

BS 5837 Arboricultural Report

Impact Assessment & Method Statement



at
Grove Lawn Tennis Club
Cascade Avenue
Haringey
N10 3PY

Dated
7th February 2023



CROWN
Tree Consultancy

Branching out through England and Wales

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1. Introduction

1.1. Instruction

1.1.1. We are instructed by ROK Enterprises One Ltd to:

- Undertake a Tree Survey to BS 5837 at Grove Lawn Tennis Club and assess all trees potentially within influencing distance of proposed development within the site.
- Plot the trees on a Tree Constraints Plan and record the data in a Tree Data Schedule.
- Provide an overview of the site and any management recommendations.
- Determine if any trees are growing within a conservation area or are protected by a tree preservation order.
- Assess the potential impact of the development proposals and provide guidance as to appropriate mitigation measures.
- Produce an Arboricultural Impact Assessment for submission to the local authority.
- Produce a Tree Protection Plan and Arboricultural Method Statement specifying how the retained trees will be protected from accidental damage by demolition or construction activity.

1.2. Purpose of this Report

- 1.2.1. This report is produced according to the guidance and recommendations within *BS 5837: 2012 - Trees in Relation to Design, Demolition, and Construction*. It is tailored to accompany a planning application. It assesses the impact of all proposed construction works on the tree population. Tree removal, canopy pruning, and the impact upon roots from various groundworks are all considered in detail. Best practice mitigation is specified wherever appropriate.
- 1.2.2. The accompanying Arboricultural Method Statement specifies how the trees shall be protected from accidental damage by demolition and construction activities. It is designed to be enforceable and may be conditioned upon the granting of planning permission.
- 1.2.3. This document should not be used to inform management decisions relating to liability or risk management. Such decisions should be based on a more detailed inspection of the trees than was carried out for this report.

1.3. References

- 1.3.1. We have liaised with our client and studied topographical surveys to attain an adequate understanding of the project to enable us to carry out an accurate assessment of the proposals and to specify suitable tree protection measures.

1.4. Survey Details

- 1.4.1. A visual ground-level assessment of all trees was undertaken on the 2nd March 2021 by Joe Taylor. No climbed inspections or specialist decay detection were undertaken. Details of how the survey was undertaken can be found in Appendix 1.
- 1.4.2. The tree locations shown on the accompanying drawings are based on a measured drawing of the site supplied to Crown Tree Consultancy. This drawing had the tree positions already plotted. Where applicable, additional trees have been plotted by us according to measurements taken on-site.

1.5. Author

- 1.5.1. This report was compiled by Emma Hoyle FDS (Arboriculture), ED (Forestry & Arboriculture), M. Arbor. A. Details of the author's experience that qualify her to produce such a report are detailed in Appendix 4.

2. Site Overview

2.1. Brief Site Description

- 2.1.1. The Grove Lawn Tennis Club is situated between Cascade Avenue and The Chine. The site is a rectangular plot measuring approximately 36m by 58m. The centre of the site is generally flat with sloped embankments to the east and west of the site.
- 2.1.2. A small rectangular building is located to the north of the tennis courts. Adjacent to the north and south boundaries are residential properties and gardens.
- 2.1.3. Trees included within our survey area contain species such as Ash, Horse Chestnut, Cypress, Goat Willow, Whitebeam, Pyracantha and Sycamore. Six Retention Category B trees (T3, T4, T5, T9, T11 and T12) and seven Retention Category C trees (T1, T2, T6, T7, T8, T10, T13, and T14) were identified.
- 2.1.4. One Retention Category C tree (T15) is situated on third party land.
- 2.1.5. The Tree Constraints Plan and Tree Data Schedule (see Appendix 6) should be referred to for descriptions and locations of all trees.

2.2. Coordinates

- 2.2.1. The site coordinates are 51°35'12.87"N ° 8'17.40"W, and the altitude is approximately 54m above sea level¹.

2.3. Survey Extent

- 2.3.1. The area indicated below² shows the extent of our survey. Our survey included all trees within the curtilage of the property and those adjacent to it.



¹ To access satellite imagery and street views of the site these co-ordinates may be entered into: <http://maps.google.co.uk/>

² Image taken from Google Earth and may not be current

3. Vegetation Overview (independent of proposals)

This section summarises all the recommendations within the Tree Data Schedule regardless of whether trees are to be retained, felled or pruned to facilitate the proposed development. It does not specify works that may be required to facilitate the development proposals.

3.1. Preliminary Management Recommendations

3.1.1. The following recommendations are made in order to maintain the trees in an acceptable condition:

3.1.2. T7 is a semi-mature Ash situated on third party land. This tree is covered in ivy which we recommend is removed to enable a more thorough inspection of the stem.

3.1.3. T11 is an early mature Horse Chestnut. This tree has been topped in the distant past and has major cavities developing at the old pruning cuts. The tree also has a covering of ivy. We recommend the ivy is removed to enable a more thorough inspection of the trees stem and a climbed inspection undertaken to assess the extent of decay and condition of the old pruning cuts at circa 5m above ground level.

3.1.4. All other trees were deemed to be in an acceptable condition.

3.2. Work Priority and Future Inspections

3.2.1. The table below suggests a schedule for completing the works recommended in the Tree Data Schedule based on the perceived risk:

Work Priority	Definition	Tree Number
Urgent	As soon as possible	None
Very High	Within 1 Month	None
High	Within 3 Months	T11
Moderate	Within 1 year	T7
Low	Within 3 years	None

3.2.2. The table below suggests a schedule of future inspections based on the condition and location of each tree:

Inspection Frequency (years)	Tree Number
0.5	None
1	T7
1.5	T11
3	T1, T2, T3, T4, T5, T6, T8, T9, T10, T12, T13, T14 and T15

3.2.3. The trees should be inspected sooner if there is a noticeable decline in their condition or following extreme weather events.

3.3. Species Present – Additional Information

- 3.3.1. The table below contains general information about the tree *species* (rather than the actual tree *specimens*) included in the survey. Its purpose is to assist readers who are unfamiliar with the characteristics of the various species.

