TREE SURVEY IN CONTEMPLATION OF DEVELOPMENT

BS5837:2012

Title:	Arboricultural Tree Report
Instructed by:	Mr Guy Dudding Dudrich holdings ltd 276 chase rd N14 6HA
Site Address:	Rear of 27-47 Cecile Park, N8 9AX
Date of Site Visit:	Friday 22nd March 2013
Prepared by:	Andrew Phelps Professional Member of the 'Consulting Arborist Society'.
Ref:	PA.S758
Date	7th June 2013

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BRIEF

A Detailed tree survey of all standing trees on the site to the following specification

- Species name, Estimated height, Age Class, Condition key, General arboricultural comments and recommendations
- Comments relating to the retention value of individual trees and tree groups within the delineated area to allow an assessment of development constraints
- All information is to comply with BS 5837 – A guide to trees in relation to construction and BS 3998 – Tree works

B Production of an accompanying tree constraints plan in PDF format / AutoCad (on supplied topographical drawing) detailing; tree numbers, protected areas, special measure areas and protective fencing requirements, in order to allow an assessment of relevant constraints.

C Consideration of the quality of the tree stock, their contribution to public amenity and the suitability of the trees in the context of proposed development.

THE TREES REFERRED TO IN THIS REPORT ARE LIVING ENTITIES AND ARE THEREFORE SUBJECT TO NATURAL PROCESSES. THEY WILL ALSO BE SUBJECT TO CHANGES IN THEIR NATURAL ENVIRONMENT CAUSED BY HUMAN ACTIVITIES AND WEATHER CONDITIONS. THEREFORE WE CAN NOT WHOLLY GUARANTEE THE CONDITION AND SAFETY OF THE TREES COMMENTED UPON BEYOND WHAT CAN REASONABLY BE ASSESSED FROM THE PROCEDURE USED. TREES HAVE NOT BEEN AERIALLY INSPECTED. WE RECOMMEND REGULAR INSPECTIONS AND ADVISE ON THE FREQUENCY AND TYPE OF INSPECTION. WE WOULD RECOMMEND THAT RE-INSPECTIONS ARE CARRIED OUT WITHIN ONE YEAR OR WITHIN SPECIFIC STIPULATED TIMESCALES. NO ASSESMENT HAS BEEN MADE OF SOIL CONDITIONS AND THE IMPACT OF SOIL CONDITIONS ON TREE COVER / BUILT ENVIRONMENT. NO ASSESSMENT HAS BEEN MADE FOR UNDERGROUND SERVICES, PROPOSED OR EXISTING, UNLESS OTHERWISE STATED. THE CONTENTS OF THIS REPORT ARE VALID FOR ONE YEAR. THIS PERIOD OF VALIDITY MAY BE REDUCED IN CASE OF ANY CHANGE IN CONDITIONS TO, OR IN PROXIMITY TO, THE TREE. THE REPORT IS FOR THE SOLE USE OF THE CLIENT AND REFERS ONLY TO THOSE TREES REFERRED TO WITHIN, USE BY ANY OTHER PERSON(S) IN ATTEMPTING TO USE CONTENTS FOR ANY OTHER PURPOSE RENDERS THE REPORT INVALID FOR THAT PURPOSE.

1 Scope of the Report / Instructions

1.1 My name is Andrew Phelps. I am an associate consultant with Phelps Associates, Arboricultural Consultants, 2nd Floor Suite, 1 Church Street, Epsom, Surrey, KT20 6HJ. I am instructed by Mr Guy Dudding to determine a tree survey in contemplation of development of the site at Cecile Park, N8.

1.2 The main concerns of this report are to assess the trees in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations. To establish tree conditions and suitability to the site and landscape. Both general and specific tree management requirements are presented along with a tree/construction works specification. I am also asked to assess the likely impact of the proposed development on the surrounding trees, and have included details of the working methods to be employed before and during construction, therefore developing a tree protection strategy (if required) for the duration of the construction including any demolition works.

1.3 The site was visited on Friday 22nd March 2013 and 9 trees and groups of trees growing off site were assessed visually in accordance with Visual Tree Assessment (VTA) and compiled in the following survey sheets as numbered individuals and groups. Trees have been inspected from ground level only, and no decay detection equipment has been used.

