Arboricultural Report

Assessment of trees in relation to development for planning purposes

15 Daleham Gardens
London
NW3 5BY

August 2015

150715-PD-11

TIM MOYA ASSOCIATES

Project	150715 – 15 Daleham Gardens, London, NW3 5BY
Report Type	Arboricultural Report for Planning
Checked by	Gavin Rees
Date Checked	3/8/2015

CONTENTS PAGE

1 SUMMARY REPORT

1.1 This arboricultural report has been commissioned by JPB Architects to provide information to assist all parties involved in the planning process to make balanced judgements with regard to arboricultural features in relation to the proposed development at 15 Daleham Gardens, London, NW3 5BY

1.2 The proposal is for the construction of a lower ground floor extension and alterations to the hard landscaping within the front garden.

1.3 This report includes:

- an assessment of the trees, their quality and value and constraints to development posed by these;
- the site context;
- observations on the trees;
- planning policies relevant to the consideration of the trees on the site;
- the impact of the proposed development upon the tree population in and around the site;
- methods of reducing impacts on trees; and
- measures to be taken to protect trees during the proposed works.

1.4 My conclusions are that the development proposal in respect of trees is acceptable in principle; and I have followed best practice guidance in the assessment of trees.

1.5 To facilitate the development proposals it will be necessary to remove one low quality tree however its loss will be mitigated with a significant replacement tree/s planted in a similar location.

1.6 In addition several low quality shrubs will need to be removed, their loss will be compensated for with new planting which will provide ensure future landscape benefits and a sustainable approach to tree management within the area. The proposals comply with both National and local planning policy.

1.7 Retained trees and vegetation can be adequately protected by following the recommendations within this report (including the Tree Protection Plan) and by responding to suitably worded planning conditions. New tree planting can be conditioned as part of the approved permission.

2 INTRODUCTION

Instructions

2.1 My name is Robert Murison. I am an arboricultural consultant dealing with trees in relation to all forms of human activity including the built environment. I am a Technician Member of the Arboricultural Association, a qualified professional tree inspector (LANTRA) and have a BSc Honours Degree in Arboriculture from the University of Northampton.

2.2 This report has been commissioned by JPB Architects to support and provide information to assist all parties involved in the planning process with regard to the application to extend the lower ground floor of 15 Daleham Gardens, London.

Scope and limitations

2.3 The survey is not an assessment of health and safety of trees and no recommendations for works have been provided, however trees identified as imminently dangerous have been highlighted in the tree schedule where appropriate.

2.4 The contents of this report are copyright of Tim Moya Associates and may not be distributed or copied without the author's permission. Tim Moya Associates standard Limitations of Service apply to this report and all associated work relating to this site.

Background and documents provided

2.5 My report has been prepared with reference to the following supplied information:

- Ordnance Survey map; and
- architects layout – Drawing No. 10697/103/P1.

Methodology and guidance

2.6 I have referred to British Standard 5837: Trees in relation to design, demolition and construction (2012) which provides a methodology for the assessment of trees and other significant vegetation on development sites.

2.7 BS 5837 (2012) is intended to assist decision making with regard to existing and proposed trees and sets out the principles and procedures to be applied to achieve a harmonious relationship between trees and structures that can be sustained for the long term.

2.8 The Building Research Establishment (BRE) has also produced several documents between 1998 and 2006 in relation to trees and site layout planning, sunlight, daylight, shading and urban cooling. These documents consider trees and their relationship with buildings and garden usage, including the benefits they bring in terms of welcome shade or urban cooling, advising a balanced approach to these issues in design.

Supporting Information

2.9 All TMA documents relevant to this report are listed at section 9, and included within the Appendices.

3 OBSERVATIONS AND CONTEXT

Site visit

3.1 I visited the site on 28th July 2015, to carry out a survey of the trees that may be affected by the proposed development.

3.2 The weather at the time of my visit was warm, dry and bright.

Present use of the Site

3.3 The site lies within the highly residential area of Belsize Park where the majority of the surrounding properties are three to four storied detached and semi-detached houses. The location and extent of the site is indicated in photo one below. The existing property is a three storey detached residential property with a lower ground floor site. The property is access via the front from Daleham Gardens, the front garden area consists of a separate pedestrian and vehicular access which includes provision for off street parking. The front garden includes both soft and hard landscaping as well as stepped access to the front door and lower ground floor.

3.4 Within the front garden there are well maintained shrub beds and two modest sized trees with shrubs and climbers planted along the front boundary wall. There is further planting located within the front gardens of the neighbouring properties to the north and the south. The front aspect of the property is shown in photo two below.

Photo 1 (Google maps) Approximate site location plan

Photo 2 (RM 28.7.15) View site frontage, image taken from the east, looking west

Trees on site and within the local area

3.5 The wider area consists of built form with several mature trees located within the front gardens of several properties of Daleham Gardens. The majority of front gardens contain mature shrubs and small trees however the most significant trees are located within the rear gardens of residential properties. Significant tree planting is also present within the pavement of Fitzjohn's Avenue (B511) which runs parallel to Daleham Gardens to the west.

3.6 There were in total four trees, two hedgerows and three shrub groups relevant to this application and these were located predominantly within the site and immediately adjacent to the site on neighbouring properties.

