BY APPOINTMENT
TO HER MAJESTY THE QUEEN
TREE SURGEONS
F.A. BARTLETT TREE EXPERTS CO. LTD.

Bartlett Consulting

BS: 5837 TREE SURVEY & TREE CONSTRAINTS PLAN

Our Ref: JPL/20030/R1/sh

Date: Monday 27th January 2020

CLIENT:	Mrs Svetlana Basovsky
SITE ADDRESS:	121 King Henry's Road Hampstead London NW3 3RB.
DATE & TIME OF VISIT:	Thursday 23rd January 2020, 10.00am
PEOPLE PRESENT:	Mr James Percy-Lancaster (Bartlett Consulting) Mr Nicolo Parodi (Stefano Marinaz Landscape Architecture)
REPORT COMPLETED BY:	Mr James Percy-Lancaster

Summary:

The following report evaluates the trees within and adjacent to the above site, using the criteria and guidance set out in the British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.

The wider amenity and landscape values of the trees, as well as their useful life expectancies are determined, and as a result, a category grading to all trees for retention using the "Cascade Chart for Tree Quality Assessment" is assigned.

A Tree Constraints Plan has also been drawn and appended to the report. The Plan illustrates the tree locations, their above and below ground constraints and their spatial requirements with any proposed development.

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1.0 SCOPE OF REPORT

1.1 Instruction

Bartlett Consulting has been instructed to undertake a tree survey in accordance with British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*, for the trees and vegetation within the boundary of 121 King Henry's Road, Primrose Hill, London that have the potential to influence a proposed development, which therefore must be considered as a constraint within the project planning.

1.2 Documents & Supporting Information

Bartlett Consulting was provided with the following documentation and plans prior to the site visit & tree survey. They were sent via email in both PDF and DWG file format:

- General Arrangement Plan_Rear Garden, Drawing No. 248-000-001
- General Arrangement Plan_Front Garden – Drawing No. 248-000-002
- General Arrangement Plan_Rear Garden – For Planning Tree Removal, Drawing No. 248-P-000-003

1.3 Aspects Included within Report

The tree survey included within this report is fully compliant with British Standard 5837: *Trees in Relation to Design, Demolition and Construction – Recommendations*. The tree survey schedule, included within Appendix 3 details; species name, various physical dimensions, notable observations and prescribes any preliminary tree works, whilst categorising the trees to their respective landscape/cultural value and perceived life expectancy and finally concluding with identifying those trees suitable for retention.

The tree survey has been conducted in accordance with the principals of the Visual Tree Assessment (VTA), a method developed by Mattheck & Breloer (1994); this is preliminary in nature and must not be misinterpreted as a detailed tree condition inspection.

The prescribed tree works only pertain to trees that pose an immediate and serious hazard to persons and property, or may be affected by a pathogen or pest of known contagion and pose a risk to other trees.

This report is accompanied with a Tree Constraints Plan (TCP), accurately detailing the positions of trees and vegetation, illustrating the physical dimensions of the crowns as per the cardinal points, as well as the calculated Root Protection Area (RPA) of each tree.

Modified RPA's will be illustrated if known below ground level obstructions exist, whilst tree shade patterns and future canopy spread for young trees will also be illustrated where necessary.

1.4 Aspects Excluded from Report

The prescribed tree works contained within this report do not take into consideration possible facilitation pruning. This report does not include an Arboricultural Implications Assessment (AIA), Arboricultural Method Statement (AMS), or a Tree Protection Plan (TPP).

The contents of this report do not include discussions regarding subsidence and/or heave as a result of retention or tree removal, nor does this report consider the water demands of trees present to determine foundation design and depth. If required, this can be provided on request.

2.0 TREE PRESERVATION ORDER & CONSERVATION AREA PROTECTION STATUS

The Town & Country Planning Act (Tree Preservation) (England) Regulations 2012 and the Town & Country Planning Act 1990 (as amended) provides legislative protection for trees within England.

