

Pre-Development Arboricultural Report:

Vanbrugh House
Bridle Path
East Boldon
NE36 0PA

Prepared for:

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CONTENTS

1.0	Introduction.....	Page 3
1.1	Background and scope	
1.2	Personnel, timing and weather conditions	
1.3	Survey methodology	
1.4	Root protection	
2.0	Report findings.....	Page 5
2.1	Tree survey	
3.0	Trees and development.....	Page 6
3.1	Tree retention/removal	
3.2	Development within the protected area	
3.3	Post development issues	
3.4	Arboricultural Impact Assessment and Method Statement	
4.0	Schedule of trees.....	Page 10
	Appended documents	
	Appendix 1 – Tree constraints plan	

1.0 INTRODUCTION

1.1 Background & Scope

1.1.1 Dendra Consulting Ltd was commissioned to undertake this survey and assessment by Mr. D. Fasa. The scope of the contract was to undertake a pre-development arboricultural survey of the trees within the grounds of Vanbrugh House, Boldon. The survey was carried out to BS 5837: Trees in Relation to Design, Demolition and Construction – Recommendations, 2012. The report was requested in order to advise on a potential future planning application at the site.

1.2 Personnel, Timing & weather conditions

1.2.1 The survey was undertaken on 24th June 2021 by Barry Anderson. The weather conditions during the survey were fine and dry.

1.3 Survey methodology

1.3.1 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.

1.3.2 A tree quality assessment is made for each tree or group of trees as recommended in British Standard 5837 (2012). The resulting categories for the trees are as follows: U = Unsuitable for retention, C = Low value, B = Moderate value, A = High value. The associated number represents the assessment criteria; 1 = mainly arboricultural qualities, 2 = mainly landscape qualities, 3 = mainly cultural and conservation qualities. A cascade chart based on the recommendations in BS5837 is provided as figure 1.

Figure 1 – Chart for tree quality assessment. Adapted from BS5837 (2012).

Category	Criteria		
Category U Trees unsuitable for retention. Trees in such a condition that they cannot be realistically retained for longer than 10 years	- 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

1.4 Root protection

1.4.1 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.

2.0 REPORT FINDINGS

2.1 Tree survey

2.1.1 A total of nine trees were surveyed. The full results of the survey are provided in section 4.0. The trees were examined for physiological and structural defects. Remedial works for such defects have been provided where appropriate. The results of the tree quality assessment is summarised in figure 2 below.

Figure 2 – The results of the tree quality assessment

Category	Tree/Group numbers
High	None
Moderate	T1, T2, T5, T6, T8, T9
Low	T3, T4, T7
Unsuitable for retention	None

2.1.2 A small number of shrubs were present in the garden but were not included in the survey due to their size.

2.1.3 The details specified within this report are valid for a period of two years unless otherwise recommended in section 4.0.

3.0 TREES AND DEVELOPMENT

3.1 Tree retention/removal

3.1.1 The removal of C category trees is often unlikely to result in any significant arboricultural impacts. B and A category trees should, where possible, be retained and protected within a development. Mitigation for the removal of trees, particularly B and A category trees, will be required.

3.2 Development within the protected area

3.2.1 Development within the RPA or the Crown Spread (the protected area) is not recommended and should be discouraged. However in some cases it is unavoidable and may be permitted. Development within the protected area will only be acceptable if it does not significantly compromise the above or below ground constraints provided by the trees. The following activities would generally not be acceptable within the protected area:

- Alterations to the existing ground levels greater than 50mm.
- The construction of strip foundations.
- The construction of roads using standard construction methods. Low level usage roads (such as driveways or parking bays) may be permitted.
- The use of pin kerbs.
- The installation of underground services using standard excavation and installation methods.
- The installation of any impermeable hard surface which covers more than 20% of the RPA.

3.2.2 The following are examples of development which may be considered acceptable within the RPA. However these methods are site specific and are not suitable in all situations:

- Foundations constructed using a low invasive technique. This can involve the use of piles, beams, slabs, suspended floors, etc. However

please note that in certain circumstances even these methods require some degree of excavation and this would not be permitted if it were to result in significant changes in soil levels or the excavation of trenches. Also note the restrictions above regarding the level of intrusion into the RPA using an impermeable hard surface.