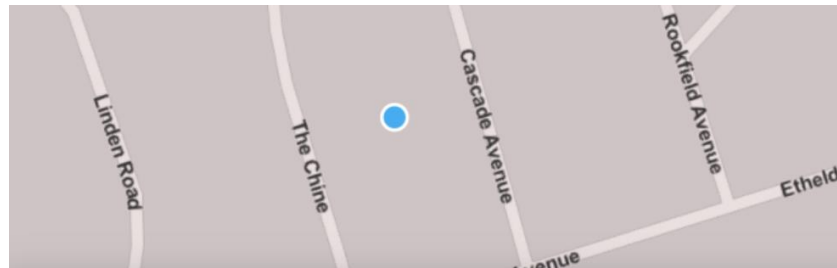
Species	Typical Height at Maturity (m)	Typical Canopy Spread at Maturity (m)	General Notes
Ash	25	18	Large deciduous tree with a straight bole and a high open domed crown. Native to Britain and commonly found in woodlands and adjacent roadsides. Not suitable for small gardens. Easily identified by its oppositely arranged pinnate leaves and black buds. Branches are relatively brittle resulting in a fairly high incidence of small branch failure in windy conditions. Visit http://www.pfaf.org/user/Plant.aspx?LatinName=Fraxinus+excelsior for more info.
Goat Willow	10	8	Also called Pussy Willow or Great/Common Sallow. Native and abundant in Britain except on the lightest soils. One of the first pioneer species to colonise an abandoned site due to its light far-blown seeds. Traditionally coppiced and used for basket making. rarely planted as an ornamental due to its untidy habit. Visit http://www.pfaf.org/user/Plant.aspx?LatinName=Salix+caprea for more info.
Horse Chestnut	25	18	Deciduous tree native to Albania and N Greece. Naturalised throughout the UK. Iconic landscape tree. Susceptible to attack by Bleeding Canker, as well as Leaf Miner and Leaf Blotch. Should be inspected regularly if located close to high public use areas. Visit http://www.pfaf.org/user/Plant.aspx?LatinName=Aesculus+hippocastanum for more info.
Magnolia	7	8	Small tree or large shrub, favoured for its large, ornamental flowers. About 80 species and numerous cultivars are available, both deciduous and evergreen. Leaves always untoothed and sometimes very large. Large silky flower buds and berries dangling from unusual 'knobbly cucumber' fruits.
Monterey Cypress	40	12	Evergreen, narrow, upright tree native to California. Very rapid growing, especially in W. Britain – may reach mature height in 40 years. Once planted as a hedge but now superseded by its offspring Leyland cypress. Visit http://www.pfaf.org/user/Plant.aspx?LatinName=Cupressus+macrocarpa for more info.
Sycamore	25	16	Deciduous tree native to S. Europe, widely naturalised in the UK. Often regarded as a weed species due to its invasive nature and ability to tolerate most conditions. Responds well to pruning. Not a good tree to park beneath in summer due to the sticky sap secreted by aphids. Visit http://www.pfaf.org/user/Plant.aspx?LatinName=Acer+pseudoplatanus for more info.
Whitebeam	35	9	Deciduous tree native throughout Europe. Naturalised in Britain on chalk and sandy soils. Good autumn colour and summer berries. Often planted as a street tree. Usually single stemmed becoming multiple-stemmed at 2m. Many cultivars available. Visit http://www.pfaf.org/user/Plant.aspx?LatinName=Sorbus+aria for more info.

The figures quoted regarding typical height and canopy spread should be treated as approximate. Actual heights and spreads vary according to several environmental factors such as soil conditions, climate, and the presence of competing vegetation. The figures quoted are not the maximum dimensions that the species may attain.

4. Local Geology and Soils

4.1. Desktop Research

4.1.1. Desktop research into local geology based on the postcode **N10 3PY** obtained the following results:

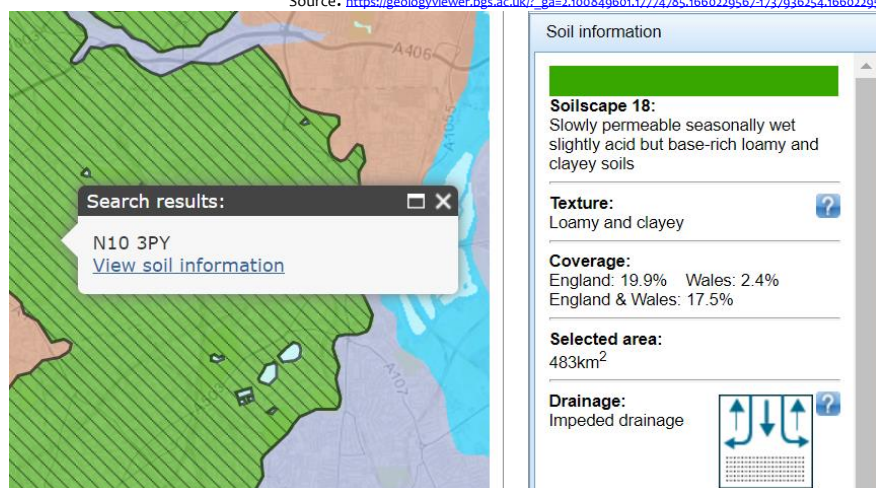


Geology

Bedrock geology

London Clay Formation - Clay, silt and sand. Sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period.

Source: https://geologyviewer.bgs.ac.uk/?_ga=2.100849601.17774785.1660229567-1737936254.1660229567



Source <http://www.landis.org.uk/soilscales/>

4.2. Site Investigations

4.2.1. We are unaware of any specific investigations into soil properties at the site.

4.3. Conclusion and Relevance

- 4.3.1. Based on the information reproduced in Section 3.1, local soils are assumed to have a loamy & clayey texture.
- 4.3.2. Loamy soils contain a mixture of clay and sand. Soil compaction may occur due to vehicular activity on building sites, so ground protection is recommended wherever vehicles operate. Most tree species will grow well in loamy soils.
- 4.3.3. Clay soils may be especially prone to compaction and slurring caused by general construction activity. Both of which significantly impair root function. This must be guarded against using boards to protect any soils where roots are growing. When planting new trees, species should be selected that can tolerate heavy soils.
- 4.3.4. Trees of most species are less likely to root deeply in clay soils. Any new surfacing over tree roots should avoid deep excavation and have good load-spreading properties.

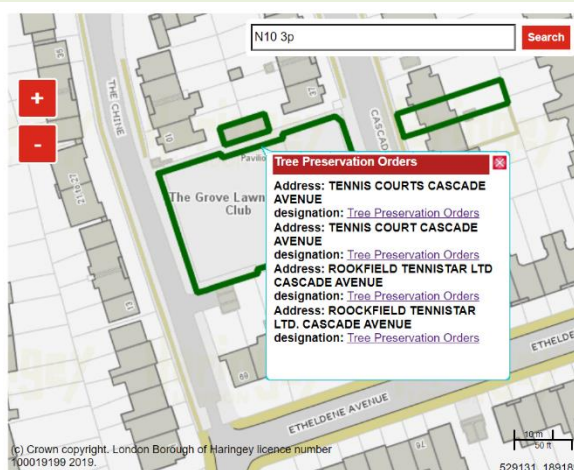
5. Statutory Protection – TPOs and Conservation Area Status

Before undertaking most works on trees protected by a tree preservation order³, consent needs to be formally obtained from the local authority. Where trees are in a conservation area (but not protected by a TPO), works are generally not permitted without first giving the local authority six weeks' notice of intention⁴. Unauthorised works to protected trees, or trees in a conservation area, may result in criminal prosecution and a fine. Where works are required to implement a fully approved development, no such consent or notice is required.

