

Arboricultural Report

for planning purposes

1a Belsize Park Gardens
Camden
London
NW3 4LB

June 2023

220350-PD-11

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1 EXECUTIVE SUMMARY

- 1.1 This *Arboricultural Report* ('the Report') has been instructed by the *Homeowner of 1a Belsize Park Gardens* ('the Client').
- 1.2 The proposed development at *1a Belsize Park Gardens* ('the Site') is for the construction of rear and side extensions to the existing dwellinghouse ('the Proposed Development'), within the area administered by the *London Borough of Camden* ('the LPA').
- 1.3 The Site was visited, and the trees and other vegetation surveyed, referring to the recommendations of BS5837, on the 25th of March 2022 by the Author.
- 1.4 The LPA publishes details of its *Conservation Areas* ('CAs') online. According to this information, the Site is within the *Belsize CA*.
- 1.5 The LPA have confirmed via email on the 30th of March 2022 that there are *Tree Preservation Orders* ('TPOs') that apply to some of the surveyed trees - specifically, to T10 (i.e., the off-Site horse chestnut).
- 1.6 The Proposed Development requires the removal of T1, which is the *Category C* ornamental cherry within the rear garden area of the Site. Its loss is considered not to be of any particular significance and the LPA can require a replacement tree should they consider that to be appropriate.
- 1.7 The Proposed Development requires the pruning of T12, which is an off-Site *Category B* sycamore tree located within the rear garden of an adjacent dwellinghouse along *Belsize Park*. The amount of crown material that needs to be removed from T12 is considered to be minor; it is in turn considered that the impact to T12 in physiological and structural terms is considered to be minor and by extension its visual qualities too.
- 1.8 The Proposed Development does involve excavations within the RPA of T10 that amounts to approximately 5% of its total area. Based on the details of ground investigations to search for roots of this tree within the affected area, it is considered that excavation works are likely to carry only a low risk of significant harm to T10.

2 INTRODUCTION

Instruction

- 2.1 This *Arboricultural Report* ('the Report') has been instructed by the *Homeowner of 1a Belsize Park Gardens* ('the Client').

Author

- 2.2 This Report was written by Christopher Wright ('the Author'). Christopher is an arboricultural consultant dealing with trees in relation to all forms of human activity including built development. He is a *Technician Member* of the *Arboricultural Association*, a member of the *Royal Forestry Society*, a member of the *Institute of Chartered Foresters*, holds the *Level 6 Diploma in Arboriculture (ABC)*, the *Professional Tree Inspection certificate (LANTRA)*, and has received a *BSc (Hons) Conservation and Environment (2:1)* from *Writtle University College*.

Proposed development

- 2.3 The proposed development at *1a Belsize Park Gardens* ('the Site' - see *Figure 1* below) is for the construction of rear and side extensions to the existing dwellinghouse ('the Proposed Development'), within the area administrated by the *London Borough of Camden* ('the LPA').

Scope

- 2.4 This Report has been provided to assist all parties involved in the planning process, in accordance with *British Standard 5837:2012 - Trees in relation to design demolition and construction - Recommendations* ('BS5837').

Site survey

Survey date

- 2.5 The Site was visited, and the trees and other vegetation surveyed, referring to the recommendations of BS5837, on the 25th of March 2022 by the Author. The details of this survey are found within the Report appendices.

Health and safety

- 2.6 The survey was not an assessment of the health and safety of the trees (i.e., the survey was not a thorough investigation of the condition of all of the trees). In this instance, no particular works in this context were at the time specified to any of the surveyed trees that were within the bounds of the Site.



Figure 1: Showing the area discussed in this Report within the indicative line and sourced from Google Maps (note: this is not the red line plan of the Proposed Development).

Report preparation

External documents

2.7 This Report has been prepared, with reference to the following supplied documents and information:

- *Topographical Survey (40647_01_P-0);*
- *Design and Access Statement (aa_a2119_s_p-pl-c);*
- *Proposed Ground Floor (aa_a2119_s_p-1001-pl-a);*
- *Proposed First Floor (aa_a2119_s_p-1002-pl-a);*
- *Proposed Roof (aa_a2119_s_p-1003-pl-a);*
- *Proposed Section (aa_a2119_s_p-2000-pl-a);*
- *Proposed North Elevation (aa_a2119_s_p-3000-pl-a);*
- *Proposed East Elevation (aa_a2119_s_p-3001-pl-a);*
- *Proposed South Elevation (aa_a2119_s_p-3002-pl-a); and*
- *Proposed West Elevation (aa_a2119_s_p-3003-pl-a).*

Appendices

2.8 The appendices of this Report include:

- *Appendix A* (plans); and
- *Appendix B* (schedules).

Definition of terms

2.9 The following terms and abbreviations may be used within this Report. These terms are defined by BS5837 as follows, unless provided without quotation marks:

- **Arboricultural Method Statement ('AMS')** - *"methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained"*.
- **Local Planning Authority ('LPA')** - the planning department of the borough, district, or metropolitan council.
- **Root Protection Area ('RPA')** - *"layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority"*.
- **Service(s)** - *"any above- or below-ground structure or apparatus required for utility provision"* that may for example include *"drainage, gas supplies, ground source heat pumps, CCTV and satellite communications"*.
- **Tree Protection Plan ('TPP')** - *"scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures"*.

3 SITE INFORMATION

Current Site use

- 3.1 The Site comprises an existing annexe-type dwellinghouse adjoined to *1 Belsize Park Gardens* and is the western-most dwellinghouse along the southern side of *Belsize Park Gardens*, and the dwellinghouses to its east are all semi-detached. The west of the Site abuts the rear gardens of the dwellinghouses along *Belsize Park*, and to its south the Site abuts the rear gardens of dwellinghouses along *Belsize Square*.
- 3.2 The levels at the Site step down from the public realm to its north and fall from a high point of +62.315 to around +60.50 at the front door to the dwellinghouse (see *Figure 3* below). The rear garden of the Site that can be accessed via a path to the west of the dwellinghouse is generally at a similar level to the ground floor of the dwellinghouse (see *Figure 2* below), though there is a low wall behind which the garden is at a slightly higher level (of up to +61.10). Technical arboricultural details are discussed from paragraph 4.1.



Figure 2: Looking north towards the rear of the dwellinghouse from the south-eastern corner of the rear garden, showing T10 (left) and T12-T13 (centre) as points of reference.

Geotechnical information

British Geological Survey

- 3.3 The *British Geological Survey* ('BGS') provides on-line information, regarding the general soil properties of an area, including the underlying bedrock and any superficial deposits that overlay the bedrock. This information indicates that the Site is situated upon a bedrock of *London Clay Formation* (comprised of clays, sands, and silts), over which no superficial deposits are recorded.
- 3.4 There are no publicly available borehole logs within or adjacent to the Site that are provided by the BGS that can clarify the soil conditions in the vicinity.

Root morphology

- 3.5 Soils where the clay content is significant will tend to encourage tree root growth at shallower depths - often, within the upper 600mm of soil¹. Where other soil components are present to greater extents, root morphology may differ, though impermeable layers of heavy compacted clay may restrict penetrative root growth, which may influence how far roots radiate from the stem of the tree to acquire nutrients.



Figure 3: Looking south-west towards the front of the dwellinghouse from the higher level courtyard area by Belsize Park Gardens, showing T10 and T12-T14 (centre) as points of reference.

