ARBORICULTURAL REPORT

31 Priory Road
London
NW6 4NN

28th April 2022

Prepared by Andrew Day HND Arb. M.Arbor.A, CEnv

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Scope

The purpose of this report is to provide Arboricultural advice in relation to identifying the constraints of trees in third party gardens neighbouring the site, in relation to the proposal to construct a garden room in the garden space of the existing property. Providing advice on how the trees could be impacted and protection measures to be implemented using the guidelines and principles of BS5837:2012.

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1 INTRODUCTION

1.1 Brief:

This report has been prepared at the request of Mr M Canning the property owner, to provide advice on the arboricultural constraints regarding the trees in neighbouring gardens, which could potentially be impacted during works to implement the proposed development layout, and the protection measures that will be need to safeguard the trees during construction of the garden room.

1.2 Qualifications and experience:

I have based this report on my site observations and the provided information, and I have come to conclusions in the light of my experience. I have experience and qualifications in arboriculture and list the details in **Appendix 1.**

1.3 Documents and information provided:

A plan showing the layout proposal.

1.4 Relevant background information:

The trees are located in third party ownership.

The garden space is covered in hard standing where the garden room is to be situated.

1.5 Scope of this report:

This report is only concerned with trees located in the neighbouring gardens, which could be impacted by construction works to implement the proposed layout, and the measures required to provide protection for them as best prescribed in the guidance of BS5837: 2012 'trees in relation to design, demolition and construction'. Any issues regarding construction methods etc. is outside the remit of an Arborist and remedy should be sought with suitably qualified persons, for example builder, engineer etc. For the purposes of this report an Arborist / Arboriculturalist is someone who through training and experience has the knowledge to assess trees and their condition in a competent manner. Trees with a dbh of less than 75mm have not been included as per the guidance in BS5837:2012 or species considered to be shrub specimens.

2 APPRAISAL

2.1 Brief site description:

This site is the rear garden of the property that has a combination of patio and compacted gravel covering the area, with raised flower beds. Brick boundary walls provide the boundary feature to the garden space to the north, south and west, with a wooden fence to the east. Garden space of a similar nature abuts the site.

2.2 Condition of the trees:

The trees appear to be in a healthy condition with no signs of pests or diseases normally associated with the species. Because they are in third party ownership, they could not be inspected in any detail.

A more detailed analysis of the trees can be found in **Appendix 3**.

2.3 Suitability of tree for location and management requirements at present:

In my opinion the trees could be considered suitable for the site. I am not aware of any conflict with the usage of the site or property relating to this tree either current or historic. The growth potential of T1 & T3 could cause displacement damage to the boundary wall as they mature, this will need to be monitored. These are the responsibility of other people.

No management is considered necessary at present.

2.4 Potential effects of development on the tree:

To implement the planning permission being sought, the trees will not need to be removed, but the small overhanging canopies of T1 & T3 would best be pruned back to the boundary to allow suitable clearance. All tree surgery work will need to be undertaken in accordance with BS3998:2010 and take into account any relevant wildlife legislation.

Because the boundary wall has likely been present for many years, and likely before the trees had developed, it's possible this has acted as a root barrier and no significant roots have extended onto the site. The footprint of the building will sits outside of the confines if the RPA (Root Protection Area) of the trees where it encroaches onto the site. Therefore, the excavation works to install the shallow pad foundations will not have a direct impact on the trees.

To ensure every care is taken when excavating the pads directly adjacent to where the calculated RPA extends onto site, despite it being feasible roots will not have extended beyond the wall foundation, the excavations will be undertaken using hand tools. Any roots encountered will be pruned clear and suitably covered.

A non-porous liner will be placed in the excavated holes adjacent to the RPA to deflect future root growth away and prevent any toxins leaching into the soil.

Protective fencing will not be required in this case, because the boundary wall and fence will prevent further access into the RPA and stop collision damage occurring to the main stems. At no point will materials be stored in the RPA where it extends onto site, the constraints of the trees are shown on the Tree Constraints Plan in **Appendix 5**.