A tree protection status check was conducted by Bartlett Consulting on 27th January 2020 through the London Borough of Camden Council interactive mapping website:

https://ssa.camden.gov.uk/connect/analyst/mobile/#/main?mapcfg=CamdenConservation&lang=en-gb

2.1 Tree Preservation Order (TPO) Status

Unknown

2.2 Conservation Area (CA) Status

Elsworthy Conservation Area

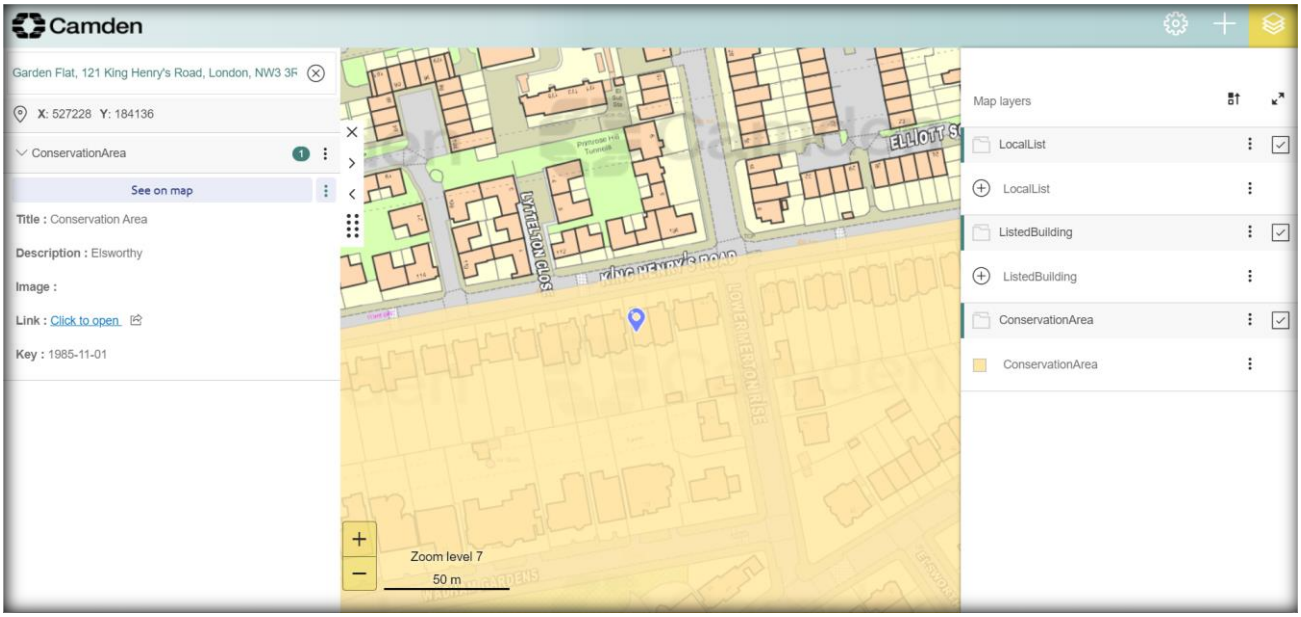

Figure 1: Showing the results obtained from the London Borough of Camden, with the site highlighted by a blue pin.

2.0 TREE PRESERVATION ORDER & CONSERVATION AREA PROTECTION STATUS (continued…)

2.3 Tree Management Implications

We have not been able to establish whether any of the trees or adjacent to this site are current subject to a Tree Preservation Order (TPO). However it has been established via accessing the Local Planning Authority website that the site does stand within a designated Conservation Area (CA), administered by the LPA; the London Borough of Camden

The CA is named: Elsworthy Conservation Area.

This status affects all trees of a stem diameter greater than 75mm, when measured at 1.5m above ground level. Therefore trees will be protected by virtue of their location in the designated CA.

Under the Town and Country Planning Act 1990 (as amended), a Section 211 Notice must be served upon the LPA, providing them with 6 weeks' notice of any intention to implement works to protected trees.