Views of trees

Photo 3 (RM 28.7.15) View of T5 - H9 and T1 – G7 (left to right), image taken from the east, looking west

Photo 4 (RM 28.7.15) View of T2 (centre tree) within shrub bed, image taken from south, looking north

Photo 5 (RM 28.7.15) View of T3 growing within H4, both are within the neighbouring garden, image taken from southeast, looking northwest

Photo 6 (RM 28.7.15) internal view of T1 and G7, image taken from northwest, looking southeast

Photo 7 (RM 28.7.15) View of G6 growing within contained planting bed, image taken from southwest, looking northeast

Soil conditions

3.7 Soil conditions will have a significant effect upon tree growth and will influence:

- The species that will grow successfully.
- Rooting depths for different species.
- The available soil volume that can be used by roots and therefore the likely tolerance of trees and other vegetation to soil disturbance.

3.8 The bedrock geology of the site is indicated on the British Geological Survey web site as being is London Clay Formation - Clay, Silt and Sand. Soils of this type are suitable for the growth of a large number of tree species but may be prone to volumetric change due to clay content and therefore consideration needs to be given to foundation design where structures are to be constructed close to trees and vegetation.

Policy context

3.9 Planning policy at national level is set out in the government's National Planning Policy Framework (NPPF). The NPPF replaces the previous national planning policy documents including Planning Policy Guidance (PPGs) and Planning Policy Statements (PPSs). The NPPF is a material consideration in determining planning applications.

3.10 The NPPF sets out overarching planning policy and at its core is a presumption in favour of sustainable development. Sustainable development is defined in the NPPF as having economic, social and environmental strands that are interdependent and in these areas planning should meet the needs of the present without compromising the ability of future generations to meet their own needs.

3.11 The NPPF states that planning should be "not only about scrutiny, but instead be a creative exercise in finding ways to enhance and improve the places in which people live their lives." And should "always seek to secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings;" Also that planning should contribute to conserving and enhancing the natural environment and reducing pollution."

3.12 The NPPF identifies thirteen aspects contributing to the delivery of sustainable development, including:

- establishing a strong sense of place;
- responding to local character and history; and
- providing developments that are visually attractive as a result of good architecture and appropriate landscaping

3.13 Paragraph 61 of the NPPF states "planning policies and decisions should address the connections between people and places and the integration of new development into the natural, built and historic environment."

3.14 The NPPF states that “planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland. Unless the need for, and benefits of, the development in that location clearly outweigh the loss”.

London Plan 2015

3.15 Regional planning policy consists of the London Plan 2015 and associated policy documents including the Climate Change Adaptation Strategy (*Managing Risks and Increasing Resilience – October 2011*).

3.16 The London Plan 2015 defines “green infrastructure” as *“an overarching term for a number of discreet elements (parks, street trees, green roofs etc.) that go to make up a functional network of green spaces and green features.”*

3.17 In relation to climate change adaptation the London Plan calls for the use of trees and other shading to *“increase green areas in the envelope of the building, including its roof and environs”*

3.18 The London Plan sets a target of a 5% increase in trees in parks, gardens and green spaces by 2025.

3.19 Policy 7.21 of the London Plan 2011 calls for trees and woodlands to be protected, maintained and enhanced. The policy requires that existing trees of value should be retained and that any loss as a result of development should be replaced in sustainable locations. The policy suggests that, where appropriate, large canopied species should be planted (rather than smaller ornamental species).

Unitary Development Plan

3.20 The Camden Unitary Development Plan adopted January 2007. Relevant policies to the consideration of trees, their setting and development include:

3.21 **Policy ENV 15 Public and Private Open Space** - Assigns similar protection to public or private open space of amenity, recreational or nature conservation value, unless the [proposed] development is essential and ancillary to maintaining or enhancing that land as valuable open space.

3.22 **Policy ENV 16 Trees and Shrub Cover** - Protects trees in conservation areas and those subject to Tree Preservation Orders and protects trees which form part of a green corridor.

Legal Constraints

3.23 According to Camden Borough Council's on line mapping facility the site is located within the Fitzjohns / Netherhall conservation area and therefore trees at this site with a stem diameter of 75mm or above (measured at 1.5m above ground level) are subject to statutory protection.

3.24 I am not aware of any tree preservation orders existing on this site but prior to undertaking any tree works confirmation of this should be sort from the local authority.

4 TECHNICAL INFORMATION

Tree Data

4.1 The location of trees and groups of trees are shown on the tree survey drawing 150715-P-10 at Appendix A, this plan illustrates the location of trees and the extent of the spread of their crowns. Dimensions, comments and information for each tree are given in the tree schedule 150715-PD-10 at Appendix B.

Life stage analysis

4.2 Unlike age in numerical terms (years), this description is used to describe the physical form of a tree in relation to its typical life expectancy and varies between species; for example an oak may have a young form after 20 years while a cherry tree will be middle-aged after 20 years and will have developed the appearance of a mature tree with a spreading rounded crown whilst the oak remains tall and slender with strong apical dominance.

4.3 Of the nine survey entries, one was recorded as late-mature, one was mature, six were early mature and one was recorded as semi mature, see figure one below.