- Low level use vehicular access points and driveways. These would be subject to the same restrictions regarding the level of intrusion by an impermeable surface. Permeable surfaces are preferred. No pin kerbs can be used and edging materials will need to be located at ground level and supported on pins driven into the ground.
- Specially constructed roads and driveways. These would incorporate a three dimensional cellular confinement system to reduce compaction of the rooting environment.
- Installation of services using low invasive techniques. This could involve microtunnelling, pipe ramming, impact moling, or the use of hand digging under direct supervision of an arboriculturist.

3.3 Post development issues

- 3.3.1 Potential post development tree/resident conflicts such as encroachment, shading, leaf fall, honeydew, etc usually arise from the erection of residential properties 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. However the relative positioning of buildings to trees, particularly dwelling houses, should be considered at the start of a project in order to reduce the potential for such impacts.

3.4 Arboricultural Impact Assessment and Method Statement

- 3.4.1 Once a suitable design for the site has been agreed an AIA should be completed in order to identify any potential impacts on the trees and identify appropriate mitigation measures such as protective fencing, special construction methods or ground protection measures. The AIA should consider the following:

- Pre-development impacts such as felling or pruning
- Mid-development impacts such as demolition and construction.
- Post-development impacts such as tree/building conflicts caused by excessive shading of buildings.
- Mitigation and compensation measures such as protective fencing, restrictions on working methods and new planting.

3.4.2 An arboricultural method statement may also be required if trees are to be affected by the proposals. The method statement will provide detailed specifications for works likely to affect trees and is often requested as a planning condition.

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

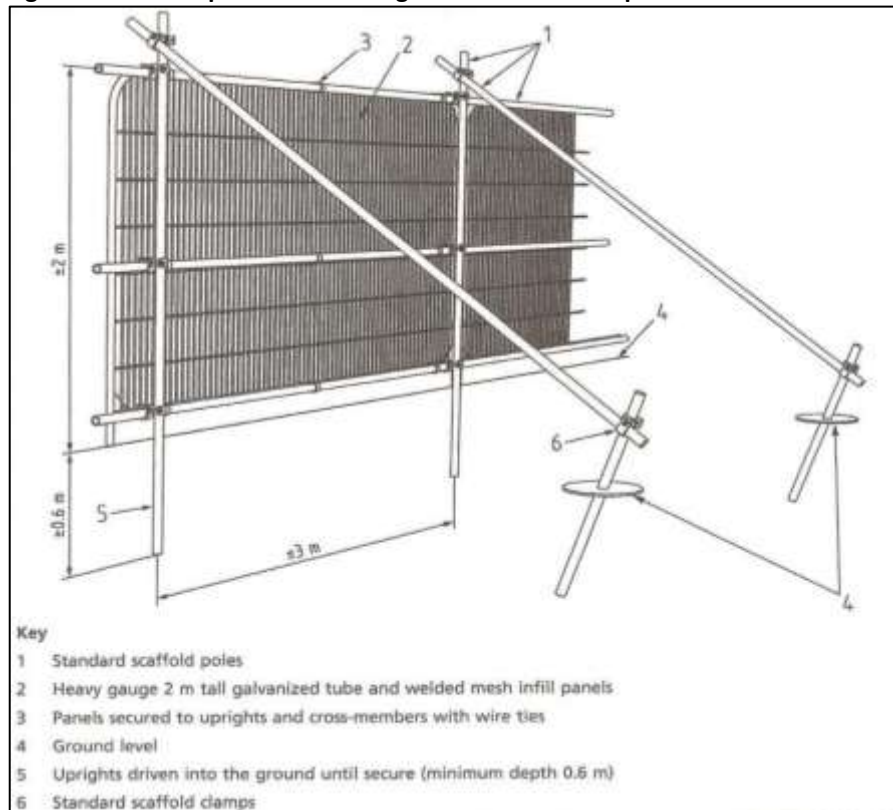
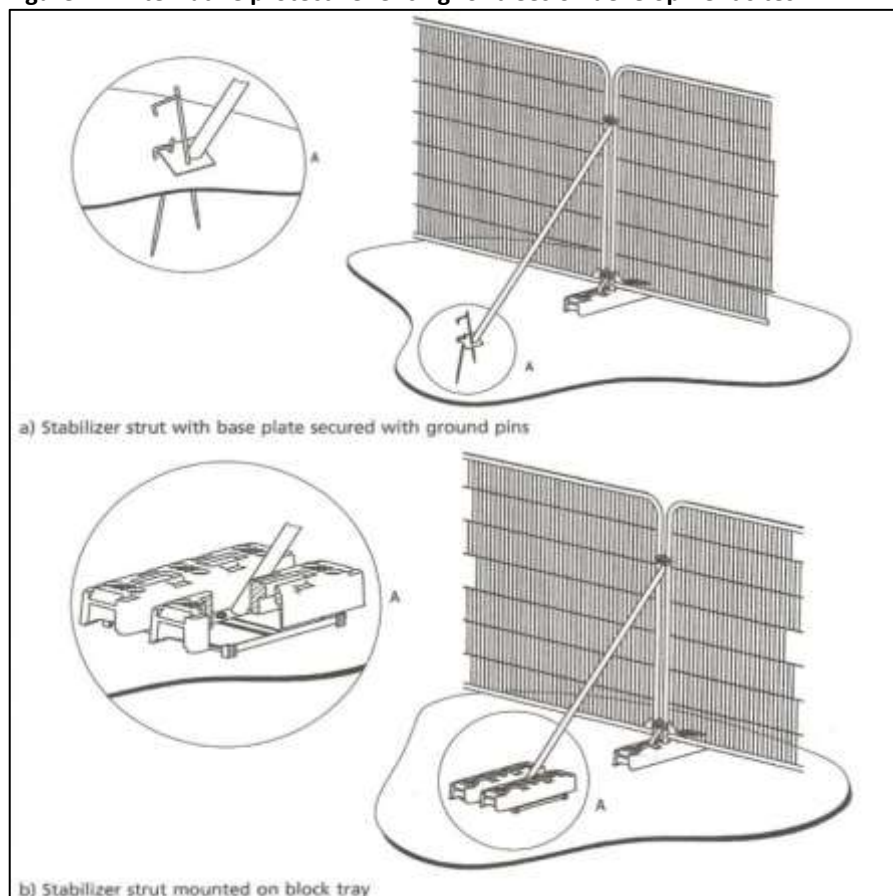


Figure 4 – Alternative protective fencing for trees on development sites.



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

4.0 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.

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	Cypress	7.0	180	1.0	1.0	2.0	2.0	1.5	NR	NR	SM	40+	Asymmetric crown. Close to property	No action required at the present time	C1	15	2.2
T2	Western red cedar	8.0	190	3.0	1.0	2.0	3.0	1.5	NR	NR	SM	40+	Asymmetric crown. Close to property	No action required at the present time	C1	16	2.3
T3	Silver birch	10.0	220	4.0	3.0	4.0	3.0	2.0	NR	NR	EM	40+	No major defects	No action required at the present time	B1	22	2.6
T4	Sycamore	11.0	800	6.0	6.0	7.0	5.0	2.5	NR	NR	M	40+	Dense ivy on stem	No action required at the present time	B1	290	9.6
T5	holly	5.0	330	2.0	3.0	3.0	2.0	1.5	NR	NR	M	40+	Dense ivy on stem	No action required at the present time	C1	49	4.0

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										
T6	Pear	11.0	500	3.0	4.0	3.0	4.0	3.0	NR	NR	M	10+	Sparse crown. Potentially in decline	Monitor annually	C1	113	6.0
T7	Sycamore	15.0	630	2.0	5.0	6.0	5.0	3.0	NR	NR	M	40+	Fork at 5m. Asymmetric crown to south	No action required at the present time	B1	180	7.6
T8	Maple	8.0	260	3.0	2.0	3.0	2.0	2.5	NR	NR	SM	40+	No major defects	No action required at the present time	C1	31	3.1
T9	Maple	7.0	230	4.0	3.0	4.0	2.0	2.5	NR	NR	SM	40+	No major defects	No action required at the present time	C1	24	2.8

KEY

Tree retention category

- | | |
|------------|---|
| Category A |  |
| Category B |  |
| Category C | |
| Category U |  |

Tree Constraints

- Crown Spread
- Root Protection Area

Scale: 1:200 @ A3

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

Project details

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