The purpose of this notice is to provide the LPA an opportunity to consider whether a TPO should be made in respect of the trees.

If consent is granted, all prescribed tree works contained within this report may be implemented, however if refused, implementation may be sought with the submission of a Section 211 Notice or TPO1APP but cannot be acted upon until full Local Planning Authority permission is granted.

Furthermore, we have also established that a Section 211 Notice was served upon the LPA and a formal response raising no objection to the removal of 1x Purple Beech (*Fagus sylvatica*) Atropurpurea, as per Application Ref: 2019/6082/T, dated 10th January 2020.

3.0 GENERAL SITE DETAILS

3.1 Description of the Site

The site is a large residential dwelling house located along King Henry's Road, a residential road located between Swiss Cottage to the west and Primrose Hill to the east. The property features a modest private rear amenity garden area.

Figure 2: Showing the front of the application site as viewed from the north (King Henry's Road).

3.2 Local Landscape and Amenity Evaluation

The site is a four storey, semi-detached residential dwelling house, located along King Henry's Road, Hampstead, a residential road located between Swiss Cottage and Primrose Hill.

The landscape and tree cover of King Henry's Road features a limited mixture of native and exotic deciduous and evergreen tree and shrub species, primarily located within the front and rear gardens of private residential dwellings.

The trees subject to the report are considered to have low public visibility and amenity value, as they cannot be easily seen from public locations, such as King Henry's Road.

3.3 Previous Surveys & Site History

We are not aware of any other surveys being conducted on site, other than the Topographical Site Survey. Nor are we aware of any historical or cultural values relating to the trees.

4.0 GENERAL TREE DETAILS

4.1 Tree Identification & Location

The trees subject to this report are located within the curtilage of 121 King Henry's Road and within adjacent land. The locations of the surveyed trees are illustrated on the Tree Constraints Plan (TCP) accompanying this report.

The accuracy of the tree locations are based entirely upon the provided Site Survey drawing. Access to the third party trees at the time of the survey was prohibited, as a result it was impossible to obtain full access around each third party tree. All trees subject to this report have been surveyed and plotted by Bartlett Consulting using a laser Distometer, a measuring tape and fixed points. Whilst this method does not guarantee accuracy provided by a land or topographical site survey, it is considered sufficient to allow the plotting of calculated Root Protection Areas.

4.2 Trees Included within Survey

Only trees that are present and have a measured stem diameter equal to or greater than 75 millimetres are included within the tree survey.

Where possible and deemed appropriate to do so, trees present within adjacent lands which are located within influencing distance will be recorded. In such instances, all observations and measurements shall be obtained from the site, unless prior consent is granted by the landowner. In these instances, all measurement will be accompanied with a * suffix.

It must be noted that all trees are outside of the application site boundary, within Spa Fields Gardens and therefore the responsibility of the London Borough of Islington Council. For the trees to be pruned properly, permission to access the land and prune the trees must first be granted by the landowner in accordance with British Standard 3998:2010 *Tree Work – Recommendations*.

4.3 Categorisation & Gathered Data

All gathered data contained within the Tree Survey Table is provided within Appendix 1 is compliant with the guidance set out within Section 4.4 of British Standard 5837: *Trees in Relation to Design, Demolition and Construction – Recommendations*.

Each tree is categorised as per the cascade chart given as Table 1 within the British Standard 5837, a copy of which is provided within Appendix 2 of this report.

5.0 TREE CONSTRAINTS PLAN

5.1 Tree Constraints

Below Ground Level Constraints

The below ground level constraint on any site will include the root system and rooting environment of trees being retained. The data gathered during the Tree Survey permits the creation of a Tree Constraints Plan (TCP). The TCP illustrates the trees location within and adjacent to the site, the physical dimensions of the main stem and crown above ground as well as the constraints below ground level caused by the calculated Root Protection Area (RPA) of each tree.