1 - Forestry Commission. (2005) Information Note FCN078 - The influence of soils and species on tree root depth.

4 TECHNICAL ARBORICULTURAL DETAILS

Landscape details

Distribution

- 4.1 Within the Site, trees are located solely within the rear garden area - specifically, T1-T4 (see *Figure 4* below); all but T1 are located along the rear (i.e., southern) boundary, whilst T1 is located closer to the dwellinghouse. T1 is a small ornamental cherry, and T2-T4 are mature Leyland cypress.



Figure 4: Looking south-east along the rear of the existing dwellinghouse, showing T1 (centre) and T2-T4 (right) within the rear garden of the Site.

- 4.2 Outside of the bounds of the Site, T5-T9 and T11 are located within rear gardens of dwellinghouses along *Belsize Square*, and T10 and T12-T14 are located within rear gardens of dwellinghouses along *Belsize Park*. T5-T9 are semi-mature hornbeams, T10 is a mature horse chestnut, T11 is a monolith poplar, T12-T13 are mature sycamore, and T14 is a semi-mature cypress.
- 4.3 For clarity, T10, T12, and T13 are managed on crown reduction cycles and have quite recently been reduced quite significantly (see *Figure 5* below) - they have crown dimensions that are much reduced from their maiden counterparts.

- 4.4 For further clarity, the boundary wall that separates the Site from the rear gardens along *Belsize Park* appears to be rather old and the level of the gardens the other side is not quantified. It is considered likely that the trees within these adjacent rear gardens (i.e., T10 & T12-T14) are younger than this wall, and it appears that these gardens are at a higher level than the rear garden of the Site.



Figure 5: Looking up into the pruned crowns of T10 (left) and T12 (right).

Visibility

- 4.5 The visibility of the surveyed trees is partially limited by the presence of the large surrounding dwellinghouses, though there is considered to be good views of the trees within the rear gardens of *Belsize Park* from the north of the Site along *Belsize Park Gardens* (i.e., T10 & T12-T14 - see *Figure 6* below). The views of the trees set further back into the Site are more restricted, though T2-T4 are visible behind these aforementioned trees - particularly, during winter months when deciduous trees shed their leaves.



Figure 6: Showing T10 & T12-T14 (rear centre) set behind some trees in the foreground that were not surveyed as part of this Report - a glimpsed view of T2-T4 is possible (above the chimney of the existing dwellinghouse behind the left-hand gate post).

BS5837 details

Survey criteria

- 4.6 The surveyed trees and other vegetation items have been generally categorised, in terms of the arboricultural and landscape criteria as defined in BS5837. These criteria consider the arboricultural merits of individual trees, in addition to the wider value afforded in contributing to the character of the landscape.

BS5837 categorisation

- 4.7 In BS5837 terms, the surveyed trees and other forms of vegetation comprise:
- *Category B* (i.e., moderate-quality): 6no. trees;
 - *Category C* (i.e., low-quality): 7no. trees; and
 - *Category U* (i.e., poor-quality): 1no. tree.

Root Protection Areas

- 4.8 Based on the ground conditions of the Site that includes the known or foreseeable presence of buried structures, in addition to the context within which the surveyed trees and other vegetation items are growing, the circular RPAs have in particular instances been amended. These changes are reflected on the plans found in this Report's appendices.
- 4.9 Specifically, the RPAs of T10, 11, T12, and T14 have been amended, for the following reasons:
- **T10** - its RPA has been moved to the outside edges of the existing footprint of the dwellinghouse, because it is considered likely that its roots do not extend beneath the foundations;
 - **T11** - its RPA has been significantly reduced, because this tree is a monolith and whilst potentially still alive the stem diameter is not a true reflection of the considered extent of its required rooting area;
 - **T12** - its RPA has been moved to the outside edges of the existing footprint of the dwellinghouse, because it is considered likely that its roots do not extend beneath the foundations; and
 - **T14** - its RPA has been moved to the outside edge of the brick boundary wall, because it is considered likely that its roots do not extend beneath the foundations.
- 4.10 Furthermore, some ground investigations were undertaken within the RPA of T10 to ascertain to a practical extent how the tree may be growing into the Site beneath the boundary brick wall. Details relating to this ground investigation are discussed from paragraph 6.16.

Statutory protections

Conservation Areas

- 4.11 The LPA publishes details of its *Conservation Areas* ('CAs') online. According to this information, the Site is within the *Belsize* CA, which affords a baseline level of protection to the surveyed trees, under the relevant provisions of *The Town and Country Planning (Tree Preservation)(England) Regulations 2012*.
- 4.12 For clarity, the LPA have appraised the *Belsize* CA and the relevant details are discussed from paragraph 5.8.

Tree Preservation Orders

- 4.13 The LPA have confirmed via email on the 30th of March 2022 that there are *Tree Preservation Orders* ('TPOs') that apply to some of the surveyed trees - specifically, to T10 (i.e., the off-Site horse chestnut - see *Figure 2* above). The relevant provisions of *The Town and Country Planning (Tree Preservation)(England) Regulations 2012* therefore apply, to this tree.

5 PLANNING POLICY AND GUIDANCE

National

Background information

- 5.1 Planning policy at national level is set out in the government's *National Planning Policy Framework* ('the NPPF')², published in July 2021.
- 5.2 At this level, policy addresses the key principles of development. At its core, there is a presumption in favour of sustainable development incorporating good and durable design, by combining economic, social, and environmental strands in a balanced manner. Trees comprise an element of green infrastructure, which is one aspect of the environmental strand of sustainability.

National Planning Policy Framework 2021

- 5.3 In the context of the Proposed Development, the NPPF provides the following guidance that is relevant in terms of the surveyed trees:
- **Paragraph 174** - *"Planning policies and decisions should contribute to and enhance the natural and local environment by: ... b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services including the economic and other benefits of ... trees and woodland".*

Greater London

Background information

- 5.4 Planning policy at the *Greater London* level is currently set out in *The London Plan* ('the LP'). The current iteration of the LP was published, in March 2021.

London Plan 2021

- 5.5 In the context of the Proposed Development the LP provides the following guidance that is relevant in terms of the surveyed trees:
- **Policy G7 Trees and Woodlands** - *"Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy".*

Local

Background information

- 5.6 Planning policy at the local level is currently set out in the LPA's *Camden Local Plan* ('the LDP'), published in 2017.

Camden Local Plan 2017

- 5.7 In the context of the Proposed Development, the current LDP provides the following guidance that is relevant in terms of the surveyed trees:
- **Policy D2: Heritage** - *"The Council will: e. require that development within conservation areas preserves or, where possible, enhances the character or appearance of the area; ... g. resist development outside of a conservation area that causes harm to the character or appearance of that conservation area; and h. preserve trees and garden spaces which contribute to the character and appearance of a conservation area"; and*
 - **Policy A3: Biodiversity** - *"The Council will protect, and seek to secure additional, trees and vegetation. We will: j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees ... [and] l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development".*

Belsize Conservation Area Statement 2002

- 5.8 The LPA have appraised the *Belsize CA* within the *Belsize Conservation Area Statement 2002* (i.e., 'the CAA') and the Site is located within *Sub-Area 1* (i.e., 'SA1') of the CA. For SA1, the CAA states that *"the impact of the continuous line of villa development on the street is significantly softened by mature trees"* and that there is a risk of the *"loss of trees and boundary planting"* in the context of development; and the CAA also includes some planning policies of which the following area relevant in terms of the surveyed trees:
- **Policy BE39** - *"All trees which contribute to the character or appearance of the Conservation Area should be retained and protected. Developers will be expected to incorporate any new trees sensitively into the design of any development and demonstrate that no trees will be lost or damaged before, during or after development."*

6 ARBORICULTURAL IMPACT ASSESSMENT

Removals

Numerical data

- 6.1 The Proposed Development requires the removal of T1, which is the *Category C* ornamental cherry (i.e., *Prunus sp.*) within the rear garden area (see *Figure 3* above & *Figure 7* below).