5.1. Desktop Research

5.1.1. On 15th March 2021, we were informed by James Argles from Haringey Borough Council that:

- The site lies within Rookfield Conservation Area.
- There are tree preservation orders affecting trees within the site. Trees affected are believed to be T3, and T4 (according to our numbering system).
- There are no tree preservation orders on trees immediately adjacent to the site.



5.2. Felling Licences

5.2.1. Felling licences issued by the Forestry Commission are sometimes required before removing trees. However, these licenses are aimed toward woodland and forestry management. Felling licences are NOT required for any of the following:

- Lopping, topping or pollarding.
- Removal of small trees (stem diameter less than 8cm) or fruit trees.
- Works to any trees growing within domestic gardens, orchards, or the Inner London boroughs.
- Operations involving less than five cubic meters of timber in any quarter year.
- Thinning and understorey clearing operations.
- Dangerous trees, nuisance trees, some diseased trees.
- Where removal is required to enable a fully approved development.

5.2.2. More detailed guidance can be found at <https://www.gov.uk/government/publications/tree-felling-getting-permission>

5.2.3. Hence a felling licence is **not** required relating to the trees surveyed.

³ <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

⁴ During this time, the local authority may elect to create a tree preservation order or to inform the applicant that they have no objection to the proposed works. If the local authority does not respond within six weeks, then the intended work may be undertaken. Note: the local authority cannot refuse consent for works to trees within a conservation area; they may only create a tree preservation order if they wish to have further control over what works are undertaken.

6. Arboricultural Impact Assessment

6.1. Overview

6.1.1. It is proposed to construct eight new residential properties and convert the old tennis pavilion into a residential dwelling, as indicated on the drawings in Appendix 6. The existing layout is indicated in black, the footprint of the proposed basement layout is indicated in dashed blue, and the proposed ground floor layout is indicated in purple.

6.1.2. The table below summarises the potential impact on trees due to various activities.

Activity	Trees Potentially Affected
Tree Removal: Retention Category A	None
Tree Removal: Retention Category B	None
Tree Removal: Retention Category C	T14, mixed shrubs and Buddleia
Tree Removal: Retention Category U	None
Tree Pruning	T1, T5, T6, T11 and T13
RPA: Basement Foundations	T9
RPA: Building Foundations	T4 and T11
RPA: New Pedestrian Surface	T1, T3, T4, T5, T9, and T11
RPA: Remove Existing Hard Surface	All trees
RPA: Underground Services	Unknown – To be confirmed
RPA: Change of Ground Levels	None
RPA: Soil Compaction	Trees adjacent the construction area (preventable by installing tree protection measures)

6.1.1. Other potentially damaging activities often associated with construction sites include demolition or the careless use of plant machinery, hazardous materials, or fires. All of the above potential impacts are considered in detail throughout this Section.

6.1.2. The accompanying Arboricultural Method Statement (duplicated in Appendix 6) specifies the measures proposed to minimise all possible potential risks of damage to the retained trees.

6.2. Tree Removal

6.2.1. All trees to be removed are indicated on the Impact Assessment Plan and are listed below:

6.2.2. **Retention Category A:** Our survey did not identify any Retention Category A trees.

6.2.3. **Retention Category B:** It is proposed to retain all Retention Category B trees.

6.2.4. **Retention Category C:** It is proposed to remove T14, mixed shrubs and Buddleia

6.2.5. T14 is a small tree (height 5m, diameter 9cm) and has a low amenity value. Its removal shall not have a significant impact on local visual amenity.

6.2.6. **Retention Category U:** Our survey did not identify any Retention Category U trees.

6.2.7. Details specific to each tree can also be found in the Tree Data Schedule.

6.3. Mitigation Planting

- 6.3.1. As part of the proposed development, it is proposed to plant seven new trees, Beech hedges along the east and western boundaries which border The Chine and Cascade Avenue, lay new grass lawns and ground cover planting.
- 6.3.2. A landscaping scheme has been prepared by Richard Mears Garden Design. Please refer to their Landscape Plan for further details.

6.4. Impact on Tree Canopies

- 6.4.1. Very light pruning is proposed to T1 and T13 to provide clearance from the adjacent footpaths. It is also proposed to prune back the canopies of T5 and T6 that are growing towards the proposal in order to create a clearance distance of 2m from the nearest proposed dwelling. Such pruning shall require the removal of relatively small branches which should be pruned back to a suitable growth point.
- 6.4.2. Consent has been obtained to reduce the canopy of T11 back to 1m from its old topping cuts (Application Ref No: HGY/2021/1138). Such pruning shall increase clearance from the nearest proposed dwelling.
- 6.4.3. All pruning works should be undertaken in accordance with BS 3998 guidelines.

6.5. Impact on Tree Roots

Basement Foundations:

- 6.5.1. The new basement will extend into the very outer edge of the theoretical Root Protection Area of T9. So long as it is installed in a manner that does not disturb the soils beyond the footprint of the basement, impact shall be very minor. This may be done via contiguous piling, sheet piling, pinning or any similar method which limits excavation for the basement footprint in the direction of RPAs. Excavating a temporary batter slope within the RPA must be avoided.

Building Foundations:

- 6.5.2. The foundations for the new terraced dwellings extend into the theoretical Root Protection Areas of T4 and T11. Approximately 9% and 17% of their theoretical Root Protection Areas shall be affected (respectively).
- 6.5.3. To minimise the impact on tree roots, a pile and beam or pile and raft foundation is proposed where the building shall extend into the Root Protection Areas. The following restrictions shall apply:
- Excavation shall be overseen by the project arborist.
 - Excavation for the raft or beam shall be limited to the depth of the existing asphalt tennis court surface.
 - Only hand tools, or a small mechanical excavator fitted with an untoothed bucket shall be used during the excavation.
 - The raft/beam is to be supported on narrow diameter piles (maximum diameter 250mm). Before installing such piles, their location shall be determined by trial pits excavated to a depth of 600mm using hand tools. Trial pit dimensions should not exceed 300mm x 300mm. If any roots in excess of 50mm diameter are encountered, the pile shall be relocated, and the root(s) retained intact.
 - If roots in excess of 25mm diameter are encountered close to the edge of the excavation, they shall be retained wherever possible and protected with damp sacking during times that they are unearthed. Any roots that need to be severed shall be neatly pruned by the arborist using clean, sharp secateurs.
- 6.5.4. By adopting such a sympathetic method of installation, it will be possible to retain all significant roots and ensure that the root system will be able to supply the canopy with the required water and nutrients.
- 6.5.5. Furthermore, it is also proposed to reduce the canopy of T11 (see Section 6.4.2). This pruning will result in a reduction in demand for water and nutrients from the root system. Maintaining a balanced root:shoot ratio in this manner will ensure no branches die back and no detrimental impact due to the incursion into the Root Protection Area.