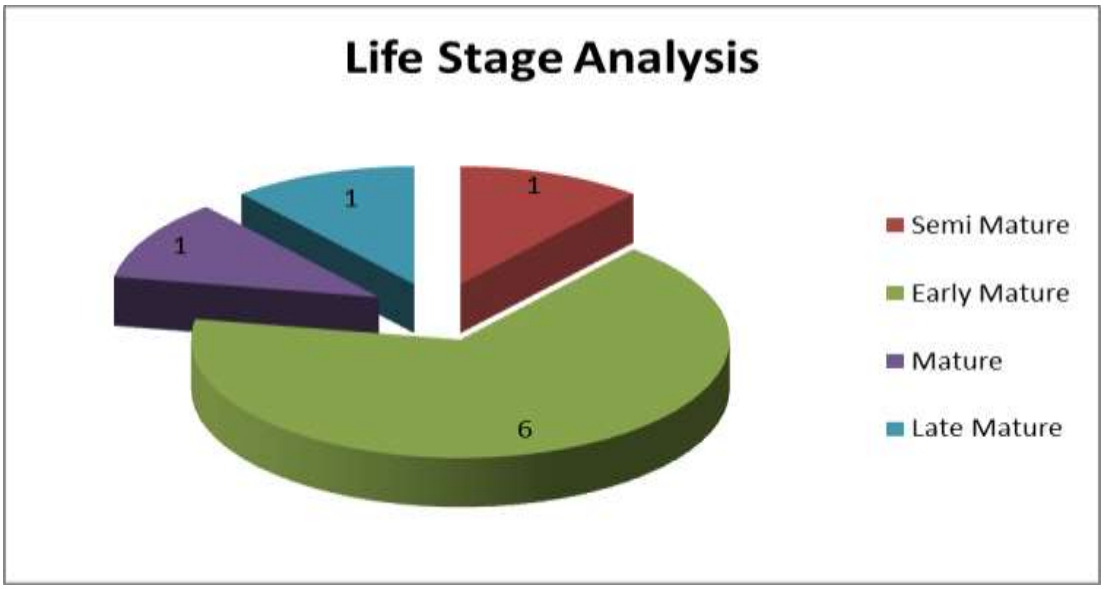


Fig 1. Represents the spread of life stages found within the trees surveyed on site

BS5837 category breakdown

4.4 Of the nine survey entries, one was assessed as being of moderate quality and value (B category) and a total of eight were assessed as being of low quality and value (C Category), see figure two.

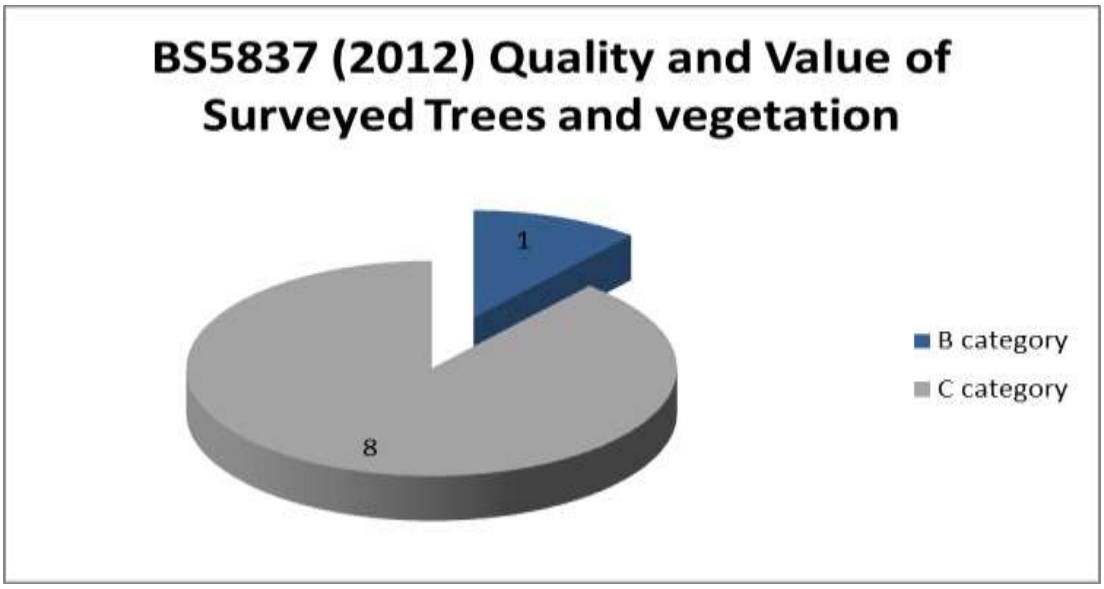


Fig 2. Illustrates the BS5937 category of trees within the survey area

5 ANALYSIS OF THE PROPOSAL IN RESPECT OF TREES

Proposed development

5.1 The layout for the proposed development is shown on plan 150715-P-11 at Appendix A and is for the construction of a front lower ground floor extension. Also included within the proposal is the re-alignment of an existing basement staircase, alterations to the hard landscaping and proposed soft landscaping. The removal of one low quality tree and one low quality shrub group will be necessary to facilitate the proposed developments.

5.2 The proposed soft landscaping works will include the replacement planting of shrubs within a newly constructed raised planter as well as in front of the proposed parapet between the footpath and extension. Suitable replacements to mitigate the loss of one mature tree along the front aspect of the property are also being proposed.

Identified arboricultural impacts

5.3 The main arboricultural issues in respect of the proposals are as follows:

- tree works;
- tree protection;
- manual demolition and excavation of lower ground floor extension,
- alterations to existing hard landscaping and re-alignment of basement staircase, and;
- replacement tree and shrub planting.

Tree works

5.4 The proposal will require the removal of T1 and G6 as shown on the tree removals drawing 150715-P-11 at Appendix A. The shrubs contained within G6 are located internally within the site and are of low quality and value (C category).

5.5 T1 is a mature multi stemmed holly, also of low quality and value (C category), although it does contribute to the landscape character of the street scene its loss can be mitigated with new replacement planting.

Tree protection

5.6 Drawing 150715-P-12 at Appendix A illustrates the location of tree protection measures necessary to safely protect all retained trees during construction. Where possible existing fencing and hard standing will be retained and act as tree protection.

5.7 No materials or equipment other than those required to install tree protection, will be delivered to the site until all fencing and ground protection is in place.