1.4 No tissue samples were taken nor was any internal investigations of the subject trees undertaken.

1.5 No soil samples were taken. The crown spreads were estimated by pacing.

1.6 Each individual tree has been assessed with general regard to condition, health and amenity, development context, retention value and commented upon in the following manner:

- Tree Number
- Tree Species
- Estimated height
- Estimated crown spread
- Diameter at breast height
- Vigour
- Retention value
- Arboricultural condition and recommendations for remedial works

1.7 Comments relate to species content, retention and amenity value, and have been provided with recommendations.

1.8 The trees have been classified according to their "desirability to retain". This rates the amenity conferred by each tree and is based on the assumption that development will occur on the site and having given consideration to the recommendations of this report and BS 5837: 2012 – Table One.
For clarification – the grading system can be summarised as follows:
A – high quality & value, effective for more than 40 years
B – moderate quality & value, effective for more than 20 years
C – low quality & value , effective for 10 years
U – trees for removal (effective for less than 10 years)

1.9 To ascertain the overall condition of a given tree, the survey sheets should be used in conjunction with the condition key (4.1)

1.10 To ascertain the age class of a given tree, the survey sheets should be used in conjunction with the age class key (4.2)

1.11 The trees on the site are subject to a general re-inspection schedule of six months from which a requirement for further monitoring or assessments will be judged.

1.12 Any specified remedial work recommendation is regardless of development plans and is based on current tree condition. Therefore the start date for the implementation of remedial works is as specified and from the date of survey.

2 Tree Works

2.1 All tree pruning and felling identified within the pruning regime shall be carried out in accordance with BS 3998 2010 Recommendations for tree work.

2.2 All tree work should be undertaken by a suitably qualified Arboricultural Contractor. No works shall be carried out until permission has been granted by the relevant Local Planning Authority. The Forestry Authority should be contacted to check as to whether a Felling License is required.

3 Limitations

3.1 No assessment has been made of soil conditions/implications of soil conditions and root extent is indeterminate from this survey. We would urge that soil type is ascertained and tree related implications are assessed such as foundation type/depth in accordance with N.H.B.C. guidelines.

3.2 No information is available to assess any tree implications of service lines; we would recommend this information is assessed for tree significance.

3.3 The survey boundaries have been taken from the supplied drawing. Boundary clarification will be required at various locations as recommended by this report.

3.4 The site is privately owned and is known to be part of a 'Conservation Area'. T.9 Horse Chestnut. This tree is covered with a 'Tree Preservation Order' as shown on the tree plan at Appendix 2.

3.5 No liability can be assumed to rest with Phelps Associates should conditions alter following our inspection of the site. Therefore we must be informed immediately of any alterations to plans upon which our assessments and conclusions/recommendations have been based.

4 CONDITION, AGE, VIGOUR, AMENITY & RETENTION VALUE KEYS

Condition Key

4.1 For the purposes of ascertaining the general overall arboricultural condition of the trees / compartments referred to in the survey sheets the following key should be used.

Good	Generally classed as having good overall structural and physiological condition. Specimens in good/excellent condition. They generally have few and less significant arboricultural defects than those trees classed as "B" or "C". Usually contribute significantly to the local or site amenity.
Moderate	Generally classed as having reasonable structural and physiological condition. They may contain smaller areas of included bark within either major or minor fork junctions. They may be subject to single or multiple fungal invasions, bacteria or virus. In the case of fungal invasion or bacteria the Latin name of the species has been stated. They may be subject to minor crown dieback, unusually pale or smaller foliage or have been subjected to outside influences such as restriction of rooting spread, vandalism or mechanical damage, but should be viewed as in generally good overall condition.
Poor	Generally classed as having poor overall structural or physiological condition. They may contain large areas of included bark either within major or minor fork junctions. They may be subject to single or multiple fungal invasions, bacteria or virus. In the case of fungal invasion or bacteria the Latin name has been stated. They may contain splits or cracks throughout the branching structure. They may be subject to significant crown dieback or exhibit unusually pale or small foliage, be defoliated or dead. They may be subject to outside influences such as restriction of rooting spread, vandalism or mechanical damage and costly to retain.

4.2 Age Class Key

NP	Newly planted
Y	Young - Tree/shrub in first third of life expectancy
MM	Middle Mature – Tree in 2nd third of life expectancy
M	Mature - In final third of life expectancy
OM	Over Mature – Declining in physiological functions

4.3 Amenity Value Classifications

High (`A`)	Significant contribution to either local landscape, landscape within site or both. Tree cover in this category should be carefully managed to ensure that the contribution played by the tree within the landscape is not compromised.
Moderate (`B`)	Indicates that the tree provides some contribution to the local landscape or landscape within site. Consideration should be given to enhancing the landscape with planting if required and management should aim to further enhance the local landscape.
Low (`C`)	Indicates little, no or a negative contribution to the local landscape.