The main risk of the development and associated activities impacting on the trees apart from those discussed above where excavation adjacent to the RPA is required, will be from indirect actions such as inconsiderate material storage, material mixing etc. However, this can be addressed by careful planning of work procedures and installing protection measures prior to works commencing on site. There is sufficient space on site outside of the protection zone where materials can be stored so as not to be of any notable risk to the trees.

In this case the potential impact of the proposal in relation to the trees is considered to be low, with specific measures being able to be implemented ensure that construction pressures do not adversely affect their health or longevity.

The trees can be sufficiently protected by following the principles and measures contained within this report and those within the method statement in **Appendix 3**.

2.5 Potential effects of the tree on the development:

Leaf litter could become a problem if it causes drains or gutters to become blocked, that could impact in other ways on the building, or if left on access surfaces where they could become a slip hazard. To address this gutter guards could be installed to prevent build-up of leaf litter that could become a problem, or regular cleaning of the gutters employed. Regular clearing of falling leaves on the access route, especially in times of wet weather will address any potential slip hazards caused by this seasonal occurrence.

Shadow cast from the trees will not be an issue given the orientation of the site and the usage of the building. Any shadow cast will fall away from the building. The conflicts normally encountered with having buildings near to trees can be addressed with scheduled maintenance.

2.6 Proposed solutions to safeguard the trees to remain during construction works:

2.6.1 Protective fencing

Protective fencing will not be required in this case because the boundary wall and fence will protect the tree in third party ownership. Ground protection will not be required because the RPA barely extends onto site and already covered din hard surfacing.

2.6.2 Services

No details relating to service runs have been provided to me. Locations of service runs will be confirmed by the project architect and kept outside of the RPA where possible. Any new service trenches will be opened using hand digging / air spade works with an arborist on site to supervise proceedings. Alternatively, services could be laid above ground and protected in piping or similar to prevent excavation in the RPA.

2.6.3 Site facilities and material storage

Although there will be space on site for this element of the construction process, care will still have to be taken to identify the type of materials required and the access of any machinery, vehicles or plant needed to move them, as these can cause collision damage to aerial parts of the trees as well as soil contamination or compaction. At no point will materials be stored within the RPA. The site manager will provide details on this aspect of the project if felt necessary by the local authority, but as long as the RPA is not breached then this should not present a problem.

2.6.4 Works within RPA

No excavation works are required in the RPA.

Where excavation works are required to install the foundation pads directly adjacent to where RPA extends onto site, this will be done initially using hand tools and in accordance with the hand dig method statement provided. Any roots will be pruned clear and suitably covered.

2.6.5 Site supervision

The site manager will provide a timetable of works on the site, listing all of the key stages of development, starting with establishing site facilities, through to completion of the site.

In this case I do not considered arboricultural supervision is required.

If the local authority require a timetable of supervision, it will be as follows.

Arboricultural supervision will take place prior to works commencing on site to ensure protection measures are understood and implemented with a pre-commencement meeting with the site manager and other relevant personnel. In this case I consider three supervision visits will be sufficient.

Prior to work, all key personnel connected with the site will be briefed by an arborist with regard to the importance of the tree protection and methods of ensuring that the trees are protected during the construction period. A record of all arboricultural related site meetings will be made, signed off and available for inspection by the local authority if required.

Any personnel inducted on site will be made aware of the tree protection measures and will be responsible for their own actions in maintaining them and not breaching them in any way.

2.6.6 Site completion

Once work has been completed, an arborist will inspect the trees and comment on their condition and prescribe any mitigation works required. The tree protection measures are expanded upon in **Appendix 3**.

3 CONCLUSIONS

- To implement this development the trees will not need to be removed, but the overhanging canopies of T1 & T3 will be selectively pruned back to the boundary for clearance. This will not impact on their health, longevity, or wider public amenity value.

- It is possible that because there is already a brick boundary wall and hard standing in this location, that significant root development from the trees has been deflected or does not extend onto site. Where pad foundations will be required to be installed to support the building directly adjacent to the RPA, excavation will be undertaken initially using hand tools.

- The trees can be adequately protected from construction pressures by implementing and adhering to the protection measures provided in the method statement in **Appendix 3**.