5.8 Signs will be fixed to every third panel stating **'*Tree Protection Area Keep Out – Any Incursion into the Protected Area Must be with the Agreement of the Local Authority or Arboricultural Consultant*'**.

Alterations to existing hard landscaping and re-alignment of basement staircase

5.9 The proposed alterations to the hard landscaping on the eastern extent of the lower ground floor extension will not significantly impact any retained trees or shrubs on site.

5.10 The realignment of the basement staircase to the north of the proposed extension is not within the theoretical root protection area of any retained trees and will not be significant impact on the condition and vitality of retained trees and shrubs.

Replacement tree and shrub planting

5.11 In order to mitigate the loss of T1 and G6, the proposed design has allocated significant areas for landscaping that will provide an overall improvement to the visual amenity of the wider area. Please refer to drawing 150716-P-11 at Appendix A for proposed landscaping areas.

6 DISCUSSION

General Change

6.1 The proposed development requires the removal of low quality trees and shrubs only. In visual terms, the loss of G6 is unlikely to have a significant impact upon the visual landscape due its internal location and size.

6.2 The potential to retain T1 throughout the development has been assessed and although the overall incursion into its RPA is relatively minor, the predominance of retaining structures surrounding the tree and limited available rooting area means that the likelihood of removing significant structural and water conducting roots even greater. It is therefore recommended that T1 is removed and suitable replacement planting is undertaken following completion of works.

6.3 The development proposals will necessitate the removal of one low quality tree (T1), individually it is of low merit and although it does contribute to the green infrastructure of the street scene, its loss will quickly be replaced and enhanced with new significant tree planting which will more than mitigate the loss of both T1 and G6.

Arboricultural Impacts

6.4 The proposed development and site access has been considered and all retained trees can be adequately protected for the duration of the development.

6.5 Although the demolition works and associated excavations to achieve the extended lower ground floor are within the theoretical root protection areas (RPA) of T5 this will not result in causing significant damage to the condition and vitality of this tree due to historic level changes and predominance of significant retaining structures which are likely to be restricting root ingress within the site will result.

6.6 The use of tree protective fencing as specified within BS:5837:2012 is not believed to be necessary at this site, instead an alternative design consisting of a robust timber framed fence, faced with plywood boards is suggested and is shown on drawing 150715-P-12 at Appendix A.

6.7 Further protection measures are not deemed appropriate due to the location and scale of developments proposed and the predominance of existing hard landscaping.

6.8 The protection of retained trees on this site during the proposed development works can be achieved by continuing to follow the recommendations in BS5837:2012 and by compliance with the recommendations within this report.

How do the changes relate to planning policy?

6.9 The proposal has taken account of all significant trees on and immediately adjacent to the site. The proposals require only low quality and value trees and shrubs to be removed as part of the proposals and these will be replaced by new landscaping. All remaining trees can be safely retained subject to methods of construction. Provided there are robust conditions to control works on the site, the proposal does not conflict with Camden Borough Council's policies or the London Plan 2015.

7 CONCLUSIONS

Sustainable development

7.1 The design of the proposal has considered the potential constraints of important nearby trees and the approach to trees and landscape on the site is sustainable; best practice guidance has been followed to identify the key trees for arboricultural and landscape value.

7.2 The loss of one low quality shrub group and one low quality tree can be suitably offset through the planting of replacement specimens in a similar location, ensuring a continuity of soft landscaping.

7.3 The existing retaining structures and dominance of hard landscaping throughout the development area significantly limits the potential for the propose developments in the location shown to affect the long term health of the retained trees.

8 RECOMMENDATIONS

The use of planning conditions to safeguard trees

8.1 Section 197 of the Town and Country Planning Act 1990 places a duty on the Local Planning Authority to ensure that planning permissions are granted making adequate provision for the preservation and planting of trees by the imposition of conditions.

8.2 Appropriately worded planning conditions can ensure that trees are adequately protected during construction work as well as ensuring new tree and shrub planting.