The calculated RPA is indicated by the orange broken circle on the TCP and shows the minimum area around each tree or groups of trees, subject to the Tree Survey, which is deemed to contain sufficient roots and rooting environment to maintain the current vitality of the tree. This area is as per the requirements of *British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations*.

In the first instance, the RPA should remain a construction exclusion zone and all proposed development should be planned and located outside the RPA for trees of such quality and value to be retained, essentially leaving the RPA sacrosanct.

Above Ground Level Constraints

The above ground level constraints on a development site can be numerous, resulting primarily from the current and/or ultimate crown height and spread of the retained tree, its species characteristics, such as evergreen or deciduous, the height of its crown above ground level and any "nuisance" that might be the result of a tree's proximity to living areas.

Proposed structures should be designed and/or located with due consideration of above ground constraints so as to prevent direct damage from occurring to the structure, as well as the need for unnecessary and possibly damaging tree management works due to shade and/or falling leaves affecting amenity space and living areas.

Whilst not affecting the total area of the calculated RPA, it may in some circumstances be modified. This consideration is made by the Arboriculturalist and included within the Arboricultural Implications Assessment (AIA), whilst taking into account the morphology and disposition of roots, the soil type and structure, topography and drainage, as well as any other known physical obstructions above and below ground level.

This report does not give consideration in this instance to the growth potential of trees or possible effects caused by of the obstruction of daylight to any existing building or proposed development.

Proposed structures should be designed and/or located with due consideration of this assessment and information, so as to prevent direct damage from occurring to the structure, as well as the need for unnecessary and possibly damaging tree management works.

6.0 CONCLUSIONS

6.1 Further Considerations

Once a scheme has been presented, an Arboricultural Implications Assessment (AIA) will take into account any issues relating to a proposed development design and layout of the site in regards to the retained trees.

This document will identify any trees that will require facilitation pruning, and/or removal, and those that will require replacement tree planting. Where the AIA has identified potential tree and development conflicts, we will provide recommendations for design modification and adjustment of the proposed footprint where necessary. The AIA will also provide methods of mitigation where required to ensure potential conflict does not cause damage to any retained trees.

An Arboricultural Method Statement (AMS) will be the final phase of the project, whereby specific construction methods and details pertaining to mitigation measures are provided.

The Tree Protection Plan (TPP) is typically composed at the same time when the AMS is written, following finalisation of a development design/ site layout. The TPP will identify trees to be retained, removed, and pruned for facilitation purposes, as well as the location and specification of tree protection barriers and non-compacting ground protection to be installed on site.

The AMS will consider construction activities where they are in close proximity to retained trees, dealing with issues such as site access, intensity of activity, the provision of a suitable working space, designated areas for delivery and storage of building materials, and if know at the time of writing the location of service runs and soakaways.