4 OTHER CONSIDERATIONS

4.1 Trees subject to statutory controls:

I am not aware of any TPO (Tree Preservation Orders) on the trees or other restrictions. I suggest that the local authority is contacted to confirm this and kept updated with any proposed tree works including root pruning so as to form a good working relationship and to prevent misunderstandings or contravention of protection measures. This statement is meant for readers of this report as an advisory, to make sure they make the relevant checks so as not contravene any protection status the trees may have.

Andrew Day HND Arb
For Andrew Day Arboricultural Consultancy Ltd.

Brief qualifications and experience of Andrew Day

I hold a Higher National Diploma in Arboriculture. I have been working in the field of arboriculture for approximately 10 years, spending time as a contracting arborist undertaking all aspects of practical arboriculture both in the UK and Europe. I have also worked within local government as a tree officer working for a variety of local authorities. I have experience of both the practical and theoretical aspects of arboriculture having worked within the public and private sector. I am currently a consulting arborist for Andrew Day Arboriculture Ltd.

1. Qualifications:

Higher National Diploma in Arboriculture (1996)

NPTC (National Proficiency Training Council) units 20, 21 and 22

Lantra professional tree inspection certificate

2. Practical experience:

Prior to establishing my company, I worked for a private Arboriculture company for three years undertaking many practical aspects of Arboriculture. I moved on from this to become a local authority tree officer for five years, my duties included consultation on planning matters with regard to trees, advice to the general public, managing the council's tree stock and liaising with other professionals on Arboricultural related issues. I was approached by an established tree contracting and consulting company in Essex to develop and run the consultancy department as their principle consultant which I did for three years.

SITE PHOTOGRAPHS

Showing T1 & T2 with boundary wall

Showing T2 & t3 with boundary wall and existing hard surface of patio

Showing area for garden room which is already covered in hard surfacing

SITE SPECIFIC INFORMATION

Explanatory Notes

Tree Survey

Tree Protection Method Statement and Protection Criteria

Root Protection detail

Hand dig method statement

Arboricultural Considerations notice for site hut and inducted personnel

Explanatory Notes

Measurements/estimates: All dimensions are estimates unless otherwise indicated. Measurements taken with a tape or clinometer are indicated with a '*'. Less reliable estimated dimensions are indicated with a '?'.

Species: The species identification is based on visual observations and the common English name of what the tree appeared to be is listed first, with the botanical name after in brackets. In some instances, it may be difficult to identify a particular tree quickly and accurately without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicate it with a '?' after the name in order to avoid delay in the production of the report. The botanical name is followed by the abbreviation sp if only the genus is known. The species listed for groups and hedges represent the main component and there may be other minor species not listed.

Height: Height is estimate height to the nearest metre.

Spread: The maximum crown spread is visually estimated to the nearest metre of the total crown spread diameter. It should be noted that the crown of some trees can be one side, however this usually indicated within the report.

Diameter: These figures relate to 1.5m above ground level and are recorded in centimetres. Estimate measurements are banded 0-10cm, 11-20, 21-30 etc. If appropriate, diameter is measure with a diameter tape. 'M' indicates trees or shrubs with multiple stems. 'AV' indicates average and is the average of two stems when dealing with twin stem trees.

Estimated Age: Age is assessed as **M** mature (last one third of life expectancy), **EM** early-mature (one third to two thirds life expectancy) and **Y** young (less than one third life expectancy).

FSB: First significant branch from ground level (direction shown on tree protection / constraints plan)

SULE: This is the estimated Safe Useful Life Expectancy of the tree. Trees can live longer than this value but can pose a risk to persons or property.

BS 5837 2012 - On the basis of this assessment, trees can be divided into one of the following categories:

- **A -** Trees whose retention is most desirable, High category
- **B -** Trees where is desirable, Moderate category
- **C -** Trees which could be retained, Low category
- **U -** Trees that cannot realistically be retained; Fell category

Tag	Name	Age	Diameter (mm)	Height (m)	Crown Hgt (m)	FSB Hgt (m)	Crown Spread (N S E W) (m)				Life Exp	Recommendations	Category	RPR (m)	RPA Area (m)
T1	Fraxinus excelsior (Ash)	SM	200	8	4	4	2	2	3	1	20+	Located in third party ownership. No works required at present.	C3	2.4	18.1
T2	Acer pseudoplatanus (Sycamore)	M	500	15	8	8	4	4	4	4	20+	Located in third party ownership. No works required at present.	C1	6	113.11
T3	Juglans regia (Walnut)	SM	200	8	3	3	2	1	2	2	20+	Located in third party ownership. No works required at present.	C3	2.4	18.1

Method Statement for Tree Protection Measures

PROJECT: 31 Priory Road, London NW6 4NN

CLIENT: Mr Canning

1.1 Brief

Provide protective measures specification for trees in neighbouring gardens to be protected using the guidelines and principles prescribed in BS5837: 2012 'trees in relation to design, demolition and construction'.

1.2 Protective measures and Site Supervision

An important factor in providing protection for the trees during the construction works is the chronological order in which development tasks are undertaken. Before work continues on site, the following issues will be addressed and submitted to the council for approval.

- A suitably qualified arborist will be retained to oversee tree protection measures where required and liaise with the tree officer as required. The contact information of this arborist will be made available to the council tree officer prior to works starting on site.

- Where excavation work is required directly adjacent to the RPA for the pad foundation construction, this will be undertaken using hand tools in accordance with the hand dig method statement provided.

- I do not consider arboricultural supervision needed in this case. If the local authority require a supervision schedule, it will be as follows. A pre-commencement meeting with a suitably qualified arborist will take place with the site manager and other relevant site personnel, to debrief them on the importance of the protection measures and to assist in setting up of the ground protection etc. before work commences on site.

1.2.1

Protective fencing will not be required in this case because the boundary wall and fencing will prevent further access into the RPA or collision damage. An appropriate toolbox talk prior to works commencing will also make it clear to workers to avoid damaging the trees with careful works.

1.2.2

All personnel inducted on site will be made aware of the tree protection measures and will be responsible for their own actions in maintain these and ensuring that they do not cause any damage to the trees.

1.3 Forbidden activities within RPA

1.3.1 Within the root protection area, the following activities will be prohibited, unless the local authority in writing grants specific permission:

No storage of chemicals or other substances likely to leach and cause harm to the trees to be stored.

No storage of heavy plant or materials likely to cause further soil compaction.

No ground disturbance works, apart from what has been approved by any planning permissions or specifically from the council.

No activities that could indirectly affect the trees such as bonfires etc.

1.3.2 No ground disturbance work apart from those granted in the planning permission is to be undertaken within the confines of the RPA without the written permission of the local authority.

The protected area is not to be breached at any time, unless the local authority has granted permission and a qualified arborist has been consulted and supervises any work activities that need to take place.

1.4 Storage of chemicals / mixing of materials

1.4.1 Storage of chemicals will be placed in a sealed bund / area, with no discharge allowed onto the ground or watercourses. The area containing these materials will have an impervious surface and stored **if possible** 10m away from the RPA. If accidental spillage of chemicals or other damage to the trees takes place the local authority is to be notified as soon as possible and a suitably qualified arborist is consulted as to the best actions to take to mitigate any damage that may have occurred as a result of the accident and these works to be undertaken to mitigate the situation as soon as possible.

1.5 Works directly adjacent to the RPA

1.5.1 No excavation / ground disturbance works will take place within the RPA unless permission is granted by the local authority to do so. Where excavation works are needed directly adjacent to the RPA for the shallow pad foundations, then the arboricultural hand dig method statement provided will be strictly adhered to.

1.5.2 The foundation design for the building will demonstrate how it is fit for purpose to ensure that the trees will not indirectly impact on the structure, resulting in pressures to remove the trees in the future. **If roots are present during excavation, they will be pruned clear and suitably covered.**

1.5.3 All excavation works that are required in this protected area, will have the permission from the council approved for this type of operation, and the hand dig method statement provided strictly adhered to at all times.

1.6 Material storage / site parking

1.6.1 Particular attention will be made to the type of materials to be stored and the type of machinery needed to move them, ensuring that sufficient protection measures in accordance with this method statement and space are provided to prevent damage to the trees to remain. The details outlined in 1.4 above will be adhered to.

1.6.2 **At no point will plant or materials be allowed to be parked or stored within the RPA. This will be strictly policed by the site manager**.

1.7 Ground Protection

1.7.1 If access across the RPA on the soft ground of the garden space is required to implement the proposal, the following ground protection measures will be implemented as required.

For pedestrian traffic:

A single thickness of scaffold boards placed on top of a scaffold frame so as to form a suspended walkway (similar to diagram 2), or boards laid on to a geotextile membrane with a layer of wood chips 100m in thickness.

For pedestrian operated plant up to 2 tonnes:

Interlinked ground protection boards of plywood or similar at least 2.5cm thick, laid onto a geotextile membrane on a bed of wood chip 150mm in depth.

No machinery over 2 tonnes will be used.

1.7.2 **AT NO POINT WILL THE GROUND WITHIN THE RPA BE LEFT UNPROTECTED IF ACCESS IS REQUIRED IN THIS AREA**.

1.8 Completion

1.8.1 Once all of the construction activities on the site have been completed and a suitably qualified arborist will assess the condition of the trees and liaise with the local authority accordingly if any works are considered necessary.

2 HAND DIG METHOD STATEMENT

PROJECT: 31 Priory Road, London NW6 4NN

2.1 The area to be excavated will be inspected by a professional arborist to assess the likely proximity of root activity and concentration prior to the commencement of any works. All relevant authorized personnel to be informed and required permissions gained before work commences.

2.2 If hand digging is not possible/practicable a method of excavation will be agreed and undertaken by a suitably qualified person for example air spading or a competent digger operator etc., in the presence of a qualified arborist.

2.3 During excavation great care will be taken to minimize damage to retained roots, including the bark around the roots.

2.4 All roots greater than 25mm diameter should be retained and worked around. Where clumps of smaller roots (including fibrous roots) are found these are to be retained.

2.5 Roots with a diameter in excess of 25mm must not be severed without permission from an Arborist.

2.6 If roots are encountered, the Arborist must conduct the root pruning and inform the relevant person to suggest mitigation works to the tree(s) if required. If severance is unavoidable roots must be cut back using a sharp tool, leaving the smallest wound possible.

2.7 If there is a possibility of infection being passed from one specimen to another, tools will be sterilized in an appropriate method to reduce the risk of cross contamination.

2.8 When backfilling an inert granular material mixed with topsoil or sharp sand (not builder's sand) is to be used around the retained roots. Unless an alternative backfill substrate has been agreed with in writing by the appropriate authorized personnel.

2.9 If roots are to be left exposed for a period of longer than 1 hour (dependent on weather conditions), then a covering of dampened Hessian or similar material is to be used to cover the exposed roots. Any changes to this practice are to be authorized by a qualified arborist.

2.10 All levels are to be returned to the original plane after any excavation unless specific design and relevant permission has been authorized.

2.11 A qualified Arborist is to be on site to supervise during any operations within the protection zone.

ANDREW DAY
ARBORICULTURAL CONSULTANCY LTD

REDUCING COSTS BY DELIVERING PRACTICAL SOLUTIONS

TREE PROTECTION ZONE

DO NOT CROSS WITHOUT PERMISSION

BREACHING THIS BARRIER CAN RESULT IN THE FOLLOWING:

- **SHUT DOWN OF THE JOB**
- **FINANCIAL IMPLICATIONS**
- **CRIMINAL PROCEEDINGS**

ARBORICULTURAL SITE CONSIDERATIONS

THIS NOTICE IS TO BE DISPLAYED IN THE SITE OFFICE OR A SUITIBLE LOCATION WHERE IT IS CLEARLY VISIBLE AND ISSUED TO ALL PERSONNEL INDUCTED ONTO SITE

The following site considerations must be observed at all times during the development process, from site preparations through to completion.

- The protected area of the RPA must be regarded as sacrosanct and not breached except where to implement the planning permission granted, without prior consultation with either the local planning authority or the supervising arborist.
- Ground protection must not be lifted or removed without prior consultation with either the local planning authority or the supervising arborist.
- Damage caused to ground protection must be reported to the site manager to ensure suitable repair or actions are taken.
- No materials, chemicals, machinery, or vehicles to be stored within the RPA (root protection area) as defined on the tree protection plan and on site by fencing and ground protection.
- No materials etc. must be rested against or machinery chained to trees.
- No pruning of trees may be undertaken by anyone other than a qualified arborist and approved by the supervising arborist and local authority tree officer.
- Any physical damage caused to a tree to be retained must be reported to the site manager immediately so that suitable remedial works can be commissioned without delay.
- Builder's sand (which contains high levels of salt) must not be used to back fill excavations within or in close proximity to tree roots, as it has a toxic effect and can cause root desiccation. Sharp sand must be used under such circumstances.
- Soil contaminants such as concrete mixings, diesel oil and vehicle washings must be kept suitably contained, preferably within bunded areas. Any spillages within 2m of a fenced area must be reported to the site manager and supervising arborist immediately so that suitable mitigation works can be commissioned.
- Fires must not be lit in positions where their flames can extend to within 5m of foliage, branches, or trunks. Wind direction and size of fires will impact on this.
- Notice boards, telephone cables or other services etc. must not be attached to any part of a tree.

Remember the tree officer can turn up at any time or neighbours may report any poor practice or threats to the trees.

Site Personnel Contact Information

As far as I am aware the only personnel associated with this site at the time of writing this report is the property owner and the garden room company. Table 1 shows the contact details of the garden room company who are to be contacted if any enquires relating to this project need answering.

Table 1

Name	Relation to Site	Contact Details
Green Retreats	Garden room Construction company	01296 653078

LIMITATIONS AND QUALIFICATIONS

LIMITATIONS AND QUALIFICATIONS

Unless specifically mentioned the report will only be concerned with ground inspections. No below ground inspections will be carried out without prior confirmation from the client that such works should be undertaken. This report is for the purposes of identifying the potential impact construction activities could have on the trees and is not a health and safety assessment of the trees. A cursory assessment of the trees health and condition will be recorded, but this is not to be taken as a detailed assessment of its structural condition, health, and management recommendations in relation to this. A separate tree inspection regime focusing on these aspects will need to be undertaken if this is required.

The validity, accuracy and findings of this report will be directly related to the accuracy of the information made available during the inspection process. No checking of independent data will be undertaken, Andrew Day will not be responsible for the recommendations within this report where essential data are not made available or are in accurate.

This report will remain valid for one year from the date of inspection but will become invalid if any tree works not recommend within the report are undertaken, soil levels around the trees are altered in any way, and extreme weather conditions are experienced or if any building works that could impact on the tree are undertaken or not disclosed.

If any of the above occurs, then it is strongly recommended that a new tree inspection is carried out.

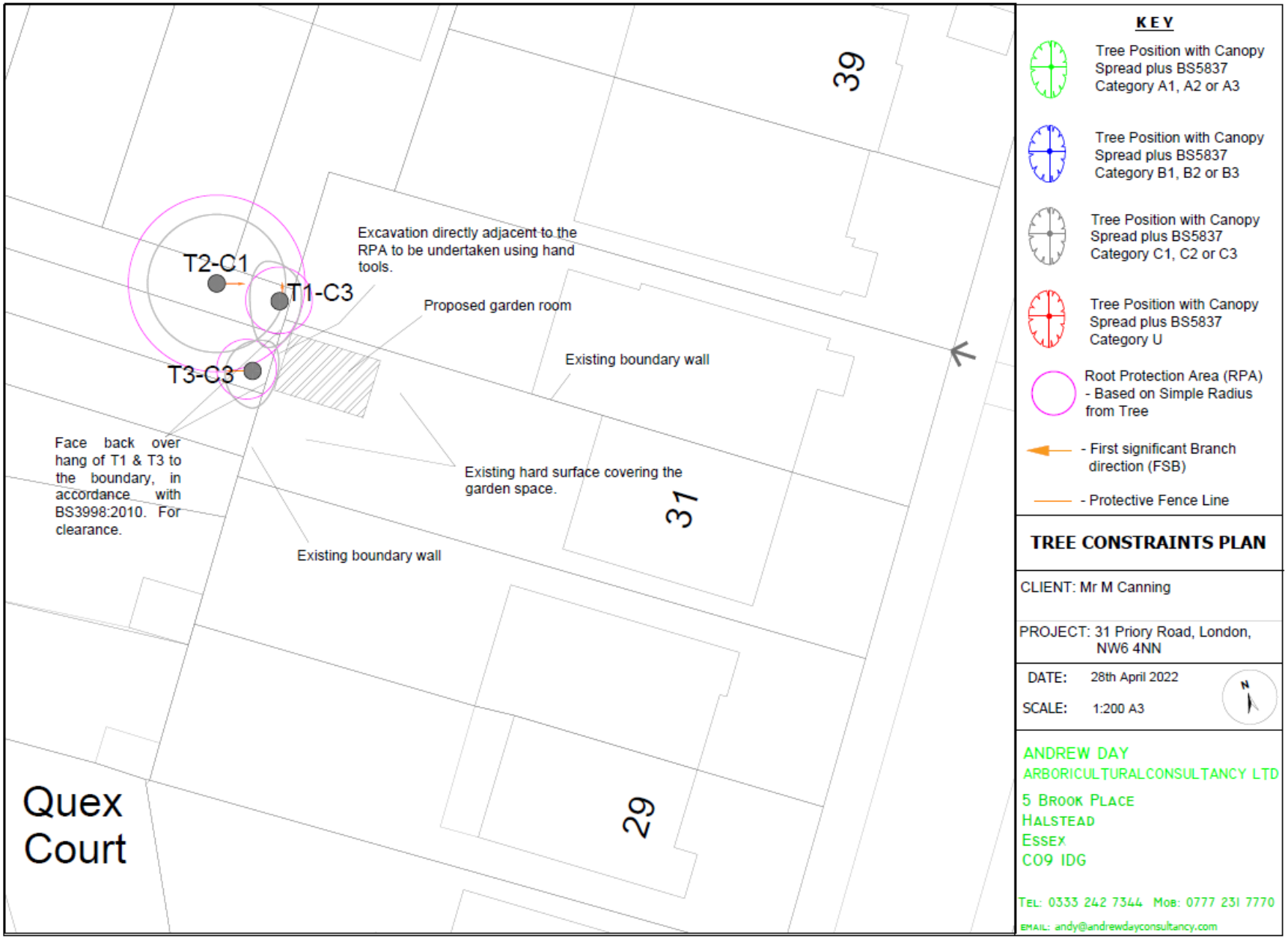
It will be appreciated, and deemed to be accepted by the client that the formulation of the recommendations for the management of the trees will be guided by the following:

1. The need to avoid reasonable foreseeable damage
2. The arboricultural considerations – Tree safety, good Arboricultural practise and aesthetics.

The client is deemed to have accepted the limitation placed on the recommendations by the sources quoted in the attached report. Where time constraints or the client limits sources, this may lead to an incomplete quantification of the risk.

TREE CONSTRAINTS PLAN

(This plan is for reference only; please refer to the separate A3 plan for scaling if required)


T2-C1
T1-C3
T3-C3
Excavation directly adjacent to the RPA to be undertaken using hand tools.
Proposed garden room
Existing boundary wall
Face back over hang of T1 & T3 to the boundary, in accordance with BS3998:2010. For clearance.
Existing hard surface covering the garden space.
Existing boundary wall
39
31
29
Quex Court
KEY
Tree Position with Canopy Spread plus BS5837 Category A1, A2 or A3
Tree Position with Canopy Spread plus BS5837 Category B1, B2 or B3
Tree Position with Canopy Spread plus BS5837 Category C1, C2 or C3
Tree Position with Canopy Spread plus BS5837 Category U
Root Protection Area (RPA) - Based on Simple Radius from Tree
- First significant Branch direction (FSB)
- Protective Fence Line
TREE CONSTRAINTS PLAN
CLIENT: Mr M Canning
PROJECT: 31 Priory Road, London, NW6 4NN
DATE: 28th April 2022
SCALE: 1:200 A3
N
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