New Pedestrian Surfaces:

- 6.5.6. New pedestrian pathways are proposed from The Chine and Cascade Avenue. The proposed paths are to be installed above ground and supported on lightweight steel framework.
- 6.5.7. So long as only hand tools are used to install the steel framework and no further excavation occurs, impact on trees shall be minimal.

Removal of Existing Hard Surfacing

- 6.5.8. The existing asphalt tennis court surface is to be removed to facilitate the development. Much of the existing hard surface is to be replaced with soft landscaping or permeable paving, which shall improve rooting conditions for trees.
- 6.5.9. So long as the existing surface is removed carefully, not exceeding the depth of any existing surface and sub-base, there shall be no detrimental impact.

Underground Services:

- 6.5.10. Underground service locations are yet to be finalised. Wherever possible, these should be located outside of RPAs. Where this is not possible, the project arborist should be consulted prior to any excavation. Trenching for underground services is one of the most damaging activities on construction sites, and NJUG guidelines⁵ should be followed (<http://streetworks.org.uk/wp-content/uploads/2016/09/V4-Trees-Issue-2-Operatives-Handout.pdf>) in accordance with a site-specific Arboricultural Method Statement.

Changes in Ground Levels:

- 6.5.11. No changes of ground levels in excess of 100mm within Root Protection Areas shall be made without consulting the arborist and, if necessary, gaining approval from the local authority.

Soil Compaction:

- 6.5.12. The majority of tree roots lie within the upper soil horizons. This is because the availability of oxygen decreases with depth, and roots need to breathe to stay alive. In addition, nutrients are more readily available in the form of organic matter close to the soil surface.
- 6.5.13. Healthy soils contain about 25% air space between solid particles. Increased loading of the soil caused by construction activity causes air to be squeezed out as the soil becomes compacted, preventing roots from breathing. Even an increase in pedestrian activity may cause some soil compaction.
- 6.5.14. It is important therefore that ground compaction and soil disturbance over Root Protection Areas should be avoided during the construction phase. This may be done by installing protective fencing and ground protection measures as recommended within the accompanying Arboricultural Method Statement.



6.6. Demolition Activities

- 6.6.1. The tree protection measures specified within the accompanying Arboricultural Method Statement should be installed prior to the commencement of all demolition activities (including soil stripping) to prevent any detrimental impact on tree health. Where this is not practicable, demolition of structures within Construction Exclusion Zones shall be undertaken very early on in the demolition phase, and the protective barriers installed immediately thereafter.

⁵ NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2

6.7. Waste and Materials Storage

- 6.7.1. All hazardous materials (including cement and petrochemical products) will need to be controlled according to COSHH regulations in order to ensure there is no detrimental impact on tree health. Provision shall need to be made to ensure that cement spillage avoids all Root Protection Areas.
- 6.7.2. Areas designated for the storage of building materials and waste products will need to be approved by the local authority. Root Protection Areas should be avoided. Where this is not possible, suitable ground protection measures will need to be installed.

6.8. Cabins and Site Facilities

- 6.8.1. Consideration should be given to the location of any site welfare facilities in terms of potential impact on trees. Where it is proposed to install cabins or site facilities in Root Protection Areas, the project arborist should be consulted and approval obtained from the local authority.
- 6.8.2. There is limited room for the siting of cabins and storage of materials / spoil during the construction phase so the logistics of the development shall need to be well organised to ensure that there is adequate space outside of the Tree Protection Zones for construction activity.

6.9. Boundary Treatments

- 6.9.1. If any new fences are to be installed within the Root Protection Areas of retained trees, this must be done in a manner that involves minimal excavation. A flexible fencing system that allows for exploratory holes to be excavated and the siting of posts where there is little rooting activity would be acceptable. Post holes shall need to be hand excavated. Boundary walls shall generally not be acceptable over Root Protection Areas unless they are supported by a shallow beam that spans the Root Protection Area.

6.10. Impact of Retained Trees on the Development

- 6.10.1. Some occasional trimming of the canopies will be required in the future to maintain an appropriate distance from the proposed buildings.
- 6.10.2. The foundations and any new surfaces should be designed to accommodate all potential impacts due to future tree rooting activity. These include potential vegetation related subsidence, vegetation related heave, and lifting of surfaces / light structures due to direct root pressure.

6.11. Arboricultural Method Statement

- 6.11.1. The accompanying Arboricultural Method Statement specifies restrictions on construction activities to ensure minimal impact on retained trees. All of the potential impacts noted in this section are accounted for in the Arboricultural Method Statement. So long as these protection measures are fully implemented, there shall be no long-term detrimental impact on the health of the adjacent trees.

7. Photographs

Refer also to the Tree Constraints Plan for photo locations

Photo 1.



Photo 2.



Photo 3.



Photo 4.



Photo 5.



Photo 6.



Photo 7.



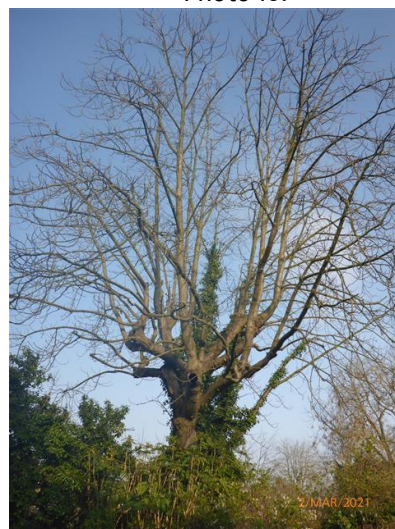
Photo 8.



Photo 9.



Photo 10.



Appendix 1: BS 5837: 2012 – Guidance Notes

This Standard prescribes the principles to be applied to achieve a satisfactory juxtaposition of trees and structures. It sets out to assist those concerned with trees in relation to design, demolition and construction to form balanced judgements.

It acknowledges the positive contribution trees may offer to a site, as well as the negative aspects of retaining inappropriate trees. It addresses the negative impacts that construction activity may have upon trees and offers mitigation strategies to minimise these impacts.

The Standard suggests a three stage approach to ensure best practice is followed when developing close to trees:

A1.1 Stage 1: Survey Details and Notes

A ground level visual survey was undertaken. No climbed inspections or specialist decay detection were undertaken. Only trees with a stem diameter over 75mm, which lie within the site boundary or relatively close to it, were included.

Where applicable, trees with significant defects have been highlighted and appropriate remedial works have been recommended. However, this report should not be seen as a substitute for a full *Safety Survey* or *Management Plan* which are specifically designed to minimise risk and liability associated with responsibility for trees.