APPENDIX 1 TREE SURVEY KEY

Tree Reference Number	The tree number of physical tree tag (if applicable) provided to an individual tree or group of trees, as shown on the Tree Constraints Plan.
Species	Generally the common name given to the tree species. The Latin name is sometimes provided as clarification where deemed necessary.
Height	This figure is given in metres. Measurements are obtained using a digital clinometer. A black asterisk * will denote that the measurement is estimated.
Stem Diameter	This figure is given in millimetres. Measurement are obtained using a standard diameter tape, whilst measured from 1.5 metres above ground level, or otherwise indicated. A black asterisk * will denote that the measurement is estimated.
Crown Spread	This figure is given in metres. Measurements are obtained radially for all four cardinal points using a laser range finder. A black asterisk * will denote that the measurement is estimated.
Crown Clearance	This figure is given in metres. Measurements are obtained radially for all four cardinal points, between the crown and ground level, and obtained using a digital clinometer. A black asterisk * will denote that the measurement is estimated.
Height to first major branch	This is an approximate figure given in metres. Measurements are obtained by identifying the lowest lateral branch within the crown. Recorded information will also refer to a cardinal direction, and obtained using a digital clinometer. A black asterisk * will denote that the measurement is estimated.
Age	The following abbreviations are used to give the age of the tree; NP = Newly Planted, Y = Young, aged less than one quarter of its life expectancy, SM = Semi-Mature, trees of approx. one quarter of its life expectancy, EM = Early-Mature, between one quarter & half of its life expectancy, M = Mature, trees of over half of its life expectancy, OM = Over Mature, trees exceeding their life expectancy, V = Veteran, over mature trees which contain multiple wildlife habitat features & associations.
Physiological Condition	The following considerations are used to evaluate the physiological conditions of a tree (foliage & vitality): Dead, Poor, Fair & Good, with intermediate descriptions using same phrasing.
Structural Condition	Standard comments referring to the visible structural condition of tree: Hazardous, Poor, Fair, Good, with intermediate descriptions using same phrasing.
Observations	These are brief comments which relate to observations from ground level, unless otherwise stated. These observations are made to assist in categorising the tree. They do not provide or replace a comprehensive condition survey.
Preliminary Management Recommendations	These recommendations will only identify the need for more detailed assessment/inspection or tree management due to tree hazards of features which present an immediate risk to persons & property. The tree works do not consider general husbandry or required management of the trees, nor do they consider tree works that may be required prior to development or to facilitate access to the site.
Estimated Remaining Contribution	This is the number of estimated years that the tree will remain present and contribute to the local landscape. The following bands are used; <10 years, 10+ years, 20+ years & 40+ years.
Categorisation	This is the grading category applied following the tree survey. Trees are categorised in accordance with the cascade chart provided within Table 1 in BS: 5837 (2012). A copy of this chart is provided within Appendix 2 of this report. A red asterisk * will denote that the categorisation as given will be dependent upon information gained from further detailed inspection of the tree.
Root Protection Area & Root Protection Radius	The RPA is a figure given in metres squared, the minimal area which should be left undisturbed. The RPR is a figure given in metres, a measured radial distance away from the trees main stem.

APPENDIX 2 BRITISH STANDARD: 5837 (2012) TABLE 1: TREE CATEGORISATION

TREES UNSUITABLE FOR RETENTION				
CATEGORY & DEFINITION	CRITERIA			IDENTIFICATION ON PLAN
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	Trees that have serious, irremediable, structural defects, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. NOTE: Category U trees can have existing or potential conservation value which might be desirable to preserve.			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
CATEGORY & DEFINITION	CRITERIA (subcategories)			IDENTIFICATION ON PLAN
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation. Historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management & storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
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 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significant greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY
	NOTE: Whilst category C trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.			

