category (Tree quality assessment)

Category U – Tree in poor condition that cannot realistically be retained for longer than 10 years

Category A — Trees of high quality

Category B – Trees of moderate quality

Category C – Trees of low quality



List of contacts

Name	Position	Contact
	Client	
	Project Manager	
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	LPA Tree Officer	
	Site Manager	

Document	Editor	Signature	lssue number	Date
Artemis AIA & AMS 23 Highfields Grove– March 2021	Lee Davies	Davies	01	13/08/2021