4.4 Growth Vitality Key

N	Normal
M	Moderate (below normal)
P	Poor (sparse, weak)
D	Dead

4.5 **Retention Value Key**

The trees have been classified according to a desirability to retain. This rates the amenity conferred on each tree / tree group and is based on the assumption that development will occur and given consideration to the main report findings. The categories are contained in the table - Table 1: Retention Value Key found in Appendix 4 of this report.

5 Site / Description of Proposed Development

5.1 A privately owned site, the proposal sets out to demolish the existing garages and create up to 4 new family dwellings with car parking on the site. Details of which can be provided by the project Architects.

6 Arboricultural Survey – Tree Details & Observations

6.1 The attached Tree Survey Schedule (see Appendix 1) details the significant trees in respect of their dimensions and quality in accordance with the methodology set out in the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations. Appropriate and relevant comments are also provided. The removal of dead, dying and dangerous trees is considered to be appropriate tree management irrespective of development. The proposed tree works are to be considered in conjunction with the development application.

6.2 In the following paragraphs I have provided further information relating to specific trees and their management in the context of any proposed development.

6.3 T.1G Conifers x 10. (Lawson Cypress) Growing off site and standing at about 10m in height. These trees are not good examples of there species and were most likely planted as a hedge and poorly managed. Recorded as being Category 'C' trees of low quality and value.

6.4 T.2 Sycamore. (Acer pseudoplatanus) Growing off site and recorded as being a Category 'B' tree of moderate quality and value. Overhanging the site by about 5m.

6.5 T.3 Cherry. (Prunus padus) Growing off site and recorded as being a Category 'C tree, that of low quality and value.

6.6 T.4 Sycamore. Recorded as being a Category 'B' tree of moderate quality and value. Overhanging the site by 3.5m.

6.7 T.5 Sycamore. Recorded as being a Category 'B' tree of moderate quality and value. Overhanging the site by 6.5m.

6.8 T.6 Sycamore. Recorded as being a Category 'B' tree of moderate quality and value. Overhanging the site by 6.5m.

6.9 T.7 Sycamore. Recorded as being a Category 'B' tree of moderate quality and value. Overhanging the site by 5.5m.

6.10 T.8G Sycamore x 3. Recorded as being Category 'B' trees of moderate quality and value. Overhanging the site by 5m.

6.11 T.9 Horse Chestnut (Aesculus hippocastanum) Believed to be the subject of a 'Tree Preservation Order'. This tree is in decline in my view and I have been informed that this tree may have been affected by a fungal disease; however I did not see any fungal brackets during my survey. Recently heavily pollarded possibly as a result of its slow decline and condition. Recorded as being a Category 'B' tree of moderate quality and value.

7 Assessment of Proposed Development – Implications for Roots.

7.1 The British standard recommends a minimum area around retained trees which should be protected from disturbance "in order to avoid damage to the roots or rooting environment." This 'Root Protection Area' (RPA) is calculated, using Table 2 of the British Standard, as an area equivalent to that of a circle with a radius 12 times the stem diameter for single-stemmed trees, and for trees with more than one stem, one of the two calculations methods should be used as at 4.6 of the BS5837:2012.

7.2 Paragraph 4.6.3 of the British Standard states that any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection for the root system:

a) The morphology and disposition of the roots, when influenced by past or existing site conditions;
b) Topography and drainage;
c) The soil type and drainage;

The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

7.3 The attached Tree Survey Schedule (see Appendix 1) details the significant trees in respect of their dimensions and quality in accordance with the methodology set out in the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations. Appropriate and relevant comments are also provided. The removal of dead, dying and dangerous trees is considered to be appropriate tree management irrespective of development.

7.4 T.1G Conifers. The average trunk diameter of these trees has been estimated to be 400mm which gives us a root protection radius of 4.2m. The plan at Appendix 2 shows us that the root protection area falls into the site by about 3m, designated for the new drive and planting beds. Excavations will be limited in this area and unlikely to affect these low value trees in my view.

7.5 T.2, T.4, T.5, T.6, T.7 & T.8G Sycamore's (Acer pseudoplatanus) All trees with root protection radii of 6m or less, the tree plan at 'Appendix 2' shows us that all building footprints fall outside root protection areas of retained trees. If level changes are proposed within the root protection areas of these trees details of all materials to be used and construction methods will be provided by the project Landscape Architect.

7.6 T.3 Cherry. Unaffected by the proposal, the trees crown could be trimmed back as required.

7.7 T.9 Chestnut. With a root protection radius of 10.4m the 'Tree Plan' shows us that there is a small incursion into the building footprint which equates to approximately 12% of the trees RPA. The existing retaining wall, which is shown on the tree plan, has a foundation depth of over 500mm which is likely to have reduced the numbers of roots growing within the area proposed for development. Therefore excavations for new foundations are unlikely to cause significant root damage in my view. It is proposed to use a 3mm thick lining within the foundation trench to avoid concrete leachate.