Wherever practicable dimensions were obtained using diameter tapes, logger's tapes, distometers and clinometers. Where obstacles prevent accurate measurement, dimensions are estimated. Trees on privately owned third party are surveyed from the best available vantage point and observations relating to the condition of these trees should be treated accordingly. All height measurements should be regarded as approximate.

Data is recorded for each tree and is presented in a Tree Data Schedule. Each tree is allocated a **Retention Category** according to its size, amenity value, condition and safe useful life expectancy. The categories are allocated independently of development proposals. Our interpretation of the Retention Categories is explained below:

A1.1.1 Retention Categories

A Category: Trees of high quality and amenity value. Usually, mature trees with a significant life expectancy which would enhance any development. Retention of these trees is strongly encouraged.

B Category: Trees of moderate quality and amenity value. Usually these are maturing trees or younger trees with exceptional form. Retention of these trees is desirable though the removal of occasional specimens may be acceptable.

C Category: Trees of low quality or small specimens with a relatively low amenity value. These trees are not considered to be a material planning constraint and their removal will generally be seen as acceptable in order to facilitate development.

U Category: Trees of such low quality that their removal is recommended regardless of development proposals.

Occasionally trees are borderline and do not fall neatly into one of the categories A, B or C. In such cases we apply a superscript (+/-) such that:

C⁺ Indicates borderline C/B, though Category C is deemed to be most appropriate.

B⁻ Indicates borderline C/B, though Category B is deemed to be most appropriate.

The British Standard suggests that each of the A, B and C categories may be further subdivided (A1, A2, A3, B1, B2, B3 etc) such that subcategory 1 denotes mainly arboricultural values, subcategory 2 denotes mainly landscape values and subcategory 3 denotes mainly cultural values (including conservation). Multiple subcategories may be used.

Our experience suggests that these subdivisions lack clarity and can be confusing. Within this report subcategories are **not** denoted. Where appropriate, the use of phrases such as '*Part of a formal group*', or '*Has a high ecological value*', or '*Offers good screening to the site*' are incorporated into the observation section of the Tree Data Schedule. We believe this conveys all relevant landscape and cultural information without any confusion.

Tree Constraints Plan (TCP). This indicates the position, crown spread, Retention Category and Root Protection Area of each tree. It is used to inform where development may proceed without causing damage to trees.

Root Protection Area (RPA). This is the area around each tree likely to contain the majority of roots. It should ideally remain undisturbed to avoid a detrimental impact on tree health. For single stemmed trees It is calculated according to the formula “radius of RPA” = “12 x stem diameter”. Where a tree has more than one stem, the equivalent-single-stem diameter is usually recorded. This is calculated by adding the squares of the stems and then finding the square root of this total. The radius of the Root Protection Area is then calculated by multiplying the equivalent-stem-diameter by 12.

Shade Constraints. The previous Standard (BS 5837 2005) suggested that shade constraints should be indicated on the TCP. These are denoted as a circle-segment drawn northwest to due east with a radius equal to the height of the tree. These do not represent the actual shade pattern which varies through the seasons. Rather, they indicate the area most shaded by the tree throughout the course of the year. Ideally habitable room windows should be located outside of these shade constraints. Where we consider it appropriate, we will include shade constraints information on our Impact Assessment Plan or Proposed Layout Plan.

A1.2 Stage 2: Arboricultural Impact Assessment

After the initial survey and the production of the Tree Constraints Plan, arborists and designers are encouraged to work together to establish a design proposal with minimal impact on the high quality trees. An assessment should be made of all possible impacts including the impact that the trees may have upon the proposal. The arborist may recommend mitigation strategies to minimise these impacts and help achieve a more harmonious juxtaposition between buildings and trees.

A1.3 Stage 3: Arboricultural Method Statement

This type of report specifies the measures necessary to protect trees against damage from construction activity. The Method Statement should be written in a manner that it may be conditioned and enforced by the local authority upon granting of planning permission. The site manager should be familiar with all aspects of the Method Statement and should ensure that all persons working on the site are aware of those aspects which appertain to their work. This includes service installation engineers and operators of plant machinery.

Appendix 2: Survey Methodology

Ground level visual surveys are carried out using the *Visual Tree Assessment* technique described by Mattheck and Broeler (1994) and endorsed by the Arboricultural Association (LANTRA Professional Tree Inspection course, 2007).

Structural condition is assessed by inspecting the stem and scaffold branches from all angles looking for weak branch junctions or symptoms of decay. Particular attention is paid to the stem-base. Cavities are explored using a metal probe in order to assess the extent of any decay. If this is not possible further inspection is recommended in the form of a climbed inspection or using specialist decay detection equipment.

The physiological condition is assessed by inspecting the stem, branches and foliage for symptoms of disease. The overall vigour of the tree is also taken into account.

Where significant defects are observed, recommendations are made according to a scale of priority in order to reduce the likelihood of structural failure. The position of the tree and its potential targets are taken into account.

Measurements are obtained using a diameter tape, clinometer, distometer and loggers tape. Where this is not practical measurements are estimated.

Some trees are surveyed as groups, though this is usually avoided close to areas likely to be developed.

Finally, a *Retention Category* is allocated as described in Appendix 1.1.1.

Appendix 3: Glossary of Tree Data

This section explains the terms used in the **Tree Data Schedule** (see Section 3 and Appendix 6).