Figure 7: Looking south into the rear garden from the eastern side of the existing dwellinghouse, showing T1 (centre) and T2-T4 (behind T1).

Reasons for removals

- 6.2 The removal of T1 is specified, in order to directly facilitate the implementation of the Proposed Development - this includes the requirement for access around the Site for logistical purposes (e.g., material storage).

Impacts of removals

- 6.3 T1 is considered not to have any public amenity value and it is a very small ornamental tree; therefore, it is considered that there is no particular visual impact from its loss, in terms of the character of the *Belsize CA*.

Mitigation greening

- 6.4 At this stage of the planning process, the Proposed Development has not provided details regarding the planting of new trees and other forms of vegetation. However, there is considered to be sufficient capacity to mitigate the proposed loss of T1 with new planting located within the Site. Details relating to the provision of a landscape specification can be provided, in response to a suitable planning condition, should the LPA determine this to be appropriate.

Pruning

Numerical data

- 6.5 The Proposed Development requires the pruning of T12, which is an off-Site *Category B* sycamore tree located within the rear garden of an adjacent dwellinghouse along *Belsize Park*.

Specifications of pruning

- 6.6 The specification for the pruning of T12 is as follows: to establish a consistent 2m separation between its crown and the proposed roof element. Given that the roof element starts from approximately +3,500mm above the ground floor level of the dwellinghouse and tapers south-eastwards to a maximum height of approximately +5,900mm, this will require the pruning of the overhanging crown element of T12 to achieve a vertical clearance from ground level of between 5.5-8m.

Reasons for pruning

- 6.7 The specified pruning is considered to be required, to facilitate the implementation of the Proposed Development and to ensure that there is a suitable on-going separation from the proposed roof element (including to establish pruning points to which repeat future pruning works will occur to sustain the 2m separation).

Impacts of pruning

- 6.8 The amount of crown material that needs to be removed from T12 is considered to be minor, considering that the growth of the crown in the affected area is comprised of small lateral branches (see *Figure 8* below) - it is likely that this is due to the tree's existing management regime (wherein it is maintained at a reduced size by way of a heavy crown reduction).

- 6.9 Considering the minor affects to its crown, it is considered that the impact to T12 in physiological and structural terms is considered to be minor in turn; and by extension its visual qualities will not be undermined to any particular extent. For this reason, it is considered that the overall value of this tree in landscape character terms will be maintained, in the context of the specified pruning to facilitate the Proposed Development.



Figure 8: Looking north-east over the existing roof element of the dwellinghouse showing the overhanging crown growth from T12.

Retained tree juxtapositions

- 6.10 In relation to the retained trees, the Proposed Development does not place any increased pressure upon these items that may result in inappropriate management (e.g., major branch removal or heavy pruning) - specifically, the established crown management regimes for T10, T12, and T13 will remain identical to or very close to the existing situation. The Proposed Development is therefore considered to be acceptable, regarding its juxtaposition to the retained trees.

Arboricultural oversight during works

- 6.11 The implementation of the Proposed Development is considered to require a continued presence of the arboriculturist, to provide arboricultural advice to the design team and to ensure that the principles of protection as are outlined in this Report are adhered to (that are discussed from the following sub-section within this Report).
- 6.12 In order to ensure that the risk of significant harm that may occur to any of the retained trees is as low a probability as possible, it is considered that a Site visit by the arboriculturist will occur at least at the following points, with the findings of each visit being summarised in written format and issued to at least the Client, main contractor, and LPA tree officer (noting that a finalised list ought to be provided as part of a detailed AMS prepared in response to a planning condition as per the recommendations of *Table B.1* of BS5837):
- a pre-commencement meeting at Site with at least the main appointed contractor to discuss the details of tree protection and works;
 - to sign-off the tree protection measures prior to the commencement of any works to implement the Proposed Development (except in the case of specified tree works that can occur prior to this point);
 - during works to undertake the excavations for the foundation element for the proposed rear extension within the RPA of T10; and
 - upon the completion of works to implement the Proposed Development.

Construction works

General protection details

- 6.13 The indicative TPP at Appendix A sets out the specifications for tree protection that are associated with the implementation of the Proposed Development, based on the details that are currently available. This TPP includes an outline AMS (i.e., indicative of the basic principles of works - a specific AMS ought to be prepared for a planning condition as per the recommendation of *Table B.1* of BS5837), which provides some baseline information relating to the installation, implementation, and management of the specified tree protection measures.

Access and logistics

- 6.14 The means of access into and through the Site is not at this stage developed to any degree of detail, though it is considered reasonable to assume that the sole means of access into the Site is via the existing entrance along *Belsize Park Gardens*, and that access through the Site will be through the dwellinghouse and otherwise around the outside path that connects the front courtyard to the rear garden area (see *Figure 9* below).
- 6.15 Subject to appropriate positioning of barrier and ground protection (wherein the TPP at *Appendix A* provides some initial indication of this and a detailed AMS can provide a refined level of detail), the risk of any significant harm to adjacent trees is considered to be low - specifically, this refers to the risk to T10 and T12-T14, though to a lesser degree also T2-T9.



Figure 9: Looking south-west along the footpath to the side of the dwellinghouse that connects the front to the rear.

Superstructure works (i.e., dwellinghouse extension)

- 6.16 The Proposed Development does encroach into the RPA of T10 - specifically, for the proposed rear extension element (as can be seen at *Appendix A* on the plan entitled *Proposed Layout and Tree Works - Ground Floor*; and also see *Figure 10* below for the affected area).

- 6.17 The proposed rear extension linearly encroaches into its RPA by approximately 2.7m (wherein the proposed new rear of the dwellinghouse is 2.7m further out), which means the distance of the closest corner to its stem is approximately 2.6m (compared to a previous distance of approximately 5.0m); this amounts to approximately a 5% encroachment into the RPA if measuring the affected area's fraction.



Figure 10: Looking north-west along the rear of the existing dwellinghouse towards T10 (centre-left) located behind the brick boundary wall.

- 6.18 Due to the proposed rear extension's position in relation to the stem of T10, some ground investigations were undertaken by a contractor under the instruction of the architect during April 2023 in 2no. locations forming an L-shaped trench roughly in the location along the outside edge of the proposed rear extension (see *Figure 11* below). The trenches were dug using an air lance (i.e., air spade) to a depth of 600-650mm below the existing surface level.
- 6.19 Within the excavated trenches, 6no. roots were identified (as also shown on *Figure 11* below). Of these, only 1no. root was considered to be emanating from T10 (with others being from nearby shrubs within the Site), which was the 25mm diameter root growing parallel with the second trench. This root is located outside of the footprint of the proposed rear extension and therefore ought to not be affected by excavations.

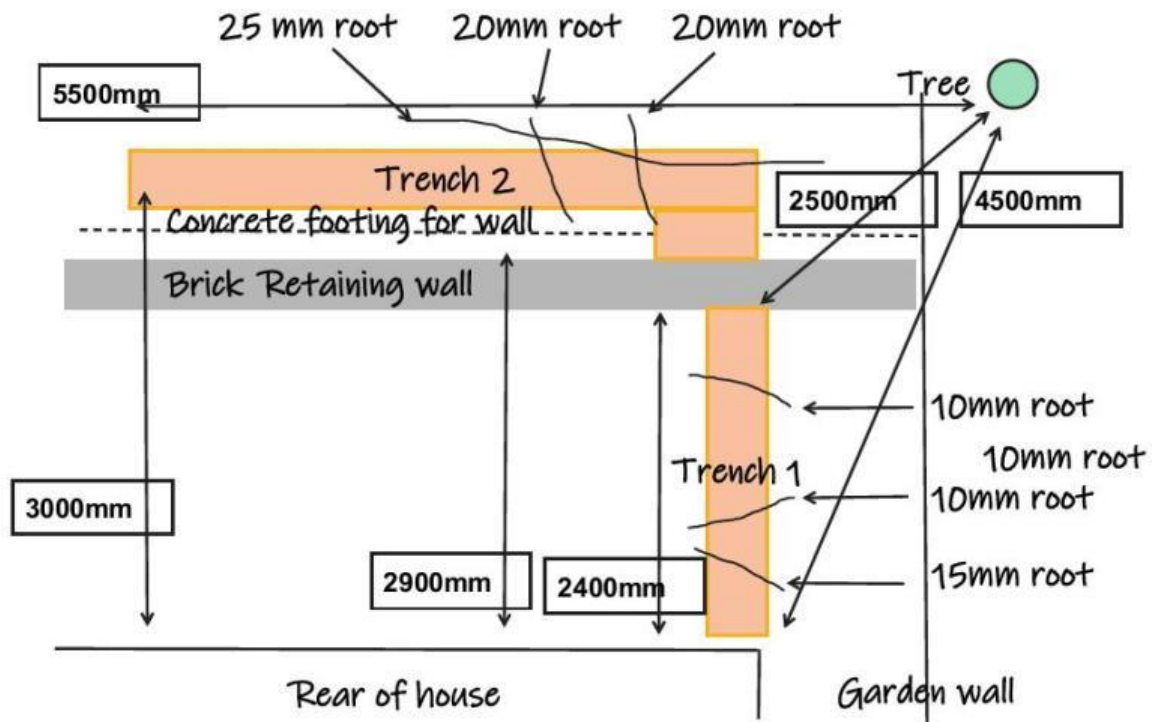


Figure 11: The sketch provided by the contractor showing the position of the trenches and where roots were located.

- 6.20 Whilst it may be the case that roots from T10 are growing into the Site at a deeper level, it is considered probable that the brick boundary wall is serving as a root barrier until the formation level of its foundation element; after which point roots may be deflected beneath the wall and into the Site at a deeper level, though this is not known and it may be the case that the tree is rooting mostly in the rear garden within which it is located.
- 6.21 For this reason, the proposed rear extension is considered to carry only a low risk of significant harm to T10 and it ought to be the case that the tree's presence in the landscape is not undermined; and the extensions proposed elsewhere to the dwellinghouse carry no particular risk at all to this and all other retained trees, subject to further development of tree protection details within a specific AMS.

Services and utilities

- 6.22 At this stage of the planning process, details pertaining to the location of new service runs and any required access to existing runs are not established. In this context, it is not possible to determine the level of impact of this element of the designs to the retained trees.

- 6.23 In the eventuality that access to existing service runs or to install new service runs involves work operations within the RPA of the retained trees, any impact to affected trees can be managed by following the recommendations of BS5837 (i.e., by working in accordance with an AMS and through the use of appropriate methods of work - a specific AMS ought to be prepared for a planning condition as per the recommendation of *Table B.1* of BS5837), which includes as a normative reference the *National Joint Utilities Guidance*³.
- 6.24 For clarity, it is considered to be unlikely that any significant new services and utilities will need to be installed, as the works comprise only changes to the existing dwellinghouse and therefore the majority of the existing infrastructure ought to be able to be retained. It may be the case that some new surface water drainage channels will need to be installed, however.

Landscaping works

- 6.25 At this stage of the planning process, details pertaining to the location of new landscaping details are not established. In this context, it is not possible to determine the level of impact of this element of the designs to the retained trees.
- 6.26 A detailed AMS ought to be prepared for a planning condition as per the recommendation of *Table B.1* of BS5837 to cover this matter, which will be able to ensure in the context of future landscape design works that the retained and off-Site trees are appropriately considered and protected (subject to good landscape design that is developed with arboricultural input prior to a design freeze).

Planning policy considerations

National policies

- 6.27 With regard to the relevant planning policies at this spatial scale (as per paragraph 5.1), the Proposed Development is considered to respond to these policies in the following manners:

- **Paragraph 174** - The Proposed Development is considered to appropriately maintain the amenity and other benefits that the surveyed trees provide.

Regional policies

- 6.28 With regard to the relevant planning policies at this spatial scale (as per paragraph 5.4), the Proposed Development is considered to respond to these policies in the following manners:

- **Policy G7** - The Proposed Development is considered to retain all trees of any particular value and new trees can be planted within the context of a landscaping scheme to address the loss of T1 (if required).

Local policies

6.29 With regard to the relevant planning policies at this spatial scale (as per paragraph 5.6), the Proposed Development is considered to respond to these policies in the following manners:

- **Policy D2** - The Proposed Development is considered to appropriately conserve the character of the *Belsize* CA as is provided by trees, which includes the capacity to protect the retained and off-Site trees to an appropriate extent whereby the residual risk of significant harm to them is low. These points also relate directly to *Policy BE39* of the CAA.
- **Policy A3** - The comments as per *Policy D2* apply in full.

7 CONCLUSIONS

- 7.1 The Proposed Development requires the removal of T1, which is the *Category C* ornamental cherry within the rear garden area of the Site. Its loss is considered not to be of any particular significance and the LPA can require a replacement tree should they consider that to be appropriate.
- 7.2 The Proposed Development requires the pruning of T12, which is an off-Site *Category B* sycamore tree located within the rear garden of an adjacent dwellinghouse along *Belsize Park*. The amount of crown material that needs to be removed from T12 is considered to be minor; it is in turn considered that the impact to T12 in physiological and structural terms is considered to be minor and by extension its visual qualities too.
- 7.3 The Proposed Development does involve excavations within the RPA of T10 that amounts to approximately 5% of its total area. Based on the details of ground investigations to search for roots of this tree within the affected area, it is considered that excavation works are likely to carry only a low risk of significant harm to T10.
- 7.4 The Proposed Development at a more general level is considered to carry a low risk of significant harm to other retained and off-Site trees, subject to the development of the protection details outlined within this Report as part of a specific AMS.

8 APPENDICES CONTENTS

APPENDIX A - Plans

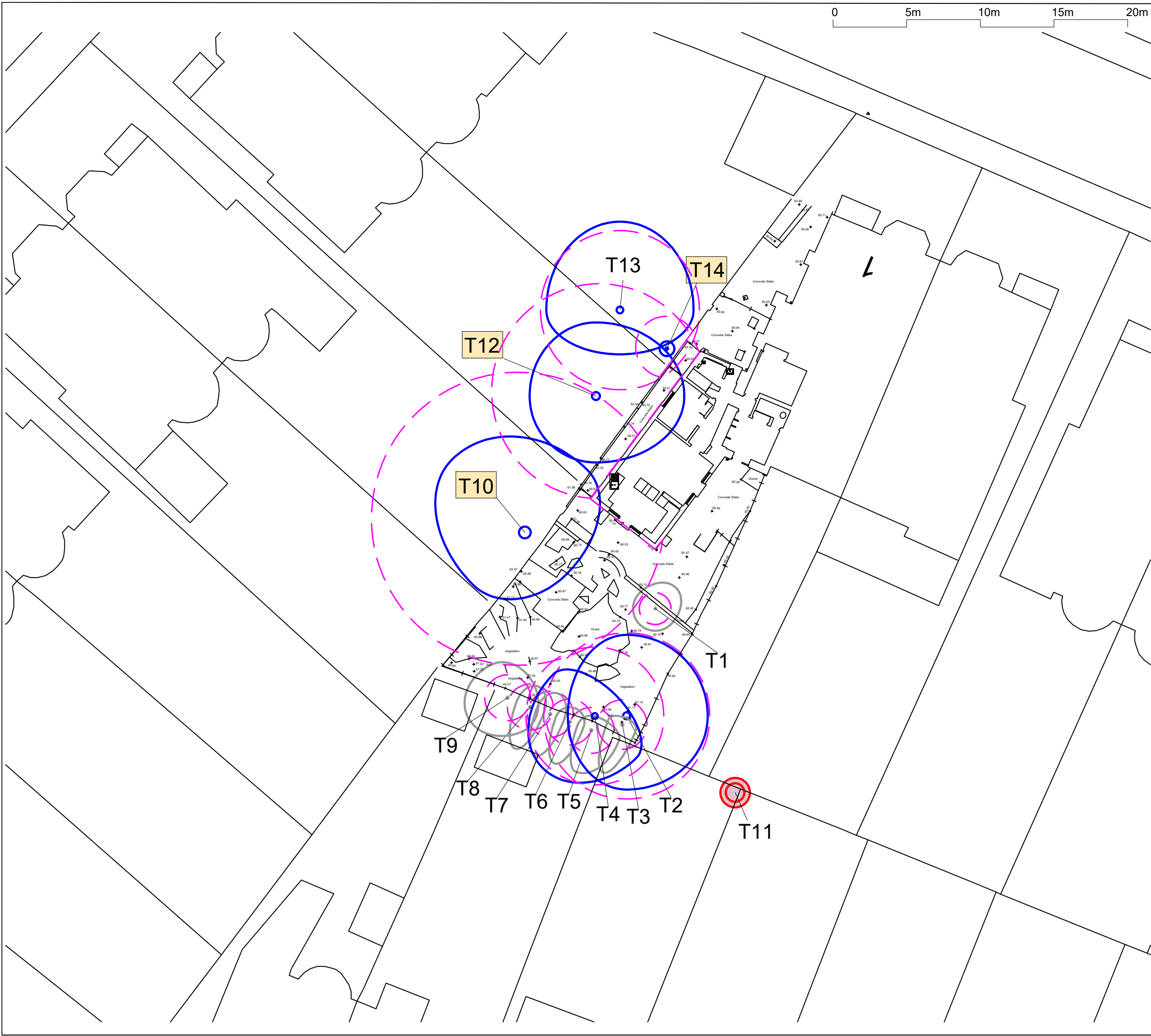
- 220350-P-10a Tree Survey
- 220350-P-11.01 Proposed Site Layout - Ground Floor
- 220350-P-11.02 Proposed Site Layout - Roof Plan
- 220350-P-12 Tree Protection Plan

APPENDIX B - Schedules

- 220350-PD-10 Tree Schedule

APPENDIX A - Plans

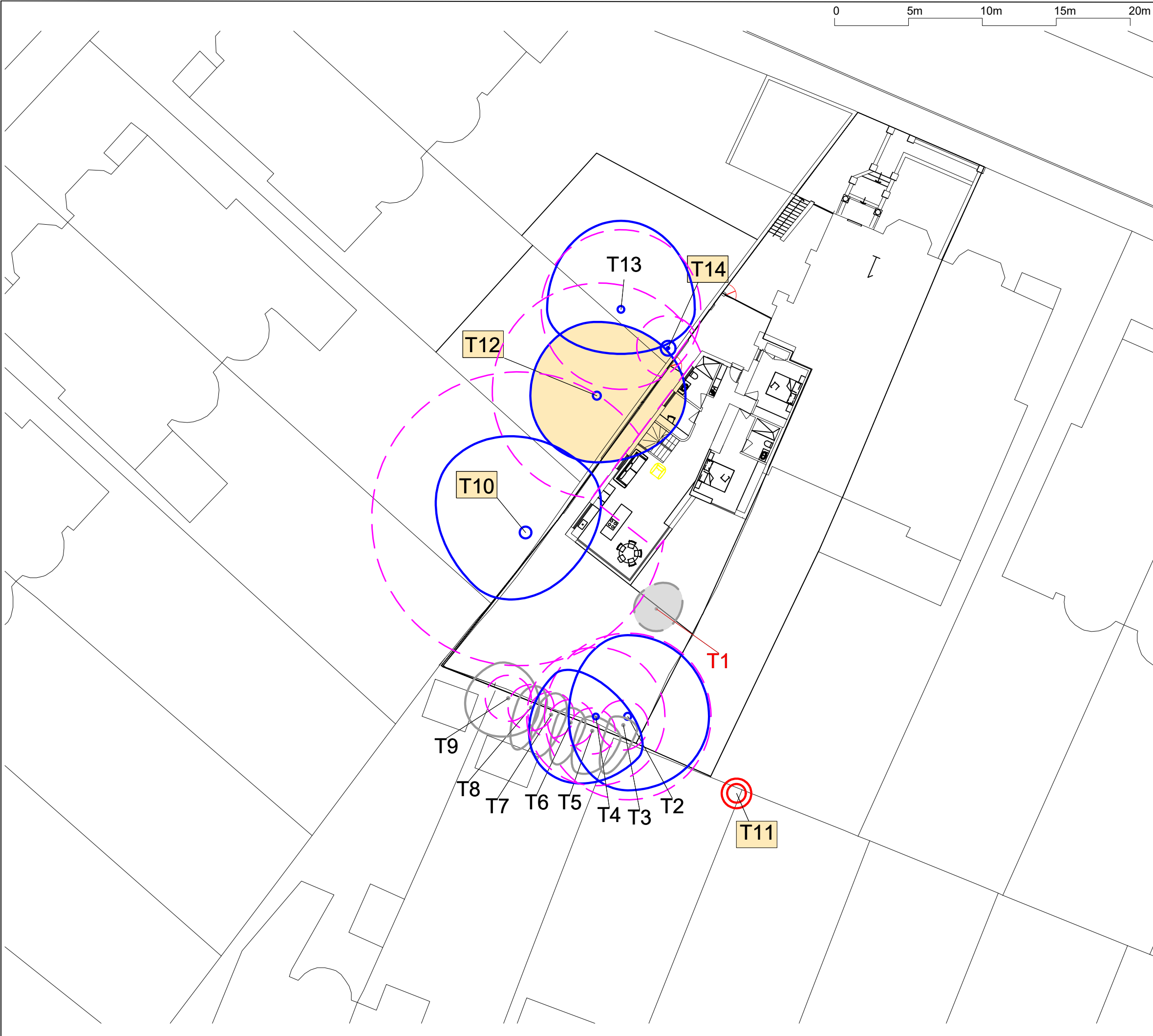
- 220350-P-10a Tree Survey
- 220350-P-11.01 Proposed Site Layout - Ground Floor
- 220350-P-11.02 Proposed Site Layout - Roof Plan
- 220350-P-12 Tree Protection Plan



BS 5837:2012 TREE RETENTION CATEGORIES

- Canopy spread (m)
- Tree Stem
- Unique tree identification number
- Root Protection Area (RPA)
- Group canopy extents shown in their retrospective retention category.
- Unique group identification number
- Root Protection Area (RPA)
- Category A**
Trees and groups of high quality with an estimated remaining life expectancy of at least 40 years.
- Category B**
Trees and groups of moderate quality with an estimated remaining life expectancy of at least 20 years.
- Category C**
Trees and groups of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.
- Category U**
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
- BS5837 Root Protection Areas**
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work.
- The RPAs of affected trees and tree groups have been amended, due to the presence of adjacent influencing factors (e.g., buried structures).
- The RPA of this tree has been significantly reduced, because this tree is a monolith. Its estimated stem diameter is not a reflection of its 'current' RPA.

a	14.06.23	key wording updated	HR
rev	date	description	drawn by
Base Drawing: Topographical Survey			
Title			
BS 5837 Tree Survey Plan			
Client			
Home owner of 1a Belsize Park Gardens			
Project			
1a Belsize Park Gardens, Camden, London, NW3 4LB			
Date	30/03/2023	Drawn by	HR
		Authorised	CW
Drawing No	220350-P-10	Rev	a
		Scale	1:250@A3



BS 5837:2012 TREE RETENTION CATEGORIES

- Canopy spread (m)
- Tree Stem
- Unique tree identification number
- Root Protection Area (RPA)
- Group canopy extents shown in their retrospective retention category.
- Unique group identification number
- Root Protection Area (RPA)
- Category A**
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- Category B**
Trees and groups of moderate quality with an estimated remaining life expectancy of at least 20 years.
- Category C**
Trees and groups of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.
- Category U**
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
- BS5837 Root Protection Areas**
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work.
- T33**
The RPAs of affected trees and tree groups have been amended, due to the presence of adjacent influencing factors (e.g., buried structures).
- Trees and groups to be removed shown shaded grey and dashed.
- Crown to be lifted to provide a consistent 2m separation from the proposed roof element.



rev	date	description	drawn by
Base Drawing: aa_a2119_m_p-1001_Proposed Ground Floor			

Title
Proposed Layout and Tree Works - Ground Floor

Client
Home owner of 1a Belsize Park Gardens

Project
1a Belsize Park Gardens, Camden,
London, NW3 4LB

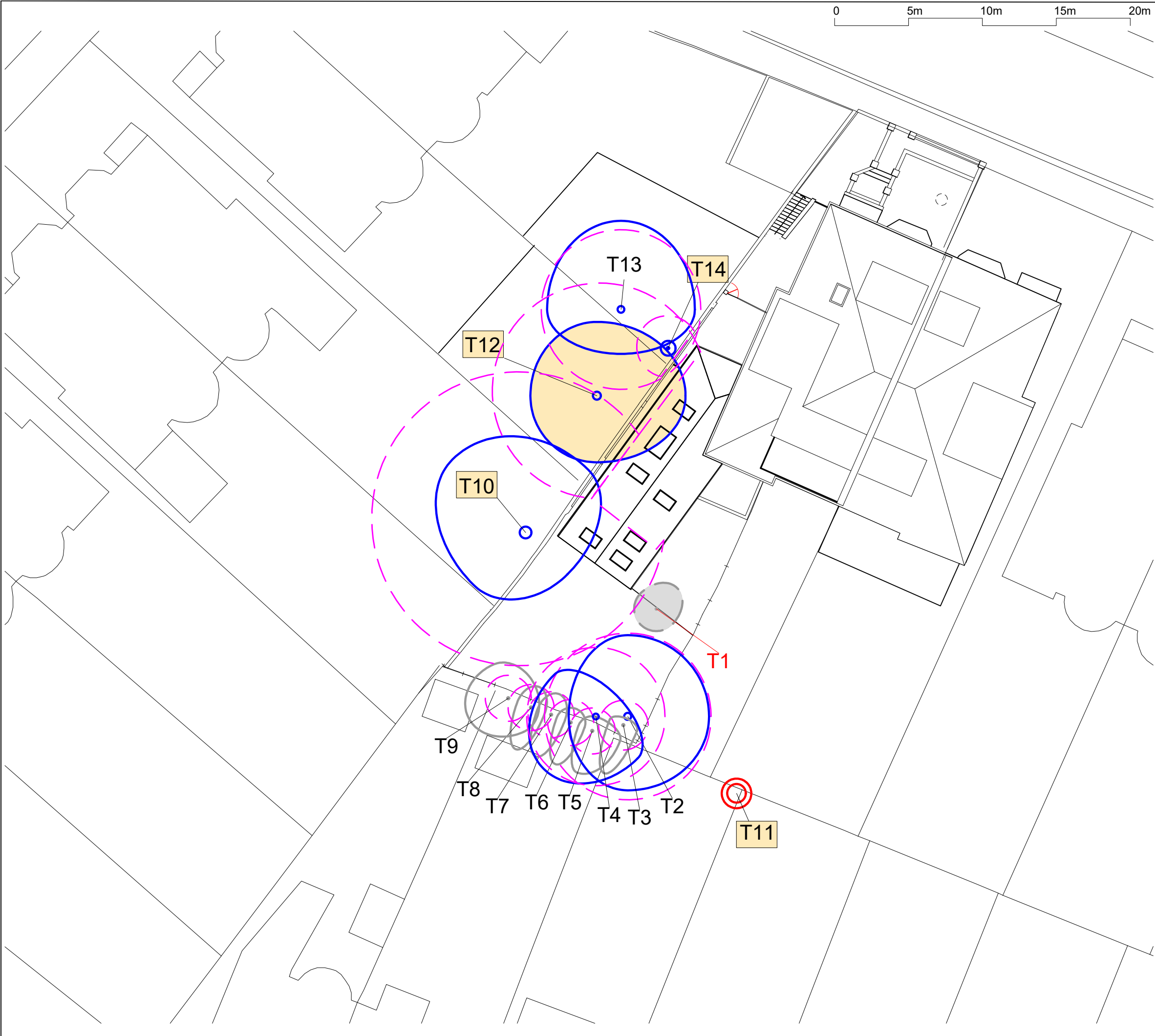
Date	Drawn by	Authorised
15/06/2023	HR	CW

Drawing No	Rev	Scale
220350-P-11.01	-	1:250@A3



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BS 5837:2012 TREE RETENTION CATEGORIES

- Canopy spread (m)
- Tree Stem
- Unique tree identification number
- Root Protection Area (RPA)
- Group canopy extents shown in their retrospective retention category.
- Unique group identification number
- Root Protection Area (RPA)
- Category A**
Trees and groups of high quality with an estimated remaining life expectancy of at least 40 years.
- Category B**
Trees and groups of moderate quality with an estimated remaining life expectancy of at least 20 years.
- Category C**
Trees and groups of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.
- Category U**
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
- BS5837 Root Protection Areas**
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work.
- T33**
The RPAs of affected trees and tree groups have been amended, due to the presence of adjacent influencing factors (e.g., buried structures).
- Trees and groups to be removed shown shaded grey and dashed.
- Crown to be lifted to provide a consistent 2m separation from the proposed roof element.

rev	date	description	drawn by
Base Drawing: aa_a2119_m_p-1003_Proposed Roof			

Title
Proposed Layout and Tree Works - Roof Level

Client
Home owner of 1a Belsize Park Gardens

Project
1a Belsize Park Gardens, Camden,
London, NW3 4LB

Date	Drawn by	Authorised
15/06/2023	HR	CW

Drawing No	Rev	Scale
220350-P-11.02	-	1:250@A3

General Arboricultural Method Statement

TREE WORKS

Only the tree works specified within this report may be undertaken, after the appropriate planning consents have been acquired and in order to implement the consent. In the event of any uncertainty regarding tree works, the arboriculturist will be consulted and where appropriate the Local Planning Authority.

All tree works will be undertaken, in accordance with the best-practice recommendations provided in BS 3998:2010. The statutory responsibilities as outlined in the Wildlife and Countryside Act 1981 (as amended) and the The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

TREE PROTECTION FENCING

The tree protection fencing and (where appropriate) ground protection, will be installed as specified within this plan, prior to the commencement of any demolition and construction works. No plant or materials will be delivered to site prior to the construction of the tree protective fencing other than those required to install the tree protection fencing. On every third panel, a sign will be fixed that states "Tree Protection Zone (CEZ). Keep out. Any incursion into this area must be agreed in advance with the arboriculturist and Local Planning Authority." An example of this sign is provided within this plan.

The position of the tree protection fencing must not be amended and no individual panels will be uncoupled, without the agreement of the arboriculturist and/or Local Planning Authority.

SERVICES AND DRAINAGE

The installation of drainage runs, manholes, storage tanks, and utilities will be positioned outside the root protection areas of retained trees. If the installation of new services and drainage runs are required within the root protection areas (RPAs) of retained trees, all methods of working will follow the guidance within Table 3 of BS 5837 or the National Joint Utilities Group's (NJUG) Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees (volume 4, issue 2).

Excavation works within the RPAs of retained trees will be undertaken manually with the use of hand tools only (under the supervision of the arboriculturist), unless otherwise agreed in advance by the arboriculturist. It is recommended that an air lance - and if required a soil vacuum - is used, to excavate service trenches within RPAs. If soil conditions are not suitable for this method of excavation, alternative hand tools can be used once agreed in advance by the arboriculturist.

All roots greater than 25mm in diameter will be retained and will immediately be wrapped in hessian or another appropriate material, to prevent desiccation and temperature fluctuations. Roots will be pushed aside to allow for runs to be installed, where this is practical and without causing root damage.

No machinery will be permitted within the CEZ, at any time, unless agreed in advance with the arboriculturist.

NO-DIG CONSTRUCTION AREAS

Areas that will require no-dig methods of construction are shown within this plan. Working methods within these areas will comply with the details outlined in the main report and in advance of works being undertaken will be agreed with the arboriculturist.

ARBORICULTURAL CLERK OF WORKS

Attendance by the arboriculturist on Site is required, as per the specifications outlined within the Report to which this plan is appended.

It will be the responsibility of the main contractor (or other managing individual or organisation) to confirm the date and time of attendance, providing at least five working days of notice so that the project arboriculturist can confirm attendance.

GENERAL PROTECTION METHODS

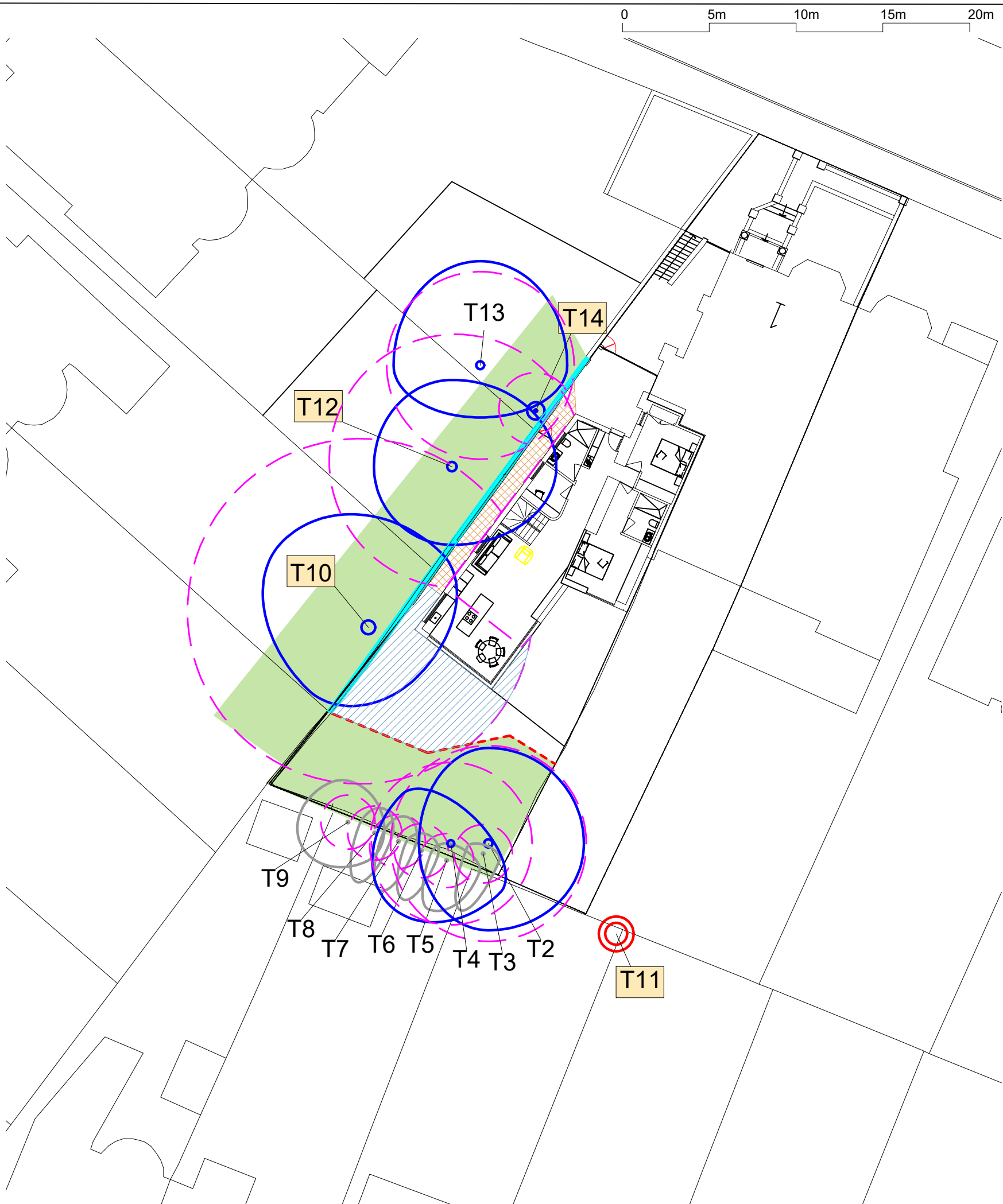
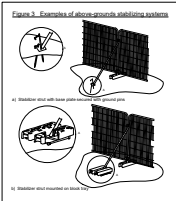
No fires will be permitted, within 20m of the crown of any tree or other area of vegetation that includes hedgerows and groups of trees.