7.8 It is proposed to carry out landscaping works within the RPA of T.9 which will involve laying a new hard standing surface. This new surface does not exceed 20% of the existing un-surfaced ground within the RPA of T.9. There will be no level changes within the trees RPA and a three-dimensional cellular confinement system will be used for the sub-base to allow gaseous diffusion, and the paving slabs or block pavers will have built-in infiltration spaces to allow air and moisture to penetrate to the rooting area.

8 Assessment of proposed development – Implications for Crowns

8.1 T.2, T.4, T.5, T.6, T.7 & T.8G Sycamore's. Overhanging the site by up to 6m. All trees could by sympathetically cut back into shape and lifted to provide more ground clearance if required.

9 Location of Site Office, Compound and Parking

9.1 The position of the office, compound and parking will be agreed in writing with the Local Planning Authority prior to commencement of any permitted development works. Any proposed re-location of these items through the various phases of development will be agreed prior to re-sitting with the Arboricultural Officer.

10 On Site Storage of Spoil and Building Materials

10.1 Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA. This is to reduce to a minimum the compaction of the roots of the trees. Details of the RPA for each tree where no spoil or building materials will be stored are indicated on the attached Preliminary Arboricultural Implication Assessment & Tree Protection drawing. Any encroachment within this protected area will only be with the prior agreement of the Local Planning Authority Arboricultural Officer.

10.2 Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipe work shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.

11 Levels

11.1 No alterations to soil levels within the RPA of retained trees are envisaged. However, if it is necessary for these to occur, appropriate measures must be taken to prevent or minimise any detrimental effects on the affected root systems as detailed in 11.2 and 11.3 below.

11.2 If it is necessary to excavate so close to trees that roots greater than 50mm diameter are likely to be encountered, particular care will be taken to avoid damage. Excavation in these areas will be undertaken by hand or using an air spade, avoiding any damage to the bark. The roots will be surrounded with sharp sand prior to the replacing of any soil or other material in the vicinity.

11.3 If it is necessary to raise levels, it is essential that adequate supplies of water and oxygen through the soil to the trees' roots. Therefore, where necessary, a granular material will be used which will not inhibit gaseous diffusion. Possible options are no-fines gravel, cobbles or, Type 2 road-stone. All hard surfaces will be of suitable specification to allow such gaseous diffusion, e.g. brick pavers.

12 Underground Services

12.1 It is proposed that all service runs will be placed outside the RPA of the trees on or adjacent to the site. Details of service runs are shown in the tree plan provided at Appendix 2.

13 Recommended Schedule of Tree works

13.1 No tree works required.

14 Conclusions

14.1 In my opinion all off site trees will be retained and unaffected throughout construction if protective barrier is erected as shown on the 'Tree Protection Plan' at Appendix 2.

14.2 All protective barriers must be erected before the delivery of ground works equipment and machinery in order to provide effective tree protection. No works should begin on site, particularly in relation to groundwork or site preparation unless the approved protective barrier has been erected.

14.3 Tree protective barrier should remain standing throughout the development phase and only removed on successful completion of building works.

14.4 The design of the scheme accords with the relevant BS for trees and development (5837:2012) and for the vast bulk of the proposal exceeds the guidelines produced in this document.

14.5 The proposed scheme has been designed to limit the impact of development on the existing landscape by retaining the boundary tree, allowing adequate protection to enable this tree to survive the construction process.

14.6 Subject to proper and normal tree protection measures, the proposed development will not impinge adversely on the effects of this tree in the landscape.

14.7 This barrier should be erected immediately prior to any of the following taking place:

- Plant and materials delivery
- Soil stripping
- Construction works
- Utility instillation

I hope that you find this report satisfactory, please do not hesitate to contact me if I can be of further assistance.