A2.1 General Observations

Numbering System:	Each item of vegetation has its own unique number prefixed by a letter such that T1=Tree 1, G2=Group 2, H3=Hedge 3 and W4=Woodland 4, S5=Shrub 5.
Age Categories:	
Young	Usually less than 10 years old.
Semi-Mature	Significant future growth to be expected, both in height and crown spread (typically below 30% of life expectancy).
Early-Mature	Full height almost attained. Significant growth may be expected in terms of crown spread (typically 30-60% of life expectancy).
Mature	Full height attained. Crown spread will increase but growth increments will be slight (typically 60% or more of life expectancy).
Veteran	A level of maturity whereby significant management may be required in order to keep the tree in a safe condition.
Over Mature	As for veteran except management is not considered worthwhile.
Species:	Common names and Latin names are given.
Height:	Measured from ground level to the top of the crown.
Stem Diameter:	Taken at 1.5m above ground level where possible. On multi-stemmed trees this measurement may be taken at ground level, though usually an indication of the number of stems and average diameter is given, e.g. 3 x 30cm.
Crown Height:	Measured from ground level to the height at which the main crown begins. Where the crown is unbalanced it is measured on the side deemed to be most relevant. This is usually the side facing the area of anticipated development.
Tree Diagram:	This scaled drawing is computer generated based on measurements taken for stem diameter, crown height and spread, and overall height. It is designed to help the reader rapidly assess the data. It is not an accurate representation of the form of the tree.
Crown Spread:	Measured N, E, S & W, taken from the centre of the stem and usually rounded up to the nearest metre.
Observations:	If a tree's position is considered to be relevant it will be commented upon (e.g. overhanging a children's play area). Tree form and pruning history are also recorded along with an account of any significant defects. Defects and descriptive terms are dealt with in more detail at the end of this section.
Recommendations:	Usually based on any defects observed and intended to ensure that the tree is in an acceptable condition.
Priority Scale:	Depending upon the threat posed by the tree, and the likelihood of failure, recommendations should be carried out according to the following priority scale:
Urgent	To be carried out as soon as possible.
Very High	To be carried out within 1 month.
High	To be carried out within 3 months.
Moderate	To be carried out within 1 year.
Low	To be carried out within 3 years.
Inspection Frequency:	An interval of 6 months, 1 year, 1.5 years or 3 years is allocated before the next inspection is due. Wherever practical, consideration should be given to seasonal changes so that deciduous trees are not always surveyed in winter when they have no leaves, or in summer when leaves may obscure branches within the upper crown.
Vigour:	An indication of growth rate and the tree's ability to cope with stresses:
High	Having above average vigour.
Moderate	Having average vigour.
Low	Having below average vigour.
Very Low	Tree is struggling to survive and may be dying.
Physiological Condition:	
Good	Healthy and with no symptoms of significant disease.
Fair	Disease present or vigour is impaired.
Poor	Significant disease present or vigour is extremely low.
Very Poor	Tree is dying.
Structural Condition:	
Good	Having no significant structural defects.
Fair	Some defects observed though no high priority works are required.
Poor	Significant defects found. Tree requires monitoring or remedial works.
Very Poor	Major defects which will usually require significant remedial works or tree removal.
Amenity Value:	
Very High	Exceptional specimen, observable by a large number of people.
High	Attractive specimen, observable by a significant number of people.
Moderate	One of the above factors is not applicable.
Low	Unattractive specimen or largely hidden from view.
Life Expectancy:	The estimated number of years before the tree may require removal. Classified as (<10), (10 – 20), (20 – 40), or (40+).
Retention Category:	These are explained in detail in Appendix 1.

A2.2 Evaluation of Defects

Cavities, wounds, deadwood etc are all evaluated as follows:

Major	Such that structural integrity is, or will become, compromised and the tree is, or will inevitably become, hazardous.
Significant	A defect that may over time become a major defect, though not necessarily so. This will depend on the vigour of the tree and its ability to deal with decay etc.
Minor	A defect that is unlikely to develop into a major defect.

Appendix 4: Author & Surveyor's Qualifications

Qualifications & Experience of Emma Hoyle FDS (Arboriculture), ED (Forestry & Arboriculture), M. Arbor. A.

Emma is a qualified Arboricultural Consultant educated to Level 5 in Arboriculture at Askham Bryan College, is a professional member of the Arboricultural Association and is a LANTRA accredited *Professional Tree Inspector*. She has worked for Crown Consultants since 2015 and has since written numerous reports relating to all aspects of arboriculture including; planning and development, vegetation related subsidence, tree preservation orders and tree risk assessment. Emma regularly attends seminars and events in order to keep abreast with current knowledge and best practise in Arboriculture.

Prior to becoming an arboricultural consultant, Emma worked for two reputable tree surgery firms from 2008 and became an NPTC Qualified tree surgeon after completing a Level 3 Extended Diploma in Forestry and Arboriculture at Askham Bryan College. Emma also has experience in other areas of arboriculture such as forest clearance, tree planting, tree maintenance and landscaping.

Qualifications & Experience of Joe Taylor - MArborA, FdSc (Arboriculture)

Joe began his career in Arboriculture as a tree surgeon/climber. During his time as a tree surgeon, Joe has achieved City & Guilds NPTC qualifications in Chainsaw Maintenance and Cross Cutting, Tree Climbing and Rescue, Safe Use of Manually Fed Wood-chipper and Supporting Colleagues Undertaking Tree Related Operations.

Joe obtained a Foundation Degree in Arboriculture at Askham Bryan College in 2015 which he passed with merit. Joe is a professional member of the Arboricultural Association, the International Society of Arboriculture and the Royal Forestry Society and regularly attends industry related seminars in order to keep abreast of industry best practice.

Studying at Askham Bryan College reinforced Joe's passion for trees and drove his enthusiasm to learn more. Learning how trees interact with their surrounding environment and their importance within our urban and rural landscapes highlighted an interest in pursuing a career in consultancy.

Since working for Crown Consultants Joe has undertaken numerous surveys and produced numerous reports for the purpose of planning (BS 5837), tree condition surveys, subsidence risk assessments, root surveys and decay detection investigations.

Appendix 5: Further Information

Building Near Trees – General

National Joint Utilities Group publication # 10 (1995), *Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*. Downloadable at www.njug.demon.co.uk/pdf/NJUG%20Publication10.pdf

NHBC Standards Chapter 4.2., *Trees and Buildings*.

Horticulture LINK project 212. (University of Cambridge, 2004), *Controlling Water Use of Trees to Alleviate Subsidence Risk*.

Tree Planting and aftercare

See www.trees.org.uk/leaflets.php# for downloadable leaflets on selecting a garden tree, planting, aftercare and veteran tree management.

British Standards

BS 5837: 2012. *Trees in Relation to Design, Demolition and Construction – Recommendations*.

BS 3998: 2010. *Recommendations for Tree Work*.

BS 3936: 1992. *Nursery Stock. Part 1: Specification for Trees and Shrubs*.

BS 3936: 1992. *Nursery Stock. Part 10: Specification for Groundcover Plants*.

BS 4043: 1989. *Transplanting Root-balled Trees*.

BS 8004: 1986. *Foundations*.

BS 8103: 1995. *Structural design of Low-Rise Buildings*.

BS 8206: 1992. *Lighting for Buildings*.

BS 8545: 2014. *Trees: From nursery to independence in the landscape – Recommendations*

BS 3882: 2015. *Topsoil*.

BS 4428: 1989. *General Landscaping Operations (excluding hard surfaces)*.

Permission to do Works to Protected Trees / Tree Law

Forestry Commission (Edinburgh, 2003), *Tree Felling – Getting Permission*. Country Services Division - Forestry Commission. Downloadable at [www.forestry.gov.uk/website/pdf.nsf/pdf/wgfsfell.pdf/\\$FILE/wgfsfell.pdf](http://www.forestry.gov.uk/website/pdf.nsf/pdf/wgfsfell.pdf/$FILE/wgfsfell.pdf)

Transport and the Regions (Department of the Environment, 2000), *Tree Preservation Orders, A Guide to the Law and Good Practice*. Downloadable at www.communities.gov.uk/publications/planningandbuilding/tposguide

C. Mynors, *The Law of Trees, Forests and Hedgerows* (Sweet and Maxwell, London, 2002)

Communities and Local Government website with numerous downloadable documents, from: <http://www.communities.gov.uk/planningandbuilding/planning/treeshighhedges/>

Lighting Levels

P.J. Littlefair, B.R.E. 209: *Site layout planning for daylight and sunlight A guide to good practice*. B.R.E. Bookshop, London.