9 TMA SUPPORTING INFORMATION

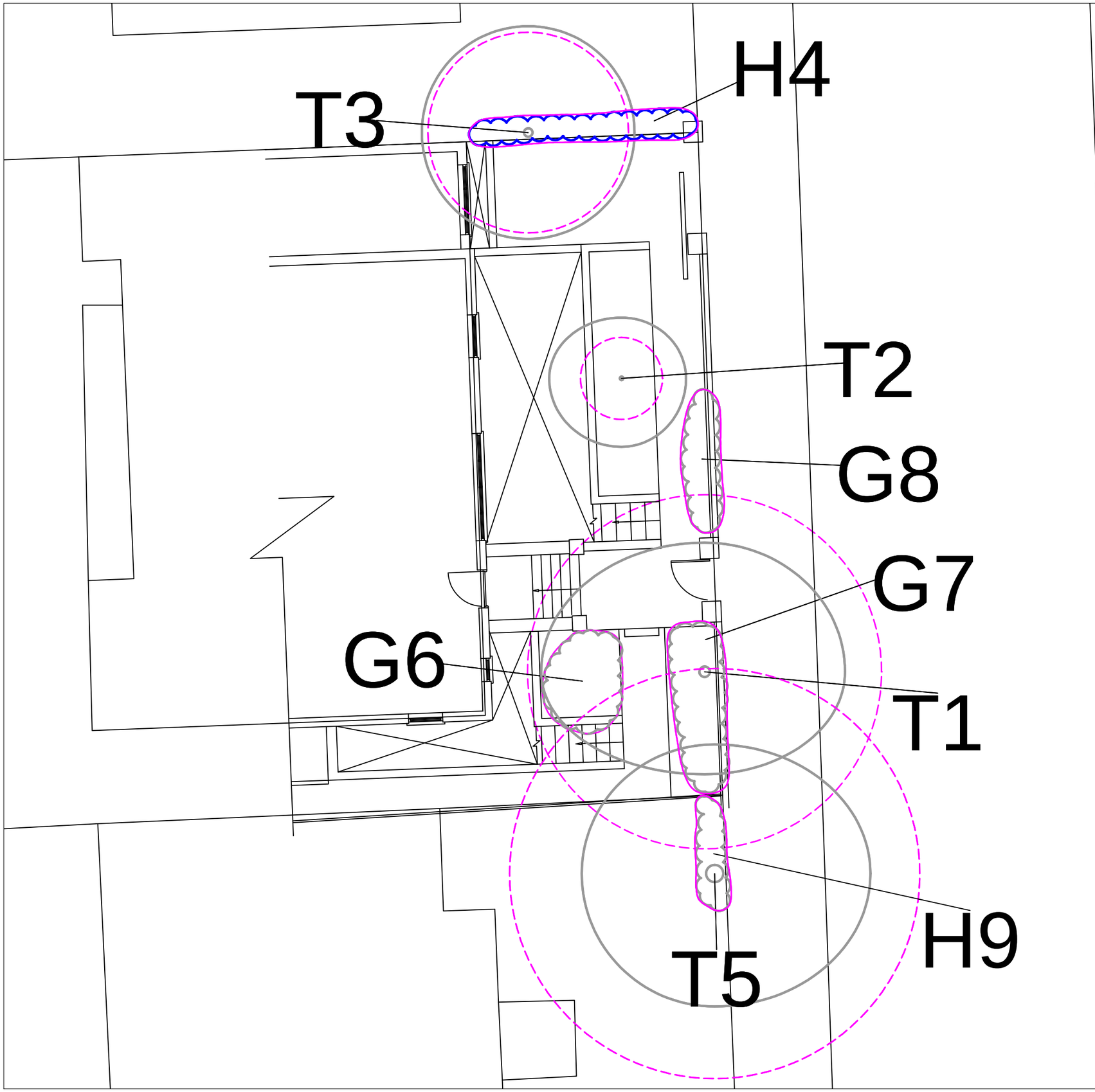
Document	Reference	Revision
Tree Schedule	150715-PD-10	
Tree Survey	150715-P-10	
Proposed Layout	150715-P-11	
Tree Protection Plan	150716-P-12	

APPENDIX A - PLANS

Tree Survey 150715-P-10

Proposed Layout and Tree removal 150715-P-11

Tree Protection Plan 150715-P-12



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INVESTORS IN PEOPLE

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BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality and value: in such a condition as to be able to make substantial contribution (a minimum of 40 years is suggested)

Category B
Trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20years is suggested)

Category C
Trees of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10years is suggested), 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 that 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

-	-	-

REVISIONS

Base Drawing

29/07/15	-	Existing and Proposed drawing with OS MAP

0 1m 5m

Title
Tree Survey

Client
JPB Architects

Project
15 Daleham Gardens, London, NW3 5BY

Date		Drawn by
July 2015		AH
Drawing No	Rev	Scale
150715-P-10	-	1:100@A3

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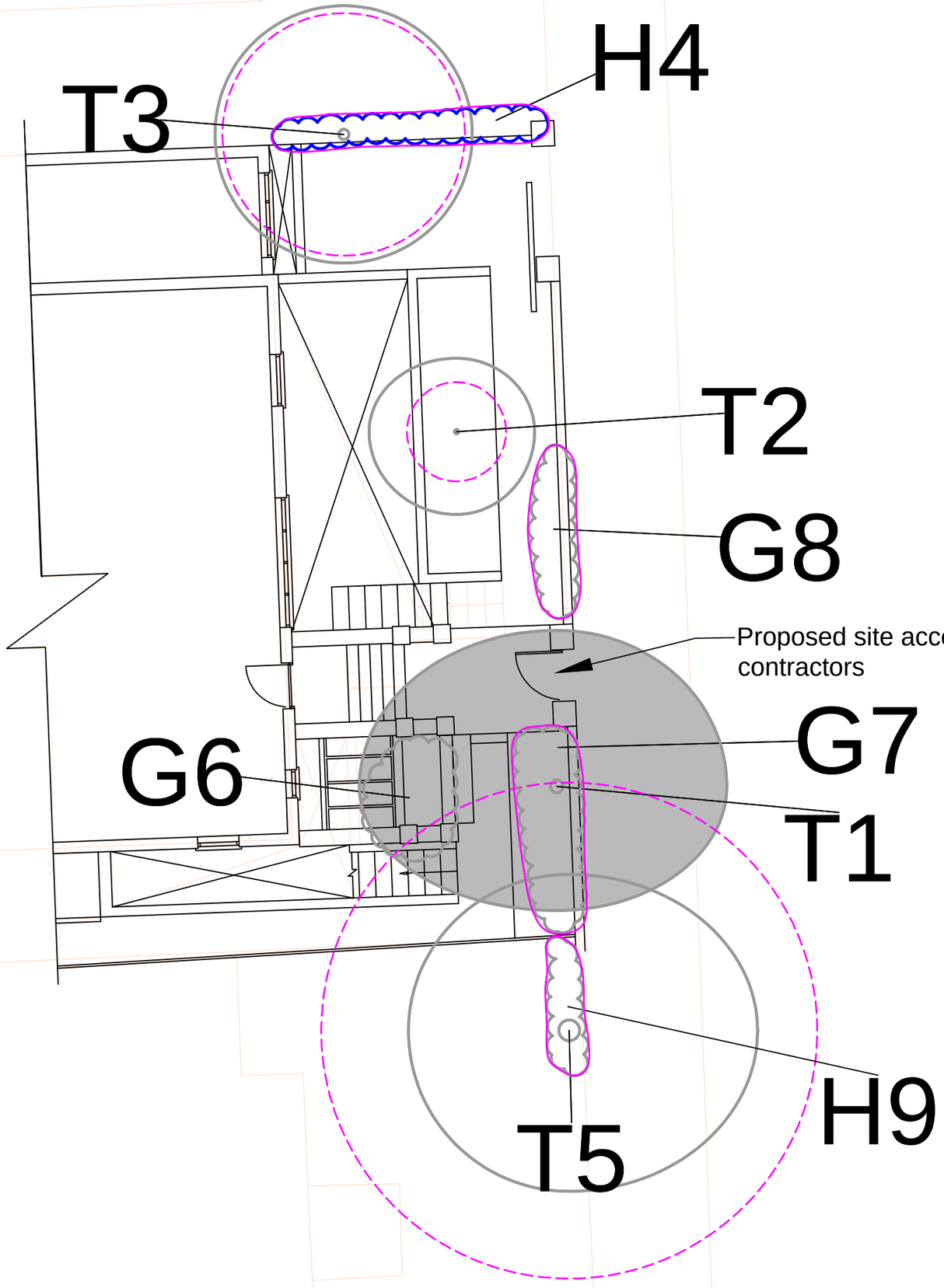