Signed ………. Date……22/05/2013…

Appendix 1 – Tree Survey Schedule

4.1 Tree Survey Schedule

Site:	Cecile Park, N8	Surveyor:	Andrew Phelps
Date of Survey:	22nd March 2013	Ref:	PA S758

Tree No	English Name	Height	Crown Spread	Ground Clearance	Age Class	Stem Diameter (mm)	Number of Stems	Protection Radius (Metres)	Vigour (Growth Vitality)	Structural Condition	Amenity Landscape Contribution	B.S Cat Ret Value	Sub Cat	Useful Life	Structural Condition/Observations
T.1 G	Conifers x 10	10	3	5	Mature	Est 350	1	**4.2**	Normal	Good	Low	C	-	40	No defects visible, could not see lower trunk or base
T.2	Sycamore	11	6	7	Mature	Est 400	1	**4.0**	Normal	Good	Medium	B	2	40	No defects visible, could not see lower trunk or base
T.3	Cherry	7	4	3	Mature	Est 280	1	**3.4**	Normal	Good	Low	C	2	<20	No defects visible, however in slow decline, could not see lower trunk or base
T.4	Sycamore	12	6.5	5	Mature	Est 400	1	**4.0**	Normal	Good	Medium	B	2	40	No defects visible, trunk epicormic
T.5	Sycamore	11	7	5	Mature	Est 400 x 4	4	**4.0**	Normal	Good	Medium	B	2	40	No defects visible, not a good example, could not see lower trunk or base

Notes:

1. Height describes the approx. height of the tree in metres from ground level.
2. Crown spread refers to the crown radius in metres from the stem centre and is expressed as an average of NESW if symmetrical
3. Ground Clearance is the height in metres of crown clearance above adjacent ground level.
4. Diameter Breast Height (DBH) is the diameter of the stem measured in mm at 1.5m from ground level for single stemmed trees or at ground level for multi-stemmed trees. DBH may be estimated where access is restricted.
5. Age Class is the tree's relative age to its species and is expressed as Newly planted (NP) Young (Y), Middle Mature (MM), Mature (M) and Over Mature (OM).
6. Protection Multiplier is 12 for single stemmed trees and for trees with more than one stem diameter(s) should be measured in accordance with Annex C, and the RPA should be determined from Annex D of the BS5837:2012.
7. Protection Radius is a radial distance in metres measured from the trunk centre.
8. Growth Vitality - Normal ; Moderate (below normal); Poor (sparse, weak); Dead (dead or dying tree)
9. Structural/Arboricultural Condition – Good (no or only minor defects); Moderate (remediable defects); Poor (major defects present). See Condition Key (4.1) for detail
10. Landscape Contribution – High (prominent landscape feature); Medium (visible in landscape); Low (secluded/among other trees)
11. B.S Cat refers to (BS 5837:2012 Table 1) and refers to tree/group quality and value; 'A' – High; 'B' – Moderate; 'C' – Low; 'U' – Remove. **See Table 1 – Cascade chart for tree quality assessment**
12. Sub Cat refers to the retention criteria values where 1 is arboricultural, 2 is landscape and 3 mainly cultural values, including conservation.
13. Useful Life is the tree's estimated remaining contribution in years.

4.1 Tree Survey Schedule

Site:	Cecile Park, N8	Surveyor:	Andrew Phelps
Date of Survey:	22nd March 2013	Ref:	PA S758