APPENDIX 3 BRITISH STANDARD: 5837 (2012) TREE SURVEY SCHEDULE

Tree Ref No.	Species	Ht. (m)	Stem Dia. (mm)	Crown Spread				Crown Clearance				Ht. to 1st limb (m)	Age	Phys. Cond.	Structural Condition			Observations	Preliminary Management Recommendations	Life Exp.	Cat.	RPA in m2 (Radius /m)
				North	East	South	West	North	East	South	West				Basal	Stem	Crown					
T01	Magnolia *(Magnolia sp.)*	4.5	65 100	2	2	1.5	1.5	2.5	2.5	2.5	2.5	2.0 N	Y	Good	F	G	G	• Third party tree. • Twin stemmed specimen. • No observable defects.	• No works presently required.	20+	C1	7.0 (1.5)
T02	Japanese Maple *(Acer palmatum)*	5.5	265	2	2.5	4	4.5	2.5	2.5	3	3.5	1.3 W	EM	Good	F	G	G	• Concrete patio occupying RPA. • Significant girdling root to west. <5% major deadwood throughout crown.	• Removal of deadwood.	20+	B1	32.0 (3.2)
T03	Whitebeam *(Sorbus aria)*	6	125	1	1.5	1.5	1.5	3	3	2.5	2.5	1.5 S	SM	Fair	F	G	F	• Directional lean towards west, approx. 20 degrees, self-corrected at 3.0m. • Unsympathetically managed, adequate regrowth.	• No works presently required.	20+	C1	7.0 (1.5)
T04	Copper Beech *(Fagus sylvatica* Purpurea)	6.5	140	2	2	2	2.5	3	3	3	3	3.0 W	SM	Good	G	G	F	• Unsympathetically managed, adequate regrowth. • No observable defects.	• No works presently required.	20+	C1	9.0 (1.7)
T05	Cotoneaster *(Cotoneaster frigidus)*	5	135	3	3	5	1.5	2	2	2	2	1.4 S	EM	Decline	G	F	F	• Effective evergreen boundary screen. • Multiple areas of bark necrosis, with saprophytic fungi developing. • Asymmetrical form expressing bias towards east & south.	• Crown reduction; reduce height & lateral spread.	<10	U	8.2 (1.6)
T06	Sweetgum *(Liquidamber styraciflua)*	13	250	2.5	2.5	2.5	2.5	4	4	4	4	4.0 N	SM	Good	G	G	G	• Third party tree. • Crown expressing good crown symmetry. • Co-dominant stems at 10.0m.	• No works presently required.	20+	B1	28.3 (3.0)

Tree Ref No.	Species	Ht. (m)	Stem Dia. (mm)	Crown Spread				Crown Clearance				Ht. to 1st limb (m)	Age	Phys. Cond.	Structural Condition			Observations	Preliminary Management Recommendations	Life Exp.	Cat.	RPA in m2 (Radius /m)
				North	East	South	West	North	East	South	West				Basal	Stem	Crown					
T07	Aspen *(Populus tremula)*	8	450	1	1.5	2	1	6	6	6	6	6.0 S	M	Decline	P	P	P	• Third party tree. • Rose & climber developing on main stem. • Previously topped at 6.0m, poor regrowth. • Limited life expectancy.	• No works presently required.	<10	U	92.0 (5.4)
T08	Aspen *(Populus tremula)*	18	500	5	6.5	10	4	12	12	6	6	6.0 N	M	Good	F	G	F	• Third party tree. • Companion tree. • Only northern lateral branches pollarded. • No observable defects.	• No works presently required.	20+	C2	113.0 (6.0)
T09	Aspen *(Populus tremula)*	18	500	4.5	4	12	6	14	14	6	6	6.0 N	M	Good	F	F	F	• Third party tree. • Ivy inhibiting inspection of main stem & primary scaffold branches. • Historically pollarded, significant regrowth.	• No works presently required.	20+	C2	113.0 (6.0)
T10	Cotoneaster *(Cotoneaster frigidus)*	3.5	60 75	2.5	2	2	4	2	2	2	2	0.5 E	SM	Good	G	G	G	• Bifurcation at 0.5m, adequate union. • Asymmetrical form expressing bias towards west. • No observable defects.	• No works presently required.	10+	C1	5.0 (1.2)
T11	Blackthorn *(Prunus spinosa)*	6.5	100 100	2	1.5	0.5	1.5	3	2	2	3	2.0 E	M	Good	F	G	F	• Third party tree. • Unsympathetically managed in past, adequate regrowth. • Asymmetrical form expressing bias towards north.	• No works presently required.	10+	C1	9.0 (1.7)

APPENDIX 4 LIMITATIONS OF REPORT

Limitations of the Tree Survey & Scope of the Report

- This report is restricted to those trees & vegetation shown on the attached Tree Constraints Plan, described within the tree survey schedule, as identified within the instruction as per Section 1.1.
- All plans are illustrative of the discussions within the report and based entirely on the drawings provided to Bartlett Consulting. All scaled measurements must be checked against the original submission documents as well as confirmed on site.
- The survey was based on unaided, visual observations made from ground level only, using the principles of a Visual Tree Assessment (VTA).
- The trees were not climbed at the time of the survey.
- All observations were made from within the curtilage of the site or from a public open space unless otherwise stated.
- The tree survey is preliminary in its nature and must not be interpreted as a detailed tree condition inspection.
- This report does not consider the possible implications to any existing or proposed built structures. These matters will be dealt with in future reports as deemed necessary/ as and when instructed.

Timing of the Tree Survey & the Report

- The observations & finings of this report remain valid for one year, from the date of issuance.
- The observations & findings will be invalidated if any building works are undertaken, soil levels altered or tree works implemented.
- In the instance where building works have occurred, soil levels are altered or tree works completed, it is recommended that a new tree survey and report is completed.

Trees in Relation to Other Properties

- The tree survey and report consider only those trees in relation to the site as identified.
- It does not comment upon the possible effects of trees on neighbouring properties, including matters concerning subsidence or heave, or with regards to potential hazards presented by trees surveyed.
- Neighbouring land/tree owners that are identified as posing a potential risk to the site should seek their own independent advice.
- Damage to, or potential damage to any existing structures that are not referred to within this report is not considered, unless otherwise specified. This is inclusive of built structures within and neighbouring the site.

Trees in Relation to Subsidence, Heave and Direct Damage

- This report does not deal with matters concerning subsidence or heave to any existing built structure on or neighbouring the site. It may be prudent to consider the effects of heave on any built structure if trees are to be removed.
- Similarly, the issue of direct damage (physical damage caused by tree roots) is not dealt with in this report.

Trees Subject to Statutory Controls

- Whilst Bartlett Consulting has made attempts to ascertain if any of the trees subject to this report are 'protected', their status may be subject to change. Therefore the final responsibility for checking statutory protection for trees rests with the employed contractor and not with Bartlett Consulting
- Any prescribed tree works to a protected tree are provided due to perceived hazard and risk, and should be considered acceptable by the Local Planning Authority (LPA). However appropriate notification must still be provided to the LPA as they may take an alternative point of view.

Trees Subject to Environmental Factors

- The statements, findings and preliminary recommendations made within this report do not take into account any effects of extreme climate and weather incidences, vandalism, changes in the natural and built environment around the tree(s) after the date of this report, nor any damage whether physical, chemical or otherwise.

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APPENDIX 5 REPORT REFERENCES

As a progressive company, we keep abreast of research data relating to Arboriculture. All observations, recommendations and works are based on current industry standard reference material and a selection of pertinent items is shown below.

This survey and report has evolved from industry material including the following:

- O'Callaghan & Lawson (1995) *Trees and Development Conflicts: Importance of Advanced Planning & Site Control in Tree Preservation Plans*
- Matheny & Clark (1998) *Trees and Development a Technical Guide*
- BS 5837: (2012) *Trees in Relation to Design, Demolition and Construction – Recommendations*
- BS 3998: (2010) *Tree Works - Recommendations*
- Town & Country Planning Act (Tree Preservation) (England) Regulations 2012
- Mattheck, C, Bethge K, Weber K. (2015) *The Body Language of Trees – Encyclopaedia of Visual Tree Assessment*
  Karlsruhe Institute of Technology Campus North.

Bartlett Consulting's arboricultural expertise has been used to interpret these references for practical application to the site and the trees which are the subject of this report, and to provide the most appropriate advice and guidance at this stage of project planning.

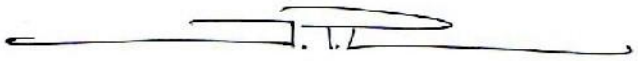
We trust that the contents and recommendations contained within this report were informative, easy to understand and helpful to you, with regards to managing your tree. Should you have any further questions or concerns, please do not hesitate to contact us again.

REPORT CLASSIFICATION: Tree Survey & Constraints Plan

REPORT STATUS: Final

REPORT COMPLETED BY: Mr James Percy-Lancaster
Senior Arboricultural Consultant

SIGNATURE:



DATE: Monday 27th January 2020