British Standards Institution. Code of practice for day lighting. *British Standard BS 8206: Part 2* (1992).

Chartered Institution of Building Services Engineers. *Applications manual: Window Design* (London, 1987).

NBA Tectonics. A study of passive solar housing estate layout. ETSU Report S-1126. Harwell, Energy Technology Support Unit (1988).

I.P. Duncan; D. Hawkes, *Passive solar design in non-domestic buildings*. ETSU Report S-1110. Harwell, Energy Technology.

P. J. Littlefair, *Measuring Daylight, BRE Information Paper 23/93 f3.50*. (Advises on measuring daylight under the real sky or an artificial sky, allowing for the changing nature of sky light).

High Hedges

Communities and Local Government website with numerous downloadable documents, from: <http://www.communities.gov.uk/planningandbuilding/planning/treeshighhedges/>

Tree Specific Websites

www.crowntrees.co.uk	Crown Consultants site containing useful information
www.trees.org.uk	Arboricultural Association
www.rfs.co.uk	Royal Forestry Society of England, Wales and N. Ireland
www.treehelp.info	The Tree Advice Trust
www.woodland-trust.org.uk	The Woodland Trust
www.treecouncil.org.uk	The Tree Council

Appendix 6: Tree Data Schedule and Drawings

The Tree Data Schedule and any drawings accompanying this report follow this page. They are also provided as separate documents for ease of printing and screen viewing.

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) N W E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals)		Vigour	Amenity Value
								Priority	Inspect Freq (yrs)	Physiological Condition	Life Expectancy (yrs)
										Structural Condition	Retention Category
T1	Semi-Mature Pyracantha Pyracantha sp.	3	1	11	2 2 3.5 2		Form: Twin-stemmed at ground level with an unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed.	No action required.		Moderate Good Good	Low 10-20 C
								n/a	3		
T2	Semi-Mature Whitebeam Sorbus aria.	5	1.5	13	2 2 2 2		Form: Single stemmed and vertical with a balanced crown. History: No evidence of significant pruning. Defects: No significant defects observed.	No action required.		High Good Good	Moderate 20-40 C
								n/a	3		
T3	Early-Mature Horse Chestnut Aesculus hippocastanum.	9	5.5	54	3.5 2.5 4.5 4		Form: Multi-stemmed at 2m with a balanced crown. History: Reduced in distant past. Defects: No significant defects observed.	No action required.		Moderate Good Good	High 40+ B
								n/a	3		
T4	Early-Mature Horse Chestnut Aesculus hippocastanum.	10	3	65	4.5 5.5 5		Form: Twin-stemmed at 3m with a balanced crown. History: Reduced in distant past. Defects: No significant defects observed.	No action required.		Moderate Good Good	High 40+ B
								n/a	3		
T5	Semi-Mature Horse Chestnut Aesculus hippocastanum.	7.5	3	30	3 3 5 3		Form: Twin-stemmed at 2m with a slightly unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed. Other: Limited inspection, dimensions estimated.	No action required.		Moderate Good Good	Moderate 40+ B -
								n/a	3		
T6	Semi-Mature Horse Chestnut Aesculus hippocastanum.	5.5	2	18	4 0.5 2.5 3		Form: Single stemmed with a slight lean and an unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed. Other: Limited inspection, dimensions estimated.	No action required.		High Good Good	Moderate 20-40 C
								n/a	3		
T7	Semi-Mature Ash Fraxinus excelsior.	7	4	39	2 4.5 3		Form: Twin-stemmed at ground level with an unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed. Other: Ivy prevented detailed inspection, dimensions estimated. Stem diameter is equivalent to two stems at 30 and 25cm.	Remove ivy and inspect stem for defects.		High Good Fair	Low 20-40 C
								Moderate	1		

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) N W S E	Scaled Tree Diagram (m) 909	Notes	Recommendations (Independent of any development proposals)		Vigour	Amenity Value
								Priority	Inspect Freq (yrs)	Physiological Condition	Life Expectancy (yrs)
										Structural Condition	Retention Category
T8	Semi-Mature Monterey Cypress Cupressus macrocarpa.	5	2	40	3 4.5 2 3	250	Form: Multi-stemmed specimen. History: Topped at 4m. Defects: No significant defects observed. Other: Limited inspection, dimensions estimated.	No action required.		High	Low
								n/a	3	Good	40+ C
T9	Mature Ash Fraxinus excelsior.	11	2.5	70	4.5 7 4.5 5	250	Form: Multi-stemmed at 4m with a slightly unbalanced crown. History: Multiple pruning wounds due to crown reduction. Defects: No significant defects observed. Other: Limited inspection, dimensions estimated.	No action required.		Moderate	Moderate
								n/a	3	Good	40+ B
T10	Semi-Mature Horse Chestnut Aesculus hippocastanum.	5	2	15	2 2 2	250	Form: Single stemmed and vertical with a balanced crown. History: No evidence of significant pruning. Defects: No significant defects observed. Other: Limited inspection, dimensions estimated.	No action required.		High	Low
								n/a	3	Good	40+ C
T11	Early-Mature Horse Chestnut Aesculus hippocastanum.	11	5	84	5 7.5 4.5 5	250	Form: Twin-stemmed at 2m. History: Topped at 5m in distant past. Defects: Major cavities developing to topping cuts. Other: Ivy prevented detailed inspection.	Remove ivy and inspect stem for defects. Climbed inspection to investigate cavities and historic topping.		Moderate	Moderate
								High	1.5	Good	20-40 B
T12	Early-Mature Ash Fraxinus excelsior.	8.5	4	40	7 4.5 6 4.5	250	Form: Multi-stemmed at 3m with a slightly unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed.	No action required.		High	Moderate
								n/a	3	Good	40+ B
T13	Semi-Mature Goat Willow Salix caprea.	4.5	2	21	5 2 4 3	250	Form: Twin-stemmed at 0.5m with an unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed. Other: Stem diameter is equivalent to two stems measured at 15cm each.	No action required.		Moderate	Low
								n/a	3	Good	10-20 C
T14	Semi-Mature Sycamore Acer pseudoplatanus.	5	3	9	2.5 1 3 2	250	Form: Single stemmed and vertical with an unbalanced crown. History: No evidence of significant pruning. Defects: No significant defects observed.	No action required.		High	Low
								n/a	3	Good	40+ C

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (cm)	Crown Spread (m) N W E S	Scaled Tree Diagram (m) 909	Notes	Recommendations (Independent of any development proposals)		Vigour	Amenity Value
										Physiological Condition	Life Expectancy (yrs)
								Priority	Inspect Freq (yrs)	Structural Condition	Retention Category
T15	Semi-Mature Magnolia Magnolia sp.	4.5	2	20 @ Base	2.5 2.5 2.5	25 0 	Position: Situated on third party land. Form: Multiple-stemmed specimen. History: No evidence of significant pruning. Defects: No significant defects observed. Other: Limited inspection, dimensions estimated.	No action required.		High Good Fair	Low 20-40 C
								n/a	3		



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7

Drawing No:
CCL 10738 / TCP Rev: 1

Title:
Tree Constraints Plan
(Existing Layout)

Site:
The Gove Lawn Tennis Club
Cascade Avenue, Haringey

0 5 10m

Scale: 1:200 Paper Size: A1



CROWN
Arboricultural Consultants
01423 316660

Tree Retention Categories
Stems & canopies shown

Category A tree

Category B tree

Category C tree

Category U tree

Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.

Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees

Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.

Trees unsuitable for retention due to their very poor condition.

Tree Constraints Plan

BS s837 Root Protection Area (radius = 1xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.

Root Protection Area having been amended to account for for site conditions

T1= Tree No 1

G2 = Group No 2

H3 = Hedge No 3

Photo 1

Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.

MN = Measured North:

Tree Ref.	Species	Height (m)	Root Protection Area	
			Radius (m)	Area (m²)
T1	Pyracantha	3	1.3	5.2
T2	Whitebeam	5	1.6	8.0
T3	Horse Chestnut	9	6.5	132.0
T4	Horse Chestnut	10	7.8	191.0
T5	Horse Chestnut	7.5	3.6	41.0
T6	Horse Chestnut	5.5	2.2	15.0
T7	Ash	7	4.7	69.0
T8	Monterey Cypress	5	4.8	72.0
T9	Ash	11	8.4	222.0
T10	Horse Chestnut	5	1.8	10.0
T11	Horse Chestnut	11	10.1	319.0
T12	Ash	8.5	4.8	72.0
T13	Goat Willow	4.5	2.5	20.0
T14	Sycamore	5	1.1	4.0
T15	Magholia	4.5	2.0	13.0

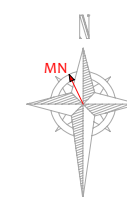
Tree Constraints Plan

(Existing Layout)

Photo 8

Photo 9

Photo 10



Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

Proposed Basement Layout (Dashed Blue)

Proposed Ground Floor Layout (Pink)

X T14, mixed shrubs and Buddleia require removal to facilitate access. Mixed shrubs are also to be removed along The Chine and Cascade Avenue. Replacement hedge planting is proposed and new trees.

Canopy of T13 to be pruned back to provide clearance from the pathway.

Adequate clearance between building and tree canopy.

Consent has been obtained from the local authority to reduce the canopy of T11 back to 1m from the old topping cuts Planning App Ref No: HGY/2021/1338. Such pruning shall increase the clearance between the proposed building and canopy of T11. Approximate extent of canopy pruning is indicated with a dashed blue oval.

The proposed canopy reduction to T11 shall create a reduction in demand for water and nutrients on the root system. Maintaining a balanced root:shoot ratio in this manner will ensure no branches die back and no detrimental impact due to the incursion into the RPA.

Approximately 9% and 17% of the theoretical RPAs of T4 and T11 shall be affected by proposed building foundations. In order to ensure minimal impact on roots due to building foundations, the following mitigation is proposed:

- A shallow raft or beam foundation shall be installed.
- Excavation for raft or beam shall not exceed the depth of the existing tennis court surface.
- Excavation for the raft or beam shall be undertaken using hand tools or a carefully marshalled mechanical excavator.
- Deeper piles (not exceeding 250mm diameter) may be used to support the raft/beam.
- Trial pits to be excavated to ensure all piles are located to avoid severing any roots in excess of 50mm diameter.
- All excavation, including trial pits shall be overseen by an appointed arborist.

Canopy of T1 to be pruned back to provide clearance from the pathway.

Mixed small garden trees/shrubs (poor visibility)
Ht: circa 4-5m

Canopy of T1 to be pruned back to provide clearance from the pathway.

New pedestrian pathways are proposed along the front of the dwellings which will lead to The Chine and to Cascade Avenue. The proposed paths are to be installed above ground and supported on a lightweight steel frame. So long as only hand tools are used to install the steel framework and no further excavation occurs, impact on tree roots shall be minimal. Please refer to the Richard Mears landscape Plan for further details.

Adequate clearance between building and canopy of T3.

X Mixed shrubs including
X Sloe, cotoneaster,
X pyracantha and saplings
X Ht: 4m **X**

Adequate clearance between building and canopy of T4.

Adequate clearance between buildings and tree canopies.

Canopy pruning recommended to T4 and T5 to increase clearance from the build and for construction activity. Such pruning shall not have a significant impact on local visual amenity

A tiny portion of the theoretical RPA of T9 shall be affected by the proposed basement foundations. So long as the foundations are installed in a manner that does not disturb the soils beyond the basement footprint, the impact on T9 shall be very minor.

Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

Drawing No: CCL 10738 / IAP Rev: 1
Title: Impact Assessment Plan
(Existing Layout with Proposals Overlaid)
Site: The Grove Lawn Tennis Club
Cascade Avenue, Haringey
Scale: 0 5 10m
1:1200 Paper Size: A1



Tree Retention Categories
Stems & canopies shown

- Category A tree
- Category B tree
- Category C tree
- Category U tree

Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.

Trees of moderate quality with a life expectancy of 20+ years. Usually mature trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees.

Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.

Trees unsuitable for retention due to their very poor condition.

BS 5837 Root Protection Area (radius = 1x stem diameter)
Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.
Root Protection Area having been amended to account for site conditions

T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

X Tree to be removed to facilitate the proposal
X Tree to be removed due to its low quality
Proposed pruning

MN = Measured North:
Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.

Tree Ref.	Species	Height (m)	Root Protection Area	
			Radius (m)	Area (m ²)
T1	Pyracantha	3	1.3	5.2
T2	Whitebeam	5	1.6	8.0
T3	Horse Chestnut	9	6.5	132.0
T4	Horse Chestnut	10	7.8	191.0
T5	Horse Chestnut	7.5	3.6	41.0
T6	Horse Chestnut	5.5	2.2	15.0
T7	Ash	7	4.7	69.0
T8	Monterey Cypress	5	4.8	72.0
T9	Ash	11	8.4	222.0
T10	Horse Chestnut	5	1.8	10.0
T11	Horse Chestnut	11	10.1	319.0
T12	Ash	8.5	4.8	72.0
T13	Goat Willow	4.5	2.5	20.0
T14	Sycamore	5	1.1	4.0
T15	Magnolia	4.5	2.0	13.0