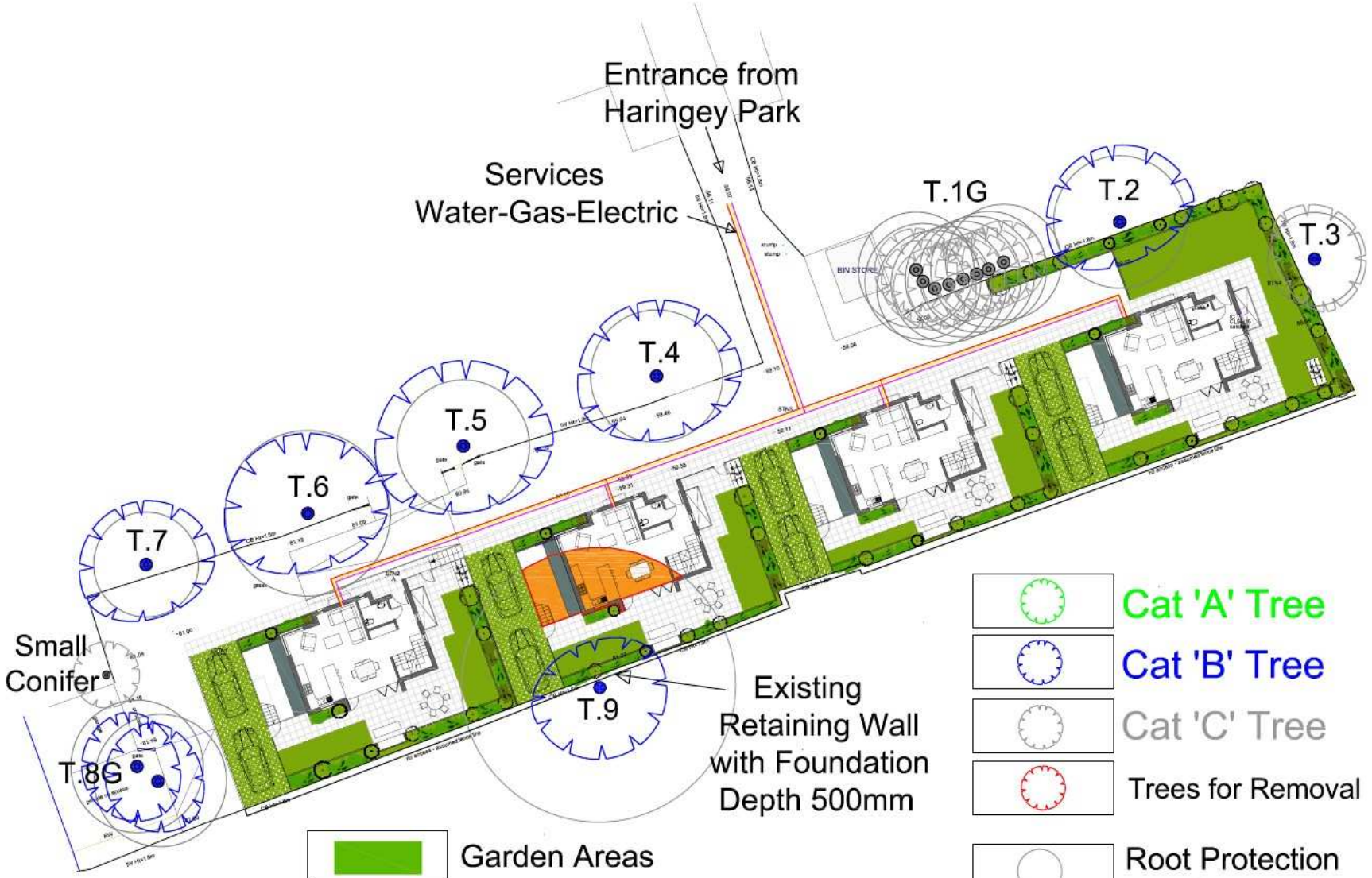
Tree No	English Name	Height	Crown Spread	Ground Clearance	Age Class	Stem Diameter (mm)	Number of Stems	Protection Radius (Metres)	Vigour (Growth Vitality)	Structural Condition	Amenity Landscape Contribution	B.S Cat Ret Value	Sub Cat	Useful Life	Structural Condition/Observations
T.6	Sycamore	11	6.5	5	Mature	Est 500 x 2	2	**6.0**	Normal	Good	Medium	B	1	40	Overhanging site by 7m, could be cut back, not a particularly good specimen
T.7	Sycamore	9.5	5	6	Mature	Est 320 x 2	2	**3.8**	Normal	Good	Medium	B	1	40	No defects visible, could not see lower trunk or base
T.8 G	Sycamore x 3	10.5	4	6	Mature	Est 400	1	**4.8**	Normal	Good	Medium	B	1	40	No defects visible, could not see lower trunk or base, overhang 5m
T.9	Chestnut (TPO)	11	4	5.5	Mature	870	1	**10.4**	Normal	Good	Medium	B	1/2	40	Heavily pollarded, I have been informed that there was a fungal bracket found. None visible during site visit

Notes:

1. Height describes the approx. height of the tree in metres from ground level.
2. Crown spread refers to the crown radius in metres from the stem centre and is expressed as an average of NESW if symmetrical
3. Ground Clearance is the height in metres of crown clearance above adjacent ground level.
4. Diameter Breast Height (DBH) is the diameter of the stem measured in mm at 1.5m from ground level for single stemmed trees or at ground level for multi-stemmed trees. DBH may be estimated where access is restricted.
5. Age Class is the tree's relative age to its species and is expressed as Newly planted (NP) Young (Y), Middle Mature (MM), Mature (M) and Over Mature (OM).
6. Protection Multiplier is 12 for single stemmed trees and for trees with more than one stem diameter(s) should be measured in accordance with Annex C, and the RPA should be determined from Annex D of the BS5837:2012.
7. Protection Radius is a radial distance in metres measured from the trunk centre.
8. Growth Vitality - Normal ; Moderate (below normal); Poor (sparse, weak); Dead (dead or dying tree)
9. Structural/Arboricultural Condition – Good (no or only minor defects); Moderate (remediable defects); Poor (major defects present). See Condition Key (4.1) for detail
10. Landscape Contribution – High (prominent landscape feature); Medium (visible in landscape); Low (secluded/among other trees)
11. B.S Cat refers to (BS 5837:2012 Table 1) and refers to tree/group quality and value; 'A' – High; 'B' – Moderate; 'C' – Low; 'U' – Remove. **See Table 1 – Cascade chart for tree quality assessment**
12. Sub Cat refers to the retention criteria values where 1 is arboricultural, 2 is landscape and 3 mainly cultural values, including conservation.
13. Useful Life is the tree's estimated remaining contribution in years.