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BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

Trees to be removed shown shaded

-	-	-

REVISIONS

Base Drawing

29/07/15 - Existing and Proposed drawing

0 1m 5m

Title
Proposed Layout and Tree Removals

Client
JPB Architects

Project
15 Daleham Gardens, London, NW3 5BY

Date		Drawn by
July 2015		AH
Drawing No	Rev	Scale
150715-P-11	-	1:100@A3

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ARBORICULTURAL METHOD STATEMENT

BRITISH STANDARD 5837(2012)

This method statement is in accordance with British Standard 5837: Trees in relation to design, demolition and construction - Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.

TREE SURGERY WORKS

Only tree works specified within this document may be carried out. Any uncertainty regarding trees to be pruned will be immediately confirmed with the arboricultural consultant and local authority tree officer.
All tree works will be carried out in accordance with the recommendations given in the current BS 3998 (2010).
All tree works should be carried out in accordance with the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010.

SITE SUPERVISION

All key / critical activities that will affect trees during construction will be inspected and monitored by the approved arboricultural consultant and reports issued to the client and local authority.

Supervision visits will occur as follows;

- Inspection of tree works, tree protection prior to demolition and construction works
- Monthly visits to inspect tree protection measures
- During works that may affect retained trees

PROTECTIVE FENCING

No materials or equipment other than those required to erect protective fencing, will be delivered to the site before the fencing is installed. The position of protective fencing for demolition is shown on this drawing.
Protective fencing will be constructed of robust barriers fit for the purpose of excluding demolition and construction traffic. Signs will be fixed to every third panel stating '**Tree Protection Area Keep Out - Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant**'.
The main contractor will inform the local authority officer and the arboricultural consultant that tree protection is in place before demolition or site clearance works commence.
No alteration, removal or repositioning of the tree protection for demolition will take place during the demolition phase without the prior consent of the arboricultural consultant.

SERVICES AND DRAINAGE

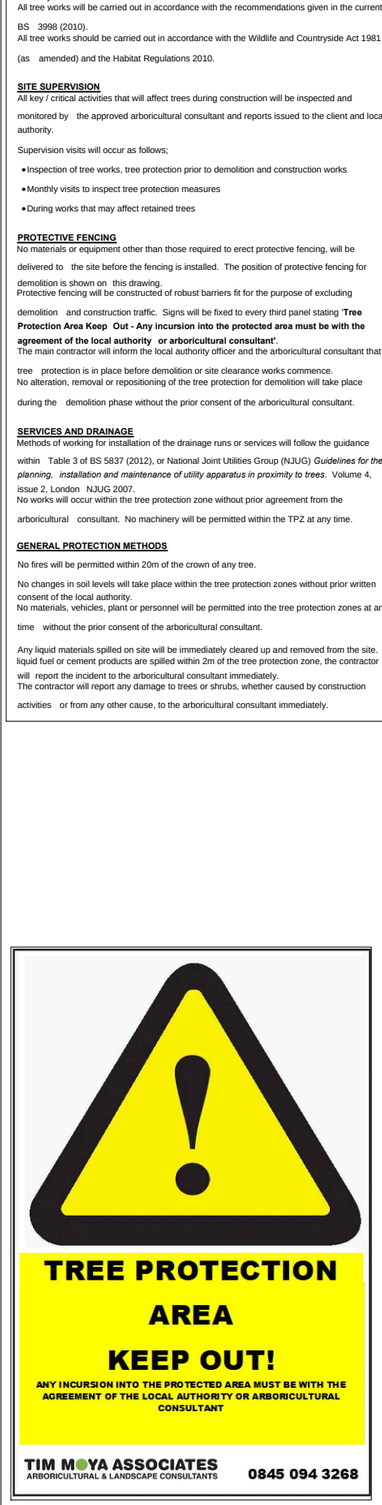
Methods of working for installation of the drainage runs or services will follow the guidance within Table 3 of BS 5837 (2012), or National Joint Utilities Group (NJUG) *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*. Volume 4, issue 2, London NJUG 2007.
No works will occur within the tree protection zone without prior agreement from the arboricultural consultant. No machinery will be permitted within the TPZ at any time.

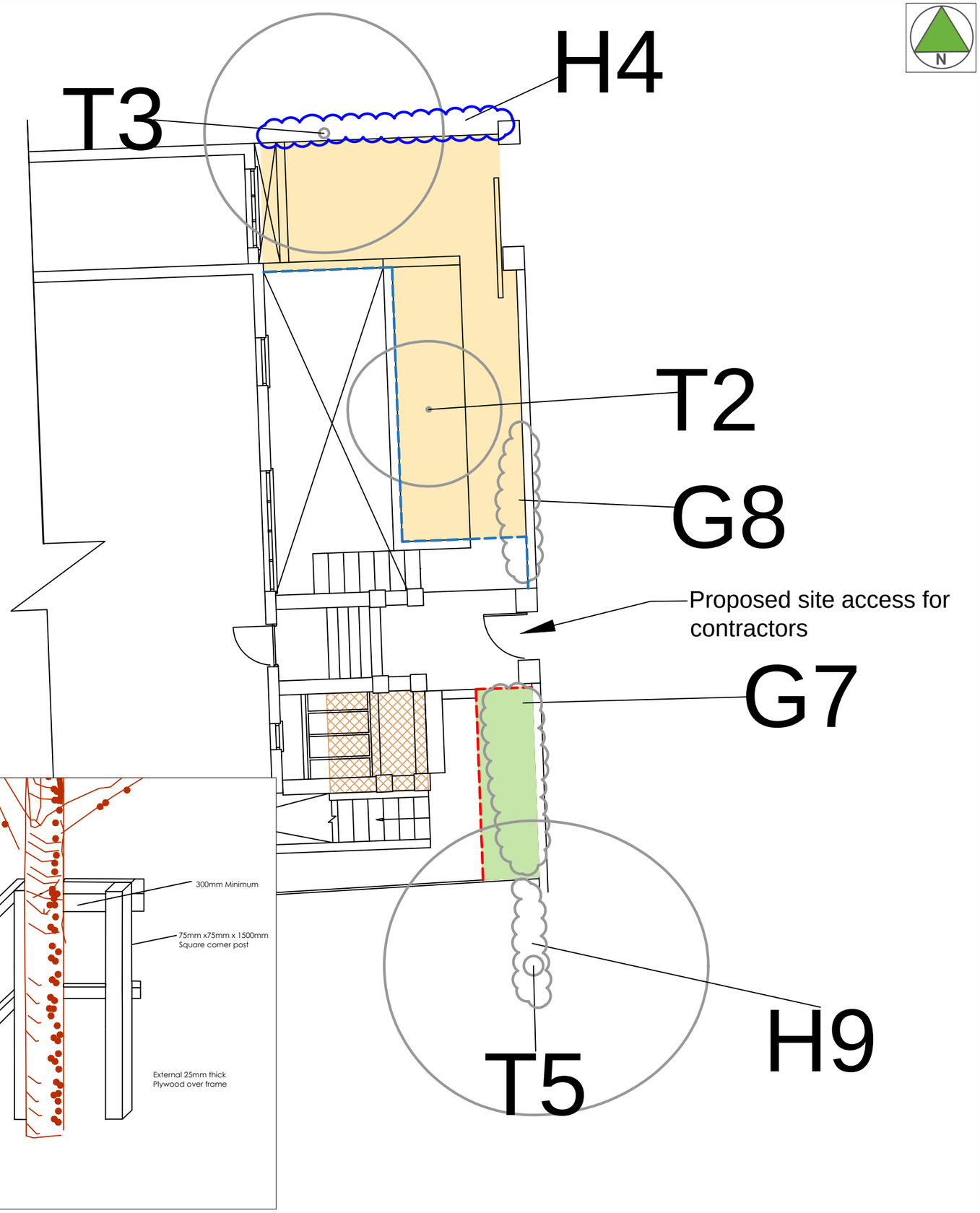
GENERAL PROTECTION METHODS

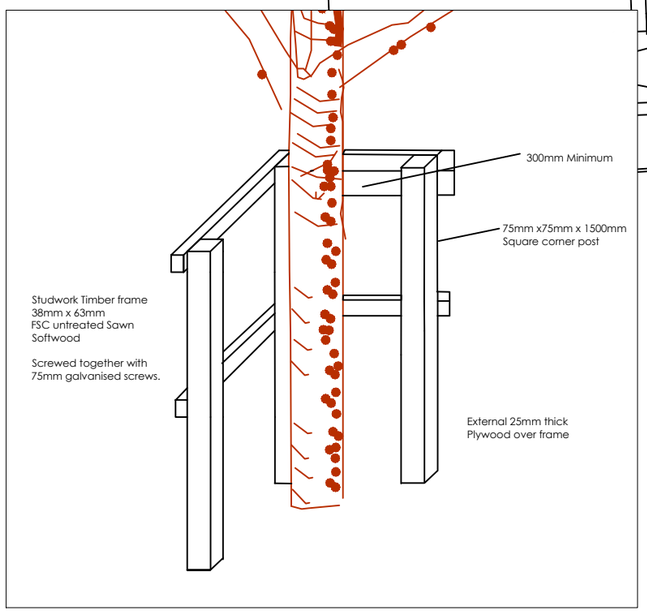
No fires will be permitted within 20m of the crown of any tree.

No changes in soil levels will take place within the tree protection zones without prior written consent of the local authority.
No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboricultural consultant.

Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately.
The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.