No changes in soil level will occur, within the CEZs and RPAs, without agreement in advance with the arboriculturist.

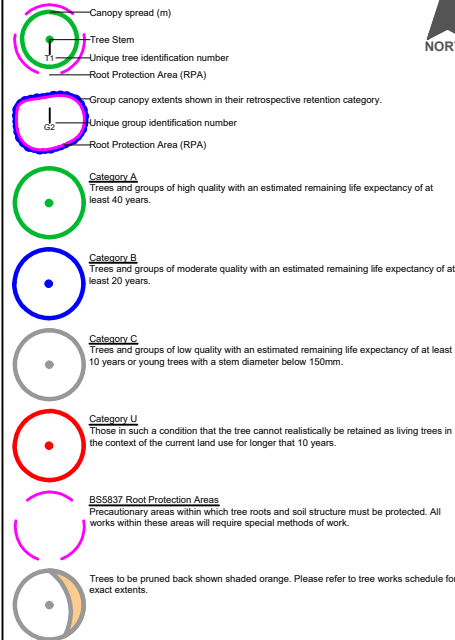
The CEZs will at all times remain free of liquids, materials, vehicles, plant, and personnel, without agreement in advance with the arboriculturist.

Any liquid materials spilled on site will immediately be cleared up. If liquids are spilled within 2m of any CEZ or RPA, the incident will immediately be reported to the arboriculturist, to determine the appropriate response.

All damage to trees and other vegetation will immediately be reported to the arboriculturist, to determine the appropriate response.



BS 5837:2012 TREE RETENTION CATEGORIES



Position of barrier protection. Barriers to be installed prior to the commencement of any works associated with development and to remain in place until all construction works are complete. Barriers to be of the specification shown on this plan.

Existing boundary wall to serve as a suitable analogue to barrier protection.

Exclusion zone during works (i.e., the Construction Exclusion Zone where no access is permitted). Landscaping details are not yet developed and any re-landscaping will need to be undertaken under the instruction of a detailed Arboricultural Method Statement.

Existing hard surfaces to be retained and to serve as a suitable analogue to ground protection. Landscaping details are not yet developed and any re-landscaping will need to be undertaken under the instruction of a detailed Arboricultural Method Statement.

rev	date	description	drawn by
Base Drawing:	aa_a2119_m_p-1001_Proposed Ground Floor		

Title
Tree Protection Plan

Client
Home owner of 1a Belsize Park Gardens

Project
1a Belsize Park Gardens, Camden, London, NW3 4LB

Date	Drawn by	Authorised
15/06/2023	HR	CW

Drawing No	Rev	Scale
220350-P-12	-	1:250@A3



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APPENDIX B - Schedules

- 220350-PD-10 Tree Schedule

220350-PD-10 Tree Schedule

220350 - 1a Belsize Park Gardens

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
					N	NE	E	SE	S	SW	W	NW									
Tree T1	1 Prunus sp. (Cherry sp.)	2.0	9	1		2.0		1.5		1.5		1.5	1.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Decay / structural defect in crown limb / limbs - Localised.	25/03/2022	3.7	1.1	10-20	C2
Tree T2	1 x Cupressocyparis leylandii (Leyland Cypress)	17.0	47	1	5.5		5.5		5.0		4.0		3.0		Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Decay / structural defect - Bole. Fork - Weak with included bark.	25/03/2022	99.9	5.6	20-40	B2
Tree T3	1 x Cupressocyparis leylandii (Leyland Cypress)	7.5	14	1	0.5		1.0		3.5		1.0		3.5		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Suppressed crown - Major.	25/03/2022	8.9	1.7	10-20	C2
Tree T4	1 x Cupressocyparis leylandii (Leyland Cypress)	15.0	39	1		2.0		4.0		5.0		4.0	3.5		Mature	Structural condition Fair. Physiological condition Good. Base / stems obscured - Vegetation. Competition - Adjacent trees. Ivy or climbing plant.	25/03/2022	68.8	4.7	20-40	B2
Tree T5	1 Carpinus betulus (Hornbeam)	7.0	13	1	1.0		2.0		3.0		1.0		2.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Suppressed crown - Major. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	7.6	1.6	20-40	C2
Tree T6	1 Carpinus betulus (Hornbeam)	7.0	13	1	1.0		1.0		3.0		1.0		2.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Suppressed crown - Minor. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	7.6	1.6	20-40	C2

Stem **green** Estimated value

Stem **AVE** Average stem diameter for tree groups

Stem **COM** Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

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220350 - 1a Belsize Park Gardens

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
					N	NE	E	SE	S	SW	W	NW									
Tree T7	1 Carpinus betulus (Hornbeam)	7.5	13	1	1.5		1.0		3.0		1.0		2.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	7.6	1.6	20-40	C2
Tree T8	1 Carpinus betulus (Hornbeam)	7.5	13	1	1.5		1.0		3.0		1.0		2.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	7.6	1.6	20-40	C2
Tree T9	1 Carpinus betulus (Hornbeam)	7.5	13	1		2.0		2.5		3.0		2.5	2.0		Semi Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	7.6	1.6	20-40	C2
Tree T10	1 Aesculus hippocastanum (Horse Chestnut)	17.0	80	1		6.0		4.0		5.0		7.0	6.5		Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Crown reduction - Recent. Decay / structural defect in crown limb / limbs - Localised. Decay / structural defect - Bole. Epicormic growth - Bole / principal stems. Boundary brick wall adjacent is vertically cracked (likely caused by tree). Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	289.5	9.6	20-40	B1/B2
Tree T11	1 Populus sp. (Poplar sp.)	7.0	125	1	1.0		1.0		1.0		1.0		6.0		Mature	Structural condition Poor. Physiological condition Poor. Monolith. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	706.9	15.0	0-10	U

Stem **green** Estimated value

Stem **AVE** Average stem diameter for tree groups

Stem **COM** Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

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MyTREES
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220350 - 1a Belsize Park Gardens

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
N	NE	E	SE	S	SW	W	NW														
Tree T12	1 Acer pseudoplatanus (Sycamore)	20.0	55	1	5.0		6.0		4.5		4.5		4.0		Mature	Structural condition Fair. Physiological condition Fair. Base / stems obscured - Vegetation. Crown reduction - Historic. Decay / structural defect in crown limb / limbs - Localised. Ivy or climbing plant. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	136.8	6.6	20-40	B1/B2
Tree T13	1 Acer pseudoplatanus (Sycamore)	19.0	45	1	6.0		5.0		3.0		5.0		5.0		Mature	Structural condition Fair. Physiological condition Fair. Arboricultural work - Historic. Base / stems obscured - Vegetation. Ivy or climbing plant. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	91.6	5.4	20-40	B1/B2
Tree T14	1 Cupressus sempervirens (Italian Cypress)	7.0	15	1	0.5		0.5		0.5		0.5		1.0		Semi Mature	Structural condition Good. Physiological condition Good. Off-Site. Access not available to inspect. Position estimated - no topographical survey information.	25/03/2022	10.2	1.8	40+	B1/B2

Stem **green** Estimated value

Stem **AVE** Average stem diameter for tree groups

Stem **COM** Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

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tree management software

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none">* 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 (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)* Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline* Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7	RED		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Tree 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).	GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management 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 visual contribution to the wider locality.	Trees with material conservation or other cultural value.	BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them 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



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