Appendix 2 – Tree Protection Plan

Plan 1



Phelps
Associates

1 Church St
Epsom
KT17 4PF

Cecile Park

Crouch End
N8 9AX

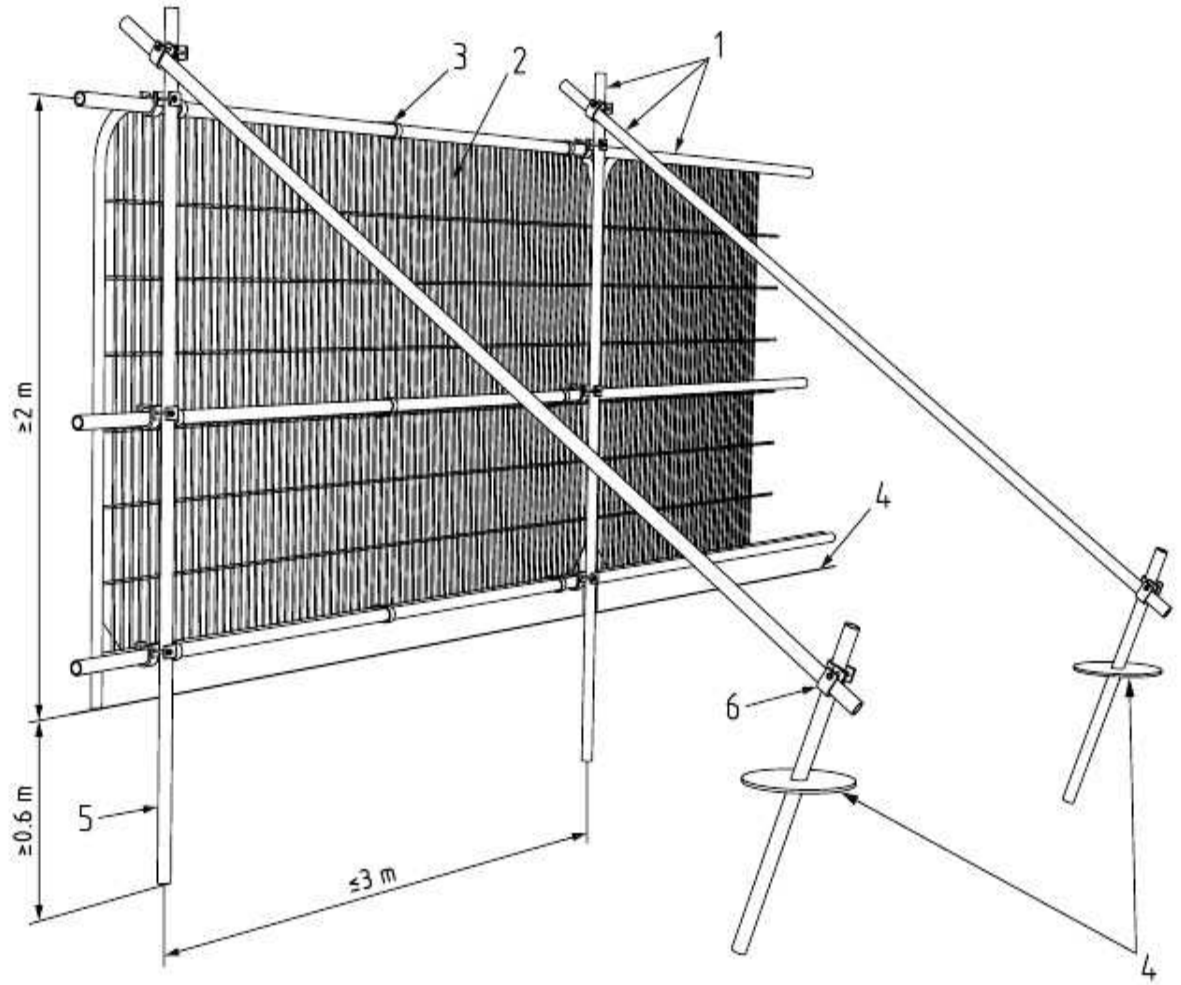
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Drawing No:3001

Appendix 3 – Protective Barrier

Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.