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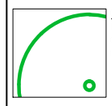
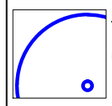
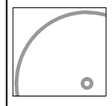
BS 5837:2012 TREE RETENTION CATEGORIES



Category A
Trees of high quality and value: in such a condition as to be able to make substantial contribution (a minimum of 40 years is suggested)



Category B
Trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20years is suggested)



Category C
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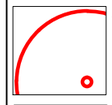
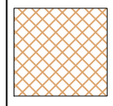


Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

Position of protective frame and tree protection zones. See inset for specification.

Construction exclusion zone.



Extent of proposed excavation.

-	-	
REVISIONS		
Base Drawing		
29/07/15	-	Existing and Proposed drawing

0 1m 5m

Title
Tree Protection Plan

Client
JPB Architects

Project
15 Daleham Gardens, London, NW3 5BY

Date	Drawn by
July 2015	AH

Drawing No	Rev	Scale
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APPENDIX B - SCHEDULES

Tree Schedule 150715-PD-10

15 Daleham Gardens, London, NW3 5BY

Tree/Group Number	No. of Trees	Species	DIMENSIONS: Height (m)	Stem diameter (cm)	No. of Stems	Spread N (m)	Spread E (m)	Spread S (m)	Spread W (m)	Crown Cleanrance (m)	Life stage	Condition Notes	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	***Ilex aquifolium*** Holly	10.0	28 AVE	4	3.4	3.7	2.7	4.3	2.0	Mature	Structural condition Fair. Physiological condition Good. Multi-stemmed. Root environment - Restricted. Four stems from ground level Location approximate as not included on topographical survey	68.3	4.7	20-40	C2
Tree T2	1	***Prunus sp.*** Cherry/Plum species	2.0	9	1	1.6	1.7	1.8	1.9	0.0	Semi Mature	Structural condition Fair. Physiological condition Fair. Grafted specimen. Staked tree / trees - Ingrown / Restricting growth. Young planted tree / trees. Top grafted cherry, dwarf form Location approximate as not included on topographical survey	3.7	1.1	20-40	C2
Tree T3	1	***Laburnum anagyroides*** Common Laburnum (Golden Chain)	10.0	22	1	2.8	2.8	2.8	2.8	3.5	Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Base / stems obscured - Vegetation. Location approximate as not included on topographical survey Off-site tree; dimensions estimated	21.9	2.6	10-20	C2
Hedge H4	1	***Taxus baccata*** Yew	2.5	8						0.0	Early Mature	Structural condition Good. Physiological condition Good. Access to inspect base - Not possible. Hedgerow - Maintained. Located on adjacent property, overhanging site. Not plotted in topographical survey; plotted position is approximate. Number of trees not given, densly planted Yew hedge			20-40	B2
Tree T5	1	***Crataegus monogyna*** Common hawthorn	8.0	45	1	3.4	4.1	3.5	3.5	2.0	Late Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Base / stems obscured - Vegetation. Decay / structural defect - Principal stems. Decay / structural defect - Suspected. Location approximate as not included on topographical survey Off-site tree; dimensions estimated	91.6	5.4	10-20	C2
Group G6	1 1 1	***Viburnum rhytidophyllum*** Leatherleaf Viburnum ***Hydrangea sp.*** ***Cercis siliquastrum*** Judus tree	2.5	5						0.0	Early Mature	Structural condition Good. Physiological condition Good. Shrub group Height and stem diameter are average for group.			10-20	C2
Group G7	1 2	***Syringa sp.*** Lilac sp. ***other*** other	2.5	5						0.0	Early Mature	Structural condition Good. Physiological condition Good. Shrub group Height and stem diameter are average for group. 2no. Fatsia japonica			10-20	C2

Stem green estimated value

Stem AVE average stem diameter for multi-stemmed trees

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Tree/Group Number	No. of Trees	Species	DIMENSIONS								Life stage	Condition Notes	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
			Height (m)	Stem diameter (cm)	No. of Stems	Spread N (m)	Spread E (m)	Spread S (m)	Spread W (m)	Crown Cleanrance (m)						
Group G**8**	1	***Cotoneaster sp.***	2.5	5						0.0	Early Mature	Structural condition Good. Physiological condition Good. Shrub group Height and stem diameter are average for group.			10-20	C2
	1	***Pittosporum tobira***														
Hedge H**9**	1	***Ligustrum ovalifolium***	1.5	5						0.0	Early Mature	Structural condition Good. Physiological condition Good. Access to inspect base - Not possible. Hedgerow - Maintained. Located on adjacent property, overhanging site. Not plotted in topographical survey; plotted position is approximate. Number of trees not given, densly planted Privet hedge			20-40	C2

Stem green estimated value

Stem AVE average stem diameter for multi-stemmed trees

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Table 1 of BS5837 (2012) **Cascade chart for tree quality assessment**

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	* 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 arboricutural 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

- Feasibility Tree Surveys
- British Standard 5837 Tree Surveys
- Tree Constraints Reports & Drawings
- Appeal Statements & Proofs
- Expert Witness
- Evidence at Hearings & Public Inquiries
- Method Statements to Satisfy Planning Conditions
- Design Solutions
- Landscape Plans
- Tender Documents & Drawings
- Supervision & Inspection of Works
- Contract & Project Management
- Health & Safety Surveys
- GPS Surveys
- Computerised Tree Population Surveys
- CAD Plans & Consultancy
- Subsidence Risk Assessments
- Mortgage & Insurance Reports
- TPO Review
- Local Government Officer Contracts
- Arboricultural & Ecological Reports for Planning
- Habitat Surveys (Extended Phase 1/ Walkover/ Botanical)
- Protected Species Surveys
- Ecological Mitigation & Licencing
- BREEAM & CFSH
- Ecological Management Plans
- Hedgerow Surveys
- Landscape Analysis

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