The default specification should consist of a vertical Barriers should be maintained to ensure that they remain rigid and horizontal scaffold framework, well braced to resist impacts, as illustrated in Figure 2. 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. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 2 Default specification for protective barrier

Appendix 4 – Retention Value Key

TREES FOR REMOVAL				
Category and definition	**Criteria (including subcategories where appropriate)**			**Identification on Plan**
Category U Those I such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (i.e. 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 (e.g. Dutch Elm Disease) or very low quality trees suppressing adjacent trees of better quality **NOTE: Category U trees can have existed or potential conservation value which it might be desirable to preserve; see 4.5.7.**			**Dark Red** 0
TREES TO BE CONSIDERED FOR RETENTION				
	Criteria – Subcategories			
Category and definition	**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** **0**
Category B **Trees of moderate value** 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 remedial defects, including remediable defects including unsympathetic past management and 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 designation	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 contribution to the wider locality	Trees with material conservation or other culture value	**Mid Blue** **10**
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 150mm	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 significantly 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** 11

Appendix 5 – Tree Protection Induction Form

TREE PROTECTION INDUCTION FORM

NAME: .....

COMPANY: .....

The trees growing on and off site at Cecile Park, N8 are important features of the area, providing amenity to the surrounding area. To protect the trees, the existing garden fencing needs to remain in good condition and in situ until the construction is completed.

To reduce the chances of damaging trees on the site, please observe the following:

- **DO NOT** **use trees as a support for electricity wires, telephone lines or signs**
- **DO NOT** **use the area within the protective fencing to store or mix materials**
- **DO NOT** **light bonfires anywhere near trees – use a designated bonfire area**
- **DO NOT** **attempt any excavation works within the protective area (Except where works approved by LPA)**

If any trees or the protective fencing become damaged during construction, please report this immediately to the Site Manager.

I have read and understand the above:

.....	.....	.....
(Print)	(Signed)	(Date)

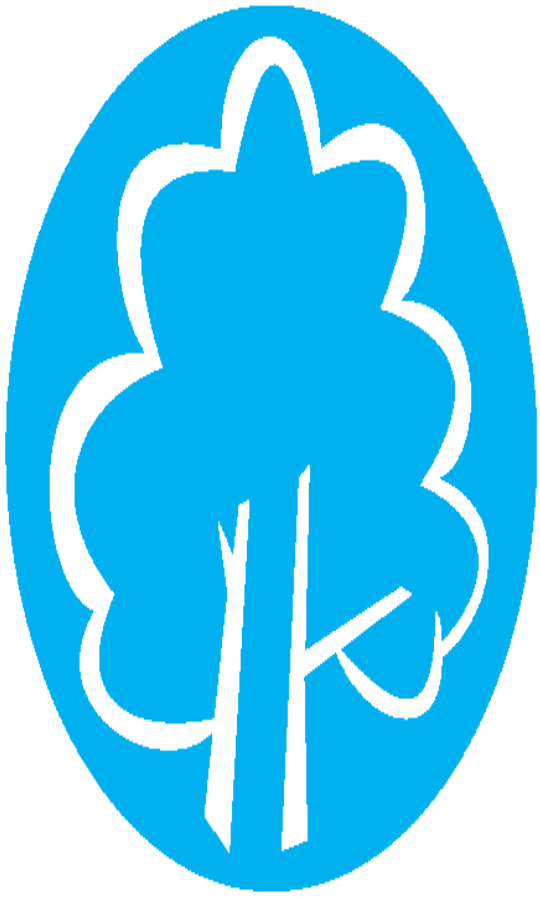
TREE DAMAGE PROCEDURE

CONSTRUCTION MATERIAL SPILLAGE	DIRECT DAMAGE TO TREES	ROOT DAMAGE TO TREES
• Materials include fuel, Chemicals, paint, Cement, etc. • Contain spillage Immediately. • Remove top layer of Contaminated soil if possible without damaging the rooting system. • Contact LPA Tree Officer and seek Further advice.	**Bark Damage:** • Replace area of damaged bark and cover with polythene • Contact LPA Tree Officer and seek further advice **Branch Damage:** • Remove damaged section of branch using a clean sharp pruning saw if it is safe to do so. • Contact LPA Tree Officer and seek further advice.	• Backfill damaged area using good quality topsoil. • Applywoodchip to a depth of approximately 150 millimetres to retain soil moisture. • Contact LPA Tree Officer and seek further advice.

Any queries regarding this Method Statement should be addressed, in the first instance, to **Phelps Associates Arboricultural Consultancy**:

- Telephone: 07877 822976
- E-mail: info@treeconsult.co.uk

Appendix 6 – Keep Out Sign



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



TREE PROTECTION AREA

KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY